Filed by:
G. Scott Shepherd, Site Development Specialist II - SBA Communications 134 Flanders Rd., Suite 125, Westborough, MA 01581 508.251.0720 x 3807 - GShepherd@sbasite.com

September 14, 2021

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

Application for Tower Share
5 Exeter Dr., Sterling, CT
Latitude: 41.714047
Longitude: -71.822735
T-Mobile #: CTNL143A

Dear Ms. Bachman:

Please accept this letter as notification pursuant to the Connecticut General Statutes § 16-50aa and R.C.S.A § 16-50j-88 of T-Mobile's Application for Tower Sharing at the existing 140-foot Monopole Tower at 5 Exeter Dr., Sterling, CT.

- **The new antennas would support 5G services and would be installed at the 120-foot level of the tower.**

Per the requirements under R.C.S.A §16-50j-89 please find the following statements in support of T-Mobile's Application:

1. Facility and Proposed Modifications

   A. Existing Facility and Appurtenances

This facility was originally approved by the Connecticut Siting Council (CSC) under Docket No. 345 on February 14, 2008 with the following conditions:

1. The Tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of wireless carriers both public and private, but shall not exceed a height of 140 feet AGL.
2. Such tower shall incorporate a yield point to eliminate the potential fall radius onto the adjacent property and Exeter Drive.
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 Connecticut State Agencies.

a. A final site plan(s) of the site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line; and

b. controls consistent with the 2002 Connecticut Guidelines for soil Erosion and Sediment Control, as amended.

4. The Certificate Holder shall, prior to the commencement of operation, provide council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities (carriers) antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997.
5. Upon the establishment of any new State or Federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
7. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Sterling public safety services.
8. Unless otherwise approved by Council, if the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings and Fact, Opinion, and Decision and Order, this Decision and Order shall be void and the Certificate Holder shall dismantle the tower and remove all equipment.
9. Any request for an extension to condition 8 shall be filed with Council not later than 60 days prior to the expiration of this Certificate.
10. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void.
11. The Certificate Holder shall remove any nonfunctioning antenna and associated equipment within 60 days of the date the antenna ceased to function.
12. The Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities.

- Latitude / Longitude: 41.714047/-71.822735
  - Height of Tower: 140'
  - Owned/operated by: SBA Infrastructure, LLC
  - Property Owner: Town of Sterling.
  - Size/Components of existing equipment compound:

    - 69'8" x 69'9" fenced compound with 12' wide chain link gate with 12' wide double swing gate containing:
      - Monopole [center of compound]
      - AT&T equipment shelter [northeast of monopole w/in compound]
      - Verizon equipment shelter [northwest of tower w/in compound]
    - Components of existing tower:
    - Verizon:
      - 137'
        - (2) Antel LPA-80063-6CF - EDIN-5- Panel
        - (6) Andrew JAHH-65C-R3B - Panel– Panel Antennas

- (3) Samsung MT6407-77A - Panel
- (3) Commscope CBC78T-DS-43-2X- TMAs
- (3) Samsung B5/B13 RRH-BR04C- RRUs
- (3) Samsung B2/B66A RRH-BR049-RRUs
- (1) Raycap OVP-12
- Platform w/HRK & V-Bracing Kit
- (10) 1-5/8' Coax
- (1) 1-5/8" Hybrid

➢ AT&T:

▪ 130'

- (6) Powerwave 7770.00 – Panel
- (3) Cci HPA-65R-BU8AA – Panel
- (3) Cci DMP65R-BU8DA – Panel
- (6) Powerwave LGP21401 – TMA
- (6) Powerwave LGP17201 TMA
- (6) Powerwave LGP21901 – Diplexer
- (3) Ericsson RRUS 8843 B2 B66A
- (3) Ericsson RRUS 4449 B5/B12
- (1) Raycap-DC6-48-60-18-8F-OVP
- (1) Modified Low Profile Platform (Valmount LWRM) w/
  (1) Sitepro1 HRK12 (handrail kit), (3) 2-1/2" standard (pipe Masts) & (3) SitePro1 SCX4-K (Crossover Plate)
- (12) 1-5/8' coax
- (2) 1" DC Power
- (1) 7/16" Fiber

B. Nature and Extent of Proposed Modifications

T-Mobile proposes to install (9) panel antennas at the 120' level of the existing 140'-foot Monopole Tower and occupy a ground lease area of 10'x15' within the existing 69'8" x 69'9" fenced compound with 12' wide chain link gate with 12' wide double swing gate. T-Mobile's full proposed scope of work is as follows:

Remove:

- N/A

Remove and Replace:

- N/A

T-Mobile: Install at 120'

(3) RFS APX16DWV-16DWVS-E-A20 - Panel
(3) RFS APXVAALL24-43-U-NA20 - Panel
(3) Ericsson AIR6449 B41 - Panel
(3) Ericsson 4460 B25 + B66 - RRU
(3) Ericsson 4480 B71 + B85 – RRU
Platform w/Handrails & Kickers (SitePro1 RMQP-4096-HK)
(3) 1.99" Hybrid 6x24

Ground (within existing compound):

- 10'x15' concrete pad
- (1) Generac RD0 25kw Diesel generator
- Future T-Mobile equipment cabinet
- Ericsson B160 battery cabinet
- (2) 2" RGS conduits for alarm & spare
- 2" RGS conduit with LBs for DC power
- Cable ice bridge
- GPS antenna
- Ericsson 6160 equipment cabinet
- 1" RGS conduit for DC power to RAC24 cabinet
- 2" RGS conduit for Ethernet cable for generator controls & Alarms
- 1-1/2" RGS conduit for generator heater & battery charger
- 2" RGS conduit for emergency power
- Purcell RAC24 cabinet to Unistrut on Prop. H-Frame
- Generac 200a, 120/240v automatic transfer switch
- 2" conduit for emergency power from ATS to PPC
- Breakers within PPC
- 2" RGS conduit for AAV to RAC24 cabinet
- 2" RGS conduit for power from PPC
- 10' x 8' ice canopy

Existing Equipment to

Remain: N/A

Reason for Request / Change in Generator Size and Fuel

In an effort to further enhance network reliability, T-Mobile is proposing to install a diesel-based backup generator, the Generac RD025 25kw Diesel Generator.
The proposed diesel generator measures 84.2" x 35" x 91.7" (w/fuel tank: 103.4" x 35" x 91.7"). It will sit fully within the leased area of the compound and will not require additional space for the supplementary tank. Generac's RD025 25kw Diesel Generator carries up to 98 hours of run time with 100% load, 125 hours of run time with a 75% load and 161 hours of run time with a 50% load. It can operate in temperatures of 122 degrees Fahrenheit.

Monitoring, Prevention and Containment Measures

It will be filled by a licensed fuel filling company. The Generac's RD025 25kw Diesel Generator is fuel efficient, rodent and corrosion resistant, and has a sound attenuated aluminum enclosure with a Rated Load Sound Output at 23ft. of 65dB. It further supports advanced, remote monitoring for diagnostics and control and is installed with a tank alarm system. The Sound Output from the Generac RD025kw meets/exceeds the allowable noise emissions levels for the Town of North Branford, New Haven County, which is as follows:

Maximum Continuous Noise Levels (measured in dBA):

No Person in a residential zone shall emit noise beyond the boundaries of his/her premises in excess of the noise levels stated herein and applicable to adjacent residential, commercial or industrial zones:

Receptor's Zone: Maximum Level:

Commercial:

- **Industrial…62 dBA**
- **Commercial…55 dBA**
- **Residential/Day…55 dBA**
- **Residential/Night…45 dBA**

Industrial:

- **Industrial…70 dBA**
- **Commercial…66 dBA**
- **Residential/Day…61 dBA**
- **Residential/Night…51 dBA**

The proposed modification will remain within the existing, fenced-in compound. The new generator and tank will be surrounded by the existing security fence and gate.

Additional safety specifications:

- Automatic Voltage Regulation with Over and Under Protection
- Overspeed Shutdown
- High Tempature Shutdown
- Meets ANSI/IEEE C62.41, SA CSA 22.2, SAE J1349, NFPA 37, 70 99

Revised Construction Drawings and Full Spec Sheets referencing the above are attached herewith.

The revised ground configuration continues to meet all requirements for a Notice of Exempt Modifications. The request remains technically, legally, environmentally, and economically feasible and meets public safety concerns per Connecticut General Statute Section 16-50aa.

There is no environmental impact associated with the revised ground configuration, including, but not limited to, visibility, wetlands and water resources, air quality or noise.

T-Mobile's revised ground configuration:

- Will not have any significant adverse visual impact on the surrounding areas
- Does not affect or alter the existing site with regard to wetlands, water resources or air quality
- The generator would only be used in cases of emergency and would provide backup time of approximately 60 hours in time of need.

The proposed work is not thought to have any substantial adverse environmental impact. Public Need for the additional coverage outweighs any minor environmental effects that would result from the construction, operation, and maintenance of the proposed collocation.

A Map of the Site Showing Nearest Wetlands, depicted in feet, is attached herewith.

C. This Proposal is technically, legally, environmentally, and economically feasible and meets public safety concerns per Connecticut General Statute Section 16-50aa.

T-Mobile proposes to collocate at the above-referenced existing telecommunication facility rather than to require additional tower construction. The need for the site was dictated by the existing lack of, or extremely poor service, and projected future capacity and coverage requirements for this particular geographic area. Because new wireless telecommunications sites must function as an integral part of an existing network, their locations affect the services areas of all surrounding site. In order to use mobile communications services, users must be "handed-off" efficiently from one site to the next as they travel. To accomplish this goal, new sites must be placed on very exact, calculated locations.

When the need for a new site in the Sterling area was established, SBA system engineers identified a target area in which to locate the facility. Within the general target area, there are no other tall structures that are suitable for this purpose. The Selection of this specific site location was determined by local topographic and geographic factors,
mitigation of the antenna mounting structure's visual impact, compatibility with existing land use, and the ability to negotiate a mutually beneficial lease with a landlord. SBA engineers believe that the Exeter Drive site is ideally suited for the proposed monople tower facility. One carrier is currently on the tower.

The proposed collocation meets with all legal and technical requirements. This Application contains all required information and statements per R.C.S.A §16-50j-89 and the proposed installation has been drafted per current code, and studied with regard to structural feasibility and RF emissions output. Drawings and Reports are attached. T-Mobile's proposed collocation presents no known material changes to environmental conditions from those as documented in the Council's original Findings of Fact and presents no known public safety concerns.

2. Engineering Drawings per the requirements under R.C.S.A. §16-50j-89 are enclosed herewith.

3. Engineering and Structural Analysis per the requirements under R.C.S.A. §16-50j-89 is enclosed herewith.

4. Engineering and Mount Analysis per the requirements under R.C.S.A. §16-50j-89 is enclosed herewith.

5. A Letter from SBA, as Owner of the Facility, agreeing to the proposed shared use of the facility, is enclosed herewith.

6. With regard to any potential environmental impact:

   A. T-Mobile's collocation will not have any significant adverse visual impact on the surrounding areas. The antennas should result in only marginal additional equipment visibility from areas that already have views of the existing tower. The proposed work would not require any Federal Aviation Administration obstruction marking or lighting.

   B. The proposed collocation does not affect or alter the existing site with regard to wetlands, water resources or air quality. National Wetlands Inventory Maps indicated that the site was not within the 100 year floor zone.

The proposed work is not thought to have any substantial adverse environmental impact. Public Need for

the additional coverage outweighs any minor environmental effects that would result from the construction, operation, and maintenance of the proposed collocation.

7. The operation of T-Mobile's new antennas will not increase the total radio frequency electromagnetic power density at the site to a level at or above the applicable standards. The anticipated Maximum Composite contributions from the T-Mobile's facility are only 9.10253500% of the allowable FCC established general public limit. The anticipated composite MPE value for this site assuming all carriers present is 9.10427100% of the allowable FCC established general public limit sampled at the ground level. FCC guidelines state that if a site is to be out of compliance (over allowable thresholds), the carriers over 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 per the federal government. A Power Density / RF Report per the requirements under R.C.S.A. §16-50j-89 is enclosed herewith.

8. Per the Connecticut Siting Council's Guidelines, one original and fifteen (15) hard copies of this Tower Share Application are being submitted, along with check in the amount of $625 for the filing fee per Conn. Gen. Stat.
§4-189j; Regs., Conn. State Agencies §16-50v-1a.

    A. A copy of this Application and all attachments is being sent to:
        i. The Town of Sterling's First Selectman, Lincoln A. Cooper
        ii. The Town of Sterling's Planning & Zoning Chairperson, Frank Bood
        iii. The Property Owner is the Town of Sterling
        iv. (Separate notice is not being sent to tower owner, as it belongs to SBA)

Please note, additionally: the planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. §16.50j-72(b)(2).

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

T-Mobile respectfully submits for the Council's review and approval this Application for Tower Share.

Sincerely,

G. Scott Shepherd

Site Development Specialist II
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA
01581 508.251.0720
x3807 + T
508.366.2610 + F
508.868.6000 + C
GShepherd@sbasite.com

Attachments

cc: Lincoln A. Cooper, First Selectman / with attachments
Sterling Connecticut Town Hall 1183 Plainfield Pike, Oneco, CT 06373-0157
Frank Bood Planning & Zoning Chairperson / with attachments
Sterling Connecticut Town Hall 1183 Plainfield Pike, Oneco, CT 06373-0157

EXHIBIT LIST

Exhibit 1	Copy of Check	X
Exhibit 2	Letter of Intent to Allow Shared Use of the Existing SBA Telecommunications Site	X
Exhibit 3	Notification Receipts	x
Exhibit 4	Property Card	x
Exhibit 5	Property Map	x
Exhibit 6	Original Zoning Approval	CSC Docket 345 2/14/08
Exhibit 7	EME Report	Centerline 9/14/21
Exhibit 8	Structural Analysis	TES 9/10/21
Exhibit 9	Mount Analysis	TES 7/2/21
Exhibit 10	Construction Drawings	Chappell Engineering 9/1/21
Exhibit 11	Generator Specifications	X
Exhibit 12	Wetlands Map	x

EXHIBIT 1

Copy of check

EXHIBIT 2
Letter of Intent

September 14, 2021

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

RE: **Notice of Intent to Allow Shared Use of the Existing SBA Telecommunications Site**
Location: **5 Exeter Dr., Sterling, CT**
T-Mobile Site No: CTNL143A
SBA Site No: CT11560-A

Dear Ms. Bachman:

Please let the following serve as Evidence of Intent to allow Dish Wireless' shared use of the existing SBA telecommunications site at **5 Exeter Dr., Sterling, CT**.

SBA Infrastructure, LLC ("Owner") and T-Mobile ("Tenant") are entering into a Site Lease Agreement. Tenant will be provided ground space within the existing site compound for its base station equipment and space at the height of 120' for antennas and associated equipment.

Thank you,

Rick Woods
Site Development Manager
SBA COMMUNICATIONS CORPORATION
134 Flanders Road, Suite 125
Westboro, MA 01581

508.251.0720 x3800 + T
508.366.2610 + F
508.614.0389 + C
rwoods@sbasite.com

EXHIBIT 3

Fedex Labels

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FedEx

TRACK ANOTHER SHIPMENT

774798337005

ADD NICKNAME

Scheduled delivery:
Thursday, September 16, 2021 before 10:30 am

IN TRANSIT
At destination sort facility
EAST GRANBY, CT

GET STATUS UPDATES

FROM
SBA COMMUNICATIONS CORPORATION
Rick Woods

134 Flanders Rd
Suite 125
WESTBOROUGH, MA US 01581
508-614-0389

TO
Melanie A. Bachman Exec. Dir
Connecticut Siting Council

Ten Franklin Square
NEW BRITAIN, CT US 06051
508-251-0720

MANAGE DELIVERY

Travel History

TIME ZONE
Local Scan Time

Thursday, September 16, 2021

8:10 AM	EAST GRANBY, CT	At destination sort facility
7:37 AM	WINDSOR LOCKS, CT	On FedEx vehicle for delivery
7:26 AM	WINDSOR LOCKS, CT	At local FedEx facility
3:47 AM	NEWARK, NJ	Departed FedEx hub
12:38 AM	NEWARK, NJ	In transit
12:35 AM	NEWARK, NJ	Arrived at FedEx hub

Wednesday, September 15, 2021

11:19 PM	EAST BOSTON, MA	Local Delay Delay beyond our control
8:21 PM	FRAMINGHAM, MA	Left FedEx origin facility

6:07 PM	FRAMINGHAM, MA	Picked up

Tuesday, September 14, 2021

2:16 PM		Shipment information sent to FedEx

Shipment Facts

TRACKING NUMBER
774798337005

SERVICE
FedEx Priority Overnight

WEIGHT
5 lbs / 2.27 kgs

DIMENSIONS
18x13x3 in.

TOTAL PIECES
1

TOTAL SHIPMENT WEIGHT
5 lbs / 2.27 kgs

TERMS
Shipper

SHIPPER REFERENCE
10-56-92009-6089

PACKAGING
FedEx Box

SPECIAL HANDLING SECTION
Deliver Weekday

SHIP DATE
9/15/21

STANDARD TRANSIT
9/16/21 before 10:30 am

SCHEDULED DELIVERY
9/16/21 before 10:30 am

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Rick Woods

134 Flanders Rd
Suite 125
WESTBOROUGH, MA US 01581
508-614-0389

TO
Melanie A. Bachman Exec. Dir
Connecticut Siting Council

Ten Franklin Square
NEW BRITAIN, CT US 06051
508-251-0720

MANAGE DELIVERY

Travel History

TIME ZONE
Local Scan Time

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Shipment Facts

TRACKING NUMBER
774798355622

SERVICE
FedEx Priority Overnight

WEIGHT
5 lbs / 2.27 kgs

DIMENSIONS
18x13x3 in.

TOTAL PIECES
1

TOTAL SHIPMENT WEIGHT
5 lbs / 2.27 kgs

TERMS
Shipper

SHIPPER REFERENCE
10-56-92009-6089

PACKAGING
FedEx Box

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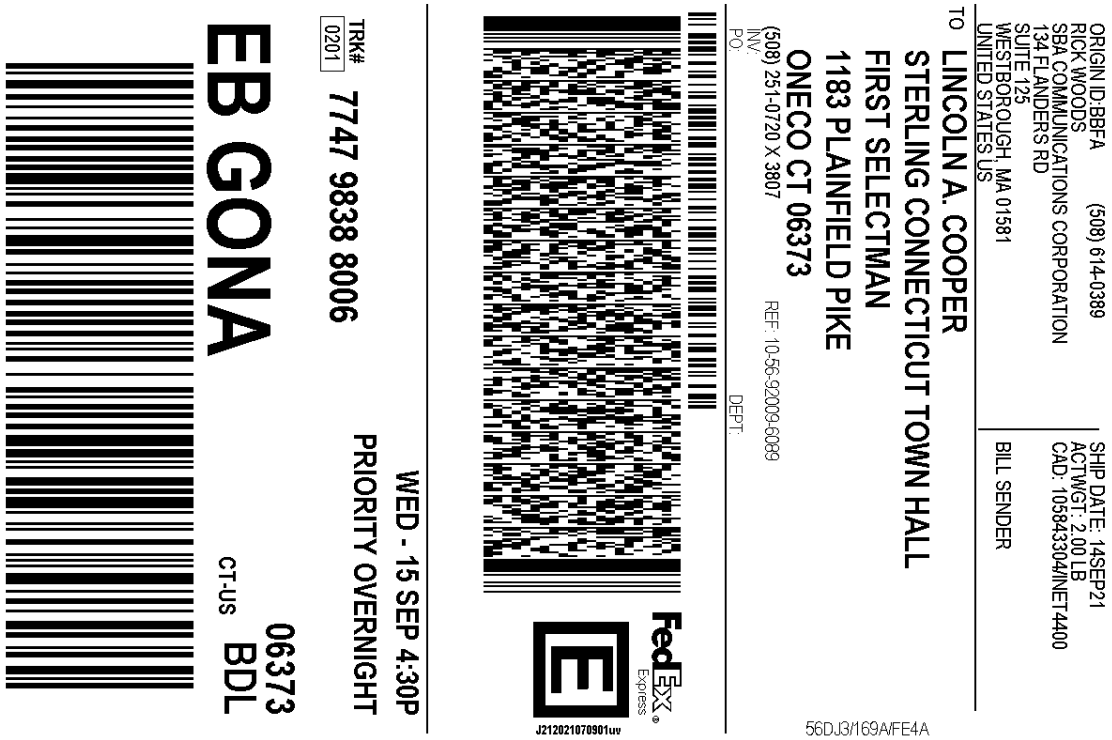
Deliver Weekday

SHIP DATE
9/15/21

STANDARD TRANSIT
9/16/21 before 10:30 am

SCHEDULED DELIVERY
9/16/21 before 10:30 am



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Thursday, September 16, 2021 before 4:30 pm

IN TRANSIT
On FedEx vehicle for delivery
NORWICH, CT

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Rick Woods

134 Flanders Rd
Suite 125
WESTBOROUGH, MA US 01581
508-614-0389

TO
Lincoln A. Cooper
Sterling Connecticut Town Hall

First Selectman
1183 Plainfield Pike
ONECO, CT US 06373
508-251-0720

MANAGE DELIVERY

Travel History

TIME ZONE
Local Scan Time

Thursday, September 16, 2021

8:31 AM	NORWICH, CT	On FedEx vehicle for delivery
8:22 AM	NORWICH, CT	At local FedEx facility
3:40 AM	NEWARK, NJ	Departed FedEx hub

Wednesday, September 15, 2021

8:10 PM	FRAMINGHAM, MA	Left FedEx origin facility
6:07 PM	FRAMINGHAM, MA	Picked up

Tuesday, September 14, 2021

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Shipment Facts

TRACKING NUMBER
774798388006

SERVICE
FedEx Priority Overnight

WEIGHT
1 lbs / 0.45 kgs

TOTAL PIECES
1

TOTAL SHIPMENT WEIGHT
1 lbs / 0.45 kgs

TERMS
Shipper

SHIPPER REFERENCE
10-56-92009-6089

PACKAGING
FedEx Pak

SPECIAL HANDLING SECTION
Deliver Weekday

SHIP DATE
9/15/21

STANDARD TRANSIT
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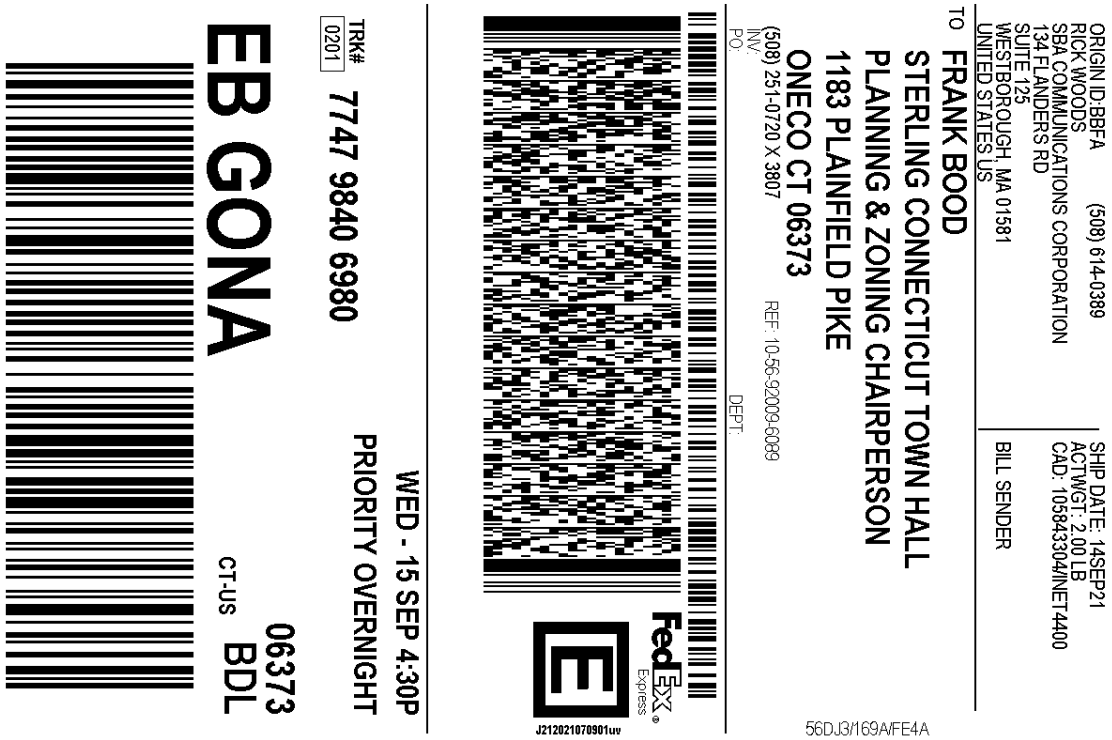
SCHEDULED DELIVERY
9/16/21 before 4:30 pm



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GET STATUS UPDATES

FROM
SBA COMMUNICATIONS CORPORATION
Rick Woods

134 Flanders Rd
Suite 125
WESTBOROUGH, MA US 01581
508-614-0389

TO
Frank Bood
Sterling Connecticut Town Hall

Planning & Zoning Chairperson
1183 Plainfield Pike
ONECO, CT US 06373
508-251-0720

MANAGE DELIVERY

Travel History

TIME ZONE
Local Scan Time

Thursday, September 16, 2021

8:31 AM	NORWICH, CT	On FedEx vehicle for delivery
8:22 AM	NORWICH, CT	At local FedEx facility
3:40 AM	NEWARK, NJ	Departed FedEx hub

Wednesday, September 15, 2021

8:10 PM	FRAMINGHAM, MA	Left FedEx origin facility
6:07 PM	FRAMINGHAM, MA	Picked up

Tuesday, September 14, 2021

2:19 PM		Shipment information sent to FedEx

Shipment Facts

TRACKING NUMBER
774798406980

SERVICE
FedEx Priority Overnight

WEIGHT
1 lbs / 0.45 kgs

TOTAL PIECES
1

TOTAL SHIPMENT WEIGHT
1 lbs / 0.45 kgs

TERMS
Remitente

SHIPPER REFERENCE
10-56-92009-6089

PACKAGING
FedEx Pak

SPECIAL HANDLING SECTION
Deliver Weekday

SHIP DATE
9/15/21

STANDARD TRANSIT
9/16/21 before 4:30 pm

SCHEDULED DELIVERY
9/16/21 before 4:30 pm

EXHIBIT 4

Property Card

Sterling, CT : Assessor Database

Property Search:

Parcel ID:	Alternate ID:	Owner 1 Name:	Street Number:	Street Name:
			0	EXETER DR

Search Reset

Property Detail:

Parcel ID:	Alternate ID/Map Block Lot:	Card:	Card:	Street Name:	Street Number:	Zoning:	LUC:	Acres:
00045300	03842-017-IP16			EXETER DR	5		Municipal	8.31

Owner Information:

Owner 1 Name:	STERLING TOWN OF
Owner 2 Name:	
Street 1:	PO BOX 157
Street 2:	
City:	ONECO
State:	CT
Zip:	06373
Volume:	40
Page:	15
Deed Date:	27-DEC-1976

Property Images:

Picture:
There is no picture available.

Sketch:
There is no sketch available.

Valuation:

Appraised Land:	$52,780.00
Appraised Bldg:	$39,840.00
Appraised Total:	$92,620.00
Total Assessment:	$64,830.00

Out-Buildings:

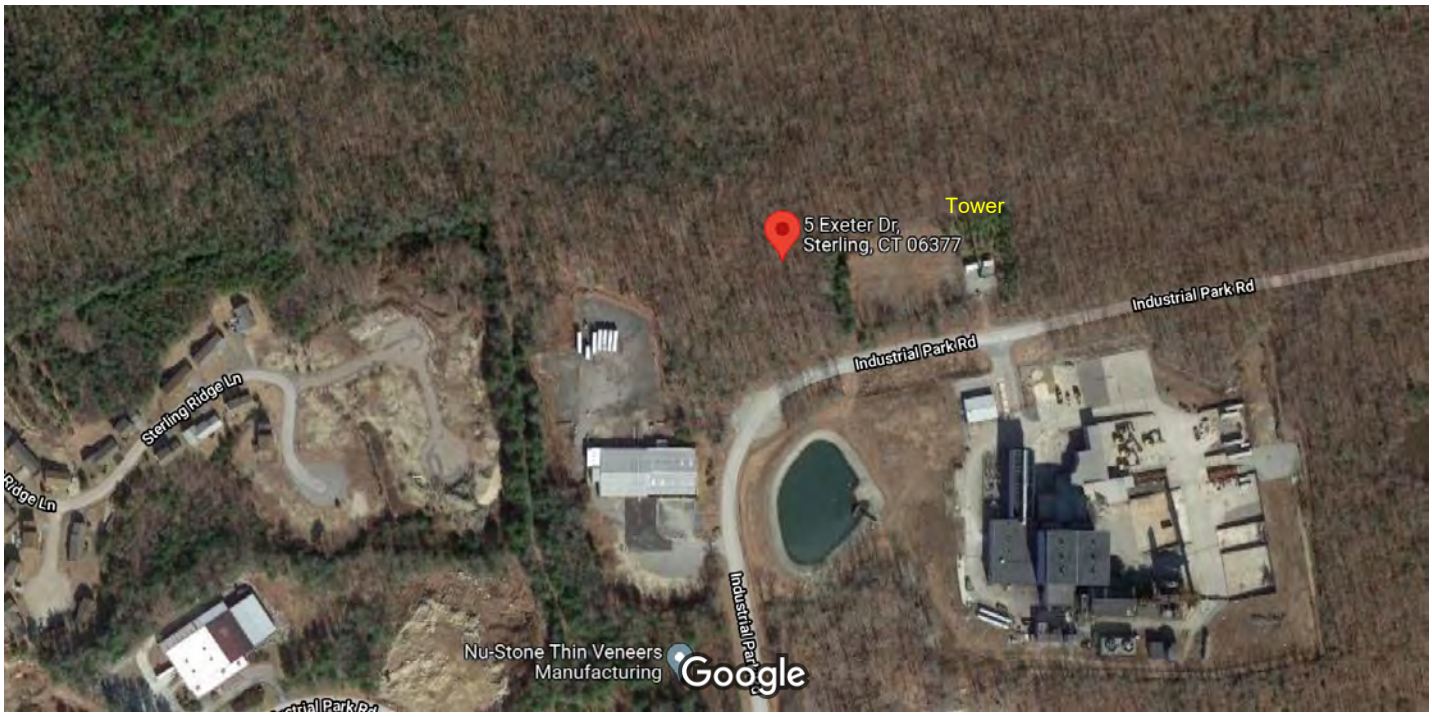
Code:	Description:	Units:	Year Built:	Size1:	Size2:	Area:	Grade:	Condition:
RS3	BRICK/STN UTILITY SHED	1	2008	16	12	192	C	AVERAGE (Res)

Fri. September 10, 2021 : 04:12 PM : 0.08s : 10mb

EXHIBIT 5

Property Map

Google Maps 5 Exeter Dr



Imagery ©2021 Maxar Technologies, RIGIS, USDA Farm Service Agency, Map data ©2021 200 ft

5 Exeter Dr

Sterling, CT 06377

Directions Save Nearby Send to your phone Share

P57G+M7 Sterling, Connecticut

Photos

EXHIBIT 6

Zoning Approval

SITE NAME: Sterling 6, CT SITE ID: CT11560-A

Transaction: MCF Communications Jennifer

ZONING/PERMITTING COMPLETION FORM

Address: 7 Exeter Drive, Sterling, CT 06377

Jurisdiction: Connecticut Siting Council / Town of Sterling Zoning District:

Zoning Approval Type: Certificate Case #: CSC Docket #345

Approval Date: 2/14/08 Approved Height: 140 Tower Build Date:

If tower is destroyed or drop/swap required, tower can likely be rebuilt? ☐ YES ☐ NO

Conditions of Approval:

	Yes	No	N/A
Removal Bond $20,000 (per lease)	☒	☐	☐
Site Plan Submittal	☐	☒	☐
Fall Zone	☐	☒	☐
Periodic Inspections	☐	☒	☐
Periodic Reporting	☐	☒	☐
Approval Renewal	☐	☒	☐
Additional Conditions	☐	☒	☐

JURISDICTION POC/DEPT.

Planning/Zoning: Russell Gray (Town of Sterling)

Phone: 860-564-2654 Fax:

Bldg./Code Enforcement:

Phone: Fax:

Submitted by: Patches Testa Date: 10/14/08

Zoning Compliance

TO BE COMPLETED BY CORPORATE

	Yes	No	N/A	
Zoning Approval Attached (required)	☒	☐	☐	
Building Permit Attached (required) Town of Sterling	☒	☐	☐	Date Recd 7/10/08
Certificate of Occupancy or Compliance (CO) attached (required)	☒	☐	☐	8/20/08

Zoning Manager Approval: D E Borchardt Date 10/15/2008

Diane E. Borchardt, AICP

DOCKET NO. 345 - MCF Communications bg, Inc. and Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Exeter Drive in Sterling, Connecticut.	}	Connecticut Siting Council February 14, 2008

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility, 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 disproportionate, either alone or cumulatively with other effects, when compared to need, 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 General Statutes § 16-50k, be issued to MCF Communications bg, Inc. (MCF) and Cellco Partnership d/b/a Verizon Wireless (Verizon Wireless), hereinafter referred to as the Certificate Holder, for a telecommunications facility at Exeter Drive, Sterling, 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. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of Verizon Wireless and other entities, both public and private, but such tower shall not exceed a height of 140 feet above ground level. The height at the top of the Certificate Holder's antennas shall not exceed 140 feet above ground level.

2. Such tower shall incorporate a yield point to eliminate the potential fall radius onto the adjacent property and Exeter Drive.

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 Connecticut State Agencies. The D&M Plan shall be served on the Town of Sterling for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
   a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line; and
   b) construction plans for site clearing, grading, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

4. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

5. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.

7. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Sterling public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.

8. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.

9. Any request for extension of the time period referred to in Condition 8 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Sterling. Any proposed modifications to this Decision and Order shall likewise be so served.

10. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

11. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.

12. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Norwich Bulletin and The Hartford Courant.

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 Connecticut State Agencies.

The parties and intervenors to this proceeding are:

Applicant	**Its Representative**
MCF Communications bg, Inc. and Cellco Partnership d/b/a Verizon Wireless	Kenneth C. Baldwin, Esq. Robinson and Cole LLP Hartford, CT 06103-3597 (860) 275-8200 Brad Gannon MCF Communications bg, Inc. 733 Turnpike Street, Suite 105 North Andover, MA 01845 Sandy Carter Regulatory Manager Verizon Wireless 99 East River Drive East Hartford, CT 06108

TOWN OF STERLING
OFFICE OF THE BUILDING OFFICIAL
1114 Plainfield Pike • Oneco, CT 06373
Building Official
D. Kyle Collins, Jr. • (860) 564-2275

LOCATION: Exeter Rd. DATE: 7/10/08

OWNER: MCF Communications

- [x] Footing Cell Tower
- [ ] Foundation/Drainage
- [ ] Rough Framing
- [ ] Rough Plumbing
- [ ] Rough Electric
- [ ] Electric Service
- [ ] Pool Inspection
- [ ] Woodstove
- [ ] Insulation/Draftstopping
- [ ] C.O. Inspection

- [x] Approved
- [ ] Approved with Conditions
- [ ] NOT APPROVED
- [ ] Call for Re-inspection

MESSAGE: OK to place concrete

Kyle Collins

TOWN OF STERLING
OFFICE OF THE BUILDING OFFICIAL
1114 Plainfield Pike • Oneco, CT 06373
Building Official
D. Kyle Collins, Jr. • (860) 564-2275

LOCATION: Industrial Park DATE: 7/29/08

OWNER: MCF Communications

- ☐ Footing
- ☐ Foundation/Drainage
- ☐ Rough Framing
- ☐ Rough Plumbing
- ☐ Rough Electric
- ☒ Electric Service
- ☐ Pool Inspection
- ☐ Woodstove
- ☐ Insulation/Draftstopping
- ☐ C.O. Inspection

- ☒ Approved
- ☐ Approved with Conditions
- ☐ NOT APPROVED
- ☐ Call for Re-inspection

MESSAGE:

Kyle Collins

TOWN OF STERLING
OFFICE OF THE BUILDING OFFICIAL

114 Plainfield Pike • Oneco, CT 06373
Building Official
D. Kyle Collins, Jr. • (860) 564-2275

LOCATION: Exeter Rd. DATE: 8/29/08

OWNER: MCF Communications

- ☐ Footing
- ☐ Foundation/Drainage
- ☐ Rough Framing
- ☐ Rough Plumbing
- ☐ Rough Electric
- ☐ Electric Service
- ☐ Pool Inspection
- ☐ Woodstove
- ☐ Insulation/Draftstopping
- ☒ C.O. Inspection

- ☒ Approved
- ☐ Approved with Conditions
- ☐ NOT APPROVED
- ☐ Call for Re-inspection

MESSAGE:

Kyle Collins

STERLING SEAL CONNECTICUT

TOWN OF STERLING
OFFICE OF THE BUILDING OFFICIAL
1114 Plainfield Pike • Oneco, CT 06373
Building Official
D. Kyle Collins, Jr. • (860) 564-2275

LOCATION Exeter Drive DATE 8/20/08

OWNER Verizon

- ☐ Footing
- ☐ Foundation/Drainage
- ☐ Rough Framing
- ☐ Rough Plumbing
- ☐ Rough Electric
- ☐ Electric Service
- ☐ Pool Inspection
- ☐ Woodstove
- ☐ Insulation/Draftstopping
- ☒ C.O. Inspection Cell Tower

- ☒ Approved
- ☐ Approved with Conditions
- ☐ NOT APPROVED
- ☐ Call for Re-inspection

MESSAGE:

Kyle Collins

EXHIBIT 7

EME Report

Radio Frequency Emissions Analysis Report

September 14, 2021

Centerline Communications on behalf of T-Mobile

Site Name: Sterling 6, CT (CTNL143A)
Site Address: 5 Exeter Drive, Sterling, CT 06377

Site Compliance Summary

Compliance Status:	Compliant
Carrier MPE% of FCC General Population Allowable Limit:	9.10253500%
Composite MPE% of FCC General Population Allowable Limit:	9.10427100%

September 14, 2021

T-Mobile Connecticut
Attn: Ryan Clark, Site Acquisition Consultant

Emissions Analysis for Site: **Sterling 6, CT (CTNL143A)**

Centerline Communications, LLC ("Centerline") was directed to analyze the proposed T-Mobile facility to be located a monopole near **5 Exeter Drive, Sterling CT 06377** for the purpose of determining whether the emissions from the proposed facility 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 (μW/cm2). The number of $\mu W/cm^2$ 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.

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 600 MHz (LTE and NR) bands are 400 $\mu W/cm^2$, for the 700 MHz (LTE) band is 467 $\mu W/cm^2$, and for the 1900 MHz (LTE and GSM), 2100 MHz (LTE), and 2500 MHz (LTE and NR) bands are 1000 $\mu W/cm^2$.

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, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.

Calculations

Calculations were performed for the proposed facility using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Real world emissions values from this facility are expected to be lower than values listed in this report at ground level. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

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

RRH #	Frequency Band	Technology	Channel Count	Transmit Power per Channel (W)
1	2100	L	4	40
1	1900	L	4	40
1	1900	G	1	15
2	700	L	4	40
2	600	L	2	40
2	600	N	2	30
3	2500	L	1	90
3	2500	N	1	90
3	2500	L	1	30
3	2500	N	1	30
4	2100	L	4	40
4	1900	L	4	40
4	1900	G	1	15
5	700	L	4	40
5	600	L	2	40
5	600	N	2	30
6	2500	L	1	90
6	2500	N	1	90
6	2500	L	1	30
6	2500	N	1	30
7	2100	L	4	40
7	1900	L	4	40

RRH #	Frequency Band	Technology	Channel Count	Transmit Power per Channel (W)
7	1900	G	1	15
8	700	L	4	40
8	600	L	2	40
8	600	N	2	30
9	2500	L	1	90
9	2500	N	1	90
9	2500	L	1	30
9	2500	N	1	30

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

Table 1: Channel Data Table

The following antennas listed in Table 2 were used in the modeling for transmission in the 600 MHz (LTE and NR), 700 MHz (LTE), 1900 MHz (LTE), 2100 MHz (LTE) and 2500 MHz (LTE and NR) frequency bands. This is based on information from the carrier with regard to anticipated antenna selection.

Sector	Antenna Number	Make / Model	Centerline (ft)
A	1	RFS APX16DWV-16DWVS-E-A20	120
A	1	RFS APX16DWV-16DWVS-E-A20	120
A	1	RFS APX16DWV-16DWVS-E-A20	120
A	2	RFS APXVAALL24 43-U-NA20	120
A	2	RFS APXVAALL24 43-U-NA20	120
A	2	RFS APXVAALL24 43-U-NA20	120
A	3	ERICSSON AIR 6449 LTE TB	120
A	3	ERICSSON AIR 6449 NR TB	120
A	3	ERICSSON AIR 6449 LTE BrM	120
A	3	ERICSSON AIR 6449 NR BrM	120
B	4	RFS APX16DWV-16DWVS-E-A20	120
B	4	RFS APX16DWV-16DWVS-E-A20	120
B	4	RFS APX16DWV-16DWVS-E-A20	120
B	5	RFS APXVAALL24 43-U-NA20	120
B	5	RFS APXVAALL24 43-U-NA20	120
B	5	RFS APXVAALL24 43-U-NA20	120
B	6	ERICSSON AIR 6449 LTE TB	120
B	6	ERICSSON AIR 6449 NR TB	120
B	6	ERICSSON AIR 6449 LTE BrM	120
B	6	ERICSSON AIR 6449 NR BrM	120
C	7	RFS APX16DWV-16DWVS-E-A20	120
C	7	RFS APX16DWV-16DWVS-E-A20	120
C	7	RFS APX16DWV-16DWVS-E-A20	120
C	8	RFS APXVAALL24 43-U-NA20	120
C	8	RFS APXVAALL24 43-U-NA20	120
C	8	RFS APXVAALL24 43-U-NA20	120
C	9	ERICSSON AIR 6449 LTE TB	120
C	9	ERICSSON AIR 6449 NR TB	120
C	9	ERICSSON AIR 6449 LTE BrM	120
C	9	ERICSSON AIR 6449 NR BrM	120

Table 2: Antenna Data

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

T-Mobile Results

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

ID	Make / Model	Freq. Band	Gain (dBd)	Centerline (ft)	Channel Count	TX Power (W)	ERP (W)	MPE %
A1	RFS APX16DWV-16DWVS-E-A20	2100	16.25	120.0	4	40	6747.14	0.000025000
A1	RFS APX16DWV-16DWVS-E-A20	1900	16.25	120.0	4	40	6747.14	0.000025000
A1	RFS APX16DWV-16DWVS-E-A20	1900	16.25	120.0	1	15	632.54	0.000002000
A2	RFS APXVAALL24 43-U-NA20	700	13.65	120.0	4	40	3707.83	0.000047000
A2	RFS APXVAALL24 43-U-NA20	600	12.95	120.0	2	40	1577.94	0.000025000
A2	RFS APXVAALL24 43-U-NA20	600	12.95	120.0	2	30	1183.45	0.000019000
A3	ERICSSON AIR 6449 LTE TB	2500	22.35	120.0	1	90	15461.18	1.517016000
A3	ERICSSON AIR 6449 NR TB	2500	22.35	120.0	1	90	15461.18	1.517016000
A3	ERICSSON AIR 6449 LTE BrM	2500	15.15	120.0	1	30	982.02	0.000005000
A3	ERICSSON AIR 6449 NR BrM	2500	15.15	120.0	1	30	982.02	0.000005000
B4	RFS APX16DWV-16DWVS-E-A20	2100	16.25	120.0	4	40	6747.14	0.000025000
B4	RFS APX16DWV-16DWVS-E-A20	1900	16.25	120.0	4	40	6747.14	0.000025000
B4	RFS APX16DWV-16DWVS-E-A20	1900	16.25	120.0	1	15	632.54	0.000002000
B5	RFS APXVAALL24 43-U-NA20	700	13.65	120.0	4	40	3707.83	0.000047000
B5	RFS APXVAALL24 43-U-NA20	600	12.95	120.0	2	40	1577.94	0.000024000
B5	RFS APXVAALL24 43-U-NA20	600	12.95	120.0	2	30	1183.45	0.000018000
B6	ERICSSON AIR 6449 LTE TB	2500	22.35	120.0	1	90	15461.18	1.517007000
B6	ERICSSON AIR 6449 NR TB	2500	22.35	120.0	1	90	15461.18	1.517007000
B6	ERICSSON AIR 6449 LTE BrM	2500	15.15	120.0	1	30	982.02	0.000005000
B6	ERICSSON AIR 6449 NR BrM	2500	15.15	120.0	1	30	982.02	0.000005000
C7	RFS APX16DWV-16DWVS-E-A20	2100	16.25	120.0	4	40	6747.14	0.000025000
C7	RFS APX16DWV-16DWVS-E-A20	1900	16.25	120.0	4	40	6747.14	0.000025000
C7	RFS APX16DWV-16DWVS-E-A20	1900	16.25	120.0	1	15	632.54	0.000002000
C8	RFS APXVAALL24 43-U-NA20	700	13.65	120.0	4	40	3707.83	0.000047000

ID	Make / Model	Freq. Band	Gain (dBd)	Centerline (ft)	Channel Count	TX Power (W)	ERP (W)	MPE %
C8	RFS APXVAALL24 43-U-NA20	600	12.95	120.0	2	40	1577.94	0.000024000
C8	RFS APXVAALL24 43-U-NA20	600	12.95	120.0	2	30	1183.45	0.000018000
C9	ERICSSON AIR 6449 LTE TB	2500	22.35	120.0	1	90	15461.18	1.517017000
C9	ERICSSON AIR 6449 NR TB	2500	22.35	120.0	1	90	15461.18	1.517017000
C9	ERICSSON AIR 6449 LTE BrM	2500	15.15	120.0	1	30	982.02	0.000005000
C9	ERICSSON AIR 6449 NR BrM	2500	15.15	120.0	1	30	982.02	0.000005000
							T-Mobile MPE%	**9.10253500 %**

Table 3: T-Mobile Antenna Inventory & Power Level

FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 4* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated T-Mobile sector(s).

Frequency Band	Technology	Centerline (ft.)	# of Channels	ERP W (Per Channel)	Total Power Density ($\mu W/cm^2$)	Allowable MPE ($\mu W/cm^2$)	MPE %
2100	L	120.0	4	1686.786014	0.0002500	1000	0.00002500
1900	L	120.0	4	1686.786014	0.0002480	1000	0.00002500
1900	G	120.0	1	632.5447551	0.0000230	1000	0.00000200
700	L	120.0	4	926.95786	0.0002180	467	0.00004700
600	L	120.0	2	788.9690944	0.0000990	400	0.00002500
600	N	120.0	2	591.7268208	0.0000740	400	0.00001900
2500	L	120.0	1	15461.17548	15.1701610	1000	1.51701600
2500	N	120.0	1	15461.17548	15.1701610	1000	1.51701600
2500	L	120.0	1	982.0220846	0.0000460	1000	0.00000500
2500	N	120.0	1	982.0220846	0.0000460	1000	0.00000500
2100	L	120.0	4	1686.786014	0.0002510	1000	0.00002500
1900	L	120.0	4	1686.786014	0.0002520	1000	0.00002500
1900	G	120.0	1	632.5447551	0.0000240	1000	0.00000200
700	L	120.0	4	926.95786	0.0002190	467	0.00004700
600	L	120.0	2	788.9690944	0.0000960	400	0.00002400
600	N	120.0	2	591.7268208	0.0000720	400	0.00001800
2500	L	120.0	1	15461.17548	15.1700700	1000	1.51700700
2500	N	120.0	1	15461.17548	15.1700700	1000	1.51700700
2500	L	120.0	1	982.0220846	0.0000460	1000	0.00000500
2500	N	120.0	1	982.0220846	0.0000460	1000	0.00000500
2100	L	120.0	4	1686.786014	0.0002510	1000	0.00002500
1900	L	120.0	4	1686.786014	0.0002520	1000	0.00002500
1900	G	120.0	1	632.5447551	0.0000240	1000	0.00000200
700	L	120.0	4	926.95786	0.0002190	467	0.00004700
600	L	120.0	2	788.9690944	0.0000960	400	0.00002400
600	N	120.0	2	591.7268208	0.0000720	400	0.00001800
2500	L	120.0	1	15461.17548	15.1701730	1000	1.51701700
2500	N	120.0	1	15461.17548	15.1701730	1000	1.51701700
2500	L	120.0	1	982.0220846	0.0000460	1000	0.00000500
2500	N	120.0	1	982.0220846	0.0000460	1000	0.00000500
						T-Mobile MPE%	**9.10253500 %**

Table 4: T-Mobile Maximum Sector MPE Power Values

Verizon Results

FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 4* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated Verizon sector(s).

Frequency Band	Technology	Centerline (ft.)	# of Channels	ERP W (Per Channel)	Total Power Density ($\mu W/cm^2$)	Allowable MPE ($\mu W/cm^2$)	MPE %
700	-	137.0	2	787.1545159	0.0000780	467	0.00001700
1900	-	137.0	4	1545.467908	0.0002100	1000	0.00002100
700	-	137.0	2	787.1545159	0.0000780	467	0.00001700
2100	-	137.0	4	1637.042639	0.0002070	1000	0.00002100
850	-	137.0	4	1127.353173	0.0002820	567	0.00005000
3700	-	137.0	4	10788.72205	0.0034200	1000	0.00034200
700	-	137.0	2	787.1545159	0.0000780	467	0.00001700
1900	-	137.0	4	1545.467908	0.0002100	1000	0.00002100
700	-	137.0	2	787.1545159	0.0000780	467	0.00001700
2100	-	137.0	4	1637.042639	0.0002020	1000	0.00002000
850	-	137.0	4	1127.353173	0.0002820	567	0.00005000
3700	-	137.0	4	10788.72205	0.0035000	1000	0.00035000
700	-	137.0	2	787.1545159	0.0000780	467	0.00001700
1900	-	137.0	4	1545.467908	0.0002100	1000	0.00002100
700	-	137.0	2	787.1545159	0.0000780	467	0.00001700
2100	-	137.0	4	1637.042639	0.0002020	1000	0.00002000
3700	-	137.0	4	10788.72205	0.0035000	1000	0.00035000
						Verizon MPE%	0.001368%

AT&T Results

FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 4* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated AT&T sector(s).

Frequency Band	Technology	Centerline (ft.)	# of Channels	ERP W (Per Channel)	Total Power Density ($\mu W/cm^2$)	Allowable MPE ($\mu W/cm^2$)	MPE %
850	-	130.0	1	545.8332546	0.0000330	567	0.00000600
1900	-	130.0	1	865.0874095	0.0000290	1000	0.00000300
1900	-	130.0	4	1914.520369	0.0001910	1000	0.00001900
2100	-	130.0	4	2198.163495	0.0001870	1000	0.00001900
700	-	130.0	4	671.5216072	0.0002010	467	0.00004300
850	-	130.0	4	719.5483661	0.0001930	567	0.00003400
850	-	130.0	1	545.8332546	0.0000330	567	0.00000600
1900	-	130.0	1	865.0874095	0.0000300	1000	0.00000300
1900	-	130.0	4	1914.520369	0.0001870	1000	0.00001900
2100	-	130.0	4	2198.163495	0.0001820	1000	0.00001800
700	-	130.0	4	671.5216072	0.0002000	467	0.00004300
850	-	130.0	4	719.5483661	0.0001860	567	0.00003300
850	-	130.0	1	545.8332546	0.0000330	567	0.00000600
1900	-	130.0	1	865.0874095	0.0000300	1000	0.00000300
1900	-	130.0	4	1914.520369	0.0001870	1000	0.00001900
2100	-	130.0	4	2198.163495	0.0001820	1000	0.00001800
700	-	130.0	4	671.5216072	0.0002000	467	0.00004300
850	-	130.0	4	719.5483661	0.0001860	567	0.00003300
						AT&T MPE%	0.000368%

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:

Carrier	Predicted MPE %
T-Mobile	9.10253500%
Verizon	0.00136800%
AT&T	0.00036800%
Composite	**9.10427100%**

Table 5: Total Predicted MPE(%) by Carrier

Compliance Status:

The anticipated composite MPE value for this site assuming all carriers present is **9.10427100%** of the allowable FCC established general population limit sampled at the ground level.

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.

Erin Kavanaugh
RF Compliance Consultant
Centerline Communications, LLC
750 West Center St. Suite 301
West Bridgewater, MA 02379

EXHIBIT 8

Structural Analysis

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 140 ft Nudd Corporation Monopole
Customer Name: SBA Communications Corp
Customer Site Number: CT11560-A
Customer Site Name: Sterling 6, CT
Carrier Name: T-Mobile (App#: 160668, V3)
Carrier Site ID / Name: CTNL143A / _
Site Location: 5 Exeter Drive
Sterling, Connecticut
Windham County
Latitude: 41.714047
Longitude: -71.822735

Analysis Result:

Max Structural Usage: 99.0% [Pass]
Max Foundation Usage: 46.0% [Pass]
Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Morteza Shakeri

Introduction

The purpose of this report is to summarize the analysis results on the 140 ft Nudd Corporation Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Monopole original structural design report prepared by Fred A. Nudd, Corp. Dated 03-17-2008. Drawing No 308-13078-1. Project No 308-13078. Monopole previous structural report prepared by FDH Engineering, Inc. Dated 03-24-2015. Project No 15BHJV1400.
Foundation Drawing	Monopole original foundation design prepared by Fred A. Nudd, Corp. Dated 03-17-2008. Drawing No 308-13078-2. Project No 308-13078.
Geotechnical Report	Soil properties obtained from Monopole original structural design report prepared by Fred A. Nudd, Corp. Dated 03-17-2008. Drawing No 308-13078-1. Project No 308-13078
Modification Drawings	N/A

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-222-G-2**.** In accordance with this standard, the structure was analyzed using **TESPoles,** a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed V_{ult} = 131.0 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 101.0 mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	S_S = 0.17, S_1 = 0.061

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	137.0	2	Antel LPA-80063-6CF - EDIN-5- Panel	* Platform w/ Handrails and V-Bracing Kits	(10) 1 5/8" (1) 1 5/8" Hybrid	Verizon
2		6	Andrew JAHH-65C-R3B - Panel			
3		3	Samsung MT6407-77A - Panel			
4		3	Commscope CBC78T-DS-43-2X			
5		3	Samsung B5/B13 RRH-BR04C			
6		3	Samsung B2/B66A RRH-BR049			
7		1	Raycap OVP-12			
8	130.0	6	Powerwave 7770.00 - Panel	(1) Modified Low Profile Platform (Valmont LWRM) W/ (1) SitePro1 HRK12 (Handrail Kit), (3) 2 1/2" standard (Pipe Masts) & (3) SitePro1 SCX4-K (Crossover Plate Kit)	(12) 1 5/8" (2) 1" DC Power** (1) 7/16" Fiber**	AT&T
9		3	Cci HPA-65R-BU8AA - Panel			
10		3	Cci DMP65R-BU8DA - Panel			
11		6	Powerwave LGP21401 - TMA			
12		6	Powerwave LGP17201 TMA			
13		6	Powerwave LGP21901 - Diplexer			
14		3	Ericsson RRUS 8843 B2 B66A			
15		3	Ericsson RRUS 4449 B5/B12			
16		1	Raycap-DC6-48-60-18-8F-OVP			

* Modification per mount analysis by Master Consulting dated 08/09/2021
** DC/Fiber lines will run outside.

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
17	120.0	3	RFS APX16DWV-16DWVS-E-A20 - Panel	Platform w/ Handrails & Kickers SitePro1 RMQP-4096-HK	(3) 1.99" Hybrid 6x24	T-Mobile
18		3	RFS APXVAALL24-43-U-NA20 - Panel			
19		3	Ericsson AIR6449 B41 - Panel			
20		3	Ericsson 4460 B25 + B66 - RRU			
21		3	Ericsson 4480 B71 + B85 - RRU			

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	**46.9%**	**55.6%**	**99.0%**
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	3161.2	30.4	54.4

The foundation has been investigated using the supplied documents and soils report and was found **adequate**. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.5055 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be **adequate** to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222 Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC.** Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.

2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.

3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.

4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.

5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.

