

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
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kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts
and New York

November 18, 2021

Via Electronic Mail

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

Re: **Notice of Exempt Modification – Facility Modification
178 New Haven Road, Prospect, Connecticut**

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains an existing wireless telecommunications facility at the above-referenced property address (the “Property”). The facility consists of antennas and remote radio heads attached to a tower and related equipment on the ground, near the base of the tower. The tower was originally approved by the Town of Prospect (“Town”) in May of 1998. Cellco’s shared use of the tower was approved by the Council in July 1999 (EM-BAM-115-990701). A copy of Town’s original tower approval and Cellco’s EM-BAM-115-990701 approval are included in Attachment 1.

Cellco now intends to modify its facility by installing three (3) new Samsung MT6407-77A antennas. Cellco also intends to replace six (6) existing remote radio heads (“RRHs”) with six (6) new RRHs. All new equipment will be installed on Cellco’s existing antenna platform. A set of project plans showing Cellco’s proposed facility modifications and specification for Cellco’s new antennas and RRHs are included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Prospect’s Chief Elected Official and Land Use Officer.

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 tower. Cellco's new antennas will be installed on Cellco's existing antenna platform.

2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, 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 installation of Cellco's new antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative general power density table for Cellco's modified facility is included in Attachment 3. The modified facility will be capable of providing Cellco's 5G wireless service.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. According to the attached Structural Analysis ("SA") and Mount Analysis ("MA"), the existing tower, tower foundation and antenna mounts with certain modifications, can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4.

A copy of the parcel map and Property owner information is included in Attachment 5. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in Attachment 6.

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

Melanie A. Bachman, Esq.
November 18, 2021
Page 3

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Enclosures

Copy to:

Robert J. Chatfield, Prospect Mayor
Mary Barton, Land Use Inspector
Peter and Victor Visockis, Property Owners
Alex Tyurin

ATTACHMENT 1

72

**PROSPECT PLANNING AND ZONING COMMISSION
APPROVED MINUTES
05-20-98**

Board Members Present: Chairman E. Miller, J. Moody, G. Graveline, G. Sabo & B. Hiscox
Alternates Present: none
Absent Members: D. Pomeroy
Others Present: Bill Donovan, Land Use Inspector
Others: 5

Communications:

1. April 1998 Zoning Inspector's Report, Plumbing, Heating and Electrical Inspector's Report
2. CT Federation of P&Z Agencies Quarterly Newsletter, Spring 1998
3. Inland Wetlands Approved Minutes 4/27/98
4. Smart Growth Conference Announcement
5. 5/12/98 letter from Carmody and Torrance re: Dunkin Donuts

Call to order at 7:01 pm by Chairman Miller. It was noted that the meeting will be taped. **Motion** by J. Moody, seconded by G. Graveline to approve the minutes of 05/06/98 as amended. Unanimous.

Public Participation: none at this time

Old Business: Visockis, Telecommunications Tower, 178 New Haven Road: B. Donovan presented the draft motion. (see attached). E. Miller read aloud the draft motion. Discussed the liability of the owner and agent. **Motion** by B. Hiscox, seconded by J. Moody to accept the draft motion as amended. Unanimous.

D. Reilly, Zone Change, 110 Waterbury Road: B. Donovan noted that the motion from the last meeting needs an effective date. The Commissioners asked B. Donovan to call D. Reilly and ask him to come to the next meeting with a site plan, so the Commission could act on it and set the effective date for the zone change. **Motion** by J. Moody, seconded by G. Graveline to table discussion of this until the next meeting. Unanimous.

Public Hearings: : Gary Brown, 7 lot subdivision, Virginia Estates, Scott Road, 7:30 pm: The public hearing opened at 7:37 pm as Chairman Miller read aloud the notice of public hearing. B. Donovan presented a letter from S. Poryanda, CCE, asking that the public hearing be continued until 6/17/98, as there are additional issues that he needs to resolve. The public hearing will continue on 6/3/98 at 7:30 pm.

New Business: Gail Osowski, 32 Luke Street, home occupation, ceramics: G. Osowski presented an application dated 5/20/98 and a plot plan. Chairman Miller read aloud the application. From the questions of G. Graveline, G. Osowski answered that there will be no additional traffic, no retail shop at her home, and at this time she is not offering classes. J. Moody asked her if all of the work would be performed on her premises and in the basement. She answered yes. He also explained that under the definition of home occupation, the business cannot occupy more than 1/3 of her home and there cannot be more than 2 employees from outside the family. She will not be using any signs on the property. B. Hiscox asked about hazardous materials. She explained that all of the paint is lead free. G. Graveline explained that in being consistent with the past, the neighbors do not need to be notified as there is no additional traffic. B. Donovan mentioned that the regulations do include ceramic studios under home occupations. J. Moody explained to the applicant that if there are any changes in her operation, other than discussed this evening, she will need to come back before the Commission. **Motion** by B. Hiscox, seconded by G. Graveline, to accept and approve the application dated 5/20/98 from Gail Osowski, 32 Luke Street, for a home occupation to sell ceramic pieces at craft fairs. Unanimous. Fees accepted.

Edwards Printing, Co., 16 Waterbury Road, site plan: B. Donovan explained that the applicant is not here as he is not prepared at this time.

DRAFT ADOPTED RESOLUTION

Request for SPECIAL PERMIT

Victor J. Visockis, Rosemary S. Visockis & Victor J. Visockis, Jr.
177 New Haven Road

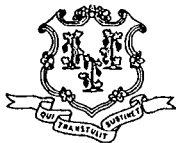
RESOLVED TO APPROVE, request for Special Permit under Section 300 for a Telecommunications Tower, on property located at **178 New Haven Road** in a residential zone and accessed from Kluge Road. Owner: Victor J. Visockis, Rosemary S. Visockis, & Victor J. Visockis, Jr. Authorized agent: SBA, Inc., 125 Shaw Street, Suite 116, New London, CT 06320.

PROVIDED THAT:

1. The height of the tower will be 160 feet above ground level. Antennae or other mounted equipment will not exceed the height of the tower.
2. The tower must be located a distance from the property at least equal to the tower's height. No structures, other than those associated with the operation of the facility, will be permitted within the "fall zone" of the proposed tower. The "fall zone" will consist of the area 160 feet from the center point of the tower in all directions.
3. Utility installations to the property will be below ground. Utility connections from the property line to the proposed installation will be below ground.
4. Prior to the initiation of any construction activity or the issuance of a Zoning Permit, all erosion and sedimentation control measures shall be properly installed and fully functioning, and said measures shall be maintained in effective condition throughout the construction process.
5. An accessway, at least 15 feet wide and secured by a gate and/or other means will be maintained for passage of police, fire or other emergency equipment. Additional security fencing will be installed at the facility.
6. The applicant, agent, successor or assigns shall comply with all applicable requirements of Zoning and Building Regulations not referenced herein, unless otherwise specifically required by FCC regulation.
7. The above-listed agent will be responsible for, and ensure his facility and his tenants comply with all relative FCC standards and guidelines for wireless facilities. Upon termination of the lease, or should the agent abandon use of the facility, SBA, Inc. as agent, will remove all apparatus and above-ground structures from the site and restore the leased space to its original condition.

Reasons: In granting the above special permit, the Planning & Zoning Commission of the Town of Prospect wishes to state upon its records that in the Commission's judgement, the subject project complies with Zoning regulation and satisfies FCC mandate.

Draft: 5/20/98 Approved:



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

July 15, 1999

Sandy M. Carter
Manager-Regulatory
Bell Atlantic Mobile
20 Alexander Drive
P.O. Box 5029
Wallingford, CT 06492

Re: EM-BAM-115-990701 - Bell Atlantic Mobile notice of intent to modify an existing telecommunications facility located at 178 New Haven Road in Prospect, Connecticut.

Dear Ms. Carter:

At a public meeting held on July 15, 1999, the Connecticut Siting Council (Council) ruled that the proposed placement of antennas on this tower would not cause a significant change or alteration in the physical and environmental characteristics of the site, and pursuant to Section 16-50j-72 (c) would constitute a regulatory exemption.

The proposed antenna modifications are to be implemented as specified in your notice dated June 30, 1999. The antenna modifications are in compliance with the exception criteria in Section 16-50j-72 (c) of the Regulations of Connecticut State Agencies as changes to an existing non-facility site that have received all municipal zoning approvals and building permits that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequency electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. The acknowledged change of antennas has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequency now used on this tower. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/RKE/tsg

c: Honorable Robert J. Chatfield, First Selectman, Town of Prospect

© Bell Atlantic Mobile

20 Alexander Drive
 P.O. Box 5029
 Wallingford, CT 06492-2430
 203-269-8858

RECEIVED

JUL - 1 1999



June 30, 1999

HAND DELIVERED

CONNECTICUT
 SITING COUNCIL

Mr. Mortimer A. Gelston, Chairman
 Connecticut Siting Council
 10 Franklin Square
 New Britain, Connecticut 06051

Re: Bell Atlantic Mobile – Prospect Cell Site

Dear Mr. Gelston:

Cellco Partnership d/b/a Bell Atlantic Mobile (the "Company") plans to install cellular antennas and related equipment at the tower facility in Prospect owned by SBA Towers, Inc. of Boca Raton, Florida. Please accept this letter as notice of intent, pursuant to R.C.S.A. Section 16-50j-73, of the placement of associated equipment on an existing non-facility tower pursuant to R.C.S.A. Section 16-60j-72(c). In further compliance with R.C.S.A. Section 16-50j-73, a copy of this letter is being sent to the Mayor of Prospect.

The existing non-facility tower is 160' steel monopole tower located at 178 New Haven Road, Prospect, Connecticut. The monopole tower supports several Springwich Cellular Limited Partnership ("Springwich") and Nextel antennas, which provide mobile communications service to the public pursuant to a FCC license. The Company plans to install twelve panel-type cellular antennas and one G.P.S. antenna on the tower. The Company will also install a single story, approximately 12' x 30' equipment building which will contain radio transmission equipment. In addition, Bell Atlantic Mobile will install a diesel generator for emergency use. The generator will be installed following receipt of the required DEP permit.

The addition of Bell Atlantic Mobile's antennas and equipment to the tower site does not constitute a substantial environmental affect since such additions do not cause a significant change or alteration in the physical and environmental characteristics of the site (see attached site plan). Rather, the planned changes to the existing non-facility tower falls squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72 (c).

First, the height of the existing tower will be unaffected. Twelve antennas, Model Allgon ALP 8013 will be mounted, four per sector on a triangular platform to be attached to the tower. The center of radiation will be 132' AGL. The G.P.S. antenna will be mounted from the tower. The tower will not require any structural modification to support the proposed attachments.

Second, the proposed addition will not extend the site boundaries. The proposed equipment building will be located at the base of the tower within the tower compound area on a parcel of land which will be leased to Bell Atlantic Mobile (see attached site plan).

Third, the proposed addition will not increase the noise levels at the existing compound facility by six decibels or more.

Fourth, operation of the antennas will not increase the total frequency electromagnetic radiation power density, measured at the tower base, to a level at or above the applicable ANSI standards. An application to the Connecticut Siting Council was submitted by Springwiche Cellular Limited Partnership on September 11, 1998 for tower sharing summarizing the power densities at the site for Nextel and Springwiche. BAM has included these power densities in its calculation as shown below. "Worst-case" exposure calculations for a point at the base of the tower in relation to operation of each of BAM's, Springwiche's and Nextel's antenna arrays are as follows:

	<u>Applicable ANSI Stnd</u>	<u>Calculated "Worst-Case"</u>	<u>Percentage of Stnd</u>
BAM	0.583 mW/cm ²	0.0392 mW/cm ²	6.72%
Springwiche	0.5867 mW/cm ²	0.0302 mW/cm ²	5.15%
Nextel	0.5673 mW/cm ²	0.0353 mW/cm ²	6.22%

The collective "worst-case" exposure would be only 18.09% of the ANSI standard, as calculated for mixed frequency sites. Power density levels from shared use of the tower facility would thus be well below applicable ANSI standards.

Finally, the owner of the tower, SBA Towers, Inc., has received the necessary municipal approvals and permits for the project. In addition, BAM has received a zoning permit for its installation at this site. (see attached permits).

For the foregoing reasons, Bell Atlantic Mobile seeks a ruling that its proposed additions to the non-facility tower would not cause a significant change or alteration in the physical and environmental characteristics of the site pursuant to R.C.S.A. Section 16-50j-72 (c)(1). The Company further submits that the changes comply with R.C.S.A. Section 16-50j-72 (c), (2) through (5) and therefore request a determination that the placement of the antennas and equipment on the existing non-facility tower site does not constitute a substantial environmental effect under R.C.S.A. Section 16-50j-72 (c).

Thank you for your consideration of this matter.

Mr. Mortimer A. Gelston
June 30, 1999
Page 3

Pursuant to Connecticut General Statutes Sec. 16-50v-1(a) of the Regulations of Connecticut State Agencies, BAM has enclosed a check in the amount of \$500.00 for the required filing fee.

Very truly yours,

Sandy M. Carter

Sandy M. Carter
Manager – Regulatory
Bell Atlantic Mobile

Attachments

cc: Honorable Robert J. Chatfield, Town of Prospect

DATE ISSUED 6-30-99

NO 5997

ZONING PERMIT

PLANNING & ZONING COMMISSION

TOWN OF PROSPECT, CONNECTICUT

(BELL ATLANTIC MOBIL AS APPLICANT)

NAME OF PROPERTY OWNER VICTOR J. VISOCKIS, JR

LOCATION OF PROPERTY 178 NEW HAVEN ROAD - SBA TELECOMMUNICATION TOWER

ZONE RA1 LOT NO. _____

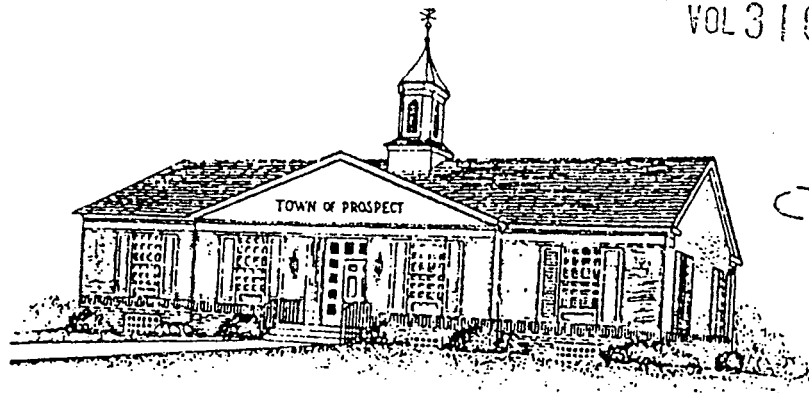
PERMITTED USE TELECOMMUNICATIONS FACILITY

BY *William Donovan*
ZONING ENFORCEMENT OFFICER

**CONSTRUCTION MAY NOT PROCEED UNTIL
A BUILDING PERMIT HAS BEEN OBTAINED**

filed 6/23/

CT 8779

**PROSPECT PLANNING & ZONING COMMISSION**

36 CENTER STREET
PROSPECT, CONNECTICUT 06712-1699

NOTICE OF APPROVAL

Date of Notice: May 22, 1998
Date of Approval: May 20, 1998
Property Owner: Victor J. Visockis, Rosemary S. Visockis, and Victor J. Visockis, Jr.
Property Location: 178 New Haven Road

RESOLVED TO APPROVE, request for Special Permit under Section 300 for a Telecommunications Tower, on property located at **178 New Haven Road** in a residential zone and accessed from Kluge Road. Owner: Victor J. Visockis, Rosemary S. Visockis, & Victor J Visockis, Jr. Authorized agent: SBA, Inc., 125 Shaw Street, Suite 116, New London, CT 06320.
PROVIDED THAT:

1. The height of the tower will be 160 feet above ground level. Antennae or other mounted equipment will not exceed the height of the tower.
2. The tower must be located a distance from the property at least equal to the tower's height. No structures, other than those associated with the operation of the facility, will be permitted within the "fall zone" of the proposed tower. The "fall zone" will consist of the area 160 feet from the center point of the tower in all directions.
3. Utility installations to the property will be below ground. Utility connections from the property line to the proposed installation will be below ground.
4. Prior to the initiation of any construction activity or the issuance of a Zoning Permit, all erosion and sedimentation control measures shall be properly installed and fully functioning, and said measures shall be maintained in effective condition throughout the construction process.

Schedule "A" 1

To all People to whom these Presents shall come-GREETING:

Know Ye, That I, VINCENT VISOCKIS aka WILLIAM VISOCKIS, of the Town of Prospect County of New Haven, State of Connecticut

For the consideration of a valuable sum in dollars, received to my full satisfaction of Victor J. Visockis, also of said Prospect

do by these presents remise, release and forever QUIT CLAIM unto the said Victor J. Visockis, his heirs and assigns forever, all right, title, interest, claim and demand whatever, which I

and described as follows: FIRST PIECE: That certain piece or parcel of land situated in the Town of Prospect, New Haven County, Connecticut, bounded and described as follows: Northerly by the Naugatuck water Company; Easterly by the Old Prospect Bethany Town Road; Southerly and Westerly by the New State Highway from Prospect to Bethany.

Said parcel of land containing about 1/2 acre, more or less, and lying between the Old Road and the new Highway known as the Waterbury-Prospect-Bethany State Road. For further reference, see Volume 12, Pg. 142 of Prospect Land Records. SECOND PIECE: That certain piece of land in Town of Prospect, containing 10 3/4 acres, more or less and bounded: NORTH - by William E. Kimball; East - by Chauncey Allen; South - on Anthony Willkavitvh; and West - on highway.

For further reference, see Vol. 10, Pg. 44 of the Prospect Land Records. THIRD PIECE: One certain tract of land with all the improvements thereon, situated in said Prospect, containing 76 acres, more or less, bounded and described as follows: NORTHERLY - on land of the Naugatuck Water Company; EASTERLY - on Highway and land formerly of Est. of Theodore Allen; SOUTHERLY - on land of Naugatuck Water Co. and an Old Highway now abandoned; WESTERLY - on land of Naugatuck Water Co. and a discontinued Highway.

Together with the right to use water for cattle as reserved in deed from Theodore Allen to the Naugatuck Water Co., recorded in Prospect Land Records, Vol. 8, Pg. 296 and a Right of Passway over a discontinued highway lying on the westerly side of the land herein described. For further reference, see Vol. 15, Pg. 216 of the Prospect Land Records. Excepting from the above said piece that certain piece or parcel of land with all the improvements thereon which was conveyed by the above named Grantor to Vincent E. Visockis, Jr. by deed dated May 23, 1952, and recorded in Vol. 23, Pg. 123 of Prospect Land Records. The Grantor reserves the life use of the above described premises for himself and his wife, Marcella Visockis.

As part consideration for this Deed, it is hereby agreed that the said Grantee, Victor J. Visockis, shall pay all taxes levied on said property, real and personal now on said farm, and all said taxes, including said other taxes, charges and assessments, which shall be levied on said property, real and personal, and the said Grantee, Victor J. Visockis, shall no waste nor permit the same to be committed in said farm, and the said Grantee, Victor J. Visockis, shall maintain and to hold the premises, with all the appurtenances, unto the said Releasee his heirs and assigns forever, so that neither I

under me the said Releasor nor my heirs, nor any person or Title, in or to the premises, or any part thereof; but therefrom I am or them, shall hereafter have any Claim, Right and they are by these presents forever barred and secluded, as aforesaid.

In Witness Whereof, I have hereunto set my hand and seal, this 12th day of May A. D. 19 54 Signed, sealed and delivered in the presence of ALBERT J. BRONSKY SYLVIA R. MARANKAUSKAS VINCENT VISOCKIS (L.S.)

and support and provide medical attention for his parents, the said Vincent Visockis and Marcella Visockis, during the term of their natural lives.

DOCUMENTARY STAMPS amounting to \$6.05 affixed and cancelled. STATE OF CONNECTICUT, WATERBURY COUNTY OF NEW HAVEN, MAY 12 A. D. 19 54

Personally appeared VINCENT VISOCKIS aka WILLIAM VISOCKIS Signer and Sealer of the foregoing instrument, and acknowledged the same to be his free act and deed, before me.

ALBERT J. BRONSKY Justice of the Peace, Notary Public, Commissioner of the Superior Court for New Haven County.

Received for Record May 17 19 54 at 3 h 56 m P. M., and recorded by me. Melba R. Merriam Town Clerk.

- 5. An accessway, at least 15 feet wide and secured by a gate and/or other means will be maintained for passage of police, fire or other emergency equipment. Additional security fencing will be installed at the facility.
- 6. The applicant, agent, successor or assigns shall comply with all applicable requirements of Zoning and Building Regulations not referenced herein, unless otherwise specifically required by FCC regulation.
- 7. The above-listed agent will be responsible for, and ensure his facility and his tenants comply with all relative FCC standards and guidelines for wireless facilities. Upon termination of the lease, or should the agent abandon use of the facility, SBA, Inc. as agent, will remove all apparatus and above-ground structures from the site and restore the leased space to its original condition.

Reasons: In granting the above special permit, the Planning & Zoning Commission of the Town of Prospect wishes to state upon its records that in the Commission's judgement, the subject project complies with Zoning regulation and satisfies FCC mandate.

See Attached Schedule "A": Land Record Volume 20 Page 294

Edward Miller
 Edward Miller (m)
 Chairman

PROSPECT, CONN.
 TOWN CLERKS OFFICE
 RECEIVED FOR RECORD
 98 JUN -1 PM 1:07
 001056
 TOWN CLERK

© Bell Atlantic Mobile

20 Alexander Drive
P.O. Box 5029
Wallingford, CT 06492-2430
203-269-8858



June 30, 1999

Honorable Robert J. Chatfield
Mayor
Town of Prospect
Town Office Building
36 Center Street
Prospect, Connecticut 06712

Dear Mr. Chatfield:

This letter is to inform you that Cellco Partnership d/b/a Bell Atlantic Mobile plans to install antennas and associated equipment at the existing tower facility located at 178 New Haven Road, Prospect, Connecticut. As required by Section 16-50j-73 of the Regulations of the Connecticut State Agencies (R.C.S.A.), please accept this letter to the Connecticut Siting Council as notice of intent of the placement of the associated equipment on an existing non-facility tower pursuant to R.C.S.A. Section 16-50j-72 (c).

The attached letter fully sets forth the Company's proposal. However, if you have any questions or require any further information on the plans for this site or the Siting Council's procedures, please contact the undersigned at (203) 294-8519 or Mr. Joel Rinebold, Executive Director of the Connecticut Siting Council, at (860) 827-2935.

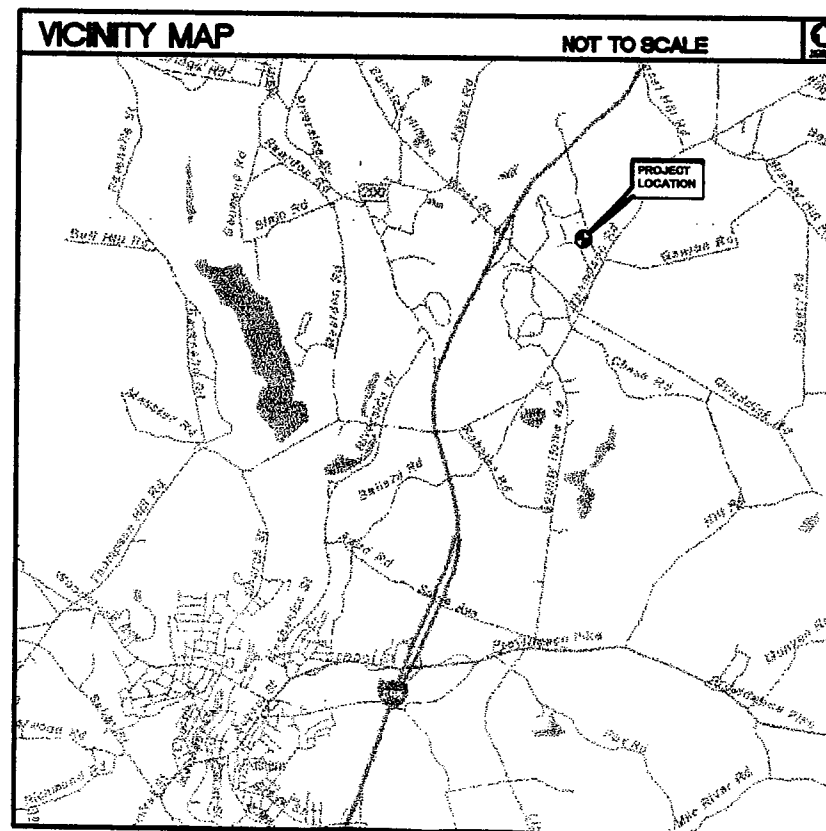
Sincerely,

Sandy M. Carter
Sandy M. Carter
Manager - Regulatory
Bell Atlantic Mobile

Enclosure

Bell Atlantic Mobile WIRELESS COMMUNICATIONS FACILITY

PROSPECT 178 NEW HAVEN ROAD PROSPECT, CONNECTICUT



REVISIONS		
00	08/28/99	CT SITING COUNCIL
01		
02		
03		
04		
05		
06		
07		
08		




 Natcomm, L.L.C. Engineering Consultants
 Natcomm, L.L.C.
 65-2 North Branford Road
 Branford, Connecticut 06405
 Tel: (203) 468-0580
 Fax: (203) 468-0587
 Consulting Engineers-Project Management
 Site Acquisition-Communications Installations



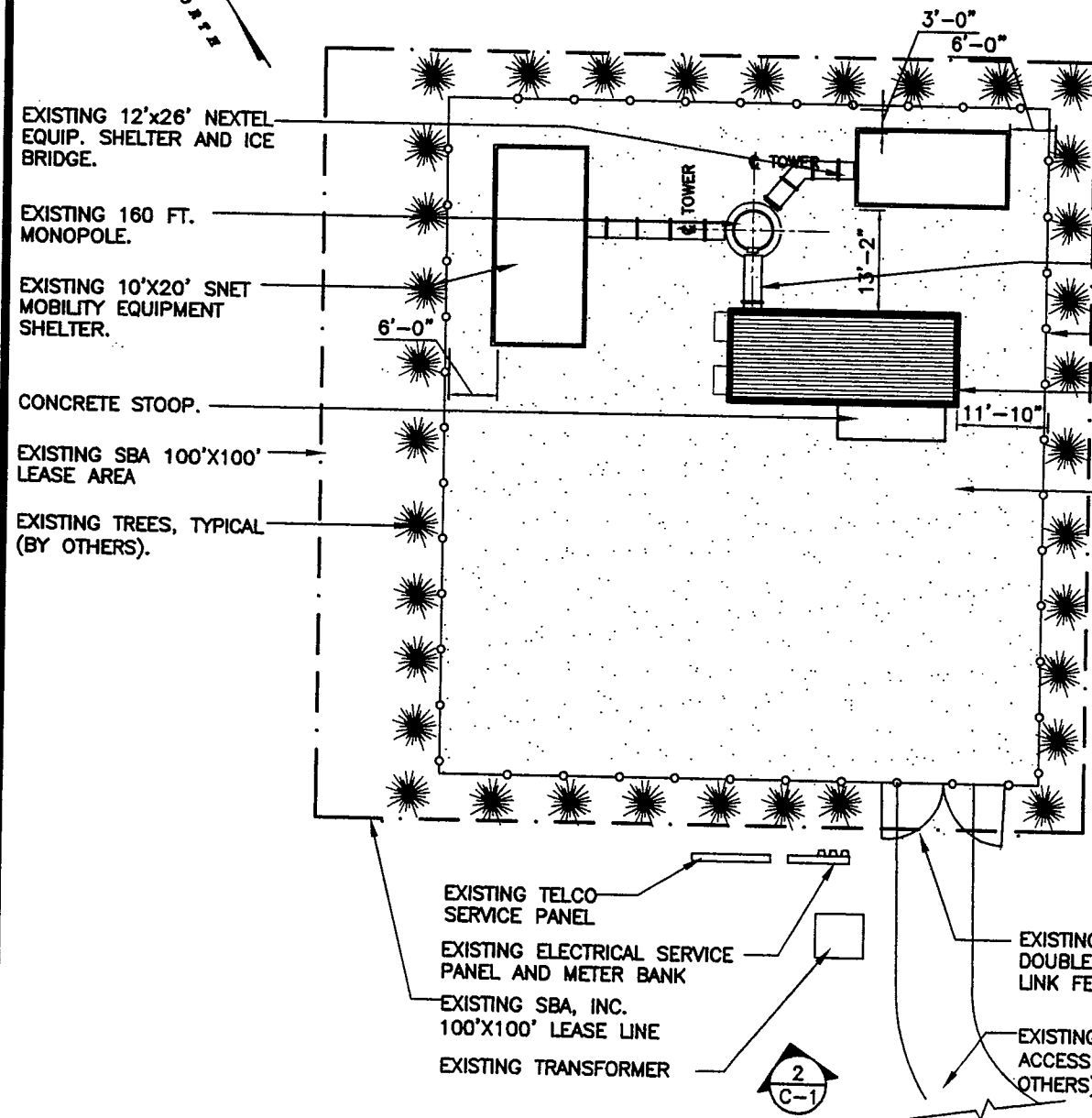
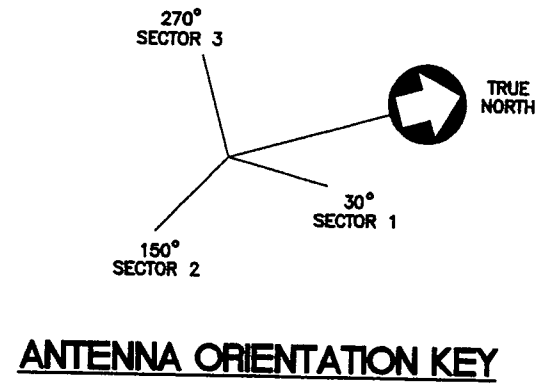
PROSPECT
BAM PROJECT
NO. 953274
 178 NEW HAVEN ROAD
 PROSPECT, CT



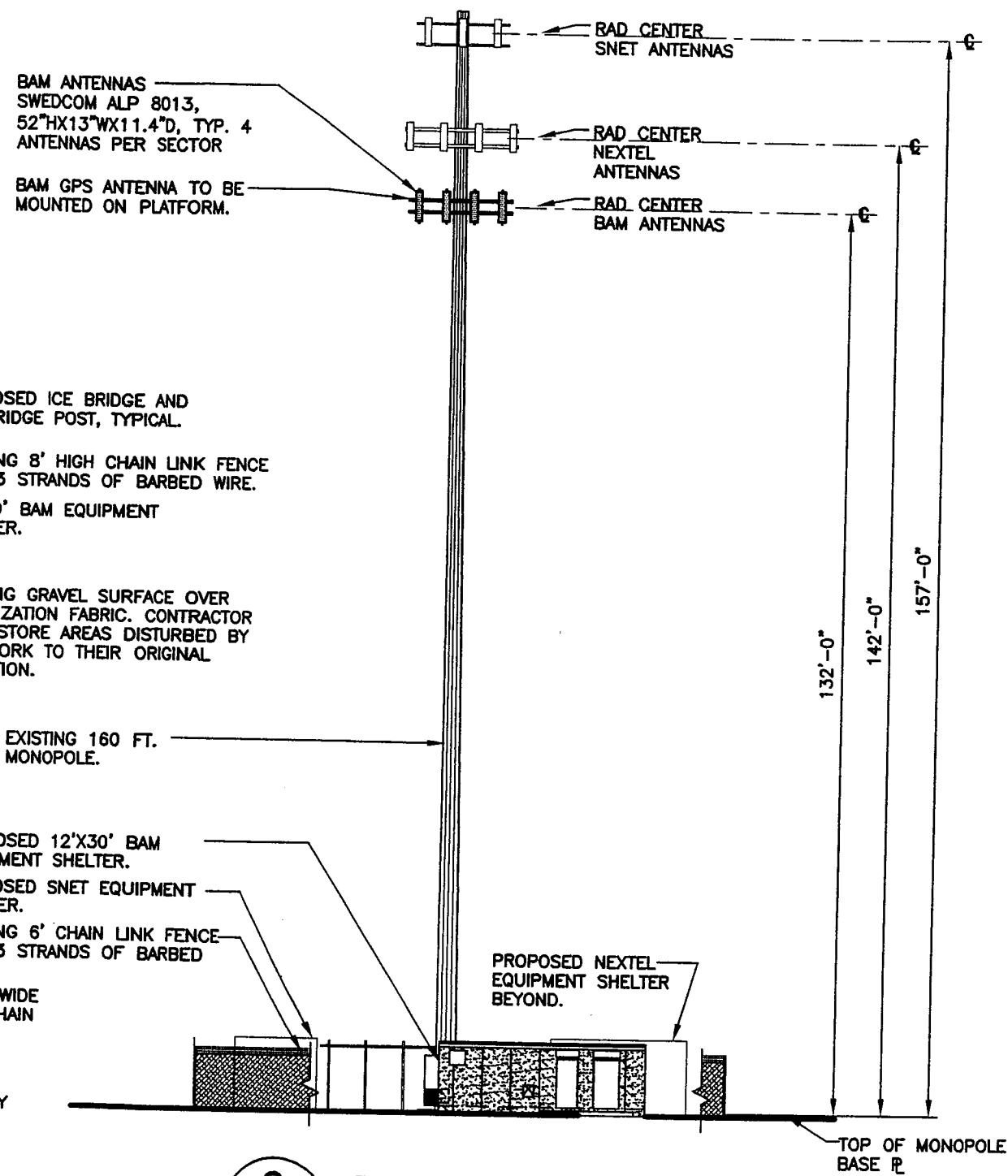
PROJECT NO:	995175
DRAWN BY:	CTW
CHECKED BY:	CFC
SCALE:	NONE
DATE:	08/28/99

TITLE SHEET

T-1
 DWG. 1 OF 2

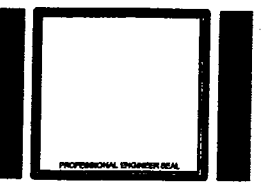
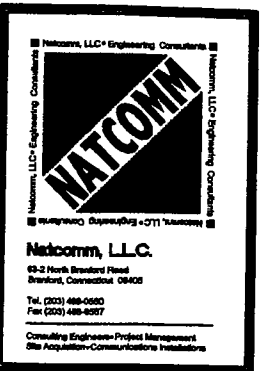


1 COMPOUND PLAN
C-1 SCALE: NOT TO SCALE



2 TOWER ELEVATION
C-1 SCALE: NOT TO SCALE

REVISIONS		
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PROSPECT
BAM PROJECT
NO. 993274
178 NEW HAVEN ROAD
PROSPECT, CT



PROJECT NO:	995175
DRAWN BY:	CTW
CHECKED BY:	CFC
SCALE:	AS NOTED
DATE:	08/28/99

SITE PLAN & ELEVATION

C-1
DWG. 2 OF 2

ATTACHMENT 2



PROSPECT CT 178 NEW HAVEN ROAD PROSPECT, CT 06712

GENERAL NOTES	
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE IBC/IBC-222 REVISION "C" STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES, 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE, AND LOCAL CODES.	11. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
2. SHOULD ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH ANY AFFECTED WORK.	12. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
3. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.	13. ANY AND ALL ERRORS, DISCREPANCIES, AND "MISSED" ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO "EXTRA" WILL BE ALLOWED FOR MISSED ITEMS.
4. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.	14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
5. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.	15. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
6. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, AND ALL TRADES AS APPLICABLE. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.	16. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
7. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.	17. COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.	18. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB- CONTRACTORS FOR ANY CONDITION PER THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING BUILDING'S/PROPERTY'S OPERATIONS, COORDINATE WORK WITH BUILDING/PROPERTY OWNER.	19. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
10. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANTIAL TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.	20. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED PRIOR TO ANY EXCAVATION WORK. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.

SITE DIRECTIONS	
FROM: 20 ALEXANDER DRIVE WALLINGFORD, CONNECTICUT	TO: 178 NEW HAVEN RD. PROSPECT, CT 06712
1. START OUT GOING NORTH ON ALEXANDER DR TOWARD BARNES INDUSTRIAL RD.	0.18 MI
2. TURN RIGHT ONTO BARNES INDUSTRIAL RD.	0.11 MI
3. TAKE FIRST LEFT ONTO CT-68.	4.35 MI
4. TURN LEFT ONTO S MERIDEN RD/CT-70/CT-68. CONTINUE TO FOLLOW CT-70/CT-68.	1.24 MI
5. TURN RIGHT ONTO S MAIN ST/CT-10/CT-70/CT-68.	0.15 MI
6. TURN LEFT ONTO MAIN ST/CT-70/CT-68.	0.29 MI
7. TURN LEFT ONTO W MAIN ST/CT-70/CT-68.	1.40 MI
8. TURN LEFT ONTO PROSPECT RD/CT-68. CONTINUE TO FOLLOW CT-68.	2.36 MI
9. TURN LEFT ONTO TALMADGE HILL RD.	1.27 MI
10. TURN LEFT ONTO NEW HAVEN RD/CT-69.	0.50 MI
11. 178 NEW HAVEN RD, PROSPECT, CT 06712-1628, 178 NEW HAVEN RD.	



PROJECT SUMMARY	
1. THE PROPOSED UPGRADE SCOPE OF WORK AT THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY GENERALLY INCLUDES THE FOLLOWING:	
A. AT THE EXISTING MONOPOLE TOWER MOUNTED ANTENNA SECTORS:	
<ul style="list-style-type: none"> PERFORM MOUNT MODIFICATIONS PER DESIGN BY OTHERS, REFERENCED HEREIN. REMOVE (1) EXISTING 1-5/8" COAXIAL CABLE. REMOVE (6) EXISTING NOKIA RADIOS. REMOVE (1) EXISTING OVP-6 BOX. RETAIN (6) EXISTING ANDREW - SBNHH-1D65B ANTENNAS. RETAIN (6) EXISTING DECIBEL PRODUCTS - DB844682AXXH ANTENNAS. RETAIN (6) EXISTING 1-5/8" CDMA COAXIAL CABLES. RETAIN (5) EXISTING 1-5/8" COAXIAL CABLES. RETAIN (1) EXISTING 6x12 HYBRIFLEX CABLES. INSTALL (3) SAMSUNG - MT6407-77A ALL-IN-ONE ANTENNA/ RRUS. INSTALL (3) SAMSUNG - RF44394-25A RRUS. INSTALL (3) SAMSUNG - RF44404-13A RRUS. INSTALL (3) COMSCOPE - BASMNT-SBS-1-2 ANTENNA MOUNTS. INSTALL (1) 6x12 HYBRIFLEX LI CABLE. INSTALL (1) OVP-12 BOX. 	

PROJECT INFORMATION	
SITE NAME:	PROSPECT CT
SITE ADDRESS:	178 NEW HAVEN RD. PROSPECT, CT 06712
LESSEE/TENANT:	CELLO PARTNERSHIP d.b.a. VERIZON WIRELESS 20 ALEXANDER DRIVE WALLINGFORD, CT 06492
CONTACT PERSON:	WALTER CHARCZNSKI (CONSTRUCTION MANAGER) VERIZON WIRELESS (860) 306-1806
ENGINEER:	CENITEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT 06405 (203) 498-0580
PROJECT COORDINATES:	LATITUDE: 41°-28'-20.2008" N LONGITUDE: 72°-58'-17.2488" W COORDINATES BASED ON VERIZON WIRELESS RFDS, DATED JULY 22, 2021.

SHEET INDEX		
SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	0
N-1	NOTES AND SPECIFICATIONS	0
B-1	RF BILL OF MATERIALS	0
C-1	COMPOUND PLAN AND ELEVATION	0
C-2	ANTENNA SECTOR CONFIGURATION DETAILS	0
C-3	RF DETAILS	0
E-1	ELECTRICAL DETAILS AND SPECIFICATIONS	0

PROFESSIONAL ENGINEER SEAL

CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION
GENERAL DRAWINGS - ISSUED FOR CLIENT REVIEW

www.CenitekEng.com

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CENITEK ENGINEERING
Construction Solutions

PROSPECT CT
178 NEW HAVEN ROAD
PROSPECT, CT 06712

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Celco Partnership d/b/a Verizon Wireless

DATE: 10/06/21
SCALE: AS NOTED
JOB NO. 2100730

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CENITEK ENGINEERING

TITLE SHEET

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T-1

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Sheet No. 1 of 1

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NOTES AND SPECIFICATIONS

DESIGN BASIS:

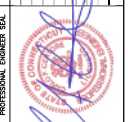
GOVERNING CODE: 2015 INTERNATIONAL BUILDING (IBC) AS MODIFIED BY THE 2018 CT STATE BUILDING CODE AND AMENDMENTS.

1. DESIGN CRITERIA:
 - RISK CATEGORY: II (BASED ON TABLE 1604.5 OF THE 2015 IBC)
 - NOMINAL DESIGN SPEED (TOWER): 97 MPH (Wind) (EXPOSURE B/IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-10) PER 2015 INTERNATIONAL BUILDING CODE (IBC) AS MODIFIED BY THE 2018 CONNECTICUT STATE BUILDING CODE.
 - SEISMIC LOAD (DOES NOT CONTROL): PER ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES.

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE GOVERNING BUILDING CODE.
2. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
3. BEFORE BEGINNING THE WORK, THE CONTRACTOR IS RESPONSIBLE FOR MAKING SUCH INVESTIGATIONS CONCERNING PHYSICAL CONDITIONS (SURFACE AND SUBSURFACE) AT OR CONTIGUOUS TO THE SITE WHICH MAY AFFECT PERFORMANCE AND COST OF THE WORK.
4. DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST EXISTING FIELD CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES AND ANCHOR BOLTS AS REQUIRED BY ALL TRADES.
6. ALL DIMENSIONS, ELEVATIONS, AND OTHER REFERENCES TO EXISTING STRUCTURES, SURFACE, AND SUBSURFACE CONDITIONS ARE APPROXIMATE. NO GUARANTEE IS MADE FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS, ELEVATIONS, ANGLES WITH EXISTING CONDITIONS AND WITH ARCHITECTURAL AND SITE DRAWINGS BEFORE PROCEEDING WITH ANY WORK.
7. AS THE WORK PROGRESSES, THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONDITIONS WHICH ARE IN CONFLICT OR OTHERWISE NOT CONSISTENT WITH THE CONSTRUCTION DOCUMENTS AND SHALL NOT PROCEED WITH SUCH WORK UNTIL THE CONFLICT IS SATISFACTORILY RESOLVED.
8. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING AND MAINTAINING ADEQUATE SHORING, BRACING, AND BARRICADES AS MAY BE REQUIRED FOR THE PROTECTION OF EXISTING PROPERTY, CONSTRUCTION WORKERS, AND FOR PUBLIC SAFETY.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING SITE OPERATIONS, COORDINATE WORK WITH NORTHEAST UTILITIES.
10. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
11. REFER TO DRAWING T1 FOR ADDITIONAL NOTES AND REQUIREMENTS.

DATE	10/06/21
SCALE	AS NOTED
JOB NO.	21007.50



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 65-2 North Haven Road
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www.CentekEng.com

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PROSPECT CT
 178 NEW HAVEN ROAD
 PROSPECT, CT 06712

DATE:	10/06/21
SCALE:	AS NOTED
JOB NO.:	21007.50

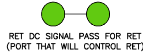
NOTES AND SPECIFICATIONS

N-1



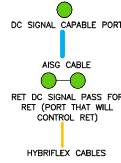
PLUMBING DIAGRAM NOTES:

1. PORTS 1 & 2 ARE FOR LOW BAND (698-896 MHz).
2. PORTS 3, 4, 5 & 6 ARE FOR HIGH BAND (1695-2360 MHz).
3. SMART BIAS TEE (SBT) IS THROUGH ANTENNA PORTS 1 & 3 FOR LOW BAND AND 1 FOR HIGH BAND.
4. AISG CABLE IS ONLY NEEDED WHEN DRAWN IN THE DIAGRAMS BELOW. IF IT IS NOT DRAWN THEN SBT IS ENOUGH TO CONTROL ALL RET MOTORS.
5. NOT ALL SBT PORTS ARE NEEDED TO CONTROL RET. ONLY GREEN PORT CONNECTION TO GREEN PORT WILL CONTROL RET.