6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Usage Diagram - Max Ratio 46.89% at 25.0ft

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021
Site Name:	Sterling 6, CT	**Exposure:**	B	
Height:	140.00 (ft)	**Gh:**	1.1	
Base Elev:	1.000 (ft)			Page: 1

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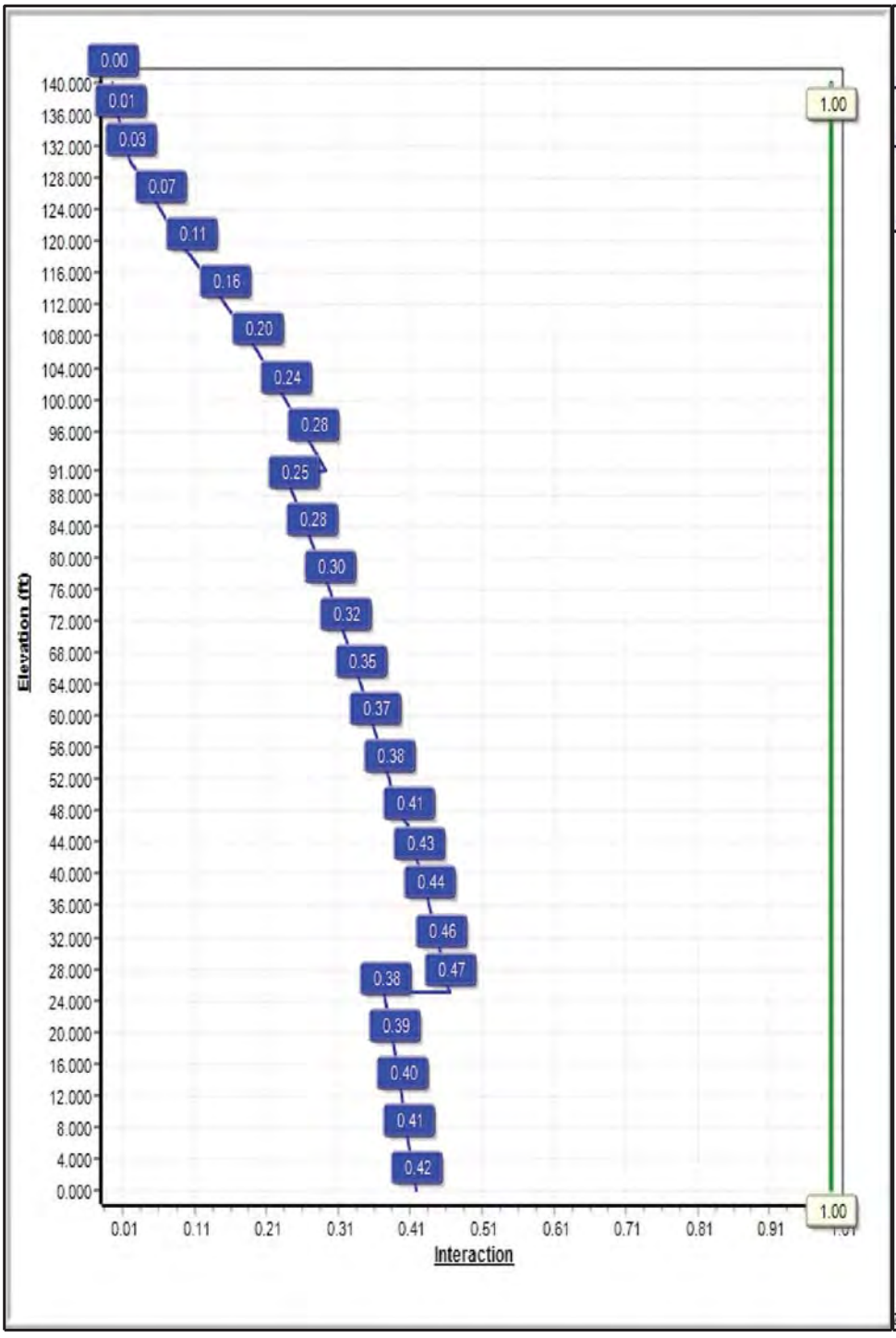
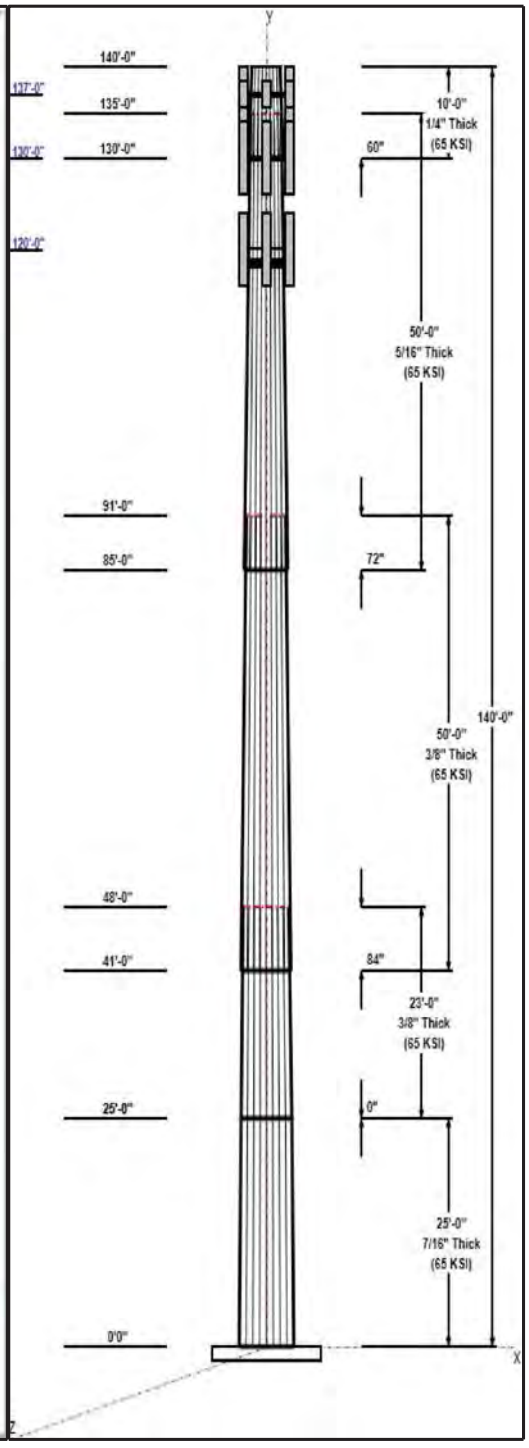
Dead Load Factor:	1.20
Wind Load Factor:	1.60

Load Case : 1.2D + 1.6W 101 mph Wind

Iterations: 22





Structure: CT11560-A-SBA

Type: Tapered
Site Name: Sterling 6, CT
Height: 140.00 (ft)
Base Elev: 1.00 (ft)

Base Shape: 18 Sided
Taper: 0.23518

9/10/2021

Tower Engineering Solutions

Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	25.00	58.62	64.50	0.438		0.23518	65
2	23.00	53.21	58.62	0.375	Butt	0.23518	65
3	50.00	43.85	55.61	0.375	Slip	0.23518	65
4	50.00	34.13	45.88	0.313	Slip	0.23518	65
5	10.00	33.45	35.80	0.250	Slip	0.23518	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
137.00	137.00	3	B5/B13 RRHBR04C	Verizon
137.00	137.00	3	B2/B66A RRHBR049	Verizon
137.00	137.00	3	MT6407-77A	Verizon
137.00	137.00	3	CBC78T-DS-43	Verizon
137.00	137.00	1	Low Profile Platform	Verizon
137.00	137.00	2	Antel LPA-80063/6CF	Verizon
137.00	137.00	1	(3) HR w/ Double V-Brace	Verizon
137.00	137.00	1	(3) Stabilizer Kit (4' FW)	T-Mobile
137.00	137.00	1	RCMDC-6627-PF-48	Verizon
137.00	137.00	6	JAHH-65B-R3B	Verizon
130.00	130.00	3	15'x2.875"mount pipe	AT&T
130.00	130.00	6	7770.00	AT&T
130.00	130.00	6	Powerwave LGP21401 -	AT&T
130.00	130.00	1	DC6-48-60-18-8F	AT&T
130.00	130.00	1	Low Profile Platform	AT&T
130.00	130.00	3	HPA-65R-BU8AA	AT&T
130.00	130.00	3	DMP65R-BU8DA	AT&T
130.00	130.00	1	HRK12 (Handrail Kit)	AT&T
130.00	130.00	6	LGP17201	AT&T
130.00	130.00	3	RRUS 8843 B2 B66A	AT&T
130.00	130.00	3	RRUS 4449 B5/B12	AT&T
130.00	130.00	6	Powerwave LGP21901 -	AT&T
120.00	120.00	3	APX16DWV-16DWVS-E-A	T-Mobile
120.00	120.00	3	APXVAA4L24-43-U-NA20	T-Mobile
120.00	120.00	3	AIR6449 B41	T-Mobile
120.00	120.00	1	LP-RMQP-4096-HK Plat	T-Mobile
120.00	120.00	3	4460 Radio	T-Mobile
120.00	120.00	3	4480 Radio	T-Mobile

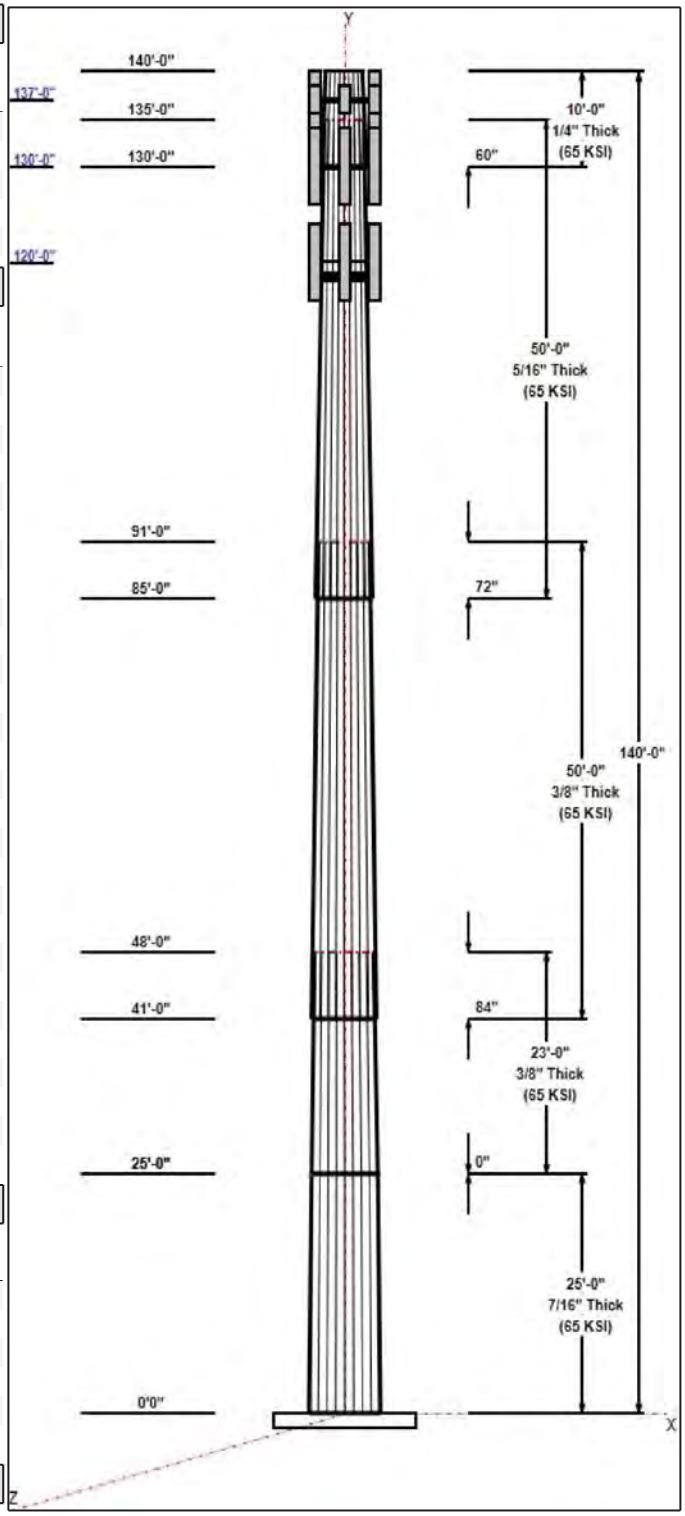
Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	137.00	Inside	1 5/8" Hybrid	Verizon
3.00	137.00	Inside	1 5/8" Coax	Verizon
3.00	130.00	Inside	1 5/8" Coax	AT&T
3.00	130.00	Outside	1" DC Power	AT&T
3.00	130.00	Outside	7/16" Fiber	AT&T
0.00	120.00	Inside	1.99" Hybrid 6x24	T-Mobile

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
20	2.00" F1554 105	105.0	Radial

Base Plate



Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.0000	68.0	50.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 101 mph Wind	3161.2	30.4	54.4
0.9D + 1.6W 101 mph Wind	3141.5	30.4	40.8
1.2D + 1.0Di + 1.0Wi 50 mph Wind	805.3	7.9	83.3
1.2D + 1.0E	270.8	2.3	54.4
0.9D + 1.0E	269.1	2.3	40.8
1.0D + 1.0W 60 mph Wind	694.5	6.7	45.3

Structure: CT11560-A-SBA - Coax Line Placement

Type: Monopole
Site Name: Sterling 6, CT
Height: 140.00 (ft)

9/10/2021

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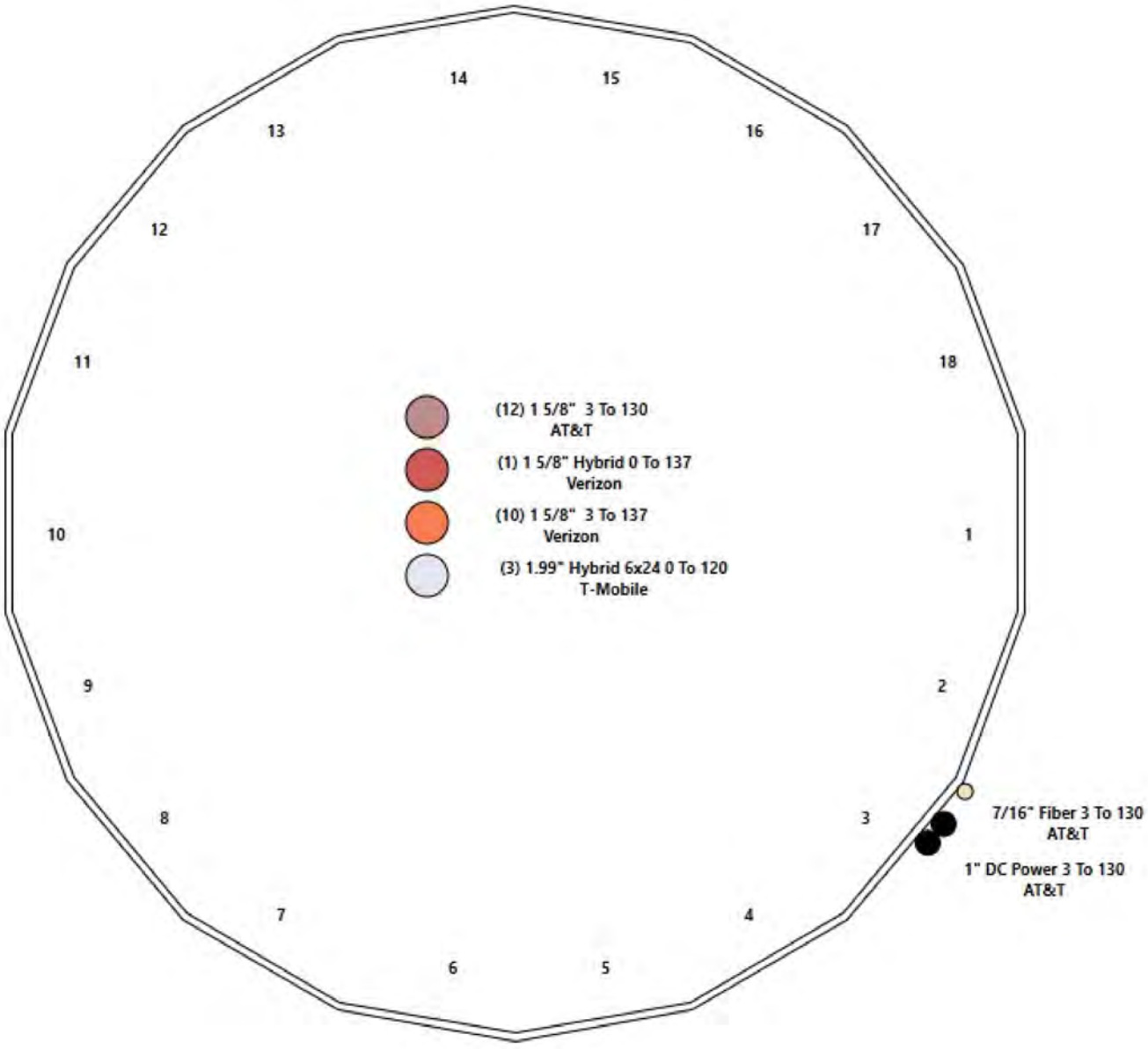

Shaft Properties

Structure:	CT11560-A-SBA		**Code:**	EIA/TIA-222-G	9/10/2021
Site Name:	Sterling 6, CT		**Exposure:**	B	
Height:	140.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 5

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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	25.000	0.4375	65		0.00	7,220
2	18	23.000	0.3750	65	Flange	0.00	5,174
3	18	50.000	0.3750	65	Slip	84.00	9,994
4	18	50.000	0.3125	65	Slip	72.00	6,698
5	18	10.000	0.2500	65	Slip	60.00	928
					Total Shaft Weight:		**30,014**

	Bottom						Top						
Sec. No.	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Taper**
1	64.50	0.00	88.96	46124.76	24.59	147.43	58.62	25.00	80.79	34555.0	22.22	133.9	0.235179
2	58.62	25.00	69.32	29714.17	26.15	156.32	53.21	48.00	62.89	22180.7	23.61	141.9	0.235179
3	55.61	41.00	65.74	25337.51	24.74	148.29	43.85	91.00	51.74	12355.4	19.21	116.9	0.235179
4	45.88	85.00	45.20	11860.36	24.48	146.83	34.13	135.00	33.54	4844.63	17.84	109.2	0.235179
5	35.80	130.0	28.21	4504.73	23.84	143.21	33.45	140.00	26.34	3668.59	22.18	133.8	0.235179

Load Summary

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

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Discrete Appurtenances

				No Ice			Ice				
No.	Elev (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	137.00	B5/B13 RRHBR04C	3	70.30	1.85	0.67	112.59	2.388	0.67	0.00	0.00
2	137.00	B2/B66A RRHBR049	3	84.50	1.88	0.67	135.34	2.427	0.67	0.00	0.00
3	137.00	MT6407-77A	3	79.40	4.69	0.70	197.74	5.629	0.70	0.00	0.00
4	137.00	CBC78T-DS-43	3	10.40	0.37	0.67	30.89	0.650	0.67	0.00	0.00
5	137.00	Low Profile Platform	1	1500.00	22.00	1.00	2798.04	39.515	1.00	0.00	0.00
6	137.00	Antel LPA-80063/6CF	2	27.00	9.60	0.94	312.32	10.941	0.94	0.00	0.00
7	137.00	(3) HR w/ Double V-Brace Kits	1	650.00	15.50	1.00	1459.98	31.596	1.00	0.00	0.00
8	137.00	(3) Stabilizer Kit (4' FW)	1	140.00	3.70	1.00	314.46	7.542	1.00	0.00	0.00
9	137.00	RCMDC-6627-PF-48	1	32.00	4.06	0.67	144.98	4.875	0.67	0.00	0.00
10	137.00	JAHH-65B-R3B	6	63.30	9.11	0.83	291.53	10.445	0.83	0.00	0.00
11	130.00	15'x2.875"mount pipe	3	87.00	4.31	1.00	218.82	9.623	1.00	0.00	0.00
12	130.00	7770.00	6	27.00	5.50	0.73	159.95	6.550	0.73	0.00	0.00
13	130.00	Powerwave LGP21401 - TMA	6	17.50	1.29	0.67	48.11	2.115	0.67	0.00	0.00
14	130.00	DC6-48-60-18-8F	1	32.80	1.30	0.67	95.71	1.911	0.67	0.00	0.00
15	130.00	Low Profile Platform	1	1500.00	22.00	1.00	2791.30	39.424	1.00	0.00	0.00
16	130.00	HPA-65R-BU8AA	3	54.00	11.23	0.86	316.31	12.870	0.86	0.00	0.00
17	130.00	DMP65R-BU8DA	3	95.70	17.87	0.72	549.54	19.642	0.72	0.00	0.00
18	130.00	HRK12 (Handrail Kit)	1	261.72	10.00	1.00	568.14	19.642	1.00	0.00	0.00
19	130.00	LGP17201	6	10.00	1.95	0.67	22.16	2.933	0.67	0.00	0.00
20	130.00	RRUS 8843 B2 B66A	3	72.00	1.64	0.67	118.21	2.130	0.67	0.00	0.00
21	130.00	RRUS 4449 B5/B12	3	71.00	1.97	0.67	123.66	2.510	0.67	0.00	0.00
22	130.00	Powerwave LGP21901 - Diplexer	6	31.00	1.67	0.67	73.76	4.306	0.67	0.00	0.00
23	120.00	APX16DWV-16DWVS-E-A20	3	40.70	6.61	0.62	155.27	8.742	0.62	0.00	0.00
24	120.00	APXVAA4L24-43-U-NA20	3	122.80	20.24	0.72	503.80	22.079	0.72	0.00	0.00
25	120.00	AIR6449 B41	3	103.00	5.65	0.71	237.20	6.580	0.71	0.00	0.00
26	120.00	LP-RMQP-4096-HK Plat	1	2669.00	51.70	1.00	5404.38	89.143	1.00	0.00	0.00
27	120.00	4460 Radio	3	104.00	2.85	0.67	171.15	3.510	0.67	0.00	0.00
28	120.00	4480 Radio	3	93.00	2.85	0.67	163.40	3.510	0.67	0.00	0.00
		Totals:	**82**	**10,995.72**			**26,876.50**				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	137.00	(1) 1 5/8" Hybrid	0.00	Inside
3.00	137.00	(10) 1 5/8" Coax	0.00	Inside
3.00	130.00	(12) 1 5/8" Coax	0.00	Inside
3.00	130.00	(2) 1" DC Power	1.00	Outside
3.00	130.00	(1) 7/16" Fiber	0.00	Outside
0.00	120.00	(3) 1.99" Hybrid 6x24	0.00	Inside

Shaft Section Properties

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 7	

Tower Engineering Solutions

Increment Length: **2 (ft)**

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.4375	64.500	88.956	46124.8	24.59	147.43	72.5	1408.	0.0
2.00		0.4375	64.030	88.302	45116.2	24.40	146.35	72.7	1387.	603.2
4.00		0.4375	63.559	87.649	44122.5	24.21	145.28	72.9	1367.	598.7
6.00		0.4375	63.089	86.996	43143.5	24.02	144.20	73.2	1346.	594.3
8.00		0.4375	62.619	86.343	42179.1	23.83	143.13	73.4	1326.	589.8
10.00		0.4375	62.148	85.690	41229.1	23.64	142.05	73.6	1306.	585.4
12.00		0.4375	61.678	85.037	40293.6	23.45	140.98	73.8	1286.	580.9
14.00		0.4375	61.208	84.384	39372.2	23.26	139.90	74.0	1267.	576.5
16.00		0.4375	60.737	83.731	38465.1	23.07	138.83	74.3	1247.	572.1
18.00		0.4375	60.267	83.077	37572.0	22.88	137.75	74.5	1227.	567.6
20.00		0.4375	59.796	82.424	36692.8	22.69	136.68	74.7	1208.	563.2
22.00		0.4375	59.326	81.771	35827.4	22.50	135.60	74.9	1189.	558.7
24.00		0.4375	58.856	81.118	34975.8	22.31	134.53	75.2	1170.	554.3
25.00	Top - Section 1	0.4375	58.621	80.792	34555.1	22.22	133.99	75.3	1161.	275.5
25.00	Bot - Section 2	0.3750	58.621	69.324	29714.2	25.92	156.32	70.6	998.4	
26.00		0.3750	58.385	69.044	29355.7	26.04	155.69	70.8	990.3	235.4
28.00		0.3750	57.915	68.485	28647.4	25.82	154.44	71.0	974.3	468.0
30.00		0.3750	57.445	67.925	27950.6	25.60	153.19	71.3	958.3	464.2
32.00		0.3750	56.974	67.365	27265.2	25.38	151.93	71.6	942.6	460.4
34.00		0.3750	56.504	66.805	26591.1	25.16	150.68	71.8	926.9	456.6
36.00		0.3750	56.034	66.245	25928.2	24.94	149.42	72.1	911.4	452.7
38.00		0.3750	55.563	65.685	25276.4	24.72	148.17	72.3	896.0	448.9
40.00		0.3750	55.093	65.126	24635.6	24.49	146.91	72.6	880.7	445.1
41.00	Bot - Section 3	0.3750	54.858	64.846	24319.3	24.38	146.29	72.7	873.2	221.1
42.00		0.3750	54.623	64.566	24005.7	24.27	145.66	72.9	865.6	443.4
44.00		0.3750	54.152	64.006	23386.7	24.05	144.41	73.1	850.6	881.1
46.00		0.3750	53.682	63.446	22778.4	23.83	143.15	73.4	835.8	873.5
48.00	Top - Section 2	0.3750	53.961	63.779	23138.8	23.96	143.90	0.0	0.0	865.8
50.00		0.3750	53.491	63.219	22534.8	23.74	142.64	73.5	829.8	432.1
52.00		0.3750	53.021	62.659	21941.4	23.52	141.39	73.7	815.1	428.3
54.00		0.3750	52.550	62.099	21358.6	23.30	140.13	74.0	800.5	424.5
56.00		0.3750	52.080	61.540	20786.1	23.08	138.88	74.3	786.1	420.7
58.00		0.3750	51.610	60.980	20224.0	22.86	137.63	74.5	771.8	416.9
60.00		0.3750	51.139	60.420	19672.1	22.64	136.37	74.8	757.7	413.1
62.00		0.3750	50.669	59.860	19130.3	22.41	135.12	75.0	743.6	409.3
64.00		0.3750	50.199	59.300	18598.6	22.19	133.86	75.3	729.7	405.5
66.00		0.3750	49.728	58.741	18076.8	21.97	132.61	75.6	716.0	401.7
68.00		0.3750	49.258	58.181	17564.9	21.75	131.35	75.8	702.3	397.9
70.00		0.3750	48.788	57.621	17062.7	21.53	130.10	76.1	688.8	394.0
72.00		0.3750	48.317	57.061	16570.2	21.31	128.85	76.3	675.5	390.2
74.00		0.3750	47.847	56.501	16087.3	21.09	127.59	76.6	662.2	386.4
76.00		0.3750	47.376	55.941	15613.8	20.87	126.34	76.9	649.1	382.6
78.00		0.3750	46.906	55.382	15149.7	20.64	125.08	77.1	636.1	378.8
80.00		0.3750	46.436	54.822	14694.9	20.42	123.83	77.4	623.3	375.0
82.00		0.3750	45.965	54.262	14249.3	20.20	122.57	77.6	610.6	371.2
84.00		0.3750	45.495	53.702	13812.8	19.98	121.32	77.9	598.0	367.4
85.00	Bot - Section 4	0.3750	45.260	53.422	13598.0	19.87	120.69	78.0	591.8	182.3
86.00		0.3750	45.025	53.142	13385.3	19.76	120.07	78.2	585.5	334.7
88.00		0.3750	44.554	52.583	12966.8	19.54	118.81	78.4	573.2	664.2
90.00		0.3750	44.084	52.023	12557.0	19.32	117.56	78.7	561.0	657.2

Increment Length: **2 (ft)**

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
91.00	Top - Section 3	0.3125	44.474	43.801	10792.4	23.68	142.32	0.0	0.0	326.0
92.00		0.3125	44.239	43.568	10620.9	23.55	141.56	73.7	472.9	148.6
94.00		0.3125	43.768	43.101	10283.4	23.29	140.06	74.0	462.8	294.9
96.00		0.3125	43.298	42.635	9953.0	23.02	138.55	74.3	452.8	291.7
98.00		0.3125	42.828	42.168	9629.9	22.75	137.05	74.6	442.9	288.6
100.00		0.3125	42.357	41.702	9313.8	22.49	135.54	74.9	433.1	285.4
102.00		0.3125	41.887	41.235	9004.7	22.22	134.04	75.3	423.4	282.2
104.00		0.3125	41.416	40.768	8702.5	21.96	132.53	75.6	413.9	279.0
106.00		0.3125	40.946	40.302	8407.2	21.69	131.03	75.9	404.4	275.9
108.00		0.3125	40.476	39.835	8118.6	21.43	129.52	76.2	395.1	272.7
110.00		0.3125	40.005	39.369	7836.7	21.16	128.02	76.5	385.8	269.5
112.00		0.3125	39.535	38.902	7561.4	20.90	126.51	76.8	376.7	266.3
114.00		0.3125	39.065	38.436	7292.6	20.63	125.01	77.1	367.7	263.2
116.00		0.3125	38.594	37.969	7030.3	20.37	123.50	77.4	358.8	260.0
118.00		0.3125	38.124	37.503	6774.3	20.10	122.00	77.8	350.0	256.8
120.00		0.3125	37.654	37.036	6524.6	19.84	120.49	78.1	341.3	253.6
122.00		0.3125	37.183	36.570	6281.1	19.57	118.99	78.4	332.7	250.5
124.00		0.3125	36.713	36.103	6043.8	19.30	117.48	78.7	324.2	247.3
126.00		0.3125	36.243	35.637	5812.5	19.04	115.98	79.0	315.9	244.1
128.00		0.3125	35.772	35.170	5587.2	18.77	114.47	79.3	307.6	240.9
130.00	Bot - Section 5	0.3125	35.302	34.704	5367.8	18.51	112.97	79.6	299.5	237.8
132.00		0.3125	34.831	34.237	5154.3	18.24	111.46	79.9	291.5	425.3
134.00		0.3125	34.361	33.771	4946.4	17.98	109.96	80.3	283.5	419.6
135.00	Top - Section 4	0.2500	34.626	27.276	4072.4	23.01	138.50	0.0	0.0	207.6
136.00		0.2500	34.391	27.090	3989.4	22.85	137.56	74.5	228.5	92.5
137.00		0.2500	34.156	26.903	3907.5	22.68	136.62	74.7	225.3	91.9
138.00		0.2500	33.920	26.716	3826.7	22.51	135.68	74.9	222.2	91.2
140.00		0.2500	33.450	26.343	3668.6	22.18	133.80	75.3	216.0	180.6
										30014.2

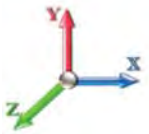
Wind Loading - Shaft

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	17.366	19.10	461.21	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	17.366	19.10	457.85	0.650	0.000	2.00	10.876	7.07	216.1	0.0	723.8
4.00		1.00	0.70	17.366	19.10	454.48	0.650	0.000	2.00	10.796	7.02	214.5	0.0	718.5
6.00		1.00	0.70	17.366	19.10	451.12	0.650	0.000	2.00	10.717	6.97	212.9	0.0	713.1
8.00		1.00	0.70	17.366	19.10	447.76	0.650	0.000	2.00	10.637	6.91	211.3	0.0	707.8
10.00		1.00	0.70	17.366	19.10	444.39	0.650	0.000	2.00	10.558	6.86	209.7	0.0	702.5
12.00		1.00	0.70	17.366	19.10	441.03	0.650	0.000	2.00	10.478	6.81	208.2	0.0	697.1
14.00		1.00	0.70	17.366	19.10	437.67	0.650	0.000	2.00	10.398	6.76	206.6	0.0	691.8
16.00		1.00	0.70	17.366	19.10	434.30	0.650	0.000	2.00	10.319	6.71	205.0	0.0	686.5
18.00		1.00	0.70	17.366	19.10	430.94	0.650	0.000	2.00	10.239	6.66	203.4	0.0	681.1
20.00		1.00	0.70	17.366	19.10	427.58	0.650	0.000	2.00	10.160	6.60	201.8	0.0	675.8
22.00		1.00	0.70	17.366	19.10	424.21	0.650	0.000	2.00	10.080	6.55	200.3	0.0	670.5
24.00		1.00	0.70	17.366	19.10	420.85	0.650	0.000	2.00	10.000	6.50	198.7	0.0	665.1
25.00	Top - Section 1	1.00	0.70	17.366	19.10	419.17	0.650	0.000	1.00	4.970	3.23	98.7	0.0	330.6
26.00		1.00	0.70	17.366	19.10	417.49	0.650	0.000	1.00	4.950	3.22	98.4	0.0	282.5
28.00		1.00	0.70	17.366	19.10	414.12	0.650	0.000	2.00	9.841	6.40	195.5	0.0	561.6
30.00		1.00	0.71	17.544	19.30	412.86	0.650	0.000	2.00	9.762	6.35	195.9	0.0	557.0
32.00		1.00	0.72	17.861	19.65	413.16	0.650	0.000	2.00	9.682	6.29	197.8	0.0	552.4
34.00		1.00	0.73	18.163	19.98	413.20	0.650	0.000	2.00	9.602	6.24	199.5	0.0	547.9
36.00		1.00	0.74	18.454	20.30	413.03	0.650	0.000	2.00	9.523	6.19	201.0	0.0	543.3
38.00		1.00	0.76	18.734	20.61	412.65	0.650	0.000	2.00	9.443	6.14	202.4	0.0	538.7
40.00		1.00	0.77	19.003	20.90	412.09	0.650	0.000	2.00	9.364	6.09	203.6	0.0	534.1
41.00	Bot - Section 3	1.00	0.77	19.135	21.05	411.75	0.650	0.000	1.00	4.652	3.02	101.8	0.0	265.4
42.00		1.00	0.78	19.264	21.19	411.37	0.650	0.000	1.00	4.696	3.05	103.5	0.0	532.1
44.00		1.00	0.79	19.516	21.47	410.48	0.650	0.000	2.00	9.331	6.07	208.3	0.0	1057.3
46.00		1.00	0.80	19.760	21.74	409.45	0.650	0.000	2.00	9.252	6.01	209.1	0.0	1048.1
48.00	Top - Section 2	1.00	0.81	19.996	22.00	408.29	0.650	0.000	2.00	9.172	5.96	209.8	0.0	1039.0
50.00		1.00	0.82	20.226	22.25	412.78	0.650	0.000	2.00	9.093	5.91	210.4	0.0	518.6
52.00		1.00	0.82	20.450	22.49	411.41	0.650	0.000	2.00	9.013	5.86	210.9	0.0	514.0
54.00		1.00	0.83	20.667	22.73	409.92	0.650	0.000	2.00	8.933	5.81	211.2	0.0	509.4
56.00		1.00	0.84	20.879	22.97	408.33	0.650	0.000	2.00	8.854	5.75	211.5	0.0	504.9
58.00		1.00	0.85	21.086	23.19	406.64	0.650	0.000	2.00	8.774	5.70	211.7	0.0	500.3
60.00		1.00	0.86	21.288	23.42	404.86	0.650	0.000	2.00	8.694	5.65	211.7	0.0	495.7
62.00		1.00	0.87	21.485	23.63	402.99	0.650	0.000	2.00	8.615	5.60	211.7	0.0	491.1
64.00		1.00	0.87	21.678	23.85	401.04	0.650	0.000	2.00	8.535	5.55	211.7	0.0	486.6
66.00		1.00	0.88	21.866	24.05	399.00	0.650	0.000	2.00	8.456	5.50	211.5	0.0	482.0
68.00		1.00	0.89	22.051	24.26	396.89	0.650	0.000	2.00	8.376	5.44	211.3	0.0	477.4
70.00		1.00	0.90	22.231	24.45	394.71	0.650	0.000	2.00	8.296	5.39	211.0	0.0	472.9
72.00		1.00	0.90	22.409	24.65	392.46	0.650	0.000	2.00	8.217	5.34	210.6	0.0	468.3
74.00		1.00	0.91	22.582	24.84	390.14	0.650	0.000	2.00	8.137	5.29	210.2	0.0	463.7
76.00		1.00	0.92	22.753	25.03	387.76	0.650	0.000	2.00	8.058	5.24	209.7	0.0	459.1
78.00		1.00	0.92	22.920	25.21	385.32	0.650	0.000	2.00	7.978	5.19	209.2	0.0	454.6
80.00		1.00	0.93	23.084	25.39	382.82	0.650	0.000	2.00	7.898	5.13	208.6	0.0	450.0
82.00		1.00	0.94	23.246	25.57	380.27	0.650	0.000	2.00	7.819	5.08	207.9	0.0	445.4
84.00		1.00	0.94	23.404	25.74	377.66	0.650	0.000	2.00	7.739	5.03	207.2	0.0	440.9
85.00	Bot - Section 4	1.00	0.95	23.483	25.83	376.33	0.650	0.000	1.00	3.840	2.50	103.2	0.0	218.7
86.00		1.00	0.95	23.561	25.92	375.00	0.650	0.000	1.00	3.873	2.52	104.4	0.0	401.7

Wind Loading - Shaft

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 10

88.00		1.00	0.96	23.714	26.09	372.29	0.650	0.000	2.00	7.686	5.00	208.5	0.0	797.0
90.00		1.00	0.96	23.865	26.25	369.53	0.650	0.000	2.00	7.606	4.94	207.7	0.0	788.7
91.00	Top - Section 3	1.00	0.96	23.940	26.33	368.13	0.650	0.000	1.00	3.773	2.45	103.3	0.0	391.2
92.00		1.00	0.97	24.014	26.42	371.98	0.650	0.000	1.00	3.753	2.44	103.1	0.0	178.4
94.00		1.00	0.97	24.160	26.58	369.14	0.650	0.000	2.00	7.447	4.84	205.8	0.0	353.9
96.00		1.00	0.98	24.304	26.73	366.26	0.650	0.000	2.00	7.367	4.79	204.8	0.0	350.1
98.00		1.00	0.99	24.447	26.89	363.34	0.650	0.000	2.00	7.288	4.74	203.8	0.0	346.3
100.00		1.00	0.99	24.587	27.05	360.38	0.650	0.000	2.00	7.208	4.69	202.7	0.0	342.5
102.00		1.00	1.00	24.725	27.20	357.38	0.650	0.000	2.00	7.129	4.63	201.6	0.0	338.7
104.00		1.00	1.00	24.861	27.35	354.34	0.650	0.000	2.00	7.049	4.58	200.5	0.0	334.8
106.00		1.00	1.01	24.995	27.49	351.26	0.650	0.000	2.00	6.969	4.53	199.3	0.0	331.0
108.00		1.00	1.01	25.128	27.64	348.14	0.650	0.000	2.00	6.890	4.48	198.1	0.0	327.2
110.00		1.00	1.02	25.259	27.78	344.99	0.650	0.000	2.00	6.810	4.43	196.8	0.0	323.4
112.00		1.00	1.02	25.388	27.93	341.81	0.650	0.000	2.00	6.731	4.37	195.5	0.0	319.6
114.00		1.00	1.03	25.516	28.07	338.59	0.650	0.000	2.00	6.651	4.32	194.1	0.0	315.8
116.00		1.00	1.03	25.642	28.21	335.34	0.650	0.000	2.00	6.571	4.27	192.8	0.0	312.0
118.00		1.00	1.04	25.766	28.34	332.05	0.650	0.000	2.00	6.492	4.22	191.4	0.0	308.2
120.00	Appurtenance(s)	1.00	1.04	25.889	28.48	328.74	0.650	0.000	2.00	6.412	4.17	189.9	0.0	304.4
122.00		1.00	1.05	26.011	28.61	325.39	0.650	0.000	2.00	6.333	4.12	188.4	0.0	300.6
124.00		1.00	1.05	26.131	28.74	322.02	0.650	0.000	2.00	6.253	4.06	186.9	0.0	296.7
126.00		1.00	1.06	26.250	28.87	318.61	0.650	0.000	2.00	6.173	4.01	185.4	0.0	292.9
128.00		1.00	1.06	26.367	29.00	315.18	0.650	0.000	2.00	6.094	3.96	183.8	0.0	289.1
130.00	Bot - Section 5	1.00	1.07	26.483	29.13	311.72	0.650	0.000	2.00	6.014	3.91	182.2	0.0	285.3
132.00		1.00	1.07	26.598	29.26	308.24	0.650	0.000	2.00	6.019	3.91	183.2	0.0	510.4
134.00		1.00	1.08	26.712	29.38	304.72	0.650	0.000	2.00	5.940	3.86	181.5	0.0	503.5
135.00	Top - Section 4	1.00	1.08	26.768	29.44	302.96	0.650	0.000	1.00	2.940	1.91	90.0	0.0	249.2
136.00		1.00	1.08	26.824	29.51	305.63	0.650	0.000	1.00	2.920	1.90	89.6	0.0	111.0
137.00	Appurtenance(s)	1.00	1.08	26.880	29.57	303.85	0.650	0.000	1.00	2.900	1.89	89.2	0.0	110.2
138.00		1.00	1.09	26.936	29.63	302.07	0.650	0.000	1.00	2.880	1.87	88.8	0.0	109.5
140.00		1.00	1.09	27.046	29.75	298.49	0.650	0.000	2.00	5.701	3.71	176.4	0.0	216.7
								Totals:	**140.00**			**14,134.7**		**36,017.0**

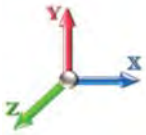
Discrete Appurtenance Forces

Structure:	CT11560-A-SBA		**Code:**	EIA/TIA-222-G	9/10/2021
Site Name:	Sterling 6, CT		**Exposure:**	B	
Height:	140.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 11

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	137.00	Antel LPA-80063/6CF	2	26.880	29.568	0.70	0.75	13.54	64.80	0.000	0.000	640.37	0.00	0.00
2	137.00	B5/B13 RRHBR04C	3	26.880	29.568	0.50	0.75	2.79	253.08	0.000	0.000	131.94	0.00	0.00
3	137.00	B2/B66A RRHBR049	3	26.880	29.568	0.50	0.75	2.83	304.20	0.000	0.000	134.08	0.00	0.00
4	137.00	MT6407-77A	3	26.880	29.568	0.52	0.75	7.39	285.84	0.000	0.000	349.46	0.00	0.00
5	137.00	CBC78T-DS-43	3	26.880	29.568	0.50	0.75	0.56	37.44	0.000	0.000	26.39	0.00	0.00
6	137.00	RCMDC-6627-PF-48	1	26.880	29.568	0.50	0.75	2.04	38.40	0.000	0.000	96.52	0.00	0.00
7	137.00	JAHH-65B-R3B	6	26.880	29.568	0.62	0.75	34.03	455.76	0.000	0.000	1609.73	0.00	0.00
8	137.00	(3) HR w/ Double V-Brace	1	26.880	29.568	1.00	1.00	15.50	780.00	0.000	0.000	733.29	0.00	0.00
9	137.00	(3) Stabilizer Kit (4' FW)	1	26.880	29.568	1.00	1.00	3.70	168.00	0.000	0.000	175.04	0.00	0.00
10	137.00	Low Profile Platform	1	26.880	29.568	1.00	1.00	22.00	1800.00	0.000	0.000	1040.80	0.00	0.00
11	130.00	Powerwave LGP21901 -	6	26.483	29.132	0.50	0.75	5.04	223.20	0.000	0.000	234.69	0.00	0.00
12	130.00	RRUS 4449 B5/B12	3	26.483	29.132	0.50	0.75	2.97	255.60	0.000	0.000	138.42	0.00	0.00
13	130.00	RRUS 8843 B2 B66A	3	26.483	29.132	0.50	0.75	2.47	259.20	0.000	0.000	115.24	0.00	0.00
14	130.00	LGP17201	6	26.483	29.132	0.50	0.75	5.88	72.00	0.000	0.000	274.03	0.00	0.00
15	130.00	HRK12 (Handrail Kit)	1	26.483	29.132	1.00	1.00	10.00	314.06	0.000	0.000	466.10	0.00	0.00
16	130.00	Powerwave LGP21401 -	6	26.483	29.132	0.50	0.75	3.89	126.00	0.000	0.000	181.28	0.00	0.00
17	130.00	15'x2.875"mount pipe	3	26.483	29.132	1.00	1.00	12.93	313.20	0.000	0.000	602.67	0.00	0.00
18	130.00	7770.00	6	26.483	29.132	0.55	0.75	18.07	194.40	0.000	0.000	842.13	0.00	0.00
19	130.00	DMP65R-BU8DA	3	26.483	29.132	0.54	0.75	28.95	344.52	0.000	0.000	1349.35	0.00	0.00
20	130.00	DC6-48-60-18-8F	1	26.483	29.132	0.50	0.75	0.65	39.36	0.000	0.000	30.45	0.00	0.00
21	130.00	Low Profile Platform	1	26.483	29.132	1.00	1.00	22.00	1800.00	0.000	0.000	1025.43	0.00	0.00
22	130.00	HPA-65R-BU8AA	3	26.483	29.132	0.65	0.75	21.73	194.40	0.000	0.000	1012.85	0.00	0.00
23	120.00	4480 Radio	3	25.889	28.478	0.50	0.75	4.30	334.80	0.000	0.000	195.76	0.00	0.00
24	120.00	4460 Radio	3	25.889	28.478	0.50	0.75	4.30	374.40	0.000	0.000	195.76	0.00	0.00
25	120.00	LP-RMQP-4096-HK Plat	1	25.889	28.478	1.00	1.00	51.70	3202.80	0.000	0.000	2355.71	0.00	0.00
26	120.00	AIR6449 B41	3	25.889	28.478	0.53	0.75	9.03	370.80	0.000	0.000	411.26	0.00	0.00
27	120.00	APXVAA4L24-43-U-NA20	3	25.889	28.478	0.54	0.75	32.79	442.08	0.000	0.000	1494.02	0.00	0.00
28	120.00	APX16DWV-16DWVS-E-A	3	25.889	28.478	0.46	0.75	9.22	146.52	0.000	0.000	420.15	0.00	0.00
							Totals:		**13,194.86**			**16,282.92**		

Total Applied Force Summary

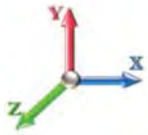
Structure:	CT11560-A-SBA		**Code:**	EIA/TIA-222-G	9/10/2021
Site Name:	Sterling 6, CT		**Exposure:**	B	
Height:	140.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 12

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		216.07	744.44	0.00	0.00
4.00		214.49	769.06	0.00	0.00
6.00		212.91	793.68	0.00	0.00
8.00		211.33	788.35	0.00	0.00
10.00		209.75	783.01	0.00	0.00
12.00		208.17	777.68	0.00	0.00
14.00		206.58	772.34	0.00	0.00
16.00		205.00	767.01	0.00	0.00
18.00		203.42	761.68	0.00	0.00
20.00		201.84	756.34	0.00	0.00
22.00		200.26	751.01	0.00	0.00
24.00		198.68	745.68	0.00	0.00
25.00		98.75	370.84	0.00	0.00
26.00		98.35	322.77	0.00	0.00
28.00		195.51	642.12	0.00	0.00
30.00		195.92	637.55	0.00	0.00
32.00		197.83	632.98	0.00	0.00
34.00		199.53	628.40	0.00	0.00
36.00		201.04	623.83	0.00	0.00
38.00		202.38	619.26	0.00	0.00
40.00		203.56	614.69	0.00	0.00
41.00		101.83	305.63	0.00	0.00
42.00		103.48	572.35	0.00	0.00
44.00		208.33	1137.84	0.00	0.00
46.00		209.14	1128.69	0.00	0.00
48.00		209.82	1119.55	0.00	0.00
50.00		210.39	599.12	0.00	0.00
52.00		210.85	594.55	0.00	0.00
54.00		211.21	589.98	0.00	0.00
56.00		211.48	585.40	0.00	0.00
58.00		211.65	580.83	0.00	0.00
60.00		211.74	576.26	0.00	0.00
62.00		211.74	571.69	0.00	0.00
64.00		211.67	567.12	0.00	0.00
66.00		211.52	562.54	0.00	0.00
68.00		211.29	557.97	0.00	0.00
70.00		211.00	553.40	0.00	0.00
72.00		210.64	548.83	0.00	0.00
74.00		210.22	544.26	0.00	0.00
76.00		209.73	539.68	0.00	0.00
78.00		209.19	535.11	0.00	0.00
80.00		208.59	530.54	0.00	0.00
82.00		207.93	525.97	0.00	0.00
84.00		207.22	521.40	0.00	0.00
85.00		103.15	258.98	0.00	0.00
86.00		104.38	441.93	0.00	0.00

Total Applied Force Summary

Structure:	CT11560-A-SBA		**Code:**	EIA/TIA-222-G	9/10/2021
Site Name:	Sterling 6, CT		**Exposure:**	B	
Height:	140.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 13

Tower Engineering Solutions

88.00		208.51	877.58	0.00	0.00
90.00		207.66	869.20	0.00	0.00
91.00		103.34	431.46	0.00	0.00
92.00		103.11	218.65	0.00	0.00
94.00		205.83	434.44	0.00	0.00
96.00		204.85	430.63	0.00	0.00
98.00		203.82	426.82	0.00	0.00
100.00		202.75	423.01	0.00	0.00
102.00		201.63	419.20	0.00	0.00
104.00		200.48	415.39	0.00	0.00
106.00		199.29	411.58	0.00	0.00
108.00		198.06	407.77	0.00	0.00
110.00		196.79	403.96	0.00	0.00
112.00		195.48	400.15	0.00	0.00
114.00		194.14	396.34	0.00	0.00
116.00		192.77	392.53	0.00	0.00
118.00		191.36	388.72	0.00	0.00
120.00	(16) attachments	5262.58	5256.31	0.00	0.00
122.00		188.43	363.10	0.00	0.00
124.00		186.93	359.29	0.00	0.00
126.00		185.38	355.48	0.00	0.00
128.00		183.81	351.67	0.00	0.00
130.00	(42) attachments	6454.86	4483.81	0.00	0.00
132.00		183.15	537.96	0.00	0.00
134.00		181.50	531.10	0.00	0.00
135.00		90.03	262.98	0.00	0.00
136.00		89.61	124.80	0.00	0.00
137.00	(24) attachments	5026.79	4311.56	0.00	0.00
138.00		88.75	109.47	0.00	0.00
140.00		176.38	216.66	0.00	0.00
	Totals:	**30,417.66**	**54,364.00**	**0.00**	**0.00**

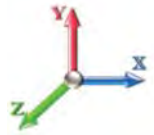
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 14	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
4.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.008	0.000	17.366	0.00	2.40
4.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.008	0.000	17.366	0.00	0.10
6.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	4.80
6.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.19
8.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	4.80
8.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.19
10.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	4.80
10.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.19
12.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	4.80
12.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.19
14.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	4.80
14.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.19
16.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	4.80
16.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.19
18.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	4.80
18.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.19
20.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	4.80
20.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.19
22.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	17.366	0.00	4.80
22.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	17.366	0.00	0.19
24.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	17.366	0.00	4.80
24.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	17.366	0.00	0.19
25.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.017	0.000	17.366	0.00	2.40
25.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.017	0.000	17.366	0.00	0.10
26.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.017	0.000	17.366	0.00	2.40
26.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.017	0.000	17.366	0.00	0.10
28.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	17.366	0.00	4.80
28.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	17.366	0.00	0.19
30.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	17.544	0.00	4.80
30.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	17.544	0.00	0.19
32.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	17.861	0.00	4.80
32.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	17.861	0.00	0.19
34.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	18.163	0.00	4.80
34.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	18.163	0.00	0.19
36.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	18.454	0.00	4.80
36.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	18.454	0.00	0.19
38.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	18.734	0.00	4.80
38.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	18.734	0.00	0.19
40.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	19.003	0.00	4.80
40.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	19.003	0.00	0.19
41.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.018	0.000	19.135	0.00	2.40
41.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.018	0.000	19.135	0.00	0.10
42.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.018	0.000	19.264	0.00	2.40
42.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.018	0.000	19.264	0.00	0.10
44.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	19.516	0.00	4.80
44.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	19.516	0.00	0.19
46.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	19.760	0.00	4.80

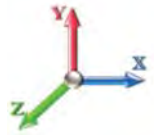
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 15	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	19.760	0.00	0.19
48.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	19.996	0.00	4.80
48.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	19.996	0.00	0.19
50.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	20.226	0.00	4.80
50.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	20.226	0.00	0.19
52.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	20.450	0.00	4.80
52.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	20.450	0.00	0.19
54.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	20.667	0.00	4.80
54.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	20.667	0.00	0.19
56.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	20.879	0.00	4.80
56.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	20.879	0.00	0.19
58.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	21.086	0.00	4.80
58.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	21.086	0.00	0.19
60.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	21.288	0.00	4.80
60.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	21.288	0.00	0.19
62.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	21.485	0.00	4.80
62.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	21.485	0.00	0.19
64.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	21.678	0.00	4.80
64.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	21.678	0.00	0.19
66.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	21.866	0.00	4.80
66.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	21.866	0.00	0.19
68.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	22.051	0.00	4.80
68.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	22.051	0.00	0.19
70.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	22.231	0.00	4.80
70.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	22.231	0.00	0.19
72.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	22.409	0.00	4.80
72.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	22.409	0.00	0.19
74.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	22.582	0.00	4.80
74.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	22.582	0.00	0.19
76.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	22.753	0.00	4.80
76.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	22.753	0.00	0.19
78.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	22.920	0.00	4.80
78.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	22.920	0.00	0.19
80.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	23.084	0.00	4.80
80.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	23.084	0.00	0.19
82.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	23.246	0.00	4.80
82.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	23.246	0.00	0.19
84.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	23.404	0.00	4.80
84.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	23.404	0.00	0.19
85.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	23.483	0.00	2.40
85.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	23.483	0.00	0.10
86.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	23.561	0.00	2.40
86.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	23.561	0.00	0.10
88.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	23.714	0.00	4.80
88.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	23.714	0.00	0.19
90.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	23.865	0.00	4.80
90.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	23.865	0.00	0.19

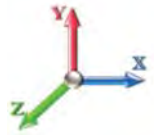
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
91.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	23.940	0.00	2.40
91.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	23.940	0.00	0.10
92.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	24.014	0.00	2.40
92.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	24.014	0.00	0.10
94.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	24.160	0.00	4.80
94.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	24.160	0.00	0.19
96.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	24.304	0.00	4.80
96.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	24.304	0.00	0.19
98.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	24.447	0.00	4.80
98.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	24.447	0.00	0.19
100.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	24.587	0.00	4.80
100.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	24.587	0.00	0.19
102.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	24.725	0.00	4.80
102.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	24.725	0.00	0.19
104.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	24.861	0.00	4.80
104.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	24.861	0.00	0.19
106.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	24.995	0.00	4.80
106.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	24.995	0.00	0.19
108.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	25.128	0.00	4.80
108.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	25.128	0.00	0.19
110.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	25.259	0.00	4.80
110.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	25.259	0.00	0.19
112.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.025	0.000	25.388	0.00	4.80
112.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	25.388	0.00	0.19
114.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.025	0.000	25.516	0.00	4.80
114.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	25.516	0.00	0.19
116.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.025	0.000	25.642	0.00	4.80
116.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	25.642	0.00	0.19
118.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.026	0.000	25.766	0.00	4.80
118.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	25.766	0.00	0.19
120.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.026	0.000	25.889	0.00	4.80
120.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	25.889	0.00	0.19
122.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.026	0.000	26.011	0.00	4.80
122.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	26.011	0.00	0.19
124.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.027	0.000	26.131	0.00	4.80
124.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	26.131	0.00	0.19
126.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.027	0.000	26.250	0.00	4.80
126.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	26.250	0.00	0.19
128.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.027	0.000	26.367	0.00	4.80
128.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	26.367	0.00	0.19
130.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.028	0.000	26.483	0.00	4.80
130.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.028	0.000	26.483	0.00	0.19
										Totals:	**0.0**	**317.0**

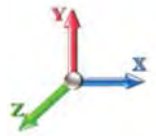
Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 17	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-54.35	-30.44	0.00	-3161.2	0.00	3161.22	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.422
2.00	-53.59	-30.26	0.00	-3100.3	0.00	3100.34	5778.21	2889.11	15113.2	7567.86	0.01	-0.039	0.000	0.419
4.00	-52.80	-30.08	0.00	-3039.8	0.00	3039.83	5753.06	2876.53	14935.4	7478.80	0.03	-0.077	0.000	0.416
6.00	-51.99	-29.90	0.00	-2979.6	0.00	2979.68	5727.65	2863.83	14757.8	7389.90	0.07	-0.116	0.000	0.412
8.00	-51.18	-29.72	0.00	-2919.8	0.00	2919.89	5701.98	2850.99	14580.6	7301.16	0.13	-0.155	0.000	0.409
10.00	-50.37	-29.54	0.00	-2860.4	0.00	2860.45	5676.04	2838.02	14403.7	7212.59	0.21	-0.194	0.000	0.406
12.00	-49.58	-29.36	0.00	-2801.3	0.00	2801.37	5649.84	2824.92	14227.2	7124.20	0.30	-0.233	0.000	0.402
14.00	-48.79	-29.19	0.00	-2742.6	0.00	2742.65	5623.38	2811.69	14051.0	7035.98	0.40	-0.272	0.000	0.399
16.00	-48.00	-29.01	0.00	-2684.2	0.00	2684.27	5596.66	2798.33	13875.2	6947.96	0.53	-0.311	0.000	0.395
18.00	-47.22	-28.84	0.00	-2626.2	0.00	2626.25	5569.67	2784.84	13699.9	6860.14	0.66	-0.351	0.000	0.391
20.00	-46.45	-28.66	0.00	-2568.5	0.00	2568.58	5542.43	2771.21	13524.9	6772.52	0.82	-0.390	0.000	0.388
22.00	-45.68	-28.49	0.00	-2511.2	0.00	2511.26	5514.92	2757.46	13350.3	6685.11	0.99	-0.429	0.000	0.384
24.00	-44.92	-28.31	0.00	-2454.2	0.00	2454.29	5487.15	2743.57	13176.2	6597.93	1.18	-0.469	0.000	0.380
25.00	-44.54	-28.22	0.00	-2425.9	0.00	2425.98	5473.16	2736.58	13089.3	6554.42	1.28	-0.489	0.000	0.378
25.00	-44.54	-28.22	0.00	-2425.9	0.00	2425.98	4407.37	2203.68	10563.1	5289.42	1.28	-0.489	0.000	0.469
26.00	-44.20	-28.14	0.00	-2397.7	0.00	2397.76	4397.65	2198.83	10497.0	5256.32	1.39	-0.509	0.000	0.466
28.00	-43.54	-27.98	0.00	-2341.4	0.00	2341.48	4378.03	2189.01	10364.9	5190.16	1.61	-0.555	0.000	0.461
30.00	-42.88	-27.81	0.00	-2285.5	0.00	2285.53	4358.14	2179.07	10232.9	5124.08	1.85	-0.601	0.000	0.456
32.00	-42.23	-27.64	0.00	-2229.9	0.00	2229.91	4338.00	2169.00	10101.1	5058.08	2.11	-0.646	0.000	0.451
34.00	-41.58	-27.46	0.00	-2174.6	0.00	2174.64	4317.58	2158.79	9969.51	4992.17	2.40	-0.692	0.000	0.445
36.00	-40.94	-27.29	0.00	-2119.7	0.00	2119.71	4296.91	2148.46	9838.08	4926.35	2.70	-0.738	0.000	0.440
38.00	-40.30	-27.11	0.00	-2065.1	0.00	2065.13	4275.98	2137.99	9706.86	4860.65	3.02	-0.784	0.000	0.434
40.00	-39.67	-26.92	0.00	-2010.9	0.00	2010.91	4254.78	2127.39	9575.87	4795.05	3.35	-0.830	0.000	0.429
41.00	-39.35	-26.83	0.00	-1983.9	0.00	1983.99	4244.08	2122.04	9510.46	4762.30	3.53	-0.853	0.000	0.426
42.00	-38.77	-26.74	0.00	-1957.1	0.00	1957.16	4233.32	2116.66	9445.12	4729.58	3.71	-0.876	0.000	0.423
44.00	-37.61	-26.55	0.00	-1903.6	0.00	1903.68	4211.60	2105.80	9314.62	4664.23	4.09	-0.922	0.000	0.417
46.00	-36.47	-26.35	0.00	-1850.5	0.00	1850.58	4189.62	2094.81	9184.40	4599.03	4.49	-0.968	0.000	0.411
48.00	-35.33	-26.15	0.00	-1797.8	0.00	1797.89	4202.72	2101.36	9261.79	4637.78	4.90	-1.013	0.000	0.396
50.00	-34.71	-25.95	0.00	-1745.6	0.00	1745.60	4180.63	2090.32	9131.68	4572.63	5.34	-1.059	0.000	0.390
52.00	-34.10	-25.76	0.00	-1693.6	0.00	1693.69	4158.28	2079.14	9001.86	4507.62	5.79	-1.102	0.000	0.384
54.00	-33.50	-25.56	0.00	-1642.1	0.00	1642.18	4135.67	2067.83	8872.35	4442.77	6.26	-1.145	0.000	0.378
56.00	-32.90	-25.36	0.00	-1591.0	0.00	1591.07	4112.79	2056.39	8743.17	4378.08	6.75	-1.188	0.000	0.372
58.00	-32.30	-25.16	0.00	-1540.3	0.00	1540.35	4089.65	2044.83	8614.32	4313.56	7.26	-1.231	0.000	0.365
60.00	-31.71	-24.96	0.00	-1490.0	0.00	1490.03	4066.25	2033.13	8485.83	4249.22	7.78	-1.274	0.000	0.359
62.00	-31.13	-24.76	0.00	-1440.1	0.00	1440.11	4042.59	2021.29	8357.71	4185.07	8.33	-1.316	0.000	0.352
64.00	-30.55	-24.56	0.00	-1390.6	0.00	1390.60	4018.67	2009.33	8229.97	4121.10	8.89	-1.358	0.000	0.345
66.00	-29.97	-24.35	0.00	-1341.4	0.00	1341.49	3994.48	1997.24	8102.64	4057.34	9.47	-1.400	0.000	0.338
68.00	-29.40	-24.15	0.00	-1292.7	0.00	1292.78	3970.03	1985.02	7975.72	3993.79	10.06	-1.442	0.000	0.331
70.00	-28.84	-23.94	0.00	-1244.4	0.00	1244.49	3945.32	1972.66	7849.23	3930.45	10.68	-1.483	0.000	0.324
72.00	-28.28	-23.74	0.00	-1196.6	0.00	1196.60	3920.35	1960.17	7723.19	3867.33	11.31	-1.523	0.000	0.317
74.00	-27.72	-23.53	0.00	-1149.1	0.00	1149.12	3895.11	1947.56	7597.60	3804.45	11.95	-1.564	0.000	0.309
76.00	-27.17	-23.33	0.00	-1102.0	0.00	1102.06	3869.62	1934.81	7472.50	3741.80	12.62	-1.604	0.000	0.302
78.00	-26.63	-23.12	0.00	-1055.4	0.00	1055.40	3843.86	1921.93	7347.89	3679.40	13.30	-1.643	0.000	0.294
80.00	-26.09	-22.92	0.00	-1009.1	0.00	1009.16	3817.84	1908.92	7223.78	3617.26	13.99	-1.682	0.000	0.286
82.00	-25.56	-22.71	0.00	-963.33	0.00	963.33	3791.55	1895.78	7100.20	3555.38	14.71	-1.720	0.000	0.278
84.00	-25.03	-22.50	0.00	-917.92	0.00	917.92	3765.01	1882.50	6977.16	3493.76	15.44	-1.757	0.000	0.270
85.00	-24.77	-22.39	0.00	-895.42	0.00	895.42	3751.64	1875.82	6915.84	3463.06	15.81	-1.776	0.000	0.265
86.00	-24.32	-22.29	0.00	-873.03	0.00	873.03	3738.20	1869.10	6854.67	3432.43	16.18	-1.795	0.000	0.261

Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 18

88.00	-23.43	-22.07	0.00	-828.45	0.00	828.45	3711.13	1855.57	6732.75	3371.38	16.94	-1.831	0.000	0.252
90.00	-22.56	-21.84	0.00	-784.32	0.00	784.32	3683.80	1841.90	6611.41	3310.62	17.72	-1.866	0.000	0.243
91.00	-22.13	-21.73	0.00	-762.48	0.00	762.48	2899.19	1449.59	5264.94	2636.38	18.11	-1.884	0.000	0.297
92.00	-21.90	-21.63	0.00	-740.74	0.00	740.74	2889.87	1444.93	5219.87	2613.82	18.51	-1.901	0.000	0.291
94.00	-21.46	-21.43	0.00	-697.48	0.00	697.48	2871.03	1435.52	5129.93	2568.78	19.31	-1.939	0.000	0.279
96.00	-21.02	-21.22	0.00	-654.63	0.00	654.63	2851.93	1425.97	5040.25	2523.87	20.13	-1.977	0.000	0.267
98.00	-20.59	-21.01	0.00	-612.19	0.00	612.19	2832.57	1416.29	4950.87	2479.11	20.97	-2.013	0.000	0.254
100.00	-20.16	-20.81	0.00	-570.17	0.00	570.17	2812.95	1406.48	4861.78	2434.50	21.82	-2.048	0.000	0.242
102.00	-19.74	-20.60	0.00	-528.55	0.00	528.55	2793.07	1396.53	4773.01	2390.05	22.68	-2.082	0.000	0.228
104.00	-19.32	-20.40	0.00	-487.35	0.00	487.35	2772.92	1386.46	4684.57	2345.77	23.56	-2.114	0.000	0.215
106.00	-18.91	-20.19	0.00	-446.55	0.00	446.55	2752.51	1376.26	4596.48	2301.65	24.46	-2.144	0.000	0.201
108.00	-18.50	-19.99	0.00	-406.17	0.00	406.17	2731.84	1365.92	4508.75	2257.73	25.36	-2.173	0.000	0.187
110.00	-18.09	-19.79	0.00	-366.19	0.00	366.19	2710.91	1355.45	4421.40	2213.98	26.28	-2.200	0.000	0.172
112.00	-17.69	-19.58	0.00	-326.62	0.00	326.62	2689.71	1344.86	4334.44	2170.44	27.21	-2.225	0.000	0.157
114.00	-17.29	-19.38	0.00	-287.45	0.00	287.45	2668.26	1334.13	4247.89	2127.10	28.14	-2.248	0.000	0.142
116.00	-16.90	-19.18	0.00	-248.70	0.00	248.70	2646.54	1323.27	4161.76	2083.97	29.09	-2.269	0.000	0.126
118.00	-16.52	-18.98	0.00	-210.34	0.00	210.34	2624.55	1312.28	4076.08	2041.07	30.05	-2.288	0.000	0.110
120.00	-11.47	-13.51	0.00	-172.39	0.00	172.39	2602.31	1301.16	3990.84	1998.39	31.01	-2.304	0.000	0.091
122.00	-11.11	-13.31	0.00	-145.38	0.00	145.38	2579.81	1289.90	3906.08	1955.94	31.98	-2.318	0.000	0.079
124.00	-10.76	-13.11	0.00	-118.76	0.00	118.76	2557.04	1278.52	3821.80	1913.74	32.95	-2.330	0.000	0.066
126.00	-10.41	-12.91	0.00	-92.54	0.00	92.54	2534.01	1267.00	3738.03	1871.79	33.93	-2.340	0.000	0.054
128.00	-10.07	-12.71	0.00	-66.72	0.00	66.72	2510.72	1255.36	3654.77	1830.10	34.91	-2.348	0.000	0.041
130.00	-5.85	-6.08	0.00	-41.29	0.00	41.29	2487.16	1243.58	3572.03	1788.67	35.90	-2.353	0.000	0.025
132.00	-5.32	-5.88	0.00	-29.13	0.00	29.13	2463.34	1231.67	3489.85	1747.52	36.88	-2.357	0.000	0.019
134.00	-4.80	-5.67	0.00	-17.37	0.00	17.37	2439.27	1219.63	3408.23	1706.65	37.87	-2.359	0.000	0.012
135.00	-4.54	-5.57	0.00	-11.70	0.00	11.70	1824.83	912.42	2579.10	1291.47	38.36	-2.360	0.000	0.012
136.00	-4.42	-5.48	0.00	-6.13	0.00	6.13	1817.10	908.55	2550.48	1277.14	38.86	-2.361	0.000	0.007
137.00	-0.31	-0.28	0.00	-0.65	0.00	0.65	1809.31	904.66	2521.92	1262.84	39.35	-2.361	0.000	0.001
138.00	-0.21	-0.19	0.00	-0.37	0.00	0.37	1801.45	900.73	2493.42	1248.56	39.85	-2.361	0.000	0.000
140.00	0.00	-0.18	0.00	0.00	0.00	0.00	1785.54	892.77	2436.62	1220.12	40.84	-2.361	0.000	0.000