PLUMBING DIAGRAM COMMENTS:

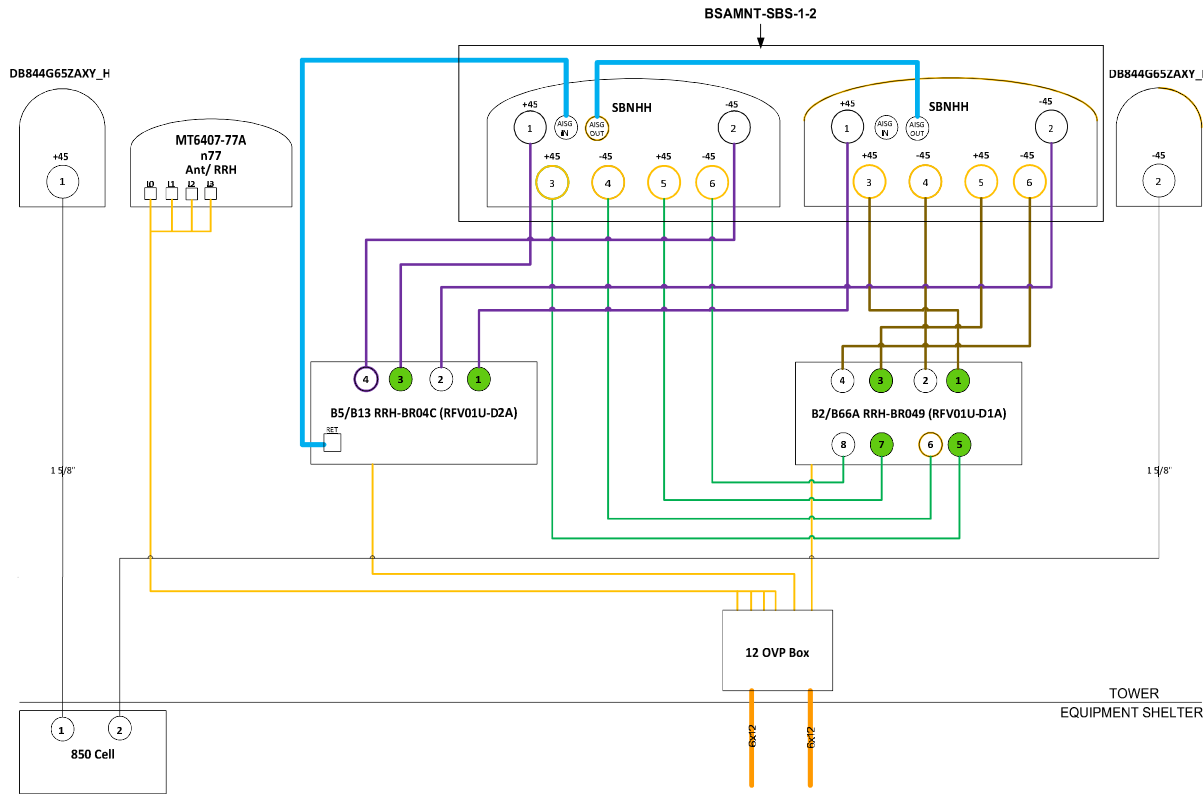
- DIAGRAMS SHOW ANTENNA PORT CONFIGURATIONS AS VIEWED FROM BELOW ANTENNAS.
- ANTENNA POSITIONS ARE INDICATED AS VIEWED FROM IN FRONT OF ANTENNAS.
- CAP AND WEATHERPROOF UNUSED ANTENNA PORTS.
- ALL PLUMBING DIAGRAM COLORS ARE IRRELEVANT EXCEPT FOR AISG AND HYBRIFLEX CABLE. (FOR THE COAX COLORS, FOLLOW COAX COLORS GUIDE ABOVE)



NOTES:

- INFORMATION SHOWN HEREIN IS FOR USE BY VERIZON WIRELESS EQUIPMENT OPERATIONS.
- THIS B.O.M. DRAWING IS BASED OFF FACILITY UPGRADE DESIGN DRAWINGS PREPARED BY CENTEK ENGINEERING (REV.0 DATED: 10.27.21), & VERIZON WIRELESS RF ANTENNA EQUIPMENT RECOMMENDATION (DATED 07.22.21).

BILL OF MATERIALS			
TECHNOLOGY	QUANTITY	ANTENNA	
5G	3	SAMSUNG ANTENNA MODEL: MT6407-77A	
CABLES			
HYBRID CABLE	QUANTITY	LENGTH	COMMENTS
	1	±193'	6x12 HYBRIFLEX LI
RADIO			
5G	QUANTITY	COMMENTS	
	3	SAMSUNG MODEL: MT6407-77A	
1900 LTE	3	SAMSUNG MODEL: RF44398-25A	
2100 AWS LTE			
700 LTE			
850 LTE 5G	3	SAMSUNG MODEL: RF44408-13A	
DIPLEXERS			
	QUANTITY	COMMENTS	
	-	-	-
OVP BOXES			
OVP-12	QUANTITY	COMMENTS	
	1	RAYCAP MODEL: RHSDC-6627-PF-48	
ANTENNA MOUNT			
SIDE-BY-SIDE MOUNTING KIT	QUANTITY	COMMENTS	
	3	COMMSCOPE MODEL: BSAMNT-SBS-1-2	



PROFESSIONAL ENGINEER SEAL

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 0203 868-6387 Fax
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 North Haven, CT 06460
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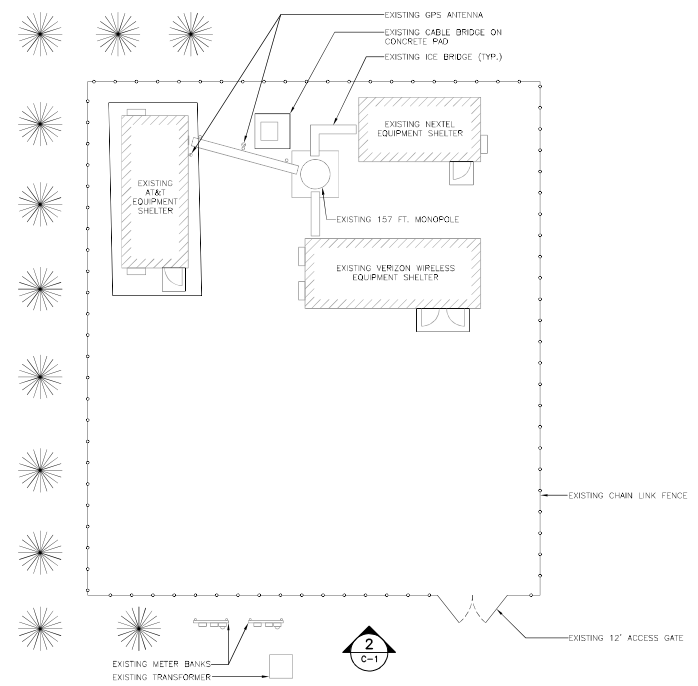
PROSPECT CT
 178 NEW HAVEN ROAD
 PROSPECT, CT 06712

DATE: 10/06/21
 SCALE: AS NOTED
 JOB NO. 21007.50

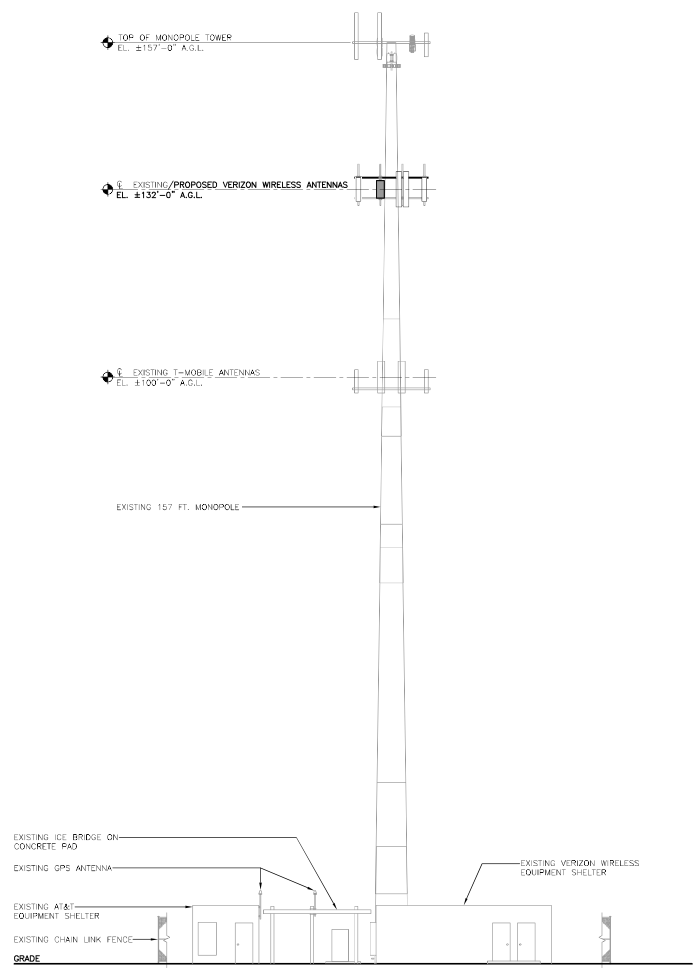
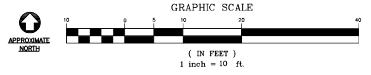
RF BILL OF MATERIALS

B-1
 Sheet No. 2 of 1

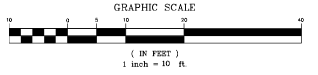
TOWER STRUCTURAL ANALYSIS REFERENCE NOTE
 REFER TO HAVING TOWER STRUCTURAL ANALYSIS REPORT PREPARED FOR S&B COMMUNICATIONS CORP. BY TOWER ENGINEERING SOLUTIONS, PEO, JUNE 10/11/2021. THE PROJECT NUMBER 117121.



1 COMPOUND PLAN
 SCALE: 1" = 10'
 C-1

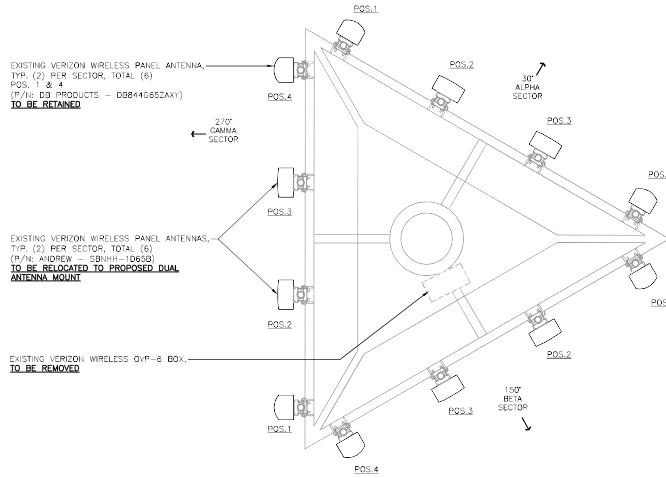


2 SOUTH COMPOUND ELEVATION - PROPOSED
 SCALE: 1" = 10'
 C-1



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CENTEK Engineering <small>Contractors & Builders</small> (203) 466-6360 (203) 466-6367 Fax 65-2 North Ironwood Road Meriden, CT 06465 www.CentekEng.com	
Cellco Partnership d/b/a Verizon Wireless PROSPECT CT 178 NEW HAVEN ROAD PROSPECT, CT 06712	
DATE:	10/06/21
SCALE:	AS NOTED
JOB NO.:	2100730
COMPOUND PLAN AND ELEVATION	
C-1	
Sheet No. <u>4</u>	of <u>1</u>

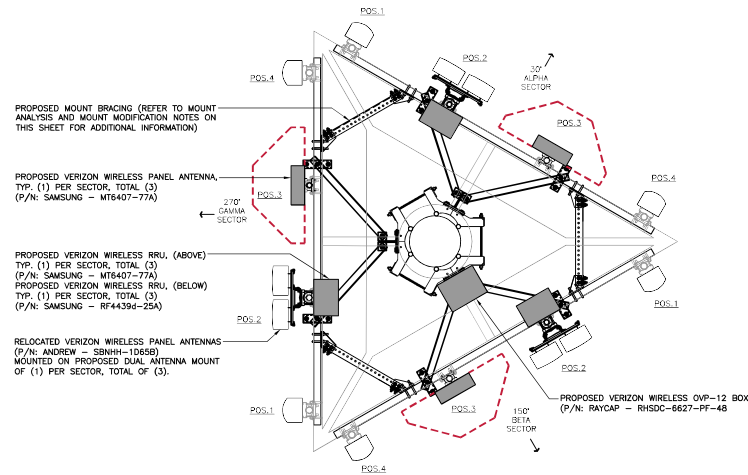
EXISTING ANTENNA CONFIGURATIONS



1
C-2
EXISTING SECTOR CONFIGURATION PLAN
SCALE: 1/2" = 1'-0"



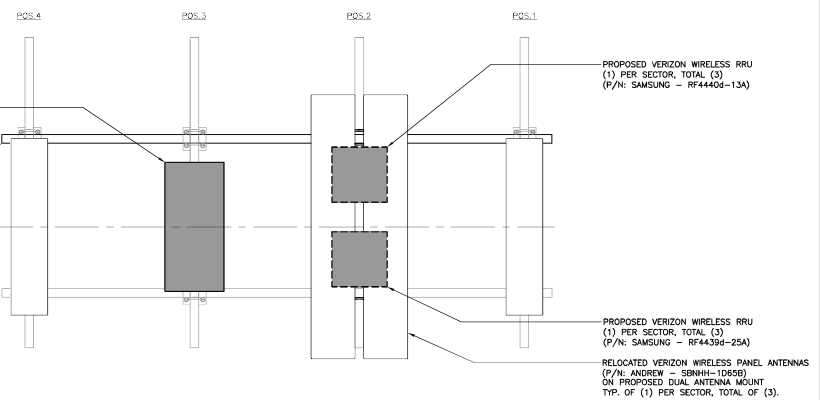
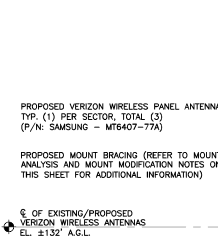
PROPOSED ANTENNA CONFIGURATIONS



2
C-2
PROPOSED SECTOR CONFIGURATION PLAN
SCALE: 1/2" = 1'-0"



LEGEND	
	VERIZON WIRELESS MT6407-77A REQUIRED ANTENNA CLEARANCE LIMITS (PER DETAILS ON SHEET C-3)
ANTENNA CLEARANCE STATUS	ALPHA SECTOR: COMPLIANT BETA SECTOR: COMPLIANT GAMMA SECTOR: COMPLIANT



2A
C-2
PROPOSED SECTOR CONFIGURATION ELEVATION
SCALE: 1/2" = 1'-0"

ANTENNA MOUNT ANALYSIS AND MOD NOTES:

- REFER TO PASSING VERIZON WIRELESS MOUNT ANALYSIS REPORT PREPARED BY MASER CONSULTING CONNECTICUT DATED 8/11/2021 FOR ADDITIONAL INFORMATION.
- REFER TO FINAL VERIZON WIRELESS MOUNT MODIFICATION DESIGN PREPARED BY MASER CONSULTING CONNECTICUT DATED 8/11/2021 FOR ANTENNA MOUNT MODIFICATIONS.

PROFESSIONAL ENGINEER SEAL

DATE: 10/27/21
BY: M. J. MASERA
TITLE: PROJECT MANAGER

PROSPECT CT
178 NEW HAVEN ROAD
PROSPECT, CT 06712

DATE: 10/06/21
SCALE: AS NOTED
JOB NO.: 2100750

ANTENNA SECTOR CONFIGURATION DETAILS

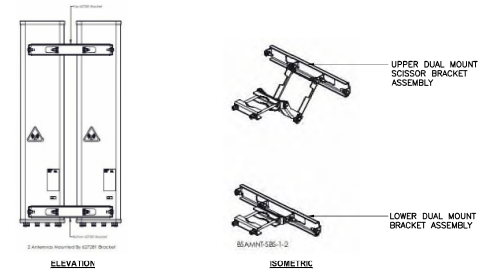
Sheet No. **C-2** of 1



ANTENNA FRONT

ALL-IN-ONE SECTOR ANTENNA		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: M76407-77A	35.1"H x 16.1"W x 5.5"D (NOT TO EXCEED)	87 LBS. (NOT TO EXCEED)
CLEARANCES AND SERVICE AREA		
TOP:	31.5"	HORIZONTAL DISTANCE: 31.5" (ANT. TO ANT.)
FRONT, SIDES & BOTTOM:	15.7"	VERTICAL DISTANCE: 63.0" (ANT. TO ANT.)
NOTES: 1. THIS ANTENNA HAS ITS OWN BUILT-IN RRH.		

1 ALL-IN-ONE SECTOR ANTENNA DETAIL
C-3 NOT TO SCALE



SIDE-BY-SIDE ANTENNA MOUNTING KIT			
MOUNT	DESCRIPTION	SUPPORTED ANTENNAS	GAP BETWEEN ANTENNAS
MAKE: COMMSCOPE MODEL: BASMNT-SBS-1-2	(2) BRACKET KIT FOR MOUNTING (2) ANTENNAS SIDE-BY-SIDE	SENH 65" AND 85" NHH 65" AND 85"	3-3/8"
NOTES: 1. MOUNT ACCOMMODATES MAST DIAMETERS FROM 2.375" TO 4.5" (O.D.). 2. CONTRACTOR TO CONFIRM MOUNT MAKE/MODEL AND QUANTITY WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.			

2 PROPOSED SIDE-BY-SIDE ANTENNA MOUNT
C-3 NOT TO SCALE



RRH - ISOMETRIC

DUAL BAND RRU (REMOTE RADIO UNIT)			
EQUIPMENT	BANDS	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: RF4439g-25A	B25: PCS (1900 MHz) B66: AWS (2100 MHz)	15.0"H x 15.0"W x 10.0"D	74.7 LBS.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.			

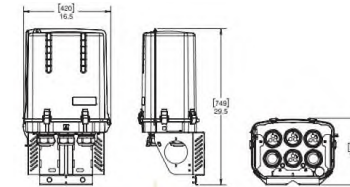
3 DUAL-BAND AWS/PCS MACRO RADIO UNIT DETAIL
C-3 NOT TO SCALE



RRH - ISOMETRIC

DUAL BAND RRU (REMOTE RADIO UNIT)			
EQUIPMENT	BANDS	DIMENSIONS	WEIGHT
MAKE: SAMSUNG MODEL: RF440d-13A	B5: 850 MHz B13: 700 MHz	15.0"H x 15.0"W x 9.0"D	70.3 LBS.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING.			

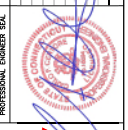
4 DUAL-BAND 700/850 MHZ MACRO RADIO UNIT DETAIL
C-3 NOT TO SCALE



OVP BOX		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: RAYCAP MODEL: RHSDC-6627-PF-48	29.5"H x 16.5"W x 12.6"D	32.0 LBS.
NOTES: 1. CONTRACTOR TO CONFIRM OVP BOX MAKE/MODEL AND QUANTITY WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO ORDERING. 2. UNIT PROVIDES DC SURGE PROTECTION FOR 12 RRH UNITS.		

5 PROPOSED OVER-VOLTAGE PROTECTION BOX
C-3 NOT TO SCALE

DATE	10/06/21
SCALE	AS NOTED
JOB NO.	2100730
RF DETAILS	
C-3	of 1



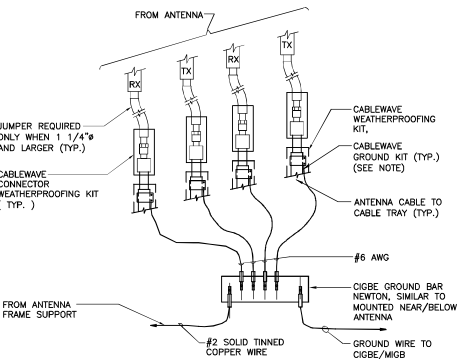
CENTEK Engineering
Contractors & Builders
2031 466-6360
2031 466-6367 Fax
652 North Branch Road
Meriden, CT 06460
www.CentekEng.com

Cellco Partnership d/b/a Verizon Wireless
PROSPECT CT
178 NEW HAVEN ROAD
PROSPECT, CT 06712

DATE: 10/06/21
SCALE: AS NOTED
JOB NO. 2100730

RF DETAILS

C-3
Sheet No. 6 of 1

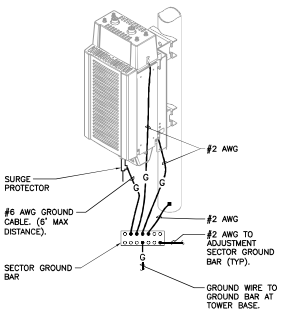


NOTES:

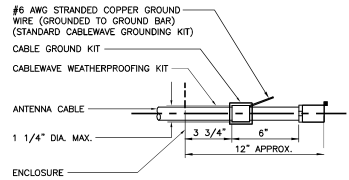
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE

1 CONNECTION OF GROUND WIRES TO GROUND BAR
E-1 NOT TO SCALE

EACH RRH CABINET SHALL BE GROUNDED IN THE FOLLOWING MANNER:



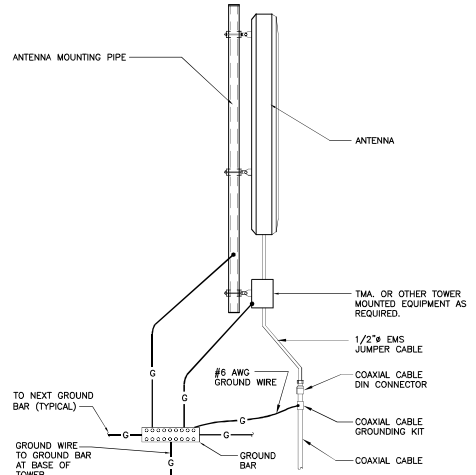
2 RRH POLE MOUNT GROUNDING
E-1 NOT TO SCALE



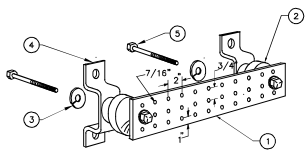
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

3 ANTENNA CABLE GROUNDING DETAIL
E-1 NOT TO SCALE



4 TYPICAL ANTENNA GROUNDING DETAIL
E-1 NOT TO SCALE



NOTES

1 TINNED COPPER GROUND BAR, 1/4" x 4" x 20", NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.

2 INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4.

3 5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8.

4 WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056.

5 5/8-11 x 1" STAINLESS STEEL TRUSS SPANNER MACHINE SCREWS.

5 GROUND BAR DETAIL
E-1 NOT TO SCALE

ELECTRICAL SPECIFICATIONS

SECTION 16010

- 1.01. SCOPE OF WORK
- A. WORK SHALL INCLUDE ALL LABOR, EQUIPMENT AND SERVICES REQUIRED TO COMPLETE (MAKE READY FOR OPERATION) ALL THE ELECTRICAL WORK INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
- CELLULAR GROUNDING SYSTEMS CONSISTING OF ANTENNA GROUNDING, GROUND BARS, ETC.
- 1.02. GENERAL REQUIREMENTS
- A. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.
- B. THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH OWNERS REPRESENTATIVE, DESIGN ENGINEER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.
- C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES THAT MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR SCHEDULING OF ALL INSPECTIONS THAT MAY BE REQUIRED BY THE LOCAL AUTHORITY.
- D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE BUILDING OWNER FOR NEW AND/OR DEMOLITION WORK INVOLVED.
- E. NO MATERIAL OTHER THAN THAT CONTAINED IN THE "LATEST LIST OF ELECTRICAL FITTINGS" APPROVED BY THE UNDERWRITERS' LABORATORIES, SHALL BE USED IN ANY PART OF THE WORK. ALL MATERIAL FOR WHICH LABEL SERVICE HAS BEEN ESTABLISHED SHALL BEAR THE U.L. LABEL.
- F. THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM THE ACCEPTANCE DATE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE OWNER.
- G. DRAWINGS INDICATE GENERAL ARRANGEMENT OF WORK INCLUDED IN CONTRACT. CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE MODIFICATIONS TO THE LAYOUT OF THE WORK TO PREVENT CONFLICT WITH WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF WORK. CHECK ALL DRAWINGS AND VISIT JOB SITE TO VERIFY SPACE AND TYPE OF EXISTING CONDITIONS IN WHICH WORK WILL BE DONE, PRIOR TO SUBMITTAL OF BID.
- H. THE ELECTRICAL CONTRACTOR SHALL SUPPLY THREE (3) COMPLETE SETS OF APPROVED DRAWINGS, ENGINEERING DATA SHEETS, MAINTENANCE AND OPERATING INSTRUCTION MANUALS FOR ALL SYSTEMS AND THEIR RESPECTIVE EQUIPMENT. THESE MANUALS SHALL BE INSERTED IN VINYL COVERED 3-RING BROTHERS AND TURNED OVER TO OWNERS REPRESENTATIVE ONE (1) WEEK PRIOR TO FINAL PUNCH LIST.
- I. ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER AND WILL BE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
- J. ALL EQUIPMENT AND MATERIALS TO BE INSTALLED SHALL BE NEW, UNLESS OTHERWISE NOTED.
- K. BEFORE FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF PRINTS (AS-BUILTS), LEGIBLY MARKED IN RED PENCIL TO SHOW ALL CHANGES FROM THE ORIGINAL PLANS.
- L. ENTIRE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH OWNER'S SPECIFICATIONS, AND REQUIREMENTS OF ALL LOCAL AUTHORITIES HAVING JURISDICTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH APPROPRIATE INDIVIDUALS TO OBTAIN ALL SUCH SPECIFICATIONS AND REQUIREMENTS. NOTHING CONTAINED IN, OR OMITTED FROM, THESE DOCUMENTS SHALL RELIEVE CONTRACTOR FROM THIS OBLIGATION.

SECTION 16450

- 1.01. GROUNDING
- A. ALL NON-CURRENT CARRYING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO PROVIDE AN INDEPENDENT RETURN PATH TO THE EQUIPMENT GROUNDING SOURCES.
- B. GROUNDING SYSTEM WILL BE IN ACCORDANCE WITH THE LATEST ACCEPTABLE EDITION OF THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS PER LOCAL INSPECTOR HAVING JURISDICTION.
- C. EQUIPMENT GROUNDING CONDUCTOR:
- EACH EQUIPMENT GROUND CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250-122.
 - THE MINIMUM SIZE OF EQUIPMENT GROUND CONDUCTOR SHALL BE #12 AWG COPPER.
- D. CELLULAR GROUNDING SYSTEM:
- PROVIDE THE CELLULAR GROUNDING SYSTEM AS SPECIFIED ON DRAWINGS, INCLUDING, BUT NOT LIMITED TO:
- GROUND BARS
 - ANTENNA GROUND CONNECTIONS AND PLATES.
- E. ALL EQUIPMENT SHALL BE BONDED TO GROUND AS REQUIRED BY N.E.C., MFG. SPECIFICATIONS, AND OWNER'S SPECIFICATIONS.

CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION	DATE	BY	CHK	APP
CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW	DATE	BY	CHK	APP
Cellco Partnership d/b/a Verizon Wireless PROSPECT CT 178 NEW HAVEN ROAD PROSPECT, CT 06712				
DATE:	10/06/21			
SCALE:	AS NOTED			
JOB NO.:	2100730			
E-1 Sheet No. 1 of 1				

SAMSUNG

AWS/PCS MACRO RADIO

DUAL-BAND AND HIGH POWER
FOR MACRO COVERAGE

Samsung's future proof dual-band radio is designed to help effectively increase the coverage areas in wireless networks. This AWS/PCS 4T4R dual-band radio has 4Tx/4Rx to 2Tx/2Rx RF chains options and a total output power of 320W, making it ideal for macro sites.

Model Code RF4439d-25A



Homepage
samsungnetworks.com

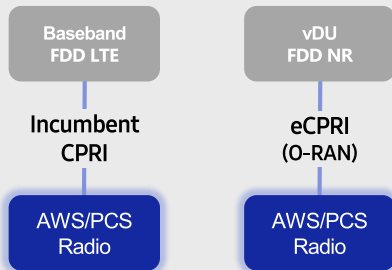


Youtube
www.youtube.com/samsung5g

Points of Differentiation

Continuous Migration

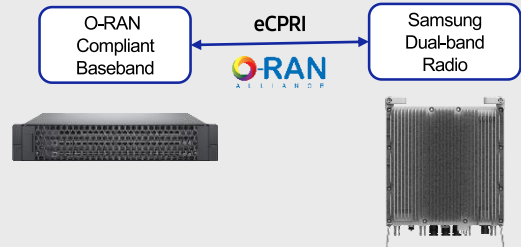
Samsung's AWS/PCS macro radio can support each incumbent CPRI interface as well as advanced eCPRI interfaces. This feature provides installable options for both legacy LTE networks and added NR networks.



O-RAN Compliant

A standardized O-RAN radio can help in implementing cost-effective networks, which are capable of sending more data without compromising additional investments.

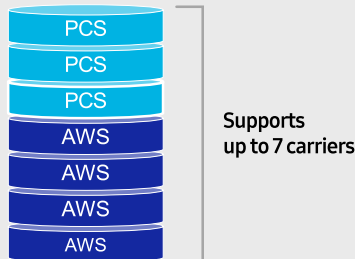
Samsung's state-of-the-art O-RAN technology will help accelerate the effort toward constructing a solid O-RAN ecosystem.



Optimum Spectrum Utilization

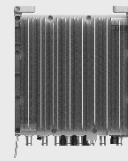
The number of required carriers varies according to site (region). Supporting many carriers is essential for using all frequencies that the operator has available.

The new AWS/PCS dual-band radio can support up to 3 carriers in the PCS (1.9GHz) band and 4 carriers in the AWS (2.1GHz) band, respectively.



Brand New Features in a Compact Size

Samsung's AWS/PCS macro radio offers several features, such as dual connectivity for baseband for both CDU and vDU, O-RAN capability, more carriers and an enlarged PCS spectrum, combined into an incumbent radio volume of 36.8L.



- 2 FH connectivity
- O-RAN capability
- More carriers and spectrum

Same as an incumbent radio volume

Technical Specifications

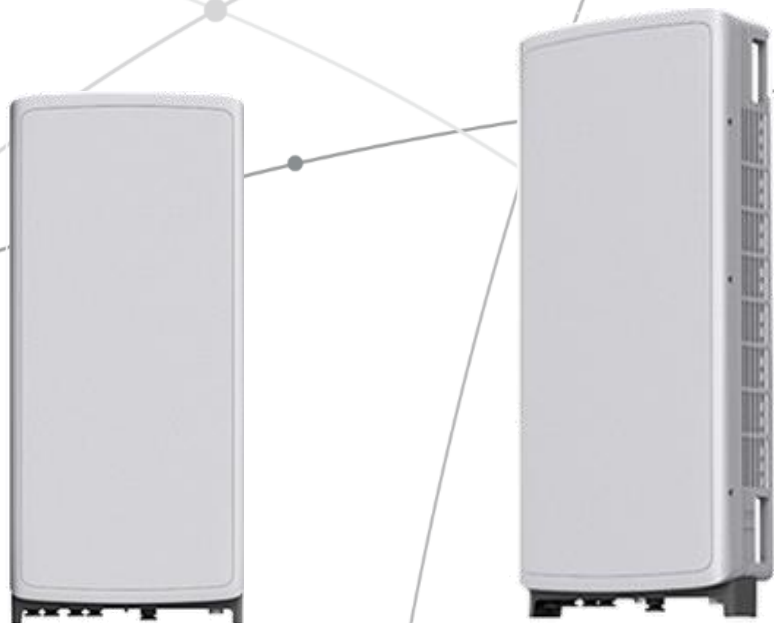
Item	Specification
Tech	LTE / NR
Brand	B25(PCS), B66(AWS)
Frequency Band	DL: 1930 – 1995MHz, UL: 1850 – 1915MHz DL: 2110 – 2200MHz, UL: 1710 – 1780MHz
RF Power	(B25) 4 × 40W or 2 × 60W (B66) 4 × 60W or 2 × 80W
IBW/OBW	(B25) 65MHz / 30MHz (B66) DL 90MHz, UL 70MHz / 60MHz
Installation	Pole, Wall
Size/ Weight	14.96 x 14.96 x 10.04inch (36.8L) / 74.7lb

SAMSUNG C-Band 64T64R Massive MIMO Radio

for High Capacity and Wide Coverage

Samsung C-Band 64T64R Massive MIMO Radio enables mobile operators to increase coverage range, boost data speeds and ultimately offer enriched 5G experiences to users in the U.S..

Model Code : MT6407-77A



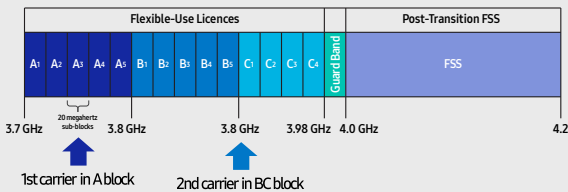
Points of Differentiation

Wide Bandwidth

With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

Samsung C-Band massive MIMO Radio covers the entire C-Band 280 MHz spectrum, so it can meet the operator's needs in current A block and future B/C blocks

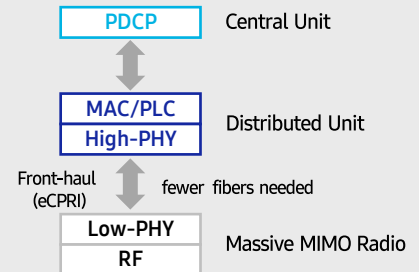
C-Band spectrum supported by Massive MIMO Radio



Future Proof Product

Samsung C-Band 64T64R Massive MIMO radio supports not only CPRI but also eCPRI as front-haul interface.

It enables operators can cut down on OPEX/CAPEX by reducing front-haul bandwidth through low layer split and using ethernet based higher efficient line.

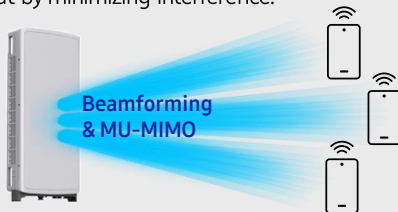


Enhanced Performance

C-Band massive MIMO Radio creates sharp beams and extends networks' coverage on the critical mid-band spectrum using a large number of antenna elements and high output power to boost data speeds.

This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

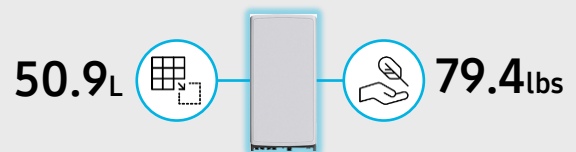
Furthermore, as C-Band massive MIMO Radio supports MU-MIMO (Multi-user MIMO), it enables to increase user throughput by minimizing interference.



Well Matched Design

Samsung C-Band Massive MIMO radio utilizes 64 antennas, supports up to 280MHz bandwidth, and delivers a 200W output power. despite the above advanced performance, the Radio has a compact size of 50.9L and 79.4lbs. This makes it easy to install the Radio.

It is designed to look solid and compact, with a low profile appearance so that, when installed, harmonizes well with the surrounding environment.



Technical Specifications

Item	Specification
Tech	NR
Band	n77
Frequency Band	3700 - 3980 MHz
EIRP	78.5dBm (53.0 dBm+25.5 dBi)
IBW/OBW	280 MHz / 200 MHz
Installation	Pole/Wall
Size/ Weight	16.06 x 35.06 x 5.51 inch (50.86L)/ 79.4 lbs



SAMSUNG



About Samsung Electronics Co., Ltd.

Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI, foundry and LED solutions.

129 Samsung-ro, Yeongtong-gu, Suwon-si Gyeonggi-do, Korea

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SAMSUNG

700/850MHZ MACRO RADIO

DUAL-BAND AND HIGH POWER
FOR MACRO COVERAGE

Samsung's future proof dual-band radio is designed to help effectively increase the coverage areas in wireless networks. This 700/850MHz 4T4R dual-band radio has 4Tx/4Rx to 2Tx/2Rx RF chains options and a total output power of 320W, making it ideal for macro sites.

Model Code RF4440d-13A



Homepage
[samsungnetworks.com](https://www.samsungnetworks.com)

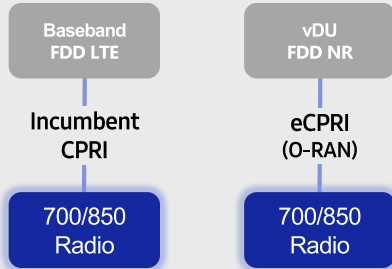


Youtube
www.youtube.com/samsung5g

Points of Differentiation

Continuous Migration

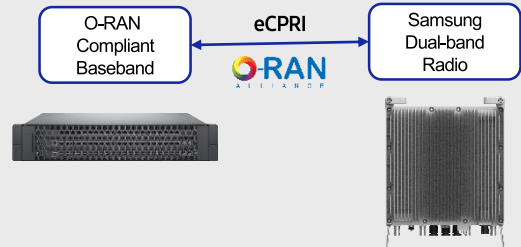
Samsung's 700/850MHz macro radio can support each incumbent CPRI interface as well as an advanced eCPRI interface. This feature provides installable options for both legacy LTE networks and added NR networks.



O-RAN Compliant

A standardized O-RAN radio can help when implementing cost-effective networks because it is capable of sending more data without compromising additional investments.

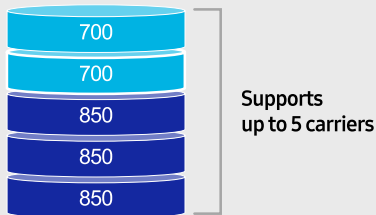
Samsung's state-of-the-art O-RAN technology will help accelerate the effort toward constructing a solid O-RAN ecosystem.



Optimum Spectrum Utilization

The number of required carriers varies according to site (region). The ability to support many carriers is essential for using all frequencies that the operator has available.

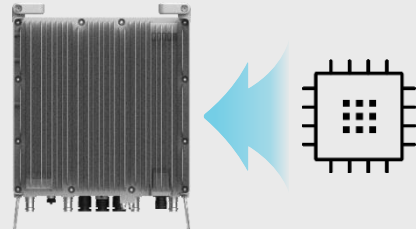
The new 700/850MHz dual-band radio can support up to 2 carriers in the B13 (700MHz) band and 3 carriers in the B5 (850MHz) band, respectively.



Secured Integrity

Access to sensitive data is allowed only to authorized software.

The Samsung radio's CPU can protect root of trust, which is credential information to verify SW integrity, and secure storage provides access control to sensitive data by using dedicated hardware (TPM).



Technical Specifications

Item	Specification
Tech	LTE / NR
Brand	B13(700MHz), B5(850MHz)
Frequency Band	DL: 746 – 756MHz, UL: 777 – 787MHz DL: 869 – 894MHz, UL: 824 – 849MHz
RF Power	(B13) 4 × 40W or 2 × 60W (B5) 4 × 40W or 2 × 60W
IBW/OBW	(B13) 10MHz / 10MHz (B5) 25MHz / 25MHz
Installation	Pole, Wall
Size/Weight	14.96 x 14.96 x 9.05inch (33.2L) / 70.33 lb

ATTACHMENT 3

	General	Power	Density					
Site Name: Prospect								
Tower Height: Verizon @ 132ft								
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	FREQ.	CALC. POWER DENS	MAX. PERMISS.EXP.	FRACTION MPE	Total
*AT&T	2	419	158	850	0.013043702	0.566666667	0.23%	
*AT&T	2	736	158	850	0.022912087	0.566666667	0.40%	
*AT&T	2	460	158	850	0.014320055	0.566666667	0.25%	
*AT&T	4	1194	158	1900	0.074339762	1	0.74%	
*AT&T	2	927	158	700	0.028858023	0.466666667	0.62%	
*Pocket (now MetroPCS)	3	631	100	2130	0.077044019	1	0.77%	
*Nextel	9	100	142	851	0.017498818	0.567333333	0.31%	
VZW 700	4	697	132	751	0.0058	0.5007	1.15%	
VZW CDMA	2	424	132	877.26	0.0017	0.5848	0.30%	
VZW Cellular	4	825	132	874	0.0068	0.5827	1.17%	
VZW PCS	4	1608	132	1977.5	0.0133	1.0000	1.33%	
VZW AWS	4	1581	132	2120	0.0130	1.0000	1.30%	
VZW CBAND	4	21627	132	3730.08	0.0893	1.0000	8.93%	
								17.51%
* Source: Siting Council								

ATTACHMENT 4



Tower Engineering Solutions

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

Structural Analysis Report

Existing 157 ft Nudd Corporation Monopole
Customer Name: SBA Communications Corp
Customer Site Number: CT00252-S
Customer Site Name: Prospect
Carrier Name: Verizon (App#: 171920-1)
Carrier Site ID / Name: 468161 / Prospect CT
Site Location: 178 New Haven Road
Prospect, Connecticut
New Haven County
Latitude: 41.472302
Longitude: -72.971597

Analysis Result:

Max Structural Usage: 99.8% [Pass]
Max Foundation Usage: 41.0% [Pass]
Additional Usage Caused by Mount Modification: +1.9%



Report Prepared By : Changzhi Zang



Tower Engineering Solutions

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

Structural Analysis Report

Existing 157 ft Nudd Corporation Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT00252-S

Customer Site Name: Prospect

Carrier Name: Verizon (App#: 171920-1)

Carrier Site ID / Name: 468161 / Prospect CT

Site Location: 178 New Haven Road

Prospect, Connecticut

New Haven County

Latitude: 41.472302

Longitude: -72.971597

Analysis Result:

Max Structural Usage: 99.8% [Pass]

Max Foundation Usage: 41.0% [Pass]

Additional Usage Caused by Mount Modification:

Report Prepared By : Changzhi Zang

Introduction

The purpose of this report is to summarize the analysis results on the 157 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	Fred A. Nudd Corporation, Project No. 6820, Original design drawing dated 05/20/1999
Foundation Drawing	Fred A. Nudd Corporation, Project No. 6820, Original design drawing dated 05/20/1999
Geotechnical Report	SAGE environmental, Inc. Geotechnical Report, dated 05/05/1998
Modification Drawings	Semaan Engineering, Inc. Project No. CT-00252S, Modification Package, dated
Mount Analysis & Mount Modification Drawing	PJF, Project #22721-0337.002.7191, dated 8/11/2021

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA- 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 $V_{ult} = 125.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 97.0$ 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:	
Structure Class:	
Topographic Category:	
Crest Height:	0 ft
Seismic Parameters:	

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
			Andrew SBNH-1D6565C 60.8# - Panel	Sector Mounts (3) Sabre C10-857-804	(12) 1 1/4" Coax (1) 1/2" Coax (1) 1/2" Fiber* * Line (1) 3" flex conduit	
			Cci HPA65R-BU8A - Panel			
			Kathrein 800-10121 - Panel			
			Powerwave LGP21901 Diplexer			
			Kathrein 860 10025 RET			
			Ericsson RRUS-11 RRU			
			Ericsson RRUS 4415 B25 RRU			
			Raycap DC6-48-60-18-8F -SP			
			Nokia CS72188.01 LMU			
			Allgan ALP9212 - Panel				(3) Sector Frame		Nextel
			Commscope - SBNHH-1D65B - Panel	14' LP Platform	(1) 1 5/8" Fiber	Verizon
			Decibel - DB844G65ZAXY - Panel			
			ALU - RRH2x60-700 -			
			ALU - RRH2x60-PCS - RRH			
			Kathrein - 742 213 - Panel	(3) Pipe Mount		T-Mobile

* (2) 3/4" DC & (1)1/2" Fiber Inside (1) 3" flex

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
			Commscope - SBNHH-1D65B - Panel	14' LP Platform Modified w/ [Support Rail Kit]	Hybird	Verizon
		6	Decibel - DB844G65ZAXY - Panel			
			Samsung - MT6407-77A - Panel			
			Samsung - RF4439d-25A_AWS-			
			Samsung - RF4440d-13A_700-850MHz - 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:			
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions			

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 0.7986 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

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

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.