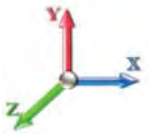
Wind Loading - Shaft

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 19	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	17.366	19.10	461.21	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	17.366	19.10	457.85	0.650	0.000	2.00	10.876	7.07	216.1	0.0	542.9
4.00		1.00	0.70	17.366	19.10	454.48	0.650	0.000	2.00	10.796	7.02	214.5	0.0	538.9
6.00		1.00	0.70	17.366	19.10	451.12	0.650	0.000	2.00	10.717	6.97	212.9	0.0	534.9
8.00		1.00	0.70	17.366	19.10	447.76	0.650	0.000	2.00	10.637	6.91	211.3	0.0	530.9
10.00		1.00	0.70	17.366	19.10	444.39	0.650	0.000	2.00	10.558	6.86	209.7	0.0	526.9
12.00		1.00	0.70	17.366	19.10	441.03	0.650	0.000	2.00	10.478	6.81	208.2	0.0	522.9
14.00		1.00	0.70	17.366	19.10	437.67	0.650	0.000	2.00	10.398	6.76	206.6	0.0	518.9
16.00		1.00	0.70	17.366	19.10	434.30	0.650	0.000	2.00	10.319	6.71	205.0	0.0	514.8
18.00		1.00	0.70	17.366	19.10	430.94	0.650	0.000	2.00	10.239	6.66	203.4	0.0	510.8
20.00		1.00	0.70	17.366	19.10	427.58	0.650	0.000	2.00	10.160	6.60	201.8	0.0	506.8
22.00		1.00	0.70	17.366	19.10	424.21	0.650	0.000	2.00	10.080	6.55	200.3	0.0	502.8
24.00		1.00	0.70	17.366	19.10	420.85	0.650	0.000	2.00	10.000	6.50	198.7	0.0	498.8
25.00	Top - Section 1	1.00	0.70	17.366	19.10	419.17	0.650	0.000	1.00	4.970	3.23	98.7	0.0	247.9
26.00		1.00	0.70	17.366	19.10	417.49	0.650	0.000	1.00	4.950	3.22	98.4	0.0	211.9
28.00		1.00	0.70	17.366	19.10	414.12	0.650	0.000	2.00	9.841	6.40	195.5	0.0	421.2
30.00		1.00	0.71	17.544	19.30	412.86	0.650	0.000	2.00	9.762	6.35	195.9	0.0	417.8
32.00		1.00	0.72	17.861	19.65	413.16	0.650	0.000	2.00	9.682	6.29	197.8	0.0	414.3
34.00		1.00	0.73	18.163	19.98	413.20	0.650	0.000	2.00	9.602	6.24	199.5	0.0	410.9
36.00		1.00	0.74	18.454	20.30	413.03	0.650	0.000	2.00	9.523	6.19	201.0	0.0	407.5
38.00		1.00	0.76	18.734	20.61	412.65	0.650	0.000	2.00	9.443	6.14	202.4	0.0	404.0
40.00		1.00	0.77	19.003	20.90	412.09	0.650	0.000	2.00	9.364	6.09	203.6	0.0	400.6
41.00	Bot - Section 3	1.00	0.77	19.135	21.05	411.75	0.650	0.000	1.00	4.652	3.02	101.8	0.0	199.0
42.00		1.00	0.78	19.264	21.19	411.37	0.650	0.000	1.00	4.696	3.05	103.5	0.0	399.1
44.00		1.00	0.79	19.516	21.47	410.48	0.650	0.000	2.00	9.331	6.07	208.3	0.0	793.0
46.00		1.00	0.80	19.760	21.74	409.45	0.650	0.000	2.00	9.252	6.01	209.1	0.0	786.1
48.00	Top - Section 2	1.00	0.81	19.996	22.00	408.29	0.650	0.000	2.00	9.172	5.96	209.8	0.0	779.3
50.00		1.00	0.82	20.226	22.25	412.78	0.650	0.000	2.00	9.093	5.91	210.4	0.0	388.9
52.00		1.00	0.82	20.450	22.49	411.41	0.650	0.000	2.00	9.013	5.86	210.9	0.0	385.5
54.00		1.00	0.83	20.667	22.73	409.92	0.650	0.000	2.00	8.933	5.81	211.2	0.0	382.1
56.00		1.00	0.84	20.879	22.97	408.33	0.650	0.000	2.00	8.854	5.75	211.5	0.0	378.6
58.00		1.00	0.85	21.086	23.19	406.64	0.650	0.000	2.00	8.774	5.70	211.7	0.0	375.2
60.00		1.00	0.86	21.288	23.42	404.86	0.650	0.000	2.00	8.694	5.65	211.7	0.0	371.8
62.00		1.00	0.87	21.485	23.63	402.99	0.650	0.000	2.00	8.615	5.60	211.7	0.0	368.4
64.00		1.00	0.87	21.678	23.85	401.04	0.650	0.000	2.00	8.535	5.55	211.7	0.0	364.9
66.00		1.00	0.88	21.866	24.05	399.00	0.650	0.000	2.00	8.456	5.50	211.5	0.0	361.5
68.00		1.00	0.89	22.051	24.26	396.89	0.650	0.000	2.00	8.376	5.44	211.3	0.0	358.1
70.00		1.00	0.90	22.231	24.45	394.71	0.650	0.000	2.00	8.296	5.39	211.0	0.0	354.6
72.00		1.00	0.90	22.409	24.65	392.46	0.650	0.000	2.00	8.217	5.34	210.6	0.0	351.2
74.00		1.00	0.91	22.582	24.84	390.14	0.650	0.000	2.00	8.137	5.29	210.2	0.0	347.8
76.00		1.00	0.92	22.753	25.03	387.76	0.650	0.000	2.00	8.058	5.24	209.7	0.0	344.4
78.00		1.00	0.92	22.920	25.21	385.32	0.650	0.000	2.00	7.978	5.19	209.2	0.0	340.9
80.00		1.00	0.93	23.084	25.39	382.82	0.650	0.000	2.00	7.898	5.13	208.6	0.0	337.5
82.00		1.00	0.94	23.246	25.57	380.27	0.650	0.000	2.00	7.819	5.08	207.9	0.0	334.1
84.00		1.00	0.94	23.404	25.74	377.66	0.650	0.000	2.00	7.739	5.03	207.2	0.0	330.6
85.00	Bot - Section 4	1.00	0.95	23.483	25.83	376.33	0.650	0.000	1.00	3.840	2.50	103.2	0.0	164.0
86.00		1.00	0.95	23.561	25.92	375.00	0.650	0.000	1.00	3.873	2.52	104.4	0.0	301.2

Wind Loading - Shaft

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 20

88.00		1.00	0.96	23.714	26.09	372.29	0.650	0.000	2.00	7.686	5.00	208.5	0.0	597.8
90.00		1.00	0.96	23.865	26.25	369.53	0.650	0.000	2.00	7.606	4.94	207.7	0.0	591.5
91.00	Top - Section 3	1.00	0.96	23.940	26.33	368.13	0.650	0.000	1.00	3.773	2.45	103.3	0.0	293.4
92.00		1.00	0.97	24.014	26.42	371.98	0.650	0.000	1.00	3.753	2.44	103.1	0.0	133.8
94.00		1.00	0.97	24.160	26.58	369.14	0.650	0.000	2.00	7.447	4.84	205.8	0.0	265.4
96.00		1.00	0.98	24.304	26.73	366.26	0.650	0.000	2.00	7.367	4.79	204.8	0.0	262.6
98.00		1.00	0.99	24.447	26.89	363.34	0.650	0.000	2.00	7.288	4.74	203.8	0.0	259.7
100.00		1.00	0.99	24.587	27.05	360.38	0.650	0.000	2.00	7.208	4.69	202.7	0.0	256.9
102.00		1.00	1.00	24.725	27.20	357.38	0.650	0.000	2.00	7.129	4.63	201.6	0.0	254.0
104.00		1.00	1.00	24.861	27.35	354.34	0.650	0.000	2.00	7.049	4.58	200.5	0.0	251.1
106.00		1.00	1.01	24.995	27.49	351.26	0.650	0.000	2.00	6.969	4.53	199.3	0.0	248.3
108.00		1.00	1.01	25.128	27.64	348.14	0.650	0.000	2.00	6.890	4.48	198.1	0.0	245.4
110.00		1.00	1.02	25.259	27.78	344.99	0.650	0.000	2.00	6.810	4.43	196.8	0.0	242.6
112.00		1.00	1.02	25.388	27.93	341.81	0.650	0.000	2.00	6.731	4.37	195.5	0.0	239.7
114.00		1.00	1.03	25.516	28.07	338.59	0.650	0.000	2.00	6.651	4.32	194.1	0.0	236.8
116.00		1.00	1.03	25.642	28.21	335.34	0.650	0.000	2.00	6.571	4.27	192.8	0.0	234.0
118.00		1.00	1.04	25.766	28.34	332.05	0.650	0.000	2.00	6.492	4.22	191.4	0.0	231.1
120.00	Appurtenance(s)	1.00	1.04	25.889	28.48	328.74	0.650	0.000	2.00	6.412	4.17	189.9	0.0	228.3
122.00		1.00	1.05	26.011	28.61	325.39	0.650	0.000	2.00	6.333	4.12	188.4	0.0	225.4
124.00		1.00	1.05	26.131	28.74	322.02	0.650	0.000	2.00	6.253	4.06	186.9	0.0	222.6
126.00		1.00	1.06	26.250	28.87	318.61	0.650	0.000	2.00	6.173	4.01	185.4	0.0	219.7
128.00		1.00	1.06	26.367	29.00	315.18	0.650	0.000	2.00	6.094	3.96	183.8	0.0	216.8
130.00	Bot - Section 5	1.00	1.07	26.483	29.13	311.72	0.650	0.000	2.00	6.014	3.91	182.2	0.0	214.0
132.00		1.00	1.07	26.598	29.26	308.24	0.650	0.000	2.00	6.019	3.91	183.2	0.0	382.8
134.00		1.00	1.08	26.712	29.38	304.72	0.650	0.000	2.00	5.940	3.86	181.5	0.0	377.6
135.00	Top - Section 4	1.00	1.08	26.768	29.44	302.96	0.650	0.000	1.00	2.940	1.91	90.0	0.0	186.9
136.00		1.00	1.08	26.824	29.51	305.63	0.650	0.000	1.00	2.920	1.90	89.6	0.0	83.2
137.00	Appurtenance(s)	1.00	1.08	26.880	29.57	303.85	0.650	0.000	1.00	2.900	1.89	89.2	0.0	82.7
138.00		1.00	1.09	26.936	29.63	302.07	0.650	0.000	1.00	2.880	1.87	88.8	0.0	82.1
140.00		1.00	1.09	27.046	29.75	298.49	0.650	0.000	2.00	5.701	3.71	176.4	0.0	162.5
								Totals:	**140.00**			**14,134.7**		**27,012.8**

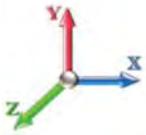
Discrete Appurtenance Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	137.00	Antel LPA-80063/6CF	2	26.880	29.568	0.70	0.75	13.54	48.60	0.000	0.000	640.37	0.00	0.00
2	137.00	B5/B13 RRHBR04C	3	26.880	29.568	0.50	0.75	2.79	189.81	0.000	0.000	131.94	0.00	0.00
3	137.00	B2/B66A RRHBR049	3	26.880	29.568	0.50	0.75	2.83	228.15	0.000	0.000	134.08	0.00	0.00
4	137.00	MT6407-77A	3	26.880	29.568	0.52	0.75	7.39	214.38	0.000	0.000	349.46	0.00	0.00
5	137.00	CBC78T-DS-43	3	26.880	29.568	0.50	0.75	0.56	28.08	0.000	0.000	26.39	0.00	0.00
6	137.00	RCMDC-6627-PF-48	1	26.880	29.568	0.50	0.75	2.04	28.80	0.000	0.000	96.52	0.00	0.00
7	137.00	JAHH-65B-R3B	6	26.880	29.568	0.62	0.75	34.03	341.82	0.000	0.000	1609.73	0.00	0.00
8	137.00	(3) HR w/ Double V-Brace	1	26.880	29.568	1.00	1.00	15.50	585.00	0.000	0.000	733.29	0.00	0.00
9	137.00	(3) Stabilizer Kit (4' FW)	1	26.880	29.568	1.00	1.00	3.70	126.00	0.000	0.000	175.04	0.00	0.00
10	137.00	Low Profile Platform	1	26.880	29.568	1.00	1.00	22.00	1350.00	0.000	0.000	1040.80	0.00	0.00
11	130.00	Powerwave LGP21901 -	6	26.483	29.132	0.50	0.75	5.04	167.40	0.000	0.000	234.69	0.00	0.00
12	130.00	RRUS 4449 B5/B12	3	26.483	29.132	0.50	0.75	2.97	191.70	0.000	0.000	138.42	0.00	0.00
13	130.00	RRUS 8843 B2 B66A	3	26.483	29.132	0.50	0.75	2.47	194.40	0.000	0.000	115.24	0.00	0.00
14	130.00	LGP17201	6	26.483	29.132	0.50	0.75	5.88	54.00	0.000	0.000	274.03	0.00	0.00
15	130.00	HRK12 (Handrail Kit)	1	26.483	29.132	1.00	1.00	10.00	235.55	0.000	0.000	466.10	0.00	0.00
16	130.00	Powerwave LGP21401 -	6	26.483	29.132	0.50	0.75	3.89	94.50	0.000	0.000	181.28	0.00	0.00
17	130.00	15'x2.875"mount pipe	3	26.483	29.132	1.00	1.00	12.93	234.90	0.000	0.000	602.67	0.00	0.00
18	130.00	7770.00	6	26.483	29.132	0.55	0.75	18.07	145.80	0.000	0.000	842.13	0.00	0.00
19	130.00	DMP65R-BU8DA	3	26.483	29.132	0.54	0.75	28.95	258.39	0.000	0.000	1349.35	0.00	0.00
20	130.00	DC6-48-60-18-8F	1	26.483	29.132	0.50	0.75	0.65	29.52	0.000	0.000	30.45	0.00	0.00
21	130.00	Low Profile Platform	1	26.483	29.132	1.00	1.00	22.00	1350.00	0.000	0.000	1025.43	0.00	0.00
22	130.00	HPA-65R-BU8AA	3	26.483	29.132	0.65	0.75	21.73	145.80	0.000	0.000	1012.85	0.00	0.00
23	120.00	4480 Radio	3	25.889	28.478	0.50	0.75	4.30	251.10	0.000	0.000	195.76	0.00	0.00
24	120.00	4460 Radio	3	25.889	28.478	0.50	0.75	4.30	280.80	0.000	0.000	195.76	0.00	0.00
25	120.00	LP-RMQP-4096-HK Plat	1	25.889	28.478	1.00	1.00	51.70	2402.10	0.000	0.000	2355.71	0.00	0.00
26	120.00	AIR6449 B41	3	25.889	28.478	0.53	0.75	9.03	278.10	0.000	0.000	411.26	0.00	0.00
27	120.00	APXVAA4L24-43-U-NA20	3	25.889	28.478	0.54	0.75	32.79	331.56	0.000	0.000	1494.02	0.00	0.00
28	120.00	APX16DWV-16DWVS-E-A	3	25.889	28.478	0.46	0.75	9.22	109.89	0.000	0.000	420.15	0.00	0.00
							Totals:		**9,896.15**			**16,282.92**		

Total Applied Force Summary

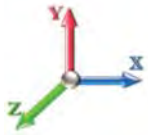
Structure:	CT11560-A-SBA		**Code:**	EIA/TIA-222-G	9/10/2021
Site Name:	Sterling 6, CT		**Exposure:**	B	
Height:	140.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 22

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		216.07	558.33	0.00	0.00
4.00		214.49	576.80	0.00	0.00
6.00		212.91	595.26	0.00	0.00
8.00		211.33	591.26	0.00	0.00
10.00		209.75	587.26	0.00	0.00
12.00		208.17	583.26	0.00	0.00
14.00		206.58	579.26	0.00	0.00
16.00		205.00	575.26	0.00	0.00
18.00		203.42	571.26	0.00	0.00
20.00		201.84	567.26	0.00	0.00
22.00		200.26	563.26	0.00	0.00
24.00		198.68	559.26	0.00	0.00
25.00		98.75	278.13	0.00	0.00
26.00		98.35	242.08	0.00	0.00
28.00		195.51	481.59	0.00	0.00
30.00		195.92	478.16	0.00	0.00
32.00		197.83	474.73	0.00	0.00
34.00		199.53	471.30	0.00	0.00
36.00		201.04	467.87	0.00	0.00
38.00		202.38	464.45	0.00	0.00
40.00		203.56	461.02	0.00	0.00
41.00		101.83	229.22	0.00	0.00
42.00		103.48	429.26	0.00	0.00
44.00		208.33	853.38	0.00	0.00
46.00		209.14	846.52	0.00	0.00
48.00		209.82	839.66	0.00	0.00
50.00		210.39	449.34	0.00	0.00
52.00		210.85	445.91	0.00	0.00
54.00		211.21	442.48	0.00	0.00
56.00		211.48	439.05	0.00	0.00
58.00		211.65	435.62	0.00	0.00
60.00		211.74	432.20	0.00	0.00
62.00		211.74	428.77	0.00	0.00
64.00		211.67	425.34	0.00	0.00
66.00		211.52	421.91	0.00	0.00
68.00		211.29	418.48	0.00	0.00
70.00		211.00	415.05	0.00	0.00
72.00		210.64	411.62	0.00	0.00
74.00		210.22	408.19	0.00	0.00
76.00		209.73	404.76	0.00	0.00
78.00		209.19	401.33	0.00	0.00
80.00		208.59	397.91	0.00	0.00
82.00		207.93	394.48	0.00	0.00
84.00		207.22	391.05	0.00	0.00
85.00		103.15	194.24	0.00	0.00
86.00		104.38	331.45	0.00	0.00

Total Applied Force Summary

Structure:	CT11560-A-SBA		**Code:**	EIA/TIA-222-G	9/10/2021
Site Name:	Sterling 6, CT		**Exposure:**	B	
Height:	140.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 23

Tower Engineering Solutions

88.00		208.51	658.19	0.00	0.00
90.00		207.66	651.90	0.00	0.00
91.00		103.34	323.59	0.00	0.00
92.00		103.11	163.99	0.00	0.00
94.00		205.83	325.83	0.00	0.00
96.00		204.85	322.97	0.00	0.00
98.00		203.82	320.12	0.00	0.00
100.00		202.75	317.26	0.00	0.00
102.00		201.63	314.40	0.00	0.00
104.00		200.48	311.54	0.00	0.00
106.00		199.29	308.69	0.00	0.00
108.00		198.06	305.83	0.00	0.00
110.00		196.79	302.97	0.00	0.00
112.00		195.48	300.11	0.00	0.00
114.00		194.14	297.26	0.00	0.00
116.00		192.77	294.40	0.00	0.00
118.00		191.36	291.54	0.00	0.00
120.00	(16) attachments	5262.58	3942.23	0.00	0.00
122.00		188.43	272.33	0.00	0.00
124.00		186.93	269.47	0.00	0.00
126.00		185.38	266.61	0.00	0.00
128.00		183.81	263.75	0.00	0.00
130.00	(42) attachments	6454.86	3362.86	0.00	0.00
132.00		183.15	403.47	0.00	0.00
134.00		181.50	398.33	0.00	0.00
135.00		90.03	197.23	0.00	0.00
136.00		89.61	93.60	0.00	0.00
137.00	(24) attachments	5026.79	3233.67	0.00	0.00
138.00		88.75	82.10	0.00	0.00
140.00		176.38	162.50	0.00	0.00
	Totals:	**30,417.66**	**40,773.00**	**0.00**	**0.00**

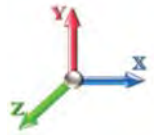
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 24	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
4.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.008	0.000	17.366	0.00	1.80
4.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.008	0.000	17.366	0.00	0.07
6.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	3.60
6.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.14
8.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	3.60
8.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.14
10.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	3.60
10.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.14
12.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	3.60
12.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.14
14.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	3.60
14.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.14
16.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	3.60
16.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.14
18.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	3.60
18.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.14
20.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	17.366	0.00	3.60
20.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	17.366	0.00	0.14
22.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	17.366	0.00	3.60
22.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	17.366	0.00	0.14
24.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	17.366	0.00	3.60
24.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	17.366	0.00	0.14
25.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.017	0.000	17.366	0.00	1.80
25.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.017	0.000	17.366	0.00	0.07
26.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.017	0.000	17.366	0.00	1.80
26.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.017	0.000	17.366	0.00	0.07
28.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	17.366	0.00	3.60
28.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	17.366	0.00	0.14
30.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	17.544	0.00	3.60
30.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	17.544	0.00	0.14
32.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	17.861	0.00	3.60
32.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	17.861	0.00	0.14
34.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	18.163	0.00	3.60
34.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	18.163	0.00	0.14
36.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	18.454	0.00	3.60
36.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	18.454	0.00	0.14
38.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	18.734	0.00	3.60
38.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	18.734	0.00	0.14
40.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	19.003	0.00	3.60
40.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	19.003	0.00	0.14
41.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.018	0.000	19.135	0.00	1.80
41.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.018	0.000	19.135	0.00	0.07
42.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.018	0.000	19.264	0.00	1.80
42.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.018	0.000	19.264	0.00	0.07
44.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	19.516	0.00	3.60
44.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	19.516	0.00	0.14
46.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	19.760	0.00	3.60

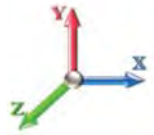
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 25	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	19.760	0.00	0.14
48.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	19.996	0.00	3.60
48.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	19.996	0.00	0.14
50.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	20.226	0.00	3.60
50.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	20.226	0.00	0.14
52.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	20.450	0.00	3.60
52.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	20.450	0.00	0.14
54.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	20.667	0.00	3.60
54.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	20.667	0.00	0.14
56.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	20.879	0.00	3.60
56.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	20.879	0.00	0.14
58.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	21.086	0.00	3.60
58.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	21.086	0.00	0.14
60.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	21.288	0.00	3.60
60.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	21.288	0.00	0.14
62.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	21.485	0.00	3.60
62.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	21.485	0.00	0.14
64.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	21.678	0.00	3.60
64.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	21.678	0.00	0.14
66.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	21.866	0.00	3.60
66.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	21.866	0.00	0.14
68.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	22.051	0.00	3.60
68.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	22.051	0.00	0.14
70.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	22.231	0.00	3.60
70.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	22.231	0.00	0.14
72.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	22.409	0.00	3.60
72.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	22.409	0.00	0.14
74.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	22.582	0.00	3.60
74.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	22.582	0.00	0.14
76.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	22.753	0.00	3.60
76.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	22.753	0.00	0.14
78.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	22.920	0.00	3.60
78.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	22.920	0.00	0.14
80.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	23.084	0.00	3.60
80.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	23.084	0.00	0.14
82.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	23.246	0.00	3.60
82.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	23.246	0.00	0.14
84.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	23.404	0.00	3.60
84.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	23.404	0.00	0.14
85.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	23.483	0.00	1.80
85.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	23.483	0.00	0.07
86.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	23.561	0.00	1.80
86.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	23.561	0.00	0.07
88.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	23.714	0.00	3.60
88.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	23.714	0.00	0.14
90.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	23.865	0.00	3.60
90.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	23.865	0.00	0.14

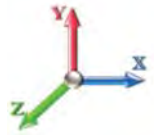
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 26	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
91.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	23.940	0.00	1.80
91.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	23.940	0.00	0.07
92.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	24.014	0.00	1.80
92.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	24.014	0.00	0.07
94.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	24.160	0.00	3.60
94.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	24.160	0.00	0.14
96.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	24.304	0.00	3.60
96.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	24.304	0.00	0.14
98.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	24.447	0.00	3.60
98.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	24.447	0.00	0.14
100.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	24.587	0.00	3.60
100.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	24.587	0.00	0.14
102.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	24.725	0.00	3.60
102.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	24.725	0.00	0.14
104.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	24.861	0.00	3.60
104.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	24.861	0.00	0.14
106.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	24.995	0.00	3.60
106.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	24.995	0.00	0.14
108.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	25.128	0.00	3.60
108.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	25.128	0.00	0.14
110.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	25.259	0.00	3.60
110.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	25.259	0.00	0.14
112.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.025	0.000	25.388	0.00	3.60
112.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	25.388	0.00	0.14
114.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.025	0.000	25.516	0.00	3.60
114.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	25.516	0.00	0.14
116.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.025	0.000	25.642	0.00	3.60
116.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	25.642	0.00	0.14
118.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.026	0.000	25.766	0.00	3.60
118.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	25.766	0.00	0.14
120.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.026	0.000	25.889	0.00	3.60
120.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	25.889	0.00	0.14
122.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.026	0.000	26.011	0.00	3.60
122.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	26.011	0.00	0.14
124.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.027	0.000	26.131	0.00	3.60
124.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	26.131	0.00	0.14
126.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.027	0.000	26.250	0.00	3.60
126.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	26.250	0.00	0.14
128.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.027	0.000	26.367	0.00	3.60
128.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	26.367	0.00	0.14
130.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.028	0.000	26.483	0.00	3.60
130.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.028	0.000	26.483	0.00	0.14
										Totals:	**0.0**	**237.7**

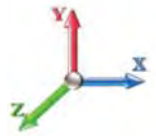
Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 27	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-40.76	-30.43	0.00	-3141.4	0.00	3141.48	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.417
2.00	-40.18	-30.24	0.00	-3080.6	0.00	3080.62	5778.21	2889.11	15113.2	7567.86	0.01	-0.038	0.000	0.414
4.00	-39.59	-30.05	0.00	-3020.1	0.00	3020.14	5753.06	2876.53	14935.4	7478.80	0.03	-0.077	0.000	0.411
6.00	-38.97	-29.87	0.00	-2960.0	0.00	2960.03	5727.65	2863.83	14757.8	7389.90	0.07	-0.115	0.000	0.407
8.00	-38.36	-29.68	0.00	-2900.3	0.00	2900.30	5701.98	2850.99	14580.6	7301.16	0.13	-0.154	0.000	0.404
10.00	-37.75	-29.49	0.00	-2840.9	0.00	2840.94	5676.04	2838.02	14403.7	7212.59	0.20	-0.193	0.000	0.401
12.00	-37.15	-29.31	0.00	-2781.9	0.00	2781.96	5649.84	2824.92	14227.2	7124.20	0.29	-0.232	0.000	0.397
14.00	-36.55	-29.12	0.00	-2723.3	0.00	2723.35	5623.38	2811.69	14051.0	7035.98	0.40	-0.270	0.000	0.394
16.00	-35.96	-28.94	0.00	-2665.1	0.00	2665.10	5596.66	2798.33	13875.2	6947.96	0.52	-0.309	0.000	0.390
18.00	-35.37	-28.76	0.00	-2607.2	0.00	2607.22	5569.67	2784.84	13699.9	6860.14	0.66	-0.348	0.000	0.387
20.00	-34.78	-28.58	0.00	-2549.7	0.00	2549.71	5542.43	2771.21	13524.9	6772.52	0.81	-0.387	0.000	0.383
22.00	-34.20	-28.39	0.00	-2492.5	0.00	2492.56	5514.92	2757.46	13350.3	6685.11	0.99	-0.427	0.000	0.379
24.00	-33.63	-28.21	0.00	-2435.7	0.00	2435.77	5487.15	2743.57	13176.2	6597.93	1.17	-0.466	0.000	0.375
25.00	-33.34	-28.12	0.00	-2407.5	0.00	2407.56	5473.16	2736.58	13089.3	6554.42	1.27	-0.485	0.000	0.374
25.00	-33.34	-28.12	0.00	-2407.5	0.00	2407.56	4407.37	2203.68	10563.1	5289.42	1.27	-0.485	0.000	0.463
26.00	-33.09	-28.04	0.00	-2379.4	0.00	2379.44	4397.65	2198.83	10497.0	5256.32	1.38	-0.505	0.000	0.460
28.00	-32.59	-27.86	0.00	-2323.3	0.00	2323.37	4378.03	2189.01	10364.9	5190.16	1.60	-0.551	0.000	0.455
30.00	-32.09	-27.69	0.00	-2267.6	0.00	2267.64	4358.14	2179.07	10232.9	5124.08	1.84	-0.596	0.000	0.450
32.00	-31.59	-27.51	0.00	-2212.2	0.00	2212.26	4338.00	2169.00	10101.1	5058.08	2.10	-0.642	0.000	0.445
34.00	-31.10	-27.33	0.00	-2157.2	0.00	2157.24	4317.58	2158.79	9969.51	4992.17	2.38	-0.687	0.000	0.439
36.00	-30.62	-27.15	0.00	-2102.5	0.00	2102.58	4296.91	2148.46	9838.08	4926.35	2.68	-0.733	0.000	0.434
38.00	-30.13	-26.96	0.00	-2048.2	0.00	2048.29	4275.98	2137.99	9706.86	4860.65	2.99	-0.779	0.000	0.429
40.00	-29.66	-26.77	0.00	-1994.3	0.00	1994.36	4254.78	2127.39	9575.87	4795.05	3.33	-0.824	0.000	0.423
41.00	-29.42	-26.68	0.00	-1967.5	0.00	1967.59	4244.08	2122.04	9510.46	4762.30	3.51	-0.847	0.000	0.420
42.00	-28.98	-26.59	0.00	-1940.9	0.00	1940.91	4233.32	2116.66	9445.12	4729.58	3.69	-0.870	0.000	0.417
44.00	-28.11	-26.39	0.00	-1887.7	0.00	1887.74	4211.60	2105.80	9314.62	4664.23	4.06	-0.915	0.000	0.412
46.00	-27.24	-26.18	0.00	-1834.9	0.00	1834.97	4189.62	2094.81	9184.40	4599.03	4.45	-0.960	0.000	0.406
48.00	-26.39	-25.98	0.00	-1782.6	0.00	1782.60	4202.72	2101.36	9261.79	4637.78	4.87	-1.006	0.000	0.391
50.00	-25.92	-25.78	0.00	-1730.6	0.00	1730.64	4180.63	2090.32	9131.68	4572.63	5.30	-1.051	0.000	0.385
52.00	-25.46	-25.58	0.00	-1679.0	0.00	1679.08	4158.28	2079.14	9001.86	4507.62	5.75	-1.094	0.000	0.379
54.00	-25.00	-25.38	0.00	-1627.9	0.00	1627.91	4135.67	2067.83	8872.35	4442.77	6.22	-1.137	0.000	0.373
56.00	-24.55	-25.18	0.00	-1577.1	0.00	1577.15	4112.79	2056.39	8743.17	4378.08	6.70	-1.179	0.000	0.366
58.00	-24.10	-24.98	0.00	-1526.7	0.00	1526.79	4089.65	2044.83	8614.32	4313.56	7.21	-1.222	0.000	0.360
60.00	-23.65	-24.77	0.00	-1476.8	0.00	1476.84	4066.25	2033.13	8485.83	4249.22	7.73	-1.264	0.000	0.354
62.00	-23.21	-24.57	0.00	-1427.3	0.00	1427.30	4042.59	2021.29	8357.71	4185.07	8.27	-1.306	0.000	0.347
64.00	-22.77	-24.36	0.00	-1378.1	0.00	1378.16	4018.67	2009.33	8229.97	4121.10	8.82	-1.348	0.000	0.340
66.00	-22.34	-24.16	0.00	-1329.4	0.00	1329.43	3994.48	1997.24	8102.64	4057.34	9.40	-1.389	0.000	0.333
68.00	-21.91	-23.95	0.00	-1281.1	0.00	1281.12	3970.03	1985.02	7975.72	3993.79	9.99	-1.430	0.000	0.326
70.00	-21.48	-23.75	0.00	-1233.2	0.00	1233.22	3945.32	1972.66	7849.23	3930.45	10.60	-1.471	0.000	0.319
72.00	-21.06	-23.54	0.00	-1185.7	0.00	1185.72	3920.35	1960.17	7723.19	3867.33	11.22	-1.511	0.000	0.312
74.00	-20.64	-23.33	0.00	-1138.6	0.00	1138.65	3895.11	1947.56	7597.60	3804.45	11.86	-1.551	0.000	0.305
76.00	-20.23	-23.13	0.00	-1091.9	0.00	1091.98	3869.62	1934.81	7472.50	3741.80	12.52	-1.591	0.000	0.297
78.00	-19.82	-22.92	0.00	-1045.7	0.00	1045.73	3843.86	1921.93	7347.89	3679.40	13.20	-1.630	0.000	0.290
80.00	-19.41	-22.71	0.00	-999.89	0.00	999.89	3817.84	1908.92	7223.78	3617.26	13.89	-1.668	0.000	0.282
82.00	-19.01	-22.50	0.00	-954.47	0.00	954.47	3791.55	1895.78	7100.20	3555.38	14.60	-1.706	0.000	0.274
84.00	-18.61	-22.29	0.00	-909.46	0.00	909.46	3765.01	1882.50	6977.16	3493.76	15.32	-1.743	0.000	0.265
85.00	-18.41	-22.19	0.00	-887.17	0.00	887.17	3751.64	1875.82	6915.84	3463.06	15.69	-1.762	0.000	0.261
86.00	-18.07	-22.09	0.00	-864.98	0.00	864.98	3738.20	1869.10	6854.67	3432.43	16.06	-1.780	0.000	0.257

Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 28

88.00	-17.41	-21.87	0.00	-820.81	0.00	820.81	3711.13	1855.57	6732.75	3371.38	16.81	-1.816	0.000	0.248
90.00	-16.75	-21.65	0.00	-777.07	0.00	777.07	3683.80	1841.90	6611.41	3310.62	17.58	-1.851	0.000	0.239
91.00	-16.43	-21.54	0.00	-755.43	0.00	755.43	2899.19	1449.59	5264.94	2636.38	17.97	-1.868	0.000	0.292
92.00	-16.26	-21.44	0.00	-733.89	0.00	733.89	2889.87	1444.93	5219.87	2613.82	18.36	-1.885	0.000	0.287
94.00	-15.92	-21.23	0.00	-691.01	0.00	691.01	2871.03	1435.52	5129.93	2568.78	19.16	-1.924	0.000	0.275
96.00	-15.59	-21.03	0.00	-648.55	0.00	648.55	2851.93	1425.97	5040.25	2523.87	19.97	-1.961	0.000	0.263
98.00	-15.27	-20.82	0.00	-606.50	0.00	606.50	2832.57	1416.29	4950.87	2479.11	20.80	-1.996	0.000	0.250
100.00	-14.95	-20.62	0.00	-564.86	0.00	564.86	2812.95	1406.48	4861.78	2434.50	21.65	-2.031	0.000	0.238
102.00	-14.63	-20.41	0.00	-523.63	0.00	523.63	2793.07	1396.53	4773.01	2390.05	22.51	-2.064	0.000	0.225
104.00	-14.31	-20.21	0.00	-482.81	0.00	482.81	2772.92	1386.46	4684.57	2345.77	23.38	-2.096	0.000	0.211
106.00	-14.00	-20.00	0.00	-442.40	0.00	442.40	2752.51	1376.26	4596.48	2301.65	24.26	-2.126	0.000	0.198
108.00	-13.69	-19.80	0.00	-402.39	0.00	402.39	2731.84	1365.92	4508.75	2257.73	25.16	-2.155	0.000	0.183
110.00	-13.39	-19.60	0.00	-362.79	0.00	362.79	2710.91	1355.45	4421.40	2213.98	26.07	-2.182	0.000	0.169
112.00	-13.09	-19.40	0.00	-323.59	0.00	323.59	2689.71	1344.86	4334.44	2170.44	26.99	-2.207	0.000	0.154
114.00	-12.79	-19.20	0.00	-284.80	0.00	284.80	2668.26	1334.13	4247.89	2127.10	27.92	-2.230	0.000	0.139
116.00	-12.50	-19.00	0.00	-246.40	0.00	246.40	2646.54	1323.27	4161.76	2083.97	28.86	-2.250	0.000	0.123
118.00	-12.21	-18.80	0.00	-208.41	0.00	208.41	2624.55	1312.28	4076.08	2041.07	29.81	-2.269	0.000	0.107
120.00	-8.48	-13.39	0.00	-170.81	0.00	170.81	2602.31	1301.16	3990.84	1998.39	30.76	-2.285	0.000	0.089
122.00	-8.21	-13.19	0.00	-144.04	0.00	144.04	2579.81	1289.90	3906.08	1955.94	31.72	-2.298	0.000	0.077
124.00	-7.95	-12.99	0.00	-117.67	0.00	117.67	2557.04	1278.52	3821.80	1913.74	32.69	-2.310	0.000	0.065
126.00	-7.68	-12.80	0.00	-91.68	0.00	91.68	2534.01	1267.00	3738.03	1871.79	33.66	-2.320	0.000	0.052
128.00	-7.43	-12.60	0.00	-66.09	0.00	66.09	2510.72	1255.36	3654.77	1830.10	34.63	-2.328	0.000	0.039
130.00	-4.33	-6.02	0.00	-40.88	0.00	40.88	2487.16	1243.58	3572.03	1788.67	35.61	-2.333	0.000	0.025
132.00	-3.93	-5.82	0.00	-28.85	0.00	28.85	2463.34	1231.67	3489.85	1747.52	36.59	-2.337	0.000	0.018
134.00	-3.54	-5.62	0.00	-17.21	0.00	17.21	2439.27	1219.63	3408.23	1706.65	37.56	-2.339	0.000	0.012
135.00	-3.35	-5.52	0.00	-11.59	0.00	11.59	1824.83	912.42	2579.10	1291.47	38.05	-2.340	0.000	0.011
136.00	-3.26	-5.43	0.00	-6.07	0.00	6.07	1817.10	908.55	2550.48	1277.14	38.55	-2.341	0.000	0.007
137.00	-0.23	-0.27	0.00	-0.64	0.00	0.64	1809.31	904.66	2521.92	1262.84	39.04	-2.341	0.000	0.001
138.00	-0.16	-0.18	0.00	-0.37	0.00	0.37	1801.45	900.73	2493.42	1248.56	39.53	-2.341	0.000	0.000
140.00	0.00	-0.18	0.00	0.00	0.00	0.00	1785.54	892.77	2436.62	1220.12	40.51	-2.341	0.000	0.000

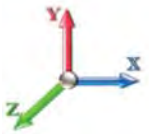
Wind Loading - Shaft

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 29	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	4.256	4.68	0.00	1.200	1.057	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	4.256	4.68	0.00	1.200	1.180	2.00	11.269	13.52	63.3	192.9	916.7
4.00		1.00	0.70	4.256	4.68	0.00	1.200	1.242	2.00	11.210	13.45	63.0	201.7	920.2
6.00		1.00	0.70	4.256	4.68	0.00	1.200	1.285	2.00	11.145	13.37	62.6	207.2	920.4
8.00		1.00	0.70	4.256	4.68	0.00	1.200	1.317	2.00	11.076	13.29	62.2	211.0	918.8
10.00		1.00	0.70	4.256	4.68	0.00	1.200	1.344	2.00	11.006	13.21	61.8	213.8	916.3
12.00		1.00	0.70	4.256	4.68	0.00	1.200	1.367	2.00	10.934	13.12	61.4	215.9	913.0
14.00		1.00	0.70	4.256	4.68	0.00	1.200	1.386	2.00	10.861	13.03	61.0	217.4	909.2
16.00		1.00	0.70	4.256	4.68	0.00	1.200	1.404	2.00	10.787	12.94	60.6	218.6	905.0
18.00		1.00	0.70	4.256	4.68	0.00	1.200	1.419	2.00	10.712	12.85	60.2	219.4	900.5
20.00		1.00	0.70	4.256	4.68	0.00	1.200	1.434	2.00	10.638	12.77	59.8	220.0	895.8
22.00		1.00	0.70	4.256	4.68	0.00	1.200	1.447	2.00	10.562	12.67	59.3	220.3	890.8
24.00		1.00	0.70	4.256	4.68	0.00	1.200	1.459	2.00	10.487	12.58	58.9	220.5	885.6
25.00	Top - Section 1	1.00	0.70	4.256	4.68	0.00	1.200	1.465	1.00	5.214	6.26	29.3	110.3	440.8
26.00		1.00	0.70	4.256	4.68	0.00	1.200	1.470	1.00	5.195	6.23	29.2	110.3	392.8
28.00		1.00	0.70	4.256	4.68	0.00	1.200	1.481	2.00	10.335	12.40	58.1	220.4	782.0
30.00		1.00	0.71	4.300	4.73	0.00	1.200	1.491	2.00	10.258	12.31	58.2	220.1	777.1
32.00		1.00	0.72	4.377	4.81	0.00	1.200	1.500	2.00	10.182	12.22	58.8	219.8	772.2
34.00		1.00	0.73	4.451	4.90	0.00	1.200	1.509	2.00	10.105	12.13	59.4	219.3	767.2
36.00		1.00	0.74	4.523	4.97	0.00	1.200	1.517	2.00	10.029	12.03	59.9	218.8	762.1
38.00		1.00	0.76	4.591	5.05	0.00	1.200	1.525	2.00	9.952	11.94	60.3	218.2	756.9
40.00		1.00	0.77	4.657	5.12	0.00	1.200	1.533	2.00	9.875	11.85	60.7	217.5	751.6
41.00	Bot - Section 3	1.00	0.77	4.689	5.16	0.00	1.200	1.537	1.00	4.908	5.89	30.4	108.6	373.9
42.00		1.00	0.78	4.721	5.19	0.00	1.200	1.540	1.00	4.952	5.94	30.9	109.8	641.9
44.00		1.00	0.79	4.783	5.26	0.00	1.200	1.547	2.00	9.847	11.82	62.2	218.8	1276.1
46.00		1.00	0.80	4.843	5.33	0.00	1.200	1.554	2.00	9.770	11.72	62.4	218.0	1266.1
48.00	Top - Section 2	1.00	0.81	4.901	5.39	0.00	1.200	1.560	2.00	9.692	11.63	62.7	217.1	1256.1
50.00		1.00	0.82	4.957	5.45	0.00	1.200	1.567	2.00	9.615	11.54	62.9	216.1	734.7
52.00		1.00	0.82	5.012	5.51	0.00	1.200	1.573	2.00	9.537	11.44	63.1	215.1	729.1
54.00		1.00	0.83	5.065	5.57	0.00	1.200	1.579	2.00	9.460	11.35	63.2	214.1	723.5
56.00		1.00	0.84	5.117	5.63	0.00	1.200	1.584	2.00	9.382	11.26	63.4	213.0	717.9
58.00		1.00	0.85	5.168	5.68	0.00	1.200	1.590	2.00	9.304	11.16	63.5	211.9	712.2
60.00		1.00	0.86	5.217	5.74	0.00	1.200	1.595	2.00	9.226	11.07	63.5	210.7	706.5
62.00		1.00	0.87	5.265	5.79	0.00	1.200	1.600	2.00	9.148	10.98	63.6	209.6	700.7
64.00		1.00	0.87	5.313	5.84	0.00	1.200	1.605	2.00	9.070	10.88	63.6	208.3	694.9
66.00		1.00	0.88	5.359	5.89	0.00	1.200	1.610	2.00	8.992	10.79	63.6	207.1	689.1
68.00		1.00	0.89	5.404	5.94	0.00	1.200	1.615	2.00	8.914	10.70	63.6	205.8	683.3
70.00		1.00	0.90	5.448	5.99	0.00	1.200	1.619	2.00	8.836	10.60	63.5	204.5	677.4
72.00		1.00	0.90	5.492	6.04	0.00	1.200	1.624	2.00	8.758	10.51	63.5	203.2	671.5
74.00		1.00	0.91	5.534	6.09	0.00	1.200	1.628	2.00	8.680	10.42	63.4	201.8	665.6
76.00		1.00	0.92	5.576	6.13	0.00	1.200	1.633	2.00	8.602	10.32	63.3	200.5	659.6
78.00		1.00	0.92	5.617	6.18	0.00	1.200	1.637	2.00	8.524	10.23	63.2	199.1	653.6
80.00		1.00	0.93	5.657	6.22	0.00	1.200	1.641	2.00	8.445	10.13	63.1	197.6	647.6
82.00		1.00	0.94	5.697	6.27	0.00	1.200	1.645	2.00	8.367	10.04	62.9	196.2	641.6
84.00		1.00	0.94	5.736	6.31	0.00	1.200	1.649	2.00	8.289	9.95	62.8	194.7	635.6
85.00	Bot - Section 4	1.00	0.95	5.755	6.33	0.00	1.200	1.651	1.00	4.115	4.94	31.3	97.0	315.7
86.00		1.00	0.95	5.774	6.35	0.00	1.200	1.653	1.00	4.148	4.98	31.6	97.9	499.6

Wind Loading - Shaft

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 30

88.00		1.00	0.96	5.812	6.39	0.00	1.200	1.656	2.00	8.238	9.89	63.2	194.4	991.4
90.00		1.00	0.96	5.849	6.43	0.00	1.200	1.660	2.00	8.160	9.79	63.0	192.9	981.5
91.00	Top - Section 3	1.00	0.96	5.867	6.45	0.00	1.200	1.662	1.00	4.050	4.86	31.4	96.0	487.2
92.00		1.00	0.97	5.885	6.47	0.00	1.200	1.664	1.00	4.031	4.84	31.3	95.7	274.0
94.00		1.00	0.97	5.921	6.51	0.00	1.200	1.667	2.00	8.003	9.60	62.5	189.8	543.7
96.00		1.00	0.98	5.956	6.55	0.00	1.200	1.671	2.00	7.924	9.51	62.3	188.2	538.3
98.00		1.00	0.99	5.991	6.59	0.00	1.200	1.674	2.00	7.846	9.42	62.0	186.6	532.9
100.00		1.00	0.99	6.026	6.63	0.00	1.200	1.678	2.00	7.767	9.32	61.8	185.1	527.5
102.00		1.00	1.00	6.059	6.67	0.00	1.200	1.681	2.00	7.689	9.23	61.5	183.5	522.1
104.00		1.00	1.00	6.093	6.70	0.00	1.200	1.684	2.00	7.610	9.13	61.2	181.8	516.7
106.00		1.00	1.01	6.126	6.74	0.00	1.200	1.687	2.00	7.532	9.04	60.9	180.2	511.2
108.00		1.00	1.01	6.158	6.77	0.00	1.200	1.690	2.00	7.453	8.94	60.6	178.6	505.8
110.00		1.00	1.02	6.190	6.81	0.00	1.200	1.693	2.00	7.375	8.85	60.3	176.9	500.3
112.00		1.00	1.02	6.222	6.84	0.00	1.200	1.696	2.00	7.296	8.76	59.9	175.2	494.8
114.00		1.00	1.03	6.253	6.88	0.00	1.200	1.699	2.00	7.217	8.66	59.6	173.5	489.3
116.00		1.00	1.03	6.284	6.91	0.00	1.200	1.702	2.00	7.139	8.57	59.2	171.8	483.8
118.00		1.00	1.04	6.315	6.95	0.00	1.200	1.705	2.00	7.060	8.47	58.8	170.1	478.3
120.00	Appurtenance(s)	1.00	1.04	6.345	6.98	0.00	1.200	1.708	2.00	6.982	8.38	58.5	168.4	472.8
122.00		1.00	1.05	6.375	7.01	0.00	1.200	1.711	2.00	6.903	8.28	58.1	166.7	467.3
124.00		1.00	1.05	6.404	7.04	0.00	1.200	1.714	2.00	6.824	8.19	57.7	165.0	461.7
126.00		1.00	1.06	6.433	7.08	0.00	1.200	1.716	2.00	6.746	8.09	57.3	163.2	456.1
128.00		1.00	1.06	6.462	7.11	0.00	1.200	1.719	2.00	6.667	8.00	56.9	161.4	450.6
130.00	Bot - Section 5	1.00	1.07	6.490	7.14	0.00	1.200	1.722	2.00	6.588	7.91	56.4	159.7	445.0
132.00		1.00	1.07	6.519	7.17	0.00	1.200	1.724	2.00	6.594	7.91	56.7	160.1	670.4
134.00		1.00	1.08	6.546	7.20	0.00	1.200	1.727	2.00	6.515	7.82	56.3	158.3	661.8
135.00	Top - Section 4	1.00	1.08	6.560	7.22	0.00	1.200	1.728	1.00	3.228	3.87	28.0	78.7	327.9
136.00		1.00	1.08	6.574	7.23	0.00	1.200	1.729	1.00	3.208	3.85	27.8	78.2	189.2
137.00	Appurtenance(s)	1.00	1.08	6.588	7.25	0.00	1.200	1.731	1.00	3.189	3.83	27.7	77.8	188.0
138.00		1.00	1.09	6.601	7.26	0.00	1.200	1.732	1.00	3.169	3.80	27.6	77.3	186.8
140.00		1.00	1.09	6.628	7.29	0.00	1.200	1.734	2.00	6.279	7.53	54.9	152.9	369.5
								Totals:	**140.00**			**4,262.7**		**49,795.1**

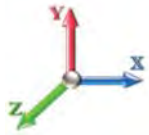
Discrete Appurtenance Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 31	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	137.00	Antel LPA-80063/6CF	2	6.588	7.246	0.70	0.75	15.43	635.43	0.000	0.000	111.78	0.00	0.00
2	137.00	B5/B13 RRHBR04C	3	6.588	7.246	0.50	0.75	3.60	299.86	0.000	0.000	26.09	0.00	0.00
3	137.00	B2/B66A RRHBR049	3	6.588	7.246	0.50	0.75	3.66	419.21	0.000	0.000	26.51	0.00	0.00
4	137.00	MT6407-77A	3	6.588	7.246	0.52	0.75	8.87	640.86	0.000	0.000	64.24	0.00	0.00
5	137.00	CBC78T-DS-43	3	6.588	7.246	0.50	0.75	0.98	98.90	0.000	0.000	7.10	0.00	0.00
6	137.00	RCMDC-6627-PF-48	1	6.588	7.246	0.50	0.75	2.45	126.18	0.000	0.000	17.75	0.00	0.00
7	137.00	JAHH-65B-R3B	6	6.588	7.246	0.62	0.75	39.01	1825.11	0.000	0.000	282.70	0.00	0.00
8	137.00	(3) HR w/ Double V-Brace	1	6.588	7.246	1.00	1.00	31.60	1439.98	0.000	0.000	228.95	0.00	0.00
9	137.00	(3) Stabilizer Kit (4' FW)	1	6.588	7.246	1.00	1.00	7.54	282.46	0.000	0.000	54.65	0.00	0.00
10	137.00	Low Profile Platform	1	6.588	7.246	1.00	1.00	39.51	2798.04	0.000	0.000	286.34	0.00	0.00
11	130.00	Powerwave LGP21901 -	6	6.490	7.139	0.50	0.75	12.98	619.58	0.000	0.000	92.69	0.00	0.00
12	130.00	RRUS 4449 B5/B12	3	6.490	7.139	0.50	0.75	3.78	372.79	0.000	0.000	27.01	0.00	0.00
13	130.00	RRUS 8843 B2 B66A	3	6.490	7.139	0.50	0.75	3.21	361.84	0.000	0.000	22.93	0.00	0.00
14	130.00	LGP17201	6	6.490	7.139	0.50	0.75	8.84	-46.43	0.000	0.000	63.13	0.00	0.00
15	130.00	HRK12 (Handrail Kit)	1	6.490	7.139	1.00	1.00	19.64	882.20	0.000	0.000	140.23	0.00	0.00
16	130.00	Powerwave LGP21401 -	6	6.490	7.139	0.50	0.75	6.38	287.47	0.000	0.000	45.51	0.00	0.00
17	130.00	15'x2.875"mount pipe	3	6.490	7.139	1.00	1.00	28.87	615.65	0.000	0.000	206.11	0.00	0.00
18	130.00	7770.00	6	6.490	7.139	0.55	0.75	21.52	992.08	0.000	0.000	153.61	0.00	0.00
19	130.00	DMP65R-BU8DA	3	6.490	7.139	0.54	0.75	31.82	1473.25	0.000	0.000	227.18	0.00	0.00
20	130.00	DC6-48-60-18-8F	1	6.490	7.139	0.50	0.75	0.96	85.57	0.000	0.000	6.85	0.00	0.00
21	130.00	Low Profile Platform	1	6.490	7.139	1.00	1.00	39.42	2791.30	0.000	0.000	281.46	0.00	0.00
22	130.00	HPA-65R-BU8AA	3	6.490	7.139	0.65	0.75	24.90	981.34	0.000	0.000	177.80	0.00	0.00
23	120.00	4480 Radio	3	6.345	6.979	0.50	0.75	5.29	495.01	0.000	0.000	36.93	0.00	0.00
24	120.00	4460 Radio	3	6.345	6.979	0.50	0.75	5.29	509.85	0.000	0.000	36.93	0.00	0.00
25	120.00	LP-RMQP-4096-HK Plat	1	6.345	6.979	1.00	1.00	89.14	5207.18	0.000	0.000	622.15	0.00	0.00
26	120.00	AIR6449 B41	3	6.345	6.979	0.53	0.75	10.51	678.31	0.000	0.000	73.37	0.00	0.00
27	120.00	APXVAA4L24-43-U-NA20	3	6.345	6.979	0.54	0.75	35.77	1953.49	0.000	0.000	249.64	0.00	0.00
28	120.00	APX16DWV-16DWVS-E-A	3	6.345	6.979	0.46	0.75	12.19	389.73	0.000	0.000	85.11	0.00	0.00
							Totals:		**27,216.27**			**3,654.78**		

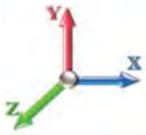
Total Applied Force Summary

Structure:	CT11560-A-SBA		**Code:**	EIA/TIA-222-G	9/10/2021
Site Name:	Sterling 6, CT		**Exposure:**	B	
Height:	140.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 32

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		63.31	937.30	0.00	0.00
4.00		62.98	977.06	0.00	0.00
6.00		62.61	1014.20	0.00	0.00
8.00		62.23	1013.23	0.00	0.00
10.00		61.83	1011.13	0.00	0.00
12.00		61.42	1008.25	0.00	0.00
14.00		61.01	1004.80	0.00	0.00
16.00		60.60	1000.91	0.00	0.00
18.00		60.18	996.68	0.00	0.00
20.00		59.76	992.17	0.00	0.00
22.00		59.34	987.42	0.00	0.00
24.00		58.91	982.47	0.00	0.00
25.00		29.29	489.30	0.00	0.00
26.00		29.19	441.28	0.00	0.00
28.00		58.06	879.20	0.00	0.00
30.00		58.22	874.56	0.00	0.00
32.00		58.83	869.81	0.00	0.00
34.00		59.38	864.95	0.00	0.00
36.00		59.87	860.00	0.00	0.00
38.00		60.31	854.96	0.00	0.00
40.00		60.70	849.85	0.00	0.00
41.00		30.38	423.06	0.00	0.00
42.00		30.86	691.07	0.00	0.00
44.00		62.17	1374.62	0.00	0.00
46.00		62.45	1364.75	0.00	0.00
48.00		62.70	1354.82	0.00	0.00
50.00		62.91	833.56	0.00	0.00
52.00		63.09	828.11	0.00	0.00
54.00		63.24	822.61	0.00	0.00
56.00		63.37	817.07	0.00	0.00
58.00		63.47	811.48	0.00	0.00
60.00		63.54	805.86	0.00	0.00
62.00		63.58	800.20	0.00	0.00
64.00		63.61	794.51	0.00	0.00
66.00		63.61	788.79	0.00	0.00
68.00		63.59	783.03	0.00	0.00
70.00		63.55	777.25	0.00	0.00
72.00		63.49	771.44	0.00	0.00
74.00		63.41	765.60	0.00	0.00
76.00		63.31	759.74	0.00	0.00
78.00		63.20	753.85	0.00	0.00
80.00		63.07	747.94	0.00	0.00
82.00		62.92	742.01	0.00	0.00
84.00		62.76	736.06	0.00	0.00
85.00		31.26	365.96	0.00	0.00
86.00		31.62	549.86	0.00	0.00

Total Applied Force Summary

Structure:	CT11560-A-SBA		**Code:**	EIA/TIA-222-G	9/10/2021
Site Name:	Sterling 6, CT		**Exposure:**	B	
Height:	140.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 33

88.00		63.20	1092.01	0.00	0.00
90.00		62.99	1082.19	0.00	0.00
91.00		31.37	537.59	0.00	0.00
92.00		31.31	324.42	0.00	0.00
94.00		62.55	644.51	0.00	0.00
96.00		62.30	639.21	0.00	0.00
98.00		62.05	633.89	0.00	0.00
100.00		61.78	628.56	0.00	0.00
102.00		61.50	623.21	0.00	0.00
104.00		61.21	617.84	0.00	0.00
106.00		60.90	612.47	0.00	0.00
108.00		60.59	607.07	0.00	0.00
110.00		60.26	601.67	0.00	0.00
112.00		59.92	596.25	0.00	0.00
114.00		59.58	590.82	0.00	0.00
116.00		59.22	585.37	0.00	0.00
118.00		58.85	579.91	0.00	0.00
120.00	(16) attachments	1162.60	9808.02	0.00	0.00
122.00		58.08	550.96	0.00	0.00
124.00		57.69	545.47	0.00	0.00
126.00		57.28	539.96	0.00	0.00
128.00		56.87	534.45	0.00	0.00
130.00	(42) attachments	1500.97	9945.58	0.00	0.00
132.00		56.74	698.02	0.00	0.00
134.00		56.30	689.37	0.00	0.00
135.00		27.95	341.67	0.00	0.00
136.00		27.84	203.03	0.00	0.00
137.00	(24) attachments	1133.85	8767.85	0.00	0.00
138.00		27.61	186.81	0.00	0.00
140.00		54.94	369.52	0.00	0.00
	Totals:	**7,917.48**	**83,350.50**	**0.00**	**0.00**

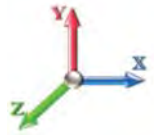
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 34	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
4.00	1" DC Power	Yes	1.00	0.000	1.00	0.29	0.00	0.008	0.000	4.256	0.00	6.38
4.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.008	0.000	4.256	0.00	2.42
6.00	1" DC Power	Yes	2.00	0.000	1.00	0.59	0.00	0.016	0.000	4.256	0.00	13.16
6.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	4.256	0.00	5.14
8.00	1" DC Power	Yes	2.00	0.000	1.00	0.61	0.00	0.016	0.000	4.256	0.00	13.47
8.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	4.256	0.00	5.37
10.00	1" DC Power	Yes	2.00	0.000	1.00	0.61	0.00	0.016	0.000	4.256	0.00	13.73
10.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	4.256	0.00	5.56
12.00	1" DC Power	Yes	2.00	0.000	1.00	0.62	0.00	0.016	0.000	4.256	0.00	13.95
12.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	4.256	0.00	5.72
14.00	1" DC Power	Yes	2.00	0.000	1.00	0.63	0.00	0.016	0.000	4.256	0.00	14.14
14.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	4.256	0.00	5.87
16.00	1" DC Power	Yes	2.00	0.000	1.00	0.63	0.00	0.016	0.000	4.256	0.00	14.32
16.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	4.256	0.00	6.00
18.00	1" DC Power	Yes	2.00	0.000	1.00	0.64	0.00	0.016	0.000	4.256	0.00	14.47
18.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	4.256	0.00	6.12
20.00	1" DC Power	Yes	2.00	0.000	1.00	0.64	0.00	0.016	0.000	4.256	0.00	14.62
20.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	4.256	0.00	6.23
22.00	1" DC Power	Yes	2.00	0.000	1.00	0.65	0.00	0.017	0.000	4.256	0.00	14.75
22.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	4.256	0.00	6.33
24.00	1" DC Power	Yes	2.00	0.000	1.00	0.65	0.00	0.017	0.000	4.256	0.00	14.87
24.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	4.256	0.00	6.42
25.00	1" DC Power	Yes	1.00	0.000	1.00	0.33	0.00	0.017	0.000	4.256	0.00	7.47
25.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.017	0.000	4.256	0.00	3.23
26.00	1" DC Power	Yes	1.00	0.000	1.00	0.33	0.00	0.017	0.000	4.256	0.00	7.49
26.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.017	0.000	4.256	0.00	3.26
28.00	1" DC Power	Yes	2.00	0.000	1.00	0.66	0.00	0.017	0.000	4.256	0.00	15.10
28.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	4.256	0.00	6.60
30.00	1" DC Power	Yes	2.00	0.000	1.00	0.66	0.00	0.017	0.000	4.300	0.00	15.20
30.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	4.300	0.00	6.67
32.00	1" DC Power	Yes	2.00	0.000	1.00	0.67	0.00	0.017	0.000	4.377	0.00	15.30
32.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	4.377	0.00	6.75
34.00	1" DC Power	Yes	2.00	0.000	1.00	0.67	0.00	0.017	0.000	4.451	0.00	15.39
34.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	4.451	0.00	6.82
36.00	1" DC Power	Yes	2.00	0.000	1.00	0.67	0.00	0.018	0.000	4.523	0.00	15.48
36.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	4.523	0.00	6.89
38.00	1" DC Power	Yes	2.00	0.000	1.00	0.68	0.00	0.018	0.000	4.591	0.00	15.56
38.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	4.591	0.00	6.95
40.00	1" DC Power	Yes	2.00	0.000	1.00	0.68	0.00	0.018	0.000	4.657	0.00	15.64
40.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	4.657	0.00	7.02
41.00	1" DC Power	Yes	1.00	0.000	1.00	0.34	0.00	0.018	0.000	4.689	0.00	7.84
41.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.018	0.000	4.689	0.00	3.52
42.00	1" DC Power	Yes	1.00	0.000	1.00	0.34	0.00	0.018	0.000	4.721	0.00	7.86
42.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.018	0.000	4.721	0.00	3.54
44.00	1" DC Power	Yes	2.00	0.000	1.00	0.68	0.00	0.018	0.000	4.783	0.00	15.80
44.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	4.783	0.00	7.13
46.00	1" DC Power	Yes	2.00	0.000	1.00	0.68	0.00	0.018	0.000	4.843	0.00	15.87