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 . 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, should be notified in writing and the applicable minimum values provided by the client.

The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. 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, should be notified immediately to evaluate the effect of the discrepancy on the analysis results.

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.

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

Usage Diagram - Max Ratio 73.50% at 109.9ft

Structure: CT00252-S-SBA
Site Name: Prospect
Height: 157.00 (ft)
Base Elev: 0.000 (ft)

Code: EIA/TIA-222-G
Exposure: B
Gh: 1.1

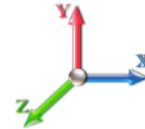
10/11/2021



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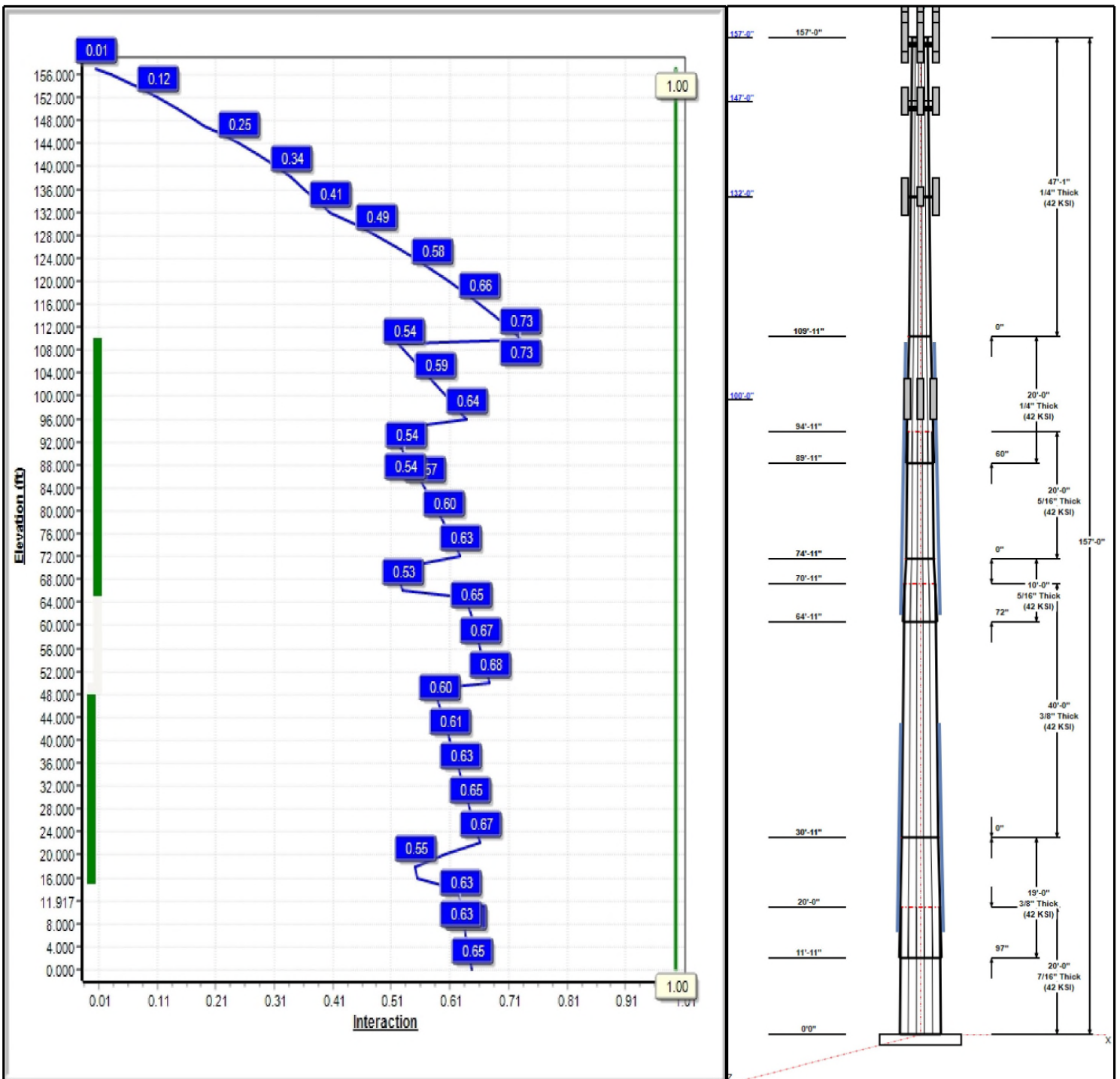
Dead Load Factor: 1.20
Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 97 mph Wind



Iterations: 24

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Structure: CT00252-S-SBA

Type: Tapered
Site Name: Prospect
Height: 157.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 12 Sided
Taper: 0.33161

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Shaft Properties

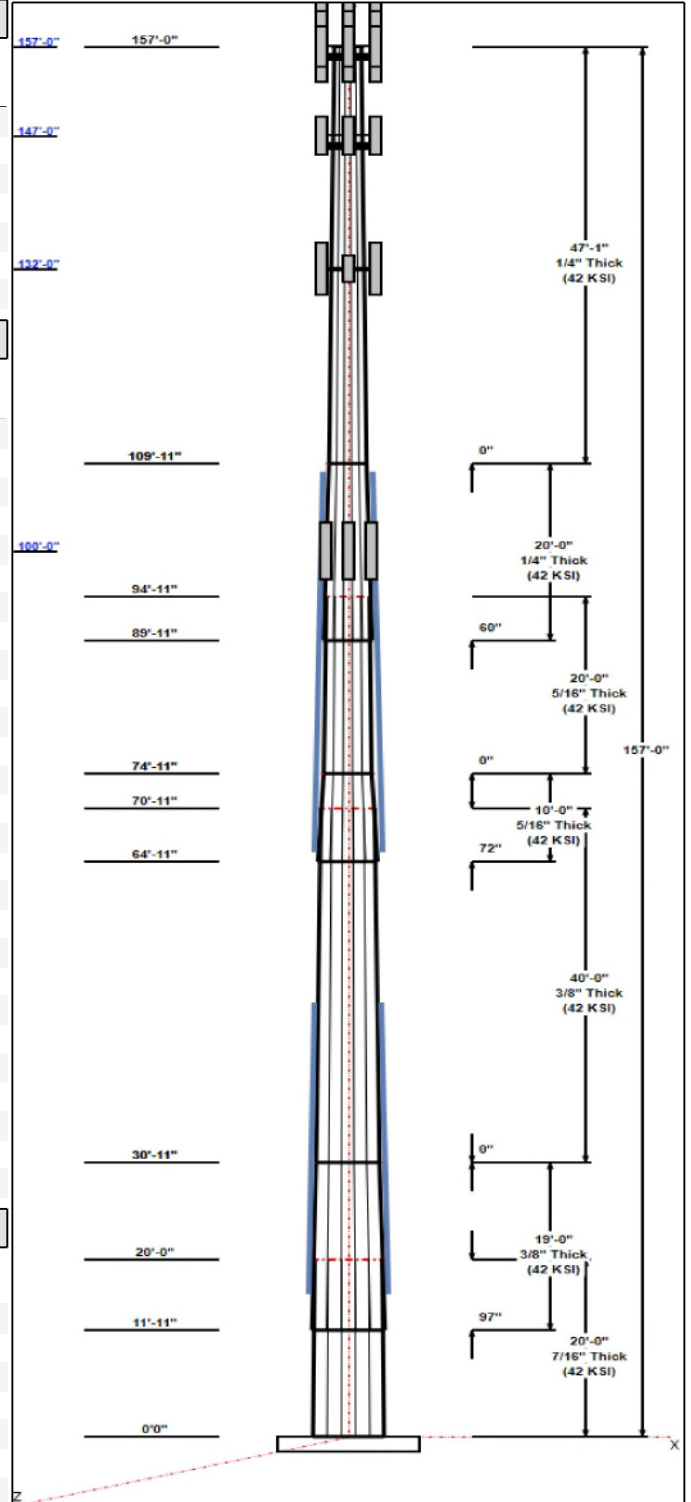
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	20.00	61.56	68.19	0.438		0.33161	42
2	19.00	58.69	64.99	0.375	Slip	0.33161	42
3	40.00	45.42	58.69	0.375	Butt	0.33161	42
4	10.00	44.72	48.04	0.313	Slip	0.33161	42
5	20.00	38.09	44.72	0.313	Butt	0.33161	42
6	20.00	33.61	40.25	0.250	Slip	0.33161	42
7	47.08	18.00	33.61	0.250	Butt	0.33161	42

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
157.00	157.00	3	Cci HPA65R-BU8A	AT&T
157.00	157.00	3	Kathrein 800-10121	AT&T
157.00	157.00	3	Sabre C10-857-804	AT&T
157.00	157.00	6	CCI DTMAPB7819VG12A	AT&T
157.00	157.00	6	Powerwave LGP21901	AT&T
157.00	157.00	6	Kathrein 860 10025 RET	AT&T
157.00	157.00	3	Ericsson RRUS-11 RRU	AT&T
157.00	157.00	3	Ericsson RRUS 4415 B25	AT&T
157.00	157.00	2	Raycap DC6-48-60-18-8F	AT&T
157.00	157.50	1	Nokia CS72188.01 LMU	AT&T
157.00	158.50	3	Andrew - SBNH-1D6565C	AT&T
157.00	160.50	1	Lightning Rod	
147.00	147.00	9	Allgan ALP9212	Nextel
147.00	147.00	3	Sector Frame	Nextel
132.00	132.00	1	14' LP Platform	Verizon
132.00	132.00	6	DB844G65ZAXY	Verizon
132.00	132.00	6	SBNHH-1D65B	Verizon
132.00	132.00	1	GPS	Verizon
132.00	132.00	3	MT6407-77A	Verizon
132.00	132.00	3	Samsung	Verizon
132.00	132.00	1	RFS DB-C1-12C-24AB-0Z	Verizon
132.00	132.00	3	Samsung	Verizon
132.00	132.00	1	HRK12 (Handrail Kit)	Verizon
132.00	132.00	1	(3) SFS-H (V-Braces)	Verizon
132.00	132.00	1	Collar Mount (3-Sided)	Verizon
100.00	100.00	3	742 213	T-Mobile
100.00	100.00	3	15'x2.875"mount pipe	T-Mobile

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	157.00	Inside	1 1/4" Coax	AT&T
0.00	157.00	Inside	1/2" Coax	AT&T
0.00	157.00	Inside	1/2" Fiber	AT&T
0.00	157.00	Inside	3" flex conduit	AT&T
0.00	157.00	Inside	3/4" DC	AT&T
0.00	157.00	Inside	3/8" RET Line	AT&T
0.00	157.00	Outside	Safety Cable	
0.00	157.00	Outside	Step bolts (ladder)	
0.00	147.00	Inside	1 5/8" Coax	Nextel
0.00	132.00	Inside	1 5/8" Coax	Verizon
0.00	132.00	Inside	1 5/8" Hybrid	Verizon
65.00	110.00	Outside	1" Reinforcing plate	



Structure: CT00252-S-SBA

Type: Tapered
Site Name: Prospect
Height: 157.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 12 Sided
Taper: 0.33161

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0.00	100.00	Inside	1 5/8" Coax	T-Mobile
15.00	50.00	Outside	1" Reinforcing plate	

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
18	2.00" F1554 105	81.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
1.7500	56.0	36.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 97 mph Wind	3431.2	33.7	51.3
0.9D + 1.6W 97 mph Wind	3411.8	33.7	38.5
1.2D + 1.0Di + 1.0Wi 50 mph Wind	861.4	7.9	79.0
1.2D + 1.0E	231.1	2.0	51.3
0.9D + 1.0E	229.6	2.0	38.5
1.0D + 1.0W 60 mph Wind	817.6	8.1	42.8

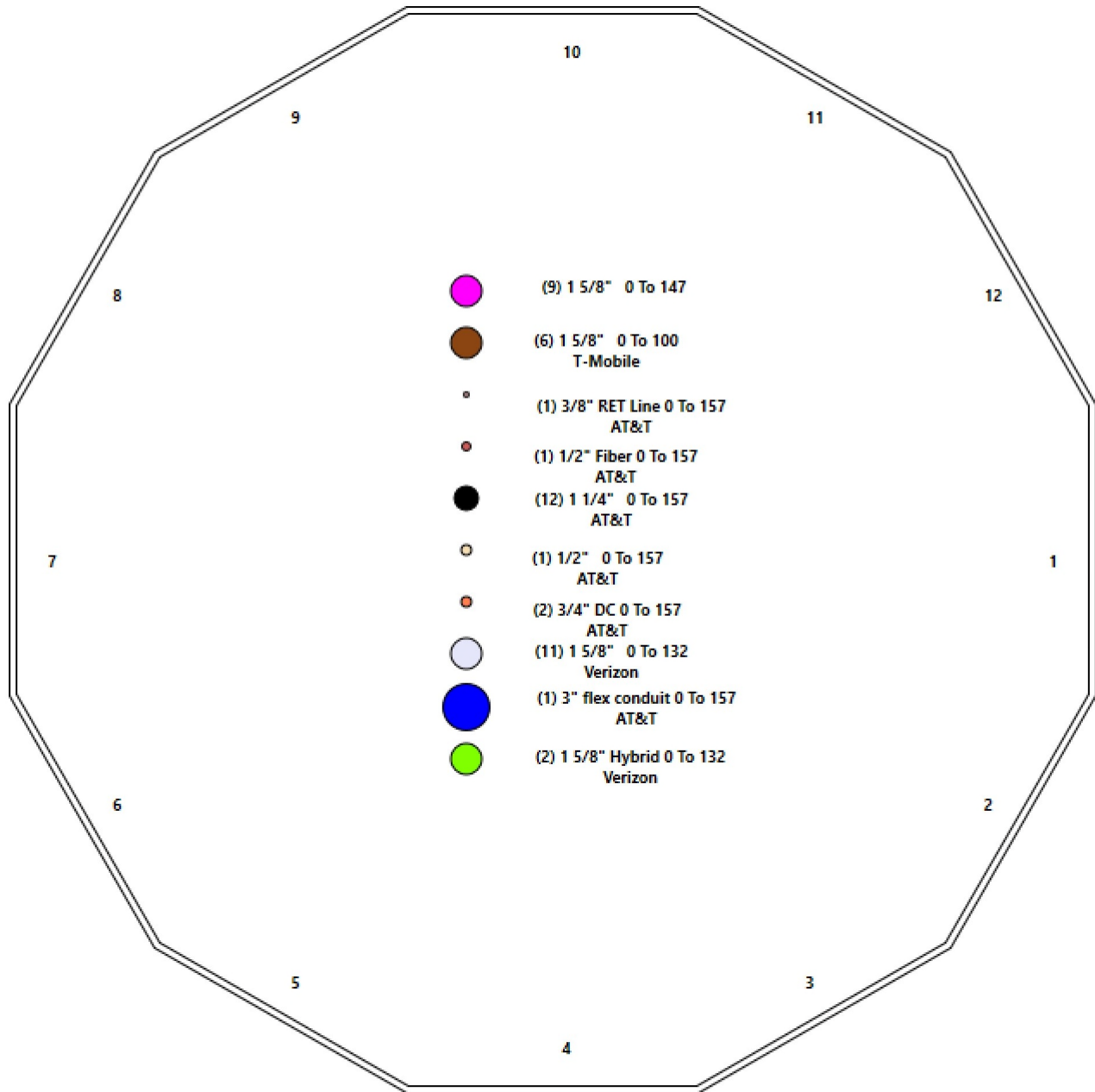
Structure: CT00252-S-SBA - Coax Line Placement

Type: Monopole
Site Name: Prospect
Height: 157.00 (ft)

10/11/2021



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Shaft Properties

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	12	20.000	0.4375	42		0.00	6,177
2	12	19.000	0.3750	42	Slip	97.00	4,798
3	12	40.000	0.3750	42	Flange	0.00	8,494
4	12	10.000	0.3125	42	Slip	72.00	1,577
5	12	20.000	0.3125	42	Flange	0.00	2,814
6	12	20.000	0.2500	42	Slip	60.00	2,009
7	12	47.083	0.2500	42	Flange	0.00	3,296
Total Shaft Weight:							29,166

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	68.19	0.00	95.44	55917.50	39.62	155.86	61.56	20.00	86.10	41051.0	35.56	140.7	0.331608
2	64.99	11.92	78.02	41570.87	44.29	173.30	58.69	30.92	70.41	30556.8	39.79	156.4	0.331608
3	58.69	30.92	70.41	30556.84	39.79	156.49	45.42	70.92	54.39	14087.7	30.31	121.1	0.331608
4	48.04	64.92	48.02	13959.75	39.04	153.71	44.72	74.92	44.68	11247.2	36.20	143.1	0.331608
5	44.72	74.92	44.68	11247.25	36.20	143.10	38.09	94.92	38.01	6923.09	30.51	121.8	0.331608
6	40.25	89.92	32.20	6573.73	40.99	160.98	33.61	109.92	26.86	3815.80	33.88	134.4	0.331608
7	33.61	109.9	26.86	3815.80	33.88	134.45	18.00	157.00	14.29	574.61	17.15	72.00	0.331608

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	┌ Intermediate Connectors ┐	┌ Termination Connectors ┐	Spacing (in)	Description	Spacing (in)	Lower Qty	Upper Qty
							Description	Description					
16.00	49.00	3	PLT C6x10.5(1.5" Hole)	65	80	0.86	5/8" Hollo Bolt	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt			
66.00	109.0	3	PLT C6x10.5(1.5" Hole)	65	80	0.86	5/8" Hollo Bolt	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt			

Load Summary

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	157.00	Cci HPA65R-BU8A	3	69.00	11.22	0.89	346.82	12.885	0.89	0.00	0.00
2	157.00	Kathrein 800-10121	3	44.10	5.15	0.79	159.49	7.266	0.79	0.00	0.00
3	157.00	Sabre C10-857-804 (Sector Frame)	3	462.00	18.53	0.75	1109.98	38.022	0.75	0.00	0.00
4	157.00	CCI DTMABP7819VG12A TMA	6	19.20	1.14	0.67	44.84	1.913	0.69	0.00	0.00
5	157.00	Powerwave LGP21901 Diplexer	6	31.00	1.67	0.93	72.24	2.212	0.95	0.00	0.00
6	157.00	Kathrein 860 10025 RET	6	1.20	0.18	0.50	7.22	0.561	0.50	0.00	0.00
7	157.00	Ericsson RRUS-11 RRU	3	51.00	2.52	0.50	123.60	3.156	0.50	0.00	0.00
8	157.00	Ericsson RRUS 4415 B25 RRU	3	46.00	1.64	0.50	87.29	2.158	0.50	0.00	0.00
9	157.00	Raycap DC6-48-60-18-8F -Surge	2	31.80	0.92	1.00	93.91	1.360	1.00	0.00	0.00
10	157.00	Nokia CS72188.01 LMU Omni	1	5.00	0.13	1.00	11.16	0.415	1.00	0.00	0.50
11	157.00	Andrew - SBNH-1D6565C	3	66.10	11.47	0.80	297.04	14.736	0.80	0.00	1.50
12	157.00	Lightning Rod	1	35.00	1.05	1.00	66.56	3.434	1.00	0.00	3.50
13	147.00	Allgan ALP9212	9	26.70	4.52	0.67	183.77	10.620	0.67	0.00	0.00
14	147.00	Sector Frame	3	500.00	17.50	0.75	1196.68	31.399	0.75	0.00	0.00
15	132.00	14' LP Platform	1	1500.00	25.00	1.00	2792.29	45.677	1.00	0.00	0.00
16	132.00	DB844G65ZAXY	6	12.00	4.33	0.90	144.15	5.269	0.92	0.00	0.00
17	132.00	SBNHH-1D65B	6	40.60	8.08	0.83	239.16	9.354	0.85	0.00	0.00
18	132.00	GPS	1	10.00	1.00	1.00	38.95	1.703	1.00	0.00	0.00
19	132.00	MT6407-77A	3	79.40	4.69	0.70	197.11	5.625	0.70	0.00	0.00
20	132.00	Samsung RF4439d-25A_AWS-PCS	3	74.70	1.87	0.50	150.05	2.435	0.50	0.00	0.00
21	132.00	RFS DB-C1-12C-24AB-0Z	1	32.00	4.06	1.00	144.48	4.872	1.00	0.00	0.00
22	132.00	Samsung	3	70.33	1.87	0.50	145.68	2.435	0.50	0.00	0.00
23	132.00	HRK12 (Handrail Kit)	1	261.72	6.75	1.00	568.37	13.263	1.00	0.00	0.00
24	132.00	(3) SFS-H (V-Braces)	1	197.00	6.30	1.00	468.55	12.813	1.00	0.00	0.00
25	132.00	Collar Mount (3-Sided)	1	220.00	2.50	1.00	523.26	5.085	1.00	0.00	0.00
26	100.00	742 213	3	22.00	5.12	0.72	129.19	6.358	0.72	0.00	0.00
27	100.00	15'x2.875"mount pipe	3	87.00	4.31	1.00	215.30	9.482	1.00	0.00	0.00
Totals:			85	7,903.51			21,975.71				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	157.00	(12) 1 1/4" Coax	0.00	Inside
0.00	157.00	(1) 1/2" Coax	0.00	Inside
0.00	157.00	(1) 1/2" Fiber	0.00	Inside
0.00	157.00	(1) 3" flex conduit	0.00	Inside
0.00	157.00	(2) 3/4" DC	0.00	Inside
0.00	157.00	(1) 3/8" RET Line	0.00	Inside
0.00	157.00	(1) Safety Cable	0.38	Outside
0.00	157.00	(1) Step bolts (ladder)	0.63	Outside
0.00	147.00	(9) 1 5/8" Coax	0.00	Inside
0.00	132.00	(11) 1 5/8" Coax	0.00	Inside
0.00	132.00	(2) 1 5/8" Hybrid	0.00	Inside
65.00	110.00	(3) 1" Reinforcing plate	2.00	Outside
0.00	100.00	(6) 1 5/8" Coax	0.00	Inside
15.00	50.00	(3) 1" Reinforcing plate	2.00	Outside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		

Shaft Section Properties

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing			
											Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
0.00		0.4375	68.188	95.443	55917.5	39.62	155.86	42	45	0.0				
2.00		0.4375	67.524	94.509	54291.4	39.21	154.34	42	45	646.4				
4.00		0.4375	66.861	93.574	52697.1	38.81	152.83	42	46	640.0				
6.00		0.4375	66.198	92.640	51134.3	38.40	151.31	42	46	633.6				
8.00		0.4375	65.535	91.706	49602.7	37.99	149.79	42	46	627.3				
10.00		0.4375	64.871	90.771	48102.0	37.59	148.28	42	46	620.9				
11.92	Bot - Section 2	0.4375	64.236	89.876	46692.6	37.20	146.82	42	47	589.1				
12.00		0.4375	64.208	89.837	46631.9	37.18	146.76	42	47	47.6				
14.00		0.4375	63.545	88.903	45192.1	36.77	145.25	42	47	1136.2				
16.00	RB1	0.4375	62.882	87.968	43782.2	36.37	143.73	42	47	1124.4	9.24	5233.9	5233.9	63.0
18.00		0.4375	62.219	87.034	42401.9	35.96	142.21	42	47	1112.6	9.24	5131.3	5131.3	63.0
20.00	Top - Section 1	0.3750	62.305	74.781	36608.6	42.38	166.15	42	44	1100.8	9.24	5029.7	5029.7	63.0
22.00		0.3750	61.642	73.980	35445.0	41.90	164.38	42	44	506.2	9.24	4929.2	4929.2	63.0
24.00		0.3750	60.979	73.179	34306.4	41.43	162.61	42	44	500.8	9.24	4829.6	4829.6	63.0
26.00		0.3750	60.316	72.378	33192.4	40.95	160.84	42	44	495.3	9.24	4731.1	4731.1	63.0
28.00		0.3750	59.652	71.578	32102.7	40.48	159.07	42	45	489.9	9.24	4633.6	4633.6	63.0
30.00		0.3750	58.989	70.777	31037.2	40.01	157.30	42	45	484.4	9.24	4537.1	4537.1	63.0
30.92	Top - Section 2	0.3750	58.685	70.410	30556.8	39.79	156.49	42	45	220.2	9.24	4493.2	4493.2	28.9
30.92	Bot - Section 3	0.3750	58.685	70.410	30556.8	39.79	156.49	42	45					
32.00		0.3750	58.326	69.976	29995.5	39.53	155.54	42	45	258.8	9.24	4441.6	4441.6	34.1
34.00		0.3750	57.663	69.175	28977.4	39.06	153.77	42	46	473.5	9.24	4347.1	4347.1	63.0
36.00		0.3750	57.000	68.374	27982.6	38.58	152.00	42	46	468.0	9.24	4253.6	4253.6	63.0
38.00		0.3750	56.336	67.573	27010.9	38.11	150.23	42	46	462.6	9.24	4161.2	4161.2	63.0
40.00		0.3750	55.673	66.773	26061.9	37.64	148.46	42	46	457.1	9.24	4069.8	4069.8	63.0
42.00		0.3750	55.010	65.972	25135.3	37.16	146.69	42	47	451.7	9.24	3979.4	3979.4	63.0
44.00		0.3750	54.347	65.171	24231.1	36.69	144.92	42	47	446.2	9.24	3890.0	3890.0	63.0
46.00		0.3750	53.684	64.370	23348.7	36.21	143.16	42	47	440.8	9.24	3801.6	3801.6	63.0
48.00		0.3750	53.020	63.569	22488.1	35.74	141.39	42	47	435.3	9.24	3714.3	3714.3	63.0
49.00	RT1	0.3750	52.689	63.169	22065.8	35.50	140.50	42	48	215.6	9.24	3671.0	3671.0	31.5
50.00		0.3750	52.357	62.768	21648.8	35.27	139.62	42	48	214.3				
52.00		0.3750	51.694	61.968	20830.7	34.79	137.85	42	48	424.4				
54.00		0.3750	51.031	61.167	20033.5	34.32	136.08	42	48	419.0				
56.00		0.3750	50.367	60.366	19256.9	33.85	134.31	42	48	413.5				
58.00		0.3750	49.704	59.565	18500.6	33.37	132.54	42	49	408.1				
60.00		0.3750	49.041	58.764	17764.4	32.90	130.78	42	49	402.6				
62.00		0.3750	48.378	57.963	17048.0	32.42	129.01	42	49	397.2				
64.00		0.3750	47.715	57.163	16351.1	31.95	127.24	42	50	391.7				
64.92	Bot - Section 4	0.3750	47.411	56.795	16038.1	31.73	126.43	42	50	177.7				
66.00	RB2	0.3750	47.051	56.362	15673.4	31.48	125.47	42	50	384.9	9.24	3047.4	3047.4	34.1
68.00		0.3750	46.388	55.561	15014.8	31.00	123.70	42	50	702.9	9.24	2969.3	2969.3	63.0
70.00		0.3750	45.725	54.760	14374.8	30.53	121.93	42	50	692.9	9.24	2892.1	2892.1	63.0
70.92	Top - Section 3	0.3125	46.046	46.019	12285.5	37.34	147.35	42	47	314.3	9.24	2857.1	2857.1	28.9
72.00		0.3125	45.687	45.658	11998.3	37.03	146.20	42	47	169.0	9.24	2816.0	2816.0	34.1
74.00		0.3125	45.023	44.990	11479.8	36.46	144.08	42	47	308.5	9.24	2740.9	2740.9	63.0
74.92	Top - Section 4	0.3125	44.720	44.685	11247.3	36.20	143.10	42	47	139.9	9.24	2706.8	2706.8	28.9
74.92	Bot - Section 5	0.3125	44.720	44.685	11247.3	36.20	143.10	42	47					
76.00		0.3125	44.360	44.323	10976.5	35.89	141.95	42	47	164.1	9.24	2666.8	2666.8	34.1
78.00		0.3125	43.697	43.656	10488.1	35.32	139.83	42	48	299.4	9.24	2593.7	2593.7	63.0
80.00		0.3125	43.034	42.988	10014.4	34.76	137.71	42	48	294.8	9.24	2521.7	2521.7	63.0
82.00		0.3125	42.371	42.321	9555.2	34.19	135.59	42	48	290.3	9.24	2450.6	2450.6	63.0

Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing			
											Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
84.00		0.3125	41.707	41.654	9110.3	33.62	133.46	42	49	285.7	9.24	2380.6	2380.6	63.0
86.00		0.3125	41.044	40.986	8679.4	33.05	131.34	42	49	281.2	9.24	2311.6	2311.6	63.0
88.00		0.3125	40.381	40.319	8262.3	32.48	129.22	42	49	276.7	9.24	2243.6	2243.6	63.0
89.92	Bot - Section 6	0.3125	39.745	39.679	7875.3	31.94	127.19	42	50	260.9	9.24	2179.4	2179.4	60.4
90.00		0.3125	39.718	39.652	7858.8	31.91	127.10	42	50	20.4	9.24	2227.0	2227.0	2.6
92.00		0.3125	39.055	38.984	7468.6	31.34	124.97	42	50	484.7	9.24	2160.3	2160.3	63.0
94.00		0.3125	38.391	38.317	7091.6	30.77	122.85	42	50	476.6	9.24	2094.6	2094.6	63.0
94.92	Top - Section 5	0.2500	38.587	30.862	5789.6	39.21	154.35	42	45	215.7	9.24	2064.8	2064.8	28.9
96.00		0.2500	38.228	30.572	5628.4	38.83	152.91	42	46	113.2	9.24	2029.9	2029.9	34.1
98.00		0.2500	37.565	30.038	5338.6	38.12	150.26	42	46	206.2	9.24	1966.2	1966.2	63.0
100.00		0.2500	36.902	29.505	5059.0	37.41	147.61	42	46	202.6	9.24	1903.5	1903.5	63.0
102.00		0.2500	36.238	28.971	4789.3	36.70	144.95	42	47	199.0	9.24	1841.9	1841.9	63.0
104.00		0.2500	35.575	28.437	4529.4	35.99	142.30	42	47	195.3	9.24	1781.3	1781.3	63.0
106.00		0.2500	34.912	27.903	4279.0	35.27	139.65	42	48	191.7	9.24	1721.6	1721.6	63.0
108.00		0.2500	34.249	27.369	4038.1	34.56	137.00	42	48	188.1	9.24	1663.0	1663.0	63.0
109.00	RT2	0.2500	33.917	27.102	3921.1	34.21	135.67	42	48	92.7	9.24	1634.1	1634.1	31.5
109.92	Top - Section 6	0.2500	33.613	26.857	3815.8	33.88	134.45	42	48	84.2				
109.92	Bot - Section 7	0.2500	33.613	26.857	3815.8	33.88	134.45	42	48					
110.00		0.2500	33.586	26.835	3806.3	33.85	134.34	42	48	7.6				
112.00		0.2500	32.922	26.301	3583.6	33.14	131.69	42	49	180.8				
114.00		0.2500	32.259	25.767	3369.8	32.43	129.04	42	49	177.2				
116.00		0.2500	31.596	25.233	3164.7	31.72	126.38	42	50	173.5				
118.00		0.2500	30.933	24.700	2968.0	31.01	123.73	42	50	169.9				
120.00		0.2500	30.270	24.166	2779.7	30.30	121.08	42	50	166.3				
122.00		0.2500	29.606	23.632	2599.5	29.59	118.43	42	51	162.6				
124.00		0.2500	28.943	23.098	2427.2	28.88	115.77	42	51	159.0				
126.00		0.2500	28.280	22.564	2262.8	28.17	113.12	42	52	155.4				
128.00		0.2500	27.617	22.030	2105.9	27.46	110.47	42	52	151.7				
130.00		0.2500	26.953	21.496	1956.5	26.74	107.81	42	53	148.1				
132.00		0.2500	26.290	20.962	1814.3	26.03	105.16	42	53	144.5				
134.00		0.2500	25.627	20.428	1679.2	25.32	102.51	42	53	140.8				
136.00		0.2500	24.964	19.895	1551.0	24.61	99.86	42	53	137.2				
138.00		0.2500	24.301	19.361	1429.4	23.90	97.20	42	53	133.6				
140.00		0.2500	23.637	18.827	1314.4	23.19	94.55	42	53	129.9				
142.00		0.2500	22.974	18.293	1205.7	22.48	91.90	42	53	126.3				
144.00		0.2500	22.311	17.759	1103.2	21.77	89.24	42	53	122.7				
146.00		0.2500	21.648	17.225	1006.7	21.06	86.59	42	53	119.0				
147.00		0.2500	21.316	16.958	960.6	20.70	85.26	42	53	58.2				
148.00		0.2500	20.984	16.691	915.9	20.35	83.94	42	53	57.3				
150.00		0.2500	20.321	16.157	830.8	19.64	81.29	42	53	111.8				
152.00		0.2500	19.658	15.623	751.2	18.93	78.63	42	53	108.1				
154.00		0.2500	18.995	15.090	676.7	18.21	75.98	42	53	104.5				
156.00		0.2500	18.332	14.556	607.4	17.50	73.33	42	53	100.9				
157.00		0.2500	18.000	14.289	574.6	17.15	72.00	42	53	49.1				
Total Weight										29165.9				
											2491.1			

Wind Loading - Shaft

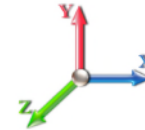
Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 24

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	16.018	17.62	477.42	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	16.018	17.62	472.78	1.000	0.000	2.00	11.708	11.71	330.1	0.0	775.6
4.00		1.00	0.70	16.018	17.62	468.13	1.000	0.000	2.00	11.594	11.59	326.8	0.0	768.0
6.00		1.00	0.70	16.018	17.62	463.49	1.000	0.000	2.00	11.479	11.48	323.6	0.0	760.4
8.00		1.00	0.70	16.018	17.62	458.85	1.000	0.000	2.00	11.365	11.36	320.4	0.0	752.7
10.00		1.00	0.70	16.018	17.62	454.20	1.000	0.000	2.00	11.251	11.25	317.2	0.0	745.1
11.92	Bot - Section 2	1.00	0.70	16.018	17.62	449.75	1.000	0.000	1.92	10.674	10.67	300.9	0.0	706.9
12.00		1.00	0.70	16.018	17.62	449.56	1.000	0.000	0.08	0.467	0.47	13.2	0.0	57.1
14.00		1.00	0.70	16.018	17.62	444.91	1.000	0.000	2.00	11.151	11.15	314.4	0.0	1363.5
16.00	RB1	1.00	0.70	16.018	17.62	440.27	1.000	0.000	2.00	11.037	11.04	311.1	0.0	1349.3
18.00		1.00	0.70	16.018	17.62	435.63	1.000	0.000	2.00	10.922	10.92	307.9	0.0	1335.1
20.00	Top - Section 1	1.00	0.70	16.018	17.62	430.98	1.000	0.000	2.00	10.808	10.81	304.7	0.0	1320.9
22.00		1.00	0.70	16.018	17.62	431.59	1.000	0.000	2.00	10.693	10.69	301.5	0.0	607.4
24.00		1.00	0.70	16.018	17.62	426.95	1.000	0.000	2.00	10.579	10.58	298.2	0.0	600.9
26.00		1.00	0.70	16.018	17.62	422.30	1.000	0.000	2.00	10.464	10.46	295.0	0.0	594.4
28.00		1.00	0.70	16.018	17.62	417.66	1.000	0.000	2.00	10.350	10.35	291.8	0.0	587.8
30.00		1.00	0.70	16.031	17.63	413.19	1.000	0.000	2.00	10.236	10.24	288.8	0.0	581.3
30.92	Top - Section 2	1.00	0.71	16.170	17.79	412.83	1.000	0.000	0.92	4.653	4.65	132.4	0.0	264.2
32.00		1.00	0.71	16.330	17.96	412.33	1.000	0.000	1.08	5.468	5.47	157.2	0.0	310.5
34.00		1.00	0.73	16.615	18.28	411.19	1.000	0.000	2.00	10.007	10.01	292.6	0.0	568.2
36.00		1.00	0.74	16.889	18.58	409.79	1.000	0.000	2.00	9.892	9.89	294.0	0.0	561.7
38.00		1.00	0.75	17.152	18.87	408.16	1.000	0.000	2.00	9.778	9.78	295.2	0.0	555.1
40.00		1.00	0.76	17.405	19.15	406.32	1.000	0.000	2.00	9.663	9.66	296.0	0.0	548.6
42.00		1.00	0.77	17.649	19.41	404.29	1.000	0.000	2.00	9.549	9.55	296.6	0.0	542.0
44.00		1.00	0.78	17.885	19.67	402.08	1.000	0.000	2.00	9.435	9.43	297.0	0.0	535.5
46.00		1.00	0.79	18.114	19.93	399.70	1.000	0.000	2.00	9.320	9.32	297.1	0.0	529.0
48.00		1.00	0.80	18.335	20.17	397.17	1.000	0.000	2.00	9.206	9.21	297.1	0.0	522.4
49.00	RT1	1.00	0.81	18.444	20.29	395.85	1.000	0.000	1.00	4.560	4.56	148.0	0.0	258.8
50.00		1.00	0.81	18.551	20.41	394.50	1.000	0.000	1.00	4.531	4.53	147.9	0.0	257.1
52.00		1.00	0.82	18.760	20.64	391.69	1.000	0.000	2.00	8.977	8.98	296.4	0.0	509.3
54.00		1.00	0.83	18.963	20.86	388.76	1.000	0.000	2.00	8.862	8.86	295.8	0.0	502.8
56.00		1.00	0.84	19.161	21.08	385.70	1.000	0.000	2.00	8.748	8.75	295.0	0.0	496.3
58.00		1.00	0.85	19.354	21.29	382.54	1.000	0.000	2.00	8.633	8.63	294.1	0.0	489.7
60.00		1.00	0.85	19.543	21.50	379.26	1.000	0.000	2.00	8.519	8.52	293.0	0.0	483.2
62.00		1.00	0.86	19.726	21.70	375.89	1.000	0.000	2.00	8.405	8.40	291.8	0.0	476.6
64.00		1.00	0.87	19.906	21.90	372.42	1.000	0.000	2.00	8.290	8.29	290.4	0.0	470.1
64.92	Bot - Section 4	1.00	0.87	19.987	21.99	370.80	1.000	0.000	0.92	3.761	3.76	132.3	0.0	213.3
66.00	RB2	1.00	0.88	20.082	22.09	368.87	1.000	0.000	1.08	4.473	4.47	158.1	0.0	461.9
68.00		1.00	0.89	20.254	22.28	365.22	1.000	0.000	2.00	8.169	8.17	291.2	0.0	843.5
70.00		1.00	0.89	20.422	22.46	361.49	1.000	0.000	2.00	8.055	8.05	289.5	0.0	831.5
70.92	Top - Section 3	1.00	0.90	20.499	22.55	359.76	1.000	0.000	0.92	3.653	3.65	131.8	0.0	377.1
72.00		1.00	0.90	20.587	22.65	362.65	1.000	0.000	1.08	4.287	4.29	155.3	0.0	202.8
74.00		1.00	0.91	20.749	22.82	358.78	1.000	0.000	2.00	7.826	7.83	285.8	0.0	370.1
74.92	Top - Section 4	1.00	0.91	20.822	22.90	356.99	1.000	0.000	0.92	3.549	3.55	130.0	0.0	167.8
76.00		1.00	0.91	20.908	23.00	354.85	1.000	0.000	1.08	4.163	4.16	153.2	0.0	196.9
78.00		1.00	0.92	21.064	23.17	350.84	1.000	0.000	2.00	7.597	7.60	281.6	0.0	359.2
80.00		1.00	0.93	21.217	23.34	346.77	1.000	0.000	2.00	7.483	7.48	279.4	0.0	353.8

Wind Loading - Shaft

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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82.00	1.00	0.93	21.367	23.50	342.63	1.000	0.000	2.00	7.368	7.37	277.1	0.0	348.3		
84.00	1.00	0.94	21.514	23.67	338.43	1.000	0.000	2.00	7.254	7.25	274.7	0.0	342.9		
86.00	1.00	0.95	21.660	23.83	334.17	1.000	0.000	2.00	7.139	7.14	272.2	0.0	337.4		
88.00	1.00	0.95	21.802	23.98	329.85	1.000	0.000	2.00	7.025	7.02	269.6	0.0	332.0		
89.92 Bot - Section 6	1.00	0.96	21.937	24.13	325.66	1.000	0.000	1.92	6.625	6.62	255.8	0.0	313.0		
90.00	1.00	0.96	21.943	24.14	325.48	1.000	0.000	0.08	0.289	0.29	11.2	0.0	24.4		
92.00	1.00	0.96	22.081	24.29	321.05	1.000	0.000	2.00	6.882	6.88	267.5	0.0	581.7		
94.00	1.00	0.97	22.217	24.44	316.57	1.000	0.000	2.00	6.768	6.77	264.6	0.0	571.9		
94.92 Top - Section 5	1.00	0.97	22.279	24.51	314.50	1.000	0.000	0.92	3.064	3.06	120.1	0.0	258.8		
96.00	1.00	0.98	22.351	24.59	316.17	1.000	0.000	1.08	3.590	3.59	141.2	0.0	135.9		
98.00	1.00	0.98	22.483	24.73	311.61	1.000	0.000	2.00	6.539	6.54	258.7	0.0	247.5		
100.00 Appurtenance(s)	1.00	0.99	22.613	24.87	306.99	1.000	0.000	2.00	6.424	6.42	255.7	0.0	243.1		
102.00	1.00	0.99	22.742	25.02	302.33	1.000	0.000	2.00	6.310	6.31	252.6	0.0	238.8		
104.00	1.00	1.00	22.868	25.16	297.62	1.000	0.000	2.00	6.196	6.20	249.4	0.0	234.4		
106.00	1.00	1.00	22.993	25.29	292.86	1.000	0.000	2.00	6.081	6.08	246.1	0.0	230.1		
108.00	1.00	1.01	23.116	25.43	288.07	1.000	0.000	2.00	5.967	5.97	242.8	0.0	225.7		
109.00 RT2	1.00	1.01	23.177	25.49	285.66	1.000	0.000	1.00	2.940	2.94	119.9	0.0	111.2		
109.92 Top - Section 6	1.00	1.02	23.233	25.56	283.43	1.000	0.000	0.92	2.670	2.67	109.2	0.0	101.0		
110.00	1.00	1.02	23.238	25.56	283.23	1.000	0.000	0.08	0.242	0.24	9.9	0.0	9.1		
112.00	1.00	1.02	23.358	25.69	278.35	1.000	0.000	2.00	5.738	5.74	235.9	0.0	217.0		
114.00	1.00	1.03	23.476	25.82	273.44	1.000	0.000	2.00	5.623	5.62	232.3	0.0	212.6		
116.00	1.00	1.03	23.593	25.95	268.48	1.000	0.000	2.00	5.509	5.51	228.8	0.0	208.3		
118.00	1.00	1.04	23.708	26.08	263.49	1.000	0.000	2.00	5.395	5.39	225.1	0.0	203.9		
120.00	1.00	1.04	23.823	26.20	258.46	1.000	0.000	2.00	5.280	5.28	221.4	0.0	199.5		
122.00	1.00	1.05	23.935	26.33	253.39	1.000	0.000	2.00	5.166	5.17	217.6	0.0	195.2		
124.00	1.00	1.05	24.047	26.45	248.29	1.000	0.000	2.00	5.051	5.05	213.8	0.0	190.8		
126.00	1.00	1.06	24.157	26.57	243.16	1.000	0.000	2.00	4.937	4.94	209.9	0.0	186.5		
128.00	1.00	1.06	24.266	26.69	237.99	1.000	0.000	2.00	4.822	4.82	206.0	0.0	182.1		
130.00	1.00	1.07	24.374	26.81	232.79	1.000	0.000	2.00	4.708	4.71	202.0	0.0	177.7		
132.00 Appurtenance(s)	1.00	1.07	24.480	26.93	227.56	1.000	0.000	2.00	4.593	4.59	197.9	0.0	173.4		
134.00	1.00	1.07	24.586	27.04	222.30	1.000	0.000	2.00	4.479	4.48	193.8	0.0	169.0		
136.00	1.00	1.08	24.690	27.16	217.00	1.000	0.000	2.00	4.365	4.36	189.7	0.0	164.7		
138.00	1.00	1.08	24.793	27.27	211.68	1.000	0.000	2.00	4.250	4.25	185.5	0.0	160.3		
140.00	1.00	1.09	24.895	27.38	206.32	1.000	0.000	2.00	4.136	4.14	181.2	0.0	155.9		
142.00	1.00	1.09	24.996	27.50	200.94	1.000	0.000	2.00	4.021	4.02	176.9	0.0	151.6		
144.00	1.00	1.10	25.096	27.61	195.53	1.000	0.000	2.00	3.907	3.91	172.6	0.0	147.2		
146.00	1.00	1.10	25.196	27.72	190.09	1.000	0.000	2.00	3.792	3.79	168.2	0.0	142.9		
147.00 Appurtenance(s)	1.00	1.10	25.245	27.77	187.36	1.000	0.000	1.00	1.853	1.85	82.3	0.0	69.8		
148.00	1.00	1.11	25.294	27.82	184.63	1.000	0.000	1.00	1.825	1.82	81.2	0.0	68.7		
150.00	1.00	1.11	25.391	27.93	179.14	1.000	0.000	2.00	3.564	3.56	159.2	0.0	134.1		
152.00	1.00	1.11	25.487	28.04	173.62	1.000	0.000	2.00	3.449	3.45	154.7	0.0	129.8		
154.00	1.00	1.12	25.582	28.14	168.07	1.000	0.000	2.00	3.335	3.33	150.1	0.0	125.4		
156.00	1.00	1.12	25.677	28.24	162.50	1.000	0.000	2.00	3.220	3.22	145.5	0.0	121.1		
157.00 Appurtenance(s)	1.00	1.12	25.724	28.30	159.71	1.000	0.000	1.00	1.567	1.57	71.0	0.0	58.9		
Totals:								157.00				20,342.2			34,999.1