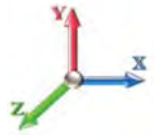
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 35	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	4.843	0.00	7.19
48.00	1" DC Power	Yes	2.00	0.000	1.00	0.69	0.00	0.018	0.000	4.901	0.00	15.94
48.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	4.901	0.00	7.24
50.00	1" DC Power	Yes	2.00	0.000	1.00	0.69	0.00	0.018	0.000	4.957	0.00	16.01
50.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	4.957	0.00	7.29
52.00	1" DC Power	Yes	2.00	0.000	1.00	0.69	0.00	0.018	0.000	5.012	0.00	16.07
52.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	5.012	0.00	7.35
54.00	1" DC Power	Yes	2.00	0.000	1.00	0.69	0.00	0.019	0.000	5.065	0.00	16.13
54.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	5.065	0.00	7.39
56.00	1" DC Power	Yes	2.00	0.000	1.00	0.69	0.00	0.019	0.000	5.117	0.00	16.20
56.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	5.117	0.00	7.44
58.00	1" DC Power	Yes	2.00	0.000	1.00	0.70	0.00	0.019	0.000	5.168	0.00	16.25
58.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	5.168	0.00	7.49
60.00	1" DC Power	Yes	2.00	0.000	1.00	0.70	0.00	0.019	0.000	5.217	0.00	16.31
60.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	5.217	0.00	7.53
62.00	1" DC Power	Yes	2.00	0.000	1.00	0.70	0.00	0.019	0.000	5.265	0.00	16.37
62.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	5.265	0.00	7.58
64.00	1" DC Power	Yes	2.00	0.000	1.00	0.70	0.00	0.020	0.000	5.313	0.00	16.42
64.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	5.313	0.00	7.62
66.00	1" DC Power	Yes	2.00	0.000	1.00	0.70	0.00	0.020	0.000	5.359	0.00	16.48
66.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	5.359	0.00	7.66
68.00	1" DC Power	Yes	2.00	0.000	1.00	0.70	0.00	0.020	0.000	5.404	0.00	16.53
68.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	5.404	0.00	7.70
70.00	1" DC Power	Yes	2.00	0.000	1.00	0.71	0.00	0.020	0.000	5.448	0.00	16.58
70.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	5.448	0.00	7.74
72.00	1" DC Power	Yes	2.00	0.000	1.00	0.71	0.00	0.020	0.000	5.492	0.00	16.63
72.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	5.492	0.00	7.78
74.00	1" DC Power	Yes	2.00	0.000	1.00	0.71	0.00	0.020	0.000	5.534	0.00	16.68
74.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	5.534	0.00	7.82
76.00	1" DC Power	Yes	2.00	0.000	1.00	0.71	0.00	0.021	0.000	5.576	0.00	16.73
76.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	5.576	0.00	7.85
78.00	1" DC Power	Yes	2.00	0.000	1.00	0.71	0.00	0.021	0.000	5.617	0.00	16.77
78.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	5.617	0.00	7.89
80.00	1" DC Power	Yes	2.00	0.000	1.00	0.71	0.00	0.021	0.000	5.657	0.00	16.82
80.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	5.657	0.00	7.93
82.00	1" DC Power	Yes	2.00	0.000	1.00	0.71	0.00	0.021	0.000	5.697	0.00	16.86
82.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	5.697	0.00	7.96
84.00	1" DC Power	Yes	2.00	0.000	1.00	0.72	0.00	0.022	0.000	5.736	0.00	16.91
84.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	5.736	0.00	8.00
85.00	1" DC Power	Yes	1.00	0.000	1.00	0.36	0.00	0.022	0.000	5.755	0.00	8.46
85.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	5.755	0.00	4.01
86.00	1" DC Power	Yes	1.00	0.000	1.00	0.36	0.00	0.022	0.000	5.774	0.00	8.47
86.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	5.774	0.00	4.01
88.00	1" DC Power	Yes	2.00	0.000	1.00	0.72	0.00	0.022	0.000	5.812	0.00	16.99
88.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	5.812	0.00	8.06
90.00	1" DC Power	Yes	2.00	0.000	1.00	0.72	0.00	0.022	0.000	5.849	0.00	17.03
90.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	5.849	0.00	8.09

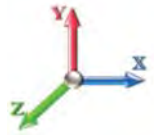
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 36	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
91.00	1" DC Power	Yes	1.00	0.000	1.00	0.36	0.00	0.022	0.000	5.867	0.00	8.53
91.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	5.867	0.00	4.06
92.00	1" DC Power	Yes	1.00	0.000	1.00	0.36	0.00	0.022	0.000	5.885	0.00	8.54
92.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	5.885	0.00	4.06
94.00	1" DC Power	Yes	2.00	0.000	1.00	0.72	0.00	0.022	0.000	5.921	0.00	17.11
94.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	5.921	0.00	8.16
96.00	1" DC Power	Yes	2.00	0.000	1.00	0.72	0.00	0.023	0.000	5.956	0.00	17.15
96.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	5.956	0.00	8.19
98.00	1" DC Power	Yes	2.00	0.000	1.00	0.72	0.00	0.023	0.000	5.991	0.00	17.19
98.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	5.991	0.00	8.22
100.00	1" DC Power	Yes	2.00	0.000	1.00	0.73	0.00	0.023	0.000	6.026	0.00	17.23
100.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	6.026	0.00	8.25
102.00	1" DC Power	Yes	2.00	0.000	1.00	0.73	0.00	0.023	0.000	6.059	0.00	17.27
102.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	6.059	0.00	8.28
104.00	1" DC Power	Yes	2.00	0.000	1.00	0.73	0.00	0.024	0.000	6.093	0.00	17.30
104.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	6.093	0.00	8.31
106.00	1" DC Power	Yes	2.00	0.000	1.00	0.73	0.00	0.024	0.000	6.126	0.00	17.34
106.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	6.126	0.00	8.34
108.00	1" DC Power	Yes	2.00	0.000	1.00	0.73	0.00	0.024	0.000	6.158	0.00	17.37
108.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	6.158	0.00	8.36
110.00	1" DC Power	Yes	2.00	0.000	1.00	0.73	0.00	0.024	0.000	6.190	0.00	17.41
110.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	6.190	0.00	8.39
112.00	1" DC Power	Yes	2.00	0.000	1.00	0.73	0.00	0.025	0.000	6.222	0.00	17.44
112.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	6.222	0.00	8.42
114.00	1" DC Power	Yes	2.00	0.000	1.00	0.73	0.00	0.025	0.000	6.253	0.00	17.48
114.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	6.253	0.00	8.44
116.00	1" DC Power	Yes	2.00	0.000	1.00	0.73	0.00	0.025	0.000	6.284	0.00	17.51
116.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	6.284	0.00	8.47
118.00	1" DC Power	Yes	2.00	0.000	1.00	0.74	0.00	0.026	0.000	6.315	0.00	17.54
118.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	6.315	0.00	8.50
120.00	1" DC Power	Yes	2.00	0.000	1.00	0.74	0.00	0.026	0.000	6.345	0.00	17.58
120.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	6.345	0.00	8.52
122.00	1" DC Power	Yes	2.00	0.000	1.00	0.74	0.00	0.026	0.000	6.375	0.00	17.61
122.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	6.375	0.00	8.55
124.00	1" DC Power	Yes	2.00	0.000	1.00	0.74	0.00	0.027	0.000	6.404	0.00	17.64
124.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	6.404	0.00	8.57
126.00	1" DC Power	Yes	2.00	0.000	1.00	0.74	0.00	0.027	0.000	6.433	0.00	17.67
126.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	6.433	0.00	8.60
128.00	1" DC Power	Yes	2.00	0.000	1.00	0.74	0.00	0.027	0.000	6.462	0.00	17.70
128.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	6.462	0.00	8.62
130.00	1" DC Power	Yes	2.00	0.000	1.00	0.74	0.00	0.028	0.000	6.490	0.00	17.73
130.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.028	0.000	6.490	0.00	8.65
										Totals:	**0.0**	**1,504.0**

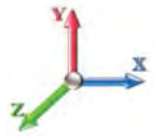
Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 37	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-83.35	-7.92	0.00	-805.26	0.00	805.26	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.120
2.00	-82.41	-7.87	0.00	-789.41	0.00	789.41	5778.21	2889.11	15113.2	7567.86	0.00	-0.010	0.000	0.119
4.00	-81.43	-7.83	0.00	-773.66	0.00	773.66	5753.06	2876.53	14935.4	7478.80	0.01	-0.020	0.000	0.118
6.00	-80.42	-7.78	0.00	-758.01	0.00	758.01	5727.65	2863.83	14757.8	7389.90	0.02	-0.030	0.000	0.117
8.00	-79.40	-7.73	0.00	-742.46	0.00	742.46	5701.98	2850.99	14580.6	7301.16	0.03	-0.039	0.000	0.116
10.00	-78.39	-7.68	0.00	-727.01	0.00	727.01	5676.04	2838.02	14403.7	7212.59	0.05	-0.049	0.000	0.115
12.00	-77.38	-7.63	0.00	-711.65	0.00	711.65	5649.84	2824.92	14227.2	7124.20	0.08	-0.059	0.000	0.114
14.00	-76.37	-7.58	0.00	-696.39	0.00	696.39	5623.38	2811.69	14051.0	7035.98	0.10	-0.069	0.000	0.113
16.00	-75.37	-7.53	0.00	-681.23	0.00	681.23	5596.66	2798.33	13875.2	6947.96	0.13	-0.079	0.000	0.112
18.00	-74.37	-7.48	0.00	-666.17	0.00	666.17	5569.67	2784.84	13699.9	6860.14	0.17	-0.089	0.000	0.110
20.00	-73.38	-7.43	0.00	-651.21	0.00	651.21	5542.43	2771.21	13524.9	6772.52	0.21	-0.099	0.000	0.109
22.00	-72.39	-7.39	0.00	-636.34	0.00	636.34	5514.92	2757.46	13350.3	6685.11	0.25	-0.109	0.000	0.108
24.00	-71.41	-7.33	0.00	-621.57	0.00	621.57	5487.15	2743.57	13176.2	6597.93	0.30	-0.119	0.000	0.107
25.00	-70.92	-7.31	0.00	-614.24	0.00	614.24	5473.16	2736.58	13089.3	6554.42	0.33	-0.124	0.000	0.107
25.00	-70.92	-7.31	0.00	-614.24	0.00	614.24	4407.37	2203.68	10563.1	5289.42	0.33	-0.124	0.000	0.132
26.00	-70.48	-7.29	0.00	-606.93	0.00	606.93	4397.65	2198.83	10497.0	5256.32	0.35	-0.129	0.000	0.132
28.00	-69.60	-7.24	0.00	-592.35	0.00	592.35	4378.03	2189.01	10364.9	5190.16	0.41	-0.141	0.000	0.130
30.00	-68.72	-7.20	0.00	-577.86	0.00	577.86	4358.14	2179.07	10232.9	5124.08	0.47	-0.152	0.000	0.129
32.00	-67.85	-7.15	0.00	-563.46	0.00	563.46	4338.00	2169.00	10101.1	5058.08	0.54	-0.164	0.000	0.127
34.00	-66.98	-7.10	0.00	-549.16	0.00	549.16	4317.58	2158.79	9969.51	4992.17	0.61	-0.176	0.000	0.126
36.00	-66.12	-7.05	0.00	-534.96	0.00	534.96	4296.91	2148.46	9838.08	4926.35	0.68	-0.187	0.000	0.124
38.00	-65.27	-7.00	0.00	-520.86	0.00	520.86	4275.98	2137.99	9706.86	4860.65	0.77	-0.199	0.000	0.122
40.00	-64.42	-6.95	0.00	-506.85	0.00	506.85	4254.78	2127.39	9575.87	4795.05	0.85	-0.210	0.000	0.121
41.00	-63.99	-6.92	0.00	-499.90	0.00	499.90	4244.08	2122.04	9510.46	4762.30	0.90	-0.216	0.000	0.120
42.00	-63.30	-6.90	0.00	-492.98	0.00	492.98	4233.32	2116.66	9445.12	4729.58	0.94	-0.222	0.000	0.119
44.00	-61.92	-6.84	0.00	-479.18	0.00	479.18	4211.60	2105.80	9314.62	4664.23	1.04	-0.234	0.000	0.117
46.00	-60.56	-6.79	0.00	-465.50	0.00	465.50	4189.62	2094.81	9184.40	4599.03	1.14	-0.245	0.000	0.116
48.00	-59.20	-6.73	0.00	-451.92	0.00	451.92	4202.72	2101.36	9261.79	4637.78	1.24	-0.256	0.000	0.112
50.00	-58.37	-6.68	0.00	-438.46	0.00	438.46	4180.63	2090.32	9131.68	4572.63	1.35	-0.268	0.000	0.110
52.00	-57.54	-6.62	0.00	-425.11	0.00	425.11	4158.28	2079.14	9001.86	4507.62	1.47	-0.279	0.000	0.108
54.00	-56.72	-6.56	0.00	-411.87	0.00	411.87	4135.67	2067.83	8872.35	4442.77	1.59	-0.290	0.000	0.106
56.00	-55.90	-6.51	0.00	-398.75	0.00	398.75	4112.79	2056.39	8743.17	4378.08	1.71	-0.300	0.000	0.105
58.00	-55.08	-6.45	0.00	-385.73	0.00	385.73	4089.65	2044.83	8614.32	4313.56	1.84	-0.311	0.000	0.103
60.00	-54.28	-6.39	0.00	-372.84	0.00	372.84	4066.25	2033.13	8485.83	4249.22	1.97	-0.322	0.000	0.101
62.00	-53.48	-6.33	0.00	-360.06	0.00	360.06	4042.59	2021.29	8357.71	4185.07	2.11	-0.332	0.000	0.099
64.00	-52.68	-6.27	0.00	-347.39	0.00	347.39	4018.67	2009.33	8229.97	4121.10	2.25	-0.343	0.000	0.097
66.00	-51.89	-6.21	0.00	-334.85	0.00	334.85	3994.48	1997.24	8102.64	4057.34	2.40	-0.353	0.000	0.096
68.00	-51.11	-6.16	0.00	-322.42	0.00	322.42	3970.03	1985.02	7975.72	3993.79	2.55	-0.364	0.000	0.094
70.00	-50.33	-6.10	0.00	-310.11	0.00	310.11	3945.32	1972.66	7849.23	3930.45	2.70	-0.374	0.000	0.092
72.00	-49.56	-6.04	0.00	-297.92	0.00	297.92	3920.35	1960.17	7723.19	3867.33	2.86	-0.384	0.000	0.090
74.00	-48.79	-5.98	0.00	-285.85	0.00	285.85	3895.11	1947.56	7597.60	3804.45	3.02	-0.394	0.000	0.088
76.00	-48.03	-5.92	0.00	-273.89	0.00	273.89	3869.62	1934.81	7472.50	3741.80	3.19	-0.404	0.000	0.086
78.00	-47.28	-5.85	0.00	-262.06	0.00	262.06	3843.86	1921.93	7347.89	3679.40	3.36	-0.414	0.000	0.084
80.00	-46.53	-5.79	0.00	-250.35	0.00	250.35	3817.84	1908.92	7223.78	3617.26	3.54	-0.423	0.000	0.081
82.00	-45.79	-5.73	0.00	-238.77	0.00	238.77	3791.55	1895.78	7100.20	3555.38	3.72	-0.433	0.000	0.079
84.00	-45.05	-5.67	0.00	-227.30	0.00	227.30	3765.01	1882.50	6977.16	3493.76	3.90	-0.442	0.000	0.077
85.00	-44.68	-5.64	0.00	-221.63	0.00	221.63	3751.64	1875.82	6915.84	3463.06	4.00	-0.447	0.000	0.076
86.00	-44.13	-5.61	0.00	-215.99	0.00	215.99	3738.20	1869.10	6854.67	3432.43	4.09	-0.451	0.000	0.075

Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 38

88.00	-43.04	-5.54	0.00	-204.77	0.00	204.77	3711.13	1855.57	6732.75	3371.38	4.28	-0.460	0.000	0.072
90.00	-41.96	-5.48	0.00	-193.69	0.00	193.69	3683.80	1841.90	6611.41	3310.62	4.48	-0.469	0.000	0.070
91.00	-41.42	-5.44	0.00	-188.21	0.00	188.21	2899.19	1449.59	5264.94	2636.38	4.57	-0.473	0.000	0.086
92.00	-41.10	-5.42	0.00	-182.77	0.00	182.77	2889.87	1444.93	5219.87	2613.82	4.67	-0.478	0.000	0.084
94.00	-40.45	-5.35	0.00	-171.94	0.00	171.94	2871.03	1435.52	5129.93	2568.78	4.88	-0.487	0.000	0.081
96.00	-39.81	-5.29	0.00	-161.23	0.00	161.23	2851.93	1425.97	5040.25	2523.87	5.08	-0.496	0.000	0.078
98.00	-39.18	-5.23	0.00	-150.65	0.00	150.65	2832.57	1416.29	4950.87	2479.11	5.29	-0.505	0.000	0.075
100.00	-38.55	-5.17	0.00	-140.18	0.00	140.18	2812.95	1406.48	4861.78	2434.50	5.51	-0.514	0.000	0.071
102.00	-37.93	-5.11	0.00	-129.85	0.00	129.85	2793.07	1396.53	4773.01	2390.05	5.72	-0.522	0.000	0.068
104.00	-37.31	-5.05	0.00	-119.63	0.00	119.63	2772.92	1386.46	4684.57	2345.77	5.94	-0.530	0.000	0.064
106.00	-36.70	-4.98	0.00	-109.54	0.00	109.54	2752.51	1376.26	4596.48	2301.65	6.17	-0.538	0.000	0.061
108.00	-36.09	-4.92	0.00	-99.58	0.00	99.58	2731.84	1365.92	4508.75	2257.73	6.39	-0.545	0.000	0.057
110.00	-35.49	-4.86	0.00	-89.73	0.00	89.73	2710.91	1355.45	4421.40	2213.98	6.62	-0.551	0.000	0.054
112.00	-34.89	-4.80	0.00	-80.01	0.00	80.01	2689.71	1344.86	4334.44	2170.44	6.86	-0.557	0.000	0.050
114.00	-34.30	-4.74	0.00	-70.42	0.00	70.42	2668.26	1334.13	4247.89	2127.10	7.09	-0.563	0.000	0.046
116.00	-33.72	-4.67	0.00	-60.95	0.00	60.95	2646.54	1323.27	4161.76	2083.97	7.33	-0.568	0.000	0.042
118.00	-33.14	-4.61	0.00	-51.60	0.00	51.60	2624.55	1312.28	4076.08	2041.07	7.57	-0.573	0.000	0.038
120.00	-23.34	-3.35	0.00	-42.38	0.00	42.38	2602.31	1301.16	3990.84	1998.39	7.81	-0.577	0.000	0.030
122.00	-22.79	-3.29	0.00	-35.68	0.00	35.68	2579.81	1289.90	3906.08	1955.94	8.05	-0.580	0.000	0.027
124.00	-22.24	-3.23	0.00	-29.10	0.00	29.10	2557.04	1278.52	3821.80	1913.74	8.30	-0.583	0.000	0.024
126.00	-21.71	-3.17	0.00	-22.65	0.00	22.65	2534.01	1267.00	3738.03	1871.79	8.54	-0.586	0.000	0.021
128.00	-21.17	-3.10	0.00	-16.32	0.00	16.32	2510.72	1255.36	3654.77	1830.10	8.79	-0.587	0.000	0.017
130.00	-11.24	-1.50	0.00	-10.11	0.00	10.11	2487.16	1243.58	3572.03	1788.67	9.03	-0.589	0.000	0.010
132.00	-10.54	-1.44	0.00	-7.11	0.00	7.11	2463.34	1231.67	3489.85	1747.52	9.28	-0.590	0.000	0.008
134.00	-9.86	-1.37	0.00	-4.23	0.00	4.23	2439.27	1219.63	3408.23	1706.65	9.53	-0.590	0.000	0.007
135.00	-9.51	-1.34	0.00	-2.86	0.00	2.86	1824.83	912.42	2579.10	1291.47	9.65	-0.590	0.000	0.007
136.00	-9.31	-1.31	0.00	-1.52	0.00	1.52	1817.10	908.55	2550.48	1277.14	9.77	-0.591	0.000	0.006
137.00	-0.56	-0.09	0.00	-0.21	0.00	0.21	1809.31	904.66	2521.92	1262.84	9.90	-0.591	0.000	0.000
138.00	-0.37	-0.06	0.00	-0.12	0.00	0.12	1801.45	900.73	2493.42	1248.56	10.02	-0.591	0.000	0.000
140.00	0.00	-0.05	0.00	0.00	0.00	0.00	1785.54	892.77	2436.62	1220.12	10.27	-0.591	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 39	

Load Case:	1.2D + 1.0E							**Iterations**	20
Gust Response Factor	1.10				**Sds**	0.18		**Ss**	0.17
Dead Load Factor	1.20	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.50		**SA**	0.05	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.01	0.00	0.00	
2.00		603.17	0.00	0.02	0.01	5.70	
4.00		598.72	0.00	0.03	0.02	8.28	
6.00		594.28	0.00	0.04	0.02	10.19	
8.00		589.84	0.01	0.05	0.03	11.60	
10.00		585.39	0.01	0.06	0.03	12.65	
12.00		580.95	0.02	0.06	0.04	13.41	
14.00		576.50	0.02	0.06	0.04	13.97	
16.00		572.06	0.03	0.07	0.04	14.37	
18.00		567.61	0.03	0.07	0.04	14.66	
20.00		563.17	0.04	0.07	0.04	14.87	
22.00		558.72	0.05	0.07	0.04	15.02	
24.00		554.28	0.06	0.07	0.04	15.14	
25.00	Top - Section 1	275.47	0.06	0.07	0.04	7.58	
26.00		235.42	0.07	0.07	0.04	6.52	
28.00		467.98	0.08	0.07	0.04	13.13	
30.00		464.17	0.09	0.07	0.04	13.19	
32.00		460.36	0.10	0.07	0.04	13.25	
34.00		456.55	0.12	0.07	0.03	13.29	
36.00		452.74	0.13	0.07	0.03	13.33	
38.00		448.93	0.14	0.07	0.03	13.35	
40.00		445.12	0.16	0.07	0.03	13.35	
41.00	Bot - Section 3	221.13	0.17	0.07	0.03	6.66	
42.00		443.40	0.18	0.07	0.03	13.39	
44.00		881.08	0.19	0.06	0.02	26.69	
46.00		873.46	0.21	0.06	0.02	26.45	
48.00	Top - Section 2	865.84	0.23	0.06	0.02	26.09	
50.00		432.15	0.25	0.06	0.02	12.88	
52.00		428.34	0.27	0.05	0.02	12.53	
54.00		424.53	0.29	0.05	0.01	12.09	
56.00		420.72	0.31	0.04	0.01	11.54	
58.00		416.91	0.33	0.04	0.01	10.87	
60.00		413.10	0.35	0.03	0.01	10.08	
62.00		409.29	0.38	0.03	0.01	9.16	
64.00		405.48	0.40	0.02	0.01	8.12	
66.00		401.67	0.43	0.01	0.01	6.96	
68.00		397.86	0.45	0.00	0.01	5.70	
70.00		394.05	0.48	-0.01	0.01	4.36	
72.00		390.24	0.51	-0.02	0.01	2.95	
74.00		386.43	0.53	-0.03	0.01	1.52	
76.00		382.62	0.56	-0.04	0.01	0.09	
78.00		378.81	0.59	-0.05	0.01	-1.30	
80.00		375.00	0.62	-0.06	0.02	-2.60	
82.00		371.19	0.65	-0.07	0.02	-3.78	
84.00		367.38	0.69	-0.08	0.03	-4.79	
85.00	Bot - Section 4	182.26	0.70	-0.09	0.03	-2.61	

Seismic Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 40	

86.00			334.72	0.72	-0.09	0.03	-5.17		
88.00			664.20	0.75	-0.10	0.04	-11.49		
90.00			657.21	0.79	-0.11	0.05	-12.17		
91.00	Top - Section 3		325.99	0.80	-0.11	0.06	-6.15		
92.00			148.65	0.82	-0.12	0.06	-2.83		
94.00			294.91	0.86	-0.12	0.07	-5.54		
96.00			291.74	0.89	-0.12	0.09	-5.17		
98.00			288.56	0.93	-0.12	0.10	-4.58		
100.00			285.39	0.97	-0.12	0.12	-3.75		
102.00			282.21	1.01	-0.11	0.14	-2.69		
104.00			279.04	1.05	-0.09	0.16	-1.41		
106.00			275.86	1.09	-0.08	0.18	0.09		
108.00			272.69	1.13	-0.05	0.21	1.79		
110.00			269.51	1.17	-0.02	0.23	3.70		
112.00			266.34	1.21	0.02	0.27	5.81		
114.00			263.17	1.26	0.07	0.30	8.10		
116.00			259.99	1.30	0.12	0.34	10.57		
118.00			256.82	1.35	0.19	0.38	13.22		
120.00	Appurtenance(s)		4313.1	1.39	0.27	0.42	272.62		
122.00			250.47	1.44	0.36	0.47	19.00		
124.00			247.29	1.49	0.47	0.53	22.12		
126.00			244.12	1.53	0.59	0.58	25.38		
128.00			240.94	1.58	0.72	0.65	28.77		
130.00	Bot - Section 5		3684.3	1.63	0.88	0.71	500.38		
132.00			425.30	1.68	1.05	0.79	65.14		
134.00			419.59	1.73	1.25	0.87	71.95		
135.00	Top - Section 4		207.65	1.76	1.36	0.91	37.59		
136.00			92.50	1.78	1.47	0.95	17.65		
137.00	Appurtenance(s)		3581.4	1.81	1.59	1.00	719.08		
138.00			91.23	1.84	1.71	1.04	19.25		
140.00			180.55	1.89	1.98	1.14	41.94		
		Totals:	**41,009.9**				**2,273.1**	**Total Wind:**	**30,417.7**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 41	

Load Case:	1.2D + 1.0E							**Iterations**	20
Gust Response Factor	1.10			**Sds**	0.18			**Ss**	0.17
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.50	**SA**	0.05	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-54.36	-2.35	0.00	-270.84	0.00	270.84	5803.10	2901.55	15291.3	7657.05		0.00	0.00	0.045
2.00	-53.62	-2.35	0.00	-266.14	0.00	266.14	5778.21	2889.11	15113.2	7567.86		0.00	0.00	0.044
4.00	-52.85	-2.34	0.00	-261.44	0.00	261.44	5753.06	2876.53	14935.4	7478.80		0.00	-0.01	0.044
6.00	-52.06	-2.33	0.00	-256.76	0.00	256.76	5727.65	2863.83	14757.8	7389.90		0.01	-0.01	0.044
8.00	-51.27	-2.33	0.00	-252.09	0.00	252.09	5701.98	2850.99	14580.6	7301.16		0.01	-0.01	0.044
10.00	-50.48	-2.32	0.00	-247.44	0.00	247.44	5676.04	2838.02	14403.7	7212.59		0.02	-0.02	0.043
12.00	-49.71	-2.30	0.00	-242.81	0.00	242.81	5649.84	2824.92	14227.2	7124.20		0.03	-0.02	0.043
14.00	-48.93	-2.29	0.00	-238.20	0.00	238.20	5623.38	2811.69	14051.0	7035.98		0.03	-0.02	0.043
16.00	-48.17	-2.28	0.00	-233.62	0.00	233.62	5596.66	2798.33	13875.2	6947.96		0.05	-0.03	0.042
18.00	-47.41	-2.27	0.00	-229.05	0.00	229.05	5569.67	2784.84	13699.9	6860.14		0.06	-0.03	0.042
20.00	-46.65	-2.26	0.00	-224.51	0.00	224.51	5542.43	2771.21	13524.9	6772.52		0.07	-0.03	0.042
22.00	-45.90	-2.24	0.00	-220.00	0.00	220.00	5514.92	2757.46	13350.3	6685.11		0.09	-0.04	0.041
24.00	-45.15	-2.23	0.00	-215.51	0.00	215.51	5487.15	2743.57	13176.2	6597.93		0.10	-0.04	0.041
25.00	-44.78	-2.22	0.00	-213.28	0.00	213.28	5473.16	2736.58	13089.3	6554.42		0.11	-0.04	0.041
25.00	-44.78	-2.22	0.00	-213.28	0.00	213.28	4407.37	2203.68	10563.1	5289.42		0.11	-0.04	0.050
26.00	-44.46	-2.22	0.00	-211.06	0.00	211.06	4397.65	2198.83	10497.0	5256.32		0.12	-0.04	0.050
28.00	-43.82	-2.21	0.00	-206.62	0.00	206.62	4378.03	2189.01	10364.9	5190.16		0.14	-0.05	0.050
30.00	-43.18	-2.20	0.00	-202.20	0.00	202.20	4358.14	2179.07	10232.9	5124.08		0.16	-0.05	0.049
32.00	-42.55	-2.19	0.00	-197.80	0.00	197.80	4338.00	2169.00	10101.1	5058.08		0.18	-0.06	0.049
34.00	-41.92	-2.18	0.00	-193.43	0.00	193.43	4317.58	2158.79	9969.51	4992.17		0.21	-0.06	0.048
36.00	-41.29	-2.17	0.00	-189.08	0.00	189.08	4296.91	2148.46	9838.08	4926.35		0.23	-0.06	0.048
38.00	-40.67	-2.15	0.00	-184.74	0.00	184.74	4275.98	2137.99	9706.86	4860.65		0.26	-0.07	0.048
40.00	-40.06	-2.14	0.00	-180.44	0.00	180.44	4254.78	2127.39	9575.87	4795.05		0.29	-0.07	0.047
41.00	-39.75	-2.14	0.00	-178.29	0.00	178.29	4244.08	2122.04	9510.46	4762.30		0.31	-0.07	0.047
42.00	-39.18	-2.12	0.00	-176.16	0.00	176.16	4233.32	2116.66	9445.12	4729.58		0.32	-0.08	0.047
44.00	-38.04	-2.10	0.00	-171.91	0.00	171.91	4211.60	2105.80	9314.62	4664.23		0.36	-0.08	0.046
46.00	-36.91	-2.07	0.00	-167.71	0.00	167.71	4189.62	2094.81	9184.40	4599.03		0.39	-0.09	0.045
48.00	-35.79	-2.05	0.00	-163.56	0.00	163.56	4202.72	2101.36	9261.79	4637.78		0.43	-0.09	0.044
50.00	-35.19	-2.04	0.00	-159.46	0.00	159.46	4180.63	2090.32	9131.68	4572.63		0.47	-0.09	0.043
52.00	-34.60	-2.03	0.00	-155.39	0.00	155.39	4158.28	2079.14	9001.86	4507.62		0.51	-0.10	0.043
54.00	-34.01	-2.02	0.00	-151.34	0.00	151.34	4135.67	2067.83	8872.35	4442.77		0.55	-0.10	0.042
56.00	-33.42	-2.01	0.00	-147.31	0.00	147.31	4112.79	2056.39	8743.17	4378.08		0.59	-0.11	0.042
58.00	-32.84	-2.00	0.00	-143.30	0.00	143.30	4089.65	2044.83	8614.32	4313.56		0.64	-0.11	0.041
60.00	-32.27	-1.99	0.00	-139.30	0.00	139.30	4066.25	2033.13	8485.83	4249.22		0.68	-0.11	0.041
62.00	-31.70	-1.98	0.00	-135.33	0.00	135.33	4042.59	2021.29	8357.71	4185.07		0.73	-0.12	0.040
64.00	-31.13	-1.97	0.00	-131.37	0.00	131.37	4018.67	2009.33	8229.97	4121.10		0.78	-0.12	0.040
66.00	-30.57	-1.97	0.00	-127.43	0.00	127.43	3994.48	1997.24	8102.64	4057.34		0.83	-0.13	0.039
68.00	-30.01	-1.96	0.00	-123.50	0.00	123.50	3970.03	1985.02	7975.72	3993.79		0.89	-0.13	0.038
70.00	-29.45	-1.96	0.00	-119.58	0.00	119.58	3945.32	1972.66	7849.23	3930.45		0.94	-0.13	0.038
72.00	-28.90	-1.95	0.00	-115.67	0.00	115.67	3920.35	1960.17	7723.19	3867.33		1.00	-0.14	0.037
74.00	-28.36	-1.95	0.00	-111.76	0.00	111.76	3895.11	1947.56	7597.60	3804.45		1.06	-0.14	0.037
76.00	-27.82	-1.95	0.00	-107.85	0.00	107.85	3869.62	1934.81	7472.50	3741.80		1.12	-0.14	0.036
78.00	-27.29	-1.95	0.00	-103.94	0.00	103.94	3843.86	1921.93	7347.89	3679.40		1.18	-0.15	0.035
80.00	-26.75	-1.96	0.00	-100.03	0.00	100.03	3817.84	1908.92	7223.78	3617.26		1.24	-0.15	0.035
82.00	-26.23	-1.96	0.00	-96.12	0.00	96.12	3791.55	1895.78	7100.20	3555.38		1.30	-0.16	0.034
84.00	-25.71	-1.96	0.00	-92.21	0.00	92.21	3765.01	1882.50	6977.16	3493.76		1.37	-0.16	0.033
85.00	-25.45	-1.96	0.00	-90.26	0.00	90.26	3751.64	1875.82	6915.84	3463.06		1.40	-0.16	0.033

Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 42

86.00	-25.01	-1.96	0.00	-88.30	0.00	88.30	3738.20	1869.10	6854.67	3432.43	1.44	-0.16	0.032
88.00	-24.13	-1.95	0.00	-84.39	0.00	84.39	3711.13	1855.57	6732.75	3371.38	1.51	-0.17	0.032
90.00	-23.26	-1.95	0.00	-80.48	0.00	80.48	3683.80	1841.90	6611.41	3310.62	1.58	-0.17	0.031
91.00	-22.83	-1.95	0.00	-78.53	0.00	78.53	2899.19	1449.59	5264.94	2636.38	1.62	-0.17	0.038
92.00	-22.61	-1.95	0.00	-76.58	0.00	76.58	2889.87	1444.93	5219.87	2613.82	1.65	-0.17	0.037
94.00	-22.17	-1.95	0.00	-72.67	0.00	72.67	2871.03	1435.52	5129.93	2568.78	1.73	-0.18	0.036
96.00	-21.74	-1.95	0.00	-68.77	0.00	68.77	2851.93	1425.97	5040.25	2523.87	1.80	-0.18	0.035
98.00	-21.32	-1.95	0.00	-64.86	0.00	64.86	2832.57	1416.29	4950.87	2479.11	1.88	-0.19	0.034
100.00	-20.89	-1.95	0.00	-60.95	0.00	60.95	2812.95	1406.48	4861.78	2434.50	1.96	-0.19	0.032
102.00	-20.47	-1.95	0.00	-57.05	0.00	57.05	2793.07	1396.53	4773.01	2390.05	2.04	-0.19	0.031
104.00	-20.06	-1.95	0.00	-53.14	0.00	53.14	2772.92	1386.46	4684.57	2345.77	2.12	-0.20	0.030
106.00	-19.65	-1.95	0.00	-49.23	0.00	49.23	2752.51	1376.26	4596.48	2301.65	2.20	-0.20	0.029
108.00	-19.24	-1.95	0.00	-45.33	0.00	45.33	2731.84	1365.92	4508.75	2257.73	2.29	-0.20	0.027
110.00	-18.83	-1.95	0.00	-41.43	0.00	41.43	2710.91	1355.45	4421.40	2213.98	2.37	-0.21	0.026
112.00	-18.43	-1.94	0.00	-37.54	0.00	37.54	2689.71	1344.86	4334.44	2170.44	2.46	-0.21	0.024
114.00	-18.04	-1.93	0.00	-33.66	0.00	33.66	2668.26	1334.13	4247.89	2127.10	2.55	-0.21	0.023
116.00	-17.65	-1.92	0.00	-29.79	0.00	29.79	2646.54	1323.27	4161.76	2083.97	2.64	-0.21	0.021
118.00	-17.26	-1.91	0.00	-25.95	0.00	25.95	2624.55	1312.28	4076.08	2041.07	2.73	-0.22	0.019
120.00	-12.00	-1.61	0.00	-22.14	0.00	22.14	2602.31	1301.16	3990.84	1998.39	2.82	-0.22	0.016
122.00	-11.64	-1.59	0.00	-18.91	0.00	18.91	2579.81	1289.90	3906.08	1955.94	2.91	-0.22	0.014
124.00	-11.28	-1.57	0.00	-15.73	0.00	15.73	2557.04	1278.52	3821.80	1913.74	3.01	-0.22	0.013
126.00	-10.92	-1.54	0.00	-12.59	0.00	12.59	2534.01	1267.00	3738.03	1871.79	3.10	-0.22	0.011
128.00	-10.57	-1.51	0.00	-9.50	0.00	9.50	2510.72	1255.36	3654.77	1830.10	3.19	-0.22	0.009
130.00	-6.09	-1.00	0.00	-6.47	0.00	6.47	2487.16	1243.58	3572.03	1788.67	3.29	-0.23	0.006
132.00	-5.55	-0.93	0.00	-4.48	0.00	4.48	2463.34	1231.67	3489.85	1747.52	3.38	-0.23	0.005
134.00	-5.02	-0.86	0.00	-2.62	0.00	2.62	2439.27	1219.63	3408.23	1706.65	3.48	-0.23	0.004
135.00	-4.76	-0.82	0.00	-1.76	0.00	1.76	1824.83	912.42	2579.10	1291.47	3.53	-0.23	0.004
136.00	-4.63	-0.80	0.00	-0.95	0.00	0.95	1817.10	908.55	2550.48	1277.14	3.57	-0.23	0.003
137.00	-0.33	-0.06	0.00	-0.15	0.00	0.15	1809.31	904.66	2521.92	1262.84	3.62	-0.23	0.000
138.00	-0.22	-0.04	0.00	-0.09	0.00	0.09	1801.45	900.73	2493.42	1248.56	3.67	-0.23	0.000
140.00	0.00	-0.04	0.00	0.00	0.00	0.00	1785.54	892.77	2436.62	1220.12	3.76	-0.23	0.000

Seismic Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 43	

Load Case:	0.9D + 1.0E							**Iterations**	20
Gust Response Factor	1.10				**Sds**	0.18		**Ss**	0.17
Dead Load Factor	0.90	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.50		**SA**	0.05	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.01	0.00	0.00	
2.00		603.17	0.00	0.02	0.01	5.70	
4.00		598.72	0.00	0.03	0.02	8.28	
6.00		594.28	0.00	0.04	0.02	10.19	
8.00		589.84	0.01	0.05	0.03	11.60	
10.00		585.39	0.01	0.06	0.03	12.65	
12.00		580.95	0.02	0.06	0.04	13.41	
14.00		576.50	0.02	0.06	0.04	13.97	
16.00		572.06	0.03	0.07	0.04	14.37	
18.00		567.61	0.03	0.07	0.04	14.66	
20.00		563.17	0.04	0.07	0.04	14.87	
22.00		558.72	0.05	0.07	0.04	15.02	
24.00		554.28	0.06	0.07	0.04	15.14	
25.00	Top - Section 1	275.47	0.06	0.07	0.04	7.58	
26.00		235.42	0.07	0.07	0.04	6.52	
28.00		467.98	0.08	0.07	0.04	13.13	
30.00		464.17	0.09	0.07	0.04	13.19	
32.00		460.36	0.10	0.07	0.04	13.25	
34.00		456.55	0.12	0.07	0.03	13.29	
36.00		452.74	0.13	0.07	0.03	13.33	
38.00		448.93	0.14	0.07	0.03	13.35	
40.00		445.12	0.16	0.07	0.03	13.35	
41.00	Bot - Section 3	221.13	0.17	0.07	0.03	6.66	
42.00		443.40	0.18	0.07	0.03	13.39	
44.00		881.08	0.19	0.06	0.02	26.69	
46.00		873.46	0.21	0.06	0.02	26.45	
48.00	Top - Section 2	865.84	0.23	0.06	0.02	26.09	
50.00		432.15	0.25	0.06	0.02	12.88	
52.00		428.34	0.27	0.05	0.02	12.53	
54.00		424.53	0.29	0.05	0.01	12.09	
56.00		420.72	0.31	0.04	0.01	11.54	
58.00		416.91	0.33	0.04	0.01	10.87	
60.00		413.10	0.35	0.03	0.01	10.08	
62.00		409.29	0.38	0.03	0.01	9.16	
64.00		405.48	0.40	0.02	0.01	8.12	
66.00		401.67	0.43	0.01	0.01	6.96	
68.00		397.86	0.45	0.00	0.01	5.70	
70.00		394.05	0.48	-0.01	0.01	4.36	
72.00		390.24	0.51	-0.02	0.01	2.95	
74.00		386.43	0.53	-0.03	0.01	1.52	
76.00		382.62	0.56	-0.04	0.01	0.09	
78.00		378.81	0.59	-0.05	0.01	-1.30	
80.00		375.00	0.62	-0.06	0.02	-2.60	
82.00		371.19	0.65	-0.07	0.02	-3.78	
84.00		367.38	0.69	-0.08	0.03	-4.79	
85.00	Bot - Section 4	182.26	0.70	-0.09	0.03	-2.61	

Seismic Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 44	

86.00			334.72	0.72	-0.09	0.03	-5.17		
88.00			664.20	0.75	-0.10	0.04	-11.49		
90.00			657.21	0.79	-0.11	0.05	-12.17		
91.00	Top - Section 3		325.99	0.80	-0.11	0.06	-6.15		
92.00			148.65	0.82	-0.12	0.06	-2.83		
94.00			294.91	0.86	-0.12	0.07	-5.54		
96.00			291.74	0.89	-0.12	0.09	-5.17		
98.00			288.56	0.93	-0.12	0.10	-4.58		
100.00			285.39	0.97	-0.12	0.12	-3.75		
102.00			282.21	1.01	-0.11	0.14	-2.69		
104.00			279.04	1.05	-0.09	0.16	-1.41		
106.00			275.86	1.09	-0.08	0.18	0.09		
108.00			272.69	1.13	-0.05	0.21	1.79		
110.00			269.51	1.17	-0.02	0.23	3.70		
112.00			266.34	1.21	0.02	0.27	5.81		
114.00			263.17	1.26	0.07	0.30	8.10		
116.00			259.99	1.30	0.12	0.34	10.57		
118.00			256.82	1.35	0.19	0.38	13.22		
120.00	Appurtenance(s)		4313.1	1.39	0.27	0.42	272.62		
122.00			250.47	1.44	0.36	0.47	19.00		
124.00			247.29	1.49	0.47	0.53	22.12		
126.00			244.12	1.53	0.59	0.58	25.38		
128.00			240.94	1.58	0.72	0.65	28.77		
130.00	Bot - Section 5		3684.3	1.63	0.88	0.71	500.38		
132.00			425.30	1.68	1.05	0.79	65.14		
134.00			419.59	1.73	1.25	0.87	71.95		
135.00	Top - Section 4		207.65	1.76	1.36	0.91	37.59		
136.00			92.50	1.78	1.47	0.95	17.65		
137.00	Appurtenance(s)		3581.4	1.81	1.59	1.00	719.08		
138.00			91.23	1.84	1.71	1.04	19.25		
140.00			180.55	1.89	1.98	1.14	41.94		
		Totals:	**41,009.9**				**2,273.1**	**Total Wind:**	**30,417.7**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 45	

Tower Engineering Solutions

Load Case:	0.9D + 1.0E							**Iterations**	20
Gust Response Factor	1.10			**Sds**	0.18			**Ss**	0.17
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.50	**SA**	0.05	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-40.77	-2.35	0.00	-269.05	0.00	269.05	5803.10	2901.55	15291.3	7657.05		0.00	0.00	0.042
2.00	-40.21	-2.35	0.00	-264.35	0.00	264.35	5778.21	2889.11	15113.2	7567.86		0.00	0.00	0.042
4.00	-39.64	-2.34	0.00	-259.66	0.00	259.66	5753.06	2876.53	14935.4	7478.80		0.00	-0.01	0.042
6.00	-39.04	-2.33	0.00	-254.98	0.00	254.98	5727.65	2863.83	14757.8	7389.90		0.01	-0.01	0.041
8.00	-38.45	-2.32	0.00	-250.32	0.00	250.32	5701.98	2850.99	14580.6	7301.16		0.01	-0.01	0.041
10.00	-37.86	-2.31	0.00	-245.68	0.00	245.68	5676.04	2838.02	14403.7	7212.59		0.02	-0.02	0.041
12.00	-37.28	-2.30	0.00	-241.05	0.00	241.05	5649.84	2824.92	14227.2	7124.20		0.03	-0.02	0.040
14.00	-36.70	-2.29	0.00	-236.45	0.00	236.45	5623.38	2811.69	14051.0	7035.98		0.03	-0.02	0.040
16.00	-36.13	-2.28	0.00	-231.88	0.00	231.88	5596.66	2798.33	13875.2	6947.96		0.04	-0.03	0.040
18.00	-35.55	-2.26	0.00	-227.33	0.00	227.33	5569.67	2784.84	13699.9	6860.14		0.06	-0.03	0.040
20.00	-34.99	-2.25	0.00	-222.80	0.00	222.80	5542.43	2771.21	13524.9	6772.52		0.07	-0.03	0.039
22.00	-34.42	-2.24	0.00	-218.30	0.00	218.30	5514.92	2757.46	13350.3	6685.11		0.08	-0.04	0.039
24.00	-33.86	-2.22	0.00	-213.83	0.00	213.83	5487.15	2743.57	13176.2	6597.93		0.10	-0.04	0.039
25.00	-33.59	-2.22	0.00	-211.61	0.00	211.61	5473.16	2736.58	13089.3	6554.42		0.11	-0.04	0.038
25.00	-33.59	-2.22	0.00	-211.61	0.00	211.61	4407.37	2203.68	10563.1	5289.42		0.11	-0.04	0.048
26.00	-33.34	-2.21	0.00	-209.39	0.00	209.39	4397.65	2198.83	10497.0	5256.32		0.12	-0.04	0.047
28.00	-32.86	-2.20	0.00	-204.97	0.00	204.97	4378.03	2189.01	10364.9	5190.16		0.14	-0.05	0.047
30.00	-32.38	-2.19	0.00	-200.57	0.00	200.57	4358.14	2179.07	10232.9	5124.08		0.16	-0.05	0.047
32.00	-31.91	-2.18	0.00	-196.20	0.00	196.20	4338.00	2169.00	10101.1	5058.08		0.18	-0.06	0.046
34.00	-31.44	-2.16	0.00	-191.84	0.00	191.84	4317.58	2158.79	9969.51	4992.17		0.21	-0.06	0.046
36.00	-30.97	-2.15	0.00	-187.51	0.00	187.51	4296.91	2148.46	9838.08	4926.35		0.23	-0.06	0.045
38.00	-30.50	-2.14	0.00	-183.21	0.00	183.21	4275.98	2137.99	9706.86	4860.65		0.26	-0.07	0.045
40.00	-30.04	-2.13	0.00	-178.92	0.00	178.92	4254.78	2127.39	9575.87	4795.05		0.29	-0.07	0.044
41.00	-29.81	-2.12	0.00	-176.80	0.00	176.80	4244.08	2122.04	9510.46	4762.30		0.30	-0.07	0.044
42.00	-29.38	-2.11	0.00	-174.67	0.00	174.67	4233.32	2116.66	9445.12	4729.58		0.32	-0.08	0.044
44.00	-28.53	-2.09	0.00	-170.45	0.00	170.45	4211.60	2105.80	9314.62	4664.23		0.35	-0.08	0.043
46.00	-27.68	-2.06	0.00	-166.28	0.00	166.28	4189.62	2094.81	9184.40	4599.03		0.39	-0.08	0.043
48.00	-26.84	-2.03	0.00	-162.16	0.00	162.16	4202.72	2101.36	9261.79	4637.78		0.42	-0.09	0.041
50.00	-26.40	-2.02	0.00	-158.09	0.00	158.09	4180.63	2090.32	9131.68	4572.63		0.46	-0.09	0.041
52.00	-25.95	-2.01	0.00	-154.05	0.00	154.05	4158.28	2079.14	9001.86	4507.62		0.50	-0.10	0.040
54.00	-25.51	-2.00	0.00	-150.03	0.00	150.03	4135.67	2067.83	8872.35	4442.77		0.54	-0.10	0.040
56.00	-25.07	-1.99	0.00	-146.03	0.00	146.03	4112.79	2056.39	8743.17	4378.08		0.59	-0.10	0.039
58.00	-24.63	-1.98	0.00	-142.05	0.00	142.05	4089.65	2044.83	8614.32	4313.56		0.63	-0.11	0.039
60.00	-24.20	-1.97	0.00	-138.09	0.00	138.09	4066.25	2033.13	8485.83	4249.22		0.68	-0.11	0.038
62.00	-23.77	-1.96	0.00	-134.15	0.00	134.15	4042.59	2021.29	8357.71	4185.07		0.73	-0.12	0.038
64.00	-23.35	-1.95	0.00	-130.23	0.00	130.23	4018.67	2009.33	8229.97	4121.10		0.77	-0.12	0.037
66.00	-22.92	-1.95	0.00	-126.32	0.00	126.32	3994.48	1997.24	8102.64	4057.34		0.83	-0.12	0.037
68.00	-22.50	-1.94	0.00	-122.42	0.00	122.42	3970.03	1985.02	7975.72	3993.79		0.88	-0.13	0.036
70.00	-22.09	-1.94	0.00	-118.54	0.00	118.54	3945.32	1972.66	7849.23	3930.45		0.93	-0.13	0.036
72.00	-21.68	-1.94	0.00	-114.66	0.00	114.66	3920.35	1960.17	7723.19	3867.33		0.99	-0.14	0.035
74.00	-21.27	-1.94	0.00	-110.78	0.00	110.78	3895.11	1947.56	7597.60	3804.45		1.05	-0.14	0.035
76.00	-20.86	-1.94	0.00	-106.91	0.00	106.91	3869.62	1934.81	7472.50	3741.80		1.11	-0.14	0.034
78.00	-20.46	-1.94	0.00	-103.04	0.00	103.04	3843.86	1921.93	7347.89	3679.40		1.17	-0.15	0.033
80.00	-20.06	-1.94	0.00	-99.17	0.00	99.17	3817.84	1908.92	7223.78	3617.26		1.23	-0.15	0.033
82.00	-19.67	-1.94	0.00	-95.30	0.00	95.30	3791.55	1895.78	7100.20	3555.38		1.29	-0.15	0.032
84.00	-19.28	-1.94	0.00	-91.42	0.00	91.42	3765.01	1882.50	6977.16	3493.76		1.36	-0.16	0.031
85.00	-19.08	-1.94	0.00	-89.49	0.00	89.49	3751.64	1875.82	6915.84	3463.06		1.39	-0.16	0.031

Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 46

86.00	-18.75	-1.94	0.00	-87.55	0.00	87.55	3738.20	1869.10	6854.67	3432.43	1.43	-0.16	0.031
88.00	-18.09	-1.94	0.00	-83.67	0.00	83.67	3711.13	1855.57	6732.75	3371.38	1.50	-0.17	0.030
90.00	-17.44	-1.94	0.00	-79.80	0.00	79.80	3683.80	1841.90	6611.41	3310.62	1.57	-0.17	0.029
91.00	-17.12	-1.93	0.00	-77.87	0.00	77.87	2899.19	1449.59	5264.94	2636.38	1.60	-0.17	0.035
92.00	-16.96	-1.94	0.00	-75.93	0.00	75.93	2889.87	1444.93	5219.87	2613.82	1.64	-0.17	0.035
94.00	-16.63	-1.94	0.00	-72.06	0.00	72.06	2871.03	1435.52	5129.93	2568.78	1.71	-0.18	0.034
96.00	-16.31	-1.94	0.00	-68.19	0.00	68.19	2851.93	1425.97	5040.25	2523.87	1.79	-0.18	0.033
98.00	-15.99	-1.94	0.00	-64.32	0.00	64.32	2832.57	1416.29	4950.87	2479.11	1.86	-0.18	0.032
100.00	-15.67	-1.94	0.00	-60.45	0.00	60.45	2812.95	1406.48	4861.78	2434.50	1.94	-0.19	0.030
102.00	-15.35	-1.94	0.00	-56.58	0.00	56.58	2793.07	1396.53	4773.01	2390.05	2.02	-0.19	0.029
104.00	-15.04	-1.94	0.00	-52.71	0.00	52.71	2772.92	1386.46	4684.57	2345.77	2.10	-0.20	0.028
106.00	-14.73	-1.93	0.00	-48.84	0.00	48.84	2752.51	1376.26	4596.48	2301.65	2.19	-0.20	0.027
108.00	-14.43	-1.93	0.00	-44.97	0.00	44.97	2731.84	1365.92	4508.75	2257.73	2.27	-0.20	0.025
110.00	-14.12	-1.93	0.00	-41.11	0.00	41.11	2710.91	1355.45	4421.40	2213.98	2.36	-0.21	0.024
112.00	-13.82	-1.92	0.00	-37.25	0.00	37.25	2689.71	1344.86	4334.44	2170.44	2.44	-0.21	0.022
114.00	-13.53	-1.91	0.00	-33.40	0.00	33.40	2668.26	1334.13	4247.89	2127.10	2.53	-0.21	0.021
116.00	-13.23	-1.90	0.00	-29.57	0.00	29.57	2646.54	1323.27	4161.76	2083.97	2.62	-0.21	0.019
118.00	-12.94	-1.89	0.00	-25.77	0.00	25.77	2624.55	1312.28	4076.08	2041.07	2.71	-0.22	0.018
120.00	-9.00	-1.60	0.00	-21.99	0.00	21.99	2602.31	1301.16	3990.84	1998.39	2.80	-0.22	0.014
122.00	-8.73	-1.58	0.00	-18.79	0.00	18.79	2579.81	1289.90	3906.08	1955.94	2.89	-0.22	0.013
124.00	-8.46	-1.56	0.00	-15.62	0.00	15.62	2557.04	1278.52	3821.80	1913.74	2.98	-0.22	0.011
126.00	-8.19	-1.53	0.00	-12.50	0.00	12.50	2534.01	1267.00	3738.03	1871.79	3.08	-0.22	0.010
128.00	-7.93	-1.50	0.00	-9.44	0.00	9.44	2510.72	1255.36	3654.77	1830.10	3.17	-0.22	0.008
130.00	-4.57	-0.99	0.00	-6.43	0.00	6.43	2487.16	1243.58	3572.03	1788.67	3.26	-0.22	0.005
132.00	-4.16	-0.92	0.00	-4.45	0.00	4.45	2463.34	1231.67	3489.85	1747.52	3.36	-0.22	0.004
134.00	-3.77	-0.85	0.00	-2.60	0.00	2.60	2439.27	1219.63	3408.23	1706.65	3.45	-0.22	0.003
135.00	-3.57	-0.81	0.00	-1.75	0.00	1.75	1824.83	912.42	2579.10	1291.47	3.50	-0.22	0.003
136.00	-3.48	-0.79	0.00	-0.94	0.00	0.94	1817.10	908.55	2550.48	1277.14	3.54	-0.22	0.003
137.00	-0.24	-0.06	0.00	-0.15	0.00	0.15	1809.31	904.66	2521.92	1262.84	3.59	-0.23	0.000
138.00	-0.16	-0.04	0.00	-0.09	0.00	0.09	1801.45	900.73	2493.42	1248.56	3.64	-0.23	0.000
140.00	0.00	-0.04	0.00	0.00	0.00	0.00	1785.54	892.77	2436.62	1220.12	3.73	-0.23	0.000

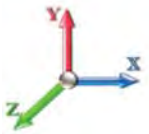
Wind Loading - Shaft

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 47	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.74	273.99	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	6.129	6.74	271.99	0.650	0.000	2.00	10.876	7.07	47.7	0.0	603.2
4.00		1.00	0.70	6.129	6.74	269.99	0.650	0.000	2.00	10.796	7.02	47.3	0.0	598.7
6.00		1.00	0.70	6.129	6.74	267.99	0.650	0.000	2.00	10.717	6.97	47.0	0.0	594.3
8.00		1.00	0.70	6.129	6.74	265.99	0.650	0.000	2.00	10.637	6.91	46.6	0.0	589.8
10.00		1.00	0.70	6.129	6.74	264.00	0.650	0.000	2.00	10.558	6.86	46.3	0.0	585.4
12.00		1.00	0.70	6.129	6.74	262.00	0.650	0.000	2.00	10.478	6.81	45.9	0.0	580.9
14.00		1.00	0.70	6.129	6.74	260.00	0.650	0.000	2.00	10.398	6.76	45.6	0.0	576.5
16.00		1.00	0.70	6.129	6.74	258.00	0.650	0.000	2.00	10.319	6.71	45.2	0.0	572.1
18.00		1.00	0.70	6.129	6.74	256.00	0.650	0.000	2.00	10.239	6.66	44.9	0.0	567.6
20.00		1.00	0.70	6.129	6.74	254.01	0.650	0.000	2.00	10.160	6.60	44.5	0.0	563.2
22.00		1.00	0.70	6.129	6.74	252.01	0.650	0.000	2.00	10.080	6.55	44.2	0.0	558.7
24.00		1.00	0.70	6.129	6.74	250.01	0.650	0.000	2.00	10.000	6.50	43.8	0.0	554.3
25.00	Top - Section 1	1.00	0.70	6.129	6.74	249.01	0.650	0.000	1.00	4.970	3.23	21.8	0.0	275.5
26.00		1.00	0.70	6.129	6.74	248.01	0.650	0.000	1.00	4.950	3.22	21.7	0.0	235.4
28.00		1.00	0.70	6.129	6.74	246.01	0.650	0.000	2.00	9.841	6.40	43.1	0.0	468.0
30.00		1.00	0.71	6.192	6.81	245.26	0.650	0.000	2.00	9.762	6.35	43.2	0.0	464.2
32.00		1.00	0.72	6.303	6.93	245.44	0.650	0.000	2.00	9.682	6.29	43.6	0.0	460.4
34.00		1.00	0.73	6.410	7.05	245.47	0.650	0.000	2.00	9.602	6.24	44.0	0.0	456.6
36.00		1.00	0.74	6.513	7.16	245.36	0.650	0.000	2.00	9.523	6.19	44.3	0.0	452.7
38.00		1.00	0.76	6.611	7.27	245.14	0.650	0.000	2.00	9.443	6.14	44.6	0.0	448.9
40.00		1.00	0.77	6.706	7.38	244.81	0.650	0.000	2.00	9.364	6.09	44.9	0.0	445.1
41.00	Bot - Section 3	1.00	0.77	6.753	7.43	244.60	0.650	0.000	1.00	4.652	3.02	22.5	0.0	221.1
42.00		1.00	0.78	6.798	7.48	244.38	0.650	0.000	1.00	4.696	3.05	22.8	0.0	443.4
44.00		1.00	0.79	6.887	7.58	243.85	0.650	0.000	2.00	9.331	6.07	46.0	0.0	881.1
46.00		1.00	0.80	6.973	7.67	243.24	0.650	0.000	2.00	9.252	6.01	46.1	0.0	873.5
48.00	Top - Section 2	1.00	0.81	7.057	7.76	242.55	0.650	0.000	2.00	9.172	5.96	46.3	0.0	865.8
50.00		1.00	0.82	7.138	7.85	245.22	0.650	0.000	2.00	9.093	5.91	46.4	0.0	432.1
52.00		1.00	0.82	7.217	7.94	244.40	0.650	0.000	2.00	9.013	5.86	46.5	0.0	428.3
54.00		1.00	0.83	7.294	8.02	243.52	0.650	0.000	2.00	8.933	5.81	46.6	0.0	424.5
56.00		1.00	0.84	7.368	8.11	242.57	0.650	0.000	2.00	8.854	5.75	46.6	0.0	420.7
58.00		1.00	0.85	7.441	8.19	241.57	0.650	0.000	2.00	8.774	5.70	46.7	0.0	416.9
60.00		1.00	0.86	7.513	8.26	240.51	0.650	0.000	2.00	8.694	5.65	46.7	0.0	413.1
62.00		1.00	0.87	7.582	8.34	239.40	0.650	0.000	2.00	8.615	5.60	46.7	0.0	409.3
64.00		1.00	0.87	7.650	8.42	238.24	0.650	0.000	2.00	8.535	5.55	46.7	0.0	405.5
66.00		1.00	0.88	7.717	8.49	237.03	0.650	0.000	2.00	8.456	5.50	46.7	0.0	401.7
68.00		1.00	0.89	7.782	8.56	235.78	0.650	0.000	2.00	8.376	5.44	46.6	0.0	397.9
70.00		1.00	0.90	7.846	8.63	234.48	0.650	0.000	2.00	8.296	5.39	46.5	0.0	394.0
72.00		1.00	0.90	7.908	8.70	233.14	0.650	0.000	2.00	8.217	5.34	46.5	0.0	390.2
74.00		1.00	0.91	7.969	8.77	231.77	0.650	0.000	2.00	8.137	5.29	46.4	0.0	386.4
76.00		1.00	0.92	8.030	8.83	230.35	0.650	0.000	2.00	8.058	5.24	46.3	0.0	382.6
78.00		1.00	0.92	8.089	8.90	228.90	0.650	0.000	2.00	7.978	5.19	46.1	0.0	378.8
80.00		1.00	0.93	8.147	8.96	227.42	0.650	0.000	2.00	7.898	5.13	46.0	0.0	375.0
82.00		1.00	0.94	8.204	9.02	225.90	0.650	0.000	2.00	7.819	5.08	45.9	0.0	371.2
84.00		1.00	0.94	8.260	9.09	224.35	0.650	0.000	2.00	7.739	5.03	45.7	0.0	367.4
85.00	Bot - Section 4	1.00	0.95	8.287	9.12	223.56	0.650	0.000	1.00	3.840	2.50	22.8	0.0	182.3
86.00		1.00	0.95	8.315	9.15	222.77	0.650	0.000	1.00	3.873	2.52	23.0	0.0	334.7

Wind Loading - Shaft

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 48

88.00		1.00	0.96	8.369	9.21	221.16	0.650	0.000	2.00	7.686	5.00	46.0	0.0	664.2
90.00		1.00	0.96	8.422	9.26	219.52	0.650	0.000	2.00	7.606	4.94	45.8	0.0	657.2
91.00	Top - Section 3	1.00	0.96	8.448	9.29	218.69	0.650	0.000	1.00	3.773	2.45	22.8	0.0	326.0
92.00		1.00	0.97	8.475	9.32	220.98	0.650	0.000	1.00	3.753	2.44	22.7	0.0	148.6
94.00		1.00	0.97	8.526	9.38	219.29	0.650	0.000	2.00	7.447	4.84	45.4	0.0	294.9
96.00		1.00	0.98	8.577	9.43	217.58	0.650	0.000	2.00	7.367	4.79	45.2	0.0	291.7
98.00		1.00	0.99	8.627	9.49	215.85	0.650	0.000	2.00	7.288	4.74	45.0	0.0	288.6
100.00		1.00	0.99	8.677	9.54	214.09	0.650	0.000	2.00	7.208	4.69	44.7	0.0	285.4
102.00		1.00	1.00	8.726	9.60	212.30	0.650	0.000	2.00	7.129	4.63	44.5	0.0	282.2
104.00		1.00	1.00	8.774	9.65	210.50	0.650	0.000	2.00	7.049	4.58	44.2	0.0	279.0
106.00		1.00	1.01	8.821	9.70	208.67	0.650	0.000	2.00	6.969	4.53	44.0	0.0	275.9
108.00		1.00	1.01	8.868	9.75	206.82	0.650	0.000	2.00	6.890	4.48	43.7	0.0	272.7
110.00		1.00	1.02	8.914	9.81	204.95	0.650	0.000	2.00	6.810	4.43	43.4	0.0	269.5
112.00		1.00	1.02	8.960	9.86	203.05	0.650	0.000	2.00	6.731	4.37	43.1	0.0	266.3
114.00		1.00	1.03	9.005	9.91	201.14	0.650	0.000	2.00	6.651	4.32	42.8	0.0	263.2
116.00		1.00	1.03	9.049	9.95	199.21	0.650	0.000	2.00	6.571	4.27	42.5	0.0	260.0
118.00		1.00	1.04	9.093	10.00	197.26	0.650	0.000	2.00	6.492	4.22	42.2	0.0	256.8
120.00	Appurtenance(s)	1.00	1.04	9.136	10.05	195.29	0.650	0.000	2.00	6.412	4.17	41.9	0.0	253.6
122.00		1.00	1.05	9.179	10.10	193.30	0.650	0.000	2.00	6.333	4.12	41.6	0.0	250.5
124.00		1.00	1.05	9.222	10.14	191.30	0.650	0.000	2.00	6.253	4.06	41.2	0.0	247.3
126.00		1.00	1.06	9.264	10.19	189.28	0.650	0.000	2.00	6.173	4.01	40.9	0.0	244.1
128.00		1.00	1.06	9.305	10.24	187.24	0.650	0.000	2.00	6.094	3.96	40.5	0.0	240.9
130.00	Bot - Section 5	1.00	1.07	9.346	10.28	185.18	0.650	0.000	2.00	6.014	3.91	40.2	0.0	237.8
132.00		1.00	1.07	9.387	10.33	183.11	0.650	0.000	2.00	6.019	3.91	40.4	0.0	425.3
134.00		1.00	1.08	9.427	10.37	181.02	0.650	0.000	2.00	5.940	3.86	40.0	0.0	419.6
135.00	Top - Section 4	1.00	1.08	9.447	10.39	179.97	0.650	0.000	1.00	2.940	1.91	19.9	0.0	207.6
136.00		1.00	1.08	9.466	10.41	181.56	0.650	0.000	1.00	2.920	1.90	19.8	0.0	92.5
137.00	Appurtenance(s)	1.00	1.08	9.486	10.43	180.51	0.650	0.000	1.00	2.900	1.89	19.7	0.0	91.9
138.00		1.00	1.09	9.506	10.46	179.45	0.650	0.000	1.00	2.880	1.87	19.6	0.0	91.2
140.00		1.00	1.09	9.545	10.50	177.32	0.650	0.000	2.00	5.701	3.71	38.9	0.0	180.6
								Totals:	**140.00**			**3,117.7**		**30,014.2**

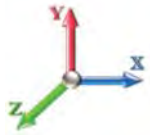
Discrete Appurtenance Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 49	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 21

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	137.00	Antel LPA-80063/6CF	2	9.486	10.435	0.70	0.75	13.54	54.00	0.000	0.000	141.25	0.00	0.00
2	137.00	B5/B13 RRHBR04C	3	9.486	10.435	0.50	0.75	2.79	210.90	0.000	0.000	29.10	0.00	0.00
3	137.00	B2/B66A RRHBR049	3	9.486	10.435	0.50	0.75	2.83	253.50	0.000	0.000	29.57	0.00	0.00
4	137.00	MT6407-77A	3	9.486	10.435	0.52	0.75	7.39	238.20	0.000	0.000	77.08	0.00	0.00
5	137.00	CBC78T-DS-43	3	9.486	10.435	0.50	0.75	0.56	31.20	0.000	0.000	5.82	0.00	0.00
6	137.00	RCMDC-6627-PF-48	1	9.486	10.435	0.50	0.75	2.04	32.00	0.000	0.000	21.29	0.00	0.00
7	137.00	JAHH-65B-R3B	6	9.486	10.435	0.62	0.75	34.03	379.80	0.000	0.000	355.05	0.00	0.00
8	137.00	(3) HR w/ Double V-Brace	1	9.486	10.435	1.00	1.00	15.50	650.00	0.000	0.000	161.74	0.00	0.00
9	137.00	(3) Stabilizer Kit (4' FW)	1	9.486	10.435	1.00	1.00	3.70	140.00	0.000	0.000	38.61	0.00	0.00
10	137.00	Low Profile Platform	1	9.486	10.435	1.00	1.00	22.00	1500.00	0.000	0.000	229.56	0.00	0.00
11	130.00	Powerwave LGP21901 -	6	9.346	10.281	0.50	0.75	5.04	186.00	0.000	0.000	51.76	0.00	0.00
12	130.00	RRUS 4449 B5/B12	3	9.346	10.281	0.50	0.75	2.97	213.00	0.000	0.000	30.53	0.00	0.00
13	130.00	RRUS 8843 B2 B66A	3	9.346	10.281	0.50	0.75	2.47	216.00	0.000	0.000	25.42	0.00	0.00
14	130.00	LGP17201	6	9.346	10.281	0.50	0.75	5.88	60.00	0.000	0.000	60.44	0.00	0.00
15	130.00	HRK12 (Handrail Kit)	1	9.346	10.281	1.00	1.00	10.00	261.72	0.000	0.000	102.81	0.00	0.00
16	130.00	Powerwave LGP21401 -	6	9.346	10.281	0.50	0.75	3.89	105.00	0.000	0.000	39.99	0.00	0.00
17	130.00	15'x2.875"mount pipe	3	9.346	10.281	1.00	1.00	12.93	261.00	0.000	0.000	132.93	0.00	0.00
18	130.00	7770.00	6	9.346	10.281	0.55	0.75	18.07	162.00	0.000	0.000	185.75	0.00	0.00
19	130.00	DMP65R-BU8DA	3	9.346	10.281	0.54	0.75	28.95	287.10	0.000	0.000	297.62	0.00	0.00
20	130.00	DC6-48-60-18-8F	1	9.346	10.281	0.50	0.75	0.65	32.80	0.000	0.000	6.72	0.00	0.00
21	130.00	Low Profile Platform	1	9.346	10.281	1.00	1.00	22.00	1500.00	0.000	0.000	226.18	0.00	0.00
22	130.00	HPA-65R-BU8AA	3	9.346	10.281	0.65	0.75	21.73	162.00	0.000	0.000	223.40	0.00	0.00
23	120.00	4480 Radio	3	9.136	10.050	0.50	0.75	4.30	279.00	0.000	0.000	43.18	0.00	0.00
24	120.00	4460 Radio	3	9.136	10.050	0.50	0.75	4.30	312.00	0.000	0.000	43.18	0.00	0.00
25	120.00	LP-RMQP-4096-HK Plat	1	9.136	10.050	1.00	1.00	51.70	2669.00	0.000	0.000	519.59	0.00	0.00
26	120.00	AIR6449 B41	3	9.136	10.050	0.53	0.75	9.03	309.00	0.000	0.000	90.71	0.00	0.00
27	120.00	APXVAA4L24-43-U-NA20	3	9.136	10.050	0.54	0.75	32.79	368.40	0.000	0.000	329.53	0.00	0.00
28	120.00	APX16DWV-16DWVS-E-A	3	9.136	10.050	0.46	0.75	9.22	122.10	0.000	0.000	92.67	0.00	0.00
							Totals:		**10,995.72**			**3,591.47**		

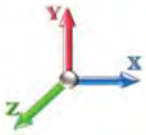
Total Applied Force Summary

Structure:	CT11560-A-SBA		**Code:**	EIA/TIA-222-G	9/10/2021
Site Name:	Sterling 6, CT		**Exposure:**	B	
Height:	140.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 50

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		47.66	620.37	0.00	0.00
4.00		47.31	640.88	0.00	0.00
6.00		46.96	661.40	0.00	0.00
8.00		46.61	656.96	0.00	0.00
10.00		46.26	652.51	0.00	0.00
12.00		45.91	648.07	0.00	0.00
14.00		45.57	643.62	0.00	0.00
16.00		45.22	639.18	0.00	0.00
18.00		44.87	634.73	0.00	0.00
20.00		44.52	630.29	0.00	0.00
22.00		44.17	625.84	0.00	0.00
24.00		43.82	621.40	0.00	0.00
25.00		21.78	309.03	0.00	0.00
26.00		21.69	268.98	0.00	0.00
28.00		43.12	535.10	0.00	0.00
30.00		43.21	531.29	0.00	0.00
32.00		43.63	527.48	0.00	0.00
34.00		44.01	523.67	0.00	0.00
36.00		44.34	519.86	0.00	0.00
38.00		44.64	516.05	0.00	0.00
40.00		44.90	512.24	0.00	0.00
41.00		22.46	254.69	0.00	0.00
42.00		22.82	476.96	0.00	0.00
44.00		45.95	948.20	0.00	0.00
46.00		46.13	940.58	0.00	0.00
48.00		46.28	932.96	0.00	0.00
50.00		46.40	499.27	0.00	0.00
52.00		46.51	495.46	0.00	0.00
54.00		46.59	491.65	0.00	0.00
56.00		46.65	487.84	0.00	0.00
58.00		46.68	484.03	0.00	0.00
60.00		46.70	480.22	0.00	0.00
62.00		46.70	476.41	0.00	0.00
64.00		46.69	472.60	0.00	0.00
66.00		46.65	468.79	0.00	0.00
68.00		46.60	464.98	0.00	0.00
70.00		46.54	461.17	0.00	0.00
72.00		46.46	457.36	0.00	0.00
74.00		46.37	453.55	0.00	0.00
76.00		46.26	449.74	0.00	0.00
78.00		46.14	445.93	0.00	0.00
80.00		46.01	442.12	0.00	0.00
82.00		45.86	438.31	0.00	0.00
84.00		45.71	434.50	0.00	0.00
85.00		22.75	215.82	0.00	0.00
86.00		23.02	368.28	0.00	0.00

Total Applied Force Summary

Structure:	CT11560-A-SBA		**Code:**	EIA/TIA-222-G	9/10/2021
Site Name:	Sterling 6, CT		**Exposure:**	B	
Height:	140.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 51

Tower Engineering Solutions

88.00		45.99	731.32	0.00	0.00
90.00		45.80	724.33	0.00	0.00
91.00		22.79	359.55	0.00	0.00
92.00		22.74	182.21	0.00	0.00
94.00		45.40	362.03	0.00	0.00
96.00		45.18	358.86	0.00	0.00
98.00		44.96	355.68	0.00	0.00
100.00		44.72	352.51	0.00	0.00
102.00		44.47	349.33	0.00	0.00
104.00		44.22	346.16	0.00	0.00
106.00		43.96	342.98	0.00	0.00
108.00		43.68	339.81	0.00	0.00
110.00		43.41	336.63	0.00	0.00
112.00		43.12	333.46	0.00	0.00
114.00		42.82	330.29	0.00	0.00
116.00		42.52	327.11	0.00	0.00
118.00		42.21	323.94	0.00	0.00
120.00	(16) attachments	1160.75	4380.26	0.00	0.00
122.00		41.56	302.59	0.00	0.00
124.00		41.23	299.41	0.00	0.00
126.00		40.89	296.24	0.00	0.00
128.00		40.54	293.06	0.00	0.00
130.00	(42) attachments	1423.73	3736.51	0.00	0.00
132.00		40.40	448.30	0.00	0.00
134.00		40.03	442.59	0.00	0.00
135.00		19.86	219.15	0.00	0.00
136.00		19.76	104.00	0.00	0.00
137.00	(24) attachments	1108.74	3592.96	0.00	0.00
138.00		19.58	91.23	0.00	0.00
140.00		38.90	180.55	0.00	0.00
	Totals:	**6,709.12**	**45,303.33**	**0.00**	**0.00**

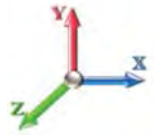
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 52	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
4.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.008	0.000	6.129	0.00	2.00
4.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.008	0.000	6.129	0.00	0.08
6.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	6.129	0.00	4.00
6.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	6.129	0.00	0.16
8.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	6.129	0.00	4.00
8.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	6.129	0.00	0.16
10.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	6.129	0.00	4.00
10.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	6.129	0.00	0.16
12.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	6.129	0.00	4.00
12.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	6.129	0.00	0.16
14.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	6.129	0.00	4.00
14.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	6.129	0.00	0.16
16.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	6.129	0.00	4.00
16.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	6.129	0.00	0.16
18.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	6.129	0.00	4.00
18.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	6.129	0.00	0.16
20.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.016	0.000	6.129	0.00	4.00
20.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.016	0.000	6.129	0.00	0.16
22.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	6.129	0.00	4.00
22.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	6.129	0.00	0.16
24.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	6.129	0.00	4.00
24.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	6.129	0.00	0.16
25.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.017	0.000	6.129	0.00	2.00
25.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.017	0.000	6.129	0.00	0.08
26.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.017	0.000	6.129	0.00	2.00
26.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.017	0.000	6.129	0.00	0.08
28.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	6.129	0.00	4.00
28.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	6.129	0.00	0.16
30.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	6.192	0.00	4.00
30.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	6.192	0.00	0.16
32.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	6.303	0.00	4.00
32.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	6.303	0.00	0.16
34.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.017	0.000	6.410	0.00	4.00
34.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.017	0.000	6.410	0.00	0.16
36.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	6.513	0.00	4.00
36.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	6.513	0.00	0.16
38.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	6.611	0.00	4.00
38.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	6.611	0.00	0.16
40.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	6.706	0.00	4.00
40.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	6.706	0.00	0.16
41.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.018	0.000	6.753	0.00	2.00
41.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.018	0.000	6.753	0.00	0.08
42.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.018	0.000	6.798	0.00	2.00
42.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.018	0.000	6.798	0.00	0.08
44.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	6.887	0.00	4.00
44.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	6.887	0.00	0.16
46.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	6.973	0.00	4.00

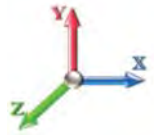
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 53	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	6.973	0.00	0.16
48.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	7.057	0.00	4.00
48.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	7.057	0.00	0.16
50.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	7.138	0.00	4.00
50.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	7.138	0.00	0.16
52.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.018	0.000	7.217	0.00	4.00
52.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.018	0.000	7.217	0.00	0.16
54.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	7.294	0.00	4.00
54.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	7.294	0.00	0.16
56.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	7.368	0.00	4.00
56.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	7.368	0.00	0.16
58.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	7.441	0.00	4.00
58.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	7.441	0.00	0.16
60.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	7.513	0.00	4.00
60.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	7.513	0.00	0.16
62.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.019	0.000	7.582	0.00	4.00
62.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.019	0.000	7.582	0.00	0.16
64.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	7.650	0.00	4.00
64.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	7.650	0.00	0.16
66.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	7.717	0.00	4.00
66.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	7.717	0.00	0.16
68.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	7.782	0.00	4.00
68.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	7.782	0.00	0.16
70.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	7.846	0.00	4.00
70.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	7.846	0.00	0.16
72.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	7.908	0.00	4.00
72.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	7.908	0.00	0.16
74.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.020	0.000	7.969	0.00	4.00
74.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.020	0.000	7.969	0.00	0.16
76.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	8.030	0.00	4.00
76.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	8.030	0.00	0.16
78.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	8.089	0.00	4.00
78.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	8.089	0.00	0.16
80.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	8.147	0.00	4.00
80.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	8.147	0.00	0.16
82.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.021	0.000	8.204	0.00	4.00
82.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.021	0.000	8.204	0.00	0.16
84.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	8.260	0.00	4.00
84.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	8.260	0.00	0.16
85.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	8.287	0.00	2.00
85.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	8.287	0.00	0.08
86.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	8.315	0.00	2.00
86.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	8.315	0.00	0.08
88.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	8.369	0.00	4.00
88.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	8.369	0.00	0.16
90.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	8.422	0.00	4.00
90.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	8.422	0.00	0.16

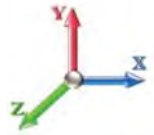
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 54	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
91.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	8.448	0.00	2.00
91.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	8.448	0.00	0.08
92.00	1" DC Power	Yes	1.00	0.000	1.00	0.08	0.00	0.022	0.000	8.475	0.00	2.00
92.00	7/16" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.022	0.000	8.475	0.00	0.08
94.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.022	0.000	8.526	0.00	4.00
94.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	8.526	0.00	0.16
96.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	8.577	0.00	4.00
96.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	8.577	0.00	0.16
98.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	8.627	0.00	4.00
98.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	8.627	0.00	0.16
100.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	8.677	0.00	4.00
100.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	8.677	0.00	0.16
102.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.023	0.000	8.726	0.00	4.00
102.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	8.726	0.00	0.16
104.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	8.774	0.00	4.00
104.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	8.774	0.00	0.16
106.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	8.821	0.00	4.00
106.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	8.821	0.00	0.16
108.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	8.868	0.00	4.00
108.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	8.868	0.00	0.16
110.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.024	0.000	8.914	0.00	4.00
110.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.024	0.000	8.914	0.00	0.16
112.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.025	0.000	8.960	0.00	4.00
112.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	8.960	0.00	0.16
114.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.025	0.000	9.005	0.00	4.00
114.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	9.005	0.00	0.16
116.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.025	0.000	9.049	0.00	4.00
116.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.025	0.000	9.049	0.00	0.16
118.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.026	0.000	9.093	0.00	4.00
118.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	9.093	0.00	0.16
120.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.026	0.000	9.136	0.00	4.00
120.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	9.136	0.00	0.16
122.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.026	0.000	9.179	0.00	4.00
122.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.026	0.000	9.179	0.00	0.16
124.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.027	0.000	9.222	0.00	4.00
124.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	9.222	0.00	0.16
126.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.027	0.000	9.264	0.00	4.00
126.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	9.264	0.00	0.16
128.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.027	0.000	9.305	0.00	4.00
128.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.027	0.000	9.305	0.00	0.16
130.00	1" DC Power	Yes	2.00	0.000	1.00	0.17	0.00	0.028	0.000	9.346	0.00	4.00
130.00	7/16" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.028	0.000	9.346	0.00	0.16
									Totals:		**0.0**	**264.2**

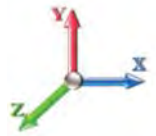
Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 55	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 21

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-45.30	-6.71	0.00	-694.47	0.00	694.47	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.099
2.00	-44.68	-6.67	0.00	-681.04	0.00	681.04	5778.21	2889.11	15113.2	7567.86	0.00	-0.008	0.000	0.098
4.00	-44.04	-6.63	0.00	-667.70	0.00	667.70	5753.06	2876.53	14935.4	7478.80	0.01	-0.017	0.000	0.097
6.00	-43.38	-6.59	0.00	-654.44	0.00	654.44	5727.65	2863.83	14757.8	7389.90	0.02	-0.026	0.000	0.096
8.00	-42.72	-6.55	0.00	-641.26	0.00	641.26	5701.98	2850.99	14580.6	7301.16	0.03	-0.034	0.000	0.095
10.00	-42.07	-6.51	0.00	-628.17	0.00	628.17	5676.04	2838.02	14403.7	7212.59	0.05	-0.043	0.000	0.095
12.00	-41.42	-6.47	0.00	-615.15	0.00	615.15	5649.84	2824.92	14227.2	7124.20	0.06	-0.051	0.000	0.094
14.00	-40.77	-6.43	0.00	-602.22	0.00	602.22	5623.38	2811.69	14051.0	7035.98	0.09	-0.060	0.000	0.093
16.00	-40.13	-6.39	0.00	-589.36	0.00	589.36	5596.66	2798.33	13875.2	6947.96	0.12	-0.068	0.000	0.092
18.00	-39.50	-6.35	0.00	-576.59	0.00	576.59	5569.67	2784.84	13699.9	6860.14	0.15	-0.077	0.000	0.091
20.00	-38.87	-6.31	0.00	-563.89	0.00	563.89	5542.43	2771.21	13524.9	6772.52	0.18	-0.086	0.000	0.090
22.00	-38.24	-6.27	0.00	-551.27	0.00	551.27	5514.92	2757.46	13350.3	6685.11	0.22	-0.094	0.000	0.089
24.00	-37.62	-6.23	0.00	-538.74	0.00	538.74	5487.15	2743.57	13176.2	6597.93	0.26	-0.103	0.000	0.089
25.00	-37.31	-6.21	0.00	-532.51	0.00	532.51	5473.16	2736.58	13089.3	6554.42	0.28	-0.107	0.000	0.088
25.00	-37.31	-6.21	0.00	-532.51	0.00	532.51	4407.37	2203.68	10563.1	5289.42	0.28	-0.107	0.000	0.109
26.00	-37.04	-6.19	0.00	-526.30	0.00	526.30	4397.65	2198.83	10497.0	5256.32	0.30	-0.112	0.000	0.109
28.00	-36.50	-6.15	0.00	-513.92	0.00	513.92	4378.03	2189.01	10364.9	5190.16	0.35	-0.122	0.000	0.107
30.00	-35.97	-6.12	0.00	-501.61	0.00	501.61	4358.14	2179.07	10232.9	5124.08	0.41	-0.132	0.000	0.106
32.00	-35.44	-6.08	0.00	-489.38	0.00	489.38	4338.00	2169.00	10101.1	5058.08	0.46	-0.142	0.000	0.105
34.00	-34.92	-6.04	0.00	-477.23	0.00	477.23	4317.58	2158.79	9969.51	4992.17	0.53	-0.152	0.000	0.104
36.00	-34.40	-6.00	0.00	-465.15	0.00	465.15	4296.91	2148.46	9838.08	4926.35	0.59	-0.162	0.000	0.102
38.00	-33.88	-5.96	0.00	-453.15	0.00	453.15	4275.98	2137.99	9706.86	4860.65	0.66	-0.172	0.000	0.101
40.00	-33.37	-5.92	0.00	-441.24	0.00	441.24	4254.78	2127.39	9575.87	4795.05	0.74	-0.182	0.000	0.100
41.00	-33.11	-5.90	0.00	-435.32	0.00	435.32	4244.08	2122.04	9510.46	4762.30	0.78	-0.187	0.000	0.099
42.00	-32.63	-5.88	0.00	-429.43	0.00	429.43	4233.32	2116.66	9445.12	4729.58	0.82	-0.192	0.000	0.099
44.00	-31.68	-5.83	0.00	-417.68	0.00	417.68	4211.60	2105.80	9314.62	4664.23	0.90	-0.202	0.000	0.097
46.00	-30.74	-5.79	0.00	-406.01	0.00	406.01	4189.62	2094.81	9184.40	4599.03	0.99	-0.212	0.000	0.096
48.00	-29.81	-5.74	0.00	-394.44	0.00	394.44	4202.72	2101.36	9261.79	4637.78	1.08	-0.222	0.000	0.092
50.00	-29.31	-5.70	0.00	-382.95	0.00	382.95	4180.63	2090.32	9131.68	4572.63	1.17	-0.232	0.000	0.091
52.00	-28.81	-5.66	0.00	-371.56	0.00	371.56	4158.28	2079.14	9001.86	4507.62	1.27	-0.242	0.000	0.089
54.00	-28.32	-5.61	0.00	-360.24	0.00	360.24	4135.67	2067.83	8872.35	4442.77	1.37	-0.251	0.000	0.088
56.00	-27.83	-5.57	0.00	-349.02	0.00	349.02	4112.79	2056.39	8743.17	4378.08	1.48	-0.261	0.000	0.086
58.00	-27.35	-5.52	0.00	-337.89	0.00	337.89	4089.65	2044.83	8614.32	4313.56	1.59	-0.270	0.000	0.085
60.00	-26.87	-5.48	0.00	-326.84	0.00	326.84	4066.25	2033.13	8485.83	4249.22	1.71	-0.280	0.000	0.084
62.00	-26.39	-5.43	0.00	-315.88	0.00	315.88	4042.59	2021.29	8357.71	4185.07	1.83	-0.289	0.000	0.082
64.00	-25.92	-5.39	0.00	-305.02	0.00	305.02	4018.67	2009.33	8229.97	4121.10	1.95	-0.298	0.000	0.080
66.00	-25.45	-5.34	0.00	-294.24	0.00	294.24	3994.48	1997.24	8102.64	4057.34	2.08	-0.307	0.000	0.079
68.00	-24.98	-5.30	0.00	-283.55	0.00	283.55	3970.03	1985.02	7975.72	3993.79	2.21	-0.316	0.000	0.077
70.00	-24.52	-5.25	0.00	-272.96	0.00	272.96	3945.32	1972.66	7849.23	3930.45	2.34	-0.325	0.000	0.076
72.00	-24.06	-5.21	0.00	-262.45	0.00	262.45	3920.35	1960.17	7723.19	3867.33	2.48	-0.334	0.000	0.074
74.00	-23.61	-5.16	0.00	-252.04	0.00	252.04	3895.11	1947.56	7597.60	3804.45	2.62	-0.343	0.000	0.072
76.00	-23.16	-5.12	0.00	-241.71	0.00	241.71	3869.62	1934.81	7472.50	3741.80	2.77	-0.352	0.000	0.071
78.00	-22.71	-5.07	0.00	-231.48	0.00	231.48	3843.86	1921.93	7347.89	3679.40	2.92	-0.361	0.000	0.069
80.00	-22.27	-5.03	0.00	-221.34	0.00	221.34	3817.84	1908.92	7223.78	3617.26	3.07	-0.369	0.000	0.067
82.00	-21.83	-4.98	0.00	-211.28	0.00	211.28	3791.55	1895.78	7100.20	3555.38	3.23	-0.377	0.000	0.065
84.00	-21.39	-4.93	0.00	-201.32	0.00	201.32	3765.01	1882.50	6977.16	3493.76	3.39	-0.386	0.000	0.063
85.00	-21.18	-4.91	0.00	-196.39	0.00	196.39	3751.64	1875.82	6915.84	3463.06	3.47	-0.390	0.000	0.062
86.00	-20.81	-4.89	0.00	-191.48	0.00	191.48	3738.20	1869.10	6854.67	3432.43	3.55	-0.394	0.000	0.061

Calculated Forces

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 56

88.00	-20.08	-4.84	0.00	-181.70	0.00	181.70	3711.13	1855.57	6732.75	3371.38	3.72	-0.402	0.000	0.059
90.00	-19.35	-4.79	0.00	-172.02	0.00	172.02	3683.80	1841.90	6611.41	3310.62	3.89	-0.409	0.000	0.057
91.00	-18.99	-4.77	0.00	-167.23	0.00	167.23	2899.19	1449.59	5264.94	2636.38	3.98	-0.413	0.000	0.070
92.00	-18.81	-4.74	0.00	-162.47	0.00	162.47	2889.87	1444.93	5219.87	2613.82	4.06	-0.417	0.000	0.069
94.00	-18.45	-4.70	0.00	-152.98	0.00	152.98	2871.03	1435.52	5129.93	2568.78	4.24	-0.426	0.000	0.066
96.00	-18.09	-4.65	0.00	-143.58	0.00	143.58	2851.93	1425.97	5040.25	2523.87	4.42	-0.434	0.000	0.063
98.00	-17.73	-4.61	0.00	-134.27	0.00	134.27	2832.57	1416.29	4950.87	2479.11	4.60	-0.442	0.000	0.060
100.00	-17.38	-4.56	0.00	-125.06	0.00	125.06	2812.95	1406.48	4861.78	2434.50	4.79	-0.449	0.000	0.058
102.00	-17.03	-4.52	0.00	-115.93	0.00	115.93	2793.07	1396.53	4773.01	2390.05	4.98	-0.457	0.000	0.055
104.00	-16.69	-4.47	0.00	-106.89	0.00	106.89	2772.92	1386.46	4684.57	2345.77	5.17	-0.464	0.000	0.052
106.00	-16.34	-4.43	0.00	-97.95	0.00	97.95	2752.51	1376.26	4596.48	2301.65	5.37	-0.470	0.000	0.049
108.00	-16.00	-4.38	0.00	-89.09	0.00	89.09	2731.84	1365.92	4508.75	2257.73	5.57	-0.477	0.000	0.045
110.00	-15.67	-4.34	0.00	-80.32	0.00	80.32	2710.91	1355.45	4421.40	2213.98	5.77	-0.483	0.000	0.042
112.00	-15.33	-4.29	0.00	-71.64	0.00	71.64	2689.71	1344.86	4334.44	2170.44	5.97	-0.488	0.000	0.039
114.00	-15.00	-4.25	0.00	-63.05	0.00	63.05	2668.26	1334.13	4247.89	2127.10	6.18	-0.493	0.000	0.035
116.00	-14.67	-4.21	0.00	-54.55	0.00	54.55	2646.54	1323.27	4161.76	2083.97	6.39	-0.498	0.000	0.032
118.00	-14.35	-4.16	0.00	-46.14	0.00	46.14	2624.55	1312.28	4076.08	2041.07	6.59	-0.502	0.000	0.028
120.00	-9.98	-2.96	0.00	-37.82	0.00	37.82	2602.31	1301.16	3990.84	1998.39	6.81	-0.506	0.000	0.023
122.00	-9.68	-2.92	0.00	-31.89	0.00	31.89	2579.81	1289.90	3906.08	1955.94	7.02	-0.509	0.000	0.020
124.00	-9.38	-2.88	0.00	-26.05	0.00	26.05	2557.04	1278.52	3821.80	1913.74	7.23	-0.511	0.000	0.017
126.00	-9.08	-2.83	0.00	-20.30	0.00	20.30	2534.01	1267.00	3738.03	1871.79	7.45	-0.513	0.000	0.014
128.00	-8.79	-2.79	0.00	-14.63	0.00	14.63	2510.72	1255.36	3654.77	1830.10	7.66	-0.515	0.000	0.012
130.00	-5.07	-1.33	0.00	-9.05	0.00	9.05	2487.16	1243.58	3572.03	1788.67	7.88	-0.516	0.000	0.007
132.00	-4.62	-1.29	0.00	-6.39	0.00	6.39	2463.34	1231.67	3489.85	1747.52	8.10	-0.517	0.000	0.006
134.00	-4.18	-1.24	0.00	-3.81	0.00	3.81	2439.27	1219.63	3408.23	1706.65	8.31	-0.518	0.000	0.004
135.00	-3.96	-1.22	0.00	-2.57	0.00	2.57	1824.83	912.42	2579.10	1291.47	8.42	-0.518	0.000	0.004
136.00	-3.85	-1.20	0.00	-1.34	0.00	1.34	1817.10	908.55	2550.48	1277.14	8.53	-0.518	0.000	0.003
137.00	-0.27	-0.06	0.00	-0.14	0.00	0.14	1809.31	904.66	2521.92	1262.84	8.64	-0.518	0.000	0.000
138.00	-0.18	-0.04	0.00	-0.08	0.00	0.08	1801.45	900.73	2493.42	1248.56	8.75	-0.518	0.000	0.000
140.00	0.00	-0.04	0.00	0.00	0.00	0.00	1785.54	892.77	2436.62	1220.12	8.96	-0.518	0.000	0.000

Final Analysis Summary

Structure:	CT11560-A-SBA	**Code:**	EIA/TIA-222-G	9/10/2021	
Site Name:	Sterling 6, CT	**Exposure:**	B		
Height:	140.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 57	

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 101 mph Wind	30.4	0.00	54.35	0.00	0.00	3161.22
0.9D + 1.6W 101 mph Wind	30.4	0.00	40.76	0.00	0.00	3141.48
1.2D + 1.0Di + 1.0Wi 50 mph Wind	7.9	0.00	83.35	0.00	0.00	805.26
1.2D + 1.0E	2.3	0.00	54.36	0.00	0.00	270.84
0.9D + 1.0E	2.3	0.00	40.77	0.00	0.00	269.05
1.0D + 1.0W 60 mph Wind	6.7	0.00	45.30	0.00	0.00	694.47

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 101 mph Wind	-44.54	-28.22	0.00	-2425.9	0.00	-2425.9	5473.16	2736.5	13089.3	6554.42	25.00	0.469
0.9D + 1.6W 101 mph Wind	-33.34	-28.12	0.00	-2407.5	0.00	-2407.5	5473.16	2736.5	13089.3	6554.42	25.00	0.463
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-70.92	-7.31	0.00	-614.24	0.00	-614.24	5473.16	2736.5	13089.3	6554.42	25.00	0.132
1.2D + 1.0E	-44.78	-2.22	0.00	-213.28	0.00	-213.28	5473.16	2736.5	13089.3	6554.42	25.00	0.050
0.9D + 1.0E	-33.59	-2.22	0.00	-211.61	0.00	-211.61	5473.16	2736.5	13089.3	6554.42	25.00	0.048
1.0D + 1.0W 60 mph Wind	-37.31	-6.21	0.00	-532.51	0.00	-532.51	5473.16	2736.5	13089.3	6554.42	25.00	0.109

Monopole Mat Foundation Design

			Date: 9/10/2021
Customer Name:	T-Mobile	**EIA/TIA Standard:**	EIA-222-G
Site Name:		**Structure Height (Ft.):**	140
Site Number:	CT11560-A-SBA	**Engineer Name:**	J. Tibbetts
Engr. Number:	114956	**Engineer Login ID:**	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

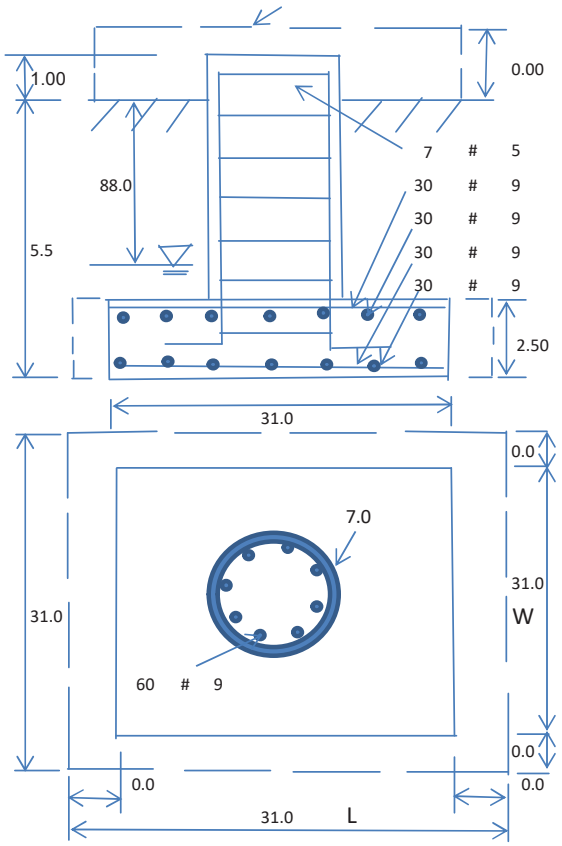
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	54.4	Shear Force (Kips):	30.4
Uplift Force (Kips):	0.0	Moment (Kips-ft):	3161.2
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	5.5
Pier Height A. G. (ft.):	1.00	Thickness of Pad (ft):	2.50
Length of Pad (ft.):	31	Width of Pad (ft.):	31
Final Length of pad (ft)	31.0	Final width of pad (ft):	31.0



Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	9	Tie / Stirrup Size #:	5	
Qty. of Vertical Rebars:	60	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	9	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	30	Qty. of Rebar in Pad (W):	30	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	30	Qty. of Rebar in Pad (W):	30	
Apply 1.35 factor for e/w Per G:	1.35			

Soil Design Parameters:

Soil Unit Weight (pcf):	120.0	Soil Buoyant Weight:	50.0	Pcf		
Water Table B.G.S. (ft):	88.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	44891	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	Yes		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	Yes	Reduction factor on the maximum soil bearing pressure:			1.00	

Foundation Analysis and Design: Uplift Strength Reduction Factor: 0.75 — Compression Strength Reduction Factor: 0.75

Total Dry Soil Volume (cu. Ft.):	2767.55	Total Dry Soil Weight (Kips):	332.11
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	332.11	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	2556.44	Total Dry Concrete Weight (Kips):	383.47
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	383.47	Total Vertical Load on Base (Kips):	769.97

Check Soil Capacities:

				Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	1330	<	Allowable Factored Soil Bearing (psf): 33668	0.04	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	10825.4	>	Design Factored Momont (kips-ft): 3233	0.30	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	3.35	OK!			

Check the capacities of Reinforceing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75			
Strength reduction factor (Axial compresion):	0.65	Wind Load Factor on Concrete Design:	1.00			
					Load/ Capacity Ratio	
(1) Concrete Pier:						
Vertical Steel Rebar Area (sq. in./each):	1.00		Tie / Stirrup Area (sq. in./each):	0.31		
Calculated Moment Capacity (Mn,Kips-Ft):	9417.5	>	Design Factored Moment (Mu, Kips-F	3282.8	0.35	OK!
Calculated Shear Capacity (Kips):	663.6	>	Design Factored Shear (Kips):	30.4	0.05	OK!
Calculated Tension Capacity (Tn, Kips):	3240.0	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	7268.8	>	Design Factored Axial Load (Pu Kips):	54.4	0.01	OK!
Moment & Axial Strength Combination:	0.35	OK!	Check Tie Spacing (Design/Required):		1	OK!
Pier Reinforcement Ratio:	0.011		Reinforcement Ratio is satisfied per ACI			
(2).Concrete Pad:						
One-Way Design Shear Capacity (L-Direction, Kips):	808.0	>	One-Way Factored Shear (L-D. Kips):	235.5	0.29	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	808.0	>	One-Way Factored Shear (W-D., Kips)	235.5	0.29	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	845.4	>	One-Way Factored Shear (C-C, Kips):	220.8	0.26	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0031	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0031		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	3441.0	>	Moment at Bottom (L-Dir. K-Ft):	1582.2	0.46	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	3441.0	>	Moment at Bottom (W-Dir. K-Ft):	1582.2	0.46	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	4831.9	>	Moment at Bottom (C-C Dir. K-Ft):	2237.6	0.46	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0031	OK!	Upper Steel Reinf. Ratio (W-Dir.):	0.0031		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	3441.0	>	Moment at the top (L-Dir K-Ft):	587.9	0.17	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	3441.0	>	Moment at the top (W-Dir K-Ft):	587.9	0.17	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	4831.9	>	Moment at the top (C-C Dir. K-Ft):	548.7	0.11	OK!
(3).Check Punching Shear Capacity due to Moment in the Pier:						
Moment transferred by punching shear:	1264.5	k-ft.	Max. factored shear stress v_{u_CD}:		2.4	Psi
Max. factored shear stress v_{u_AB}:	12.0	Psi	Factored shear Strength ϕv_n:		164.3	Psi
Max. factored shear stress v_u:	12.0	Psi	Check Usage of Punching Shear Capacity:		0.07	OK!

EXHIBIT 9

Antenna Mount Analysis

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Antenna Mount Analysis Report

Existing Monopole Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT11560-A-SBA

Customer Site Name: Sterling 6, CT

Carrier Name: T-Mobile (App#: 160668, V#1)

Carrier Site ID / Name: CTNL143A / _

Site Location: 5 Exeter Drive

Sterling, Connecticut

Windham County

Latitude: 41.714047

Longitude: -71.822735

Exp.10/31/2021

07/02/2021

Analysis Result:

Max Structural Usage: 66.5% {Pass]

Report Prepared By : Sunil Joshi

NOTE: The proposed (1)SitePro1 RMQP-4096-HK is not currently installed on the tower. The proposed was assumed to be installed per the manufacturer's instructions, and it was assumed that it can be installed properly on the existing tower. TES cannot verify that the proposed mount will fit properly and is not liable for any fit-up issues during installation.

Introduction

The purpose of this report is to summarize the analysis results on the (1) SitePro1 RMQP-4096-HK at 120.00' elevation to support the proposed antenna configuration. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Mount Drawings	SitePro1 RMQP-4096-HK
Antenna Loading	SBA Application #: 160668, v1 dated 6/15/2021
Modification Drawings	N/A

Analysis Criteria

Basic Wind Speed Used in the Analysis: V_{ULT} =135 mph (3-Sec. Gust) / Equivalent to
V_{ASD} = 105 mph (3-Sec. Gust)
Basic Wind Speed with Ice: 50 mph (3-Sec. Gust) with 0.75" radial ice concurrent
Operational Wind Speed: 30 mph +0" Radial ice
Standard/Codes: ANSI/TIA/EIA 222-G
Exposure Category: B
Structure Class: II
Topographic Category: 1
Crest Height (Ft): 0

The site is a Risk Category II structure per IBC Table 1604.5. This site does not support emergency communication equipment for first responders such as fire departments, police, hospitals, ambulance services or any of the facilities listed for Risk Categories III and IV. The scope of work detailed in this structural analysis does not include items that are a part of emergency service as the 911 or essential facility service of an emergency response system.

Mount Information

(1) SitePro1 RMQP-4096-HK at 120.00' elevation.

Final Antenna Configuration

3 RFS APX16DWV-16DWVS-E-A20
3 RFS APXVAALL24-43-U-NA20
3 Ericsson AIR6449 B41
3 Ericsson 4460 B25 + B66
3 Ericsson 4480 B71 + B85

In addition to the proposed equipment loading, a 500 lb serviceability load was also considered in this analysis in accordance with TIA requirements.

Analysis Results

Our calculations have determined that under design wind load the existing mounts will be structurally adequate to support the proposed antenna configuration. The maximum structural usage is 66.5%, which occurs in the connection plate. The proposed equipment must be installed as stipulated in the Final Antenna Configuration section of this report. The analysis results are void if the proposed equipment is not installed in accordance with this report.

NOTE: The proposed (1)SitePro1 RMQP-4096-HK is not currently installed on the tower. The proposed was assumed to be installed per the manufacturer's instructions, and it was assumed that it can be installed properly on the existing tower. TES cannot verify that the proposed mount will fit properly and is not liable for any fit-up issues during installation.

Attachments

1. Mount Drawings
2. Antenna Placement Diagram
3. Analysis Calculations

Standard Conditions

1. The loading configuration as analyzed in this report is as provided from the customer. Any deviation from this design shall be communicated to TES to verify deviation will not adversely impact the analysis.

2. The analysis is based on the presumption that the antenna mount members and components along with any existing reinforcement items have been correctly and properly designed, manufactured, installed and maintained.

3. All the existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion. The mount analysis is not a condition assessment of the mount.

4. The mount analysis was performed in accordance with the loading provided, and if applicable the modification required to support the additional loading.

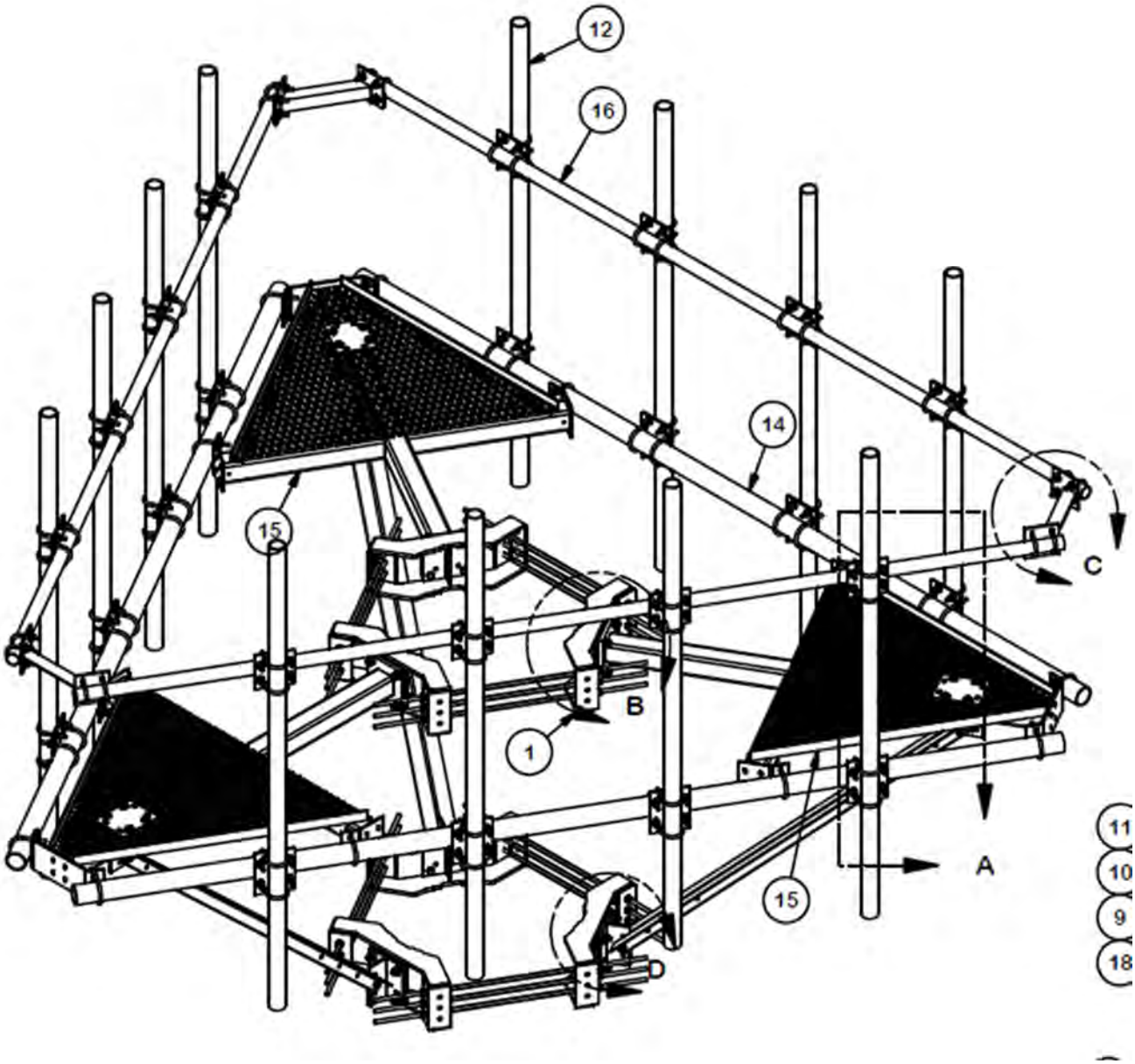
5. If the mount is modified, installation must adhere to the configuration communicated in the modification drawings.

6. The modification drawings are not intended to convey means or methods. These are the responsibility of the installing contractor.

7. Rigging plan review is available if the contractor requires for a construction class IV or other if required. Review fee would apply.

8. The mount modification package was created based upon information provided for the mount loading. The underlying tower is assumed to provide support and sufficient rigidity to support the mount loads as a tower analysis was not part of the mount analysis.

9. TES is not responsible for modifications to climbing facilities unless communicated to TES in writing.



(1) SitePro1 RMQP-4096-HK

Structure: CT11560-A-SBA - Sterling 6, CT

Sector: **A**

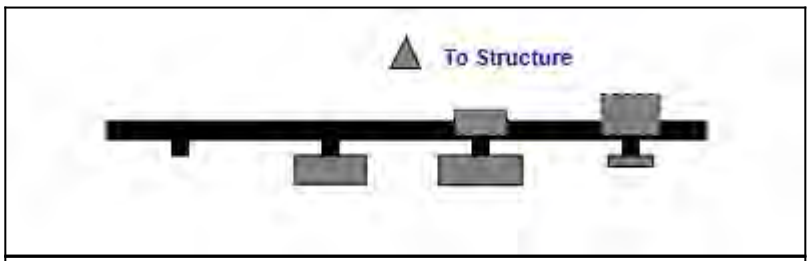
Structure Type: Monopole

Mount Elev: 120.00

7/2/2021

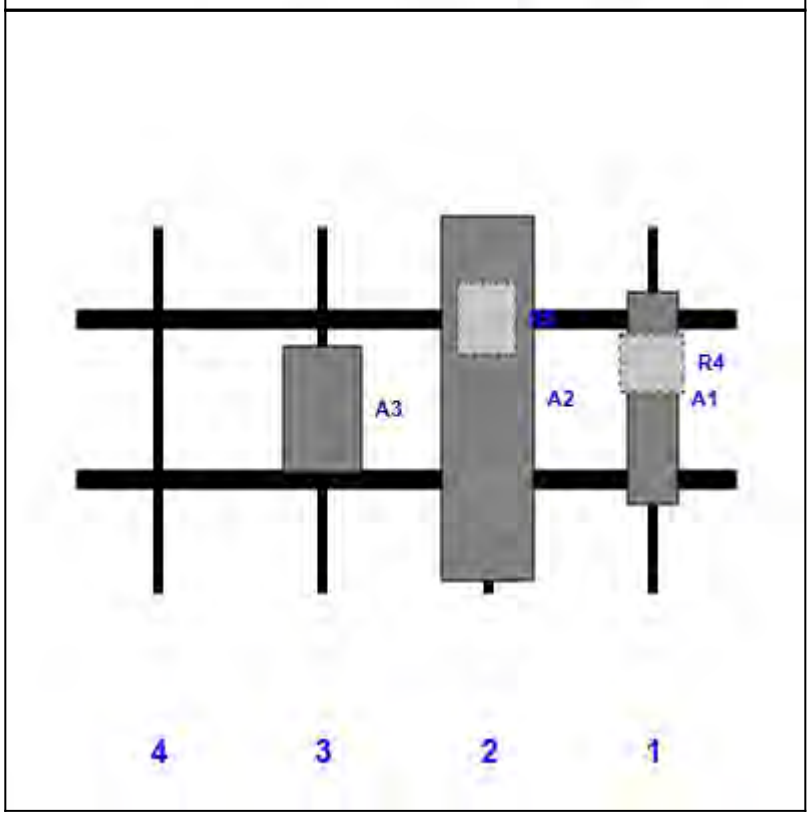
Tower Engineering Solutions

Plan View



Front View

Looking Toward Structure



Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A1	APX16DWV-16DWVS-E-A20	55.90	13.00	152.25	1	a	Front	45.00			
R4	4460 B25 + B66	15.10	17.00	152.25	1	a	Behind	36.00			
A2	APXVAALL24-43-U-NA20	95.90	24.00	108.75	2	a	Front	45.00			
R5	4480 B71 + B85	19.20	15.10	108.75	2	a	Behind	24.00			
A3	AIR6449 B41	33.10	20.50	65.28	3	a	Front	48.00			

Structure: CT11560-A-SBA - Sterling 6, CT

Sector: **B**

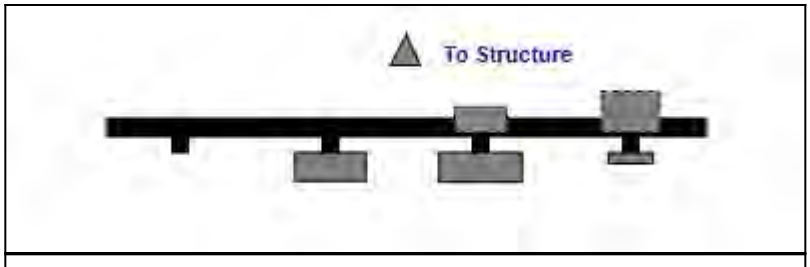
Structure Type: Monopole

Mount Elev: 120.00

7/2/2021

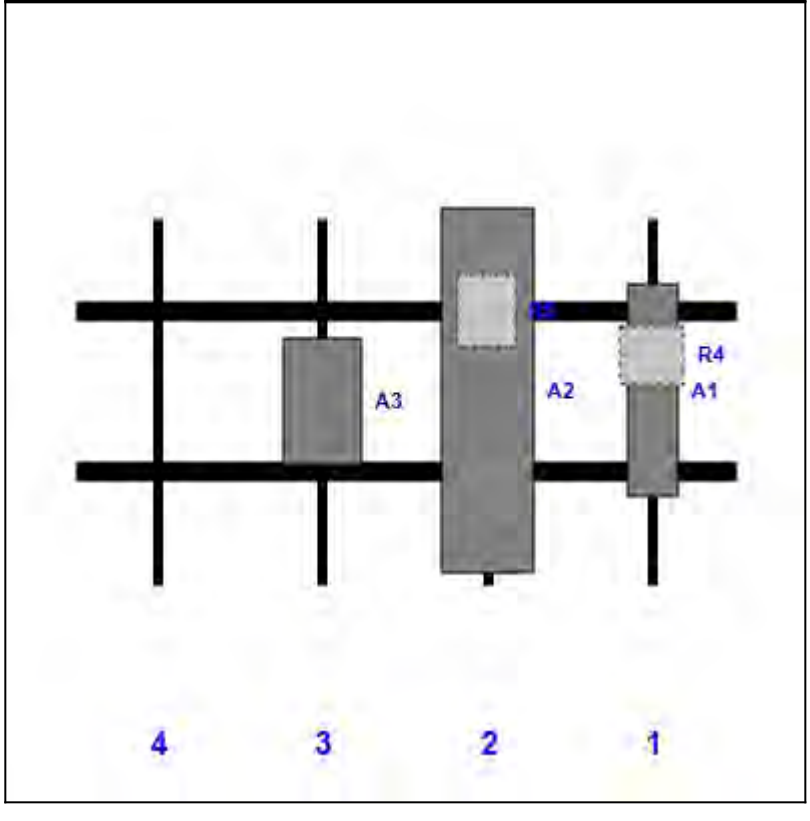
Tower Engineering Solutions

Plan View



Front View

Looking Toward Structure



Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A1	APX16DWV-16DWVS-E-A20	55.90	13.00	152.25	1	a	Front	45.00			
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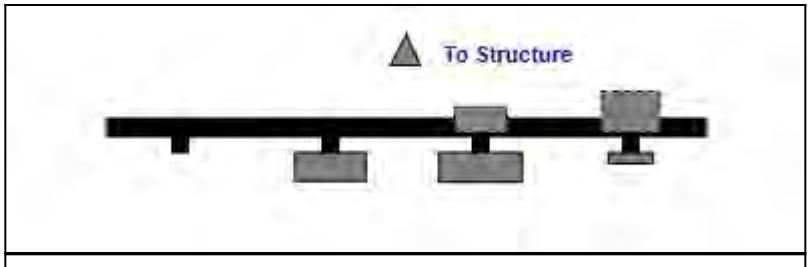
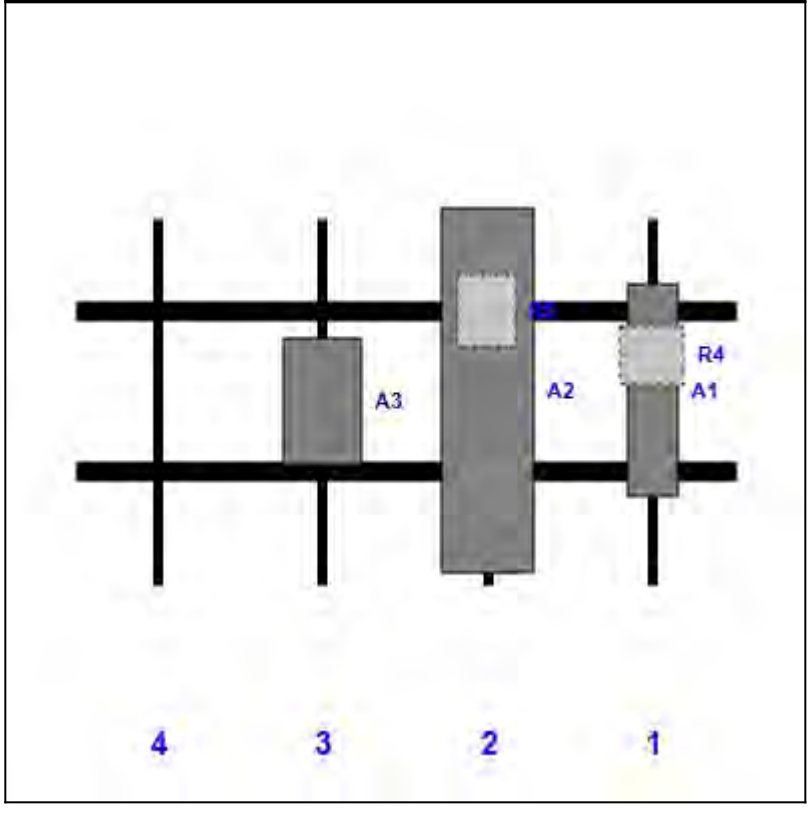
R5	4480 B71 + B85	19.20	15.10	108.75	2	a	Behind	24.00			
A3	AIR6449 B41	33.10	20.50	65.28	3	a	Front	48.00			

Plan View



Front View

Looking Toward Structure



Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A1	APX16DWV-16DWVS-E-A20	55.90	13.00	152.25	1	a	Front	45.00			
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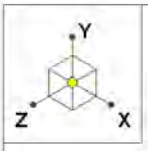
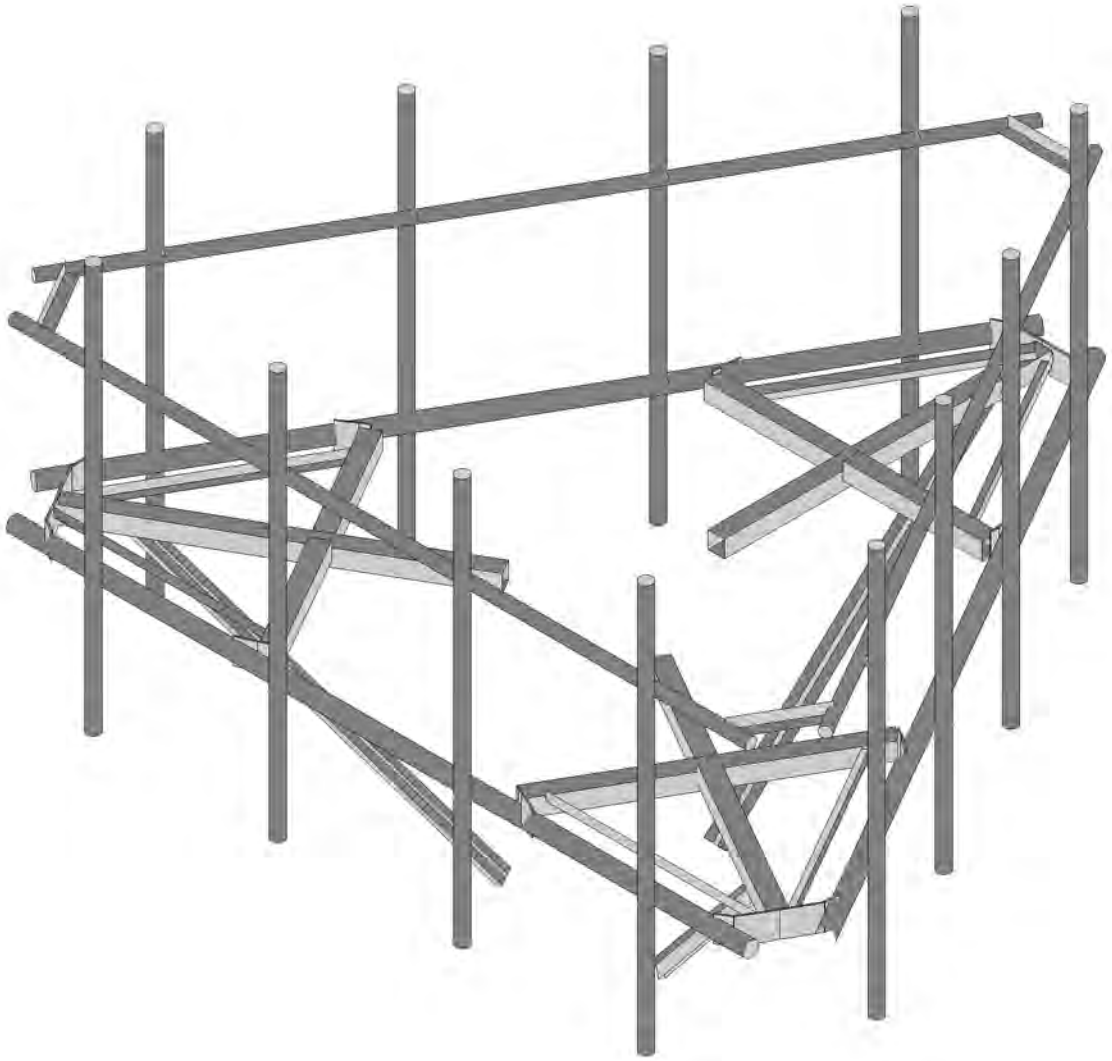
R5	4480 B71 + B85	19.20	15.10	108.75	2	a	Behind	24.00			
A3	AIR6449 B41	33.10	20.50	65.28	3	a	Front	48.00			





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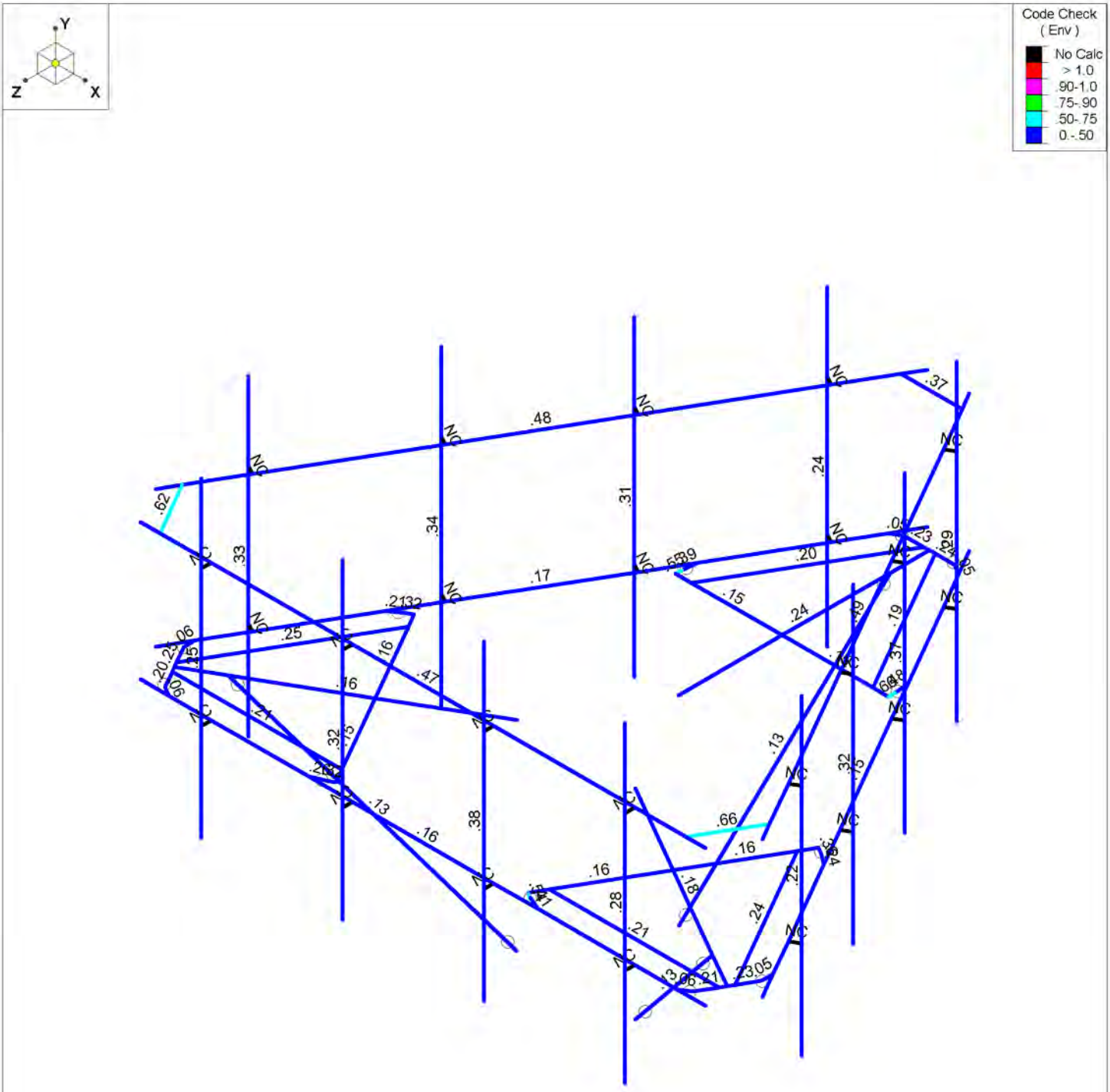
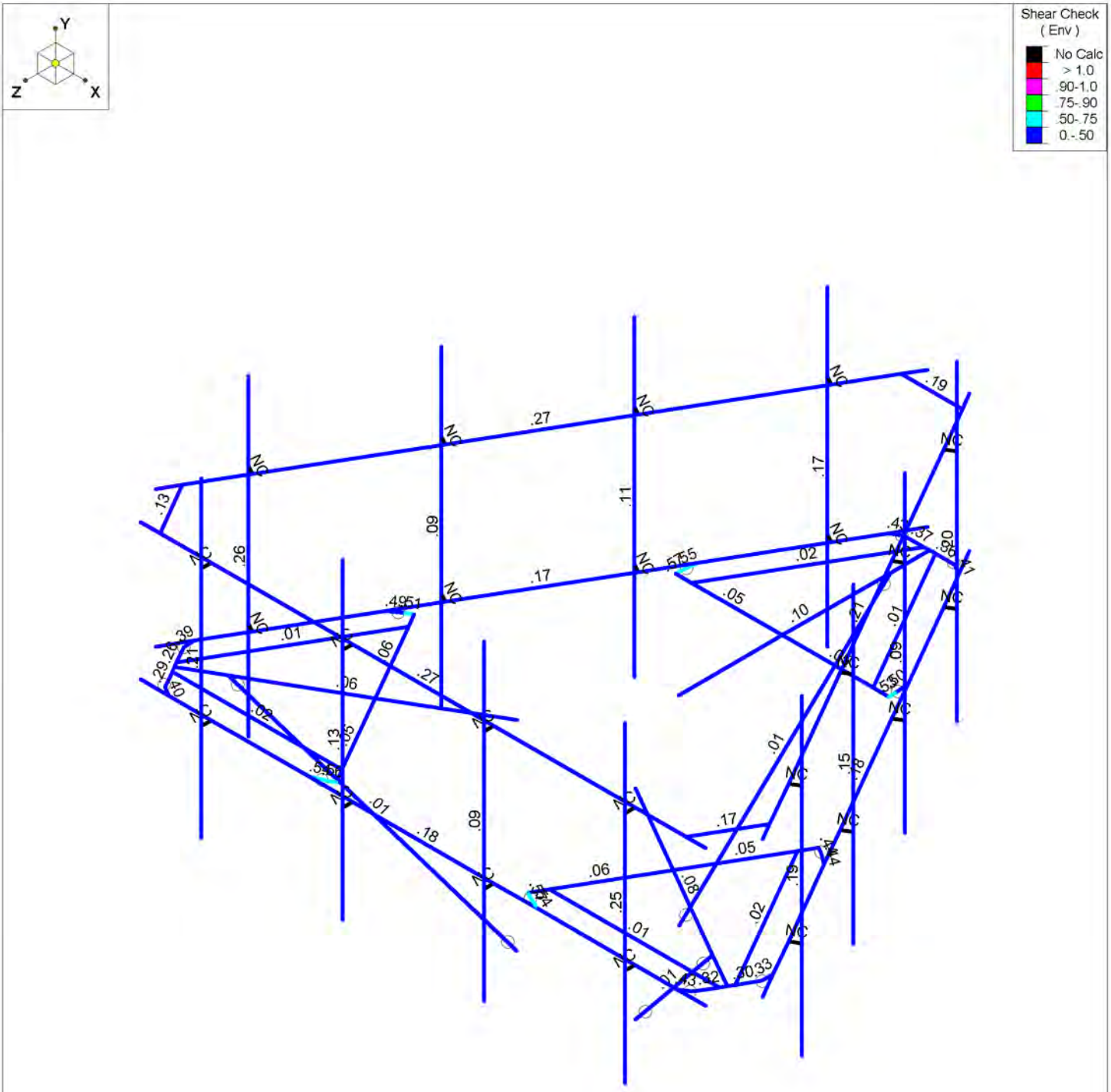
		July 2, 2021 at 4:55 PM
TES Project No. 110404		CT11560-A-SBA_110404_G_RISA_...



Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.6W (Front)

Tower Engineering Solutio...	CT11560-A-SBA_MT_LO_Loads Only_G	SK - 2
		July 2, 2021 at 4:55 PM
TES Project No. 110404		CT11560-A-SBA_110404_G_RISA_...



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.6W (Front)

Tower Engineering Solutio...	CT11560-A-SBA_MT_LO_Loads Only_G	SK - 3
		July 2, 2021 at 4:55 PM
TES Project No. 110404		CT11560-A-SBA_110404_G_RISA_...

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Antenna D	None					24			
2	Antenna Di	None					24			
3	Antenna W Front	None					24			
4	Antenna Wi Front	None					24			
5	Antenna W Side	None					24			
6	Antenna Wi Side	None					24			
7	Service Lm1	None					1			
8	Service Lm2	None					1			
9	Structure D	None		-1					6	
10	Structure Di	None						63	3	
11	Structure W Front	None						63		
12	Structure Wi Front	None						63		
13	Structure W Side	None						63		
14	Structure Wi Side	None						63		
15	BLC 9 Transient Area...	None						57		
16	BLC 10 Transient Are...	None						57		

Load Combinations

	Description	Solve	PDelta	SR...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.6W (Front)	Yes	Y		1	1.2	9	1.2	3	1.6	11	1.6												
2	1.2D+1.6W (Back)	Yes	Y		1	1.2	9	1.2	3	-1.6	11	-1.6												
3	1.2D+1.6W (Left)	Yes	Y		1	1.2	9	1.2	5	1.6	13	1.6												
4	1.2D+1.6W (Right)	Yes	Y		1	1.2	9	1.2	5	-1.6	13	-1.6												
5	1.2D+1.0Di+1.0Wi (F...	Yes	Y		1	1.2	9	1.2	2	1	10	1	4	1	12	1								
6	1.2D+1.0Di+1.0Wi (B...	Yes	Y		1	1.2	9	1.2	2	1	10	1	4	-1	12	-1								
7	1.2D+1.0Di+1.0Wi (L...	Yes	Y		1	1.2	9	1.2	2	1	10	1	6	1	14	1								
8	1.2D+1.0Di+1.0Wi (R...	Yes	Y		1	1.2	9	1.2	2	1	10	1	6	-1	14	-1								
9	1.2D+1.5L1+.16W (M...	Yes	Y		1	1.2	9	1.2	7	1.5	3	.16	11	.16										
10	1.2D+1.5L2+.16W (M...	Yes	Y		1	1.2	9	1.2	8	1.5	3	.16	11	.16										
11	1.4D	Yes	Y		1	1.4	9	1.4																

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diaphragm
1	NP4	-7.25	0.395833	4.802255	0	
2	NP1	7.25	0.395833	4.802255	0	
3	CG	0	0	0	0	
4	N56	0.001306	0.395833	-1.75	0	
5	N30	-1e-14	0.395833	-3.92336	0	
6	N145	0.001306	-4.729167	-1.760626	0	
7	N148	-0.000477	0.395833	-7.18	0	
8	N158	-7.25	3.895833	4.802256	0	
9	N161	7.25	3.895833	4.802256	0	
10	N162	6.75	3.895833	4.802256	0	
11	N163	-6.75	3.895833	4.802256	0	
12	N71	-5.434883	3.895833	4.802256	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diaphragm
13	N72	-5.434883	5.895833	5.052256	0	
14	N73	-5.434883	-2.104167	5.052256	0	
15	N74	5.437496	5.895833	5.052256	0	
16	N75	5.437496	-2.104167	5.052256	0	
17	N76	-1.809883	5.895833	5.052256	0	
18	N77	-1.809883	-2.104167	5.052256	0	
19	N78	1.812496	5.895833	5.052256	0	
20	N79A	1.812496	-2.104167	5.052256	0	
21	N104	-5.434883	0.395833	4.802255	0	
22	N105	5.437496	0.395833	4.802255	0	
23	N106	-1.809883	0.395833	4.802255	0	
24	N107	1.812496	0.395833	4.802255	0	
25	N108	5.437496	3.895833	4.802256	0	
26	N109	-1.809883	3.895833	4.802256	0	
27	N110	1.812496	3.895833	4.802256	0	
28	N49	7.783875	0.395833	3.877557	0	
29	N50A	0.533875	0.395833	-8.679812	0	
30	N51A	-0.533875	0.395833	-8.679812	0	
31	N52	-7.783875	0.395833	3.877557	0	
32	N53A	0.899861	0.395833	-8.045904	0	
33	N55	0.648566	0.395833	-8.189494	0	
34	N58	-0.900816	0.395833	-8.044251	0	
35	N60	-0.649521	0.395833	-8.187841	0	
36	N61	2.691528	0.395833	-4.942646	0	
37	N63	2.7319	0.395833	-4.581055	0	
38	N66	-2.692482	0.395833	-4.940994	0	
39	N68	-2.732854	0.395833	-4.579402	0	
40	N69	-0.000477	0.395833	-8.188668	0	
41	N65	2.7319	0.395833	-4.414388	0	
42	N70	-2.7319	0.395833	-4.414388	0	
43	N69C	-0.000477	0.395833	-4.414388	0	
44	N70A	-2.328125	0.395833	-4.414388	0	
45	N71A	2.328125	0.395833	-4.414388	0	
46	N76B	0.147602	0.395833	-8.188856	0	
47	N77B	-0.147819	0.395833	-8.18848	0	
48	N48	-1.516197	0.395833	0.873869	0	
49	N49A	-1.5254	-4.729167	0.879182	0	
50	N50	-6.217667	0.395833	3.59	0	
51	N51	-7.417888	0.395833	3.243649	0	
52	N52A	-7.416593	0.395833	3.533072	0	
53	N53	-6.516118	0.395833	4.802255	0	
54	N54	-6.766118	0.395833	4.656422	0	
55	N55A	-5.626221	0.395833	0.140391	0	
56	N56A	-5.33326	0.395833	-0.075367	0	
57	N57	-2.932785	0.395833	4.802255	0	
58	N58A	-2.599451	0.395833	4.656422	0	
59	N59	-7.091356	0.395833	4.094747	0	
60	N60A	-5.188922	0.395833	-0.158701	0	
61	N61A	-2.457022	0.395833	4.573089	0	
62	N62	-3.823256	0.395833	2.206702	0	
63	N63A	-2.659576	0.395833	4.222255	0	
64	N64	-4.987035	0.395833	0.190979	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diaphragm
65	N65A	-7.165558	0.395833	3.966601	0	
66	N66A	-7.017522	0.395833	4.222255	0	
67	N67	1.514891	0.395833	0.876131	0	
68	N68A	1.524094	-4.729167	0.881444	0	
69	N69A	6.218458	0.395833	3.59	0	
70	N70B	6.518027	0.395833	4.802255	0	
71	N71B	6.768027	0.395833	4.656422	0	
72	N72A	7.416934	0.395833	3.241996	0	
73	N73A	7.415639	0.395833	3.531419	0	
74	N74A	2.934693	0.395833	4.802255	0	
75	N75A	2.60136	0.395833	4.656422	0	
76	N76A	5.625267	0.395833	0.138739	0	
77	N77A	5.332305	0.395833	-0.07702	0	
78	N78A	7.091833	0.395833	4.093921	0	
79	N79	2.457022	0.395833	4.573089	0	
80	N80	5.188922	0.395833	-0.158701	0	
81	N81	3.822688	0.395833	2.207686	0	
82	N82	4.987035	0.395833	0.190979	0	
83	N83	2.659576	0.395833	4.222255	0	
84	N84	7.017957	0.395833	4.222255	0	
85	N85	7.165341	0.395833	3.966225	0	
86	N86	7.783876	3.895833	3.877556	0	
87	N87	0.533876	3.895833	-8.679812	0	
88	N88	-0.533876	3.895833	-8.679812	0	
89	N89	-7.783876	3.895833	3.877556	0	
90	N90	7.092823	5.895833	2.180619	0	
91	N91	7.092823	-2.104167	2.180619	0	
92	N92	1.656633	5.895833	-7.235138	0	
93	N93	1.656633	-2.104167	-7.235138	0	
94	N94	5.280323	5.895833	-0.958723	0	
95	N95	5.280323	-2.104167	-0.958723	0	
96	N96	3.469133	5.895833	-4.095796	0	
97	N97	3.469133	-2.104167	-4.095796	0	
98	N98	-1.65794	5.895833	-7.232875	0	
99	N99	-1.65794	-2.104167	-7.232875	0	
100	N100	-7.09413	5.895833	2.182882	0	
101	N101	-7.09413	-2.104167	2.182882	0	
102	N102	-3.47044	5.895833	-4.093533	0	
103	N103	-3.47044	-2.104167	-4.093533	0	
104	N104A	-5.28163	5.895833	-0.95646	0	
105	N105A	-5.28163	-2.104167	-0.95646	0	
106	N106A	0.783876	3.895833	-8.246799	0	
107	N107A	7.533876	3.895833	3.444543	0	
108	N108A	-7.533876	3.895833	3.444543	0	
109	N109A	-0.783876	3.895833	-8.246799	0	
110	N110A	6.876316	0.395833	2.305619	0	
111	N111	1.440126	0.395833	-7.110138	0	
112	N112	5.063816	0.395833	-0.833723	0	
113	N113	3.252626	0.395833	-3.970796	0	
114	N114	-1.441433	0.395833	-7.107875	0	
115	N115	-6.877623	0.395833	2.307882	0	
116	N116	-3.253933	0.395833	-3.968533	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diaphragm
117	N117	-5.065123	0.395833	-0.83146	0	
118	N118	6.876318	3.895833	2.305619	0	
119	N119	1.440128	3.895833	-7.110138	0	
120	N120	5.063818	3.895833	-0.833723	0	
121	N121	3.252628	3.895833	-3.970796	0	
122	N122	-1.441434	3.895833	-7.107875	0	
123	N123	-6.877624	3.895833	2.307882	0	
124	N124	-3.253934	3.895833	-3.968533	0	
125	N125	-5.065124	3.895833	-0.83146	0	
126	N126	-5.434883	3.895833	5.052256	0	
127	N127	-5.434883	0.395833	5.052255	0	
128	N128	5.437496	0.395833	5.052255	0	
129	N129	-1.809883	0.395833	5.052255	0	
130	N130	1.812496	0.395833	5.052255	0	
131	N131	5.437496	3.895833	5.052256	0	
132	N132	-1.809883	3.895833	5.052256	0	
133	N133	1.812496	3.895833	5.052256	0	
134	N134	-1.657939	0.395833	-7.232875	0	
135	N135	-7.094129	0.395833	2.182882	0	
136	N136	-3.470439	0.395833	-4.093533	0	
137	N137	-5.281629	0.395833	-0.95646	0	
138	N138	-1.65794	3.895833	-7.232875	0	
139	N139	-7.09413	3.895833	2.182882	0	
140	N140	-3.47044	3.895833	-4.093533	0	
141	N141	-5.28163	3.895833	-0.95646	0	
142	N142	7.092823	0.395833	2.180619	0	
143	N143	1.656633	0.395833	-7.235138	0	
144	N144	5.280323	0.395833	-0.958723	0	
145	N145A	3.469133	0.395833	-4.095796	0	
146	N146	7.092824	3.895833	2.180619	0	
147	N147	1.656634	3.895833	-7.235138	0	
148	N148A	5.280324	3.895833	-0.958723	0	
149	N149	3.469134	3.895833	-4.095796	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Des...	Mater...	Desi...	A...	Iy...	Izz [in4]	J [in4]
1	Footra...	PIPE_...	Beam	Pipe	A53 ...	Typi...	2...	2...	2.85	5.69
2	Gratin...	L2x2x3	Beam	Sin...	A36 ...	Typi...	.7...	.2...	.271	.009
3	Handr...	PIPE_...	Beam	Pipe	A53 ...	Typi...	1....	.6...	.627	1.25
4	Stand...	HSS4...	Beam	Squ...	A500...	Typi...	3...	7.8	7.8	12.8
5	Plan B...	HSS4...	Beam	Squ...	A500...	Typi...	3...	7.8	7.8	12.8
6	Kickers	LL2.5x...	Beam	Dou...	A36 ...	Typi...	1.8	2...	1.07	.023
7	Mount...	PIPE_...	Beam	Pipe	A53 ...	Typi...	1....	1....	1.45	2.89
8	Footra...	PL1/2x6	Beam	RE...	A36 ...	Typi...	3	.0...	9	.237
9	Plan B...	PL3/8x6	Beam	RE...	A36 ...	Typi...	2....	.0...	6.75	.101
10	Handr...	L2.5x2...	Beam	Sin...	A36 ...	Typi...	1....	.6...	.692	.026

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rul...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF1A	1.5CU1.25X035	Beam	CU	A570_33	Typical	.131	.022	.052	5.4e-5

Aluminum Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	AL1	AA CS14X1...	Beam	AA Channel	3003-H14	Typical	11.8	44.7	401	1.19

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	58	1.2
3	A992	29000	11154	.3	.65	.49	50	1.1	58	1.2
4	A500 Gr.42	29000	11154	.3	.65	.49	42	1.3	58	1.1
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.2	58	1.1
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.5	58	1.2
7	Q235	29000	11154	.3	.65	.49	34	1.5	58	1.2
8	J429-Gr5	29000	11154	.3	.65	.49	92	1.5	120	1.2

Cold Formed Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5 F)	Density[k/ft^3]	Yield[ksi]	Fu[ksi]
1	A570_33	29500	11346	.3	.65	.49	33	52
2	A607_C1_55	29500	11346	.3	.65	.49	55	70

Aluminum Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (...	Density[...	Table B.4	kt	Ftu[ksi]	Fty[ksi]	Fcy[ksi]	Fsu[ksi]	Ct
1	3003-H14	10100	3787.5	.33	1.3	.173	Table B...	1	19	16	13	12	141
2	6061-T6	10100	3787.5	.33	1.3	.173	Table B...	1	38	35	35	24	141
3	6063-T5	10100	3787.5	.33	1.3	.173	Table B...	1	22	16	16	13	141
4	6063-T6	10100	3787.5	.33	1.3	.173	Table B...	1	30	25	25	19	141
5	5052-H34	10200	3787.5	.33	1.3	.173	Table B...	1	34	26	24	20	141
6	6061-T6 W	10100	3787.5	.33	1.3	.173	Table B...	1	24	15	15	15	141

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M28	N69	N55			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
2	M33	N76B	N71A			Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
3	M34	N77B	N70A		270	Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
4	M37	N69	N56			Standoff Arm	Beam	SquareTube	A500 Gr.46	Typical
5	M38	N70	N69C			Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
6	M39	N69C	N65			Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
7	M42	NP4	NP1			Footrails	Beam	Pipe	A53 Gr.B	Typical
8	M140	N145	N148			Kickers	Beam	Double Angle ...	A36 Gr.36	Typical
9	M154	N158	N161			Handrails	Beam	Pipe	A53 Gr.B	Typical
10	MP4A	N72	N73			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
11	MP1A	N74	N75			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical
12	MP3A	N76	N77			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical
13	MP2A	N78	N79A			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical
14	M25	N49	N50A			Footrails	Beam	Pipe	A53 Gr.B	Typical
15	M26	N51A	N52			Footrails	Beam	Pipe	A53 Gr.B	Typical
16	M28A	N55	N53A			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
17	M29A	N60	N58			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
18	M32A	N63	N61			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
19	M33A	N68	N66			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
20	M35A	N69	N60			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
21	M33B	N65	N63			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
22	M36A	N70	N68			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
23	M23	N59	N52A			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
24	M24	N65A	N64			Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
25	M25A	N66A	N63A		270	Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
26	M26A	N59	N48			Standoff Arm	Beam	SquareTube	A500 Gr.46	Typical
27	M27	N61A	N62			Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
28	M28B	N62	N60A			Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
29	M29	N49A	N50			Kickers	Beam	Double Angle ...	A36 Gr.36	Typical
30	M30	N52A	N51			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
31	M31	N54	N53			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
32	M32	N56A	N55A			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
33	M33C	N58A	N57			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
34	M34A	N59	N54			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
35	M35	N60A	N56A			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
36	M36	N61A	N58A			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
37	M37A	N78A	N71B			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
38	M38A	N84	N83			Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
39	M39A	N85	N82		270	Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
40	M40	N78A	N67			Standoff Arm	Beam	SquareTube	A500 Gr.46	Typical
41	M41	N80	N81			Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
42	M42A	N81	N79			Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
43	M43	N68A	N69A			Kickers	Beam	Double Angle ...	A36 Gr.36	Typical
44	M44	N71B	N70B			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
45	M45	N73A	N72A			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
46	M46	N75A	N74A			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
47	M47	N77A	N76A			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
48	M48	N78A	N73A			Footrail Connection ...	Beam	RECT	A36 Gr.36	Typical
49	M49	N79	N75A			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
50	M50	N80	N77A			Plan Bracing Conne...	Beam	RECT	A36 Gr.36	Typical
51	M51	N86	N87			Handrails	Beam	Pipe	A53 Gr.B	Typical
52	M52	N88	N89			Handrails	Beam	Pipe	A53 Gr.B	Typical
53	MP4C	N90	N91			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical
54	MP1C	N92	N93			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical
55	MP3C	N94	N95			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical
56	MP2C	N96	N97			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical
57	MP4B	N98	N99			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical
58	MP1B	N100	N101			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical
59	MP3B	N102	N103			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical
60	MP2B	N104A	N105A			Mount Pipes	Beam	Pipe	A53 Gr.B	Typical
61	M61	N163	N108A			Handrail Corner Bra...	Beam	Single Angle	A36 Gr.36	Typical
62	M62	N162	N107A			Handrail Corner Bra...	Beam	Single Angle	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
63	M63	N109A	N106A			Handrail Corner Bra...	Beam	Single Angle	A36 Gr.36	Typical
64	M64	N71	N126			RIGID	None	None	RIGID	Typical
65	M65	N104	N127			RIGID	None	None	RIGID	Typical
66	M66	N109	N132			RIGID	None	None	RIGID	Typical
67	M67	N106	N129			RIGID	None	None	RIGID	Typical
68	M68	N110	N133			RIGID	None	None	RIGID	Typical
69	M69	N107	N130			RIGID	None	None	RIGID	Typical
70	M70	N108	N131			RIGID	None	None	RIGID	Typical
71	M71	N105	N128			RIGID	None	None	RIGID	Typical
72	M72	N122	N138			RIGID	None	None	RIGID	Typical
73	M73	N124	N140			RIGID	None	None	RIGID	Typical
74	M74	N125	N141			RIGID	None	None	RIGID	Typical
75	M75	N123	N139			RIGID	None	None	RIGID	Typical
76	M76	N115	N135			RIGID	None	None	RIGID	Typical
77	M77	N117	N137			RIGID	None	None	RIGID	Typical
78	M78	N116	N136			RIGID	None	None	RIGID	Typical
79	M79	N114	N134			RIGID	None	None	RIGID	Typical
80	M80	N118	N146			RIGID	None	None	RIGID	Typical
81	M81	N110A	N142			RIGID	None	None	RIGID	Typical
82	M82	N120	N148A			RIGID	None	None	RIGID	Typical
83	M83	N112	N144			RIGID	None	None	RIGID	Typical
84	M84	N121	N149			RIGID	None	None	RIGID	Typical
85	M85	N119	N147			RIGID	None	None	RIGID	Typical
86	M86	N113	N145A			RIGID	None	None	RIGID	Typical
87	M87	N111	N143			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M28						Yes				None
2	M33						Yes				None
3	M34						Yes				None
4	M37						Yes				None
5	M38						Yes				None
6	M39						Yes				None
7	M42						Yes				None
8	M140	BenPIN	BenPIN				Yes				None
9	M154						Yes				None
10	MP4A						Yes				None
11	MP1A						Yes				None
12	MP3A						Yes				None
13	MP2A						Yes				None
14	M25						Yes				None
15	M26						Yes				None
16	M28A		BenPIN				Yes				None
17	M29A		BenPIN				Yes				None
18	M32A		BenPIN				Yes				None
19	M33A		BenPIN				Yes				None
20	M35A						Yes				None
21	M33B						Yes				None
22	M36A						Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
23	M23						Yes				None
24	M24						Yes				None
25	M25A						Yes				None
26	M26A						Yes				None
27	M27						Yes				None
28	M28B						Yes				None
29	M29	BenPIN	BenPIN				Yes				None
30	M30		BenPIN				Yes				None
31	M31		BenPIN				Yes				None
32	M32		BenPIN				Yes				None
33	M33C		BenPIN				Yes				None
34	M34A						Yes				None
35	M35						Yes				None
36	M36						Yes				None
37	M37A						Yes				None
38	M38A						Yes				None
39	M39A						Yes				None
40	M40						Yes				None
41	M41						Yes				None
42	M42A						Yes				None
43	M43	BenPIN	BenPIN				Yes				None
44	M44		BenPIN				Yes				None
45	M45		BenPIN				Yes				None
46	M46		BenPIN				Yes				None
47	M47		BenPIN				Yes				None
48	M48						Yes				None
49	M49						Yes				None
50	M50						Yes				None
51	M51						Yes				None
52	M52						Yes				None
53	MP4C						Yes				None
54	MP1C						Yes				None
55	MP3C						Yes				None
56	MP2C						Yes				None
57	MP4B						Yes				None
58	MP1B						Yes				None
59	MP3B						Yes				None
60	MP2B						Yes				None
61	M61						Yes				None
62	M62						Yes				None
63	M63						Yes				None
64	M64						Yes	** NA **			None
65	M65						Yes	** NA **			None
66	M66						Yes	** NA **			None
67	M67						Yes	** NA **			None
68	M68						Yes	** NA **			None
69	M69						Yes	** NA **			None
70	M70						Yes	** NA **			None
71	M71						Yes	** NA **			None
72	M72						Yes	** NA **			None
73	M73						Yes	** NA **			None
74	M74						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
75	M75						Yes	** NA **			None
76	M76						Yes	** NA **			None
77	M77						Yes	** NA **			None
78	M78						Yes	** NA **			None
79	M79						Yes	** NA **			None
80	M80						Yes	** NA **			None
81	M81						Yes	** NA **			None
82	M82						Yes	** NA **			None
83	M83						Yes	** NA **			None
84	M84						Yes	** NA **			None
85	M85						Yes	** NA **			None
86	M86						Yes	** NA **			None
87	M87						Yes	** NA **			None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
1	M28	Footrail Con...	.649			Lbyy			.65	.65		Lateral
2	M33	Grating Ang...	4.359			Lbyy			.65	.65		Lateral
3	M34	Grating Ang...	4.359			Lbyy			.65	.65		Lateral
4	M37	Standoff Arm	6.439			Lbyy			2.1	2.1		Lateral
5	M38	Plan Bracing	2.731			Lbyy			.65	.65		Lateral
6	M39	Plan Bracing	2.732			Lbyy			.65	.65		Lateral
7	M42	Footrails	14.5			Lbyy			1	1		Lateral
8	M140	Kickers	7.459			Lbyy			1	1		Lateral
9	M154	Handrails	14.5			Lbyy			1	1		Lateral
10	MP4A	Mount Pipes	8			Lbyy			1	1		Lateral
11	MP1A	Mount Pipes	8			Lbyy			1	1		Lateral
12	MP3A	Mount Pipes	8			Lbyy			1	1		Lateral
13	MP2A	Mount Pipes	8			Lbyy			1	1		Lateral
14	M25	Footrails	14.5			Lbyy			1	1		Lateral
15	M26	Footrails	14.5			Lbyy			1	1		Lateral
16	M28A	Footrail Con...	.289			Lbyy			.8	.8		Lateral
17	M29A	Footrail Con...	.289			Lbyy			.8	.8		Lateral
18	M32A	Plan Bracin...	.364			Lbyy			.8	.8		Lateral
19	M33A	Plan Bracin...	.364			Lbyy			.8	.8		Lateral
20	M35A	Footrail Con...	.649			Lbyy			.65	.65		Lateral
21	M33B	Plan Bracin...	.167			Lbyy			.65	.65		Lateral
22	M36A	Plan Bracin...	.165			Lbyy			.65	.65		Lateral
23	M23	Footrail Con...	.649			Lbyy			.65	.65		Lateral
24	M24	Grating Ang...	4.359			Lbyy			.65	.65		Lateral
25	M25A	Grating Ang...	4.358			Lbyy			.65	.65		Lateral
26	M26A	Standoff Arm	6.439			Lbyy			2.1	2.1		Lateral
27	M27	Plan Bracing	2.732			Lbyy			.65	.65		Lateral
28	M28B	Plan Bracing	2.731			Lbyy			.65	.65		Lateral
29	M29	Kickers	7.459			Lbyy			1	1		Lateral
30	M30	Footrail Con...	.289			Lbyy			.8	.8		Lateral
31	M31	Footrail Con...	.289			Lbyy			.8	.8		Lateral
32	M32	Plan Bracin...	.364			Lbyy			.8	.8		Lateral
33	M33C	Plan Bracin...	.364			Lbyy			.8	.8		Lateral
34	M34A	Footrail Con...	.649			Lbyy			.65	.65		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
35	M35	Plan Bracin...	.167			Lbyy			.65	.65		Lateral
36	M36	Plan Bracin...	.165			Lbyy			.65	.65		Lateral
37	M37A	Footrail Con...	.649			Lbyy			.65	.65		Lateral
38	M38A	Grating Ang...	4.358			Lbyy			.65	.65		Lateral
39	M39A	Grating Ang...	4.359			Lbyy			.65	.65		Lateral
40	M40	Standoff Arm	6.439			Lbyy			2.1	2.1		Lateral
41	M41	Plan Bracing	2.732			Lbyy			.65	.65		Lateral
42	M42A	Plan Bracing	2.731			Lbyy			.65	.65		Lateral
43	M43	Kickers	7.459			Lbyy			1	1		Lateral
44	M44	Footrail Con...	.289			Lbyy			.8	.8		Lateral
45	M45	Footrail Con...	.289			Lbyy			.8	.8		Lateral
46	M46	Plan Bracin...	.364			Lbyy			.8	.8		Lateral
47	M47	Plan Bracin...	.364			Lbyy			.8	.8		Lateral
48	M48	Footrail Con...	.649			Lbyy			.65	.65		Lateral
49	M49	Plan Bracin...	.167			Lbyy			.65	.65		Lateral
50	M50	Plan Bracin...	.165			Lbyy			.65	.65		Lateral
51	M51	Handrails	14.5			Lbyy			1	1		Lateral
52	M52	Handrails	14.5			Lbyy			1	1		Lateral
53	MP4C	Mount Pipes	8			Lbyy			1	1		Lateral
54	MP1C	Mount Pipes	8			Lbyy			1	1		Lateral
55	MP3C	Mount Pipes	8			Lbyy			1	1		Lateral
56	MP2C	Mount Pipes	8			Lbyy			1	1		Lateral
57	MP4B	Mount Pipes	8			Lbyy			1	1		Lateral
58	MP1B	Mount Pipes	8			Lbyy			1	1		Lateral
59	MP3B	Mount Pipes	8			Lbyy			1	1		Lateral
60	MP2B	Mount Pipes	8			Lbyy			1	1		Lateral
61	M61	Handrail Co...	1.568			Lbyy			.65	.65		Lateral
62	M62	Handrail Co...	1.568			Lbyy			.65	.65		Lateral
63	M63	Handrail Co...	1.568			Lbyy			.65	.65		Lateral

Cold Formed Steel Design Parameters

Label	Shape	Lengt...	Lbyy[ft]	Lbzz[ft]	Lcomp t...	Lcomp ...	L-torque...	Kyy	Kzz	Cm-...	Cm-...	Cb	R	a[ft]	y sw...	z sw...
No Data to Print ...																

Aluminum Design Parameters

Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
No Data to Print ...											

Joint Loads and Enforced Displacements

Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
No Data to Print ...			

Member Area Loads (BLC 9 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N66A	N65A	N64	N63A	Y	Two Way	0
2	N77B	N76B	N71A	N70A	Y	Two Way	0

Member Area Loads (BLC 9 : Structure D) (Continued)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
3	N84	N85	N82	N83	Y	Two Way	0
4	N65A	N64	N63A	N66A	Y	Two Way	-.005
5	N70A	N77B	N76B	N71A	Y	Two Way	-.005
6	N83	N82	N85	N84	Y	Two Way	-.005

Member Area Loads (BLC 10 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N66A	N65A	N64	N63A	Y	Two Way	-.013
2	N77B	N76B	N71A	N70A	Y	Two Way	-.013
3	N84	N85	N82	N83	Y	Two Way	-.013

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	CG						
2	N56	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N145	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N48	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	N49A	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	N67	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
7	N68A	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N56	max	1811.95	4	940.958	6	4841.972	1	1.487	6	3.204	3	.655	3
2		min	-1813.534	3	333.266	9	-3039.674	2	.523	9	-3.181	4	-.453	4
3	N145	max	74.867	4	2527.79	5	-58.928	2	0	11	0	4	0	3
4		min	-74.741	3	33.534	2	-2573.048	5	0	1	0	3	0	4
5	N48	max	4600.978	4	940.829	7	1739.253	1	.141	4	1.129	1	-.351	2
6		min	-3050.298	3	327.869	4	-2640.925	2	-.559	7	-1.121	2	-1.466	5
7	N49A	max	-111.827	3	2511.473	8	1285.843	8	0	4	0	3	0	3
8		min	-2208.917	8	84.683	3	30.198	3	0	3	0	4	0	4
9	N67	max	2673.918	4	939.78	8	2247.872	1	.031	1	2.033	2	1.195	5
10		min	-4222.378	3	338.956	2	-3152.302	2	-1.062	6	-2.009	1	.182	2
11	N68A	max	2205.573	7	2506.859	7	1282.51	7	0	3	0	3	0	3
12		min	129.693	4	104.158	4	40.435	4	0	4	0	4	0	4
13	Totals:	max	7770.121	4	9805.66	5	7612	1						
14		min	-7770.082	3	3870.545	2	-7611.962	2						

Envelope Maximum Member Section Forces

	Member		Axial[l...	Loc[ft]	LC	y Shear...	Loc[ft]	LC	z Shear...	Loc[ft]	LC	Torque[...	Loc[ft]	LC	y-y Mome...	Loc[ft]	LC	z-z Mome...	Loc[ft]	LC
1	M28	m...	1214....	.142	1	778.534	0	5	1453.537	0	1	.208	.149	3	.199	0	2	.711	0	5
2		min	-1205....	.142	2	-70.625	.649	2	-1548.9...	0	2	-.272	0	4	-.184	.149	4	-.136	0	2
3	M33	m...	1511....	0	1	55.271	0	5	36.945	0	3	0	0	4	.026	0	4	.093	0	1
4		min	-1634....	0	2	-30.587	4.359	6	-41.604	0	4	0	0	3	-.044	0	3	-.071	0	2
5	M34	m...	1456....	0	1	30.478	4.359	2	70.095	0	5	0	0	4	.019	4.359	2	.078	4.359	1
6		min	-1535....	0	2	-41.172	0	3	-19.765	4.359	2	0	0	7	-.05	0	8	-.113	0	1
7	M37	m...	3073....	1.073	2	1066.481	1.073	5	1810.717	6.439	4	.453	3.823	4	3.181	6.439	4	1.487	6.439	6

Envelope Maximum Member Section Forces (Continued)

	Member		Axial[l...	Loc[ft]	LC	y Shear...	Loc[ft]	LC	z Shear...	Loc[ft]	LC	Torque[...	Loc[ft]	LC	y-y Mome...	Loc[ft]	LC	z-z Mome...	Loc[ft]	LC
8		min	-4841...	3.823	1	-1292.6...	1.006	5	-1811.6...	6.439	3	-.655	3.823	3	-3.204	6.439	3	-1.638	3.756	5
9	M38	m...	765.2...	.427	3	-164.35	0	2	1156.364	.398	2	-.078	0	2	.562	2.731	3	2.261	2.731	5
10		min	-753....	.427	4	-879.519	2.731	5	-1117.9...	.398	1	-.404	0	5	-.601	2.731	4	-.245	0	3
11	M39	m...	1010....	0	4	905.7	0	5	1241.727	2.334	1	.41	2.334	5	.615	0	4	2.303	0	5
12		min	-997....	0	3	168.202	2.732	2	-1316.4...	2.334	2	.076	2.334	2	-.639	0	3	-.227	2.732	4
13	M42	m...	1180....	4.38	2	671.026	4.38	8	848.514	10.12	2	.697	4.38	1	.719	9.063	1	.468	5.589	4
14		min	-1364...	5.589	1	-762.739	13.7...	10	-850.396	10.12	1	-.748	4.38	2	-.714	9.063	2	-.758	12.6...	6
15	M140	m...	3606....	0	5	69.138	0	5	76.343	0	4	0	0	4	.142	3.729	4	.03	3.729	2
16		min	-48.0...	7.459	2	-69.138	7.459	5	-76.343	0	3	0	0	3	-.142	3.729	3	-.129	3.729	5
17	M154	m...	551.2...	.604	3	275.94	5.589	4	559.669	13.8...	2	.342	9.063	2	.686	.604	4	.499	12.6...	3
18		min	-606....	.604	4	-283.94	12.6...	3	-492.081	13.8...	1	-.336	12.6...	1	-.704	9.063	2	-.529	12.6...	1
19	MP4A	m...	410.76	5.5	2	420.392	5.5	4	160.409	2	4	.623	2	2	.377	5.5	4	.581	2	4
20		min	-184....	2	1	-315.027	5.5	3	-146.15	2	3	-.604	2	1	-.29	5.5	3	-.804	5.5	4
21	MP1A	m...	574.7...	5.5	6	284.904	5.5	4	198.027	5.5	2	.725	2	1	.384	5.5	3	.921	5.5	3
22		min	-252....	2	1	-457.2	5.5	3	-198.009	5.5	1	-.754	2	2	-.289	5.5	2	-.534	5.5	4
23	MP3A	m...	363.0...	5.5	8	644.738	5.5	4	437.167	5.5	1	.331	2	2	.842	5.5	1	.794	5.5	3
24		min	-91.1...	2	3	-478.747	5.5	3	-420.633	5.5	2	-.316	2	1	-.778	5.5	2	-1.141	5.5	4
25	MP2A	m...	435.4...	5.5	5	431.607	5.5	4	533.343	5.5	2	.173	2	4	1.343	5.5	1	1.032	5.5	3
26		min	-321....	5.583	5	-487.249	5.5	3	-533.295	5.5	1	-.171	2	3	-1.271	5.5	2	-.907	5.5	4
27	M25	m...	1336....	4.38	3	666.621	4.38	6	705.956	10.12	3	.722	4.38	4	.7	9.062	4	.489	1.964	2
28		min	-1441...	4.38	4	-689.16	10.12	5	-710.043	10.12	4	-.775	4.38	3	-.688	9.062	3	-.758	12.6...	5
29	M26	m...	1262....	10.12	4	655.712	4.38	5	617.261	10.12	4	.685	9.062	4	.7	9.062	3	.514	1.964	3
30		min	-1474...	10.12	3	-699.677	10.12	6	-624.818	10.12	3	-.671	9.062	3	-.705	9.062	4	-.821	12.6...	4
31	M28A	m...	443.1...	0	1	706.829	0	5	127.234	.289	4	.304	0	3	.042	0	3	.204	0	5
32		min	-380....	0	2	-74.855	.289	2	-146.713	.289	3	-.27	0	4	-.036	0	4	-.021	0	2
33	M29A	m...	461.7...	0	1	407.097	0	1	171.411	.289	4	.285	0	3	.048	0	3	.117	0	1
34		min	-417....	0	2	-143.216	.289	2	-168.056	.289	3	-.324	0	4	-.049	0	4	-.041	0	2
35	M32A	m...	1306....	0	2	775.934	0	5	720.07	0	4	.213	0	4	.26	0	3	.281	0	5
36		min	-1229...	0	1	164.271	.364	2	-722.419	0	3	-.205	0	3	-.259	0	4	0	.364	1
37	M33A	m...	1150	0	2	764.577	0	5	592.545	0	4	.237	0	4	.214	0	3	.277	0	5
38		min	-1111...	0	1	160.217	.364	2	-598.24	0	3	-.233	0	3	-.212	0	4	0	.364	1
39	M35A	m...	1200....	0	1	477.965	0	5	1476.305	0	2	.279	0	3	.182	0	1	.468	0	1
40		min	-1191...	0	2	-139.274	.649	2	-1422.5...	0	1	-.248	.149	4	-.202	0	2	-.164	0	2
41	M33B	m...	1303....	0	2	779.576	0	5	618.703	0	4	.227	0	4	.367	0	3	.41	0	5
42		min	-1228...	0	1	167.308	.167	2	-650.366	0	3	-.196	0	3	-.361	0	4	.048	.167	2
43	M36A	m...	1142....	0	2	768.214	0	5	539.054	0	4	.226	0	4	.301	0	3	.404	0	5
44		min	-1104...	0	1	163.396	.165	2	-528.514	0	3	-.246	0	3	-.301	0	4	.051	.165	2
45	M23	m...	1279....	.142	4	787.483	0	8	1730.005	0	4	.153	.149	4	.197	0	3	.764	0	4
46		min	-1262...	.142	3	-131.705	.649	3	-1832.7...	0	3	-.198	.149	3	-.18	0	4	-.262	0	3
47	M24	m...	1937....	0	4	55.67	0	8	54.53	4.359	3	0	0	6	.03	4.359	3	.089	0	4
48		min	-2074...	0	3	-31.025	4.359	7	-58.796	4.359	4	0	0	1	-.034	0	5	-.088	4.359	4
49	M25A	m...	1315....	0	2	48.351	4.358	1	69.255	0	6	0	0	2	.028	4.358	1	.08	4.358	2
50		min	-1419...	0	1	-59.094	4.358	2	-16.392	4.358	1	0	0	5	-.048	0	6	-.1	0	4
51	M26A	m...	3180....	3.756	3	1061.355	1.073	8	1089.858	6.439	2	.297	0	9	1.823	3.823	4	1.487	6.439	7
52		min	-4966...	6.439	4	-1281.5...	1.006	8	-1087.0...	6.439	1	-.477	3.823	1	-1.857	3.823	3	-1.633	3.756	8
53	M27	m...	1003....	2.732	1	-138.704	0	3	1417.824	.398	1	-.077	0	3	.876	2.732	1	2.25	2.732	8
54		min	-981....	2.732	2	-884.041	2.732	8	-1358.1...	.398	2	-.403	0	8	-.91	2.732	2	-.238	0	1
55	M28B	m...	1155....	0	3	906.96	0	6	1835.597	2.333	4	.406	2.333	8	1.087	0	3	2.292	0	8
56		min	-1130...	0	4	168.648	2.731	1	-1922.21	2.333	3	.093	2.333	3	-1.104	0	4	-.218	2.731	3
57	M29	m...	3582....	0	8	68.945	0	8	61.582	0	2	0	0	3	.115	3.729	2	.029	3.729	3
58		min	27.182	7.459	3	-68.945	7.459	8	-61.582	0	1	0	0	4	-.115	3.729	1	-.129	3.729	8
59	M30	m...	475.8...	0	2	715.292	0	8	123.019	.289	3	.283	0	4	.04	0	4	.206	0	8

Envelope Maximum Member Section Forces (Continued)

	Member		Axial[l...	Loc[ft]	LC	y Shear...	Loc[ft]	LC	z Shear...	Loc[ft]	LC	Torque[...	Loc[ft]	LC	y-y Mome...	Loc[ft]	LC	z-z Mome...	Loc[ft]	LC
60		min	-419....	0	1	-136.149	.289	3	-145.843	.289	4	-.251	0	3	-.034	0	3	-.039	0	3
61	M31	m...	490.3...	0	4	657.378	0	9	176.667	.289	2	.265	0	1	.049	0	1	.19	0	9
62		min	-445....	0	3	-89.485	.289	1	-172.941	.289	1	-.303	0	2	-.05	0	2	-.025	0	1
63	M32	m...	1891....	0	3	775.218	0	6	308.935	0	2	.211	0	3	.117	0	1	.281	0	6
64		min	-1802...	0	4	164.539	.364	1	-328.402	0	1	-.202	0	4	-.11	0	2	0	.364	1
65	M33C	m...	1378....	0	1	767.953	0	8	364.631	0	2	.233	0	2	.133	0	1	.278	0	8
66		min	-1318...	0	2	134.207	.364	3	-374.407	0	1	-.229	0	1	-.13	0	2	0	.364	1
67	M34A	m...	1128....	0	4	673.524	0	9	1301.194	0	3	.218	.149	1	.174	0	4	.59	0	9
68		min	-1125...	0	3	-84.835	.649	1	-1245.4...	0	4	-.213	.149	2	-.194	0	3	-.21	0	1
69	M35	m...	1912....	0	3	778.927	0	6	337.815	0	2	.218	0	3	.177	0	1	.406	0	8
70		min	-1826...	0	4	167.983	.167	1	-362.066	0	1	-.186	0	4	-.166	0	2	.056	.167	3
71	M36	m...	1415....	0	1	771.611	0	8	222.797	0	2	.219	0	2	.167	0	1	.403	0	8
72		min	-1356...	0	2	137.731	.165	3	-207.872	0	1	-.239	0	1	-.166	0	2	.054	.165	3
73	M37A	m...	1109....	0	3	783.235	0	10	1375.826	0	2	.204	.149	2	.184	0	4	.712	0	6
74		min	-1116...	0	4	-15.336	.649	1	-1487.8...	0	1	-.248	.149	1	-.166	0	3	-.162	0	1
75	M38A	m...	1747....	0	2	54.051	0	6	45.802	4.358	1	0	0	1	.024	4.358	1	.077	0	3
76		min	-1899...	0	1	-29.233	4.358	5	-50.516	4.358	2	0	0	2	-.035	0	6	-.063	4.358	2
77	M39A	m...	1617....	0	3	54.328	4.359	4	70.942	0	7	0	0	1	.032	4.359	4	.102	4.359	3
78		min	-1701...	0	4	-64.891	4.359	3	-24.599	4.359	4	0	0	6	-.048	0	5	-.122	0	3
79	M40	m...	2935...	3.756	4	1061.98	1.073	7	1492.27	6.439	1	.391	3.823	1	2.009	6.439	1	1.486	6.439	5
80		min	-4713...	6.439	3	-1276.2...	1.006	7	-1491.5...	6.439	2	-.584	3.823	2	-2.033	6.439	2	-1.639	3.756	7
81	M41	m...	843.0...	2.732	4	-174.567	0	1	1534.983	.398	4	-.088	0	4	.87	2.732	4	2.258	2.732	7
82		min	-818....	2.732	3	-879.28	2.732	6	-1492.4...	.398	3	-.401	0	7	-.906	2.732	3	-.188	0	4
83	M42A	m...	1415....	0	1	913.139	0	7	1759.437	2.333	2	.411	2.333	7	.993	0	1	2.299	0	7
84		min	-1400...	0	2	136.775	2.731	4	-1859.1...	2.333	1	.071	2.333	4	-1.014	0	2	-.244	2.731	1
85	M43	m...	3576....	0	7	68.953	0	7	61.614	7.459	2	0	0	3	.115	3.73	1	.029	3.73	4
86		min	55.521	7.459	4	-68.953	7.459	7	-61.614	7.459	1	0	0	4	-.115	3.73	2	-.129	3.73	7
87	M44	m...	475.4...	0	3	772.831	0	10	142.906	.289	1	.322	0	2	.046	0	2	.223	0	10
88		min	-418....	0	4	-18.445	.289	1	-163.001	.289	2	-.289	0	1	-.04	0	1	-.005	0	1
89	M45	m...	424.7...	.289	3	435.542	0	3	123.327	.289	3	.203	0	4	.033	0	4	.126	0	3
90		min	-386....	.289	4	-172.669	.289	4	-121.713	.289	4	-.242	0	3	-.034	0	3	-.049	0	4
91	M46	m...	1798....	0	1	782.331	0	7	611.927	0	1	.234	0	1	.217	0	2	.283	0	7
92		min	-1693...	0	2	132.335	.364	4	-603.475	0	2	-.225	0	2	-.22	0	1	0	.364	1
93	M47	m...	1521....	0	4	762	0	6	359.448	0	1	.186	0	3	.126	0	2	.276	0	6
94		min	-1478...	0	3	170.461	.364	1	-352.157	0	2	-.181	0	4	-.129	0	1	0	.364	1
95	M48	m...	1237....	.142	3	490.579	0	3	1592.554	0	4	.229	0	2	.181	0	3	.571	0	3
96		min	-1227...	.142	4	-167.904	.649	4	-1534.6...	0	3	-.177	.149	1	-.201	0	4	-.267	0	4
97	M49	m...	1855....	0	1	786.007	0	7	395.144	0	1	.244	0	1	.289	0	2	.411	0	7
98		min	-1756...	0	2	135.762	.167	4	-436.209	0	2	-.212	0	2	-.285	0	1	.048	.167	4
99	M50	m...	1524....	0	4	765.673	0	6	396.304	0	1	.169	0	3	.19	0	2	.402	0	7
100		min	-1481...	0	3	173.949	.165	1	-390.077	0	2	-.189	0	4	-.194	0	1	.053	.165	4
101	M51	m...	541.0...	1.812	1	326.611	12.6...	3	397.221	13.8...	1	.275	1.964	4	.675	.604	2	.542	12.6...	1
102		min	-593....	1.812	2	-352.033	13.8...	4	-395.412	.604	3	-.3	1.964	3	-.69	12.6...	3	-.583	12.6...	4
103	M52	m...	412.8...	1.812	4	306.512	.604	3	644.642	13.8...	4	.344	9.062	4	.625	12.6...	3	.589	1.812	4
104		min	-462....	1.812	3	-372.36	1.812	4	-576.301	13.8...	3	-.335	9.062	3	-.68	12.6...	4	-.495	1.812	3
105	MP4C	m...	383.8...	5.5	7	49.664	2	1	283.22	5.5	1	.542	2	3	.515	2	2	.156	2	1
106		min	-141....	2	4	-94.615	2	2	-374.938	5.5	2	-.525	2	4	-.774	5.5	3	-.252	2	2
107	MP1C	m...	562.2...	5.5	5	337.222	2	1	296.633	5.5	1	.555	2	4	.652	5.5	1	.456	5.5	2
108		min	-184....	2	2	-209.509	2	2	-169.363	5.5	2	-.585	2	3	-.594	2	4	-.762	5.5	1
109	MP3C	m...	366.55	5.5	6	428.381	5.5	4	460.218	5.5	1	.37	2	3	.786	5.5	1	.857	5.5	3
110		min	-118....	2	1	-495.762	5.5	3	-612.008	5.5	2	-.352	2	4	-1.118	5.5	2	-.743	5.5	4
111	MP2C	m...	436.92	5.5	8	462.479	5.5	3	423.539	5.5	1	.198	2	2	.988	5.5	1	1.182	5.5	3

Envelope Maximum Member Section Forces (Continued)

	Member		Axial[l...	Loc[ft]	LC	y Shear...	Loc[ft]	LC	z Shear...	Loc[ft]	LC	Torque[...	Loc[ft]	LC	y-y Mome...	Loc[ft]	LC	z-z Mome...	Loc[ft]	LC
112		min	-321....	5.583	5	-462.424	5.5	4	-387.67	5.5	2	-.198	2	1	-.92	5.5	2	-1.304	5.5	4
113	MP4B	m...	426.8...	5.5	4	226.266	2	2	243.103	2	3	.503	2	4	.477	5.5	1	.704	5.5	1
114		min	-195....	2	3	-291.166	2	1	-159.062	2	4	-.481	2	3	-.49	2	3	-.498	5.5	2
115	MP1B	m...	596.6...	5.5	4	170.528	5.5	3	283.093	5.5	1	.74	2	3	.612	2	2	.302	2	3
116		min	-299....	2	3	-169.354	5.583	4	-457.434	5.5	2	-.763	2	4	-.857	5.5	2	-.255	5.5	4
117	MP3B	m...	372.7...	5.5	7	450.724	5.5	4	566.801	5.5	1	.218	2	1	.958	5.5	1	1.053	5.5	3
118		min	-140....	2	4	-547.651	5.5	3	-432.805	5.5	2	-.2	2	2	-.692	5.5	2	-.825	5.5	4
119	MP2B	m...	433.5...	5.5	6	462.465	5.5	3	353.844	5.5	1	.192	2	3	.873	5.5	1	1.218	5.5	3
120		min	-321....	5.583	5	-462.497	5.5	4	-414.48	5.5	2	-.19	2	4	-1.019	5.5	2	-1.213	5.5	4
121	M61	m...	498.82	0	3	255.343	0	2	368.044	0	4	.021	0	1	.361	0	3	.578	0	3
122		min	-560....	0	4	-209.881	1.568	1	-356.101	0	3	-.021	0	2	-.409	0	4	-.605	0	4
123	M62	m...	365.4...	1.568	1	247.968	0	2	424.462	1.568	2	.027	0	2	.519	1.568	2	.459	1.568	2
124		min	-420....	1.568	2	-290.571	1.568	1	-409.602	1.568	1	-.028	0	1	-.509	1.568	1	-.399	1.568	1
125	M63	m...	362.8...	0	2	362.38	0	4	425.156	0	3	.031	0	3	.213	0	2	.451	0	4
126		min	-424....	0	1	-319.797	1.568	3	-407.406	0	4	-.031	0	4	-.265	0	1	-.482	0	3
127	M64	m...	156.25	0	1	195.061	0	1	341.846	0	4	.502	0	3	.604	.25	1	.222	.25	3
128		min	-177....	0	2	-377.113	0	2	-237.579	0	3	-.609	0	4	-.631	0	2	-.207	0	4
129	M65	m...	159.6...	0	4	429.754	0	6	350.517	0	3	.498	0	3	.631	0	2	.327	0	3
130		min	-145....	0	3	-144.035	0	1	-454.865	0	4	-.76	0	4	-.604	.25	1	-.38	.25	2
131	M66	m...	64.941	0	2	104.37	0	3	447.903	0	4	.586	0	3	.316	.25	1	.104	0	2
132		min	-77.6...	0	1	-78.262	0	4	-282.397	0	3	-.82	0	4	-.355	0	2	-.09	0	1
133	M67	m...	468.9...	0	1	403.381	0	8	514.095	0	3	.75	0	3	.354	0	2	.753	0	2
134		min	-455....	0	2	71.812	0	3	-679.56	0	4	-1.097	0	4	-.316	.25	1	-.798	.25	1
135	M68	m...	316.8...	0	1	144.47	0	6	79.861	0	4	.938	0	3	.205	0	3	.535	0	2
136		min	-334....	0	2	-5.234	0	1	-135.465	0	3	-.868	0	4	-.193	0	4	-.516	0	1
137	M69	m...	860.3...	0	1	757.566	0	5	736.504	0	3	.666	0	3	.343	0	4	.529	0	2
138		min	-842....	0	2	200.989	0	2	-680.979	0	4	-.541	0	4	-.355	0	3	-.552	.25	1
139	M70	m...	257.8...	0	1	285.522	0	1	80.976	0	4	.627	0	3	.767	0	2	.059	.25	2
140		min	-309....	0	2	-370.743	0	2	-261.415	0	7	-.411	0	4	-.725	.25	1	-.099	0	3
141	M71	m...	250.4...	0	1	706.045	0	6	544.028	0	3	.797	0	3	.725	.25	1	.289	0	4
142		min	-198....	0	2	-68.443	0	1	-373.155	0	4	-.41	0	4	-.766	0	2	-.384	.25	3
143	M72	m...	157.2...	0	2	208.66	0	3	283.419	0	1	.513	0	4	.482	.25	3	.177	0	2
144		min	-172....	0	1	-391.266	0	4	-179.832	0	2	-.618	0	3	-.503	.25	4	-.185	0	1
145	M73	m...	88.914	0	4	156.235	0	4	384.872	0	1	.5	0	2	.255	0	2	.124	0	4
146		min	-96.6...	0	3	-125.595	0	3	-220.855	0	2	-.732	0	1	-.315	0	1	-.111	0	3
147	M74	m...	260.5	0	3	142.146	0	5	-2.563	0	4	.833	0	2	.191	0	4	.428	0	4
148		min	-281....	0	4	6.477	0	3	-90.522	0	6	-.76	0	1	-.192	.25	3	-.413	.25	3
149	M75	m...	351.3...	0	3	331.768	0	3	83.833	0	1	.774	0	2	.805	0	4	.211	0	3
150		min	-406....	0	4	-417.385	0	4	-269.633	0	6	-.553	0	1	-.739	.25	3	-.263	0	4
151	M76	m...	217.6...	0	2	714.797	0	8	534.391	0	2	.734	0	4	.8	0	3	.289	.25	3
152		min	-171....	0	1	-111.969	0	3	-360.21	0	1	-.349	0	3	-.866	0	4	-.415	.25	4
153	M77	m...	680.5...	0	3	756.085	0	6	679.737	0	2	.488	0	2	.315	0	3	.475	0	4
154		min	-658....	0	4	215.82	0	4	-622.96	0	1	-.361	0	1	-.326	0	4	-.497	.25	3
155	M78	m...	402.5...	0	3	412.733	0	7	456.092	0	2	.625	0	2	.373	0	1	.68	0	4
156		min	-392....	0	4	14.061	0	4	-619.783	0	1	-.97	0	1	-.314	0	2	-.74	.25	3
157	M79	m...	116.3...	0	1	442.093	0	4	278.088	0	2	.471	0	2	.503	.25	4	.303	.25	2
158		min	-100....	0	2	-157.726	0	3	-380.656	0	1	-.727	0	1	-.481	.25	3	-.393	.25	1
159	M80	m...	179.5...	0	4	152.874	0	4	304.549	0	2	.499	0	1	.548	0	4	.119	0	4
160		min	-193....	0	3	-335.659	0	3	-202.373	0	1	-.597	0	2	-.59	0	3	-.111	0	3
161	M81	m...	123.6...	0	2	424.24	0	7	300.286	0	1	.358	0	4	.604	0	3	.405	.25	4
162		min	-112....	0	1	-100.956	0	4	-402.411	0	2	-.617	0	2	-.562	0	4	-.492	.25	3
163	M82	m...	57.067	0	1	132.408	0	1	391.38	0	2	.496	0	1	.386	0	4	.078	0	3

Envelope Maximum Member Section Forces (Continued)

	Member		Axial[l...	Loc[ft]	LC	y Shear...	Loc[ft]	LC	z Shear...	Loc[ft]	LC	Torque[...	Loc[ft]	LC	y-y Mome...	Loc[ft]	LC	z-z Mome...	Loc[ft]	LC
164		min	-69.4...	0	2	-103.046	0	2	-225.925	0	1	-.73	0	2	-.445	0	3	-.067	.25	4
165	M83	m...	354.3...	0	4	406.743	0	6	461.386	0	1	.649	0	1	.489	0	3	.543	0	3
166		min	-337....	0	3	42.183	0	1	-626.805	0	2	-.995	0	2	-.43	0	4	-.57	.25	4
167	M84	m...	245.0...	0	4	144.579	0	7	42.229	0	4	.911	0	1	.219	0	1	.442	0	3
168		min	-264....	0	3	-4.417	0	4	-99.013	0	3	-.841	0	2	-.205	0	2	-.423	0	4
169	M85	m...	197.8...	0	2	221.352	0	2	74.571	0	2	.752	0	4	.585	.25	3	.181	0	2
170		min	-247....	0	1	-301.569	0	1	-266.169	0	5	-.53	0	3	-.555	.25	4	-.236	0	1
171	M86	m...	694.37	0	4	759.123	0	8	710.974	0	1	.522	0	1	.362	0	2	.52	0	3
172		min	-676....	0	3	203.079	0	3	-656.455	0	2	-.397	0	2	-.376	0	1	-.538	.25	4
173	M87	m...	283.5...	0	4	693.611	0	5	524.258	0	1	.804	0	1	.555	.25	4	.288	0	2
174		min	-230....	0	3	4.068	0	2	-351.789	0	2	-.416	0	2	-.585	.25	3	-.416	.25	1