Discrete Appurtenance Forces

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 24

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	157.00	Kathrein 860 10025 RET	6	25.724	28.296	0.50	1.00	0.54	8.64	0.000	0.000	24.45	0.00	0.00
2	157.00	Cci HPA65R-BU8A	3	25.724	28.296	0.89	1.00	29.96	248.40	0.000	0.000	1356.29	0.00	0.00
3	157.00	Kathrein 800-10121	3	25.724	28.296	0.79	1.00	12.21	158.76	0.000	0.000	552.59	0.00	0.00
4	157.00	Sabre C10-857-804	3	25.724	28.296	0.56	0.75	31.27	1663.20	0.000	0.000	1415.69	0.00	0.00
5	157.00	CCI DTMABP7819VG12A	6	25.724	28.296	0.67	1.00	4.58	138.24	0.000	0.000	207.48	0.00	0.00
6	157.00	Powerwave LGP21901	6	25.724	28.296	0.93	1.00	9.32	223.20	0.000	0.000	421.89	0.00	0.00
7	157.00	Lightning Rod	1	25.886	28.475	1.00	1.00	1.05	42.00	0.000	3.500	47.84	0.00	167.43
8	157.00	Ericsson RRUS-11 RRU	3	25.724	28.296	0.50	1.00	3.78	183.60	0.000	0.000	171.14	0.00	0.00
9	157.00	Ericsson RRUS 4415 B25	3	25.724	28.296	0.50	1.00	2.46	165.60	0.000	0.000	111.37	0.00	0.00
10	157.00	Raycap DC6-48-60-18-8F	2	25.724	28.296	1.00	1.00	1.84	76.32	0.000	0.000	83.30	0.00	0.00
11	157.00	Nokia CS72188.01 LMU	1	25.747	28.322	1.00	1.00	0.13	6.00	0.000	0.500	5.89	0.00	2.95
12	157.00	Andrew - SBNH-1D6565C	3	25.794	28.373	0.80	1.00	27.53	237.96	0.000	1.500	1249.70	0.00	1874.54
13	147.00	Sector Frame	3	25.245	27.769	0.56	0.75	29.53	1800.00	0.000	0.000	1312.09	0.00	0.00
14	147.00	Allgan ALP9212	9	25.245	27.769	0.54	0.80	21.80	288.36	0.000	0.000	968.79	0.00	0.00
15	132.00	MT6407-77A	3	24.480	26.928	0.52	0.75	7.39	285.84	0.000	0.000	318.26	0.00	0.00
16	132.00	14' LP Platform	1	24.480	26.928	1.00	1.00	25.00	1800.00	0.000	0.000	1077.13	0.00	0.00
17	132.00	DB844G65ZAXY	6	24.480	26.928	0.68	0.75	17.54	86.40	0.000	0.000	755.56	0.00	0.00
18	132.00	SBNHH-1D65B	6	24.480	26.928	0.62	0.75	30.18	292.32	0.000	0.000	1300.26	0.00	0.00
19	132.00	GPS	1	24.480	26.928	0.75	0.75	0.75	12.00	0.000	0.000	32.31	0.00	0.00
20	132.00	Collar Mount (3-Sided)	1	24.480	26.928	1.00	1.00	2.50	264.00	0.000	0.000	107.71	0.00	0.00
21	132.00	Samsung	3	24.480	26.928	0.38	0.75	2.10	268.92	0.000	0.000	90.64	0.00	0.00
22	132.00	RFS DB-C1-12C-24AB-0Z	1	24.480	26.928	0.75	0.75	3.04	38.40	0.000	0.000	131.19	0.00	0.00
23	132.00	Samsung	3	24.480	26.928	0.38	0.75	2.10	253.19	0.000	0.000	90.64	0.00	0.00
24	132.00	HRK12 (Handrail Kit)	1	24.480	26.928	1.00	1.00	6.75	314.06	0.000	0.000	290.82	0.00	0.00
25	132.00	(3) SFS-H (V-Braces)	1	24.480	26.928	1.00	1.00	6.30	236.40	0.000	0.000	271.44	0.00	0.00
26	100.00	15'x2.875"mount pipe	3	22.613	24.875	1.00	1.00	12.93	313.20	0.000	0.000	514.61	0.00	0.00
27	100.00	742 213	3	22.613	24.875	0.72	1.00	11.06	79.20	0.000	0.000	440.15	0.00	0.00

Totals: 9,484.21

13,349.26

Total Applied Force Summary

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

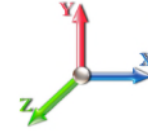


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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 24

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		330.07	875.17	0.00	0.00
4.00		326.85	867.54	0.00	0.00
6.00		323.62	859.91	0.00	0.00
8.00		320.39	852.28	0.00	0.00
10.00		317.17	844.65	0.00	0.00
11.92		300.93	802.30	0.00	0.00
12.00		13.17	61.27	0.00	0.00
14.00		314.36	1462.99	0.00	0.00
16.00		311.14	1448.82	0.00	0.00
18.00		307.91	1434.65	0.00	0.00
20.00		304.69	1420.48	0.00	0.00
22.00		301.46	706.98	0.00	0.00
24.00		298.23	700.44	0.00	0.00
26.00		295.01	693.90	0.00	0.00
28.00		291.78	687.36	0.00	0.00
30.00		288.80	680.82	0.00	0.00
30.92		132.42	309.85	0.00	0.00
32.00		157.15	364.42	0.00	0.00
34.00		292.62	667.73	0.00	0.00
36.00		294.04	661.19	0.00	0.00
38.00		295.16	654.65	0.00	0.00
40.00		296.01	648.11	0.00	0.00
42.00		296.61	641.57	0.00	0.00
44.00		296.98	635.03	0.00	0.00
46.00		297.13	628.49	0.00	0.00
48.00		297.07	621.95	0.00	0.00
49.00		148.02	308.52	0.00	0.00
50.00		147.94	306.89	0.00	0.00
52.00		296.39	608.87	0.00	0.00
54.00		295.78	602.33	0.00	0.00
56.00		295.01	595.79	0.00	0.00
58.00		294.08	589.25	0.00	0.00
60.00		293.01	582.71	0.00	0.00
62.00		291.80	576.17	0.00	0.00
64.00		290.45	569.63	0.00	0.00
64.92		132.32	258.90	0.00	0.00
66.00		158.09	515.82	0.00	0.00
68.00		291.21	943.05	0.00	0.00
70.00		289.51	931.06	0.00	0.00
70.92		131.81	422.73	0.00	0.00
72.00		155.33	256.69	0.00	0.00
74.00		285.79	469.68	0.00	0.00
74.92		130.05	213.45	0.00	0.00
76.00		153.18	250.78	0.00	0.00
78.00		281.64	458.78	0.00	0.00
80.00		279.41	453.33	0.00	0.00

Total Applied Force Summary

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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82.00		277.08	447.88	0.00	0.00
84.00		274.66	442.43	0.00	0.00
86.00		272.15	436.98	0.00	0.00
88.00		269.56	431.53	0.00	0.00
89.92		255.77	408.44	0.00	0.00
90.00		11.17	28.60	0.00	0.00
92.00		267.46	681.21	0.00	0.00
94.00		264.63	671.40	0.00	0.00
94.92		120.13	304.44	0.00	0.00
96.00		141.21	189.79	0.00	0.00
98.00		258.75	347.03	0.00	0.00
100.00	(6) attachments	1210.45	735.07	0.00	0.00
102.00		252.56	323.33	0.00	0.00
104.00		249.36	318.97	0.00	0.00
106.00		246.09	314.61	0.00	0.00
108.00		242.75	310.25	0.00	0.00
109.00		119.95	153.49	0.00	0.00
109.92		109.19	139.74	0.00	0.00
110.00		9.88	12.66	0.00	0.00
112.00		235.88	301.53	0.00	0.00
114.00		232.35	297.17	0.00	0.00
116.00		228.75	292.81	0.00	0.00
118.00		225.10	288.45	0.00	0.00
120.00		221.38	284.09	0.00	0.00
122.00		217.61	279.73	0.00	0.00
124.00		213.78	275.37	0.00	0.00
126.00		209.89	271.01	0.00	0.00
128.00		205.95	266.65	0.00	0.00
130.00		201.96	262.29	0.00	0.00
132.00	(27) attachments	4663.89	4109.46	0.00	0.00
134.00		193.81	220.84	0.00	0.00
136.00		189.66	216.48	0.00	0.00
138.00		185.46	212.12	0.00	0.00
140.00		181.21	207.76	0.00	0.00
142.00		176.91	203.40	0.00	0.00
144.00		172.57	199.04	0.00	0.00
146.00		168.17	194.68	0.00	0.00
147.00	(12) attachments	2363.23	2184.06	0.00	0.00
148.00		81.23	83.38	0.00	0.00
150.00		159.25	163.49	0.00	0.00
152.00		154.72	159.13	0.00	0.00
154.00		150.15	154.77	0.00	0.00
156.00		145.53	150.41	0.00	0.00
157.00	(40) attachments	5718.59	3225.49	0.00	2044.92
Totals:		33,691.42	51,348.49	0.00	2,044.92

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind	Iterations 24
Dead Load Factor 1.20	
Wind Load Factor 1.60	

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)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.014	0.000	16.018	0.00	0.66
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.014	0.000	16.018	0.00	2.50
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.66
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	2.50
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.66
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	2.50
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.66
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	2.50
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.66
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	2.50
11.92	Safety Cable	Yes	1.92	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.63
11.92	Step bolts (ladder)	Yes	1.92	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	2.39
12.00	Safety Cable	Yes	0.08	0.000	0.38	0.00	0.00	0.015	0.000	16.018	0.00	0.03
12.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.00	0.00	0.015	0.000	16.018	0.00	0.10
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.66
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	2.50
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.031	0.000	16.018	0.00	0.66
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.031	0.000	16.018	0.00	2.50
16.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.031	0.000	16.018	0.00	0.00
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.046	0.000	16.018	0.00	0.66
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.046	0.000	16.018	0.00	2.50
18.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.046	0.000	16.018	0.00	0.00
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	16.018	0.00	0.66
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	16.018	0.00	2.50
20.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.047	0.000	16.018	0.00	0.00
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	16.018	0.00	0.66
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	16.018	0.00	2.50
22.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.047	0.000	16.018	0.00	0.00
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	16.018	0.00	0.66
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	16.018	0.00	2.50
24.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.047	0.000	16.018	0.00	0.00
26.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	16.018	0.00	0.66
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	16.018	0.00	2.50
26.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.048	0.000	16.018	0.00	0.00
28.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	16.018	0.00	0.66
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	16.018	0.00	2.50
28.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.048	0.000	16.018	0.00	0.00
30.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	16.031	0.00	0.66
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	16.031	0.00	2.50
30.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.049	0.000	16.031	0.00	0.00
30.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.049	0.000	16.170	0.00	0.30
30.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.049	0.000	16.170	0.00	1.14
30.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.049	0.000	16.170	0.00	0.00
32.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.050	0.000	16.330	0.00	0.35
32.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.050	0.000	16.330	0.00	1.35
32.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.050	0.000	16.330	0.00	0.00
34.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	16.615	0.00	0.66

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind

Iterations 24

Dead Load Factor 1.20

Wind Load Factor 1.60



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)
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	16.615	0.00	2.50
34.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.050	0.000	16.615	0.00	0.00
36.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	16.889	0.00	0.66
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	16.889	0.00	2.50
36.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.051	0.000	16.889	0.00	0.00
38.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	17.152	0.00	0.66
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	17.152	0.00	2.50
38.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.051	0.000	17.152	0.00	0.00
40.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	17.405	0.00	0.66
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	17.405	0.00	2.50
40.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.052	0.000	17.405	0.00	0.00
42.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	17.649	0.00	0.66
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	17.649	0.00	2.50
42.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.053	0.000	17.649	0.00	0.00
44.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	17.885	0.00	0.66
44.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	17.885	0.00	2.50
44.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.053	0.000	17.885	0.00	0.00
46.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.054	0.000	18.114	0.00	0.66
46.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.054	0.000	18.114	0.00	2.50
46.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.054	0.000	18.114	0.00	0.00
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.054	0.000	18.335	0.00	0.66
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.054	0.000	18.335	0.00	2.50
48.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.054	0.000	18.335	0.00	0.00
49.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.055	0.000	18.444	0.00	0.33
49.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.055	0.000	18.444	0.00	1.25
49.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	18.444	0.00	0.00
50.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.055	0.000	18.551	0.00	0.33
50.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.055	0.000	18.551	0.00	1.25
50.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	18.551	0.00	0.00
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	18.760	0.00	0.66
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	18.760	0.00	2.50
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	18.963	0.00	0.66
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	18.963	0.00	2.50
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	19.161	0.00	0.66
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	19.161	0.00	2.50
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	19.354	0.00	0.66
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	19.354	0.00	2.50
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	19.543	0.00	0.66
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	19.543	0.00	2.50
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	19.726	0.00	0.66
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	19.726	0.00	2.50
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	19.906	0.00	0.66
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	19.906	0.00	2.50
64.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.021	0.000	19.987	0.00	0.30
64.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.021	0.000	19.987	0.00	1.14
66.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.058	0.000	20.082	0.00	0.35
66.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.058	0.000	20.082	0.00	1.35

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind	Iterations 24
Dead Load Factor 1.20	
Wind Load Factor 1.60	

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)
66.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	20.082	0.00	0.00
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.062	0.000	20.254	0.00	0.66
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.062	0.000	20.254	0.00	2.50
68.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.062	0.000	20.254	0.00	0.00
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.063	0.000	20.422	0.00	0.66
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.063	0.000	20.422	0.00	2.50
70.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.063	0.000	20.422	0.00	0.00
70.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.064	0.000	20.499	0.00	0.30
70.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.064	0.000	20.499	0.00	1.14
70.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.064	0.000	20.499	0.00	0.00
72.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.063	0.000	20.587	0.00	0.35
72.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.063	0.000	20.587	0.00	1.35
72.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.063	0.000	20.587	0.00	0.00
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.064	0.000	20.749	0.00	0.66
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.064	0.000	20.749	0.00	2.50
74.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.064	0.000	20.749	0.00	0.00
74.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.065	0.000	20.822	0.00	0.30
74.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.065	0.000	20.822	0.00	1.14
74.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.065	0.000	20.822	0.00	0.00
76.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.065	0.000	20.908	0.00	0.35
76.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.065	0.000	20.908	0.00	1.35
76.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.065	0.000	20.908	0.00	0.00
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.066	0.000	21.064	0.00	0.66
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.066	0.000	21.064	0.00	2.50
78.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.066	0.000	21.064	0.00	0.00
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.067	0.000	21.217	0.00	0.66
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.067	0.000	21.217	0.00	2.50
80.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.067	0.000	21.217	0.00	0.00
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	21.367	0.00	0.66
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	21.367	0.00	2.50
82.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.068	0.000	21.367	0.00	0.00
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.069	0.000	21.514	0.00	0.66
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.069	0.000	21.514	0.00	2.50
84.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.069	0.000	21.514	0.00	0.00
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.070	0.000	21.660	0.00	0.66
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.070	0.000	21.660	0.00	2.50
86.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	21.660	0.00	0.00
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.071	0.000	21.802	0.00	0.66
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.071	0.000	21.802	0.00	2.50
88.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	21.802	0.00	0.00
89.92	Safety Cable	Yes	1.92	0.000	0.38	0.06	0.00	0.073	0.000	21.937	0.00	0.63
89.92	Step bolts (ladder)	Yes	1.92	0.000	0.63	0.10	0.00	0.073	0.000	21.937	0.00	2.39
89.92	1" Reinforcing plate	Yes	1.92	0.000	2.00	0.32	0.00	0.073	0.000	21.937	0.00	0.00
90.00	Safety Cable	Yes	0.08	0.000	0.38	0.00	0.00	0.073	0.000	21.943	0.00	0.03
90.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.00	0.00	0.073	0.000	21.943	0.00	0.10
90.00	1" Reinforcing plate	Yes	0.08	0.000	2.00	0.01	0.00	0.073	0.000	21.943	0.00	0.00
92.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.074	0.000	22.081	0.00	0.66

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind	Iterations 24
Dead Load Factor 1.20	
Wind Load Factor 1.60	

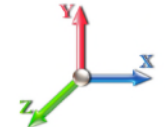
Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
92.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.074	0.000	22.081	0.00	2.50
92.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	22.081	0.00	0.00
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.075	0.000	22.217	0.00	0.66
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.075	0.000	22.217	0.00	2.50
94.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.075	0.000	22.217	0.00	0.00
94.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.076	0.000	22.279	0.00	0.30
94.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.076	0.000	22.279	0.00	1.14
94.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.076	0.000	22.279	0.00	0.00
96.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.076	0.000	22.351	0.00	0.35
96.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.076	0.000	22.351	0.00	1.35
96.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.076	0.000	22.351	0.00	0.00
98.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.077	0.000	22.483	0.00	0.66
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.077	0.000	22.483	0.00	2.50
98.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.077	0.000	22.483	0.00	0.00
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.078	0.000	22.613	0.00	0.66
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.078	0.000	22.613	0.00	2.50
100.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	22.613	0.00	0.00
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.080	0.000	22.742	0.00	0.66
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.080	0.000	22.742	0.00	2.50
102.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.080	0.000	22.742	0.00	0.00
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.081	0.000	22.868	0.00	0.66
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.081	0.000	22.868	0.00	2.50
104.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	22.868	0.00	0.00
106.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.082	0.000	22.993	0.00	0.66
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.082	0.000	22.993	0.00	2.50
106.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.082	0.000	22.993	0.00	0.00
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.084	0.000	23.116	0.00	0.66
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.084	0.000	23.116	0.00	2.50
108.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.084	0.000	23.116	0.00	0.00
109.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.085	0.000	23.177	0.00	0.33
109.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.085	0.000	23.177	0.00	1.25
109.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.085	0.000	23.177	0.00	0.00
109.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.086	0.000	23.233	0.00	0.30
109.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.086	0.000	23.233	0.00	1.14
109.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.086	0.000	23.233	0.00	0.00
110.00	Safety Cable	Yes	0.08	0.000	0.38	0.00	0.00	0.087	0.000	23.238	0.00	0.03
110.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.00	0.00	0.087	0.000	23.238	0.00	0.10
110.00	1" Reinforcing plate	Yes	0.08	0.000	2.00	0.01	0.00	0.087	0.000	23.238	0.00	0.00
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.029	0.000	23.358	0.00	0.66
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.029	0.000	23.358	0.00	2.50
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.030	0.000	23.476	0.00	0.66
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.030	0.000	23.476	0.00	2.50
116.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.031	0.000	23.593	0.00	0.66
116.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.031	0.000	23.593	0.00	2.50
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.031	0.000	23.708	0.00	0.66
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.031	0.000	23.708	0.00	2.50
120.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.032	0.000	23.823	0.00	0.66

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 97 mph Wind	Iterations 24
Dead Load Factor 1.20	
Wind Load Factor 1.60	

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)
120.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.032	0.000	23.823	0.00	2.50
122.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.033	0.000	23.935	0.00	0.66
122.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.033	0.000	23.935	0.00	2.50
124.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.033	0.000	24.047	0.00	0.66
124.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.033	0.000	24.047	0.00	2.50
126.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.034	0.000	24.157	0.00	0.66
126.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.034	0.000	24.157	0.00	2.50
128.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.035	0.000	24.266	0.00	0.66
128.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.035	0.000	24.266	0.00	2.50
130.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	24.374	0.00	0.66
130.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	24.374	0.00	2.50
132.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	24.480	0.00	0.66
132.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	24.480	0.00	2.50
134.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	24.586	0.00	0.66
134.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	24.586	0.00	2.50
136.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	24.690	0.00	0.66
136.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	24.690	0.00	2.50
138.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	24.793	0.00	0.66
138.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	24.793	0.00	2.50
140.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	24.895	0.00	0.66
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	24.895	0.00	2.50
142.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.042	0.000	24.996	0.00	0.66
142.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.042	0.000	24.996	0.00	2.50
144.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.043	0.000	25.096	0.00	0.66
144.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.043	0.000	25.096	0.00	2.50
146.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.044	0.000	25.196	0.00	0.66
146.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.044	0.000	25.196	0.00	2.50
147.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.045	0.000	25.245	0.00	0.33
147.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.045	0.000	25.245	0.00	1.25
148.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.046	0.000	25.294	0.00	0.33
148.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.046	0.000	25.294	0.00	1.25
150.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	25.391	0.00	0.66
150.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	25.391	0.00	2.50
152.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	25.487	0.00	0.66
152.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	25.487	0.00	2.50
154.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	25.582	0.00	0.66
154.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	25.582	0.00	2.50
156.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	25.677	0.00	0.66
156.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	25.677	0.00	2.50
157.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.054	0.000	25.724	0.00	0.33
157.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.054	0.000	25.724	0.00	1.25
Totals:											0.0	247.4

Wind Loading - Shaft

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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82.00	1.00	0.93	21.367	23.50	342.63	1.000	0.000	2.00	7.368	7.37	277.1	0.0	261.3			
84.00	1.00	0.94	21.514	23.67	338.43	1.000	0.000	2.00	7.254	7.25	274.7	0.0	257.2			
86.00	1.00	0.95	21.660	23.83	334.17	1.000	0.000	2.00	7.139	7.14	272.2	0.0	253.1			
88.00	1.00	0.95	21.802	23.98	329.85	1.000	0.000	2.00	7.025	7.02	269.6	0.0	249.0			
89.92 Bot - Section 6	1.00	0.96	21.937	24.13	325.66	1.000	0.000	1.92	6.625	6.62	255.8	0.0	234.8			
90.00	1.00	0.96	21.943	24.14	325.48	1.000	0.000	0.08	0.289	0.29	11.2	0.0	18.3			
92.00	1.00	0.96	22.081	24.29	321.05	1.000	0.000	2.00	6.882	6.88	267.5	0.0	436.3			
94.00	1.00	0.97	22.217	24.44	316.57	1.000	0.000	2.00	6.768	6.77	264.6	0.0	428.9			
94.92 Top - Section 5	1.00	0.97	22.279	24.51	314.50	1.000	0.000	0.92	3.064	3.06	120.1	0.0	194.1			
96.00	1.00	0.98	22.351	24.59	316.17	1.000	0.000	1.08	3.590	3.59	141.2	0.0	101.9			
98.00	1.00	0.98	22.483	24.73	311.61	1.000	0.000	2.00	6.539	6.54	258.7	0.0	185.6			
100.00 Appurtenance(s)	1.00	0.99	22.613	24.87	306.99	1.000	0.000	2.00	6.424	6.42	255.7	0.0	182.4			
102.00	1.00	0.99	22.742	25.02	302.33	1.000	0.000	2.00	6.310	6.31	252.6	0.0	179.1			
104.00	1.00	1.00	22.868	25.16	297.62	1.000	0.000	2.00	6.196	6.20	249.4	0.0	175.8			
106.00	1.00	1.00	22.993	25.29	292.86	1.000	0.000	2.00	6.081	6.08	246.1	0.0	172.5			
108.00	1.00	1.01	23.116	25.43	288.07	1.000	0.000	2.00	5.967	5.97	242.8	0.0	169.3			
109.00 RT2	1.00	1.01	23.177	25.49	285.66	1.000	0.000	1.00	2.940	2.94	119.9	0.0	83.4			
109.92 Top - Section 6	1.00	1.02	23.233	25.56	283.43	1.000	0.000	0.92	2.670	2.67	109.2	0.0	75.7			
110.00	1.00	1.02	23.238	25.56	283.23	1.000	0.000	0.08	0.242	0.24	9.9	0.0	6.9			
112.00	1.00	1.02	23.358	25.69	278.35	1.000	0.000	2.00	5.738	5.74	235.9	0.0	162.7			
114.00	1.00	1.03	23.476	25.82	273.44	1.000	0.000	2.00	5.623	5.62	232.3	0.0	159.5			
116.00	1.00	1.03	23.593	25.95	268.48	1.000	0.000	2.00	5.509	5.51	228.8	0.0	156.2			
118.00	1.00	1.04	23.708	26.08	263.49	1.000	0.000	2.00	5.395	5.39	225.1	0.0	152.9			
120.00	1.00	1.04	23.823	26.20	258.46	1.000	0.000	2.00	5.280	5.28	221.4	0.0	149.6			
122.00	1.00	1.05	23.935	26.33	253.39	1.000	0.000	2.00	5.166	5.17	217.6	0.0	146.4			
124.00	1.00	1.05	24.047	26.45	248.29	1.000	0.000	2.00	5.051	5.05	213.8	0.0	143.1			
126.00	1.00	1.06	24.157	26.57	243.16	1.000	0.000	2.00	4.937	4.94	209.9	0.0	139.8			
128.00	1.00	1.06	24.266	26.69	237.99	1.000	0.000	2.00	4.822	4.82	206.0	0.0	136.6			
130.00	1.00	1.07	24.374	26.81	232.79	1.000	0.000	2.00	4.708	4.71	202.0	0.0	133.3			
132.00 Appurtenance(s)	1.00	1.07	24.480	26.93	227.56	1.000	0.000	2.00	4.593	4.59	197.9	0.0	130.0			
134.00	1.00	1.07	24.586	27.04	222.30	1.000	0.000	2.00	4.479	4.48	193.8	0.0	126.8			
136.00	1.00	1.08	24.690	27.16	217.00	1.000	0.000	2.00	4.365	4.36	189.7	0.0	123.5			
138.00	1.00	1.08	24.793	27.27	211.68	1.000	0.000	2.00	4.250	4.25	185.5	0.0	120.2			
140.00	1.00	1.09	24.895	27.38	206.32	1.000	0.000	2.00	4.136	4.14	181.2	0.0	116.9			
142.00	1.00	1.09	24.996	27.50	200.94	1.000	0.000	2.00	4.021	4.02	176.9	0.0	113.7			
144.00	1.00	1.10	25.096	27.61	195.53	1.000	0.000	2.00	3.907	3.91	172.6	0.0	110.4			
146.00	1.00	1.10	25.196	27.72	190.09	1.000	0.000	2.00	3.792	3.79	168.2	0.0	107.1			
147.00 Appurtenance(s)	1.00	1.10	25.245	27.77	187.36	1.000	0.000	1.00	1.853	1.85	82.3	0.0	52.3			
148.00	1.00	1.11	25.294	27.82	184.63	1.000	0.000	1.00	1.825	1.82	81.2	0.0	51.5			
150.00	1.00	1.11	25.391	27.93	179.14	1.000	0.000	2.00	3.564	3.56	159.2	0.0	100.6			
152.00	1.00	1.11	25.487	28.04	173.62	1.000	0.000	2.00	3.449	3.45	154.7	0.0	97.3			
154.00	1.00	1.12	25.582	28.14	168.07	1.000	0.000	2.00	3.335	3.33	150.1	0.0	94.1			
156.00	1.00	1.12	25.677	28.24	162.50	1.000	0.000	2.00	3.220	3.22	145.5	0.0	90.8			
157.00 Appurtenance(s)	1.00	1.12	25.724	28.30	159.71	1.000	0.000	1.00	1.567	1.57	71.0	0.0	44.2			
Totals:								157.00				20,342.2				26,249.3

Discrete Appurtenance Forces

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

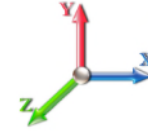


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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 24

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	157.00	Kathrein 860 10025 RET	6	25.724	28.296	0.50	1.00	0.54	6.48	0.000	0.000	24.45	0.00	0.00
2	157.00	Cci HPA65R-BU8A	3	25.724	28.296	0.89	1.00	29.96	186.30	0.000	0.000	1356.29	0.00	0.00
3	157.00	Kathrein 800-10121	3	25.724	28.296	0.79	1.00	12.21	119.07	0.000	0.000	552.59	0.00	0.00
4	157.00	Sabre C10-857-804	3	25.724	28.296	0.56	0.75	31.27	1247.40	0.000	0.000	1415.69	0.00	0.00
5	157.00	CCI DTMABP7819VG12A	6	25.724	28.296	0.67	1.00	4.58	103.68	0.000	0.000	207.48	0.00	0.00
6	157.00	Powerwave LGP21901	6	25.724	28.296	0.93	1.00	9.32	167.40	0.000	0.000	421.89	0.00	0.00
7	157.00	Lightning Rod	1	25.886	28.475	1.00	1.00	1.05	31.50	0.000	3.500	47.84	0.00	167.43
8	157.00	Ericsson RRUS-11 RRU	3	25.724	28.296	0.50	1.00	3.78	137.70	0.000	0.000	171.14	0.00	0.00
9	157.00	Ericsson RRUS 4415 B25	3	25.724	28.296	0.50	1.00	2.46	124.20	0.000	0.000	111.37	0.00	0.00
10	157.00	Raycap DC6-48-60-18-8F	2	25.724	28.296	1.00	1.00	1.84	57.24	0.000	0.000	83.30	0.00	0.00
11	157.00	Nokia CS72188.01 LMU	1	25.747	28.322	1.00	1.00	0.13	4.50	0.000	0.500	5.89	0.00	2.95
12	157.00	Andrew - SBNH-1D6565C	3	25.794	28.373	0.80	1.00	27.53	178.47	0.000	1.500	1249.70	0.00	1874.54
13	147.00	Sector Frame	3	25.245	27.769	0.56	0.75	29.53	1350.00	0.000	0.000	1312.09	0.00	0.00
14	147.00	Allgan ALP9212	9	25.245	27.769	0.54	0.80	21.80	216.27	0.000	0.000	968.79	0.00	0.00
15	132.00	MT6407-77A	3	24.480	26.928	0.52	0.75	7.39	214.38	0.000	0.000	318.26	0.00	0.00
16	132.00	14' LP Platform	1	24.480	26.928	1.00	1.00	25.00	1350.00	0.000	0.000	1077.13	0.00	0.00
17	132.00	DB844G65ZAXY	6	24.480	26.928	0.68	0.75	17.54	64.80	0.000	0.000	755.56	0.00	0.00
18	132.00	SBNHH-1D65B	6	24.480	26.928	0.62	0.75	30.18	219.24	0.000	0.000	1300.26	0.00	0.00
19	132.00	GPS	1	24.480	26.928	0.75	0.75	0.75	9.00	0.000	0.000	32.31	0.00	0.00
20	132.00	Collar Mount (3-Sided)	1	24.480	26.928	1.00	1.00	2.50	198.00	0.000	0.000	107.71	0.00	0.00
21	132.00	Samsung	3	24.480	26.928	0.38	0.75	2.10	201.69	0.000	0.000	90.64	0.00	0.00
22	132.00	RFS DB-C1-12C-24AB-0Z	1	24.480	26.928	0.75	0.75	3.04	28.80	0.000	0.000	131.19	0.00	0.00
23	132.00	Samsung	3	24.480	26.928	0.38	0.75	2.10	189.89	0.000	0.000	90.64	0.00	0.00
24	132.00	HRK12 (Handrail Kit)	1	24.480	26.928	1.00	1.00	6.75	235.55	0.000	0.000	290.82	0.00	0.00
25	132.00	(3) SFS-H (V-Braces)	1	24.480	26.928	1.00	1.00	6.30	177.30	0.000	0.000	271.44	0.00	0.00
26	100.00	15'x2.875"mount pipe	3	22.613	24.875	1.00	1.00	12.93	234.90	0.000	0.000	514.61	0.00	0.00
27	100.00	742 213	3	22.613	24.875	0.72	1.00	11.06	59.40	0.000	0.000	440.15	0.00	0.00

Totals: 7,113.16

13,349.26

Total Applied Force Summary

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 24

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		330.07	656.38	0.00	0.00
4.00		326.85	650.65	0.00	0.00
6.00		323.62	644.93	0.00	0.00
8.00		320.39	639.21	0.00	0.00
10.00		317.17	633.49	0.00	0.00
11.92		300.93	601.72	0.00	0.00
12.00		13.17	45.95	0.00	0.00
14.00		314.36	1097.24	0.00	0.00
16.00		311.14	1086.61	0.00	0.00
18.00		307.91	1075.99	0.00	0.00
20.00		304.69	1065.36	0.00	0.00
22.00		301.46	530.23	0.00	0.00
24.00		298.23	525.33	0.00	0.00
26.00		295.01	520.42	0.00	0.00
28.00		291.78	515.52	0.00	0.00
30.00		288.80	510.61	0.00	0.00
30.92		132.42	232.39	0.00	0.00
32.00		157.15	273.32	0.00	0.00
34.00		292.62	500.80	0.00	0.00
36.00		294.04	495.90	0.00	0.00
38.00		295.16	490.99	0.00	0.00
40.00		296.01	486.09	0.00	0.00
42.00		296.61	481.18	0.00	0.00
44.00		296.98	476.28	0.00	0.00
46.00		297.13	471.37	0.00	0.00
48.00		297.07	466.47	0.00	0.00
49.00		148.02	231.39	0.00	0.00
50.00		147.94	230.17	0.00	0.00
52.00		296.39	456.66	0.00	0.00
54.00		295.78	451.75	0.00	0.00
56.00		295.01	446.84	0.00	0.00
58.00		294.08	441.94	0.00	0.00
60.00		293.01	437.03	0.00	0.00
62.00		291.80	432.13	0.00	0.00
64.00		290.45	427.22	0.00	0.00
64.92		132.32	194.17	0.00	0.00
66.00		158.09	386.87	0.00	0.00
68.00		291.21	707.29	0.00	0.00
70.00		289.51	698.29	0.00	0.00
70.92		131.81	317.05	0.00	0.00
72.00		155.33	192.52	0.00	0.00
74.00		285.79	352.26	0.00	0.00
74.92		130.05	160.09	0.00	0.00
76.00		153.18	188.09	0.00	0.00
78.00		281.64	344.09	0.00	0.00
80.00		279.41	340.00	0.00	0.00

Total Applied Force Summary

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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82.00		277.08	335.91	0.00	0.00
84.00		274.66	331.82	0.00	0.00
86.00		272.15	327.74	0.00	0.00
88.00		269.56	323.65	0.00	0.00
89.92		255.77	306.33	0.00	0.00
90.00		11.17	21.45	0.00	0.00
92.00		267.46	510.90	0.00	0.00
94.00		264.63	503.55	0.00	0.00
94.92		120.13	228.33	0.00	0.00
96.00		141.21	142.35	0.00	0.00
98.00		258.75	260.27	0.00	0.00
100.00	(6) attachments	1210.45	551.30	0.00	0.00
102.00		252.56	242.50	0.00	0.00
104.00		249.36	239.23	0.00	0.00
106.00		246.09	235.96	0.00	0.00
108.00		242.75	232.69	0.00	0.00
109.00		119.95	115.12	0.00	0.00
109.92		109.19	104.81	0.00	0.00
110.00		9.88	9.49	0.00	0.00
112.00		235.88	226.15	0.00	0.00
114.00		232.35	222.88	0.00	0.00
116.00		228.75	219.61	0.00	0.00
118.00		225.10	216.34	0.00	0.00
120.00		221.38	213.07	0.00	0.00
122.00		217.61	209.80	0.00	0.00
124.00		213.78	206.53	0.00	0.00
126.00		209.89	203.26	0.00	0.00
128.00		205.95	199.99	0.00	0.00
130.00		201.96	196.72	0.00	0.00
132.00	(27) attachments	4663.89	3082.10	0.00	0.00
134.00		193.81	165.63	0.00	0.00
136.00		189.66	162.36	0.00	0.00
138.00		185.46	159.09	0.00	0.00
140.00		181.21	155.82	0.00	0.00
142.00		176.91	152.55	0.00	0.00
144.00		172.57	149.28	0.00	0.00
146.00		168.17	146.01	0.00	0.00
147.00	(12) attachments	2363.23	1638.05	0.00	0.00
148.00		81.23	62.54	0.00	0.00
150.00		159.25	122.62	0.00	0.00
152.00		154.72	119.35	0.00	0.00
154.00		150.15	116.08	0.00	0.00
156.00		145.53	112.81	0.00	0.00
157.00	(40) attachments	5718.59	2419.12	0.00	2044.92
Totals:		33,691.42	38,511.36	0.00	2,044.92

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 24

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)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.014	0.000	16.018	0.00	0.49
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.014	0.000	16.018	0.00	1.87
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.49
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	1.87
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.49
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	1.87
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.49
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	1.87
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.49
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	1.87
11.92	Safety Cable	Yes	1.92	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.47
11.92	Step bolts (ladder)	Yes	1.92	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	1.79
12.00	Safety Cable	Yes	0.08	0.000	0.38	0.00	0.00	0.015	0.000	16.018	0.00	0.02
12.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.00	0.00	0.015	0.000	16.018	0.00	0.08
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	16.018	0.00	0.49
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	16.018	0.00	1.87
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.031	0.000	16.018	0.00	0.49
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.031	0.000	16.018	0.00	1.87
16.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.031	0.000	16.018	0.00	0.00
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.046	0.000	16.018	0.00	0.49
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.046	0.000	16.018	0.00	1.87
18.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.046	0.000	16.018	0.00	0.00
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	16.018	0.00	0.49
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	16.018	0.00	1.87
20.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.047	0.000	16.018	0.00	0.00
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	16.018	0.00	0.49
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	16.018	0.00	1.87
22.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.047	0.000	16.018	0.00	0.00
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	16.018	0.00	0.49
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	16.018	0.00	1.87
24.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.047	0.000	16.018	0.00	0.00
26.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	16.018	0.00	0.49
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	16.018	0.00	1.87
26.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.048	0.000	16.018	0.00	0.00
28.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	16.018	0.00	0.49
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	16.018	0.00	1.87
28.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.048	0.000	16.018	0.00	0.00
30.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	16.031	0.00	0.49
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	16.031	0.00	1.87
30.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.049	0.000	16.031	0.00	0.00
30.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.049	0.000	16.170	0.00	0.23
30.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.049	0.000	16.170	0.00	0.86
30.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.049	0.000	16.170	0.00	0.00
32.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.050	0.000	16.330	0.00	0.27
32.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.050	0.000	16.330	0.00	1.01
32.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.050	0.000	16.330	0.00	0.00
34.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	16.615	0.00	0.49

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 24

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)
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	16.615	0.00	1.87
34.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.050	0.000	16.615	0.00	0.00
36.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	16.889	0.00	0.49
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	16.889	0.00	1.87
36.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.051	0.000	16.889	0.00	0.00
38.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	17.152	0.00	0.49
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	17.152	0.00	1.87
38.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.051	0.000	17.152	0.00	0.00
40.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	17.405	0.00	0.49
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	17.405	0.00	1.87
40.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.052	0.000	17.405	0.00	0.00
42.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	17.649	0.00	0.49
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	17.649	0.00	1.87
42.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.053	0.000	17.649	0.00	0.00
44.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	17.885	0.00	0.49
44.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	17.885	0.00	1.87
44.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.053	0.000	17.885	0.00	0.00
46.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.054	0.000	18.114	0.00	0.49
46.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.054	0.000	18.114	0.00	1.87
46.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.054	0.000	18.114	0.00	0.00
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.054	0.000	18.335	0.00	0.49
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.054	0.000	18.335	0.00	1.87
48.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.054	0.000	18.335	0.00	0.00
49.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.055	0.000	18.444	0.00	0.25
49.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.055	0.000	18.444	0.00	0.94
49.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	18.444	0.00	0.00
50.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.055	0.000	18.551	0.00	0.25
50.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.055	0.000	18.551	0.00	0.94
50.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	18.551	0.00	0.00
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	18.760	0.00	0.49
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	18.760	0.00	1.87
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	18.963	0.00	0.49
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	18.963	0.00	1.87
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	19.161	0.00	0.49
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	19.161	0.00	1.87
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	19.354	0.00	0.49
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	19.354	0.00	1.87
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	19.543	0.00	0.49
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	19.543	0.00	1.87
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	19.726	0.00	0.49
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	19.726	0.00	1.87
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	19.906	0.00	0.49
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	19.906	0.00	1.87
64.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.021	0.000	19.987	0.00	0.23
64.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.021	0.000	19.987	0.00	0.86
66.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.058	0.000	20.082	0.00	0.27
66.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.058	0.000	20.082	0.00	1.01

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind	Iterations 24
Dead Load Factor 0.90	
Wind Load Factor 1.60	