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check Loc.....	...		phi*Pnc [lb]	phi*Pnt...	phi*Mn ...	phi*Mn z-z.....		Eqn
1	M36A	PL3/8x6	.550	0	3	.574	0	y	3	72196.664	72900	.57	9.113	...	H1-1b
2	M49	PL3/8x6	.539	0	2	.568	0	y	1	72185.734	72900	.57	9.113	...	H1-1b
3	M36	PL3/8x6	.321	0	2	.556	0	y	1	72196.664	72900	.57	9.113	...	H1-1b
4	M33A	PL3/8x6	.395	0	3	.550	0	y	4	68817.953	72900	.57	9.113	...	H1-1b
5	M46	PL3/8x6	.411	0	1	.544	0	y	1	68817.972	72900	.57	9.113	...	H1-1b
6	M33C	PL3/8x6	.256	0	1	.542	0	y	2	68817.953	72900	.57	9.113	...	H1-1b
7	M33B	PL3/8x6	.665	0	3	.531	0	y	4	72185.734	72900	.57	9.113	...	H1-1b
8	M35	PL3/8x6	.324	0	1	.506	0	y	3	72185.734	72900	.57	9.113	...	H1-1b
9	M32A	PL3/8x6	.475	0	4	.500	0	y	4	68817.972	72900	.57	9.113	...	H1-1b
10	M32	PL3/8x6	.215	0	1	.489	0	y	3	68817.972	72900	.57	9.113	...	H1-1b
11	M47	PL3/8x6	.239	0	2	.439	0	y	3	68817.953	72900	.57	9.113	...	H1-1b
12	M50	PL3/8x6	.356	0	2	.438	0	y	4	72196.664	72900	.57	9.113	...	H1-1b
13	M44	PL1/2x6	.058	0	2	.433	0	y	2	95322.208	97200	1.012	12.15	...	H1-1b
14	M29A	PL1/2x6	.054	0	4	.429	0	y	4	95322.208	97200	1.012	12.15	...	H1-1b
15	M28A	PL1/2x6	.052	0	3	.407	0	y	3	95322.208	97200	1.012	12.15	...	H1-1b
16	M31	PL1/2x6	.059	0	2	.404	0	y	2	95322.208	97200	1.012	12.15	...	H1-1b
17	M30	PL1/2x6	.056	0	4	.385	0	y	4	95322.208	97200	1.012	12.15	...	H1-1b
18	M35A	PL1/2x6	.225	0	1	.365	0	y	3	91104.489	97200	1.012	12.15	...	H1-1b
19	M28	PL1/2x6	.240	0	1	.359	0	y	4	91104.489	97200	1.012	12.15	...	H1-1b
20	M45	PL1/2x6	.046	0	3	.327	0	y	3	95322.208	97200	1.012	12.15	...	H1-1b
21	M37A	PL1/2x6	.211	0	3	.324	.649	y	1	91104.489	97200	1.012	12.15	...	H1-1b
22	M48	PL1/2x6	.233	0	3	.305	0	y	2	91104.489	97200	1.012	12.15	...	H1-1b
23	M34A	PL1/2x6	.203	0	4	.287	.149	y	2	91104.489	97200	1.012	12.15	...	H1-1b
24	M52	PIPE_2.0	.476	12.687	4	.274	12....		4	4678.524	32130	1.872	1.872	...	H1-1b
25	M154	PIPE_2.0	.472	12.688	2	.268	12....		2	4678.524	32130	1.872	1.872	...	H1-1b
26	MP1B	PIPE_2.5	.327	5.5	4	.264	2		4	30038.461	50715	3.596	3.596	...	H3-6
27	M23	PL1/2x6	.248	0	4	.262	.649	y	3	91104.489	97200	1.012	12.15	...	H1-1b
28	MP1A	PIPE_2.5	.283	5.5	3	.251	5.5		2	30038.461	50715	3.596	3.596	...	H1-1b
29	M51	PIPE_2.0	.495	12.687	3	.213	13....		4	4678.524	32130	1.872	1.872	...	H1-1b
30	MP4A	PIPE_2.5	.249	5.5	4	.206	2		2	30038.461	50715	3.596	3.596	...	H1-1b
31	MP1C	PIPE_2.5	.287	5.5	1	.200	5.5		4	30038.461	50715	3.596	3.596	...	H1-1b
32	MP4C	PIPE_2.5	.223	5.5	3	.189	2		3	30038.461	50715	3.596	3.596	...	H1-1b
33	M63	L2.5x2.5x4	.368	0	1	.187	0	z	4	37271.433	38556	1.114	2.537	...	H2-1
34	M25	PIPE_3.0	.151	9.062	3	.179	4.38		3	21266.02	65205	5.749	5.749	...	H1-1b
35	M42	PIPE_3.0	.164	12.688	2	.176	4.38		2	21266.02	65205	5.749	5.749	...	H1-1b
36	MP4B	PIPE_2.5	.241	5.5	1	.173	5.5		3	30038.461	50715	3.596	3.596	...	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc...	...		phi*Pnc [lb]	phi*Pnt...	phi*Mn ...	phi*Mn z-z...	...	Eqn
37	M62	L2.5x2.5x4	.658	1.568	2	.170	1.5...	z	1	37271.433	38556	1.114	2.537	...	H2-1
38	M26	PIPE_3.0	.174	12.687	4	.169	10....		4	21266.02	65205	5.749	5.749	...	H1-1b
39	MP3C	PIPE_2.5	.317	5.5	2	.153	5.5		3	30038.461	50715	3.596	3.596	...	H1-1b
40	MP3A	PIPE_2.5	.323	5.5	4	.133	5.5		2	30038.461	50715	3.596	3.596	...	H1-1b
41	M61	L2.5x2.5x4	.620	0	4	.128	1.5...	z	1	37271.433	38556	1.114	2.537	...	H2-1
42	MP3B	PIPE_2.5	.307	5.5	3	.108	5.5		1	30038.461	50715	3.596	3.596	...	H1-1b
43	M37	HSS4X4X4	.237	6.439	4	.095	6.4...	z	3	64913.906	139518	16.181	16.181	...	H1-1b
44	MP2C	PIPE_2.5	.366	5.5	4	.092	5.5		1	30038.461	50715	3.596	3.596	...	H1-1b
45	MP2B	PIPE_2.5	.343	5.5	3	.091	5.5		3	30038.461	50715	3.596	3.596	...	H1-1b
46	MP2A	PIPE_2.5	.377	5.5	1	.086	5.5		3	30038.461	50715	3.596	3.596	...	H1-1b
47	M40	HSS4X4X4	.177	6.439	1	.082	6.4...	z	2	64913.906	139518	16.181	16.181	...	H1-1b
48	M28B	HSS4X4X4	.158	0	8	.064	2.3...	z	4	137689.689	139518	16.181	16.181	...	H1-1b
49	M26A	HSS4X4X4	.164	3.823	3	.063	6.4...	z	1	64913.906	139518	16.181	16.181	...	H1-1b
50	M42A	HSS4X4X4	.155	0	6	.059	2.3...	z	2	137689.689	139518	16.181	16.181	...	H1-1b
51	M41	HSS4X4X4	.155	2.732	7	.055	.398	z	3	137688.177	139518	16.181	16.181	...	H1-1b
52	M39	HSS4X4X4	.150	0	5	.053	0	y	5	137688.298	139518	16.181	16.181	...	H1-1b
53	M27	HSS4X4X4	.153	2.732	6	.050	2.7...	y	8	137688.177	139518	16.181	16.181	...	H1-1b
54	M38	HSS4X4X4	.147	2.731	5	.050	2.7...	y	5	137689.568	139518	16.181	16.181	...	H1-1b
55	M39A	L2x2x3	.237	4.359	3	.016	0	z	6	15647.696	23392.8	.558	1.218	...	H2-1
56	M25A	L2x2x3	.205	0	2	.016	0	z	8	15649.621	23392.8	.558	1.215	...	H2-1
57	M34	L2x2x3	.200	0	1	.016	0	z	7	15647.696	23392.8	.558	1.23	...	H2-1
58	M24	L2x2x3	.253	4.359	4	.012	4.3...	z	3	15646.442	23392.8	.558	1.217	...	H2-1
59	M33	L2x2x3	.188	4.359	1	.012	0	y	8	15646.442	23392.8	.558	1.232	...	H2-1
60	M38A	L2x2x3	.211	4.358	2	.011	4.3...	z	1	15648.367	23392.8	.558	1.239	...	H2-1
61	M29	LL2.5x2.5...	.126	0	8	.007	7.4...	y	4	28542.544	58320	3.954	2.55	...	H1-1...
62	M43	LL2.5x2.5...	.125	0	7	.006	7.4...	z	2	28539.886	58320	3.954	2.55	...	H1-1...
63	M140	LL2.5x2.5...	.126	0	5	.006	7.4...	z	3	28541.215	58320	3.954	2.55	1	H1-1...

Envelope AISI S100-10: LRFD Cold Formed Steel Code Checks

Member	Shape	Code Check	Loc[ft]	LC	Shear...	Loc[ft]	Dir	LC	phi*Pn[lb]	phi*Tn[lb]	phi*Mny...	phi*Mnz...	Cb	Cmyy	Cmzz	Eqn
No Data to Print ...																

Envelope AA ADM1-10: ASD - Building Aluminum Code Checks

Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	Pnc/O...	Pnt/Om...	Mny/O...	Mnz/O...	Vny/O...	Vnz/O...	Cb	Eqn
No Data to Print ...																

Wood Wall Panel Parameters

	Label	Top Plate	Sill Plate	Studs	Min Stud Sp...	Max Stud Sp...	Green Lumb...	Header Size	Header Matl
1	Typical	2-2X6	2X6	2X6	16	16		6x8	Same as Wall

Additional Wood Wall Panel Parameters

	Label	Schedule	Min. Pan...	Max. Pa...	Double S...	Max. Nail...	Min. Nail...	HD Chor...	HD Chor...	Hold Do...	Chord Strap	Eccen...
1	Typical	IBC06-09 Pa...	.375	.75	Optimum	6-in.	2-in.	2-2X6	Same as...	SIMPSO...	SIMPSON C...	Yes

EXHIBIT 10

Construction Drawings

CTNL143A

5 EXETER DRIVE
STERLING, CT 06377
WINDHAM COUNTY

SITE NO.: CTNL143A

RF DESIGN GUIDELINE: 67E5A998E 6160

SCOPE OF WORK

INSTALL:
- 9 ANTENNAS
- 6 RRUs
- 1 B160 BATTERY CABINET
- 1 6160 CABINET
- 1 PPC CABINET
- 1 PURCELL CABINET
- 1 GPS ANTENNA
- 3 HYBRID CABLES
- 1 LOW-PROFILE MOUNT
- 1 10'x20' CONCRETE PAD
- 1 ICE BRIDGE
- 1 GENERATOR
- 1 ATS

SITE NOTES

1. THIS IS AN UNMANNED AND RESTRICTED ACCESS TELECOMMUNICATION FACILITY, AND IS NOT FOR HUMAN HABITATION. IT WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
   - ADA COMPLIANCE NOT REQUIRED.
   - POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
   - NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.
2. CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
3. NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
   - BUILDING CODE: 2018 CONNECTICUT STATE BUILDING CODE
   - ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
   - STRUCTURAL CODE: TIA/EIA-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

APPROVALS

PROJECT MANAGER:	DATE:	ZONING/SITE ACQ.:	DATE:
CONSTRUCTION:	DATE:	OPERATIONS:	DATE:
RF ENGINEERING:	DATE:	TOWER OWNER:	DATE:

T-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION	SPECIAL RESTRICTIONS
SECTOR A:	ACCESS BY CERTIFIED CLIMBER
SECTOR B:	ACCESS BY CERTIFIED CLIMBER
SECTOR C:	ACCESS BY CERTIFIED CLIMBER
GPS/LMU:	UNRESTRICTED
RADIO CABINETS:	UNRESTRICTED
PPC DISCONNECT:	UNRESTRICTED
MAIN CIRCUIT D/C:	UNRESTRICTED
NIU/T DEMARC:	UNRESTRICTED
OTHER/SPECIAL:	NONE

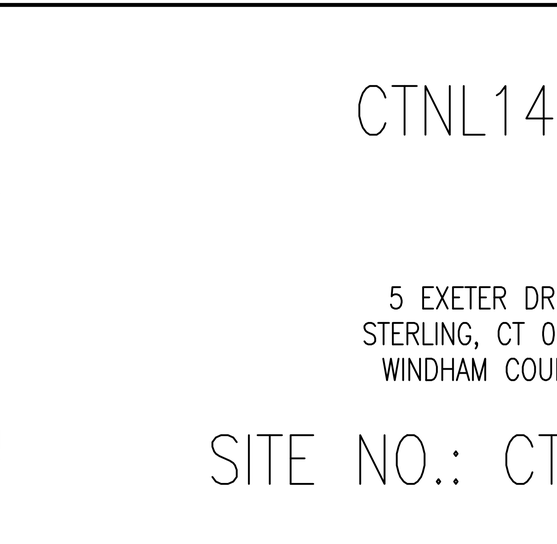
GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE OMNIPOINT REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECCESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
12. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
13. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
14. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
15. THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE LESSEE/LICENSEE REPRESENTATIVE.
16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
17. ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK.

AT LEAST 72 HOURS PRIOR TO DIGGING, THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT 811

VICINITY MAP

SCALE: 1" = 1000'-0"



DIRECTIONS

TURN LEFT ONTO S WASHINGTON ST. TURN RIGHT ONTO MA-123 E. TURN LEFT TO MERGE ONTO I-495 NORTH TOWARD MANSFIELD/MARLBORO. MERGE ONTO I-495 NORTH. TAKE EXIT 33B TO MERGE ONTO I-95 SOUTH TOWARD PROVIDENCE RI. TAKE EXIT 6 FOR I-295 SOUTH TOWARD WOONSOCKET. TAKE EXIT 9C-A FOR US-6 WEST TOWARD HARTFORD CT. KEEP RIGHT AT THE FORK FOLLOW SIGNS FOR JOHNSTON. MERGE ONTO US-6 WEST. TURN LEFT ONTO MARGARET HENRY ROAD. TURN RIGHT ONTO SNAKE MEADOW HILL ROAD. TURN LEFT ONTO MAIN STREET. TURN LEFT ONTO INDUSTRIAL PARK ROAD. SITE WILL BE ON THE LEFT.

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DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

PROJECT SUMMARY

SITE NUMBER:	CTNL143A
SBA SITE NUMBER:	CT11560-A
SBA SITE NAME:	STERLING 6, CT
SITE ADDRESS:	24 EXETER DRIVE STERLING, CT 06377
PROPERTY OWNER:	TOWN OF STERLING PO BOX 157 ONECO, CT 06373
TOWER OWNER:	SBA INFRASTRUCTURE, LLC 8501 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226-9523
COUNTY:	WINDHAM COUNTY
ZONING DISTRICT:	RESIDENTIAL
STRUCTURE TYPE:	MONOPOLE
STRUCTURE HEIGHT:	140'
APPLICANT:	T-MOBILE NORTHEAST LLC 15 COMMERCE WAY, SUITE B NORTON, MA 02766
SBA RSM:	STEPHEN ROTH PHONE: 860-539-4920 EMAIL: SRoth@sbasite.com
ARCHITECT:	CHAPPELL ENGINEERING ASSOCIATES, LLC. 200 BOSTON POST ROAD WEST, SUITE 000 MARLBOROUGH, MA 00752
STRUCTURAL ENGINEER:	CHAPPELL ENGINEERING ASSOCIATES, LLC. 200 BOSTON POST ROAD WEST, SUITE 000 MARLBOROUGH, MA 00752
SITE CONTROL POINT:	LATITUDE: N.41.714030° N.41°42'50.51" LONGITUDE W.71.822720° W.71°49'21.79"

SPECIAL ZONING NOTE:
BASED ON INFORMATION PROVIDED BY T-MOBILE REGULATORY COMPLIANCE PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409(A), AND IS SUBJECT TO AN ELIGIBLE FACILITY REQUEST, EXPEDITED REVIEW, AND LIMITED/PARTIAL ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW, OR ADMINISTRATIVE REVIEW).

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
(508) 286-2700

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil ·Structural ·Land Surveying
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25997
LICENSED
PROFESSIONAL CIVIL ENGINEER
7/14/2021

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
3	09/14/21	REVISED CONSTRUCTION	JRV
2	09/01/21	REVISED CONSTRUCTION	JRV
1	08/11/21	ISSUED FOR CONSTRUCTION	JRV
0	08/02/21	ISSUED FOR REVIEW	JRV

SITE NUMBER:
CTNL143A

SITE ADDRESS:
5 EXETER DRIVE
STERLING, CT 06377

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

1815.242

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR – T–MOBILE
   SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER – T–MOBILE
   OEM – ORIGINAL EQUIPMENT MANUFACTURER

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR 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 CONTRACTOR.

3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.

4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL, STATE AND FEDERAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

5. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.

6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR AND/OR LANDLORD PRIOR TO CONSTRUCTION.

10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.

13. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

14. SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS AND POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.

15. CONSTRUCTION SHALL COMPLY WITH ALL T–MOBILE STANDARDS AND SPECIFICATIONS.

16. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

17. THE EXISTING CELL SITES ARE IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.

18. IF THE EXISTING CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.

2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.

3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.

4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

5. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.

6. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

7. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.

8. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.

9. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.

10. SUBCONTRACTOR SHALL MINIMIZE 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.

11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T–MOBILE SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST–IN–PLACE CONCRETE.

2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS

3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.

4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST EARTH.....3 IN.
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 AND LARGER .....2 IN.
   #5 AND SMALLER & WWF .....1½ IN.
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER
   OR NOT CAST AGAINST THE GROUND:
   SLAB AND WALL .....¾ IN.
   BEAMS AND COLUMNS .....1½ IN.

5. A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.

7. CONCRETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
   (A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT.
   (B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.

8. AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.

9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T–MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM–A–36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".

2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.

3. BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (⅞"ø) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.

4. NON–STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ⅝" DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.

5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL

6. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.

2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.

3. AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.

4. COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.

5. AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND–OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL–GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

1. HAND OPERATED DOUBLE DRUN, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

1. FIELD VERIFICATION:
SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T–MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.

2. COORDINATION OF WORK:
SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.

3. CABLE LADDER RACK:
SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

ELECTRICAL INSTALLATION NOTES:

1. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.

2. SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.

3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.

4. CABLES SHALL NOT BE ROUTED THROUGH LADDER–STYLE CABLE TRAY RUNGS.

5. EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA, AND MATCH INSTALLATION REQUIREMENTS.

6. POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ½ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSHA.

7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).

8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.

9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.

10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.

11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.

12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.

13. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.

14. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY HARGER (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75'C (90'C IF AVAILABLE).

15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.

16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.

17. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

18. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.

20. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.

21. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.

23. CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.

24. CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.

25. WIREWAYS SHALL BE EPOXY–COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.

26. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY–COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.

27. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY–COATED, OR NON–CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

28. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

30. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.

32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

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STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25937
LICENSED
PROFESSIONAL CIVIL ENGINEER

9/14/2021

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

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SITE NUMBER:
CTNL143A

SITE ADDRESS:
5 EXETER DRIVE
STERLING, CT 06377

SHEET TITLE
GENERAL NOTES

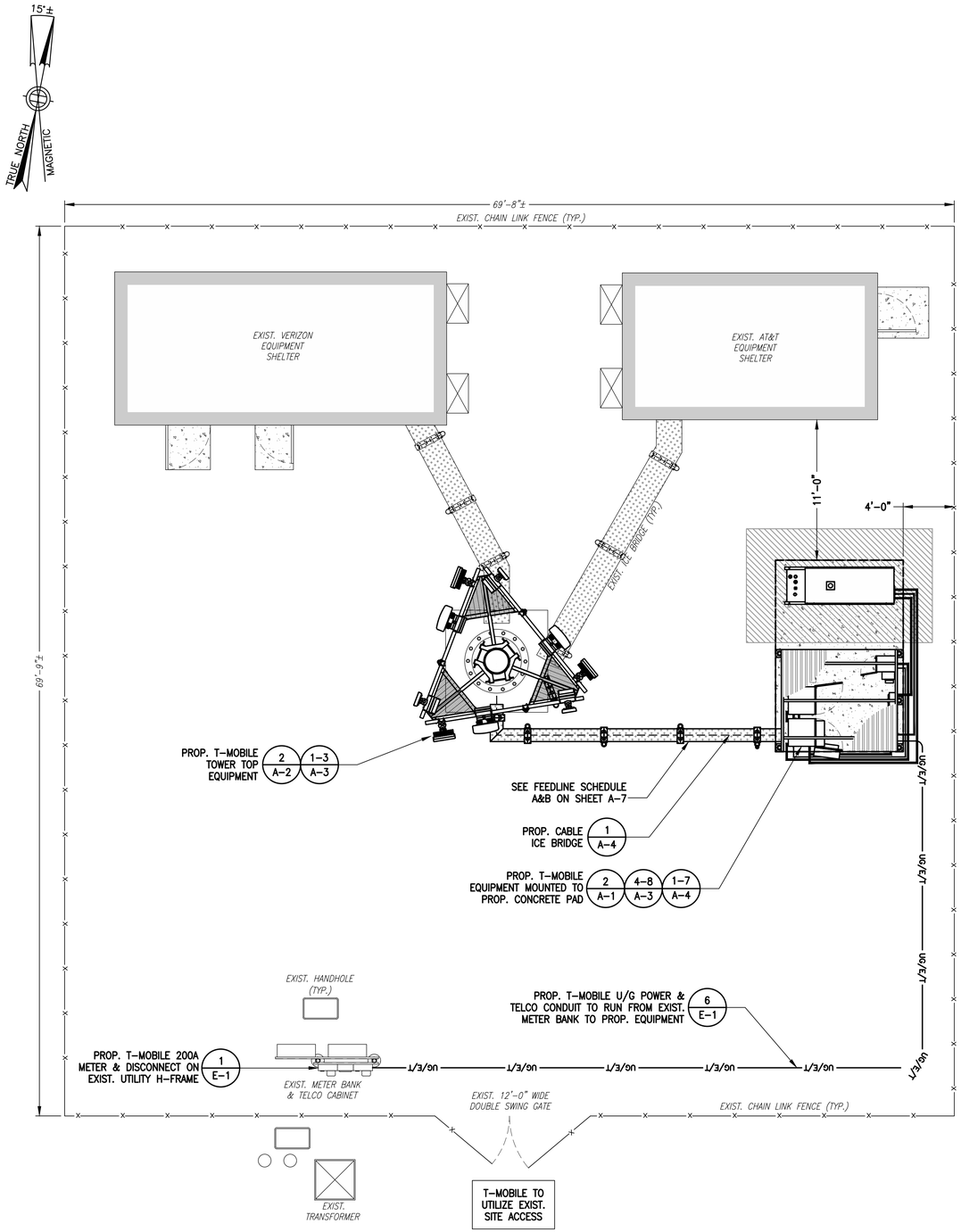
SHEET NUMBER
GN-1

1815.242

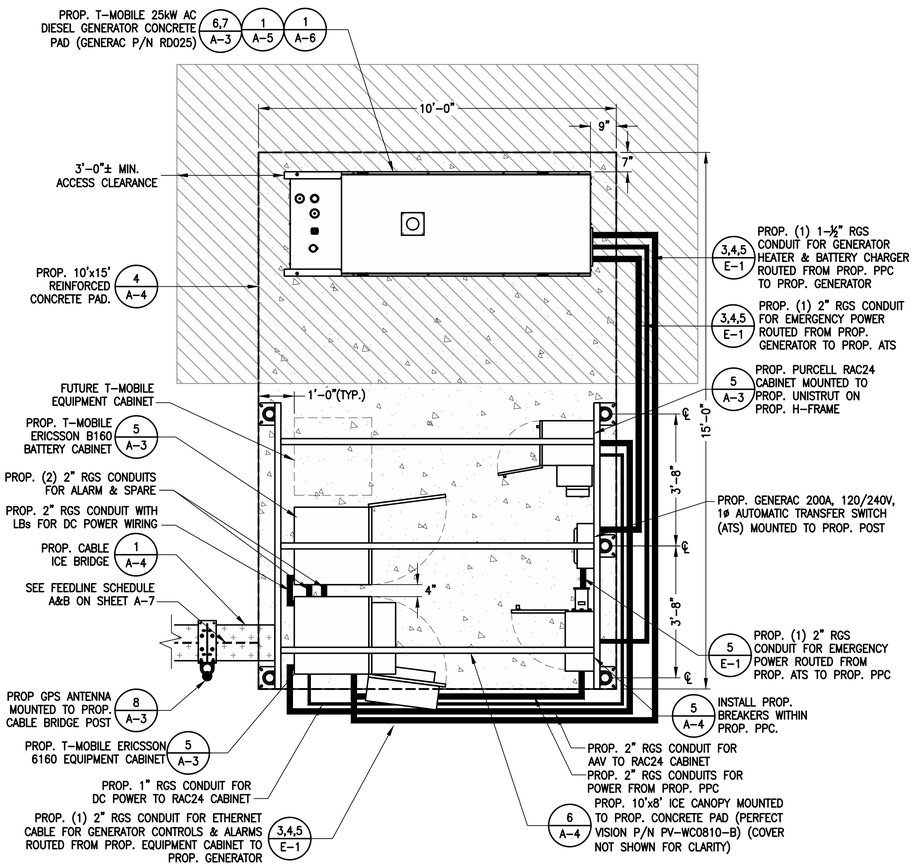
SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

SPECIAL CONSTRUCTION WORK NOTE (MONOPINE BRANCH PROTECTION):
NO MONOPINE BRANCHES ARE TO BE CUT, ALTERED, MOVED, REMOVED PERMANENTLY, OR TEMPORARILY RELOCATED FOR ANY REASON UNLESS PREVIOUSLY APPROVED IN WRITING BY SBA REGIONAL SITE MANAGER. FAILURE TO COMPLY WILL RESULT IN LIQUIDATED DAMAGES AND PENALTIES FROM SBA TO T-MOBILE.

SPECIAL CONSTRUCTION NOTE:
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT T-MOBILE'S RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).



COMPOUND PLAN 1 A-1
SCALE: 1" = 5'-0"
0 5'-0" 10'-0 15'-0"



PROPOSED EQUIPMENT PLAN 2 A-1
SCALE: 1/2" = 1'-0"
0 2'-0" 4'-0" 6'-0"

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JAMES M. FITZGERALD
No. 25997
LICENSED PROFESSIONAL CIVIL ENGINEER
9/14/2021

CHECKED BY: JMT

APPROVED BY: JMT

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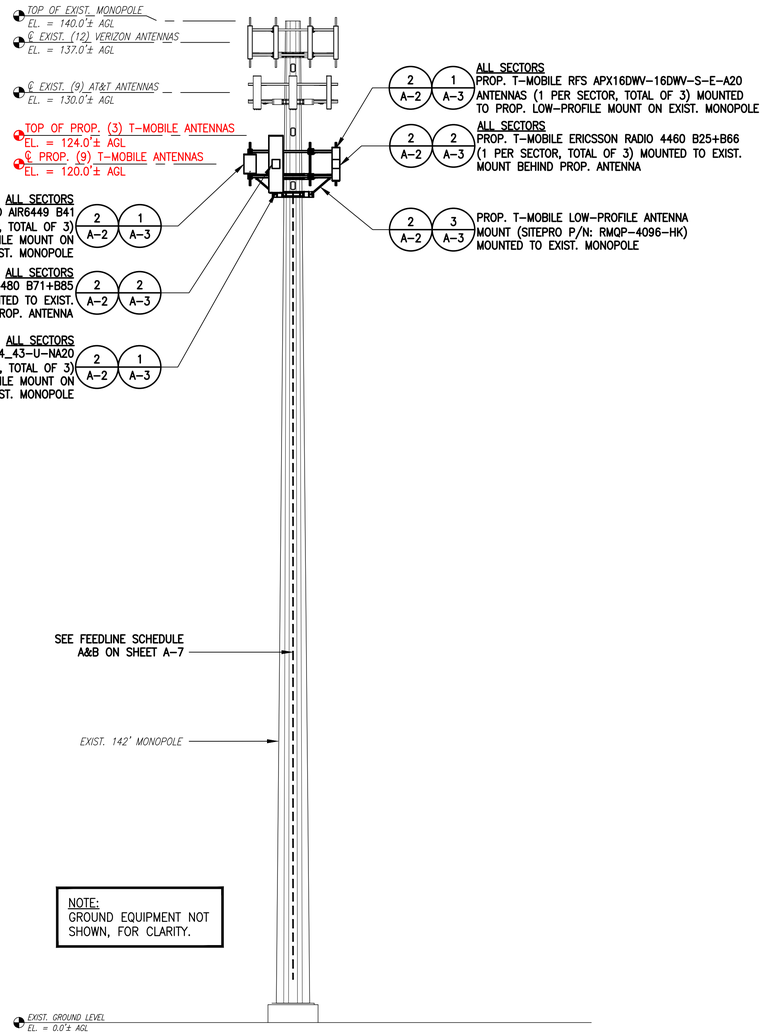
STERLING, CT 06377

SHEET TITLE
COMPOUND & EQUIPMENT PLAN

SHEET NUMBER
A-1

1815.242



TOWER ELEVATION (1 / A-2)
SCALE: 1" = 10'-0"
0 10'-0" 20'-0" 30'-0"

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

SPECIAL CONSTRUCTION WORK NOTE (MONOPINE BRANCH PROTECTION):
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SPECIAL CONSTRUCTION NOTE:
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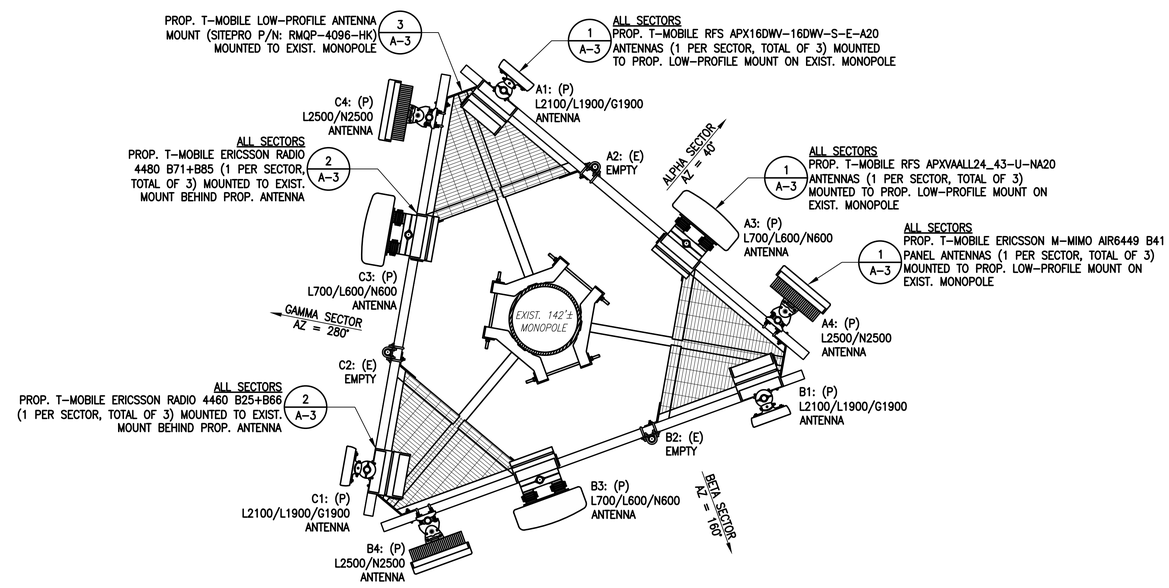
RAD CENTER NOTE:
T-MOBILE RAD CENTER SHOWN IN RED TEXT BASED ON SBA-PROVIDED CO-LOCATION APPLICATION, EQUIPMENT DATABASE, AND STRUCTURAL ANALYSIS. THE SBA-PROVIDED ANTENNA RAD CENTER SHALL SUPERSEDE ANY CONFLICTING INFORMATION DERIVED FROM THE T-MOBILE RFDS.



PROPOSED ANTENNA PLAN (2 / A-2)
SCALE: 1/2" = 1'-0"
NORTH

NOTE:
VERIFY PROPOSED AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION.

ANTENNA STATUS LEGEND:

EMPTY – EMPTY PIPE

(E) – EXISTING
(P) – INSTALL
(F) – FUTURE

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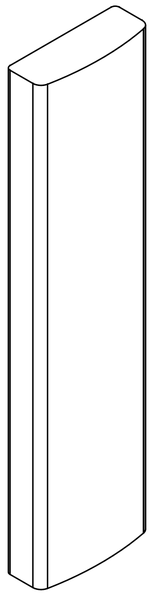
SHEET TITLE
TOWER ELEVATION & ANTENNA PLAN

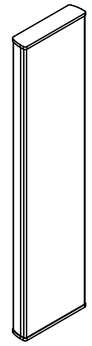
SHEET NUMBER
A-2

1815.242



RFS APXVAALL24_43-U-NA20 ANTENNA

DIMENSIONS: 95.9"H x 24.0"W x 8.7"D
WEIGHT: 128.0 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3



RFS APX16DWV-16DWV-S-E-A20 ANTENNA

DIMENSIONS: 55.9"H x 13.0"W x 3.15"D
WEIGHT: 40.7 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3

ERICSSON M-MIMO AIR6449 B41 ANTENNA

DIMENSIONS: 33.1"H x 20.5"W x 8.3"D
WEIGHT: 103.0 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3

ANTENNA DETAILS
SCALE: N.T.S.
1 / A-3

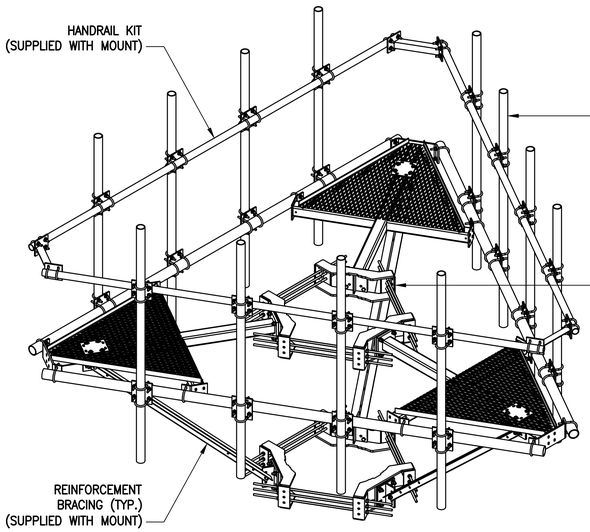
ERICSSON RADIO 4460 B25+B66

DIMENSIONS: 17.0"H x 15.1"W x 11.9"D
WEIGHT: 104.0 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3

ERICSSON RADIO 4480 B71+B85

DIMENSIONS: 19.2"H x 15.1"W x 7.5"D
WEIGHT: 92.6 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3

RADIO DETAILS
SCALE: N.T.S.
2 / A-3



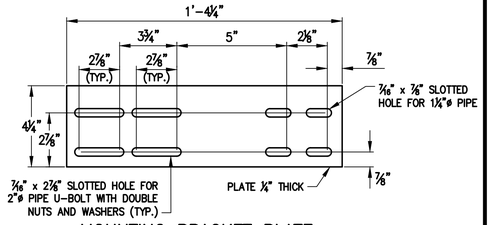
SITE-PRO 1 12'-6" LOW-PROFILE CO-LOCATION PLATFORM W/HANDRAIL KIT
PART NUMBERS: RMQP-4096-HK
(TOTAL OF 1 REQUIRED)

TYPICAL SITE PRO 1
12'-6" PLATFORM MOUNT
SCALE: N.T.S.
3 / A-3

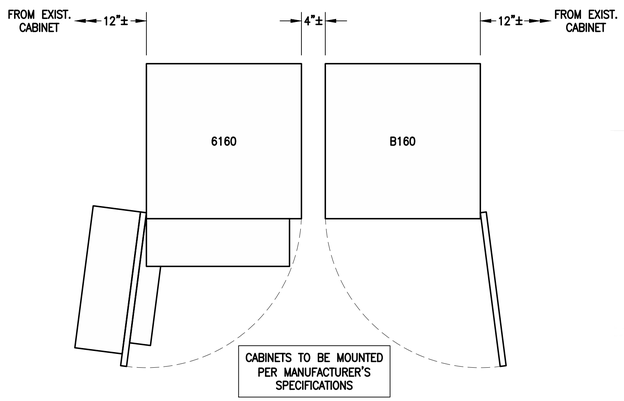
PURCELL SITE SUPPORT CABINET RAC24

DIMENSIONS: 24.0"H x 15.7"W x 20.0"D
QUANTITY: TOTAL OF 1

SSC DETAILS
SCALE: N.T.S.
5 / A-3



MOUNTING BRACKET PLATE



ERICSSON 6160 SITE SUPPORT CABINET

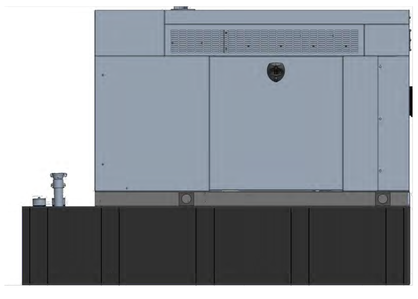
DIMENSIONS: 63.25"H x 26.0"W x 34.0"D
WEIGHT: 680.0 lbs
QUANTITY: TOTAL OF 1

ERICSSON B160 BATTERY CABINET

DIMENSIONS: 63.25"H x 26.0"W x 26.0"D
WEIGHT: 1771.0 lbs
QUANTITY: TOTAL OF 1

EQUIPMENT DETAIL
SCALE: N.T.S.
4 / A-3

NOTE:
GENERATOR DIESEL TANK TO BE FILLED BY CONTRACTOR

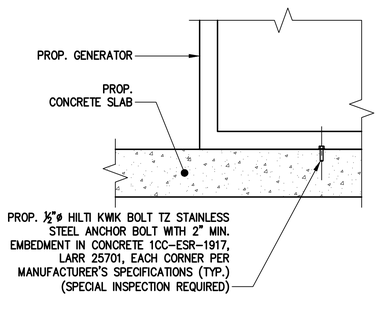


GENERAC RD025 25kW AC DIESEL GENERATOR

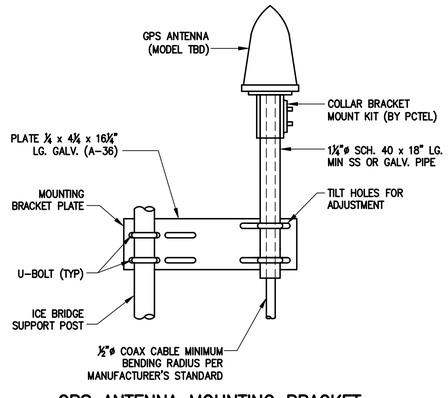
DIMENSIONS: 103.4"L x 35.0"W x 91.7"H
WEIGHT: 2,946 lbs
QUANTITY: TOTAL OF 1

GENERATOR DETAIL
SCALE: N.T.S.
6 / A-3

NOTE:
CONTRACTOR TO VERIFY 3" MIN. FROM EDGE OF CONCRETE TO NEW MOUNTING BOLT.



GENERATOR MOUNTING DETAIL
SCALE: N.T.S.
7 / A-3



GPS ANTENNA MOUNTING BRACKET

1. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1"-1½" DIAMETER GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.
2. THE MOUNTING PLATE SHALL BE FASTENED AS SHOWN AND ATTACHED TO THE APPROPRIATE SUPPORT STRUCTURE USING U-BOLTS. THE SUPPORT PIPE SHALL THEN BE ATTACHED TO THE MOUNTING PLATE USING THE OVERSIZE U-BOLTS PROVIDED TO ALLOW ADJUSTMENT. IT IS CRITICAL THAT THE GPS ANTENNA IS MOUNTED WITHIN 2 DEGREES OF VERTICAL AND THE BASE OF THE ANTENNA IS WITHIN 2 DEGREES OF LEVEL.

GPS MOUNTING DETAIL
SCALE: NTS
8 / A-3

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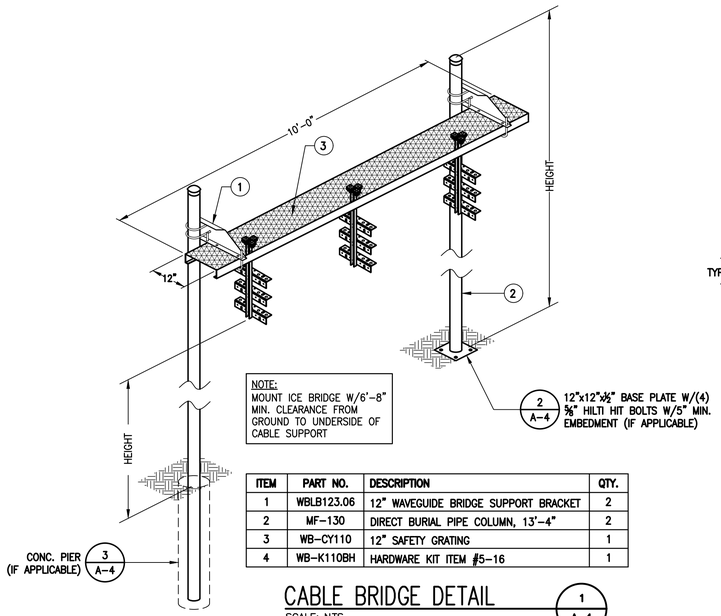
SHEET TITLE
SITE DETAILS
1 OF 2

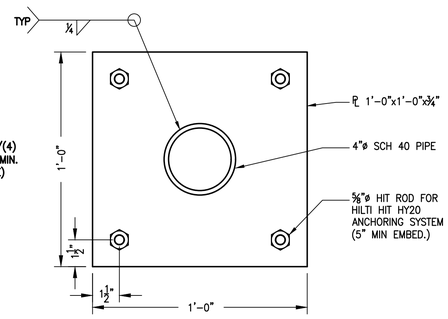
SHEET NUMBER
A-3

1815.242

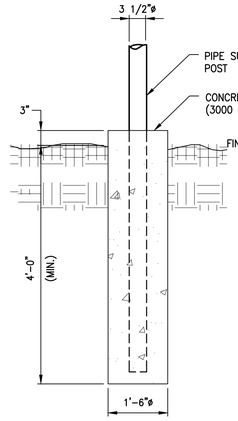


ITEM	PART NO.	DESCRIPTION	QTY.
1	WBLB123.06	12" WAVEGUIDE BRIDGE SUPPORT BRACKET	2
2	MF-130	DIRECT BURIAL PIPE COLUMN, 13'-4"	2
3	WB-CY110	12" SAFETY GRATING	1
4	WB-K110BH	HARDWARE KIT ITEM #5-16	1

CABLE BRIDGE DETAIL (1 / A-4)
SCALE: NTS



CABLE BRIDGE BASE PLATE (2 / A-4)
SCALE: NTS



NOTES:

1. FOR EXPOSED LEDGE, PROVIDE GROUT LEVELING PAD. INSTALL (2)-⅝"ø EXPANSION ANCHORS, (6" LONG).
2. FOR BURIED LEDGE AT LESS THAN 3'-6" BELOW FINISH GRADE, CORE 8"ø HOLE INTO LEDGE 18" DEEP. FILL AROUND PIPE WITH NON-SHRINK GROUT. USE COAL TAR ON BURIED LENGTH OF PIPE, AND BACKFILL TO FINISH GRADE
3. FOR CONCRETE, FASTEN BASEPLATE WITH (2)-⅝"ø EXPANSION ANCHORS, (6" LONG).
4. FOR POSTS ON CONCRETE OR EXPOSED LEDGE, PROVIDE 4"x8"x⅜" BASE PLATE WITH (2)-1 1/16"ø HOLES @ 6" O.C.

CABLE BRIDGE PIER (3 / A-4)
SCALE: NTS

EMERSON CAC-A75201090 PPC
DIMENSIONS: 24.0"H x 15.7"W x 20.0"D
QUANTITY: TOTAL OF 1

PPC DETAIL (5 / A-4)
SCALE: N.T.S.

CONCRETE GENERAL NOTES

1. ALL CONCRETE WORK SHALL CONFORM TO ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND TO THE PROJECT SPECIFICATIONS.
2. ALL CONCRETE IS TO BE NORMAL DENSITY CONCRETE WITH A MAXIMUM SLUMP OF 4 INCHES. MAXIMUM AGGREGATE SIZE ¾ INCH. NO ADDITIONAL WATER SHALL BE ADDED TO THE CONCRETE AT THE JOB SITE.
3. PROVIDE AIR ENTRAINMENT OF 4 TO 6 PERCENT IN ALL EXPOSED CONCRETE WORK WITH AIR-ENTRAINING ADMIXTURE COMPLYING WITH ASTM C 260. AT TROWEL-FINISHED FLOORS, DO NOT EXCEED AIR-ENTRAINMENT CONTENT OF 3 PERCENT.
4. NO HOLES OR SLEEVES SHALL BE MADE THROUGH CONCRETE WORK OTHER THAN THOSE INDICATED ON THE STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
5. ALL FORMWORK OFFSET TOLERANCES (PER ACI 117) TO BE CLASS A.
6. FLOOR SLAB TOLERANCES TO ASTM E1155; SPECIFIED OVERALL MINIMUM VALUE OF FLATNESS F F=25 WITH LOCAL MINIMUM F F=17, AND MINIMUM VALUE OF LEVELNESS F F=20 WITH LOCAL MINIMUM F I AND F F WITHIN 72 HOURS OF SLAB CONSTRUCTION.
7. CABINETS ON SLAB (IF APPLICABLE). ALLOWABLE CAPACITY OF CONCRETE USED IN DESIGN MIN. 4000 PSI.

FOUNDATION NOTES:

1. DESIGN INFORMATION AND GENERAL REQUIREMENTS

1.1 CODES

A. DESIGN CONFORMS TO INTERNATIONAL BUILDING CODE 2012.

B. AMERICAN CONCRETE INSTITUTE "BUILDING COADE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318-08.

2. EARTHWORK

2.1 FOUNDATIONS

A. FOUNDATIONS HAVE BEEN DESIGNED TO BEAR ON (UNDISTURBED RESIDUAL SOILS/COMPACTED STRUCTURAL FILL), CAPABLE OF SAFELY SUPPORTING A NET ALLOWABLE BEARING PRESSURE OF 2000 PSF. IF FOUNDATION CONDITIONS PROVE UNACCEPTABLE AT ELEVATIONS SHOWN, EXCAVATION SHALL BE CARRIED DEEPER AND SHALL BE BACKFILLED WITH LEAN CONCRETE TO PLAN FOOTING BOTTOM, OR REDESIGN OF FOUNDATIONS WILL BE REQUIRED AT THE DIRECTION OF THE ENGINEER.

B. DESIGN, FURNISH AND INSTALL ALL TEMPORARY SHEETING, SHORING AND DRAINAGE NECESSARY TO MAINTAIN THE EXCAVATION AND PROTECT SURROUNDING STRUCTURES AND UTILITIES.

C. THOROUGHLY COMPACT ALL BOTTOM OF FOOTINGS PRIOR TO PLACING ANY CONCRETE.

3. CONCRETE

3.1 FORMWORK

A. CONCRETE CONSTRUCTION SHALL CONFORM TO "SPECIFICATIONS FOR STRUCTURAL, CONCRETE FOR BUILDINGS," (ACI 301-89).

B. FORMWORK SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS."

3.2 REINFORCEMENT

A. REINFORCING STEEL ASTM A615, GRADE 60. WELDED WIRE ASTM A185 (FLAT SHEET). LAPS 40 BAR DIAMETERS UNLESS NOTED. BARS SHALL BE SECURELY HELD IN ACCURATE POSITION BY SUITABLE ACCESSORIES, TIE BARS, SUPPORT BARS, ETC. HOOK LENGTHS SHALL BE 12 BAR DIAMETERS.

B. CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:

FOOTINGS & SLABS CAST AGAINST GROUND	3"
CONCRETE TO BE IN CONTACT WITH GROUND OR WEATHER AT BARS GREATER THAN #5	2"
AT BARS #5 OR LESS	1-1/2"
CONCRETE NOT TO BE EXPOSED TO GROUND OR WEATHER BEAMS, GIRDERS & COLUMNS	1-1/2"
SLABS & WALLS	3/4"

3.3 CAST-IN-PLACE-CONCRETE

A. MINIMUM 28 DAY CYLINDER STRENGHT AND MAXIMUM SLUMP, PRIOR TO ADDITION OF SUPER PLASTICIZERS, AS FOLLOWS:

	F'C (PSI)	SLUMP
CLASS I FOOTINGS	4000	3"
CLASS II FOOTINGS	4000	3"
CLASS III INTERIOR ELEVATED SLABS & WALLS	4000	4"
CLASS V OTHER WORK	4000	4"
CLASS VI LEAN CONCRETE FOR OVER EXCAVATION OF FOUNDATIONS	2000	N/A

B. MIX DESIGN TO BE IN ACCORDANCE WITH ACI 318, CHAPTER 5. NO CALCIUM CHLORIDE OR ADMIXTURE CONTAINING CHLORIDES SHALL BE USED IN ANY CONCRETE.

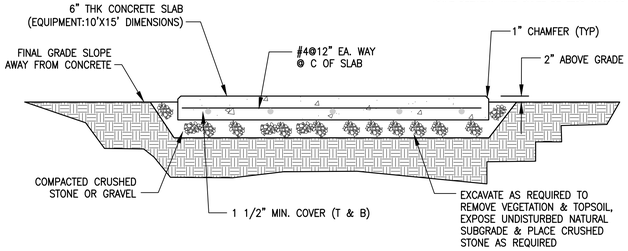
C. COARSE AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33 SIZE $57. COARSE AGGREGATE FOR LIGHT WEIGHT CONCRETE SHALL CONFORM TO ASTM C330 GRADED 3/4" TO 1/4".

D. COLD WEATHER PLACEMENT SHALL COMPLY WITH ACI 306.1.

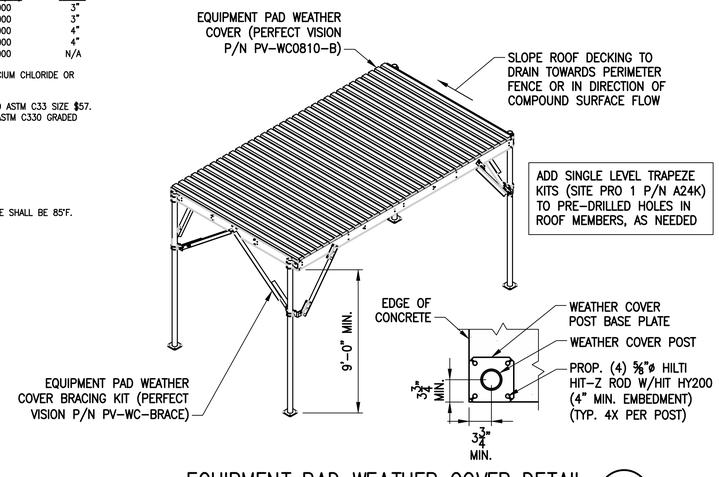
E. HOT WEATHER PLACEMENT SHALL COMPLY WITH ACI 305 R.

F. CHAMFER ALL EXPOSED EDGES 3/4".

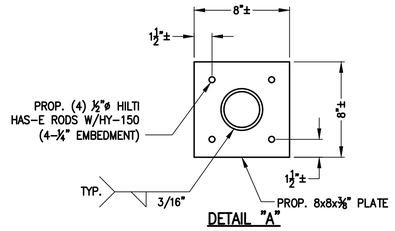
G. THE MAXIMUM TEMPERATURE OF ALL CONCRETE AT DELIVERY TO THE SITE SHALL BE 85°F. TOTAL DELIVERY TIME SHALL BE LESS THAN 75 MINUTES.



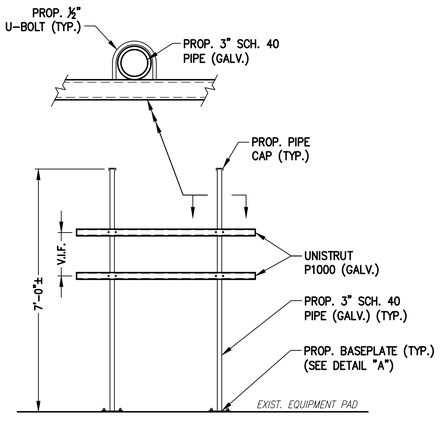
CONCRETE PAD DETAIL (4 / A-4)
SCALE: N.T.S.



EQUIPMENT PAD WEATHER COVER DETAIL (6 / A-4)
SCALE: N.T.S.



DETAIL "A"



H-FRAME DETAIL (7 / A-4)
SCALE: N.T.S.

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STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25937
LICENSED PROFESSIONAL CIVIL ENGINEER
9/14/2021

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

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SITE NUMBER:
CTNL143A

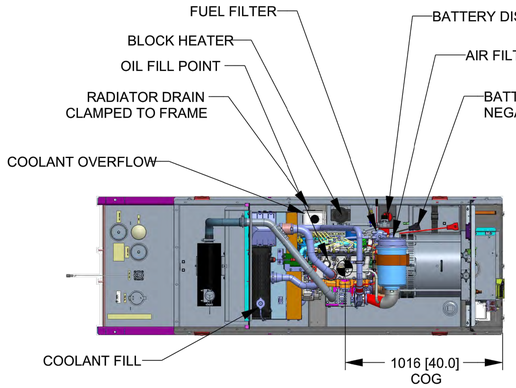
SITE ADDRESS:
5 EXETER DRIVE
STERLING, CT 06377

SHEET TITLE
SITE DETAILS
2 OF 2

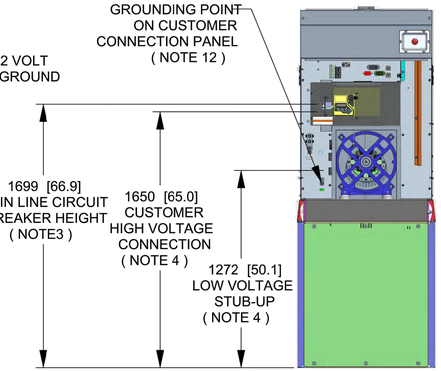
SHEET NUMBER
A-4

1815.242

SH	REV	WINDCHILL VERSION	
1/2	2	2.12	



TOP VIEW
(SHOWN WITH ENCLOSURE REMOVED)

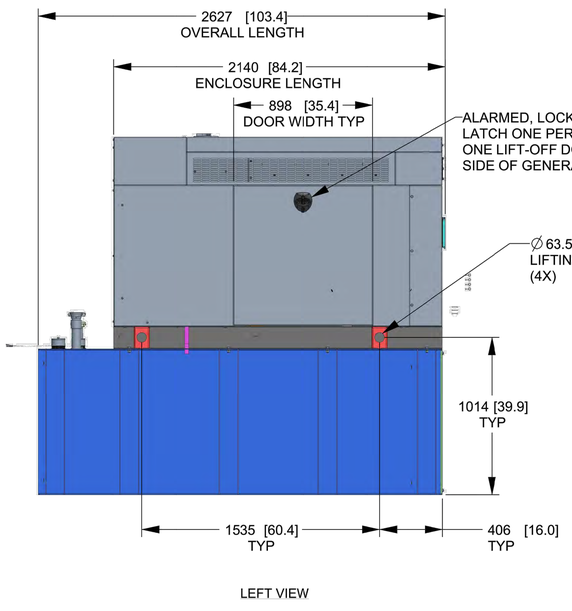


REAR VIEW
(SHOWN WITH REAR COVER PANEL REMOVED)

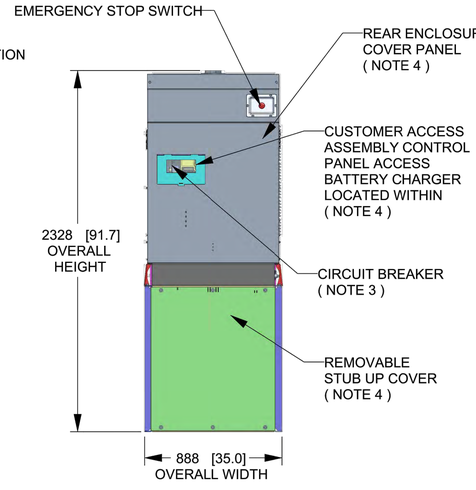
WEIGHT DATA WITH EMPTY BASETANK (SEE NOTE 6)	
GENERATOR AS SHOWN	1336 [2946]
WITH WOODEN SHIPPING SKID	1354 [2984]

WEIGHT: KG [LBS]
DIMENSIONS: MM [INCHES]

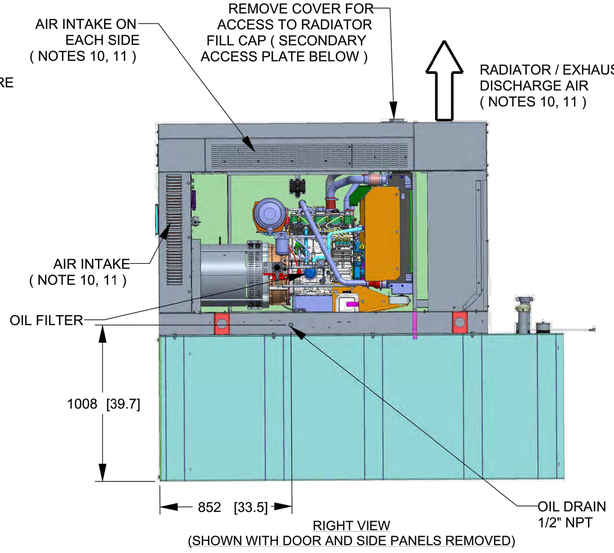
NOTES:
1. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE, AND LOCAL CODES.
2. BATTERY (12 VOLT NEGATIVE GROUND SYSTEM).
3. CONTROL PANEL / CIRCUIT BREAKER INFORMATION:
   - MAIN LINE CIRCUIT BREAKER 125 AMPS
   - SEE SPECIFICATION SHEET OR OWNERS MANUAL
   - ACCESSIBLE THROUGH CUSTOMER ACCESS ASSEMBLY DOOR ON REAR OF GENERATOR.
   - CONTROL PANEL INCLUDES INTEGRATED BATTERY CHARGER
4. REMOVE THE REAR STUB-UP AND REAR ENCLOSURE COVER PANEL TO ACCESS THE STUB-UP AREAS AS FOLLOWS:
   - HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, AND BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX) CONNECTION.
   - LOW VOLTAGE CONNECTION INCLUDING TRANSFER SWITCH CONTROL WIRES
5. ENGINE SERVICE CONNECTIONS
   OIL DRAIN: 1/2" NPT
   RADIATOR DRAIN : HOSE CLAMPED TO FRAME
6. CENTER OF GRAVITY AND WEIGHT MAY CHANGE DUE TO UNIT OPTIONS.
7. BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND RECIRCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
8. REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
9. MOUNTING BOLTS OR STUDS TO MOUNTING SURFACE SHALL BE 5/8-11 GRADE 5 (USE STANDARD SAE TORQUE SPECS)
10. MUST ALLOW FREE FLOW OF INTAKE AIR, DISCHARGE AIR AND EXHAUST. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
11. GENERATOR MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND THAT DISCHARGE AIR FROM RADIATOR IS NOT RECIRCULATED. RECOMMENDED MINIMUM PERIMETER(3FT) AND VERTICAL OVER EXHAUST (5FT) CLEARANCE FOR SITE LOCATION.
12. GENERATOR MUST BE GROUNDED.



LEFT VIEW



REAR VIEW



RIGHT VIEW
(SHOWN WITH DOOR AND SIDE PANELS REMOVED)

DRAWING CREATED FROM PRO/ENGINEER 3D FILE. ECO MODIFICATION TO BE APPLIED TO SOLID MODEL ONLY.

INSTALLATION DRAWING

ELECTRONICALLY APPROVED
INSIDE WINDCHILL

GENERAC

TITLE
INSTALLATION D2.2L
25KW Y06 PD

ISSUE DATE: 5/10/18

SIZE	CAGE NO	DWG NO	REV
B	N/A	10000036728	2

SCALE 0.031 | WT-KG SEE ABOVE | SHEET 1 of 2

GENERATOR SPECIFICATIONS
SCALE: N.T.S.
1 / A-5

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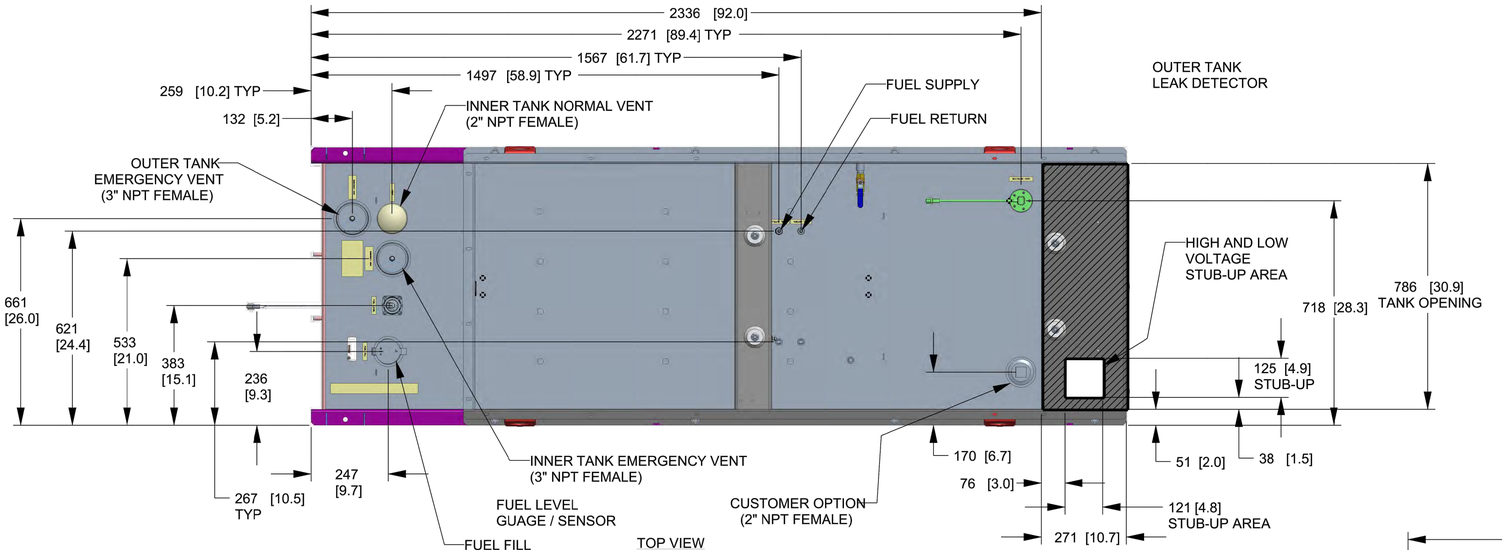
STERLING, CT 06377

SHEET TITLE
GENERATOR SPECIFICATIONS 1 OF 2

SHEET NUMBER
A-5

1815.242

SH	REV	WINDCHILL VERSION
2/2	2	2.12

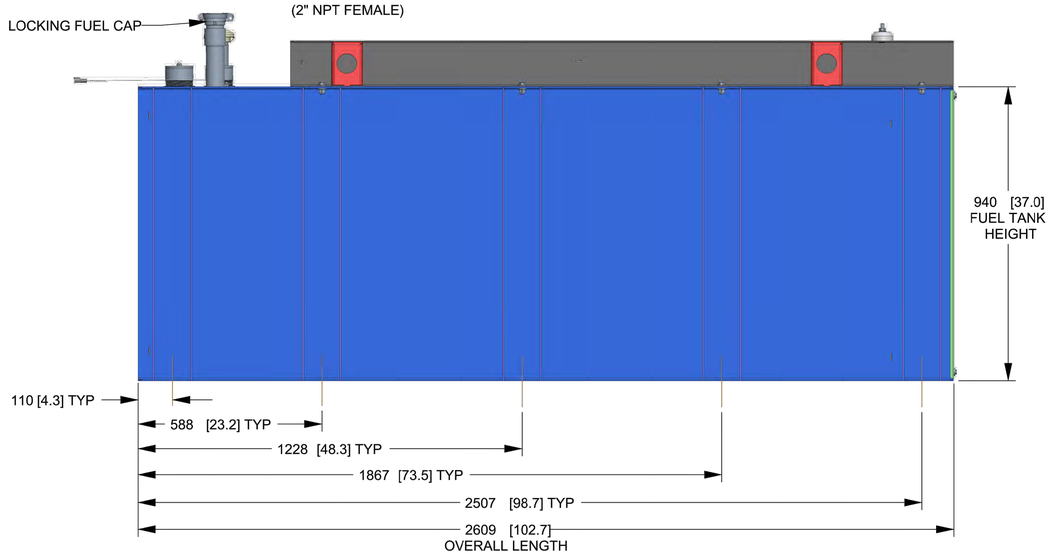


FUEL TANK	
TOTAL CAPACITY	908.5 (240)
USABLE CAPACITY	866.9 (229)

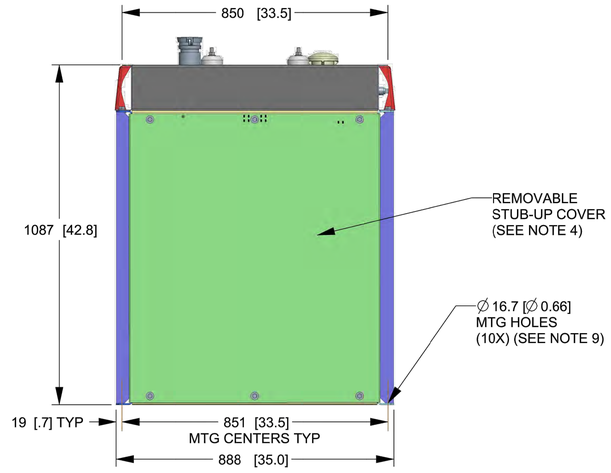
CAPACITY: LITER (GALLON)
DIMENSIONS: MM (INCH)

TANK IS LISTED TO UL142 AND ULC5601

NOTE:
STUB-UP AREA FOR HIGH
AND LOW VOLTAGE CONNECTIONS
CIRCUIT BREAKER, NEUTRAL AND
CUSTOMER CONNECTION OPENING.



LEFT VIEW



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INSTALLATION DRAWING

ELECTRONICALLY APPROVED
INSIDE WINDCHILL

GENERAC

TITLE
INSTALLATION D2.2L
25KW Y06 PD

ISSUE DATE: 5/10/18

SIZE	CAGE NO	DWG NO	REV
B	N/A	10000036728	2

SCALE 0.063 | WT-KG SEE ABOVE | SHEET 2 of 2

GENERATOR SPECIFICATIONS
SCALE: N.T.S.

1 / A-6

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SITE ADDRESS:
5 EXETER DRIVE
STERLING, CT 06377

SHEET TITLE
GENERATOR
SPECIFICATIONS 2 OF 2

SHEET NUMBER
A-6

1815.242

FINAL ANTENNA CONFIGURATION

SECTOR	ANTENNA	RAD CENTER	AZIMUTH (TRUE NORTH)	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	BAND	TMA/RADIOS	SIGNAL CABLES
ALPHA	A1 RFS APX16DWV-16DWV-S-E-A20	120'± AGL	40°	0°	2°	L2100/L1900/G1900	RADIO 4460 B25+B66	(3) 2" (6x24) HCS FIBER CABLES
	A2 EMPTY PIPE	–	–	–	–	–	–	
	A3 RFS APXVAALL24_43-U-NA20	120'± AGL	40°	0°	2°	L700/L600/N600	RADIO 4480 B71+B85	
	A4 ERICSSON M-MIMO AIR6449 B41	120'± AGL	40°	0°	2°	L2500/N2500	–	
BETA	B1 RFS APX16DWV-16DWV-S-E-A20	120'± AGL	160°	0°	2°	L2100/L1900/G1900	RADIO 4460 B25+B66	
	B2 EMPTY PIPE	–	–	–	–	–	–	
	B3 RFS APXVAALL24_43-U-NA20	120'± AGL	160°	0°	2°	L700/L600/N600	RADIO 4480 B71+B85	
	B4 ERICSSON M-MIMO AIR6449 B41	120'± AGL	160°	0°	2°	L2500/N2500	–	
GAMMA	C1 RFS APX16DWV-16DWV-S-E-A20	120'± AGL	280°	0°	2°	L2100/L1900/G1900	RADIO 4460 B25+B66	
	C2 EMPTY PIPE	–	–	–	–	–	–	
	C3 RFS APXVAALL24_43-U-NA20	120'± AGL	280°	0°	2°	L700/L600/N600	RADIO 4480 B71+B85	
	C4 ERICSSON M-MIMO AIR6449 B41	120'± AGL	280°	0°	2°	L2500/N2500	–	

CABLE NOTE: SEE FEEDLINE SCHEDULE A & B BELOW.

NOTE: RFDS REV1 – 05/13/21

FEEDLINE SCHEDULE

SCHEDULE	FEEDLINES	LOCATION
A	*EXISTING TO REMAIN:* *NONE* *EXISTING TO BE REMOVED:* *NONE*	ROUTED PER STRUCTURAL ANALYSIS
B	PROPOSED: (3) 2" (6x24) HCS FIBER CABLES (1) ½" COAX CABLE FOR GPS ANTENNA	

NOTE:
EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.

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SHEET TITLE
ANTENNA & FEEDLINE CHARTS

SHEET NUMBER
A-7

1815.242

NOTES TO CONTRACTOR:

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTORS FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE ENGINEER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES AS MAY BE REQUIRED FOR ELECTRICAL WORK AND FOR SCHEDULING OF ALL INSPECTIONS AS REQUIRED WITH LOCAL AUTHORITY.
3. UTILITY SERVICES SHOWN ARE PROPOSED, THE ELECTRIC CONTRACTOR SHALL COORDINATE EXACT TELEPHONE AND ELECTRIC SERVICE CONNECTION POINTS, ROUTING AND ASSOCIATED REQUIREMENTS WITH LOCAL UTILITY COMPANIES & SPRINT CONSTRUCTION MANAGER.
4. THE CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHTING AS REQUIRED FOR THE WORK.
5. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO ROUGH-IN.
6. THE CONDUIT RUNS AS SHOWN ON THE PLANS ARE APPROXIMATE. EXACT LOCATION AND ROUTING SHALL BE PER EXISTING FIELD CONDITIONS.
7. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.
8. ALL CONDUITS SHALL BE MET WITH BENDS MADE IN ACCORDANCE WITH NEC TABLE 346-10. NO RIGHT ANGLE DEVICE OTHER THAN STANDARD CONDUIT ELBOWS WITH 12" MINIMUM INSIDE SWEEPS FOR ALL CONDUITS 2" OR LARGER.
9. ALL CONDUIT TERMINATIONS SHALL BE PROVIDED WITH PLASTIC THROAT INSULATING GROUNDING BUSHINGS.
10. ALL WIRE SHALL BE TYPE THWN, SOLID, ANNEALED COPPER UP TO SIZE #10 AWG (#8 AND LARGER SHALL BE CONCENTRIC STRANDED) 75 DEGREE C, (167 DEGREES F), 98% CONDUCTIVITY, MINIMUM #12.
11. ALL WIRES SHALL BE TAGGED AT ALL PULL BOXES, J-BOXES, EQUIPMENT BOXES AND CABINETS WITH APPROVED PLASTIC TAGS, ACTION CRAFT, BRADY, OR APPROVED EQUAL.
12. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
13. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH MECHANICAL CONTRACTOR AND COMPLY AS REQUIRED.
14. ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN NOT HAND WRITTEN.
15. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULLBOXES, AND ALL DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.
16. THE CONTRACTOR SHALL PREPARE AS-BUILT DRAWINGS, DOCUMENT ANY AND ALL WIRING AND EQUIPMENT CONDITIONS AND CHANGES WHILE COMPLETING THIS CONTRACT. SUBMIT AT SUBSTANTIAL COMPLETION.
17. ALL DISCONNECT SWITCHES AND OTHER CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL LOCATIONS FED FROM (NO EXCEPTIONS.)
18. PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS OR RISERS THROUGH BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS WITHOUT CONSTRUCTION MANAGERS APPROVAL. SLEEVES AND/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE PACKED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FILL FOR FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.

   NOTE: ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT (NEW AND EXISTING) SHALL BE FIELD VERIFIED WITH THE OWNER'S REPRESENTATIVE AND EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN OF CONDUIT AND WIRE. ALL EQUIPMENT SHALL BE PROPERLY CONNECTED ACCORDING TO THE NAMEPLATE DATA FURNISHED ON THE EQUIPMENT (THE DESIGN OF THESE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN AND SOME EQUIPMENT CHARACTERISTICS MAY NOT BE CORRECT AS SHOWN ON THESE DRAWINGS). LOCATION OF OUTLETS, BOXES, ETC. AND THE TYPE OF CONNECTION (PLUG OR DIRECT) SHALL BE CONFIRMED WITH THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
19. ALL UNDERGROUND CONDUIT ROUTING SHALL BE COORDINATED IN FIELD BETWEEN SPRINT WIE, CONTRACTOR, AND RESPECTIVE UTILITY COMPANIES.
20. ALL CONDUITS ROUTED BELOW GRADE SHALL TRANSITION TO RIGID GALVANIZED ELBOWS WITH RIGID GALVANIZED STEEL CONDUIT ABOVE GRADE.
21. CONTRACTOR SHALL PROVIDE ALL DIRECT BURIED CONDUITS WITH 6" WIDE, 6 MIL THICK ALUMINIZED PLASTIC WARNING TAPE IDENTIFYING CONTENTS. TAPE COLORS SHALL BE ORANGE FOR TELEPHONE AND RED FOR ELECTRIC.
22. ELECTRICAL CONTRACTOR SHALL PROVIDE A SECTION OF SEALTITE CONDUIT FOR TELCO CONNECTION TO THE PRIMARY RADIO CABINET. COORDINATE EXACT CONNECTION TYPE WITH LUCENT.
23. ELECTRICAL CONTRACTOR SHALL PROVIDE A SECTION OF SEALTITE CONDUIT FOR POWER CONNECTION TO THE PRIMARY RADIO CABINET. THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL 6'-0" COIL OF WIRE AT THE END OF THE SEALTITE.
24. GROUND IN ACCORD W/LOCAL CODE & SHEET E-2.
25. PROVIDE (2) 4" GALVANIZED RIGID STEEL CONDUIT RISER WITH 1/4" NYLON DRAG LINE INCLUDING 90° GRC SWEEP AT POLE (UP TO 20'-0" AFG). SECURE TO POLE PER UTILITY COMPANY REQUIREMENTS. PRIMARY CABLES BY UTILITY COMPANY.

ELECTRICAL SPECIFICATIONS

SECTION 16010 – GENERAL PROVISIONS

A. REQUIREMENTS: FURNISH ALL LABOR, MATERIALS, SERVICE, EQUIPMENT, AND APPLIANCES REQUIRED TO COMPLETE THE INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS AND CONTRACT DRAWINGS.

B. REQUIREMENTS OF REGULATORY AGENCIES AND STANDARDS: INSTALLATION, MATERIAL, EQUIPMENT AND WORKMANSHIP SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE NATIONAL ELECTRICAL CODE (NEC) – APPLICABLE STATE ELECTRIC CODES, THE NATIONAL ELECTRICAL SAFETY CODE (NESC), AND THE TERMS AND THE CONDITIONS OF THE AUTHORITIES HAVING LAWFUL JURISDICTION PERTAINING TO THE WORK REQUIRED. ALL MODIFICATIONS REQUIRED BY THESE CODES, RULES, REGULATIONS, AND AUTHORITIES SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL CHARGE TO THE OWNER.

C. UNDERWRITER'S LABORATORIES (UL): ALL MATERIALS, APPLIANCES, EQUIPMENT, OR OR DEVICES SHALL CONFORM TO THE APPLICABLE STANDARDS OF UNDERWRITER'S LABORATORIES, INC. THE LABEL OF, OR LISTING BY. UL, IS REQUIRED.

SECTION 16110 – RACEWAYS, BOXES AND FITTINGS

A. CONDUIT FITTINGS, CONNECTORS AND COUPLINGS, EMT COUPLINGS AND CONNECTORS EITHER STEEL OR MALLEABLE IRON ONLY. "CONCRETE TIGHT" OR "RAIN TIGHT" AND EITHER THE GLAND AND RING COMPRESSION TYPE OR STAINLESS STEEL MULTIPLE POINT LOCKING TYPE. CONNECTORS TO HAVE INSULATED THROATS. EMT FITTINGS USING SET SCREWS OR INDENTATIONS AS A MEANS OF ATTACHMENT ARE NOT PERMITTED.

B. BUSHINGS: INSULATED TYPE, DESIGNED TO PREVENT ABRASION OF WIRES WITHOUT IMPAIRING THE CONTINUITY OF THE CONDUIT GROUNDING SYSTEM, FOR RIGID STEEL CONDUIT, IMC AND RIGID ALUMINUM CONDUIT.

C. CONDUIT INSTALLATIONS: CONDUIT SYSTEMS, EMT, OR RIGID NON-METALLIC CONDUIT UNLESS NOTED. INSTALL CONCEALED CONDUIT AND EMT IN AS DIRECT LINES AS POSSIBLE. INSTALL EXPOSED CONDUITS AND EMT PARALLEL TO OR AT RIGHT ANGLES TO THE LINES OF THE BUILDING. RIGHT ANGLE BENDS IN EXPOSED CONDUIT AND EMT RUNS SHALL BE MADE WITH STANDARD ELBOWS, SCREW JOINTED CONDUIT FITTINGS OR CONDUIT BENT TO RADIUS NO LESS THAN THOSE OF STANDARD ELBOWS.

D. CONDUIT SUPPORTS: PROVIDE SUPPORTS FOR HORIZONTAL CONDUITS AND EMT NOT MORE THAN 8 FEET APART WITH NOT LESS THAN TWO SUPPORTS FOR EACH 10 FOOT STRAIGHT LENGTH AND ONE SUPPORT NEAR EACH ELBOW OR BEND INCLUDING RUNS ABOVE SUSPENDED CEILINGS AND WITHIN 3 FEET OF ALL JUNCTION BOXES, SWITCHES, FITTINGS, ETC. INSTALL ONE HOLE PIPE STRAPS ON CONDUITS 1 INCH OR SMALLER. INSTALL INDIVIDUAL PIPE HANGERS FOR CONDUITS LARGER THAN 1 INCH. SPRING STEEL FASTENERS WITH HANGER RODS MAY BE USED IN DRY LOCATIONS IN LIEU OF PIPE STRAPS.

SECTION 16120 – CONDUCTORS

A. WIRES AND CABLES (600 VOLTS): CONFORM TO THE APPLICABLE UL AND ICEA STANDARDS FOR THE USE INTENDED. USE COPPER CONDUCTORS WITH 600 VOLTS INSULATION UNLESS OTHERWISE SPECIFIED OR NOTED ON THE DRAWINGS. USE STRANDED CONDUCTORS FOR NO. 8 OR LARGER WHERE ELSEWHERE SPECIFIED OR NOTED OTHERWISE ON THE DRAWINGS. USE OF ALUMINUM CONDUCTORS WILL NOT BE PERMITTED. INSULATION SHALL BE TYPE THHN/THWN, 75°C, FOR ALL CONDUCTORS, USELESS OTHERWISE SPECIFIED OR NOTED ON THE DRAWINGS.

B. COLOR CODING. PHASE, NEUTRAL, AND GROUND CONDUCTORS COLOR-CODED IN ACCORDANCE WITH NEC. CONNECT ALL CONDUCTORS OF THE SAME COLOR TO THE SAME PHASE CONDUCTOR, COLOR CODING SHALL BE BLACK, RED, BLUE, WHITE (120/208) OR BROWN ORANGE, YELLOW, GRAY (277/480) WITH GREEN FOR ALL GROUND CONDUCTORS.

C. CONNECTORS AND LUGS: FOR COPPER CONDUCTORS NO. 6 AND SMALLER: 3M SCOTCH-LOK OR T & B STA-KON COMPRESSION OR INDENT TYPE CONNECTORS WITH INTEGRAL OR SEPARATE INSULATING CAPS. FOR COPPER CONDUCTORS LARGER THAN NO. 6 SOLDERLESS, INDENT, HEX SCREW OR BOLT TYPE PRESSURE CONNECTORS, PROPERLY TAPED OR INSULATED.

D. SPLICES: (480 VOLTS AND UNDER): CONDUCTOR LENGTHS SHALL BE CONTINUOUS FROM TERMINATION TO TERMINATION WITHOUT SPLICES UNLESS APPROVED BY THE BUILDING INSPECTOR.

SECTION 16220 – CIRCUIT BREAKERS

A. PROVIDE MOLDED CASE, BOLT-ON, THERMAL MAGNETIC TRIP, SINGLE, TWO OR THREE POLE BRANCH CIRCUIT BREAKERS AS SHOWN ON DRAWINGS. MULTIPLE POLE BREAKERS SHALL BE SINGLE HANDLE, COMMON TRIP. AIC RATING TO MATCH EXISTING OR AS REQUIRED FOR AVAILABLE FAULT CURRENTS.

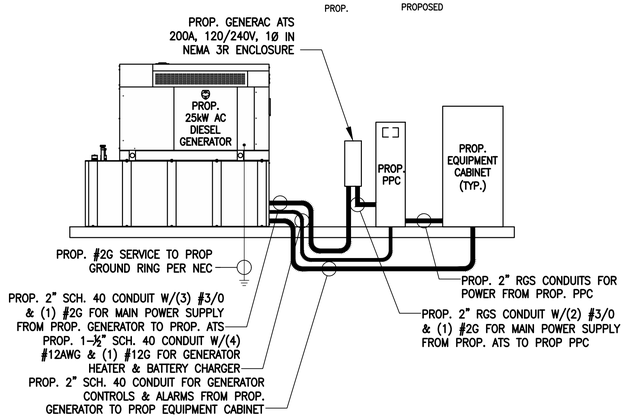
ELECTRICAL LEGEND

SYMBOLS

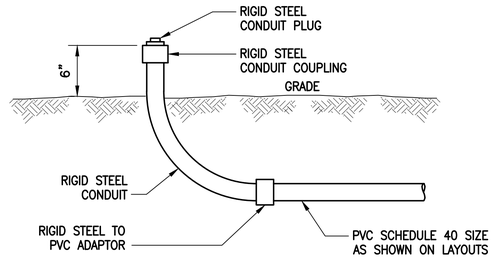
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- CONDUIT RUN UNDERGROUND
- CONDUIT RUN ABOVE GROUND
- (M) METER ON METER/BREAKER UNIT
- 5/8" x 10'-0" COPPER CLAD GROUND ROD
- EXOTHERMIC TYPE CONNECTION
- COMPRESSION TYPE CONNECTION
- G — G GROUND RING, #2 AWG SOLID TINNED BARE COPPER GROUND CONDUCTOR 6" BELOW FROST LINE AND 24" OFF CONCRETE PLATFORM
- XXX / XXX REPRESENTS DETAIL NUMBER / REF. DRAWING NUMBER
- XXX DETAIL NUMBER

ABBREVIATIONS

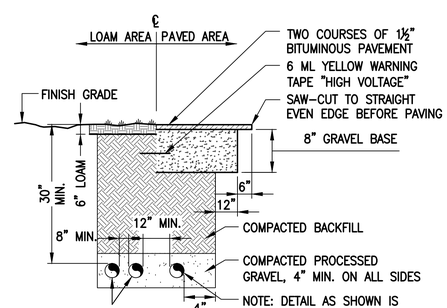
ACCA	ANTENNA CABLE COVER ASSEMBLY
AGB	COPPER ANTENNA GROUND BAR
AWG	AMERICAN WIRE GAUGE
BCW	BARE COPPER WIRE
BTS	BASE TRANSMISSION SYSTEM
CIBGE	COAX ISOLATED GROUND BAR EXTERNAL
DWG	DRAWING
EMT	ELECTRICAL METALLIC TUBING
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GR	GROWTH
IGR	INTERIOR GROUND RING (HALO)
LAGB	LOWER ANTENNA COPPER GROUND BAR
MIGB	MASTER ISOLATED GROUND BAR
PCS	PERSONAL COMMUNICATION SYSTEM
PPC	POWER PROTECTION CABINET
PRC	PRIMARY RADIO CABINET
RGS	RIGID GALVANIZED STEEL
RWY	RACEWAY
TYP	TYPICAL
SSLP	SPRINT SPECTRUM LIMITED PARTNERSHIP
UAGB	UPPER ANTENNA COPPER GROUND BAR
EXIST.	EXISTING
PROP.	PROPOSED



GENERATOR
ONE-LINE POWER DIAGRAM (5 / E-1)
SCALE: NOT TO SCALE



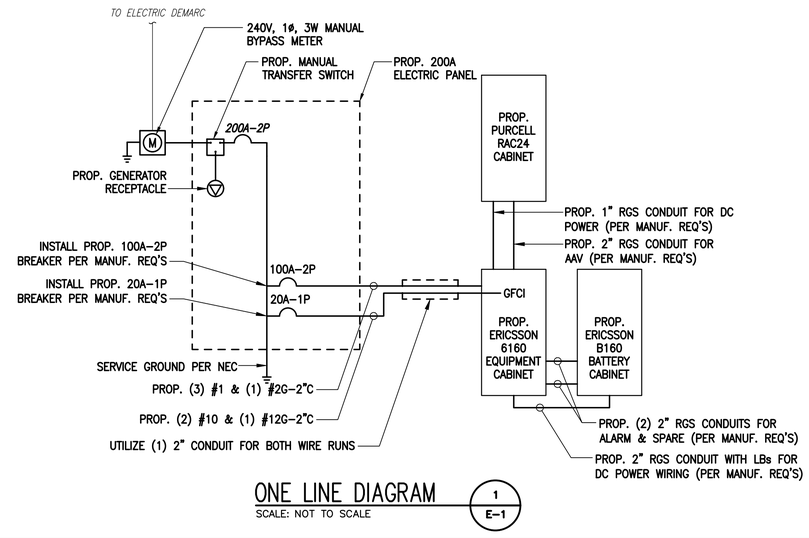
TYPICAL CONDUIT STUB-UP DETAIL (3 / E-1)
SCALE: NONE



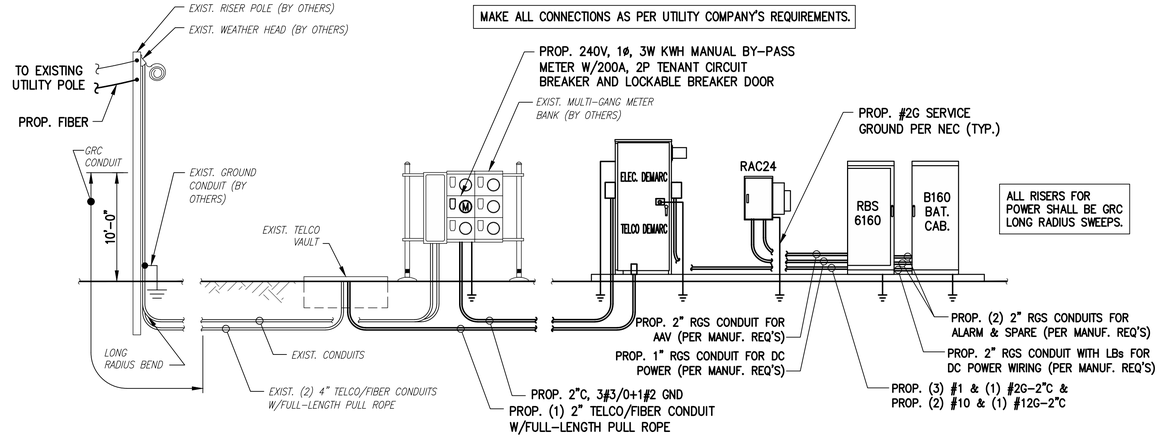
SCHEDULE 40 CONDUITS FOR NEW ELECTRICAL AND TELEPHONE SERVICES. SEE UTILITY AND SITE PLANS. PROVIDE APPROVED PULL BOXES AS REQUIRED, AND COORDINATE INSTALLATION W/ALL UTILITY COMPANIES FOR INTERFACING AT TERMINATION POINTS. PROVIDE FULL LENGTH PULL ROPES (TYP.).

NOTE: DETAIL AS SHOWN IS FOR SECONDARY ELECTRIC SERVICE. PRIMARY HIGH VOLTAGE SERVICE REQUIRES 4" CONCRETE ENCASEMENT.

BURIED CONDUIT DETAIL (4 / E-1)
SCALE: NOT TO SCALE



ONE LINE DIAGRAM (1 / E-1)
SCALE: NOT TO SCALE



POWER/TELCO RISER DIAGRAM (2 / E-1)
SCALE: NOT TO SCALE

T-MOBILE
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9/14/2021

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
3	09/14/21	REVISED CONSTRUCTION	JRV
2	09/01/21	REVISED CONSTRUCTION	JRV
1	08/11/21	ISSUED FOR CONSTRUCTION	JRV
0	08/02/21	ISSUED FOR REVIEW	JRV

SITE NUMBER:
CTNL143A

SITE ADDRESS:
5 EXETER DRIVE
STERLING, CT 06377

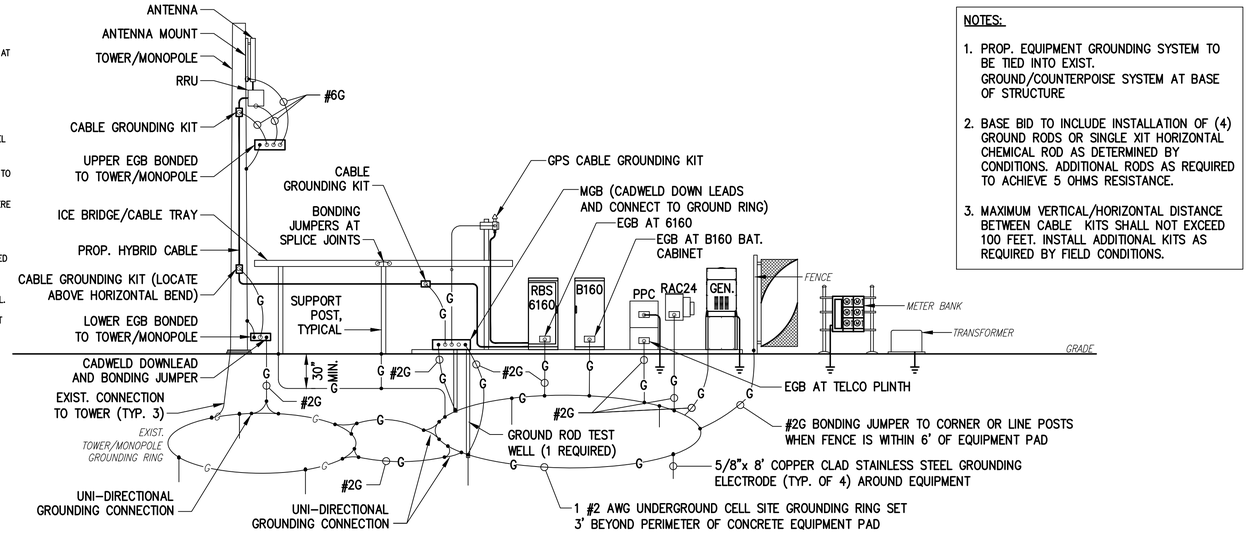
SHEET TITLE
SITE ELECTRIC & GROUNDING DETAILS
1 OF 2

SHEET NUMBER
E-1

1815.242

PROTECTIVE GROUNDING SYSTEMS GENERAL NOTES

1. GROUNDING SHALL BE IN ACCORDANCE WITH NEC ARTICLE 250–GROUNDING AND BONDING.
2. GROUNDING SHALL BE IN ACCORDANCE WITH SPRINT SSEO DOCUMENTS 3.018.02.004 "BONDING, GROUNDING AND TRANSIENT PROTECTION FOR CELL SITES" AND 3.018.10.002 "SITE RESISTANCE TO EARTH TESTING".
3. PROVIDE GROUND CONNECTIONS FOR ALL METALLIC STRUCTURES, ENCLOSURES, RACEWAYS AND OTHER CONDUCTIVE ITEMS ASSOCIATED WITH THE INSTALLATION OF CARRIER'S EQUIPMENT.
4. GROUND CONNECTIONS: CLEAN SURFACES THOROUGHLY BEFORE APPLYING GROUND LUGS OR CLAMPS. IF SURFACE IS COATED, REMOVE THE COATING, APPLY A NON–CORROSIVE APPROVED COMPOUND TO CLEAN SURFACE AND INSTALL LUGS OR CLAMPS. WHERE GALVANIZING IS REMOVED FROM METAL, IT SHALL BE PAINTED OR TOUCHED UP WITH "GALVAMOX" OR EQUAL.
5. ALL GROUNDING WIRES SHALL PROVIDE A STRAIGHT, DOWNWARD PATH TO GROUND WITH GRADUAL BENDS AS REQUIRED. GROUND WIRES SHALL NOT BE LOOPED OR SHARPLY BENT.
6. ALL CLAMPS AND SUPPORTS USED TO SUPPORT THE GROUNDING SYSTEM CONDUCTORS AND PVC CONDUITS SHALL BE PVC TYPE (NON CONDUCTIVE). DO NOT USE METAL BRACKETS OR SUPPORTS WHICH WOULD FORM A COMPLETE RING AROUND ANY GROUNDING CONDUCTOR.
7. ALL GROUND WIRES SHALL BE #2 SOLID TINNED BCW UNLESS NOTED OTHERWISE.
8. PROVIDE DEDICATED #2 AWG COPPER GROUND WIRE FROM EACH ANTENNA MOUNTING PIPE TO ASSOCIATED CIGBE.
9. GROUND ANTENNA BASES, FRAMES, CABLE RACKS, AND OTHER METALLIC COMPONENTS WITH #2 INSULATED TINNED STRANDED COPPER GROUNDING CONDUCTORS AND CONNECT TO INSULATED SURFACE MOUNTED GROUND BARS. CONNECTION DETAILS SHALL FOLLOW MANUFACTURER'S SPECIFICATIONS FOR GROUNDING.
10. EACH EQUIPMENT CABINET SHALL BE CONNECTED TO THE MASTER ISOLATION GROUND BAR (MGB) WITH #2 SOLID TINNED BCW EQUIPMENT CABINETS WALL HAVE (2) CONNECTIONS.
11. GROUND HYBRIFLEX SHIELD AT TOP, BOTTOM AND AT TRANSITION TO HYBRIFLEX JUMPER CABLES AT EQUIPMENT CABINET ENTRANCE USING MANUFACTURER'S GUIDELINES. WHEN HYBRIFLEX CABLE EXCEEDS 200', GROUND AT INTERVALS NOT EXCEEDING 100'.
12. THE CONTRACTOR SHALL VERIFY THAT THE EXISTING GROUND BARS HAVE ENOUGH SPACE/HOLES FOR ADDITIONAL TWO HOLE LUGS.
13. EXOTHERMIC WELDING IS RECOMMENDED FOR GROUNDING CONNECTION WHERE PRACTICAL OTHERWISE. THE CONNECTION SHALL BE MADE USING COMPRESSION TYPE–2 HOLES, LONG BARREL LUGS OR DOUBLE CRIMP "C" CLAMP. THE COPPER CABLES SHALL BE COATED WITH AN ANTI–OXIDANT (THOMAS BETTS KOPR–SHILD) BEFORE MAKING THE CRIMP CONNECTIONS THE CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDED TORQUES ON THE BOLT ASSEMBLY TO SECURE CONNECTIONS.
14. AT ALL TERMINATIONS AT EQUIPMENT ENCLOSURES, PANEL, AND FRAMES OF EQUIPMENT AND WHERE EXPOSED FOR GROUNDING. CONDUCTOR TERMINATION SHALL BE PERFORMED UTILIZING TWO HOLE BOLTED TONGUE COMPRESSION TYPE LUGS WITH STAINLESS STEEL SELF–TAPPING SCREWS.
15. THE MASTER GROUND BAR (MGB) SHALL BE MADE OF BARE 1/4"x2" COPPER (FOR OUTDOOR APPLICATIONS IT SHALL BE TINNED COPPER) AND LARGE ENOUGH TO ACCOMMODATE THE REQUIRED NUMBER OF GROUND CONNECTIONS. THE HARDWARE SECURING THE MGB SHALL ELECTRICAL INSULATE THE MGB FROM ANY STRUCTURE TO WHICH IT IS FASTENED.
16. ALL BOLTS, WASHERS, AND NUTS USED ON GROUNDING CONNECTIONS SHALL BE STAINLESS STEEL.
17. ALL GROUNDING CONNECTIONS SHALL BE COATED WITH A COPPER SHIELD ANTI–CORROSIVE AGENT SUCH AS T&B KOPR SHIELD. VERIFY PRODUCT WITH SPRINT CONSTRUCTION MANAGER.
18. FOR NEW OR REPAIRED GROUNDING EQUIPMENT. REFER TO SPRINT GROUNDING STANDARDS AND FOLLOWING (SUPPLEMENTS):
    –ANTI–THEFT UPDATE TO SPRINT GROUNDING DATED 08–24–12
    –SPRINT ENGINEERING LETTER EL–0504 DATED 04–20–12



NOTES:

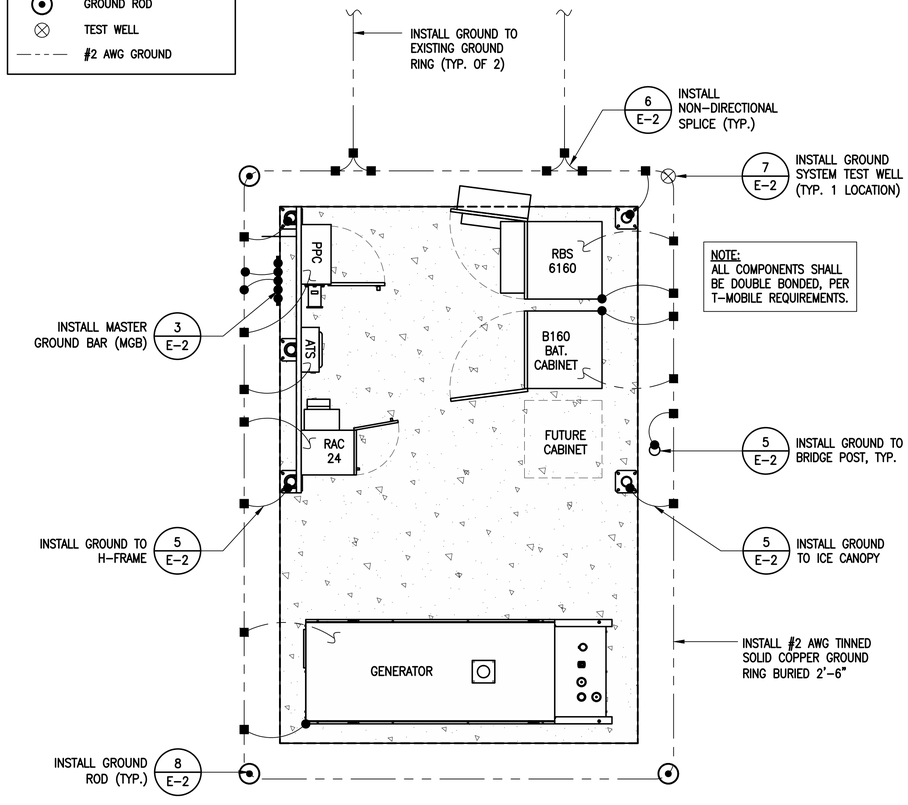
1. PROP. EQUIPMENT GROUNDING SYSTEM TO BE TIED INTO EXIST. GROUND/COUNTERPOISE SYSTEM AT BASE OF STRUCTURE
2. BASE BID TO INCLUDE INSTALLATION OF (4) GROUND RODS OR SINGLE XIT HORIZONTAL CHEMICAL ROD AS DETERMINED BY CONDITIONS. ADDITIONAL RODS AS REQUIRED TO ACHIEVE 5 OHMS RESISTANCE.
3. MAXIMUM VERTICAL/HORIZONTAL DISTANCE BETWEEN CABLE KITS SHALL NOT EXCEED 100 FEET. INSTALL ADDITIONAL KITS AS REQUIRED BY FIELD CONDITIONS.

GROUNDING RISER DIAGRAM

SCALE: NOT TO SCALE — 2 / E–2

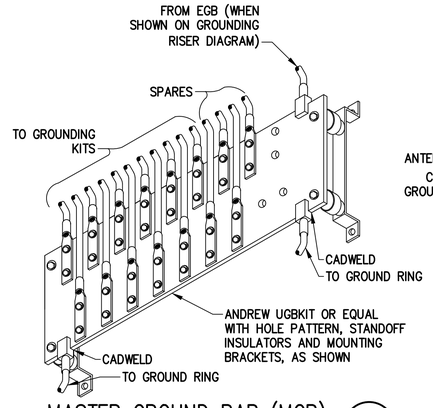
GROUNDING LEGEND

- ■ EXOTHERMIC GROUND
- ● MECHANICAL GROUND
- ⊙ GROUND ROD
- ⊗ TEST WELL
- ———— #2 AWG GROUND



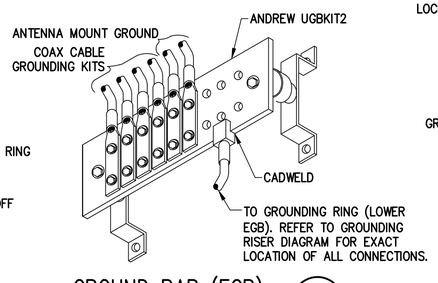
GROUNDING PLAN

SCALE: N.T.S. — 1 / E–2



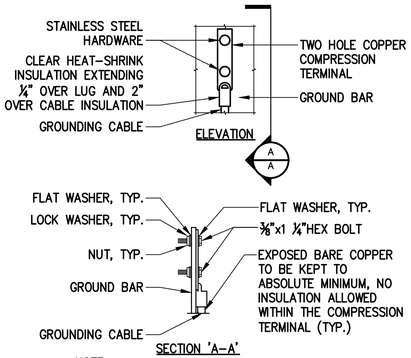
MASTER GROUND BAR (MGB)

SCALE: NOT TO SCALE — 3 / E–2



GROUND BAR (EGB)

SCALE: NOT TO SCALE — 4 / E–2

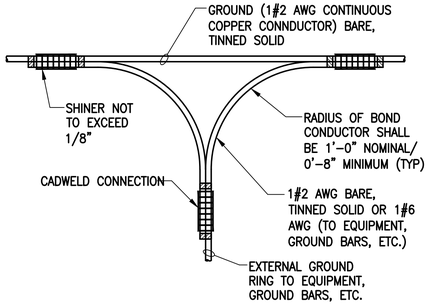


SECTION 'A–A'

NOTE:
1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
3. CADWELL DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB.

TYPICAL GROUND BAR CONNECTIONS DETAIL

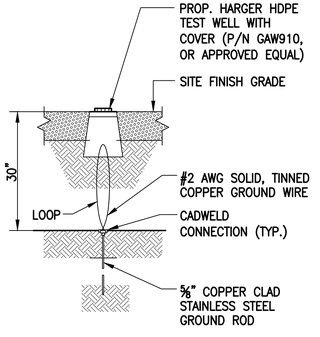
SCALE: NOT TO SCALE — 5 / E–2



NOTE: ALL CONNECTION TO GROUND SHALL BE NON–DIRECTIONAL.

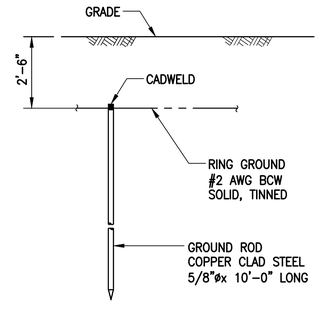
NON–DIRECTIONAL SPLICE

SCALE: NOT TO SCALE — 6 / E–2



GROUND ROD TEST WELL DETAIL

SCALE: NOT TO SCALE — 7 / E–2



GROUND ROD

SCALE: NOT TO SCALE — 8 / E–2

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STATE OF CONNECTICUT ★ JAMES M. FITZGERALD ★ No. 25987 ★ LICENSED PROFESSIONAL CIVIL ENGINEER

7/14/2021

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

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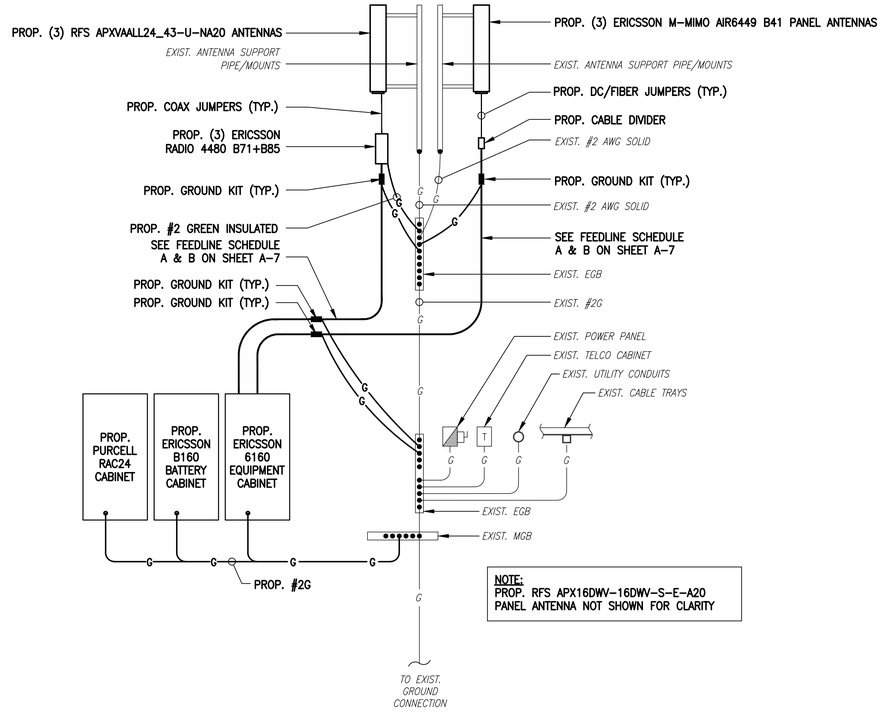
SITE NUMBER:
CTNL143A

SITE ADDRESS:
5 EXETER DRIVE
STERLING, CT 06377

SHEET TITLE
SITE ELECTRIC & GROUNDING DETAILS 2 OF 2

SHEET NUMBER
E–2

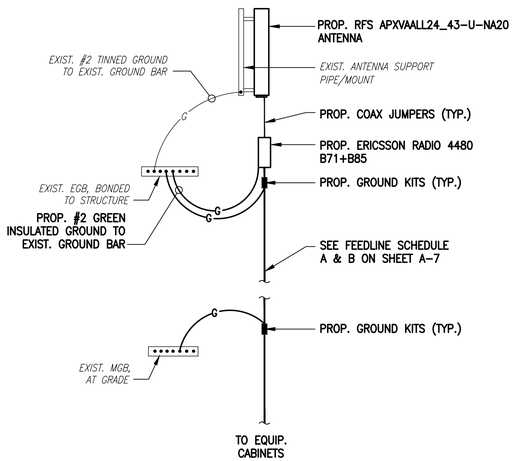
1815.242



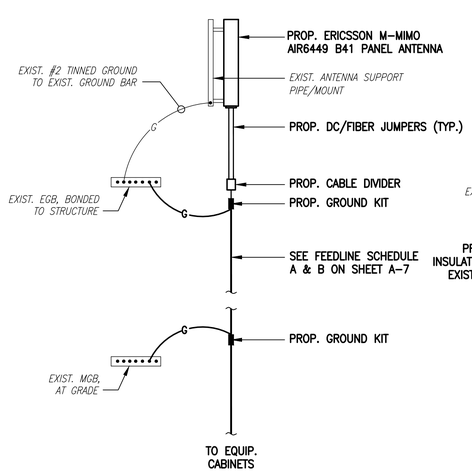
GROUNDING RISER DIAGRAM

SCALE: NOT TO SCALE

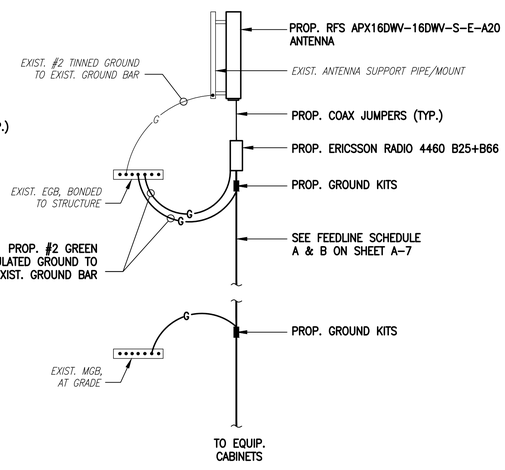
1
E-3



L700/L600/N600 ANTENNA



L2500/N2500 ANTENNA



L2100/L1900/G1900/U2100 ANTENNA

COAX CABLE CONNECTION AND GROUNDING DETAIL

SCALE: NOT TO SCALE

2
E-3

ELECTRICAL AND GROUNDING NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
5. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
6. BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THHNINSULATION.
8. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
9. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
10. WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
11. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
12. PPC SUPPLIED BY PROJECT OWNER.
13. GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE BTS SITE GROUNDING STANDARDS".
14. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
15. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
16. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
17. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
18. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
19. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
20. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN PROP. TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
21. CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMNS MINIMUM RESISTANCE REQUIRED.
22. CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.

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SBA COMMUNICATIONS CORP.
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STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25937
LICENSED
PROFESSIONAL CIVIL ENGINEER
9/14/2021

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
3	09/14/21	REVISED CONSTRUCTION	JRV
2	09/01/21	REVISED CONSTRUCTION	JRV
1	08/11/21	ISSUED FOR CONSTRUCTION	JRV
0	08/02/21	ISSUED FOR REVIEW	JRV

SITE NUMBER:
CTNL143A

SITE ADDRESS:
5 EXETER DRIVE
STERLING, CT 06377

SHEET TITLE
ANTENNA ELECTRIC & GROUNDING DETAILS

SHEET NUMBER
E-3

1815.242

EXHIBIT 11

Generator

Generac 25kw Diesel RD25

RD025 | 2.2L | 25 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

Standby Power Rating

25 kW, 31.25 kVA, 60 Hz

*Built in the USA using domestic and foreign parts

Image used for illustration purposes only

Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.

- UL2200, UL508, UL489, UL142
- CSA 22.2
- BS5514 and DIN 6271
- SAE J1349
- NFPA 37, 70, 99
- ISO 3046, 8528, 9001
- NEMA ICS1, ICS10, MG1, 250, ICS6, AB1
- ANSI/IEEE C62.41

Powering Ahead

For over 50 years, Generac has led the industry with innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac's gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial application under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

RD025 | 2.2L | 25 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

GENERAC | INDUSTRIAL POWER

Standard Features

ENGINE SYSTEM

- Cold Weather Kit
- Oil Drain Extension
- Heavy Duty Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil & Coolant
- Critical Exhaust Silencer

GENERATOR SET

- Sound Attenuated Aluminum Enclosure
- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Wrapped Exhaust Piping
- Standard Factory Testing
- 5 Year Limited Warranty
- Ready to Accept Full Load in <10 Seconds
- E-Stop

Electrical System

- Battery Charging Alternator
- Battery Cables
- Battery Tray
- Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor
- Smart Battery Charger

ALTERNATOR SYSTEM

- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Sealed Bearings
- Low Temperature Rise (>120°C)
- Low THD (<5%)

Cooling System

- Closed Coolant Recovery System
- Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- Radiator Drain Extension
- Can Operate at up to 122°F (50°C) Ambient Temperature

Fuel System

- Fuel Lockoff Solenoid
- Primary Fuel Filter
- Stainless Steel Fuel Lines

TANKS

- 24 Hour Run Time Tank
- UL142 Listed Tank

CONTROL SYSTEM

Evolution ™ Controller

- Two-Line Plain Text LCD Display
- Programmable Start Delay Between 10-30 seconds
- 10 second Engine Start Sequence
- 5 second Engine Warm Up
- 1 minute Engine Cool-Down
- Starter Lock-Out
- Smart Battery Charger
- Automatic Voltage Regulation with Over and Under Protection
- Automatic Low Oil Pressure Shutdown
- Overspeed Shutdown
- High Temperature Shutdown
- Overcrank Protection
- Safety Fused
- Failure to Transfer Protection
- Low Battery Protection
- 50 Even Run Log
- Future Set Capable Exerciser
- Incorrect Wiring Protection
- Internal Fault Protection
- Common External Fault Capability
- Governor Failure Protection

Optional Shipped Loose and Field Install Kits

ENGINE SYSTEM

- ○ Base Plug Kit

GENERATOR SET

- ○ Paint Kit
- ○ Scheduled Maintance Kit

CONTROL SYSTEM

- ○ Mobile Link ™ and Adapter Kit

TANKS

- ○ Spill Box
- ○ 90% Fuel Alarm
- ○ Tank Risers
- ○ Spill Box Drainback Kit
- ○ Vent Extension Support Kit
- ○ 5 Day Run Time Tank

RD025 | 2.2L | 25 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

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APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Perkins
EPA Emission Compliance	Tier 4 Interim
Cylinder #	4
Type	In-Line
Displacement - in^3 (L)	2.22 (135)
Bore - in (mm)	3.3 (84.0)
Stroke - in (mm)	3.9 (100.0)
Compression Ratio	23.3:1
Intake Air Method	Turbocharged/Aftercooled
Piston Type	Aluminum
Crankshaft Type	Forged Steel
Engine Block Type	Cast Iron

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	±0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full Flow Cartridge
Crankcase Capacity with Filters- qt (L)	11.2 (10.6)

Cooling System

Cooling System Type	Closed Recovery
Fan Type	Pusher
Fan Speed- rpm	1,980
Fan Diameter - in (mm)	18.0 (457.2)

Fuel System

Fuel Type	Ultra Low Sulfur Diesel Fuel
Fuel Specification	ASTM
Fuel Pump Type	Mechanical Engine Driven Gear
Injector Type	Mechanical
Fuel Supply Lin (mm/in)	7.94/0.31 (ID)
Fuel Return Line (mm/in)	4.76/.19 (ID)
Fuel Filtering (microns)	25

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	Standard
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	Generac
Poles	4
Field Type	Rotating
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<50

Standard Excitation	Direct
Bearings	Single Sealed
Coupling	Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Full Digital
Number of Sensed Phases	2
Regulation Accuracy (Steady State)	±1%

RD025 | 2.2L | 25 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

GENERAC® | INDUSTRIAL POWER

OPERATING DATA

POWER RATINGS

		Standby
Single-Phase 120/480 VAC @0.1pf	25 kW	Amps: 104
Three-Phase 120/208 VAC @0.8pf	25 kW	Amps: 87
Three-Phase 120/240 VAC @0.8pf	25 kW	Amps: 75
Three-Phase 277/480 VAC @0.8pf	25 kW	Amps: 37

MOTOR STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip at 30%

120/240 V, Single-Phase at 0.4pf	168
120/208 V, Three-Phase at 0.4pf	144
120/240 V, Three-Phase at 0.4pf	125
120/240 V, Three-Phase at 0.4pf	64

FUEL CONSUMPTION RATES*

Percent Load	Diesel gal/hr (L/hr)
25%	0.97 (3.67)
50%	1.37 (5.19)
75%	1.97 (7.46)
100%	2.77 (10.49)

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Air Flow (Radiator and Alternator)	ft^3/min (m^3/min)	2800 (79)
Coolant System Capacity	gal (L)	2.5 (9.5)
Heat Rejection to Coolant	BTU/hr (MJ/hr)	128,638 (135.7)
Max. Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)	See Bulletin No. 0199270SSD	
Maximum Radiator Backpressure	in H_2O (kPa)	0.50 (0.12)

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Rated Power ft^3/min (m^3/min)	88 (2.5)

ENGINE

		Standby
Rated Engine Speed	rpm	1,800

EXHAUST

		Standby
Exhaust Flow (Rated Output)	ft^3/min (m^3/min)	296.6 (8.4)
Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	930 (499)

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.
Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.
Standby - See Bulletin 0187500SSB

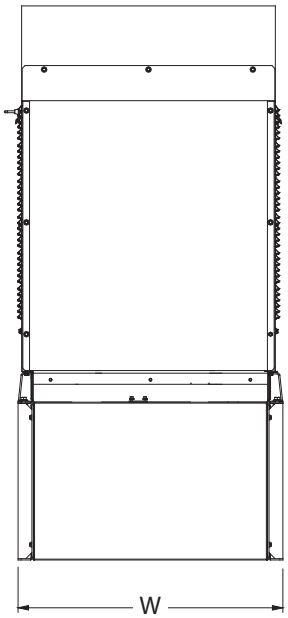
RD025 | 2.2L | 25kW

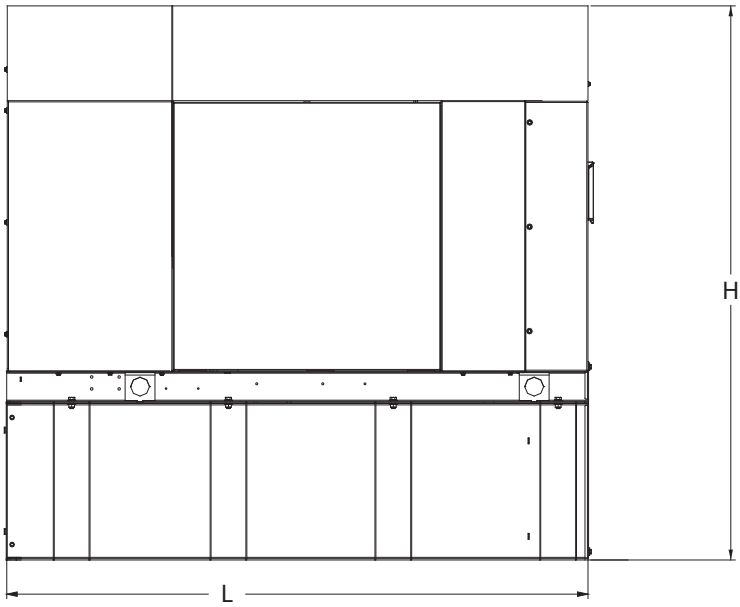
INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

GENERAC® | INDUSTRIAL POWER

DIMENSIONS AND WEIGHTS*





Weights and Dimensions

Unit Weight - lbs	Unit Weight with Skid - lbs	Dimensions (L x W x H) in
2,811	2,849	84.2 x 35.0 x 91.7

with fuel tank
103.4" 35" x 91.7"

25kW Fuel Consumption	
Fuel Tank Gross Total Capacity	240
Fuel Tank Gross Usable Capacity	229
Fuel Tank Net Usable Capacity (Run Hours Based on Net Usable Capacity)	206
Run Hours 100% Load	98
Run Hours 75% Load	125
Run Hours 50% Load	161

Sound Emission Data	
Rated Load Sound Output at 23ft - dB(A)	65

* All measurements are approximate and for estimation purposes only.
Drawing is for illustration purposes only, not to scale.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

SPEC SHEET

5 OF 5

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.

Generac Power Systems, Inc. | P.O. Box 8 | Waukesha, WI 53189
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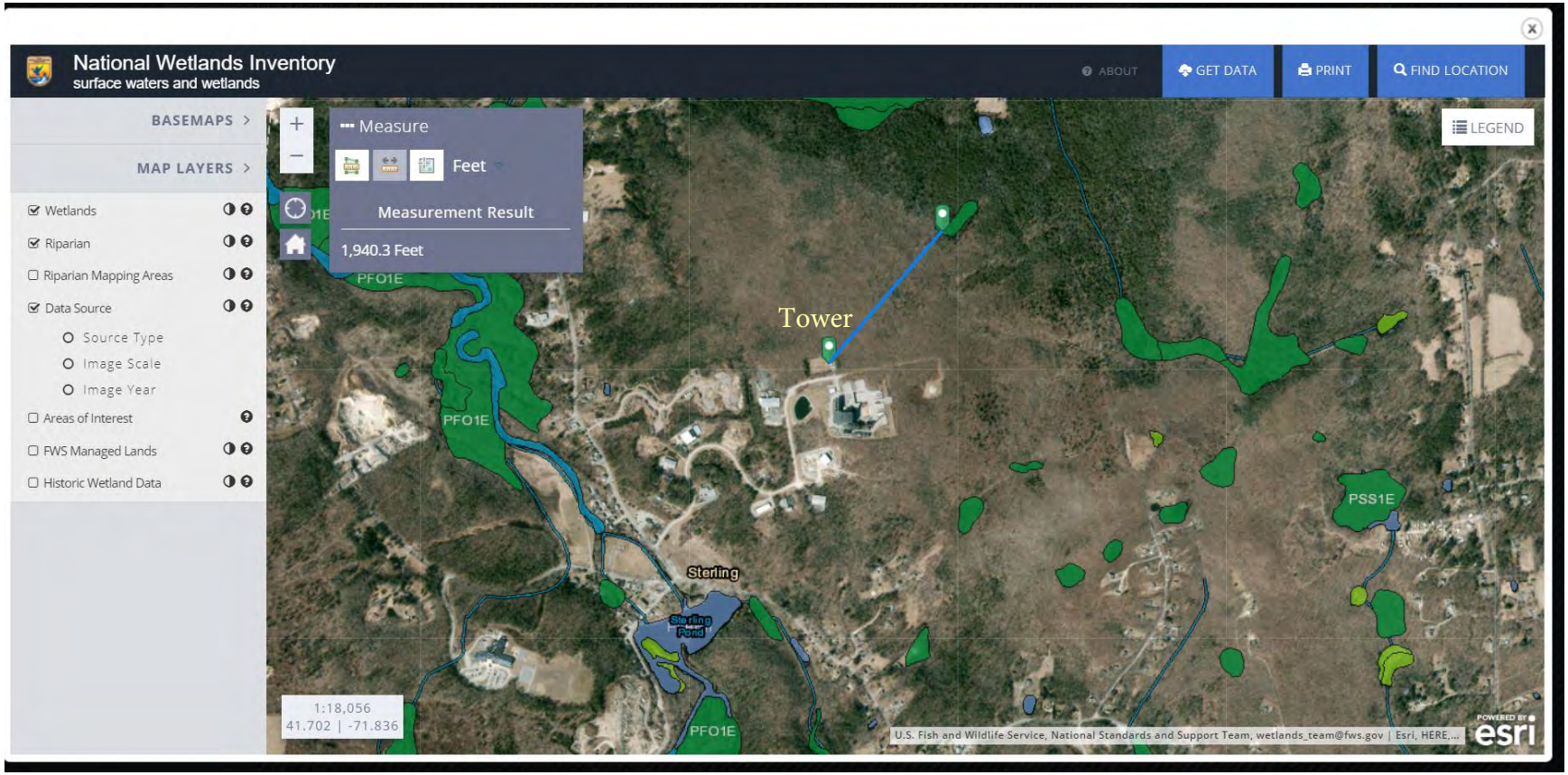
Part No 10000041046
Rev. 1 07/16/18

EXHIBIT 12

Wetlands Map


National Wetlands Inventory
surface waters and wetlands
ABOUT
GET DATA
PRINT
FIND LOCATION
BASEMAPS
MAP LAYERS
Wetlands
Riparian
Riparian Mapping Areas
Data Source
Source Type
Image Scale
Image Year
Areas of Interest
FWS Managed Lands
Historic Wetland Data
Measure
Feet
Measurement Result
1,940.3 Feet
LEGEND
Tower
PFO1E
PFO1E
PFO1E
PSS1E
Sterling
Sterling Pond
1:18,056
41.702 | -71.836
U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov | Esri, HERE,...
esri