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)
66.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	20.082	0.00	0.00
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.062	0.000	20.254	0.00	0.49
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.062	0.000	20.254	0.00	1.87
68.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.062	0.000	20.254	0.00	0.00
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.063	0.000	20.422	0.00	0.49
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.063	0.000	20.422	0.00	1.87
70.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.063	0.000	20.422	0.00	0.00
70.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.064	0.000	20.499	0.00	0.23
70.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.064	0.000	20.499	0.00	0.86
70.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.064	0.000	20.499	0.00	0.00
72.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.063	0.000	20.587	0.00	0.27
72.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.063	0.000	20.587	0.00	1.01
72.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.063	0.000	20.587	0.00	0.00
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.064	0.000	20.749	0.00	0.49
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.064	0.000	20.749	0.00	1.87
74.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.064	0.000	20.749	0.00	0.00
74.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.065	0.000	20.822	0.00	0.23
74.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.065	0.000	20.822	0.00	0.86
74.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.065	0.000	20.822	0.00	0.00
76.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.065	0.000	20.908	0.00	0.27
76.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.065	0.000	20.908	0.00	1.01
76.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.065	0.000	20.908	0.00	0.00
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.066	0.000	21.064	0.00	0.49
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.066	0.000	21.064	0.00	1.87
78.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.066	0.000	21.064	0.00	0.00
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.067	0.000	21.217	0.00	0.49
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.067	0.000	21.217	0.00	1.87
80.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.067	0.000	21.217	0.00	0.00
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	21.367	0.00	0.49
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	21.367	0.00	1.87
82.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.068	0.000	21.367	0.00	0.00
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.069	0.000	21.514	0.00	0.49
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.069	0.000	21.514	0.00	1.87
84.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.069	0.000	21.514	0.00	0.00
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.070	0.000	21.660	0.00	0.49
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.070	0.000	21.660	0.00	1.87
86.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	21.660	0.00	0.00
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.071	0.000	21.802	0.00	0.49
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.071	0.000	21.802	0.00	1.87
88.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	21.802	0.00	0.00
89.92	Safety Cable	Yes	1.92	0.000	0.38	0.06	0.00	0.073	0.000	21.937	0.00	0.47
89.92	Step bolts (ladder)	Yes	1.92	0.000	0.63	0.10	0.00	0.073	0.000	21.937	0.00	1.79
89.92	1" Reinforcing plate	Yes	1.92	0.000	2.00	0.32	0.00	0.073	0.000	21.937	0.00	0.00
90.00	Safety Cable	Yes	0.08	0.000	0.38	0.00	0.00	0.073	0.000	21.943	0.00	0.02
90.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.00	0.00	0.073	0.000	21.943	0.00	0.08
90.00	1" Reinforcing plate	Yes	0.08	0.000	2.00	0.01	0.00	0.073	0.000	21.943	0.00	0.00
92.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.074	0.000	22.081	0.00	0.49

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind	Iterations 24
Dead Load Factor 0.90	
Wind Load Factor 1.60	

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)
92.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.074	0.000	22.081	0.00	1.87
92.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	22.081	0.00	0.00
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.075	0.000	22.217	0.00	0.49
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.075	0.000	22.217	0.00	1.87
94.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.075	0.000	22.217	0.00	0.00
94.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.076	0.000	22.279	0.00	0.23
94.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.076	0.000	22.279	0.00	0.86
94.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.076	0.000	22.279	0.00	0.00
96.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.076	0.000	22.351	0.00	0.27
96.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.076	0.000	22.351	0.00	1.01
96.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.076	0.000	22.351	0.00	0.00
98.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.077	0.000	22.483	0.00	0.49
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.077	0.000	22.483	0.00	1.87
98.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.077	0.000	22.483	0.00	0.00
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.078	0.000	22.613	0.00	0.49
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.078	0.000	22.613	0.00	1.87
100.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	22.613	0.00	0.00
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.080	0.000	22.742	0.00	0.49
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.080	0.000	22.742	0.00	1.87
102.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.080	0.000	22.742	0.00	0.00
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.081	0.000	22.868	0.00	0.49
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.081	0.000	22.868	0.00	1.87
104.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	22.868	0.00	0.00
106.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.082	0.000	22.993	0.00	0.49
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.082	0.000	22.993	0.00	1.87
106.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.082	0.000	22.993	0.00	0.00
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.084	0.000	23.116	0.00	0.49
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.084	0.000	23.116	0.00	1.87
108.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.084	0.000	23.116	0.00	0.00
109.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.085	0.000	23.177	0.00	0.25
109.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.085	0.000	23.177	0.00	0.94
109.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.085	0.000	23.177	0.00	0.00
109.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.086	0.000	23.233	0.00	0.23
109.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.086	0.000	23.233	0.00	0.86
109.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.086	0.000	23.233	0.00	0.00
110.00	Safety Cable	Yes	0.08	0.000	0.38	0.00	0.00	0.087	0.000	23.238	0.00	0.02
110.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.00	0.00	0.087	0.000	23.238	0.00	0.08
110.00	1" Reinforcing plate	Yes	0.08	0.000	2.00	0.01	0.00	0.087	0.000	23.238	0.00	0.00
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.029	0.000	23.358	0.00	0.49
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.029	0.000	23.358	0.00	1.87
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.030	0.000	23.476	0.00	0.49
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.030	0.000	23.476	0.00	1.87
116.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.031	0.000	23.593	0.00	0.49
116.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.031	0.000	23.593	0.00	1.87
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.031	0.000	23.708	0.00	0.49
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.031	0.000	23.708	0.00	1.87
120.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.032	0.000	23.823	0.00	0.49

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 97 mph Wind	Iterations 24
Dead Load Factor 0.90	
Wind Load Factor 1.60	

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)
120.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.032	0.000	23.823	0.00	1.87
122.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.033	0.000	23.935	0.00	0.49
122.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.033	0.000	23.935	0.00	1.87
124.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.033	0.000	24.047	0.00	0.49
124.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.033	0.000	24.047	0.00	1.87
126.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.034	0.000	24.157	0.00	0.49
126.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.034	0.000	24.157	0.00	1.87
128.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.035	0.000	24.266	0.00	0.49
128.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.035	0.000	24.266	0.00	1.87
130.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	24.374	0.00	0.49
130.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	24.374	0.00	1.87
132.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	24.480	0.00	0.49
132.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	24.480	0.00	1.87
134.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	24.586	0.00	0.49
134.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	24.586	0.00	1.87
136.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	24.690	0.00	0.49
136.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	24.690	0.00	1.87
138.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	24.793	0.00	0.49
138.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	24.793	0.00	1.87
140.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	24.895	0.00	0.49
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	24.895	0.00	1.87
142.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.042	0.000	24.996	0.00	0.49
142.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.042	0.000	24.996	0.00	1.87
144.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.043	0.000	25.096	0.00	0.49
144.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.043	0.000	25.096	0.00	1.87
146.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.044	0.000	25.196	0.00	0.49
146.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.044	0.000	25.196	0.00	1.87
147.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.045	0.000	25.245	0.00	0.25
147.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.045	0.000	25.245	0.00	0.94
148.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.046	0.000	25.294	0.00	0.25
148.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.046	0.000	25.294	0.00	0.94
150.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	25.391	0.00	0.49
150.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	25.391	0.00	1.87
152.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	25.487	0.00	0.49
152.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	25.487	0.00	1.87
154.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	25.582	0.00	0.49
154.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	25.582	0.00	1.87
156.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	25.677	0.00	0.49
156.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	25.677	0.00	1.87
157.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.054	0.000	25.724	0.00	0.25
157.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.054	0.000	25.724	0.00	0.94
Totals:											0.0	185.5

Calculated Forces

Structure: CT00252-S-SBA

Code: EIA/TIA-222-G

10/11/2021

Site Name: Prospect

Exposure: B

Height: 157.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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78.00	-15.59	-22.49	0.00	-1213.9	0.00	1213.91	1872.23	936.11	3355.44	1657.12	12.36	-1.642	0.000	0.595
80.00	-15.24	-22.22	0.00	-1168.9	0.00	1168.93	1856.07	928.04	3275.27	1617.53	13.06	-1.693	0.000	0.585
82.00	-14.89	-21.94	0.00	-1124.5	0.00	1124.50	1839.53	919.76	3195.31	1578.04	13.78	-1.745	0.000	0.574
84.00	-14.55	-21.67	0.00	-1080.6	0.00	1080.61	1822.60	911.30	3115.61	1538.68	14.52	-1.798	0.000	0.564
86.00	-14.21	-21.40	0.00	-1037.2	0.00	1037.27	1805.28	902.64	3036.19	1499.46	15.28	-1.850	0.000	0.553
88.00	-13.88	-21.13	0.00	-994.47	0.00	994.47	1787.57	893.79	2957.09	1460.40	16.07	-1.903	0.000	0.542
89.92	-13.57	-20.87	0.00	-953.96	0.00	953.96	1770.24	885.12	2881.61	1423.12	16.85	-1.953	0.000	0.532
90.00	-13.54	-20.87	0.00	-952.22	0.00	952.22	1769.48	884.74	2878.34	1421.50	16.88	-1.955	0.000	0.529
92.00	-13.02	-20.60	0.00	-910.49	0.00	910.49	1751.00	875.50	2799.96	1382.80	17.71	-2.008	0.000	0.517
94.00	-12.51	-20.32	0.00	-869.29	0.00	869.29	1732.14	866.07	2722.00	1344.29	18.56	-2.061	0.000	0.506
94.92	-12.28	-20.20	0.00	-850.67	0.00	850.67	1262.32	631.16	2000.52	987.98	18.96	-2.085	0.000	0.562
96.00	-12.13	-20.06	0.00	-828.78	0.00	828.78	1256.50	628.25	1972.50	974.14	19.44	-2.114	0.000	0.634
98.00	-11.86	-19.81	0.00	-788.66	0.00	788.66	1245.44	622.72	1920.78	948.60	20.34	-2.174	0.000	0.616
100.00	-11.33	-18.59	0.00	-749.05	0.00	749.05	1234.00	617.00	1869.08	923.07	21.26	-2.234	0.000	0.598
102.00	-11.08	-18.34	0.00	-711.87	0.00	711.87	1222.17	611.08	1817.44	897.56	22.21	-2.293	0.000	0.581
104.00	-10.83	-18.09	0.00	-675.20	0.00	675.20	1209.95	604.97	1765.88	872.10	23.18	-2.353	0.000	0.563
106.00	-10.59	-17.85	0.00	-639.02	0.00	639.02	1197.35	598.67	1714.45	846.70	24.18	-2.412	0.000	0.546
108.00	-10.35	-17.60	0.00	-603.33	0.00	603.33	1184.36	592.18	1663.17	821.38	25.21	-2.471	0.000	0.528
109.00	-10.23	-17.48	0.00	-585.73	0.00	585.73	1177.71	588.86	1637.59	808.75	25.73	-2.501	0.000	0.519
109.00	-10.23	-17.48	0.00	-585.73	0.00	585.73	1177.71	588.86	1637.59	808.75	25.73	-2.501	0.000	0.519
109.92	-10.13	-17.37	0.00	-569.70	0.00	569.70	1171.54	585.77	1614.20	797.19	26.21	-2.528	0.000	0.724
109.92	-10.13	-17.37	0.00	-569.70	0.00	569.70	1171.54	585.77	1614.20	797.19	26.21	-2.528	0.000	0.724
110.00	-10.11	-17.37	0.00	-568.25	0.00	568.25	1170.98	585.49	1612.07	796.14	26.25	-2.531	0.000	0.723
112.00	-9.87	-17.14	0.00	-533.52	0.00	533.52	1157.21	578.61	1561.19	771.01	27.33	-2.614	0.000	0.701
114.00	-9.63	-16.91	0.00	-499.25	0.00	499.25	1143.06	571.53	1510.56	746.01	28.44	-2.696	0.000	0.679
116.00	-9.40	-16.68	0.00	-465.43	0.00	465.43	1128.52	564.26	1460.20	721.14	29.59	-2.777	0.000	0.655
118.00	-9.17	-16.46	0.00	-432.07	0.00	432.07	1113.60	556.80	1410.16	696.43	30.77	-2.858	0.000	0.630
120.00	-8.95	-16.24	0.00	-399.15	0.00	399.15	1098.28	549.14	1360.47	671.88	31.99	-2.938	0.000	0.603
122.00	-8.73	-16.02	0.00	-366.67	0.00	366.67	1082.58	541.29	1311.15	647.53	33.24	-3.016	0.000	0.575
124.00	-8.51	-15.81	0.00	-334.63	0.00	334.63	1066.50	533.25	1262.24	623.37	34.52	-3.093	0.000	0.546
126.00	-8.30	-15.60	0.00	-303.01	0.00	303.01	1050.02	525.01	1213.77	599.43	35.83	-3.167	0.000	0.514
128.00	-8.09	-15.39	0.00	-271.81	0.00	271.81	1033.16	516.58	1165.77	575.73	37.17	-3.240	0.000	0.481
130.00	-7.89	-15.19	0.00	-241.02	0.00	241.02	1015.91	507.96	1118.28	552.28	38.54	-3.309	0.000	0.445
132.00	-5.07	-10.36	0.00	-210.64	0.00	210.64	998.40	499.20	1071.45	529.15	39.94	-3.375	0.000	0.404
134.00	-4.91	-10.16	0.00	-189.92	0.00	189.92	972.97	486.48	1017.31	502.41	41.37	-3.438	0.000	0.384
136.00	-4.75	-9.97	0.00	-169.60	0.00	169.60	947.54	473.77	964.58	476.37	42.82	-3.498	0.000	0.361
138.00	-4.59	-9.78	0.00	-149.67	0.00	149.67	922.11	461.06	913.25	451.02	44.30	-3.557	0.000	0.337
140.00	-4.44	-9.59	0.00	-130.11	0.00	130.11	896.68	448.34	863.33	426.36	45.80	-3.613	0.000	0.311
142.00	-4.29	-9.41	0.00	-110.93	0.00	110.93	871.26	435.63	814.80	402.40	47.33	-3.665	0.000	0.281
144.00	-4.14	-9.23	0.00	-92.11	0.00	92.11	845.83	422.91	767.69	379.13	48.87	-3.713	0.000	0.248
146.00	-4.00	-9.05	0.00	-73.65	0.00	73.65	820.40	410.20	721.97	356.55	50.44	-3.756	0.000	0.212
147.00	-2.52	-6.59	0.00	-64.60	0.00	64.60	807.68	403.84	699.64	345.53	51.22	-3.775	0.000	0.190
148.00	-2.46	-6.51	0.00	-58.01	0.00	58.01	794.97	397.49	677.66	334.67	52.02	-3.793	0.000	0.177
150.00	-2.35	-6.34	0.00	-45.00	0.00	45.00	769.54	384.77	634.75	313.48	53.61	-3.825	0.000	0.147
152.00	-2.24	-6.18	0.00	-32.32	0.00	32.32	744.11	372.06	593.25	292.98	55.22	-3.852	0.000	0.114
154.00	-2.13	-6.02	0.00	-19.96	0.00	19.96	718.69	359.34	553.15	273.18	56.84	-3.872	0.000	0.076
156.00	-2.03	-5.87	0.00	-7.91	0.00	7.91	693.26	346.63	514.45	254.07	58.46	-3.883	0.000	0.034
157.00	0.00	-5.72	0.00	-2.04	0.00	2.04	680.54	340.27	495.63	244.77	59.27	-3.886	0.000	0.009

Wind Loading - Shaft

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



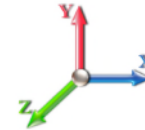
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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 23

Dead Load Factor 1.20

Wind Load Factor 1.00



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	0.000	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	1.133	2.00	12.086	14.50	67.9	201.6	977.3
4.00		1.00	0.70	4.256	4.68	0.00	1.200	1.215	2.00	11.999	14.40	67.4	214.3	982.3
6.00		1.00	0.70	4.256	4.68	0.00	1.200	1.265	2.00	11.901	14.28	66.9	221.1	981.5
8.00		1.00	0.70	4.256	4.68	0.00	1.200	1.302	2.00	11.799	14.16	66.3	225.4	978.2
10.00		1.00	0.70	4.256	4.68	0.00	1.200	1.331	2.00	11.694	14.03	65.7	228.3	973.5
11.92	Bot - Section 2	1.00	0.70	4.256	4.68	0.00	1.200	1.355	1.92	11.107	13.33	62.4	220.6	927.5
12.00		1.00	0.70	4.256	4.68	0.00	1.200	1.356	0.08	0.486	0.58	2.7	9.7	66.8
14.00		1.00	0.70	4.256	4.68	0.00	1.200	1.377	2.00	11.610	13.93	65.2	234.3	1597.7
16.00	RB1	1.00	0.70	4.256	4.68	0.00	1.200	1.395	2.00	11.502	13.80	64.6	235.1	1584.4
18.00		1.00	0.70	4.256	4.68	0.00	1.200	1.412	2.00	11.393	13.67	64.0	235.5	1570.6
20.00	Top - Section 1	1.00	0.70	4.256	4.68	0.00	1.200	1.427	2.00	11.283	13.54	63.4	235.6	1556.5
22.00		1.00	0.70	4.256	4.68	0.00	1.200	1.440	2.00	11.173	13.41	62.8	235.4	842.8
24.00		1.00	0.70	4.256	4.68	0.00	1.200	1.453	2.00	11.063	13.28	62.2	235.0	835.9
26.00		1.00	0.70	4.256	4.68	0.00	1.200	1.465	2.00	10.953	13.14	61.5	234.4	828.8
28.00		1.00	0.70	4.256	4.68	0.00	1.200	1.476	2.00	10.842	13.01	60.9	233.7	821.5
30.00		1.00	0.70	4.260	4.69	0.00	1.200	1.486	2.00	10.731	12.88	60.3	232.8	814.1
30.92	Top - Section 2	1.00	0.71	4.296	4.73	0.00	1.200	1.490	0.92	4.881	5.86	27.7	106.5	370.7
32.00		1.00	0.71	4.339	4.77	0.00	1.200	1.495	1.08	5.738	6.89	32.9	125.5	436.0
34.00		1.00	0.73	4.415	4.86	0.00	1.200	1.504	2.00	10.508	12.61	61.2	230.6	798.8
36.00		1.00	0.74	4.487	4.94	0.00	1.200	1.513	2.00	10.397	12.48	61.6	229.4	791.0
38.00		1.00	0.75	4.557	5.01	0.00	1.200	1.521	2.00	10.285	12.34	61.9	228.0	783.1
40.00		1.00	0.76	4.625	5.09	0.00	1.200	1.529	2.00	10.173	12.21	62.1	226.6	775.2
42.00		1.00	0.77	4.689	5.16	0.00	1.200	1.537	2.00	10.061	12.07	62.3	225.1	767.1
44.00		1.00	0.78	4.752	5.23	0.00	1.200	1.544	2.00	9.949	11.94	62.4	223.5	759.0
46.00		1.00	0.79	4.813	5.29	0.00	1.200	1.551	2.00	9.837	11.80	62.5	221.9	750.8
48.00		1.00	0.80	4.872	5.36	0.00	1.200	1.557	2.00	9.725	11.67	62.5	220.2	742.6
49.00	RT1	1.00	0.81	4.901	5.39	0.00	1.200	1.560	1.00	4.820	5.78	31.2	109.6	368.4
50.00		1.00	0.81	4.929	5.42	0.00	1.200	1.564	1.00	4.792	5.75	31.2	109.2	366.3
52.00		1.00	0.82	4.984	5.48	0.00	1.200	1.570	2.00	9.500	11.40	62.5	216.6	725.9
54.00		1.00	0.83	5.039	5.54	0.00	1.200	1.576	2.00	9.388	11.27	62.4	214.7	717.5
56.00		1.00	0.84	5.091	5.60	0.00	1.200	1.581	2.00	9.275	11.13	62.3	212.8	709.0
58.00		1.00	0.85	5.142	5.66	0.00	1.200	1.587	2.00	9.162	10.99	62.2	210.8	700.5
60.00		1.00	0.85	5.193	5.71	0.00	1.200	1.592	2.00	9.050	10.86	62.0	208.8	692.0
62.00		1.00	0.86	5.241	5.77	0.00	1.200	1.598	2.00	8.937	10.72	61.8	206.8	683.4
64.00		1.00	0.87	5.289	5.82	0.00	1.200	1.603	2.00	8.824	10.59	61.6	204.7	674.8
64.92	Bot - Section 4	1.00	0.87	5.311	5.84	0.00	1.200	1.605	0.92	4.007	4.81	28.1	93.4	306.7
66.00	RB2	1.00	0.88	5.336	5.87	0.00	1.200	1.608	1.08	4.763	5.72	33.5	111.2	573.1
68.00		1.00	0.89	5.382	5.92	0.00	1.200	1.612	2.00	8.707	10.45	61.8	203.1	1046.6
70.00		1.00	0.89	5.426	5.97	0.00	1.200	1.617	2.00	8.594	10.31	61.6	200.9	1032.4
70.92	Top - Section 3	1.00	0.90	5.447	5.99	0.00	1.200	1.619	0.92	3.901	4.68	28.0	91.6	468.7
72.00		1.00	0.90	5.470	6.02	0.00	1.200	1.622	1.08	4.580	5.50	33.1	107.6	310.4
74.00		1.00	0.91	5.513	6.06	0.00	1.200	1.626	2.00	8.368	10.04	60.9	196.5	566.6
74.92	Top - Section 4	1.00	0.91	5.533	6.09	0.00	1.200	1.628	0.92	3.797	4.56	27.7	89.6	257.4
76.00		1.00	0.91	5.555	6.11	0.00	1.200	1.631	1.08	4.457	5.35	32.7	105.2	302.1
78.00		1.00	0.92	5.597	6.16	0.00	1.200	1.635	2.00	8.142	9.77	60.1	191.9	551.2
80.00		1.00	0.93	5.637	6.20	0.00	1.200	1.639	2.00	8.029	9.63	59.7	189.6	543.4

Wind Loading - Shaft

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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82.00	1.00	0.93	5.677	6.24	0.00	1.200	1.643	2.00	7.916	9.50	59.3	187.3	535.6
84.00	1.00	0.94	5.716	6.29	0.00	1.200	1.647	2.00	7.803	9.36	58.9	184.9	527.8
86.00	1.00	0.95	5.755	6.33	0.00	1.200	1.651	2.00	7.689	9.23	58.4	182.5	519.9
88.00	1.00	0.95	5.793	6.37	0.00	1.200	1.655	2.00	7.576	9.09	57.9	180.1	512.1
89.92 Bot - Section 6	1.00	0.96	5.829	6.41	0.00	1.200	1.658	1.92	7.154	8.59	55.0	170.4	483.4
90.00	1.00	0.96	5.830	6.41	0.00	1.200	1.658	0.08	0.312	0.37	2.4	7.5	31.9
92.00	1.00	0.96	5.867	6.45	0.00	1.200	1.662	2.00	7.436	8.92	57.6	177.4	759.0
94.00	1.00	0.97	5.903	6.49	0.00	1.200	1.666	2.00	7.323	8.79	57.1	174.9	746.8
94.92 Top - Section 5	1.00	0.97	5.920	6.51	0.00	1.200	1.667	0.92	3.318	3.98	25.9	79.6	338.5
96.00	1.00	0.98	5.939	6.53	0.00	1.200	1.669	1.08	3.891	4.67	30.5	93.4	229.3
98.00	1.00	0.98	5.974	6.57	0.00	1.200	1.672	2.00	7.096	8.52	56.0	169.9	417.4
100.00 Appurtenance(s)	1.00	0.99	6.008	6.61	0.00	1.200	1.676	2.00	6.983	8.38	55.4	167.4	410.5
102.00	1.00	0.99	6.043	6.65	0.00	1.200	1.679	2.00	6.870	8.24	54.8	164.8	403.6
104.00	1.00	1.00	6.076	6.68	0.00	1.200	1.682	2.00	6.756	8.11	54.2	162.3	396.7
106.00	1.00	1.00	6.109	6.72	0.00	1.200	1.686	2.00	6.643	7.97	53.6	159.7	389.8
108.00	1.00	1.01	6.142	6.76	0.00	1.200	1.689	2.00	6.530	7.84	52.9	157.1	382.8
109.00 RT2	1.00	1.01	6.158	6.77	0.00	1.200	1.690	1.00	3.222	3.87	26.2	77.9	189.1
109.92 Top - Section 6	1.00	1.02	6.173	6.79	0.00	1.200	1.692	0.92	2.929	3.51	23.9	70.9	171.9
110.00	1.00	1.02	6.174	6.79	0.00	1.200	1.692	0.08	0.265	0.32	2.2	6.4	15.6
112.00	1.00	1.02	6.206	6.83	0.00	1.200	1.695	2.00	6.303	7.56	51.6	151.9	368.9
114.00	1.00	1.03	6.238	6.86	0.00	1.200	1.698	2.00	6.189	7.43	51.0	149.2	361.9
116.00	1.00	1.03	6.269	6.90	0.00	1.200	1.701	2.00	6.076	7.29	50.3	146.6	354.8
118.00	1.00	1.04	6.299	6.93	0.00	1.200	1.704	2.00	5.962	7.15	49.6	143.9	347.8
120.00	1.00	1.04	6.330	6.96	0.00	1.200	1.707	2.00	5.849	7.02	48.9	141.2	340.8
122.00	1.00	1.05	6.360	7.00	0.00	1.200	1.710	2.00	5.736	6.88	48.1	138.5	333.7
124.00	1.00	1.05	6.389	7.03	0.00	1.200	1.712	2.00	5.622	6.75	47.4	135.8	326.7
126.00	1.00	1.06	6.419	7.06	0.00	1.200	1.715	2.00	5.508	6.61	46.7	133.1	319.6
128.00	1.00	1.06	6.448	7.09	0.00	1.200	1.718	2.00	5.395	6.47	45.9	130.4	312.5
130.00	1.00	1.07	6.476	7.12	0.00	1.200	1.720	2.00	5.281	6.34	45.1	127.6	305.4
132.00 Appurtenance(s)	1.00	1.07	6.504	7.15	0.00	1.200	1.723	2.00	5.168	6.20	44.4	124.9	298.3
134.00	1.00	1.07	6.532	7.19	0.00	1.200	1.726	2.00	5.054	6.07	43.6	122.1	291.1
136.00	1.00	1.08	6.560	7.22	0.00	1.200	1.728	2.00	4.941	5.93	42.8	119.3	284.0
138.00	1.00	1.08	6.588	7.25	0.00	1.200	1.731	2.00	4.827	5.79	42.0	116.5	276.8
140.00	1.00	1.09	6.615	7.28	0.00	1.200	1.733	2.00	4.713	5.66	41.2	113.7	269.7
142.00	1.00	1.09	6.642	7.31	0.00	1.200	1.736	2.00	4.600	5.52	40.3	110.9	262.5
144.00	1.00	1.10	6.668	7.34	0.00	1.200	1.738	2.00	4.486	5.38	39.5	108.1	255.3
146.00	1.00	1.10	6.695	7.36	0.00	1.200	1.741	2.00	4.373	5.25	38.6	105.3	248.1
147.00 Appurtenance(s)	1.00	1.10	6.708	7.38	0.00	1.200	1.742	1.00	2.144	2.57	19.0	51.9	121.7
148.00	1.00	1.11	6.721	7.39	0.00	1.200	1.743	1.00	2.115	2.54	18.8	51.2	119.9
150.00	1.00	1.11	6.746	7.42	0.00	1.200	1.745	2.00	4.145	4.97	36.9	99.6	233.7
152.00	1.00	1.11	6.772	7.45	0.00	1.200	1.748	2.00	4.032	4.84	36.0	96.7	226.5
154.00	1.00	1.12	6.797	7.48	0.00	1.200	1.750	2.00	3.918	4.70	35.2	93.8	219.3
156.00	1.00	1.12	6.822	7.50	0.00	1.200	1.752	2.00	3.804	4.57	34.3	91.0	212.0
157.00 Appurtenance(s)	1.00	1.12	6.835	7.52	0.00	1.200	1.753	1.00	1.859	2.23	16.8	44.8	103.7
Totals:									157.00			4,361.9	49,166.2

Discrete Appurtenance Forces

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Iterations 23

Dead Load Factor 1.20

Wind Load Factor 1.00



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	157.00	Kathrein 860 10025 RET	6	6.835	7.518	0.50	1.00	1.68	35.18	0.000	0.000	12.64	0.00	0.00
2	157.00	Cci HPA65R-BU8A	3	6.835	7.518	0.89	1.00	34.40	1081.87	0.000	0.000	258.65	0.00	0.00
3	157.00	Kathrein 800-10121	3	6.835	7.518	0.79	1.00	17.22	406.22	0.000	0.000	129.48	0.00	0.00
4	157.00	Sabre C10-857-804	3	6.835	7.518	0.56	0.75	64.16	2998.14	0.000	0.000	482.40	0.00	0.00
5	157.00	CCI DTMABP7819VG12A	6	6.835	7.518	0.69	1.00	7.92	248.26	0.000	0.000	59.55	0.00	0.00
6	157.00	Powerwave LGP21901	6	6.835	7.518	0.95	1.00	12.61	554.04	0.000	0.000	94.81	0.00	0.00
7	157.00	Lightning Rod	1	6.878	7.566	1.00	1.00	3.43	64.56	0.000	3.500	25.98	0.00	90.94
8	157.00	Ericsson RRUS-11 RRU	3	6.835	7.518	0.50	1.00	4.73	353.41	0.000	0.000	35.59	0.00	0.00
9	157.00	Ericsson RRUS 4415 B25	3	6.835	7.518	0.50	1.00	3.24	261.27	0.000	0.000	24.33	0.00	0.00
10	157.00	Raycap DC6-48-60-18-8F	2	6.835	7.518	1.00	1.00	2.72	165.13	0.000	0.000	20.45	0.00	0.00
11	157.00	Nokia CS72188.01 LMU	1	6.841	7.525	1.00	1.00	0.41	10.46	0.000	0.500	3.12	0.00	1.56
12	157.00	Andrew - SBNH-1D6565C	3	6.854	7.539	0.80	1.00	35.37	733.07	0.000	1.500	266.62	0.00	399.93
13	147.00	Sector Frame	3	6.708	7.378	0.56	0.75	52.99	3290.03	0.000	0.000	390.94	0.00	0.00
14	147.00	Allgan ALP9212	9	6.708	7.378	0.54	0.80	51.23	1296.08	0.000	0.000	377.98	0.00	0.00
15	132.00	MT6407-77A	3	6.504	7.155	0.52	0.75	8.86	638.96	0.000	0.000	63.38	0.00	0.00
16	132.00	14' LP Platform	1	6.504	7.155	1.00	1.00	45.68	2792.29	0.000	0.000	326.81	0.00	0.00
17	132.00	DB844G65ZAXY	6	6.504	7.155	0.69	0.75	21.81	879.31	0.000	0.000	156.08	0.00	0.00
18	132.00	SBNHH-1D65B	6	6.504	7.155	0.64	0.75	35.78	1483.68	0.000	0.000	256.01	0.00	0.00
19	132.00	GPS	1	6.504	7.155	0.75	0.75	1.28	32.95	0.000	0.000	9.14	0.00	0.00
20	132.00	Collar Mount (3-Sided)	1	6.504	7.155	1.00	1.00	5.08	470.26	0.000	0.000	36.38	0.00	0.00
21	132.00	Samsung	3	6.504	7.155	0.38	0.75	2.74	494.98	0.000	0.000	19.60	0.00	0.00
22	132.00	RFS DB-C1-12C-24AB-0Z	1	6.504	7.155	0.75	0.75	3.65	122.28	0.000	0.000	26.14	0.00	0.00
23	132.00	Samsung	3	6.504	7.155	0.38	0.75	2.74	479.24	0.000	0.000	19.60	0.00	0.00
24	132.00	HRK12 (Handrail Kit)	1	6.504	7.155	1.00	1.00	13.26	882.43	0.000	0.000	94.90	0.00	0.00
25	132.00	(3) SFS-H (V-Braces)	1	6.504	7.155	1.00	1.00	12.81	420.95	0.000	0.000	91.68	0.00	0.00
26	100.00	15'x2.875"mount pipe	3	6.008	6.609	1.00	1.00	28.44	605.11	0.000	0.000	188.00	0.00	0.00
27	100.00	742 213	3	6.008	6.609	0.72	1.00	13.73	400.76	0.000	0.000	90.77	0.00	0.00

Totals: 21,200.94

3,561.04

Total Applied Force Summary

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

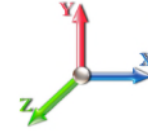


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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 23

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		67.90	1084.93	0.00	0.00
4.00		67.41	1090.99	0.00	0.00
6.00		66.86	1090.89	0.00	0.00
8.00		66.29	1088.12	0.00	0.00
10.00		65.70	1083.81	0.00	0.00
11.92		62.40	1033.63	0.00	0.00
12.00		2.73	71.44	0.00	0.00
14.00		65.22	1708.74	0.00	0.00
16.00		64.62	1701.55	0.00	0.00
18.00		64.00	1694.12	0.00	0.00
20.00		63.39	1680.45	0.00	0.00
22.00		62.77	967.14	0.00	0.00
24.00		62.15	960.55	0.00	0.00
26.00		61.53	953.75	0.00	0.00
28.00		60.91	946.76	0.00	0.00
30.00		60.34	939.60	0.00	0.00
30.92		27.68	428.31	0.00	0.00
32.00		32.86	504.19	0.00	0.00
34.00		61.24	924.88	0.00	0.00
36.00		61.58	917.34	0.00	0.00
38.00		61.87	909.69	0.00	0.00
40.00		62.10	901.94	0.00	0.00
42.00		62.28	894.11	0.00	0.00
44.00		62.41	886.20	0.00	0.00
46.00		62.49	878.22	0.00	0.00
48.00		62.54	870.16	0.00	0.00
49.00		31.18	432.24	0.00	0.00
50.00		31.18	430.20	0.00	0.00
52.00		62.51	840.02	0.00	0.00
54.00		62.44	831.71	0.00	0.00
56.00		62.33	823.35	0.00	0.00
58.00		62.20	814.95	0.00	0.00
60.00		62.03	806.50	0.00	0.00
62.00		61.83	798.01	0.00	0.00
64.00		61.61	789.48	0.00	0.00
64.92		28.09	359.24	0.00	0.00
66.00		33.55	642.38	0.00	0.00
68.00		61.85	1175.80	0.00	0.00
70.00		61.55	1161.77	0.00	0.00
70.92		28.05	528.04	0.00	0.00
72.00		33.07	380.54	0.00	0.00
74.00		60.90	696.23	0.00	0.00
74.92		27.73	316.84	0.00	0.00
76.00		32.68	372.34	0.00	0.00
78.00		60.15	681.04	0.00	0.00
80.00		59.74	673.40	0.00	0.00

Total Applied Force Summary

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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82.00		59.32	665.73	0.00	0.00
84.00		58.88	658.04	0.00	0.00
86.00		58.41	650.32	0.00	0.00
88.00		57.93	642.57	0.00	0.00
89.92		55.05	608.56	0.00	0.00
90.00		2.40	37.38	0.00	0.00
92.00		57.59	889.75	0.00	0.00
94.00		57.06	877.58	0.00	0.00
94.92		25.93	398.45	0.00	0.00
96.00		30.50	300.19	0.00	0.00
98.00		55.96	548.43	0.00	0.00
100.00	(6) attachments	334.16	1547.53	0.00	0.00
102.00		54.79	519.88	0.00	0.00
104.00		54.19	513.06	0.00	0.00
106.00		53.57	506.22	0.00	0.00
108.00		52.94	499.37	0.00	0.00
109.00		26.19	247.42	0.00	0.00
109.92		23.86	225.32	0.00	0.00
110.00		2.16	20.43	0.00	0.00
112.00		51.63	470.18	0.00	0.00
114.00		50.96	463.23	0.00	0.00
116.00		50.28	456.27	0.00	0.00
118.00		49.58	449.30	0.00	0.00
120.00		48.87	442.31	0.00	0.00
122.00		48.15	435.31	0.00	0.00
124.00		47.42	428.29	0.00	0.00
126.00		46.67	421.26	0.00	0.00
128.00		45.91	414.22	0.00	0.00
130.00		45.15	407.16	0.00	0.00
132.00	(27) attachments	1144.09	9097.43	0.00	0.00
134.00		43.58	360.28	0.00	0.00
136.00		42.78	353.19	0.00	0.00
138.00		41.97	346.08	0.00	0.00
140.00		41.16	338.97	0.00	0.00
142.00		40.33	331.84	0.00	0.00
144.00		39.49	324.70	0.00	0.00
146.00		38.64	317.55	0.00	0.00
147.00	(12) attachments	787.91	4742.56	0.00	0.00
148.00		18.76	143.42	0.00	0.00
150.00		36.92	280.76	0.00	0.00
152.00		36.04	273.58	0.00	0.00
154.00		35.15	266.39	0.00	0.00
156.00		34.26	259.19	0.00	0.00
157.00	(40) attachments	1430.40	7038.86	0.00	492.43
Totals:		7,922.91	78,984.14	0.00	492.43

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind	Iterations 23
Dead Load Factor 1.20	
Wind Load Factor 1.00	

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)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.014	0.000	4.256	0.00	4.48
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.014	0.000	4.256	0.00	6.80
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.47	0.00	0.015	0.000	4.256	0.00	4.99
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.51	0.00	0.015	0.000	4.256	0.00	7.35
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.48	0.00	0.015	0.000	4.256	0.00	5.33
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.53	0.00	0.015	0.000	4.256	0.00	7.70
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.50	0.00	0.015	0.000	4.256	0.00	5.58
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.54	0.00	0.015	0.000	4.256	0.00	7.97
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.51	0.00	0.015	0.000	4.256	0.00	5.79
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.55	0.00	0.015	0.000	4.256	0.00	8.19
11.92	Safety Cable	Yes	1.92	0.000	0.38	0.49	0.00	0.015	0.000	4.256	0.00	5.71
11.92	Step bolts (ladder)	Yes	1.92	0.000	0.63	0.53	0.00	0.015	0.000	4.256	0.00	8.01
12.00	Safety Cable	Yes	0.08	0.000	0.38	0.02	0.00	0.015	0.000	4.256	0.00	0.25
12.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.02	0.00	0.015	0.000	4.256	0.00	0.35
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.52	0.00	0.015	0.000	4.256	0.00	6.11
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.56	0.00	0.015	0.000	4.256	0.00	8.53
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.53	0.00	0.031	0.000	4.256	0.00	6.25
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.57	0.00	0.031	0.000	4.256	0.00	8.67
16.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.40	0.00	0.031	0.000	4.256	0.00	5.88
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.53	0.00	0.046	0.000	4.256	0.00	6.37
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.58	0.00	0.046	0.000	4.256	0.00	8.80
18.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.80	0.00	0.046	0.000	4.256	0.00	11.96
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.54	0.00	0.047	0.000	4.256	0.00	6.48
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.58	0.00	0.047	0.000	4.256	0.00	8.92
20.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.81	0.00	0.047	0.000	4.256	0.00	12.13
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.54	0.00	0.047	0.000	4.256	0.00	6.59
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.59	0.00	0.047	0.000	4.256	0.00	9.03
22.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.81	0.00	0.047	0.000	4.256	0.00	12.29
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.55	0.00	0.047	0.000	4.256	0.00	6.68
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.59	0.00	0.047	0.000	4.256	0.00	9.13
24.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.82	0.00	0.047	0.000	4.256	0.00	12.44
26.00	Safety Cable	Yes	2.00	0.000	0.38	0.55	0.00	0.048	0.000	4.256	0.00	6.77
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.59	0.00	0.048	0.000	4.256	0.00	9.23
26.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.82	0.00	0.048	0.000	4.256	0.00	12.58
28.00	Safety Cable	Yes	2.00	0.000	0.38	0.56	0.00	0.048	0.000	4.256	0.00	6.86
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.60	0.00	0.048	0.000	4.256	0.00	9.32
28.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.83	0.00	0.048	0.000	4.256	0.00	12.71
30.00	Safety Cable	Yes	2.00	0.000	0.38	0.56	0.00	0.049	0.000	4.260	0.00	6.94
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.60	0.00	0.049	0.000	4.260	0.00	9.40
30.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.83	0.00	0.049	0.000	4.260	0.00	12.83
30.92	Safety Cable	Yes	0.92	0.000	0.38	0.26	0.00	0.049	0.000	4.296	0.00	3.20
30.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.28	0.00	0.049	0.000	4.296	0.00	4.33
30.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.38	0.00	0.049	0.000	4.296	0.00	5.90
32.00	Safety Cable	Yes	1.08	0.000	0.38	0.30	0.00	0.050	0.000	4.339	0.00	3.80
32.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.33	0.00	0.050	0.000	4.339	0.00	5.13
32.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.45	0.00	0.050	0.000	4.339	0.00	7.01
34.00	Safety Cable	Yes	2.00	0.000	0.38	0.56	0.00	0.050	0.000	4.415	0.00	7.09

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Iterations 23

Dead Load Factor 1.20

Wind Load Factor 1.00



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)
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.61	0.00	0.050	0.000	4.415	0.00	9.55
34.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.83	0.00	0.050	0.000	4.415	0.00	13.05
36.00	Safety Cable	Yes	2.00	0.000	0.38	0.57	0.00	0.051	0.000	4.487	0.00	7.16
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.61	0.00	0.051	0.000	4.487	0.00	9.63
36.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.84	0.00	0.051	0.000	4.487	0.00	13.16
38.00	Safety Cable	Yes	2.00	0.000	0.38	0.57	0.00	0.051	0.000	4.557	0.00	7.22
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.61	0.00	0.051	0.000	4.557	0.00	9.70
38.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.84	0.00	0.051	0.000	4.557	0.00	13.26
40.00	Safety Cable	Yes	2.00	0.000	0.38	0.57	0.00	0.052	0.000	4.625	0.00	7.28
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.61	0.00	0.052	0.000	4.625	0.00	9.76
40.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.84	0.00	0.052	0.000	4.625	0.00	13.35
42.00	Safety Cable	Yes	2.00	0.000	0.38	0.58	0.00	0.053	0.000	4.689	0.00	7.34
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.62	0.00	0.053	0.000	4.689	0.00	9.82
42.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.85	0.00	0.053	0.000	4.689	0.00	13.44
44.00	Safety Cable	Yes	2.00	0.000	0.38	0.58	0.00	0.053	0.000	4.752	0.00	7.40
44.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.62	0.00	0.053	0.000	4.752	0.00	9.89
44.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.85	0.00	0.053	0.000	4.752	0.00	13.53
46.00	Safety Cable	Yes	2.00	0.000	0.38	0.58	0.00	0.054	0.000	4.813	0.00	7.46
46.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.62	0.00	0.054	0.000	4.813	0.00	9.94
46.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.85	0.00	0.054	0.000	4.813	0.00	13.61
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.58	0.00	0.054	0.000	4.872	0.00	7.51
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.62	0.00	0.054	0.000	4.872	0.00	10.00
48.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.85	0.00	0.054	0.000	4.872	0.00	13.69
49.00	Safety Cable	Yes	1.00	0.000	0.38	0.29	0.00	0.055	0.000	4.901	0.00	3.77
49.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.31	0.00	0.055	0.000	4.901	0.00	5.01
49.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.43	0.00	0.055	0.000	4.901	0.00	6.87
50.00	Safety Cable	Yes	1.00	0.000	0.38	0.29	0.00	0.055	0.000	4.929	0.00	3.78
50.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.31	0.00	0.055	0.000	4.929	0.00	5.03
50.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.43	0.00	0.055	0.000	4.929	0.00	6.89
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.59	0.00	0.019	0.000	4.984	0.00	7.62
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.63	0.00	0.019	0.000	4.984	0.00	10.11
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.59	0.00	0.019	0.000	5.039	0.00	7.66
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.63	0.00	0.019	0.000	5.039	0.00	10.16
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.59	0.00	0.019	0.000	5.091	0.00	7.71
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.63	0.00	0.019	0.000	5.091	0.00	10.21
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.59	0.00	0.019	0.000	5.142	0.00	7.76
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.63	0.00	0.019	0.000	5.142	0.00	10.26
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.59	0.00	0.020	0.000	5.193	0.00	7.80
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.64	0.00	0.020	0.000	5.193	0.00	10.31
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.60	0.00	0.020	0.000	5.241	0.00	7.85
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.64	0.00	0.020	0.000	5.241	0.00	10.35
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.60	0.00	0.020	0.000	5.289	0.00	7.89
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.64	0.00	0.020	0.000	5.289	0.00	10.40
64.92	Safety Cable	Yes	0.92	0.000	0.38	0.27	0.00	0.021	0.000	5.311	0.00	3.63
64.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.29	0.00	0.021	0.000	5.311	0.00	4.77
66.00	Safety Cable	Yes	1.08	0.000	0.38	0.32	0.00	0.058	0.000	5.336	0.00	4.30
66.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.35	0.00	0.058	0.000	5.336	0.00	5.65

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Iterations 23

Dead Load Factor 1.20

Wind Load Factor 1.00



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)
66.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.43	0.00	0.058	0.000	5.336	0.00	7.16
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.60	0.00	0.062	0.000	5.382	0.00	7.97
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.64	0.00	0.062	0.000	5.382	0.00	10.48
68.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.87	0.00	0.062	0.000	5.382	0.00	14.38
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.60	0.00	0.063	0.000	5.426	0.00	8.01
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.64	0.00	0.063	0.000	5.426	0.00	10.52
70.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.87	0.00	0.063	0.000	5.426	0.00	14.44
70.92	Safety Cable	Yes	0.92	0.000	0.38	0.28	0.00	0.064	0.000	5.447	0.00	3.68
70.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.30	0.00	0.064	0.000	5.447	0.00	4.83
70.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.40	0.00	0.064	0.000	5.447	0.00	6.63
72.00	Safety Cable	Yes	1.08	0.000	0.38	0.33	0.00	0.063	0.000	5.470	0.00	4.36
72.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.35	0.00	0.063	0.000	5.470	0.00	5.72
72.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.47	0.00	0.063	0.000	5.470	0.00	7.85
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.61	0.00	0.064	0.000	5.513	0.00	8.09
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.65	0.00	0.064	0.000	5.513	0.00	10.60
74.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.88	0.00	0.064	0.000	5.513	0.00	14.55
74.92	Safety Cable	Yes	0.92	0.000	0.38	0.28	0.00	0.065	0.000	5.533	0.00	3.72
74.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.30	0.00	0.065	0.000	5.533	0.00	4.87
74.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.40	0.00	0.065	0.000	5.533	0.00	6.68
76.00	Safety Cable	Yes	1.08	0.000	0.38	0.33	0.00	0.065	0.000	5.555	0.00	4.40
76.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.35	0.00	0.065	0.000	5.555	0.00	5.76
76.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.47	0.00	0.065	0.000	5.555	0.00	7.91
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.61	0.00	0.066	0.000	5.597	0.00	8.16
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.65	0.00	0.066	0.000	5.597	0.00	10.68
78.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.88	0.00	0.066	0.000	5.597	0.00	14.66
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.61	0.00	0.067	0.000	5.637	0.00	8.20
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.65	0.00	0.067	0.000	5.637	0.00	10.72
80.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.88	0.00	0.067	0.000	5.637	0.00	14.71
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.61	0.00	0.068	0.000	5.677	0.00	8.23
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.65	0.00	0.068	0.000	5.677	0.00	10.75
82.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.88	0.00	0.068	0.000	5.677	0.00	14.76
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.61	0.00	0.069	0.000	5.716	0.00	8.27
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.65	0.00	0.069	0.000	5.716	0.00	10.79
84.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.88	0.00	0.069	0.000	5.716	0.00	14.81
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.61	0.00	0.070	0.000	5.755	0.00	8.30
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.66	0.00	0.070	0.000	5.755	0.00	10.82
86.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.88	0.00	0.070	0.000	5.755	0.00	14.86
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.61	0.00	0.071	0.000	5.793	0.00	8.33
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.66	0.00	0.071	0.000	5.793	0.00	10.86
88.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.88	0.00	0.071	0.000	5.793	0.00	14.91
89.92	Safety Cable	Yes	1.92	0.000	0.38	0.59	0.00	0.073	0.000	5.829	0.00	8.02
89.92	Step bolts (ladder)	Yes	1.92	0.000	0.63	0.63	0.00	0.073	0.000	5.829	0.00	10.44
89.92	1" Reinforcing plate	Yes	1.92	0.000	2.00	0.85	0.00	0.073	0.000	5.829	0.00	14.33
90.00	Safety Cable	Yes	0.08	0.000	0.38	0.03	0.00	0.073	0.000	5.830	0.00	0.35
90.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.03	0.00	0.073	0.000	5.830	0.00	0.45
90.00	1" Reinforcing plate	Yes	0.08	0.000	2.00	0.04	0.00	0.073	0.000	5.830	0.00	0.62
92.00	Safety Cable	Yes	2.00	0.000	0.38	0.62	0.00	0.074	0.000	5.867	0.00	8.40

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Iterations 23

Dead Load Factor 1.20

Wind Load Factor 1.00



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)
92.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.66	0.00	0.074	0.000	5.867	0.00	10.93
92.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.89	0.00	0.074	0.000	5.867	0.00	15.01
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.62	0.00	0.075	0.000	5.903	0.00	8.43
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.66	0.00	0.075	0.000	5.903	0.00	10.96
94.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.89	0.00	0.075	0.000	5.903	0.00	15.05
94.92	Safety Cable	Yes	0.92	0.000	0.38	0.28	0.00	0.076	0.000	5.920	0.00	3.87
94.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.30	0.00	0.076	0.000	5.920	0.00	5.03
94.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.41	0.00	0.076	0.000	5.920	0.00	6.91
96.00	Safety Cable	Yes	1.08	0.000	0.38	0.34	0.00	0.076	0.000	5.939	0.00	4.58
96.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.36	0.00	0.076	0.000	5.939	0.00	5.95
96.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.48	0.00	0.076	0.000	5.939	0.00	8.18
98.00	Safety Cable	Yes	2.00	0.000	0.38	0.62	0.00	0.077	0.000	5.974	0.00	8.49
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.66	0.00	0.077	0.000	5.974	0.00	11.02
98.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.89	0.00	0.077	0.000	5.974	0.00	15.14
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.62	0.00	0.078	0.000	6.008	0.00	8.52
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.66	0.00	0.078	0.000	6.008	0.00	11.05
100.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.89	0.00	0.078	0.000	6.008	0.00	15.18
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.62	0.00	0.080	0.000	6.043	0.00	8.55
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.66	0.00	0.080	0.000	6.043	0.00	11.08
102.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.89	0.00	0.080	0.000	6.043	0.00	15.23
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.62	0.00	0.081	0.000	6.076	0.00	8.58
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.67	0.00	0.081	0.000	6.076	0.00	11.11
104.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.89	0.00	0.081	0.000	6.076	0.00	15.27
106.00	Safety Cable	Yes	2.00	0.000	0.38	0.63	0.00	0.082	0.000	6.109	0.00	8.60
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.67	0.00	0.082	0.000	6.109	0.00	11.14
106.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.90	0.00	0.082	0.000	6.109	0.00	15.31
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.63	0.00	0.084	0.000	6.142	0.00	8.63
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.67	0.00	0.084	0.000	6.142	0.00	11.17
108.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.90	0.00	0.084	0.000	6.142	0.00	15.35
109.00	Safety Cable	Yes	1.00	0.000	0.38	0.31	0.00	0.085	0.000	6.158	0.00	4.32
109.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.33	0.00	0.085	0.000	6.158	0.00	5.59
109.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.45	0.00	0.085	0.000	6.158	0.00	7.69
109.92	Safety Cable	Yes	0.92	0.000	0.38	0.29	0.00	0.086	0.000	6.173	0.00	3.97
109.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.31	0.00	0.086	0.000	6.173	0.00	5.13
109.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.41	0.00	0.086	0.000	6.173	0.00	7.05
110.00	Safety Cable	Yes	0.08	0.000	0.38	0.03	0.00	0.087	0.000	6.174	0.00	0.36
110.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.03	0.00	0.087	0.000	6.174	0.00	0.47
110.00	1" Reinforcing plate	Yes	0.08	0.000	2.00	0.04	0.00	0.087	0.000	6.174	0.00	0.64
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.63	0.00	0.029	0.000	6.206	0.00	8.69
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.67	0.00	0.029	0.000	6.206	0.00	11.23
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.63	0.00	0.030	0.000	6.238	0.00	8.71
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.67	0.00	0.030	0.000	6.238	0.00	11.26
116.00	Safety Cable	Yes	2.00	0.000	0.38	0.63	0.00	0.031	0.000	6.269	0.00	8.74
116.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.67	0.00	0.031	0.000	6.269	0.00	11.28
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.63	0.00	0.031	0.000	6.299	0.00	8.77
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.67	0.00	0.031	0.000	6.299	0.00	11.31
120.00	Safety Cable	Yes	2.00	0.000	0.38	0.63	0.00	0.032	0.000	6.330	0.00	8.79

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Iterations 23

Dead Load Factor 1.20

Wind Load Factor 1.00



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)
120.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.67	0.00	0.032	0.000	6.330	0.00	11.34
122.00	Safety Cable	Yes	2.00	0.000	0.38	0.63	0.00	0.033	0.000	6.360	0.00	8.82
122.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.67	0.00	0.033	0.000	6.360	0.00	11.36
124.00	Safety Cable	Yes	2.00	0.000	0.38	0.63	0.00	0.033	0.000	6.389	0.00	8.84
124.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.033	0.000	6.389	0.00	11.39
126.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.034	0.000	6.419	0.00	8.87
126.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.034	0.000	6.419	0.00	11.42
128.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.035	0.000	6.448	0.00	8.89
128.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.035	0.000	6.448	0.00	11.44
130.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.036	0.000	6.476	0.00	8.91
130.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.036	0.000	6.476	0.00	11.47
132.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.037	0.000	6.504	0.00	8.94
132.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.037	0.000	6.504	0.00	11.49
134.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.038	0.000	6.532	0.00	8.96
134.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.038	0.000	6.532	0.00	11.52
136.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.039	0.000	6.560	0.00	8.98
136.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.039	0.000	6.560	0.00	11.54
138.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.040	0.000	6.588	0.00	9.01
138.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.040	0.000	6.588	0.00	11.56
140.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.041	0.000	6.615	0.00	9.03
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.041	0.000	6.615	0.00	11.59
142.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.042	0.000	6.642	0.00	9.05
142.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.042	0.000	6.642	0.00	11.61
144.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.043	0.000	6.668	0.00	9.07
144.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.043	0.000	6.668	0.00	11.63
146.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.044	0.000	6.695	0.00	9.10
146.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.69	0.00	0.044	0.000	6.695	0.00	11.66
147.00	Safety Cable	Yes	1.00	0.000	0.38	0.32	0.00	0.045	0.000	6.708	0.00	4.55
147.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.34	0.00	0.045	0.000	6.708	0.00	5.83
148.00	Safety Cable	Yes	1.00	0.000	0.38	0.32	0.00	0.046	0.000	6.721	0.00	4.56
148.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.34	0.00	0.046	0.000	6.721	0.00	5.84
150.00	Safety Cable	Yes	2.00	0.000	0.38	0.65	0.00	0.047	0.000	6.746	0.00	9.14
150.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.69	0.00	0.047	0.000	6.746	0.00	11.70
152.00	Safety Cable	Yes	2.00	0.000	0.38	0.65	0.00	0.049	0.000	6.772	0.00	9.16
152.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.69	0.00	0.049	0.000	6.772	0.00	11.72
154.00	Safety Cable	Yes	2.00	0.000	0.38	0.65	0.00	0.050	0.000	6.797	0.00	9.18
154.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.69	0.00	0.050	0.000	6.797	0.00	11.74
156.00	Safety Cable	Yes	2.00	0.000	0.38	0.65	0.00	0.052	0.000	6.822	0.00	9.20
156.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.69	0.00	0.052	0.000	6.822	0.00	11.77
157.00	Safety Cable	Yes	1.00	0.000	0.38	0.32	0.00	0.054	0.000	6.835	0.00	4.61
157.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.34	0.00	0.054	0.000	6.835	0.00	5.89
Totals:											0.0	1,999.2

Calculated Forces

Structure: CT00252-S-SBA

Code: EIA/TIA-222-G

10/11/2021

Site Name: Prospect

Exposure: B

Height: 157.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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

Iterations 23

Dead Load Factor 1.20

Wind Load 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	-78.98	-7.93	0.00	-861.42	0.00	861.42	3884.21	1942.11	10879.0	5372.74	0.00	0.000	0.000	0.181
2.00	-77.90	-7.87	0.00	-845.57	0.00	845.57	3865.76	1932.88	10720.6	5294.53	0.00	-0.009	0.000	0.180
4.00	-76.81	-7.82	0.00	-829.83	0.00	829.83	3846.93	1923.46	10562.2	5216.31	0.01	-0.017	0.000	0.179
6.00	-75.71	-7.76	0.00	-814.20	0.00	814.20	3827.70	1913.85	10403.8	5138.08	0.02	-0.026	0.000	0.178
8.00	-74.62	-7.70	0.00	-798.68	0.00	798.68	3808.09	1904.04	10245.4	5059.86	0.03	-0.035	0.000	0.177
10.00	-73.54	-7.65	0.00	-783.27	0.00	783.27	3788.09	1894.04	10087.1	4981.66	0.05	-0.044	0.000	0.177
11.92	-72.50	-7.59	0.00	-768.61	0.00	768.61	3768.56	1884.28	9935.49	4906.76	0.07	-0.053	0.000	0.176
12.00	-72.43	-7.60	0.00	-767.98	0.00	767.98	3767.70	1883.85	9928.90	4903.51	0.07	-0.054	0.000	0.176
14.00	-70.72	-7.54	0.00	-752.78	0.00	752.78	3746.93	1873.46	9770.76	4825.41	0.09	-0.063	0.000	0.175
16.00	-69.02	-7.48	0.00	-737.70	0.00	737.70	3725.77	1862.88	9612.78	4747.39	0.12	-0.072	0.000	0.156
18.00	-67.32	-7.43	0.00	-722.74	0.00	722.74	3704.22	1852.11	9454.97	4669.46	0.15	-0.081	0.000	0.155
20.00	-65.64	-7.37	0.00	-707.88	0.00	707.88	2938.21	1469.11	7525.54	3716.58	0.19	-0.089	0.000	0.169
22.00	-64.68	-7.32	0.00	-693.14	0.00	693.14	2924.62	1462.31	7410.03	3659.53	0.23	-0.098	0.000	0.186
24.00	-63.71	-7.26	0.00	-678.50	0.00	678.50	2910.64	1455.32	7294.29	3602.38	0.27	-0.108	0.000	0.185
26.00	-62.76	-7.21	0.00	-663.97	0.00	663.97	2896.28	1448.14	7178.37	3545.13	0.32	-0.117	0.000	0.183
28.00	-61.81	-7.16	0.00	-649.55	0.00	649.55	2881.53	1440.76	7062.30	3487.80	0.37	-0.127	0.000	0.182
30.00	-60.87	-7.11	0.00	-635.23	0.00	635.23	2866.39	1433.19	6946.10	3430.42	0.43	-0.137	0.000	0.180
30.92	-60.44	-7.08	0.00	-628.72	0.00	628.72	2859.32	1429.66	6892.81	3404.10	0.45	-0.142	0.000	0.180
30.92	-60.44	-7.08	0.00	-628.72	0.00	628.72	2859.32	1429.66	6892.81	3404.10	0.45	-0.142	0.000	0.180
32.00	-59.94	-7.06	0.00	-621.04	0.00	621.04	2850.86	1425.43	6829.81	3372.99	0.48	-0.147	0.000	0.179
34.00	-59.01	-7.00	0.00	-606.93	0.00	606.93	2834.95	1417.47	6713.46	3315.53	0.55	-0.157	0.000	0.178
36.00	-58.09	-6.95	0.00	-592.93	0.00	592.93	2818.65	1409.32	6597.08	3258.05	0.62	-0.168	0.000	0.176
38.00	-57.18	-6.89	0.00	-579.03	0.00	579.03	2801.96	1400.98	6480.71	3200.58	0.69	-0.178	0.000	0.175
40.00	-56.28	-6.84	0.00	-565.24	0.00	565.24	2784.89	1392.44	6364.37	3143.12	0.77	-0.188	0.000	0.173
42.00	-55.38	-6.79	0.00	-551.56	0.00	551.56	2767.43	1383.71	6248.11	3085.70	0.85	-0.199	0.000	0.172
44.00	-54.50	-6.73	0.00	-537.99	0.00	537.99	2749.58	1374.79	6131.94	3028.33	0.93	-0.210	0.000	0.170
46.00	-53.62	-6.67	0.00	-524.53	0.00	524.53	2731.34	1365.67	6015.90	2971.03	1.02	-0.220	0.000	0.169
48.00	-52.75	-6.62	0.00	-511.19	0.00	511.19	2712.72	1356.36	5900.04	2913.81	1.12	-0.231	0.000	0.168
49.00	-52.31	-6.59	0.00	-504.57	0.00	504.57	2703.26	1351.63	5842.17	2885.23	1.17	-0.237	0.000	0.167
49.00	-52.31	-6.59	0.00	-504.57	0.00	504.57	2703.26	1351.63	5842.17	2885.23	1.17	-0.237	0.000	0.167
50.00	-51.88	-6.56	0.00	-497.98	0.00	497.98	2693.71	1346.86	5784.36	2856.68	1.22	-0.242	0.000	0.194
52.00	-51.04	-6.51	0.00	-484.86	0.00	484.86	2674.32	1337.16	5668.92	2799.67	1.32	-0.255	0.000	0.192
54.00	-50.21	-6.45	0.00	-471.84	0.00	471.84	2654.53	1327.27	5553.74	2742.78	1.43	-0.268	0.000	0.191
56.00	-49.38	-6.40	0.00	-458.93	0.00	458.93	2634.36	1317.18	5438.85	2686.04	1.55	-0.282	0.000	0.190
58.00	-48.57	-6.34	0.00	-446.14	0.00	446.14	2613.81	1306.90	5324.28	2629.46	1.67	-0.295	0.000	0.188
60.00	-47.76	-6.29	0.00	-433.45	0.00	433.45	2592.86	1296.43	5210.07	2573.06	1.79	-0.308	0.000	0.187
62.00	-46.96	-6.23	0.00	-420.87	0.00	420.87	2571.53	1285.77	5096.25	2516.85	1.93	-0.322	0.000	0.186
64.00	-46.17	-6.18	0.00	-408.40	0.00	408.40	2549.81	1274.91	4982.86	2460.85	2.06	-0.336	0.000	0.184
64.92	-45.81	-6.15	0.00	-402.74	0.00	402.74	2539.73	1269.86	4931.03	2435.25	2.13	-0.342	0.000	0.183
66.00	-45.17	-6.12	0.00	-396.08	0.00	396.08	2527.71	1263.85	4869.91	2405.07	2.21	-0.350	0.000	0.153
68.00	-43.99	-6.06	0.00	-383.83	0.00	383.83	2505.22	1252.61	4757.45	2349.53	2.36	-0.362	0.000	0.151
70.00	-42.83	-6.00	0.00	-371.71	0.00	371.71	2482.34	1241.17	4645.51	2294.24	2.51	-0.374	0.000	0.150
70.92	-42.30	-5.97	0.00	-366.21	0.00	366.21	1926.34	963.17	3640.67	1797.99	2.58	-0.379	0.000	0.164
72.00	-41.92	-5.94	0.00	-359.74	0.00	359.74	1918.38	959.19	3596.95	1776.40	2.67	-0.386	0.000	0.182
74.00	-41.22	-5.89	0.00	-347.85	0.00	347.85	1903.38	951.69	3516.31	1736.57	2.84	-0.400	0.000	0.180
74.92	-40.90	-5.86	0.00	-342.46	0.00	342.46	1896.38	948.19	3479.39	1718.34	2.91	-0.406	0.000	0.179
74.92	-40.90	-5.86	0.00	-342.46	0.00	342.46	1896.38	948.19	3479.39	1718.34	2.91	-0.406	0.000	0.179
76.00	-40.53	-5.83	0.00	-336.11	0.00	336.11	1888.00	944.00	3435.80	1696.81	3.01	-0.413	0.000	0.177

Calculated Forces

Structure: CT00252-S-SBA

Code: EIA/TIA-222-G

10/11/2021

Site Name: Prospect

Exposure: B

Height: 157.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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78.00	-39.85	-5.78	0.00	-324.44	0.00	324.44	1872.23	936.11	3355.44	1657.12	3.18	-0.427	0.000	0.175
80.00	-39.17	-5.72	0.00	-312.89	0.00	312.89	1856.07	928.04	3275.27	1617.53	3.37	-0.441	0.000	0.172
82.00	-38.51	-5.67	0.00	-301.45	0.00	301.45	1839.53	919.76	3195.31	1578.04	3.55	-0.455	0.000	0.169
84.00	-37.85	-5.61	0.00	-290.11	0.00	290.11	1822.60	911.30	3115.61	1538.68	3.75	-0.469	0.000	0.167
86.00	-37.20	-5.56	0.00	-278.89	0.00	278.89	1805.28	902.64	3036.19	1499.46	3.95	-0.483	0.000	0.164
88.00	-36.55	-5.50	0.00	-267.77	0.00	267.77	1787.57	893.79	2957.09	1460.40	4.15	-0.497	0.000	0.161
89.92	-35.95	-5.45	0.00	-257.23	0.00	257.23	1770.24	885.12	2881.61	1423.12	4.35	-0.511	0.000	0.158
90.00	-35.91	-5.45	0.00	-256.77	0.00	256.77	1769.48	884.74	2878.34	1421.50	4.36	-0.512	0.000	0.157
92.00	-35.02	-5.39	0.00	-245.88	0.00	245.88	1751.00	875.50	2799.96	1382.80	4.58	-0.526	0.000	0.154
94.00	-34.14	-5.33	0.00	-235.09	0.00	235.09	1732.14	866.07	2722.00	1344.29	4.80	-0.540	0.000	0.151
94.92	-33.74	-5.31	0.00	-230.20	0.00	230.20	1262.32	631.16	2000.52	987.98	4.91	-0.547	0.000	0.168
96.00	-33.44	-5.28	0.00	-224.46	0.00	224.46	1256.50	628.25	1972.50	974.14	5.03	-0.554	0.000	0.190
98.00	-32.89	-5.23	0.00	-213.89	0.00	213.89	1245.44	622.72	1920.78	948.60	5.27	-0.571	0.000	0.185
100.00	-31.34	-4.89	0.00	-203.44	0.00	203.44	1234.00	617.00	1869.08	923.07	5.51	-0.587	0.000	0.180
102.00	-30.82	-4.84	0.00	-193.66	0.00	193.66	1222.17	611.08	1817.44	897.56	5.76	-0.603	0.000	0.175
104.00	-30.31	-4.79	0.00	-183.99	0.00	183.99	1209.95	604.97	1765.88	872.10	6.02	-0.619	0.000	0.170
106.00	-29.80	-4.74	0.00	-174.41	0.00	174.41	1197.35	598.67	1714.45	846.70	6.28	-0.635	0.000	0.166
108.00	-29.30	-4.68	0.00	-164.94	0.00	164.94	1184.36	592.18	1663.17	821.38	6.55	-0.652	0.000	0.161
109.00	-29.06	-4.66	0.00	-160.26	0.00	160.26	1177.71	588.86	1637.59	808.75	6.69	-0.660	0.000	0.158
109.00	-29.06	-4.66	0.00	-160.26	0.00	160.26	1177.71	588.86	1637.59	808.75	6.69	-0.660	0.000	0.158
109.92	-28.83	-4.63	0.00	-155.99	0.00	155.99	1171.54	585.77	1614.20	797.19	6.82	-0.667	0.000	0.220
109.92	-28.83	-4.63	0.00	-155.99	0.00	155.99	1171.54	585.77	1614.20	797.19	6.82	-0.667	0.000	0.220
110.00	-28.81	-4.64	0.00	-155.61	0.00	155.61	1170.98	585.49	1612.07	796.14	6.83	-0.668	0.000	0.220
112.00	-28.34	-4.59	0.00	-146.33	0.00	146.33	1157.21	578.61	1561.19	771.01	7.11	-0.691	0.000	0.214
114.00	-27.87	-4.55	0.00	-137.15	0.00	137.15	1143.06	571.53	1510.56	746.01	7.41	-0.713	0.000	0.208
116.00	-27.42	-4.50	0.00	-128.06	0.00	128.06	1128.52	564.26	1460.20	721.14	7.71	-0.736	0.000	0.202
118.00	-26.97	-4.46	0.00	-119.06	0.00	119.06	1113.60	556.80	1410.16	696.43	8.02	-0.758	0.000	0.195
120.00	-26.52	-4.41	0.00	-110.15	0.00	110.15	1098.28	549.14	1360.47	671.88	8.35	-0.780	0.000	0.188
122.00	-26.09	-4.37	0.00	-101.33	0.00	101.33	1082.58	541.29	1311.15	647.53	8.68	-0.801	0.000	0.181
124.00	-25.66	-4.32	0.00	-92.60	0.00	92.60	1066.50	533.25	1262.24	623.37	9.02	-0.823	0.000	0.173
126.00	-25.24	-4.28	0.00	-83.95	0.00	83.95	1050.02	525.01	1213.77	599.43	9.37	-0.843	0.000	0.164
128.00	-24.82	-4.23	0.00	-75.40	0.00	75.40	1033.16	516.58	1165.77	575.73	9.72	-0.863	0.000	0.155
130.00	-24.41	-4.19	0.00	-66.93	0.00	66.93	1015.91	507.96	1118.28	552.28	10.09	-0.883	0.000	0.145
132.00	-15.33	-2.91	0.00	-58.55	0.00	58.55	998.40	499.20	1071.45	529.15	10.46	-0.901	0.000	0.126
134.00	-14.97	-2.87	0.00	-52.73	0.00	52.73	972.97	486.48	1017.31	502.41	10.85	-0.918	0.000	0.120
136.00	-14.62	-2.82	0.00	-47.00	0.00	47.00	947.54	473.77	964.58	476.37	11.23	-0.935	0.000	0.114
138.00	-14.27	-2.78	0.00	-41.35	0.00	41.35	922.11	461.06	913.25	451.02	11.63	-0.951	0.000	0.107
140.00	-13.93	-2.73	0.00	-35.80	0.00	35.80	896.68	448.34	863.33	426.36	12.03	-0.967	0.000	0.100
142.00	-13.60	-2.69	0.00	-30.33	0.00	30.33	871.26	435.63	814.80	402.40	12.44	-0.981	0.000	0.091
144.00	-13.28	-2.65	0.00	-24.94	0.00	24.94	845.83	422.91	767.69	379.13	12.85	-0.994	0.000	0.082
146.00	-12.96	-2.61	0.00	-19.64	0.00	19.64	820.40	410.20	721.97	356.55	13.27	-1.006	0.000	0.071
147.00	-8.23	-1.74	0.00	-17.04	0.00	17.04	807.68	403.84	699.64	345.53	13.48	-1.011	0.000	0.060
148.00	-8.09	-1.72	0.00	-15.30	0.00	15.30	794.97	397.49	677.66	334.67	13.70	-1.015	0.000	0.056
150.00	-7.81	-1.68	0.00	-11.87	0.00	11.87	769.54	384.77	634.75	313.48	14.12	-1.024	0.000	0.048
152.00	-7.54	-1.64	0.00	-8.51	0.00	8.51	744.11	372.06	593.25	292.98	14.55	-1.031	0.000	0.039
154.00	-7.27	-1.60	0.00	-5.24	0.00	5.24	718.69	359.34	553.15	273.18	14.99	-1.036	0.000	0.029
156.00	-7.01	-1.56	0.00	-2.05	0.00	2.05	693.26	346.63	514.45	254.07	15.42	-1.039	0.000	0.018
157.00	0.00	-1.43	0.00	-0.49	0.00	0.49	680.54	340.27	495.63	244.77	15.64	-1.040	0.000	0.002

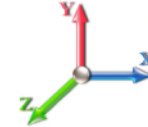
Seismic Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0E						Iterations 22
Gust Response Factor	1.10			Sds	0.20	Ss 0.19
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	0.00	0.00	0.00	
2.00		646.36	0.00	0.01	0.01	4.68	
4.00		640.00	0.00	0.03	0.01	8.14	
6.00		633.65	0.00	0.04	0.02	10.73	
8.00		627.29	0.00	0.04	0.03	12.67	
10.00		620.93	0.01	0.05	0.03	14.13	
11.92	Bot - Section 2	589.09	0.01	0.06	0.03	14.53	
12.00		47.60	0.01	0.06	0.03	1.18	
14.00		1136.2	0.02	0.06	0.04	29.89	
16.00	RB1	1124.4	0.02	0.06	0.04	30.96	
18.00		1112.5	0.02	0.07	0.04	31.71	
20.00	Top - Section 1	1100.7	0.03	0.07	0.04	32.23	
22.00		506.20	0.04	0.07	0.04	15.14	
24.00		500.75	0.04	0.07	0.04	15.24	
26.00		495.30	0.05	0.07	0.04	15.30	
28.00		489.85	0.06	0.07	0.04	15.33	
30.00		484.40	0.07	0.07	0.04	15.34	
30.92	Top - Section 2	220.20	0.07	0.07	0.04	7.01	
32.00		258.75	0.08	0.07	0.04	8.29	
34.00		473.50	0.09	0.07	0.04	15.33	
36.00		468.05	0.10	0.07	0.04	15.32	
38.00		462.60	0.11	0.07	0.04	15.29	
40.00		457.15	0.12	0.07	0.03	15.26	
42.00		451.70	0.14	0.07	0.03	15.22	
44.00		446.25	0.15	0.07	0.03	15.15	
46.00		440.80	0.16	0.07	0.03	15.07	
48.00		435.35	0.18	0.07	0.03	14.95	
49.00	RT1	215.63	0.18	0.06	0.03	7.42	
50.00		214.27	0.19	0.06	0.02	7.38	
52.00		424.45	0.21	0.06	0.02	14.60	
54.00		419.00	0.22	0.06	0.02	14.34	
56.00		413.55	0.24	0.06	0.02	14.02	
58.00		408.10	0.26	0.05	0.02	13.62	
60.00		402.65	0.28	0.05	0.01	13.14	
62.00		397.20	0.29	0.05	0.01	12.57	
64.00		391.75	0.31	0.04	0.01	11.91	
64.92	Bot - Section 4	177.73	0.32	0.04	0.01	5.28	
66.00	RB2	384.92	0.33	0.04	0.01	11.10	
68.00		702.93	0.35	0.03	0.01	18.96	
70.00		692.94	0.38	0.03	0.01	17.16	
70.92	Top - Section 3	314.26	0.39	0.02	0.01	7.43	
72.00		168.98	0.40	0.02	0.01	3.75	
74.00		308.46	0.42	0.01	0.01	5.97	
74.92	Top - Section 4	139.86	0.43	0.01	0.01	2.51	
76.00		164.06	0.44	0.00	0.01	2.65	
78.00		299.37	0.47	0.00	0.01	3.81	

Seismic Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00		294.83	0.49	-0.01	0.01	2.66
82.00		290.29	0.52	-0.02	0.01	1.50
84.00		285.75	0.54	-0.03	0.01	0.34
86.00		281.21	0.57	-0.04	0.01	-0.78
88.00		276.66	0.59	-0.05	0.01	-1.85
89.92	Bot - Section 6	260.87	0.62	-0.06	0.02	-2.68
90.00		20.37	0.62	-0.06	0.02	-0.21
92.00		484.73	0.65	-0.07	0.02	-6.74
94.00		476.55	0.68	-0.08	0.03	-8.11
94.92	Top - Section 5	215.69	0.69	-0.08	0.03	-3.95
96.00		113.23	0.71	-0.09	0.03	-2.23
98.00		206.25	0.74	-0.10	0.04	-4.51
100.00	Appurtenance(s)	529.61	0.77	-0.10	0.04	-12.41
102.00		198.98	0.80	-0.11	0.05	-4.85
104.00		195.35	0.83	-0.12	0.06	-4.82
106.00		191.71	0.86	-0.12	0.07	-4.64
108.00		188.08	0.89	-0.12	0.09	-4.33
109.00	RT2	92.68	0.91	-0.12	0.09	-2.05
109.92	Top - Section 6	84.16	0.93	-0.12	0.10	-1.78
110.00		7.61	0.93	-0.12	0.10	-0.16
112.00		180.81	0.96	-0.12	0.11	-3.33
114.00		177.18	1.00	-0.11	0.13	-2.64
116.00		173.54	1.03	-0.10	0.15	-1.85
118.00		169.91	1.07	-0.09	0.17	-0.95
120.00		166.28	1.10	-0.07	0.19	0.05
122.00		162.64	1.14	-0.04	0.21	1.13
124.00		159.01	1.18	-0.01	0.24	2.29
126.00		155.38	1.22	0.02	0.27	3.52
128.00		151.74	1.26	0.06	0.30	4.81
130.00		148.11	1.30	0.11	0.33	6.16
132.00	Appurtenance(s)	3354.0	1.34	0.17	0.37	175.21
134.00		140.84	1.38	0.24	0.41	8.98
136.00		137.21	1.42	0.32	0.45	10.43
138.00		133.58	1.46	0.41	0.50	11.91
140.00		129.94	1.50	0.51	0.55	13.40
142.00		126.31	1.55	0.62	0.60	14.89
144.00		122.68	1.59	0.75	0.66	16.38
146.00		119.04	1.63	0.89	0.72	17.85
147.00	Appurtenance(s)	1798.4	1.66	0.97	0.75	285.06
148.00		57.25	1.68	1.05	0.78	9.58
150.00		111.78	1.73	1.22	0.85	20.72
152.00		108.14	1.77	1.41	0.93	22.11
154.00		104.51	1.82	1.62	1.01	23.44
156.00		100.88	1.87	1.86	1.10	24.72
157.00	Appurtenance(s)	2675.6	1.89	1.98	1.14	684.29
Totals:		37,069.4				1,878.3
						Total Wind: 33,691.4

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

Calculated Forces

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021	
Site Name: Prospect	Exposure: B		
Height: 157.00 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 48



Load Case: 1.2D + 1.0E		Iterations	22
Gust Response Factor 1.10		Sds 0.20	Ss 0.19
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	-51.35	-1.95	0.00	-231.08	0.00	231.08	3884.21	1942.11	10879.0	5372.74	0.00	0.00	0.00	0.056
2.00	-50.47	-1.95	0.00	-227.17	0.00	227.17	3865.76	1932.88	10720.6	5294.53	0.00	0.00	0.00	0.056
4.00	-49.61	-1.94	0.00	-223.27	0.00	223.27	3846.93	1923.46	10562.2	5216.31	0.00	0.00	0.00	0.056
6.00	-48.75	-1.94	0.00	-219.38	0.00	219.38	3827.70	1913.85	10403.8	5138.08	0.00	-0.01	0.00	0.055
8.00	-47.89	-1.92	0.00	-215.51	0.00	215.51	3808.09	1904.04	10245.4	5059.86	0.01	-0.01	0.00	0.055
10.00	-47.05	-1.91	0.00	-211.67	0.00	211.67	3788.09	1894.04	10087.1	4981.66	0.01	-0.01	0.00	0.055
11.92	-46.25	-1.90	0.00	-208.00	0.00	208.00	3768.56	1884.28	9935.49	4906.76	0.02	-0.01	0.00	0.055
12.00	-46.18	-1.90	0.00	-207.84	0.00	207.84	3767.70	1883.85	9928.90	4903.51	0.02	-0.01	0.00	0.055
14.00	-44.72	-1.87	0.00	-204.05	0.00	204.05	3746.93	1873.46	9770.76	4825.41	0.02	-0.02	0.00	0.054
16.00	-43.27	-1.84	0.00	-200.31	0.00	200.31	3725.77	1862.88	9612.78	4747.39	0.03	-0.02	0.00	0.048
18.00	-41.84	-1.81	0.00	-196.63	0.00	196.63	3704.22	1852.11	9454.97	4669.46	0.04	-0.02	0.00	0.048
20.00	-40.42	-1.78	0.00	-193.01	0.00	193.01	2938.21	1469.11	7525.54	3716.58	0.05	-0.02	0.00	0.052
22.00	-39.71	-1.76	0.00	-189.45	0.00	189.45	2924.62	1462.31	7410.03	3659.53	0.06	-0.03	0.00	0.058
24.00	-39.01	-1.75	0.00	-185.92	0.00	185.92	2910.64	1455.32	7294.29	3602.38	0.07	-0.03	0.00	0.057
26.00	-38.32	-1.74	0.00	-182.42	0.00	182.42	2896.28	1448.14	7178.37	3545.13	0.09	-0.03	0.00	0.057
28.00	-37.63	-1.72	0.00	-178.94	0.00	178.94	2881.53	1440.76	7062.30	3487.80	0.10	-0.03	0.00	0.056
30.00	-36.95	-1.71	0.00	-175.50	0.00	175.50	2866.39	1433.19	6946.10	3430.42	0.11	-0.04	0.00	0.056
30.92	-36.64	-1.70	0.00	-173.93	0.00	173.93	2859.32	1429.66	6892.81	3404.10	0.12	-0.04	0.00	0.056
30.92	-36.64	-1.70	0.00	-173.93	0.00	173.93	2859.32	1429.66	6892.81	3404.10	0.12	-0.04	0.00	0.056
32.00	-36.27	-1.70	0.00	-172.09	0.00	172.09	2850.86	1425.43	6829.81	3372.99	0.13	-0.04	0.00	0.056
34.00	-35.61	-1.68	0.00	-168.70	0.00	168.70	2834.95	1417.47	6713.46	3315.53	0.15	-0.04	0.00	0.055
36.00	-34.94	-1.67	0.00	-165.33	0.00	165.33	2818.65	1409.32	6597.08	3258.05	0.17	-0.05	0.00	0.055
38.00	-34.29	-1.65	0.00	-162.00	0.00	162.00	2801.96	1400.98	6480.71	3200.58	0.19	-0.05	0.00	0.055
40.00	-33.64	-1.64	0.00	-158.69	0.00	158.69	2784.89	1392.44	6364.37	3143.12	0.21	-0.05	0.00	0.054
42.00	-33.00	-1.62	0.00	-155.41	0.00	155.41	2767.43	1383.71	6248.11	3085.70	0.23	-0.05	0.00	0.054
44.00	-32.36	-1.61	0.00	-152.17	0.00	152.17	2749.58	1374.79	6131.94	3028.33	0.25	-0.06	0.00	0.054
46.00	-31.74	-1.60	0.00	-148.94	0.00	148.94	2731.34	1365.67	6015.90	2971.03	0.28	-0.06	0.00	0.053
48.00	-31.11	-1.58	0.00	-145.75	0.00	145.75	2712.72	1356.36	5900.04	2913.81	0.30	-0.06	0.00	0.053
49.00	-30.81	-1.58	0.00	-144.17	0.00	144.17	2703.26	1351.63	5842.17	2885.23	0.32	-0.07	0.00	0.053
49.00	-30.81	-1.58	0.00	-144.17	0.00	144.17	2703.26	1351.63	5842.17	2885.23	0.32	-0.07	0.00	0.053
50.00	-30.50	-1.57	0.00	-142.59	0.00	142.59	2693.71	1346.86	5784.36	2856.68	0.33	-0.07	0.00	0.061
52.00	-29.89	-1.56	0.00	-139.45	0.00	139.45	2674.32	1337.16	5668.92	2799.67	0.36	-0.07	0.00	0.061
54.00	-29.29	-1.54	0.00	-136.34	0.00	136.34	2654.53	1327.27	5553.74	2742.78	0.39	-0.07	0.00	0.061
56.00	-28.69	-1.53	0.00	-133.26	0.00	133.26	2634.36	1317.18	5438.85	2686.04	0.42	-0.08	0.00	0.061
58.00	-28.10	-1.52	0.00	-130.20	0.00	130.20	2613.81	1306.90	5324.28	2629.46	0.46	-0.08	0.00	0.060
60.00	-27.52	-1.51	0.00	-127.16	0.00	127.16	2592.86	1296.43	5210.07	2573.06	0.49	-0.09	0.00	0.060
62.00	-26.94	-1.49	0.00	-124.15	0.00	124.15	2571.53	1285.77	5096.25	2516.85	0.53	-0.09	0.00	0.060
64.00	-26.37	-1.48	0.00	-121.16	0.00	121.16	2549.81	1274.91	4982.86	2460.85	0.57	-0.09	0.00	0.060
64.92	-26.11	-1.48	0.00	-119.80	0.00	119.80	2539.73	1269.86	4931.03	2435.25	0.59	-0.10	0.00	0.059
66.00	-25.60	-1.47	0.00	-118.20	0.00	118.20	2527.71	1263.85	4869.91	2405.07	0.61	-0.10	0.00	0.050
68.00	-24.66	-1.45	0.00	-115.27	0.00	115.27	2505.22	1252.61	4757.45	2349.53	0.65	-0.10	0.00	0.049
70.00	-23.72	-1.43	0.00	-112.37	0.00	112.37	2482.34	1241.17	4645.51	2294.24	0.69	-0.11	0.00	0.049
70.92	-23.30	-1.42	0.00	-111.06	0.00	111.06	1926.34	963.17	3640.67	1797.99	0.71	-0.11	0.00	0.054
72.00	-23.04	-1.42	0.00	-109.52	0.00	109.52	1918.38	959.19	3596.95	1776.40	0.74	-0.11	0.00	0.060
74.00	-22.58	-1.41	0.00	-106.68	0.00	106.68	1903.38	951.69	3516.31	1736.57	0.78	-0.11	0.00	0.059
74.92	-22.36	-1.41	0.00	-105.39	0.00	105.39	1896.38	948.19	3479.39	1718.34	0.81	-0.12	0.00	0.059
74.92	-22.36	-1.41	0.00	-105.39	0.00	105.39	1896.38	948.19	3479.39	1718.34	0.81	-0.12	0.00	0.059

Calculated Forces

Structure: CT00252-S-SBA

Code: EIA/TIA-222-G

10/11/2021

Site Name: Prospect

Exposure: B

Height: 157.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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76.00	-22.11	-1.41	0.00	-103.86	0.00	103.86	1888.00	944.00	3435.80	1696.81	0.83	-0.12	0.059
78.00	-21.65	-1.41	0.00	-101.04	0.00	101.04	1872.23	936.11	3355.44	1657.12	0.88	-0.12	0.058
80.00	-21.20	-1.40	0.00	-98.22	0.00	98.22	1856.07	928.04	3275.27	1617.53	0.94	-0.13	0.058
82.00	-20.75	-1.40	0.00	-95.41	0.00	95.41	1839.53	919.76	3195.31	1578.04	0.99	-0.13	0.057
84.00	-20.31	-1.40	0.00	-92.61	0.00	92.61	1822.60	911.30	3115.61	1538.68	1.04	-0.14	0.057
86.00	-19.87	-1.40	0.00	-89.80	0.00	89.80	1805.28	902.64	3036.19	1499.46	1.10	-0.14	0.056
88.00	-19.44	-1.41	0.00	-86.99	0.00	86.99	1787.57	893.79	2957.09	1460.40	1.16	-0.14	0.056
89.92	-19.03	-1.41	0.00	-84.29	0.00	84.29	1770.24	885.12	2881.61	1423.12	1.22	-0.15	0.055
90.00	-19.00	-1.41	0.00	-84.18	0.00	84.18	1769.48	884.74	2878.34	1421.50	1.22	-0.15	0.055
92.00	-18.32	-1.41	0.00	-81.37	0.00	81.37	1751.00	875.50	2799.96	1382.80	1.29	-0.15	0.054
94.00	-17.65	-1.40	0.00	-78.56	0.00	78.56	1732.14	866.07	2722.00	1344.29	1.35	-0.16	0.053
94.92	-17.34	-1.40	0.00	-77.27	0.00	77.27	1262.32	631.16	2000.52	987.98	1.38	-0.16	0.059
96.00	-17.15	-1.41	0.00	-75.75	0.00	75.75	1256.50	628.25	1972.50	974.14	1.42	-0.16	0.068
98.00	-16.81	-1.41	0.00	-72.94	0.00	72.94	1245.44	622.72	1920.78	948.60	1.49	-0.17	0.067
100.00	-16.07	-1.41	0.00	-70.12	0.00	70.12	1234.00	617.00	1869.08	923.07	1.56	-0.17	0.065
102.00	-15.75	-1.41	0.00	-67.31	0.00	67.31	1222.17	611.08	1817.44	897.56	1.63	-0.18	0.064
104.00	-15.43	-1.41	0.00	-64.50	0.00	64.50	1209.95	604.97	1765.88	872.10	1.71	-0.19	0.063
106.00	-15.12	-1.41	0.00	-61.69	0.00	61.69	1197.35	598.67	1714.45	846.70	1.79	-0.19	0.061
108.00	-14.80	-1.41	0.00	-58.87	0.00	58.87	1184.36	592.18	1663.17	821.38	1.87	-0.20	0.060
109.00	-14.65	-1.41	0.00	-57.47	0.00	57.47	1177.71	588.86	1637.59	808.75	1.91	-0.20	0.059
109.00	-14.65	-1.41	0.00	-57.47	0.00	57.47	1177.71	588.86	1637.59	808.75	1.91	-0.20	0.059
109.92	-14.51	-1.41	0.00	-56.18	0.00	56.18	1171.54	585.77	1614.20	797.19	1.95	-0.20	0.083
109.92	-14.51	-1.41	0.00	-56.18	0.00	56.18	1171.54	585.77	1614.20	797.19	1.95	-0.20	0.083
110.00	-14.50	-1.41	0.00	-56.06	0.00	56.06	1170.98	585.49	1612.07	796.14	1.95	-0.20	0.083
112.00	-14.20	-1.41	0.00	-53.24	0.00	53.24	1157.21	578.61	1561.19	771.01	2.04	-0.21	0.081
114.00	-13.90	-1.41	0.00	-50.42	0.00	50.42	1143.06	571.53	1510.56	746.01	2.13	-0.22	0.080
116.00	-13.61	-1.41	0.00	-47.60	0.00	47.60	1128.52	564.26	1460.20	721.14	2.23	-0.23	0.078
118.00	-13.32	-1.41	0.00	-44.78	0.00	44.78	1113.60	556.80	1410.16	696.43	2.32	-0.24	0.076
120.00	-13.03	-1.41	0.00	-41.96	0.00	41.96	1098.28	549.14	1360.47	671.88	2.42	-0.24	0.074
122.00	-12.75	-1.41	0.00	-39.13	0.00	39.13	1082.58	541.29	1311.15	647.53	2.53	-0.25	0.072
124.00	-12.48	-1.41	0.00	-36.31	0.00	36.31	1066.50	533.25	1262.24	623.37	2.63	-0.26	0.070
126.00	-12.21	-1.41	0.00	-33.49	0.00	33.49	1050.02	525.01	1213.77	599.43	2.75	-0.27	0.068
128.00	-11.94	-1.40	0.00	-30.67	0.00	30.67	1033.16	516.58	1165.77	575.73	2.86	-0.28	0.065
130.00	-11.68	-1.40	0.00	-27.87	0.00	27.87	1015.91	507.96	1118.28	552.28	2.98	-0.28	0.062
132.00	-7.57	-1.20	0.00	-25.07	0.00	25.07	998.40	499.20	1071.45	529.15	3.10	-0.29	0.055
134.00	-7.35	-1.19	0.00	-22.67	0.00	22.67	972.97	486.48	1017.31	502.41	3.22	-0.30	0.053
136.00	-7.13	-1.18	0.00	-20.28	0.00	20.28	947.54	473.77	964.58	476.37	3.35	-0.31	0.050
138.00	-6.92	-1.17	0.00	-17.92	0.00	17.92	922.11	461.06	913.25	451.02	3.48	-0.31	0.047
140.00	-6.71	-1.16	0.00	-15.58	0.00	15.58	896.68	448.34	863.33	426.36	3.61	-0.32	0.044
142.00	-6.51	-1.14	0.00	-13.27	0.00	13.27	871.26	435.63	814.80	402.40	3.75	-0.33	0.040
144.00	-6.31	-1.12	0.00	-10.98	0.00	10.98	845.83	422.91	767.69	379.13	3.89	-0.33	0.036
146.00	-6.11	-1.11	0.00	-8.73	0.00	8.73	820.40	410.20	721.97	356.55	4.03	-0.34	0.032
147.00	-3.93	-0.81	0.00	-7.63	0.00	7.63	807.68	403.84	699.64	345.53	4.10	-0.34	0.027
148.00	-3.85	-0.80	0.00	-6.82	0.00	6.82	794.97	397.49	677.66	334.67	4.17	-0.34	0.025
150.00	-3.69	-0.78	0.00	-5.22	0.00	5.22	769.54	384.77	634.75	313.48	4.31	-0.35	0.021
152.00	-3.53	-0.75	0.00	-3.67	0.00	3.67	744.11	372.06	593.25	292.98	4.46	-0.35	0.017
154.00	-3.37	-0.73	0.00	-2.16	0.00	2.16	718.69	359.34	553.15	273.18	4.61	-0.35	0.013
156.00	-3.22	-0.70	0.00	-0.70	0.00	0.70	693.26	346.63	514.45	254.07	4.76	-0.35	0.007
157.00	0.00	-0.68	0.00	0.00	0.00	0.00	680.54	340.27	495.63	244.77	4.83	-0.35	0.000

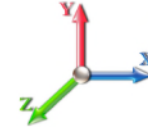
Seismic Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0E						Iterations 22
Gust Response Factor	1.10			Sds	0.20	Ss 0.19
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	0.00	0.00	0.00	
2.00		646.36	0.00	0.01	0.01	4.68	
4.00		640.00	0.00	0.03	0.01	8.14	
6.00		633.65	0.00	0.04	0.02	10.73	
8.00		627.29	0.00	0.04	0.03	12.67	
10.00		620.93	0.01	0.05	0.03	14.13	
11.92	Bot - Section 2	589.09	0.01	0.06	0.03	14.53	
12.00		47.60	0.01	0.06	0.03	1.18	
14.00		1136.2	0.02	0.06	0.04	29.89	
16.00	RB1	1124.4	0.02	0.06	0.04	30.96	
18.00		1112.5	0.02	0.07	0.04	31.71	
20.00	Top - Section 1	1100.7	0.03	0.07	0.04	32.23	
22.00		506.20	0.04	0.07	0.04	15.14	
24.00		500.75	0.04	0.07	0.04	15.24	
26.00		495.30	0.05	0.07	0.04	15.30	
28.00		489.85	0.06	0.07	0.04	15.33	
30.00		484.40	0.07	0.07	0.04	15.34	
30.92	Top - Section 2	220.20	0.07	0.07	0.04	7.01	
32.00		258.75	0.08	0.07	0.04	8.29	
34.00		473.50	0.09	0.07	0.04	15.33	
36.00		468.05	0.10	0.07	0.04	15.32	
38.00		462.60	0.11	0.07	0.04	15.29	
40.00		457.15	0.12	0.07	0.03	15.26	
42.00		451.70	0.14	0.07	0.03	15.22	
44.00		446.25	0.15	0.07	0.03	15.15	
46.00		440.80	0.16	0.07	0.03	15.07	
48.00		435.35	0.18	0.07	0.03	14.95	
49.00	RT1	215.63	0.18	0.06	0.03	7.42	
50.00		214.27	0.19	0.06	0.02	7.38	
52.00		424.45	0.21	0.06	0.02	14.60	
54.00		419.00	0.22	0.06	0.02	14.34	
56.00		413.55	0.24	0.06	0.02	14.02	
58.00		408.10	0.26	0.05	0.02	13.62	
60.00		402.65	0.28	0.05	0.01	13.14	
62.00		397.20	0.29	0.05	0.01	12.57	
64.00		391.75	0.31	0.04	0.01	11.91	
64.92	Bot - Section 4	177.73	0.32	0.04	0.01	5.28	
66.00	RB2	384.92	0.33	0.04	0.01	11.10	
68.00		702.93	0.35	0.03	0.01	18.96	
70.00		692.94	0.38	0.03	0.01	17.16	
70.92	Top - Section 3	314.26	0.39	0.02	0.01	7.43	
72.00		168.98	0.40	0.02	0.01	3.75	
74.00		308.46	0.42	0.01	0.01	5.97	
74.92	Top - Section 4	139.86	0.43	0.01	0.01	2.51	
76.00		164.06	0.44	0.00	0.01	2.65	
78.00		299.37	0.47	0.00	0.01	3.81	

Seismic Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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80.00		294.83	0.49	-0.01	0.01	2.66
82.00		290.29	0.52	-0.02	0.01	1.50
84.00		285.75	0.54	-0.03	0.01	0.34
86.00		281.21	0.57	-0.04	0.01	-0.78
88.00		276.66	0.59	-0.05	0.01	-1.85
89.92	Bot - Section 6	260.87	0.62	-0.06	0.02	-2.68
90.00		20.37	0.62	-0.06	0.02	-0.21
92.00		484.73	0.65	-0.07	0.02	-6.74
94.00		476.55	0.68	-0.08	0.03	-8.11
94.92	Top - Section 5	215.69	0.69	-0.08	0.03	-3.95
96.00		113.23	0.71	-0.09	0.03	-2.23
98.00		206.25	0.74	-0.10	0.04	-4.51
100.00	Appurtenance(s)	529.61	0.77	-0.10	0.04	-12.41
102.00		198.98	0.80	-0.11	0.05	-4.85
104.00		195.35	0.83	-0.12	0.06	-4.82
106.00		191.71	0.86	-0.12	0.07	-4.64
108.00		188.08	0.89	-0.12	0.09	-4.33
109.00	RT2	92.68	0.91	-0.12	0.09	-2.05
109.92	Top - Section 6	84.16	0.93	-0.12	0.10	-1.78
110.00		7.61	0.93	-0.12	0.10	-0.16
112.00		180.81	0.96	-0.12	0.11	-3.33
114.00		177.18	1.00	-0.11	0.13	-2.64
116.00		173.54	1.03	-0.10	0.15	-1.85
118.00		169.91	1.07	-0.09	0.17	-0.95
120.00		166.28	1.10	-0.07	0.19	0.05
122.00		162.64	1.14	-0.04	0.21	1.13
124.00		159.01	1.18	-0.01	0.24	2.29
126.00		155.38	1.22	0.02	0.27	3.52
128.00		151.74	1.26	0.06	0.30	4.81
130.00		148.11	1.30	0.11	0.33	6.16
132.00	Appurtenance(s)	3354.0	1.34	0.17	0.37	175.21
134.00		140.84	1.38	0.24	0.41	8.98
136.00		137.21	1.42	0.32	0.45	10.43
138.00		133.58	1.46	0.41	0.50	11.91
140.00		129.94	1.50	0.51	0.55	13.40
142.00		126.31	1.55	0.62	0.60	14.89
144.00		122.68	1.59	0.75	0.66	16.38
146.00		119.04	1.63	0.89	0.72	17.85
147.00	Appurtenance(s)	1798.4	1.66	0.97	0.75	285.06
148.00		57.25	1.68	1.05	0.78	9.58
150.00		111.78	1.73	1.22	0.85	20.72
152.00		108.14	1.77	1.41	0.93	22.11
154.00		104.51	1.82	1.62	1.01	23.44
156.00		100.88	1.87	1.86	1.10	24.72
157.00	Appurtenance(s)	2675.6	1.89	1.98	1.14	684.29
Totals:		37,069.4				1,878.3
						Total Wind: 33,691.4

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

Calculated Forces

Structure: CT00252-S-SBA
Site Name: Prospect
Height: 157.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: EIA/TIA-222-G
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

10/11/2021



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Load Case: 0.9D + 1.0E

Iterations 22

Gust Response Factor 1.10

Sds 0.20

Ss 0.19

Dead Load Factor 0.90

Seismic Load Factor 1.00

Sd1 0.10

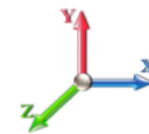
S1 0.06

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	-38.51	-1.95	0.00	-229.60	0.00	229.60	3884.21	1942.11	10879.0	5372.74	0.00	0.00	0.00	0.053
2.00	-37.85	-1.95	0.00	-225.69	0.00	225.69	3865.76	1932.88	10720.6	5294.53	0.00	0.00	0.00	0.052
4.00	-37.20	-1.94	0.00	-221.80	0.00	221.80	3846.93	1923.46	10562.2	5216.31	0.00	0.00	0.00	0.052
6.00	-36.56	-1.93	0.00	-217.91	0.00	217.91	3827.70	1913.85	10403.8	5138.08	0.00	-0.01	0.00	0.052
8.00	-35.92	-1.92	0.00	-214.04	0.00	214.04	3808.09	1904.04	10245.4	5059.86	0.01	-0.01	-0.01	0.052
10.00	-35.29	-1.91	0.00	-210.20	0.00	210.20	3788.09	1894.04	10087.1	4981.66	0.01	-0.01	-0.01	0.052
11.92	-34.68	-1.90	0.00	-206.54	0.00	206.54	3768.56	1884.28	9935.49	4906.76	0.02	-0.01	-0.01	0.051
12.00	-34.64	-1.90	0.00	-206.38	0.00	206.38	3767.70	1883.85	9928.90	4903.51	0.02	-0.01	-0.01	0.051
14.00	-33.54	-1.87	0.00	-202.59	0.00	202.59	3746.93	1873.46	9770.76	4825.41	0.02	-0.02	-0.02	0.051
16.00	-32.45	-1.84	0.00	-198.86	0.00	198.86	3725.77	1862.88	9612.78	4747.39	0.03	-0.02	-0.02	0.045
18.00	-31.38	-1.81	0.00	-195.19	0.00	195.19	3704.22	1852.11	9454.97	4669.46	0.04	-0.02	-0.02	0.045
20.00	-30.31	-1.77	0.00	-191.58	0.00	191.58	2938.21	1469.11	7525.54	3716.58	0.05	-0.02	-0.02	0.049
22.00	-29.78	-1.76	0.00	-188.03	0.00	188.03	2924.62	1462.31	7410.03	3659.53	0.06	-0.03	-0.03	0.054
24.00	-29.26	-1.75	0.00	-184.51	0.00	184.51	2910.64	1455.32	7294.29	3602.38	0.07	-0.03	-0.03	0.054
26.00	-28.74	-1.73	0.00	-181.02	0.00	181.02	2896.28	1448.14	7178.37	3545.13	0.09	-0.03	-0.03	0.053
28.00	-28.22	-1.72	0.00	-177.55	0.00	177.55	2881.53	1440.76	7062.30	3487.80	0.10	-0.03	-0.03	0.053
30.00	-27.71	-1.70	0.00	-174.12	0.00	174.12	2866.39	1433.19	6946.10	3430.42	0.11	-0.04	-0.04	0.053
30.92	-27.48	-1.70	0.00	-172.56	0.00	172.56	2859.32	1429.66	6892.81	3404.10	0.12	-0.04	-0.04	0.053
30.92	-27.48	-1.70	0.00	-172.56	0.00	172.56	2859.32	1429.66	6892.81	3404.10	0.12	-0.04	-0.04	0.053
32.00	-27.20	-1.69	0.00	-170.72	0.00	170.72	2850.86	1425.43	6829.81	3372.99	0.13	-0.04	-0.04	0.053
34.00	-26.70	-1.67	0.00	-167.34	0.00	167.34	2834.95	1417.47	6713.46	3315.53	0.15	-0.04	-0.04	0.052
36.00	-26.21	-1.66	0.00	-163.99	0.00	163.99	2818.65	1409.32	6597.08	3258.05	0.17	-0.05	-0.05	0.052
38.00	-25.72	-1.65	0.00	-160.67	0.00	160.67	2801.96	1400.98	6480.71	3200.58	0.19	-0.05	-0.05	0.052
40.00	-25.23	-1.63	0.00	-157.38	0.00	157.38	2784.89	1392.44	6364.37	3143.12	0.21	-0.05	-0.05	0.051
42.00	-24.75	-1.62	0.00	-154.12	0.00	154.12	2767.43	1383.71	6248.11	3085.70	0.23	-0.05	-0.05	0.051
44.00	-24.27	-1.60	0.00	-150.89	0.00	150.89	2749.58	1374.79	6131.94	3028.33	0.25	-0.06	-0.06	0.051
46.00	-23.80	-1.59	0.00	-147.68	0.00	147.68	2731.34	1365.67	6015.90	2971.03	0.28	-0.06	-0.06	0.050
48.00	-23.34	-1.57	0.00	-144.51	0.00	144.51	2712.72	1356.36	5900.04	2913.81	0.30	-0.06	-0.06	0.050
49.00	-23.10	-1.57	0.00	-142.93	0.00	142.93	2703.26	1351.63	5842.17	2885.23	0.32	-0.06	-0.06	0.050
49.00	-23.10	-1.57	0.00	-142.93	0.00	142.93	2703.26	1351.63	5842.17	2885.23	0.32	-0.06	-0.06	0.050
50.00	-22.87	-1.56	0.00	-141.37	0.00	141.37	2693.71	1346.86	5784.36	2856.68	0.33	-0.07	-0.07	0.058
52.00	-22.42	-1.55	0.00	-138.25	0.00	138.25	2674.32	1337.16	5668.92	2799.67	0.36	-0.07	-0.07	0.058
54.00	-21.97	-1.53	0.00	-135.15	0.00	135.15	2654.53	1327.27	5553.74	2742.78	0.39	-0.07	-0.07	0.058
56.00	-21.52	-1.52	0.00	-132.09	0.00	132.09	2634.36	1317.18	5438.85	2686.04	0.42	-0.08	-0.08	0.057
58.00	-21.08	-1.51	0.00	-129.05	0.00	129.05	2613.81	1306.90	5324.28	2629.46	0.45	-0.08	-0.08	0.057
60.00	-20.64	-1.49	0.00	-126.04	0.00	126.04	2592.86	1296.43	5210.07	2573.06	0.49	-0.09	-0.09	0.057
62.00	-20.21	-1.48	0.00	-123.05	0.00	123.05	2571.53	1285.77	5096.25	2516.85	0.52	-0.09	-0.09	0.057
64.00	-19.78	-1.47	0.00	-120.08	0.00	120.08	2549.81	1274.91	4982.86	2460.85	0.56	-0.09	-0.09	0.057
64.92	-19.59	-1.47	0.00	-118.73	0.00	118.73	2539.73	1269.86	4931.03	2435.25	0.58	-0.10	-0.10	0.056
66.00	-19.20	-1.46	0.00	-117.14	0.00	117.14	2527.71	1263.85	4869.91	2405.07	0.60	-0.10	-0.10	0.047
68.00	-18.49	-1.44	0.00	-114.23	0.00	114.23	2505.22	1252.61	4757.45	2349.53	0.64	-0.10	-0.10	0.047
70.00	-17.79	-1.42	0.00	-111.36	0.00	111.36	2482.34	1241.17	4645.51	2294.24	0.69	-0.10	-0.10	0.047
70.92	-17.48	-1.41	0.00	-110.06	0.00	110.06	1926.34	963.17	3640.67	1797.99	0.71	-0.11	-0.11	0.051
72.00	-17.28	-1.41	0.00	-108.53	0.00	108.53	1918.38	959.19	3596.95	1776.40	0.73	-0.11	-0.11	0.057
74.00	-16.93	-1.40	0.00	-105.71	0.00	105.71	1903.38	951.69	3516.31	1736.57	0.78	-0.11	-0.11	0.057
74.92	-16.77	-1.40	0.00	-104.43	0.00	104.43	1896.38	948.19	3479.39	1718.34	0.80	-0.11	-0.11	0.056
74.92	-16.77	-1.40	0.00	-104.43	0.00	104.43	1896.38	948.19	3479.39	1718.34	0.80	-0.11	-0.11	0.056

Calculated Forces

Structure: CT00252-S-SBA **Code:** EIA/TIA-222-G 10/11/2021
Site Name: Prospect **Exposure:** B
Height: 157.00 (ft) **Crest Height:** 0.00
Base Elev: 0.000 (ft) **Site Class:** D - Stiff Soil
Gh: 1.1 **Topography:** 1 **Struct Class:** II Page: 53



76.00	-16.58	-1.40	0.00	-102.91	0.00	102.91	1888.00	944.00	3435.80	1696.81	0.83	-0.12	0.056
78.00	-16.24	-1.39	0.00	-100.11	0.00	100.11	1872.23	936.11	3355.44	1657.12	0.88	-0.12	0.056
80.00	-15.90	-1.39	0.00	-97.32	0.00	97.32	1856.07	928.04	3275.27	1617.53	0.93	-0.13	0.055
82.00	-15.56	-1.39	0.00	-94.54	0.00	94.54	1839.53	919.76	3195.31	1578.04	0.98	-0.13	0.055
84.00	-15.23	-1.39	0.00	-91.76	0.00	91.76	1822.60	911.30	3115.61	1538.68	1.04	-0.13	0.054
86.00	-14.90	-1.39	0.00	-88.97	0.00	88.97	1805.28	902.64	3036.19	1499.46	1.09	-0.14	0.054
88.00	-14.58	-1.39	0.00	-86.19	0.00	86.19	1787.57	893.79	2957.09	1460.40	1.15	-0.14	0.053
89.92	-14.27	-1.39	0.00	-83.52	0.00	83.52	1770.24	885.12	2881.61	1423.12	1.21	-0.15	0.053
90.00	-14.25	-1.39	0.00	-83.40	0.00	83.40	1769.48	884.74	2878.34	1421.50	1.21	-0.15	0.052
92.00	-13.74	-1.39	0.00	-80.62	0.00	80.62	1751.00	875.50	2799.96	1382.80	1.28	-0.15	0.052
94.00	-13.24	-1.39	0.00	-77.83	0.00	77.83	1732.14	866.07	2722.00	1344.29	1.34	-0.16	0.051
94.92	-13.01	-1.39	0.00	-76.56	0.00	76.56	1262.32	631.16	2000.52	987.98	1.37	-0.16	0.057
96.00	-12.87	-1.39	0.00	-75.05	0.00	75.05	1256.50	628.25	1972.50	974.14	1.41	-0.16	0.064
98.00	-12.60	-1.39	0.00	-72.26	0.00	72.26	1245.44	622.72	1920.78	948.60	1.48	-0.17	0.063
100.00	-12.05	-1.39	0.00	-69.48	0.00	69.48	1234.00	617.00	1869.08	923.07	1.55	-0.17	0.062
102.00	-11.81	-1.39	0.00	-66.69	0.00	66.69	1222.17	611.08	1817.44	897.56	1.62	-0.18	0.061
104.00	-11.57	-1.39	0.00	-63.90	0.00	63.90	1209.95	604.97	1765.88	872.10	1.70	-0.18	0.060
106.00	-11.34	-1.39	0.00	-61.12	0.00	61.12	1197.35	598.67	1714.45	846.70	1.78	-0.19	0.059
108.00	-11.10	-1.39	0.00	-58.33	0.00	58.33	1184.36	592.18	1663.17	821.38	1.86	-0.20	0.057
109.00	-10.99	-1.39	0.00	-56.94	0.00	56.94	1177.71	588.86	1637.59	808.75	1.90	-0.20	0.057
109.00	-10.99	-1.39	0.00	-56.94	0.00	56.94	1177.71	588.86	1637.59	808.75	1.90	-0.20	0.057
109.92	-10.88	-1.39	0.00	-55.66	0.00	55.66	1171.54	585.77	1614.20	797.19	1.94	-0.20	0.079
109.92	-10.88	-1.39	0.00	-55.66	0.00	55.66	1171.54	585.77	1614.20	797.19	1.94	-0.20	0.079
110.00	-10.87	-1.39	0.00	-55.54	0.00	55.54	1170.98	585.49	1612.07	796.14	1.94	-0.20	0.079
112.00	-10.65	-1.40	0.00	-52.75	0.00	52.75	1157.21	578.61	1561.19	771.01	2.03	-0.21	0.078
114.00	-10.42	-1.40	0.00	-49.96	0.00	49.96	1143.06	571.53	1510.56	746.01	2.11	-0.22	0.076
116.00	-10.20	-1.40	0.00	-47.17	0.00	47.17	1128.52	564.26	1460.20	721.14	2.21	-0.23	0.074
118.00	-9.99	-1.40	0.00	-44.37	0.00	44.37	1113.60	556.80	1410.16	696.43	2.30	-0.23	0.073
120.00	-9.77	-1.40	0.00	-41.58	0.00	41.58	1098.28	549.14	1360.47	671.88	2.40	-0.24	0.071
122.00	-9.56	-1.40	0.00	-38.78	0.00	38.78	1082.58	541.29	1311.15	647.53	2.51	-0.25	0.069
124.00	-9.36	-1.40	0.00	-35.99	0.00	35.99	1066.50	533.25	1262.24	623.37	2.61	-0.26	0.067
126.00	-9.15	-1.39	0.00	-33.20	0.00	33.20	1050.02	525.01	1213.77	599.43	2.72	-0.27	0.064
128.00	-8.95	-1.39	0.00	-30.41	0.00	30.41	1033.16	516.58	1165.77	575.73	2.84	-0.27	0.061
130.00	-8.76	-1.38	0.00	-27.64	0.00	27.64	1015.91	507.96	1118.28	552.28	2.95	-0.28	0.059
132.00	-5.68	-1.19	0.00	-24.87	0.00	24.87	998.40	499.20	1071.45	529.15	3.07	-0.29	0.053
134.00	-5.51	-1.18	0.00	-22.49	0.00	22.49	972.97	486.48	1017.31	502.41	3.20	-0.30	0.050
136.00	-5.35	-1.17	0.00	-20.12	0.00	20.12	947.54	473.77	964.58	476.37	3.32	-0.30	0.048
138.00	-5.19	-1.16	0.00	-17.78	0.00	17.78	922.11	461.06	913.25	451.02	3.45	-0.31	0.045
140.00	-5.03	-1.15	0.00	-15.46	0.00	15.46	896.68	448.34	863.33	426.36	3.58	-0.32	0.042
142.00	-4.88	-1.13	0.00	-13.16	0.00	13.16	871.26	435.63	814.80	402.40	3.72	-0.32	0.038
144.00	-4.73	-1.11	0.00	-10.90	0.00	10.90	845.83	422.91	767.69	379.13	3.85	-0.33	0.034
146.00	-4.58	-1.10	0.00	-8.67	0.00	8.67	820.40	410.20	721.97	356.55	3.99	-0.33	0.030
147.00	-2.95	-0.80	0.00	-7.57	0.00	7.57	807.68	403.84	699.64	345.53	4.06	-0.34	0.026
148.00	-2.89	-0.79	0.00	-6.77	0.00	6.77	794.97	397.49	677.66	334.67	4.14	-0.34	0.024
150.00	-2.76	-0.77	0.00	-5.19	0.00	5.19	769.54	384.77	634.75	313.48	4.28	-0.34	0.020
152.00	-2.64	-0.75	0.00	-3.64	0.00	3.64	744.11	372.06	593.25	292.98	4.42	-0.35	0.016
154.00	-2.53	-0.72	0.00	-2.15	0.00	2.15	718.69	359.34	553.15	273.18	4.57	-0.35	0.011
156.00	-2.41	-0.70	0.00	-0.70	0.00	0.70	693.26	346.63	514.45	254.07	4.71	-0.35	0.006
157.00	0.00	-0.68	0.00	0.00	0.00	0.00	680.54	340.27	495.63	244.77	4.79	-0.35	0.000

Wind Loading - Shaft

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

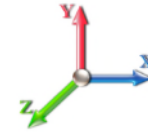


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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

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	295.31	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.70	6.129	6.74	292.44	1.000	0.000	2.00	11.708	11.71	78.9	0.0	646.4
4.00		1.00	0.70	6.129	6.74	289.57	1.000	0.000	2.00	11.594	11.59	78.2	0.0	640.0
6.00		1.00	0.70	6.129	6.74	286.69	1.000	0.000	2.00	11.479	11.48	77.4	0.0	633.6
8.00		1.00	0.70	6.129	6.74	283.82	1.000	0.000	2.00	11.365	11.36	76.6	0.0	627.3
10.00		1.00	0.70	6.129	6.74	280.95	1.000	0.000	2.00	11.251	11.25	75.8	0.0	620.9
11.92	Bot - Section 2	1.00	0.70	6.129	6.74	278.20	1.000	0.000	1.92	10.674	10.67	72.0	0.0	589.1
12.00		1.00	0.70	6.129	6.74	278.08	1.000	0.000	0.08	0.467	0.47	3.1	0.0	47.6
14.00		1.00	0.70	6.129	6.74	275.21	1.000	0.000	2.00	11.151	11.15	75.2	0.0	1136.2
16.00	RB1	1.00	0.70	6.129	6.74	272.33	1.000	0.000	2.00	11.037	11.04	74.4	0.0	1124.4
18.00		1.00	0.70	6.129	6.74	269.46	1.000	0.000	2.00	10.922	10.92	73.6	0.0	1112.6
20.00	Top - Section 1	1.00	0.70	6.129	6.74	266.59	1.000	0.000	2.00	10.808	10.81	72.9	0.0	1100.8
22.00		1.00	0.70	6.129	6.74	266.96	1.000	0.000	2.00	10.693	10.69	72.1	0.0	506.2
24.00		1.00	0.70	6.129	6.74	264.09	1.000	0.000	2.00	10.579	10.58	71.3	0.0	500.8
26.00		1.00	0.70	6.129	6.74	261.22	1.000	0.000	2.00	10.464	10.46	70.5	0.0	495.3
28.00		1.00	0.70	6.129	6.74	258.35	1.000	0.000	2.00	10.350	10.35	69.8	0.0	489.9
30.00		1.00	0.70	6.134	6.75	255.58	1.000	0.000	2.00	10.236	10.24	69.1	0.0	484.4
30.92	Top - Section 2	1.00	0.71	6.187	6.81	255.36	1.000	0.000	0.92	4.653	4.65	31.7	0.0	220.2
32.00		1.00	0.71	6.248	6.87	255.05	1.000	0.000	1.08	5.468	5.47	37.6	0.0	258.8
34.00		1.00	0.73	6.357	6.99	254.34	1.000	0.000	2.00	10.007	10.01	70.0	0.0	473.5
36.00		1.00	0.74	6.462	7.11	253.48	1.000	0.000	2.00	9.892	9.89	70.3	0.0	468.0
38.00		1.00	0.75	6.562	7.22	252.47	1.000	0.000	2.00	9.778	9.78	70.6	0.0	462.6
40.00		1.00	0.76	6.659	7.33	251.33	1.000	0.000	2.00	9.663	9.66	70.8	0.0	457.1
42.00		1.00	0.77	6.753	7.43	250.08	1.000	0.000	2.00	9.549	9.55	70.9	0.0	451.7
44.00		1.00	0.78	6.843	7.53	248.71	1.000	0.000	2.00	9.435	9.43	71.0	0.0	446.2
46.00		1.00	0.79	6.931	7.62	247.24	1.000	0.000	2.00	9.320	9.32	71.1	0.0	440.8
48.00		1.00	0.80	7.015	7.72	245.67	1.000	0.000	2.00	9.206	9.21	71.0	0.0	435.3
49.00	RT1	1.00	0.81	7.057	7.76	244.86	1.000	0.000	1.00	4.560	4.56	35.4	0.0	215.6
50.00		1.00	0.81	7.098	7.81	244.02	1.000	0.000	1.00	4.531	4.53	35.4	0.0	214.3
52.00		1.00	0.82	7.178	7.90	242.28	1.000	0.000	2.00	8.977	8.98	70.9	0.0	424.4
54.00		1.00	0.83	7.255	7.98	240.47	1.000	0.000	2.00	8.862	8.86	70.7	0.0	419.0
56.00		1.00	0.84	7.331	8.06	238.58	1.000	0.000	2.00	8.748	8.75	70.5	0.0	413.5
58.00		1.00	0.85	7.405	8.15	236.62	1.000	0.000	2.00	8.633	8.63	70.3	0.0	408.1
60.00		1.00	0.85	7.477	8.22	234.60	1.000	0.000	2.00	8.519	8.52	70.1	0.0	402.6
62.00		1.00	0.86	7.548	8.30	232.51	1.000	0.000	2.00	8.405	8.40	69.8	0.0	397.2
64.00		1.00	0.87	7.616	8.38	230.37	1.000	0.000	2.00	8.290	8.29	69.5	0.0	391.7
64.92	Bot - Section 4	1.00	0.87	7.647	8.41	229.36	1.000	0.000	0.92	3.761	3.76	31.6	0.0	177.7
66.00	RB2	1.00	0.88	7.684	8.45	228.16	1.000	0.000	1.08	4.473	4.47	37.8	0.0	384.9
68.00		1.00	0.89	7.749	8.52	225.91	1.000	0.000	2.00	8.169	8.17	69.6	0.0	702.9
70.00		1.00	0.89	7.814	8.60	223.60	1.000	0.000	2.00	8.055	8.05	69.2	0.0	692.9
70.92	Top - Section 3	1.00	0.90	7.843	8.63	222.53	1.000	0.000	0.92	3.653	3.65	31.5	0.0	314.3
72.00		1.00	0.90	7.877	8.66	224.32	1.000	0.000	1.08	4.287	4.29	37.1	0.0	169.0
74.00		1.00	0.91	7.939	8.73	221.93	1.000	0.000	2.00	7.826	7.83	68.3	0.0	308.5
74.92	Top - Section 4	1.00	0.91	7.967	8.76	220.82	1.000	0.000	0.92	3.549	3.55	31.1	0.0	139.9
76.00		1.00	0.91	8.000	8.80	219.49	1.000	0.000	1.08	4.163	4.16	36.6	0.0	164.1
78.00		1.00	0.92	8.059	8.87	217.02	1.000	0.000	2.00	7.597	7.60	67.3	0.0	299.4
80.00		1.00	0.93	8.118	8.93	214.50	1.000	0.000	2.00	7.483	7.48	66.8	0.0	294.8

Wind Loading - Shaft

Structure: CT00252-S-SBA Site Name: Prospect Height: 157.00 (ft) Base Elev: 0.000 (ft) Gh: 1.1	Code: EIA/TIA-222-G 10/11/2021 Exposure: B Crest Height: 0.00 Site Class: D - Stiff Soil Struct Class: II
Topography: 1	Page: 55



82.00	1.00	0.93	8.175	8.99	211.94	1.000	0.000	2.00	7.368	7.37	66.3	0.0	290.3
84.00	1.00	0.94	8.232	9.05	209.34	1.000	0.000	2.00	7.254	7.25	65.7	0.0	285.7
86.00	1.00	0.95	8.287	9.12	206.70	1.000	0.000	2.00	7.139	7.14	65.1	0.0	281.2
88.00	1.00	0.95	8.342	9.18	204.03	1.000	0.000	2.00	7.025	7.02	64.5	0.0	276.7
89.92 Bot - Section 6	1.00	0.96	8.393	9.23	201.44	1.000	0.000	1.92	6.625	6.62	61.2	0.0	260.9
90.00	1.00	0.96	8.396	9.24	201.33	1.000	0.000	0.08	0.289	0.29	2.7	0.0	20.4
92.00	1.00	0.96	8.448	9.29	198.59	1.000	0.000	2.00	6.882	6.88	64.0	0.0	484.7
94.00	1.00	0.97	8.501	9.35	195.82	1.000	0.000	2.00	6.768	6.77	63.3	0.0	476.6
94.92 Top - Section 5	1.00	0.97	8.524	9.38	194.54	1.000	0.000	0.92	3.064	3.06	28.7	0.0	215.7
96.00	1.00	0.98	8.552	9.41	195.57	1.000	0.000	1.08	3.590	3.59	33.8	0.0	113.2
98.00	1.00	0.98	8.602	9.46	192.75	1.000	0.000	2.00	6.539	6.54	61.9	0.0	206.2
100.00 Appurtenance(s)	1.00	0.99	8.652	9.52	189.89	1.000	0.000	2.00	6.424	6.42	61.1	0.0	202.6
102.00	1.00	0.99	8.701	9.57	187.01	1.000	0.000	2.00	6.310	6.31	60.4	0.0	199.0
104.00	1.00	1.00	8.750	9.62	184.09	1.000	0.000	2.00	6.196	6.20	59.6	0.0	195.3
106.00	1.00	1.00	8.797	9.68	181.15	1.000	0.000	2.00	6.081	6.08	58.8	0.0	191.7
108.00	1.00	1.01	8.845	9.73	178.19	1.000	0.000	2.00	5.967	5.97	58.0	0.0	188.1
109.00 RT2	1.00	1.01	8.868	9.75	176.69	1.000	0.000	1.00	2.940	2.94	28.7	0.0	92.7
109.92 Top - Section 6	1.00	1.02	8.889	9.78	175.32	1.000	0.000	0.92	2.670	2.67	26.1	0.0	84.2
110.00	1.00	1.02	8.891	9.78	175.20	1.000	0.000	0.08	0.242	0.24	2.4	0.0	7.6
112.00	1.00	1.02	8.937	9.83	172.18	1.000	0.000	2.00	5.738	5.74	56.4	0.0	180.8
114.00	1.00	1.03	8.982	9.88	169.14	1.000	0.000	2.00	5.623	5.62	55.6	0.0	177.2
116.00	1.00	1.03	9.027	9.93	166.07	1.000	0.000	2.00	5.509	5.51	54.7	0.0	173.5
118.00	1.00	1.04	9.071	9.98	162.98	1.000	0.000	2.00	5.395	5.39	53.8	0.0	169.9
120.00	1.00	1.04	9.115	10.03	159.87	1.000	0.000	2.00	5.280	5.28	52.9	0.0	166.3
122.00	1.00	1.05	9.158	10.07	156.74	1.000	0.000	2.00	5.166	5.17	52.0	0.0	162.6
124.00	1.00	1.05	9.201	10.12	153.58	1.000	0.000	2.00	5.051	5.05	51.1	0.0	159.0
126.00	1.00	1.06	9.243	10.17	150.41	1.000	0.000	2.00	4.937	4.94	50.2	0.0	155.4
128.00	1.00	1.06	9.284	10.21	147.21	1.000	0.000	2.00	4.822	4.82	49.3	0.0	151.7
130.00	1.00	1.07	9.326	10.26	143.99	1.000	0.000	2.00	4.708	4.71	48.3	0.0	148.1
132.00 Appurtenance(s)	1.00	1.07	9.366	10.30	140.76	1.000	0.000	2.00	4.593	4.59	47.3	0.0	144.5
134.00	1.00	1.07	9.407	10.35	137.50	1.000	0.000	2.00	4.479	4.48	46.3	0.0	140.8
136.00	1.00	1.08	9.447	10.39	134.23	1.000	0.000	2.00	4.365	4.36	45.4	0.0	137.2
138.00	1.00	1.08	9.486	10.43	130.93	1.000	0.000	2.00	4.250	4.25	44.3	0.0	133.6
140.00	1.00	1.09	9.525	10.48	127.62	1.000	0.000	2.00	4.136	4.14	43.3	0.0	129.9
142.00	1.00	1.09	9.564	10.52	124.29	1.000	0.000	2.00	4.021	4.02	42.3	0.0	126.3
144.00	1.00	1.10	9.602	10.56	120.95	1.000	0.000	2.00	3.907	3.91	41.3	0.0	122.7
146.00	1.00	1.10	9.640	10.60	117.58	1.000	0.000	2.00	3.792	3.79	40.2	0.0	119.0
147.00 Appurtenance(s)	1.00	1.10	9.659	10.62	115.90	1.000	0.000	1.00	1.853	1.85	19.7	0.0	58.2
148.00	1.00	1.11	9.678	10.65	114.20	1.000	0.000	1.00	1.825	1.82	19.4	0.0	57.3
150.00	1.00	1.11	9.715	10.69	110.81	1.000	0.000	2.00	3.564	3.56	38.1	0.0	111.8
152.00	1.00	1.11	9.752	10.73	107.39	1.000	0.000	2.00	3.449	3.45	37.0	0.0	108.1
154.00	1.00	1.12	9.788	10.77	103.96	1.000	0.000	2.00	3.335	3.33	35.9	0.0	104.5
156.00	1.00	1.12	9.824	10.81	100.52	1.000	0.000	2.00	3.220	3.22	34.8	0.0	100.9
157.00 Appurtenance(s)	1.00	1.12	9.842	10.83	98.79	1.000	0.000	1.00	1.567	1.57	17.0	0.0	49.1
Totals:								157.00			4,864.5		29,165.9

Discrete Appurtenance Forces

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

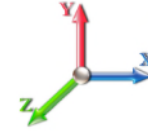


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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

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	157.00	Kathrein 860 10025 RET	6	9.842	10.827	0.50	1.00	0.54	7.20	0.000	0.000	5.85	0.00	0.00
2	157.00	Cci HPA65R-BU8A	3	9.842	10.827	0.89	1.00	29.96	207.00	0.000	0.000	324.33	0.00	0.00
3	157.00	Kathrein 800-10121	3	9.842	10.827	0.79	1.00	12.21	132.30	0.000	0.000	132.14	0.00	0.00
4	157.00	Sabre C10-857-804	3	9.842	10.827	0.56	0.75	31.27	1386.00	0.000	0.000	338.54	0.00	0.00
5	157.00	CCI DTMABP7819VG12A	6	9.842	10.827	0.67	1.00	4.58	115.20	0.000	0.000	49.62	0.00	0.00
6	157.00	Powerwave LGP21901	6	9.842	10.827	0.93	1.00	9.32	186.00	0.000	0.000	100.89	0.00	0.00
7	157.00	Lightning Rod	1	9.904	10.895	1.00	1.00	1.05	35.00	0.000	3.500	11.44	0.00	40.04
8	157.00	Ericsson RRUS-11 RRU	3	9.842	10.827	0.50	1.00	3.78	153.00	0.000	0.000	40.92	0.00	0.00
9	157.00	Ericsson RRUS 4415 B25	3	9.842	10.827	0.50	1.00	2.46	138.00	0.000	0.000	26.63	0.00	0.00
10	157.00	Raycap DC6-48-60-18-8F	2	9.842	10.827	1.00	1.00	1.84	63.60	0.000	0.000	19.92	0.00	0.00
11	157.00	Nokia CS72188.01 LMU	1	9.851	10.836	1.00	1.00	0.13	5.00	0.000	0.500	1.41	0.00	0.70
12	157.00	Andrew - SBNH-1D6565C	3	9.869	10.856	0.80	1.00	27.53	198.30	0.000	1.500	298.84	0.00	448.26
13	147.00	Sector Frame	3	9.659	10.625	0.56	0.75	29.53	1500.00	0.000	0.000	313.76	0.00	0.00
14	147.00	Allgan ALP9212	9	9.659	10.625	0.54	0.80	21.80	240.30	0.000	0.000	231.67	0.00	0.00
15	132.00	MT6407-77A	3	9.366	10.303	0.52	0.75	7.39	238.20	0.000	0.000	76.11	0.00	0.00
16	132.00	14' LP Platform	1	9.366	10.303	1.00	1.00	25.00	1500.00	0.000	0.000	257.58	0.00	0.00
17	132.00	DB844G65ZAXY	6	9.366	10.303	0.68	0.75	17.54	72.00	0.000	0.000	180.68	0.00	0.00
18	132.00	SBNHH-1D65B	6	9.366	10.303	0.62	0.75	30.18	243.60	0.000	0.000	310.93	0.00	0.00
19	132.00	GPS	1	9.366	10.303	0.75	0.75	0.75	10.00	0.000	0.000	7.73	0.00	0.00
20	132.00	Collar Mount (3-Sided)	1	9.366	10.303	1.00	1.00	2.50	220.00	0.000	0.000	25.76	0.00	0.00
21	132.00	Samsung	3	9.366	10.303	0.38	0.75	2.10	224.10	0.000	0.000	21.68	0.00	0.00
22	132.00	RFS DB-C1-12C-24AB-0Z	1	9.366	10.303	0.75	0.75	3.04	32.00	0.000	0.000	31.37	0.00	0.00
23	132.00	Samsung	3	9.366	10.303	0.38	0.75	2.10	210.99	0.000	0.000	21.68	0.00	0.00
24	132.00	HRK12 (Handrail Kit)	1	9.366	10.303	1.00	1.00	6.75	261.72	0.000	0.000	69.55	0.00	0.00
25	132.00	(3) SFS-H (V-Braces)	1	9.366	10.303	1.00	1.00	6.30	197.00	0.000	0.000	64.91	0.00	0.00
26	100.00	15'x2.875"mount pipe	3	8.652	9.517	1.00	1.00	12.93	261.00	0.000	0.000	123.06	0.00	0.00
27	100.00	742 213	3	8.652	9.517	0.72	1.00	11.06	66.00	0.000	0.000	105.25	0.00	0.00

Totals: 7,903.51

3,192.24

Total Applied Force Summary

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

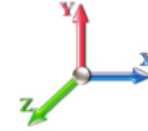


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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

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		78.93	729.31	0.00	0.00
4.00		78.16	722.95	0.00	0.00
6.00		77.39	716.59	0.00	0.00
8.00		76.62	710.23	0.00	0.00
10.00		75.85	703.87	0.00	0.00
11.92		71.96	668.58	0.00	0.00
12.00		3.15	51.05	0.00	0.00
14.00		75.17	1219.16	0.00	0.00
16.00		74.40	1207.35	0.00	0.00
18.00		73.63	1195.54	0.00	0.00
20.00		72.86	1183.73	0.00	0.00
22.00		72.09	589.15	0.00	0.00
24.00		71.32	583.70	0.00	0.00
26.00		70.55	578.25	0.00	0.00
28.00		69.77	572.80	0.00	0.00
30.00		69.06	567.35	0.00	0.00
30.92		31.67	258.21	0.00	0.00
32.00		37.58	303.68	0.00	0.00
34.00		69.98	556.45	0.00	0.00
36.00		70.31	551.00	0.00	0.00
38.00		70.58	545.55	0.00	0.00
40.00		70.79	540.10	0.00	0.00
42.00		70.93	534.65	0.00	0.00
44.00		71.02	529.20	0.00	0.00
46.00		71.05	523.74	0.00	0.00
48.00		71.04	518.29	0.00	0.00
49.00		35.40	257.10	0.00	0.00
50.00		35.38	255.74	0.00	0.00
52.00		70.88	507.39	0.00	0.00
54.00		70.73	501.94	0.00	0.00
56.00		70.55	496.49	0.00	0.00
58.00		70.33	491.04	0.00	0.00
60.00		70.07	485.59	0.00	0.00
62.00		69.78	480.14	0.00	0.00
64.00		69.46	474.69	0.00	0.00
64.92		31.64	215.75	0.00	0.00
66.00		37.80	429.85	0.00	0.00
68.00		69.64	785.87	0.00	0.00
70.00		69.23	775.88	0.00	0.00
70.92		31.52	352.27	0.00	0.00
72.00		37.14	213.91	0.00	0.00
74.00		68.34	391.40	0.00	0.00
74.92		31.10	177.87	0.00	0.00
76.00		36.63	208.99	0.00	0.00
78.00		67.35	382.32	0.00	0.00
80.00		66.82	377.78	0.00	0.00

Total Applied Force Summary

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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82.00	66.26	373.23	0.00	0.00
84.00	65.68	368.69	0.00	0.00
86.00	65.08	364.15	0.00	0.00
88.00	64.46	359.61	0.00	0.00
89.92	61.16	340.36	0.00	0.00
90.00	2.67	23.83	0.00	0.00
92.00	63.96	567.67	0.00	0.00
94.00	63.28	559.50	0.00	0.00
94.92	28.73	253.70	0.00	0.00
96.00	33.77	158.16	0.00	0.00
98.00	61.87	289.19	0.00	0.00
100.00	(6) attachments	289.46	612.56	0.00
102.00		60.40	269.44	0.00
104.00		59.63	265.81	0.00
106.00		58.85	262.18	0.00
108.00		58.05	258.54	0.00
109.00		28.68	127.91	0.00
109.92		26.11	116.45	0.00
110.00		2.36	10.55	0.00
112.00		56.41	251.28	0.00
114.00		55.56	247.64	0.00
116.00		54.70	244.01	0.00
118.00		53.83	240.38	0.00
120.00		52.94	236.74	0.00
122.00		52.04	233.11	0.00
124.00		51.12	229.48	0.00
126.00		50.19	225.84	0.00
128.00		49.25	222.21	0.00
130.00		48.29	218.58	0.00
132.00	(27) attachments	1115.29	3424.55	0.00
134.00		46.35	184.03	0.00
136.00		45.35	180.40	0.00
138.00		44.35	176.76	0.00
140.00		43.33	173.13	0.00
142.00		42.31	169.50	0.00
144.00		41.27	165.86	0.00
146.00		40.22	162.23	0.00
147.00	(12) attachments	565.12	1820.05	0.00
148.00		19.42	69.48	0.00
150.00		38.08	136.24	0.00
152.00		37.00	132.61	0.00
154.00		35.90	128.98	0.00
156.00		34.80	125.34	0.00
157.00	(40) attachments	1367.50	2687.91	0.00
	Totals:	8,056.72	42,790.41	0.00
				489.01

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind	Iterations 23
Dead Load Factor 1.00	
Wind Load Factor 1.00	

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)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.014	0.000	6.129	0.00	0.55
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.014	0.000	6.129	0.00	2.08
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	6.129	0.00	0.55
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	6.129	0.00	2.08
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	6.129	0.00	0.55
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	6.129	0.00	2.08
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	6.129	0.00	0.55
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	6.129	0.00	2.08
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	6.129	0.00	0.55
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	6.129	0.00	2.08
11.92	Safety Cable	Yes	1.92	0.000	0.38	0.06	0.00	0.015	0.000	6.129	0.00	0.52
11.92	Step bolts (ladder)	Yes	1.92	0.000	0.63	0.10	0.00	0.015	0.000	6.129	0.00	1.99
12.00	Safety Cable	Yes	0.08	0.000	0.38	0.00	0.00	0.015	0.000	6.129	0.00	0.02
12.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.00	0.00	0.015	0.000	6.129	0.00	0.09
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.015	0.000	6.129	0.00	0.55
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.015	0.000	6.129	0.00	2.08
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.031	0.000	6.129	0.00	0.55
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.031	0.000	6.129	0.00	2.08
16.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.031	0.000	6.129	0.00	0.00
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.046	0.000	6.129	0.00	0.55
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.046	0.000	6.129	0.00	2.08
18.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.046	0.000	6.129	0.00	0.00
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	6.129	0.00	0.55
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	6.129	0.00	2.08
20.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.047	0.000	6.129	0.00	0.00
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	6.129	0.00	0.55
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	6.129	0.00	2.08
22.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.047	0.000	6.129	0.00	0.00
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	6.129	0.00	0.55
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	6.129	0.00	2.08
24.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.047	0.000	6.129	0.00	0.00
26.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	6.129	0.00	0.55
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	6.129	0.00	2.08
26.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.048	0.000	6.129	0.00	0.00
28.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	6.129	0.00	0.55
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	6.129	0.00	2.08
28.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.048	0.000	6.129	0.00	0.00
30.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	6.134	0.00	0.55
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	6.134	0.00	2.08
30.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.049	0.000	6.134	0.00	0.00
30.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.049	0.000	6.187	0.00	0.25
30.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.049	0.000	6.187	0.00	0.95
30.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.049	0.000	6.187	0.00	0.00
32.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.050	0.000	6.248	0.00	0.30
32.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.050	0.000	6.248	0.00	1.13
32.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.050	0.000	6.248	0.00	0.00
34.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	6.357	0.00	0.55

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind	Iterations 23
Dead Load Factor 1.00	
Wind Load Factor 1.00	

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)
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	6.357	0.00	2.08
34.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.050	0.000	6.357	0.00	0.00
36.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	6.462	0.00	0.55
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	6.462	0.00	2.08
36.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.051	0.000	6.462	0.00	0.00
38.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	6.562	0.00	0.55
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	6.562	0.00	2.08
38.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.051	0.000	6.562	0.00	0.00
40.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	6.659	0.00	0.55
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	6.659	0.00	2.08
40.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.052	0.000	6.659	0.00	0.00
42.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	6.753	0.00	0.55
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	6.753	0.00	2.08
42.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.053	0.000	6.753	0.00	0.00
44.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	6.843	0.00	0.55
44.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	6.843	0.00	2.08
44.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.053	0.000	6.843	0.00	0.00
46.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.054	0.000	6.931	0.00	0.55
46.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.054	0.000	6.931	0.00	2.08
46.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.054	0.000	6.931	0.00	0.00
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.054	0.000	7.015	0.00	0.55
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.054	0.000	7.015	0.00	2.08
48.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.054	0.000	7.015	0.00	0.00
49.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.055	0.000	7.057	0.00	0.27
49.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.055	0.000	7.057	0.00	1.04
49.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	7.057	0.00	0.00
50.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.055	0.000	7.098	0.00	0.27
50.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.055	0.000	7.098	0.00	1.04
50.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.055	0.000	7.098	0.00	0.00
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	7.178	0.00	0.55
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	7.178	0.00	2.08
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	7.255	0.00	0.55
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	7.255	0.00	2.08
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	7.331	0.00	0.55
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	7.331	0.00	2.08
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.019	0.000	7.405	0.00	0.55
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.019	0.000	7.405	0.00	2.08
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	7.477	0.00	0.55
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	7.477	0.00	2.08
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	7.548	0.00	0.55
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	7.548	0.00	2.08
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.020	0.000	7.616	0.00	0.55
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.020	0.000	7.616	0.00	2.08
64.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.021	0.000	7.647	0.00	0.25
64.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.021	0.000	7.647	0.00	0.95
66.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.058	0.000	7.684	0.00	0.30
66.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.058	0.000	7.684	0.00	1.13

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 23

Dead Load Factor 1.00

Wind Load Factor 1.00



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)
66.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.058	0.000	7.684	0.00	0.00
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.062	0.000	7.749	0.00	0.55
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.062	0.000	7.749	0.00	2.08
68.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.062	0.000	7.749	0.00	0.00
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.063	0.000	7.814	0.00	0.55
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.063	0.000	7.814	0.00	2.08
70.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.063	0.000	7.814	0.00	0.00
70.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.064	0.000	7.843	0.00	0.25
70.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.064	0.000	7.843	0.00	0.95
70.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.064	0.000	7.843	0.00	0.00
72.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.063	0.000	7.877	0.00	0.30
72.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.063	0.000	7.877	0.00	1.13
72.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.063	0.000	7.877	0.00	0.00
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.064	0.000	7.939	0.00	0.55
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.064	0.000	7.939	0.00	2.08
74.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.064	0.000	7.939	0.00	0.00
74.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.065	0.000	7.967	0.00	0.25
74.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.065	0.000	7.967	0.00	0.95
74.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.065	0.000	7.967	0.00	0.00
76.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.065	0.000	8.000	0.00	0.30
76.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.065	0.000	8.000	0.00	1.13
76.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.065	0.000	8.000	0.00	0.00
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.066	0.000	8.059	0.00	0.55
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.066	0.000	8.059	0.00	2.08
78.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.066	0.000	8.059	0.00	0.00
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.067	0.000	8.118	0.00	0.55
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.067	0.000	8.118	0.00	2.08
80.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.067	0.000	8.118	0.00	0.00
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	8.175	0.00	0.55
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	8.175	0.00	2.08
82.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.068	0.000	8.175	0.00	0.00
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.069	0.000	8.232	0.00	0.55
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.069	0.000	8.232	0.00	2.08
84.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.069	0.000	8.232	0.00	0.00
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.070	0.000	8.287	0.00	0.55
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.070	0.000	8.287	0.00	2.08
86.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	8.287	0.00	0.00
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.071	0.000	8.342	0.00	0.55
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.071	0.000	8.342	0.00	2.08
88.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	8.342	0.00	0.00
89.92	Safety Cable	Yes	1.92	0.000	0.38	0.06	0.00	0.073	0.000	8.393	0.00	0.52
89.92	Step bolts (ladder)	Yes	1.92	0.000	0.63	0.10	0.00	0.073	0.000	8.393	0.00	1.99
89.92	1" Reinforcing plate	Yes	1.92	0.000	2.00	0.32	0.00	0.073	0.000	8.393	0.00	0.00
90.00	Safety Cable	Yes	0.08	0.000	0.38	0.00	0.00	0.073	0.000	8.396	0.00	0.02
90.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.00	0.00	0.073	0.000	8.396	0.00	0.09
90.00	1" Reinforcing plate	Yes	0.08	0.000	2.00	0.01	0.00	0.073	0.000	8.396	0.00	0.00
92.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.074	0.000	8.448	0.00	0.55

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind	Iterations 23
Dead Load Factor 1.00	
Wind Load Factor 1.00	

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)
92.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.074	0.000	8.448	0.00	2.08
92.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	8.448	0.00	0.00
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.075	0.000	8.501	0.00	0.55
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.075	0.000	8.501	0.00	2.08
94.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.075	0.000	8.501	0.00	0.00
94.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.076	0.000	8.524	0.00	0.25
94.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.076	0.000	8.524	0.00	0.95
94.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.076	0.000	8.524	0.00	0.00
96.00	Safety Cable	Yes	1.08	0.000	0.38	0.03	0.00	0.076	0.000	8.552	0.00	0.30
96.00	Step bolts (ladder)	Yes	1.08	0.000	0.63	0.06	0.00	0.076	0.000	8.552	0.00	1.13
96.00	1" Reinforcing plate	Yes	1.08	0.000	2.00	0.18	0.00	0.076	0.000	8.552	0.00	0.00
98.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.077	0.000	8.602	0.00	0.55
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.077	0.000	8.602	0.00	2.08
98.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.077	0.000	8.602	0.00	0.00
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.078	0.000	8.652	0.00	0.55
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.078	0.000	8.652	0.00	2.08
100.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	8.652	0.00	0.00
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.080	0.000	8.701	0.00	0.55
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.080	0.000	8.701	0.00	2.08
102.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.080	0.000	8.701	0.00	0.00
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.081	0.000	8.750	0.00	0.55
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.081	0.000	8.750	0.00	2.08
104.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	8.750	0.00	0.00
106.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.082	0.000	8.797	0.00	0.55
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.082	0.000	8.797	0.00	2.08
106.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.082	0.000	8.797	0.00	0.00
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.084	0.000	8.845	0.00	0.55
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.084	0.000	8.845	0.00	2.08
108.00	1" Reinforcing plate	Yes	2.00	0.000	2.00	0.33	0.00	0.084	0.000	8.845	0.00	0.00
109.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.085	0.000	8.868	0.00	0.27
109.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.085	0.000	8.868	0.00	1.04
109.00	1" Reinforcing plate	Yes	1.00	0.000	2.00	0.17	0.00	0.085	0.000	8.868	0.00	0.00
109.92	Safety Cable	Yes	0.92	0.000	0.38	0.03	0.00	0.086	0.000	8.889	0.00	0.25
109.92	Step bolts (ladder)	Yes	0.92	0.000	0.63	0.05	0.00	0.086	0.000	8.889	0.00	0.95
109.92	1" Reinforcing plate	Yes	0.92	0.000	2.00	0.15	0.00	0.086	0.000	8.889	0.00	0.00
110.00	Safety Cable	Yes	0.08	0.000	0.38	0.00	0.00	0.087	0.000	8.891	0.00	0.02
110.00	Step bolts (ladder)	Yes	0.08	0.000	0.63	0.00	0.00	0.087	0.000	8.891	0.00	0.09
110.00	1" Reinforcing plate	Yes	0.08	0.000	2.00	0.01	0.00	0.087	0.000	8.891	0.00	0.00
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.029	0.000	8.937	0.00	0.55
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.029	0.000	8.937	0.00	2.08
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.030	0.000	8.982	0.00	0.55
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.030	0.000	8.982	0.00	2.08
116.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.031	0.000	9.027	0.00	0.55
116.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.031	0.000	9.027	0.00	2.08
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.031	0.000	9.071	0.00	0.55
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.031	0.000	9.071	0.00	2.08
120.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.032	0.000	9.115	0.00	0.55

Linear Appurtenance Segment Forces (Factored)

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind	Iterations 23
Dead Load Factor 1.00	
Wind Load Factor 1.00	



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)
120.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.032	0.000	9.115	0.00	2.08
122.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.033	0.000	9.158	0.00	0.55
122.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.033	0.000	9.158	0.00	2.08
124.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.033	0.000	9.201	0.00	0.55
124.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.033	0.000	9.201	0.00	2.08
126.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.034	0.000	9.243	0.00	0.55
126.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.034	0.000	9.243	0.00	2.08
128.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.035	0.000	9.284	0.00	0.55
128.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.035	0.000	9.284	0.00	2.08
130.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	9.326	0.00	0.55
130.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	9.326	0.00	2.08
132.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	9.366	0.00	0.55
132.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	9.366	0.00	2.08
134.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	9.407	0.00	0.55
134.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	9.407	0.00	2.08
136.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	9.447	0.00	0.55
136.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	9.447	0.00	2.08
138.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	9.486	0.00	0.55
138.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	9.486	0.00	2.08
140.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	9.525	0.00	0.55
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	9.525	0.00	2.08
142.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.042	0.000	9.564	0.00	0.55
142.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.042	0.000	9.564	0.00	2.08
144.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.043	0.000	9.602	0.00	0.55
144.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.043	0.000	9.602	0.00	2.08
146.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.044	0.000	9.640	0.00	0.55
146.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.044	0.000	9.640	0.00	2.08
147.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.045	0.000	9.659	0.00	0.27
147.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.045	0.000	9.659	0.00	1.04
148.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.046	0.000	9.678	0.00	0.27
148.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.046	0.000	9.678	0.00	1.04
150.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	9.715	0.00	0.55
150.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	9.715	0.00	2.08
152.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	9.752	0.00	0.55
152.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	9.752	0.00	2.08
154.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	9.788	0.00	0.55
154.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	9.788	0.00	2.08
156.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	9.824	0.00	0.55
156.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	9.824	0.00	2.08
157.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.054	0.000	9.842	0.00	0.27
157.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.054	0.000	9.842	0.00	1.04
Totals:											0.0	206.1

Calculated Forces

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

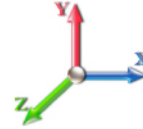


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Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 23

Dead Load Factor 1.00
Wind Load 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	-42.79	-8.06	0.00	-817.63	0.00	817.63	3884.21	1942.11	10879.0	5372.74	0.00	0.000	0.000	0.163
2.00	-42.06	-7.99	0.00	-801.52	0.00	801.52	3865.76	1932.88	10720.6	5294.53	0.00	-0.008	0.000	0.162
4.00	-41.34	-7.91	0.00	-785.55	0.00	785.55	3846.93	1923.46	10562.2	5216.31	0.01	-0.017	0.000	0.161
6.00	-40.62	-7.84	0.00	-769.72	0.00	769.72	3827.70	1913.85	10403.8	5138.08	0.02	-0.025	0.000	0.160
8.00	-39.91	-7.77	0.00	-754.04	0.00	754.04	3808.09	1904.04	10245.4	5059.86	0.03	-0.033	0.000	0.160
10.00	-39.20	-7.70	0.00	-738.50	0.00	738.50	3788.09	1894.04	10087.1	4981.66	0.04	-0.042	0.000	0.159
11.92	-38.53	-7.63	0.00	-723.74	0.00	723.74	3768.56	1884.28	9935.49	4906.76	0.06	-0.050	0.000	0.158
12.00	-38.48	-7.63	0.00	-723.10	0.00	723.10	3767.70	1883.85	9928.90	4903.51	0.06	-0.051	0.000	0.158
14.00	-37.26	-7.56	0.00	-707.84	0.00	707.84	3746.93	1873.46	9770.76	4825.41	0.09	-0.059	0.000	0.157
16.00	-36.05	-7.49	0.00	-692.72	0.00	692.72	3725.77	1862.88	9612.78	4747.39	0.11	-0.068	0.000	0.139
18.00	-34.86	-7.42	0.00	-677.74	0.00	677.74	3704.22	1852.11	9454.97	4669.46	0.14	-0.076	0.000	0.138
20.00	-33.67	-7.35	0.00	-662.91	0.00	662.91	2938.21	1469.11	7525.54	3716.58	0.18	-0.084	0.000	0.151
22.00	-33.08	-7.28	0.00	-648.21	0.00	648.21	2924.62	1462.31	7410.03	3659.53	0.22	-0.092	0.000	0.166
24.00	-32.50	-7.21	0.00	-633.65	0.00	633.65	2910.64	1455.32	7294.29	3602.38	0.26	-0.101	0.000	0.164
26.00	-31.92	-7.15	0.00	-619.22	0.00	619.22	2896.28	1448.14	7178.37	3545.13	0.30	-0.110	0.000	0.163
28.00	-31.34	-7.08	0.00	-604.93	0.00	604.93	2881.53	1440.76	7062.30	3487.80	0.35	-0.120	0.000	0.161
30.00	-30.77	-7.01	0.00	-590.76	0.00	590.76	2866.39	1433.19	6946.10	3430.42	0.40	-0.129	0.000	0.160
30.92	-30.52	-6.99	0.00	-584.33	0.00	584.33	2859.32	1429.66	6892.81	3404.10	0.43	-0.133	0.000	0.159
30.92	-30.52	-6.99	0.00	-584.33	0.00	584.33	2859.32	1429.66	6892.81	3404.10	0.43	-0.133	0.000	0.159
32.00	-30.21	-6.95	0.00	-576.77	0.00	576.77	2850.86	1425.43	6829.81	3372.99	0.46	-0.138	0.000	0.158
34.00	-29.65	-6.88	0.00	-562.86	0.00	562.86	2834.95	1417.47	6713.46	3315.53	0.52	-0.148	0.000	0.157
36.00	-29.10	-6.82	0.00	-549.10	0.00	549.10	2818.65	1409.32	6597.08	3258.05	0.58	-0.157	0.000	0.155
38.00	-28.56	-6.75	0.00	-535.46	0.00	535.46	2801.96	1400.98	6480.71	3200.58	0.65	-0.167	0.000	0.154
40.00	-28.01	-6.68	0.00	-521.96	0.00	521.96	2784.89	1392.44	6364.37	3143.12	0.72	-0.176	0.000	0.152
42.00	-27.48	-6.61	0.00	-508.60	0.00	508.60	2767.43	1383.71	6248.11	3085.70	0.80	-0.186	0.000	0.151
44.00	-26.95	-6.55	0.00	-495.37	0.00	495.37	2749.58	1374.79	6131.94	3028.33	0.88	-0.196	0.000	0.150
46.00	-26.42	-6.48	0.00	-482.28	0.00	482.28	2731.34	1365.67	6015.90	2971.03	0.96	-0.206	0.000	0.148
48.00	-25.91	-6.41	0.00	-469.32	0.00	469.32	2712.72	1356.36	5900.04	2913.81	1.05	-0.216	0.000	0.147
49.00	-25.65	-6.37	0.00	-462.91	0.00	462.91	2703.26	1351.63	5842.17	2885.23	1.10	-0.221	0.000	0.146
49.00	-25.65	-6.37	0.00	-462.91	0.00	462.91	2703.26	1351.63	5842.17	2885.23	1.10	-0.221	0.000	0.146
50.00	-25.39	-6.34	0.00	-456.54	0.00	456.54	2693.71	1346.86	5784.36	2856.68	1.14	-0.226	0.000	0.169
52.00	-24.88	-6.27	0.00	-443.86	0.00	443.86	2674.32	1337.16	5668.92	2799.67	1.24	-0.238	0.000	0.168
54.00	-24.38	-6.21	0.00	-431.31	0.00	431.31	2654.53	1327.27	5553.74	2742.78	1.34	-0.250	0.000	0.166
56.00	-23.88	-6.14	0.00	-418.90	0.00	418.90	2634.36	1317.18	5438.85	2686.04	1.45	-0.262	0.000	0.165
58.00	-23.39	-6.07	0.00	-406.62	0.00	406.62	2613.81	1306.90	5324.28	2629.46	1.56	-0.274	0.000	0.164
60.00	-22.90	-6.00	0.00	-394.48	0.00	394.48	2592.86	1296.43	5210.07	2573.06	1.68	-0.286	0.000	0.162
62.00	-22.42	-5.94	0.00	-382.47	0.00	382.47	2571.53	1285.77	5096.25	2516.85	1.80	-0.299	0.000	0.161
64.00	-21.95	-5.87	0.00	-370.60	0.00	370.60	2549.81	1274.91	4982.86	2460.85	1.93	-0.311	0.000	0.159
64.92	-21.73	-5.84	0.00	-365.22	0.00	365.22	2539.73	1269.86	4931.03	2435.25	1.99	-0.317	0.000	0.159
66.00	-21.30	-5.80	0.00	-358.90	0.00	358.90	2527.71	1263.85	4869.91	2405.07	2.06	-0.324	0.000	0.132
68.00	-20.51	-5.73	0.00	-347.30	0.00	347.30	2505.22	1252.61	4757.45	2349.53	2.20	-0.335	0.000	0.130
70.00	-19.74	-5.66	0.00	-335.84	0.00	335.84	2482.34	1241.17	4645.51	2294.24	2.34	-0.346	0.000	0.129
70.92	-19.39	-5.63	0.00	-330.65	0.00	330.65	1926.34	963.17	3640.67	1797.99	2.41	-0.351	0.000	0.141
72.00	-19.17	-5.59	0.00	-324.56	0.00	324.56	1918.38	959.19	3596.95	1776.40	2.49	-0.357	0.000	0.156
74.00	-18.78	-5.52	0.00	-313.38	0.00	313.38	1903.38	951.69	3516.31	1736.57	2.64	-0.369	0.000	0.154
74.92	-18.60	-5.49	0.00	-308.31	0.00	308.31	1896.38	948.19	3479.39	1718.34	2.72	-0.375	0.000	0.153
74.92	-18.60	-5.49	0.00	-308.31	0.00	308.31	1896.38	948.19	3479.39	1718.34	2.72	-0.375	0.000	0.153
76.00	-18.39	-5.46	0.00	-302.36	0.00	302.36	1888.00	944.00	3435.80	1696.81	2.80	-0.381	0.000	0.151

Calculated Forces

Structure: CT00252-S-SBA

Code: EIA/TIA-222-G

10/11/2021

Site Name: Prospect

Exposure: B

Height: 157.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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78.00	-18.01	-5.39	0.00	-291.44	0.00	291.44	1872.23	936.11	3355.44	1657.12	2.96	-0.394	0.000	0.149
80.00	-17.63	-5.33	0.00	-280.66	0.00	280.66	1856.07	928.04	3275.27	1617.53	3.13	-0.406	0.000	0.146
82.00	-17.26	-5.26	0.00	-270.01	0.00	270.01	1839.53	919.76	3195.31	1578.04	3.30	-0.419	0.000	0.144
84.00	-16.89	-5.20	0.00	-259.48	0.00	259.48	1822.60	911.30	3115.61	1538.68	3.48	-0.431	0.000	0.141
86.00	-16.52	-5.13	0.00	-249.09	0.00	249.09	1805.28	902.64	3036.19	1499.46	3.67	-0.444	0.000	0.139
88.00	-16.16	-5.07	0.00	-238.82	0.00	238.82	1787.57	893.79	2957.09	1460.40	3.85	-0.456	0.000	0.136
89.92	-15.82	-5.01	0.00	-229.11	0.00	229.11	1770.24	885.12	2881.61	1423.12	4.04	-0.469	0.000	0.133
90.00	-15.80	-5.01	0.00	-228.69	0.00	228.69	1769.48	884.74	2878.34	1421.50	4.05	-0.469	0.000	0.133
92.00	-15.23	-4.94	0.00	-218.68	0.00	218.68	1751.00	875.50	2799.96	1382.80	4.25	-0.482	0.000	0.130
94.00	-14.67	-4.87	0.00	-208.80	0.00	208.80	1732.14	866.07	2722.00	1344.29	4.45	-0.494	0.000	0.127
94.92	-14.42	-4.85	0.00	-204.33	0.00	204.33	1262.32	631.16	2000.52	987.98	4.55	-0.500	0.000	0.141
96.00	-14.26	-4.81	0.00	-199.08	0.00	199.08	1256.50	628.25	1972.50	974.14	4.66	-0.507	0.000	0.159
98.00	-13.97	-4.75	0.00	-189.45	0.00	189.45	1245.44	622.72	1920.78	948.60	4.88	-0.522	0.000	0.155
100.00	-13.36	-4.46	0.00	-179.95	0.00	179.95	1234.00	617.00	1869.08	923.07	5.10	-0.536	0.000	0.150
102.00	-13.09	-4.40	0.00	-171.03	0.00	171.03	1222.17	611.08	1817.44	897.56	5.33	-0.550	0.000	0.146
104.00	-12.82	-4.34	0.00	-162.23	0.00	162.23	1209.95	604.97	1765.88	872.10	5.56	-0.565	0.000	0.142
106.00	-12.56	-4.28	0.00	-153.54	0.00	153.54	1197.35	598.67	1714.45	846.70	5.80	-0.579	0.000	0.137
108.00	-12.30	-4.23	0.00	-144.98	0.00	144.98	1184.36	592.18	1663.17	821.38	6.05	-0.593	0.000	0.133
109.00	-12.17	-4.20	0.00	-140.75	0.00	140.75	1177.71	588.86	1637.59	808.75	6.17	-0.600	0.000	0.131
109.00	-12.17	-4.20	0.00	-140.75	0.00	140.75	1177.71	588.86	1637.59	808.75	6.17	-0.600	0.000	0.131
109.92	-12.05	-4.17	0.00	-136.91	0.00	136.91	1171.54	585.77	1614.20	797.19	6.29	-0.607	0.000	0.182
109.92	-12.05	-4.17	0.00	-136.91	0.00	136.91	1171.54	585.77	1614.20	797.19	6.29	-0.607	0.000	0.182
110.00	-12.04	-4.17	0.00	-136.56	0.00	136.56	1170.98	585.49	1612.07	796.14	6.30	-0.608	0.000	0.182
112.00	-11.79	-4.11	0.00	-128.22	0.00	128.22	1157.21	578.61	1561.19	771.01	6.56	-0.627	0.000	0.177
114.00	-11.54	-4.06	0.00	-119.99	0.00	119.99	1143.06	571.53	1510.56	746.01	6.82	-0.647	0.000	0.171
116.00	-11.30	-4.01	0.00	-111.87	0.00	111.87	1128.52	564.26	1460.20	721.14	7.10	-0.667	0.000	0.165
118.00	-11.06	-3.95	0.00	-103.86	0.00	103.86	1113.60	556.80	1410.16	696.43	7.38	-0.686	0.000	0.159
120.00	-10.82	-3.90	0.00	-95.95	0.00	95.95	1098.28	549.14	1360.47	671.88	7.68	-0.705	0.000	0.153
122.00	-10.58	-3.85	0.00	-88.14	0.00	88.14	1082.58	541.29	1311.15	647.53	7.97	-0.724	0.000	0.146
124.00	-10.35	-3.80	0.00	-80.44	0.00	80.44	1066.50	533.25	1262.24	623.37	8.28	-0.742	0.000	0.139
126.00	-10.13	-3.75	0.00	-72.85	0.00	72.85	1050.02	525.01	1213.77	599.43	8.60	-0.760	0.000	0.131
128.00	-9.91	-3.70	0.00	-65.35	0.00	65.35	1033.16	516.58	1165.77	575.73	8.92	-0.778	0.000	0.123
130.00	-9.69	-3.65	0.00	-57.95	0.00	57.95	1015.91	507.96	1118.28	552.28	9.25	-0.794	0.000	0.115
132.00	-6.28	-2.49	0.00	-50.64	0.00	50.64	998.40	499.20	1071.45	529.15	9.59	-0.810	0.000	0.102
134.00	-6.09	-2.44	0.00	-45.66	0.00	45.66	972.97	486.48	1017.31	502.41	9.93	-0.825	0.000	0.097
136.00	-5.91	-2.40	0.00	-40.78	0.00	40.78	947.54	473.77	964.58	476.37	10.28	-0.840	0.000	0.092
138.00	-5.74	-2.35	0.00	-35.98	0.00	35.98	922.11	461.06	913.25	451.02	10.63	-0.854	0.000	0.086
140.00	-5.56	-2.31	0.00	-31.28	0.00	31.28	896.68	448.34	863.33	426.36	10.99	-0.867	0.000	0.080
142.00	-5.39	-2.26	0.00	-26.67	0.00	26.67	871.26	435.63	814.80	402.40	11.36	-0.880	0.000	0.072
144.00	-5.23	-2.22	0.00	-22.14	0.00	22.14	845.83	422.91	767.69	379.13	11.73	-0.892	0.000	0.065
146.00	-5.07	-2.18	0.00	-17.71	0.00	17.71	820.40	410.20	721.97	356.55	12.11	-0.902	0.000	0.056
147.00	-3.26	-1.58	0.00	-15.53	0.00	15.53	807.68	403.84	699.64	345.53	12.30	-0.906	0.000	0.049
148.00	-3.19	-1.56	0.00	-13.94	0.00	13.94	794.97	397.49	677.66	334.67	12.49	-0.911	0.000	0.046
150.00	-3.05	-1.52	0.00	-10.82	0.00	10.82	769.54	384.77	634.75	313.48	12.87	-0.919	0.000	0.038
152.00	-2.92	-1.49	0.00	-7.77	0.00	7.77	744.11	372.06	593.25	292.98	13.26	-0.925	0.000	0.030
154.00	-2.79	-1.45	0.00	-4.80	0.00	4.80	718.69	359.34	553.15	273.18	13.65	-0.930	0.000	0.021
156.00	-2.67	-1.41	0.00	-1.90	0.00	1.90	693.26	346.63	514.45	254.07	14.04	-0.932	0.000	0.011
157.00	0.00	-1.37	0.00	-0.49	0.00	0.49	680.54	340.27	495.63	244.77	14.23	-0.933	0.000	0.002

Final Analysis Summary

Structure: CT00252-S-SBA	Code: EIA/TIA-222-G	10/11/2021
Site Name: Prospect	Exposure: B	
Height: 157.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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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 97 mph Wind	33.7	0.00	51.34	0.00	0.00	3431.15
0.9D + 1.6W 97 mph Wind	33.7	0.00	38.50	0.00	0.00	3411.81
1.2D + 1.0Di + 1.0Wi 50 mph Wind	7.9	0.00	78.98	0.00	0.00	861.42
1.2D + 1.0E	2.0	0.00	51.35	0.00	0.00	231.08
0.9D + 1.0E	2.0	0.00	38.51	0.00	0.00	229.60
1.0D + 1.0W 60 mph Wind	8.1	0.00	42.79	0.00	0.00	817.63

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 97 mph Wind	-13.75	-17.54	0.00	-575.83	0.00	-575.83	1171.54	585.77	1614.20	797.19	109.92	0.735
0.9D + 1.6W 97 mph Wind	-10.13	-17.37	0.00	-569.70	0.00	-569.70	1171.54	585.77	1614.20	797.19	109.92	0.724
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-28.83	-4.63	0.00	-155.99	0.00	-155.99	1171.54	585.77	1614.20	797.19	109.92	0.220
1.2D + 1.0E	-14.51	-1.41	0.00	-56.18	0.00	-56.18	1171.54	585.77	1614.20	797.19	109.92	0.083
0.9D + 1.0E	-10.88	-1.39	0.00	-55.66	0.00	-55.66	1171.54	585.77	1614.20	797.19	109.92	0.079
1.0D + 1.0W 60 mph Wind	-12.05	-4.17	0.00	-136.91	0.00	-136.91	1171.54	585.77	1614.20	797.19	109.92	0.182

Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors			Lower Termination				Upper Termination				Max Member			
			VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	Pu (kips)	phi Pn (kips)	phi Tn (kips)	Ratio
16.0	49.0	(3) PLT-C6x10.5(1.5" Hole)	-90.2	-2.16	25.3	73.8	25.3	3	0	78.7	25.3	4	0	81.37	171.6	155.36	0.524
66.0	109.0	(3) PLT-C6x10.5(1.5" Hole)	-183.9	-4.41	25.3	76.5	25.3	4	0	74.0	25.3	3	0	84.64	171.6	155.36	0.545



Monopole Mat Foundation Design

Date
10/11/2021

Customer Name:	Verizon	EIA/TIA Standard:	EIA-222-G
Site Name:		Structure Height (Ft.):	157
Site Number:	CT00252-S-SBA	Engineer Name:	S. Hesselbeir
Engr. Number:	117121	Engineer Login ID:	

Foundation Info Obtained from:

Drawings/Calculations
Monopole
Analysis

Structure Type:

Analysis or Design?

Base Reactions (Factored):

Axial Load (Kips):	51.3	Shear Force (Kips):	33.7
Uplift Force (Kips):	0.0	Moment (Kips-ft):	3431.2

Allowable overstress %: 5.0%

Foundation Geometries:

Diameter of Pier (ft.):	7.0	Mods required -Yes/No ?:	No
Pier Height A. G. (ft.):	1.00	Depth of Base BG (ft.):	7.0
Length of Pad (ft.):	28	Thickness of Pad (ft.):	3.00
		Width of Pad (ft.):	28

Final Length of pad (ft)	28.0	Final width of pad (ft):	28.0
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Material Properties and Rebar Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	70	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
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):	40	Qty. of Rebar in Pad (W):	40
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Rebar at the top of the concrete pad:

Qty. of Rebar in Pad (L):	40	Qty. of Rebar in Pad (W):	40
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Apply 1.35 factor for e/w Per G: 1.35

Soil Design Parameters:

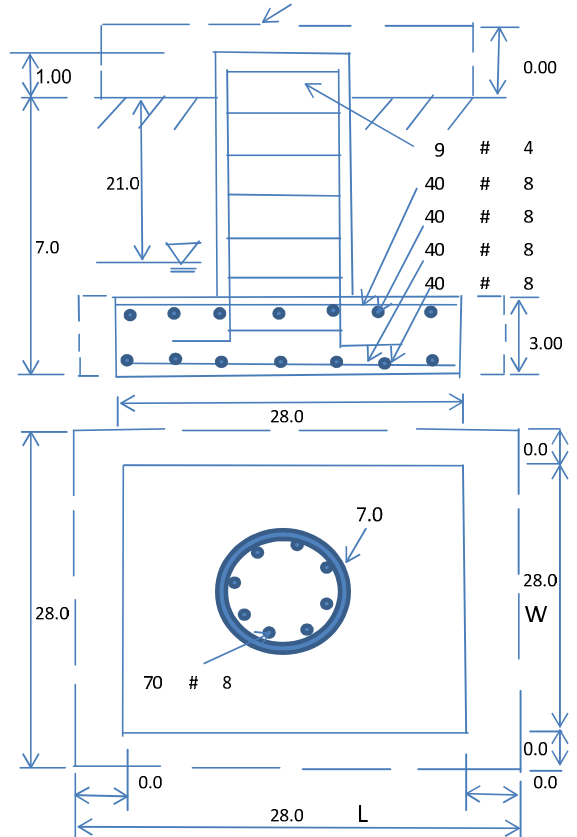
Soil Unit Weight (pcf):	135.0	Soil Buoyant Weight:	50.0	Pcf	Angle from Top of Pad:	30
Water Table B.G.S. (ft):	21.0	Unit Weight of Water:	62.4	pcf	Angle from Bottm of Pad:	25
Ultimate Bearing Pressure (psf):	8000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	Yes		Reduction factor on the maximum soil bearing pressure:	1.00
Consider soil hor. resist. for OTM.:	Yes					

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	2982.06	Total Dry Soil Weight (Kips):	402.58
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	402.58	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	2544.42	Total Dry Concrete Weight (Kips):	381.66
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	381.66	Total Vertical Load on Base (Kips):	835.56

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	1789	< Allowable Factored Soil Bearing (psf):	6000	0.30	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	10599.9	> Design Factored Momont (kips-ft):	3443	0.32	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	3.08				OK!



Check the capacities of Reinforcing Concrete:

Strength reduction factor (Flexure and axial tension):

Strength reduction factor (Axial compression):

(1) Concrete Pier:

- Vertical Steel Rebar Area (sq. in./each):
- Calculated Moment Capacity (Mn,Kips-Ft):
- Calculated Shear Capacity (Kips):
- Calculated Tension Capacity (Tn, Kips):
- Calculated Compression Capacity (Pn, Kips):
- Moment & Axial Strength Combination:
- Pier Reinforcement Ratio:

(2).Concrete Pad:

- One-Way Design Shear Capacity (L-Direction, Kips):
- One-Way Design Shear Capacity (W-Direction, Kips):
- One-Way Design Shear Capacity (Corner-Corner, Kips):
- Lower Steel Pad Reinforcement Ratio (L-Direct.):
- Lower Steel Pad Moment Capacity (L-Direction, Kips-ft):
- Lower Steel Pad Moment Capacity (W-Direction, Kips-ft):
- Lower Steel Pad Moment Capacity (Corner-Corner, K-ft):
- Upper Steel Pad Reinforcement Ratio (L-Direct.):
- Upper Steel Pad Moment Capacity (L-Direc, Kips-ft):
- Upper Steel Pad Moment Capacity (W-Direc, Kips-ft):
- Upper Steel Pad Moment Capacity (Corner-Corner, K-ft):

(3).Check Punching Shear Capacity due to Moment in the Pier:

- Moment transferred by punching shear:
- Max. factored shear stress $v_{u,AB}$
- Max. factored shear stress v_u

Strength reduction factor (Shear):

Wind Load Factor on Concrete Design:

- Tie / Stirrup Area (sq. in./each):
- > Design Factored Moment (Mu, Kips-
- > Design Factored Shear (Kips):
- > Design Factored Tension (Tu Kips):
- > Design Factored Axial Load (Pu Kips):

OK! Check Tie Spacing (Design/Required):
Reinforcement Ratio is satisfied per ACI

ad
Capacity
Ratio

- One-Way Factored Shear (L-D, Kips): 227.2
- One-Way Factored Shear (W-D., Kips)
- One-Way Factored Shear (C-C, Kips): 214.8
- Lower Steel Pad Reinf. Ratio (W-Direc
- Moment at Bottom (L-Dir. K-Ft):
- Moment at Bottom (W-Dir. K-Ft):
- Moment at Bottom (C-C Dir. K-Ft): 2000.4
- Upper Steel Reinf. Ratio (W-Dir.):
- Moment at the top (L-Dir K-Ft):
- Moment at the top (W-Dir K-Ft):
- Moment at the top (C-C Dir. K-Ft):

- 1372.5 k-ft.
- Psi
- Psi

- Max. factored shear stress $v_{u,CD}$
- Factored shear Strength ϕv_n
- Check Usage of Punching Shear Capacity:

- Psi
- Psi
- OK!

ad
Capacity
Ratio

Paul J. Ford and Company
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Columbus, OH 43215
(614) 221-6679
PJFmount@pauljford.com

Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10094052

Paul J. Ford Project #: 22721-0337.002.7191

Maser Consulting Project #: 21777746

August 11, 2021

Site Information

Site ID: 468161-VZW / PROSPECT CT
Site Name: PROSPECT CT
Carrier Name: Verizon Wireless
Address: 178 New Haven Rd.
Prospect, Connecticut 06712, New Haven
County
Latitude: 41.472303°
Longitude: -72.971458°

Structure Information

Tower Type: 160-Ft Monopole
Mount Type: 14.00-Ft Platform w/ Support Rails

FUZE ID # 2521247

Analysis Results

14.00-Ft Platform w/ Support Rails: 48.9% Pass

***Contractor PMI Requirements:

Included at the end of this MA report

Available & Submitted via portal at <https://pmi.vzwsmart.com>

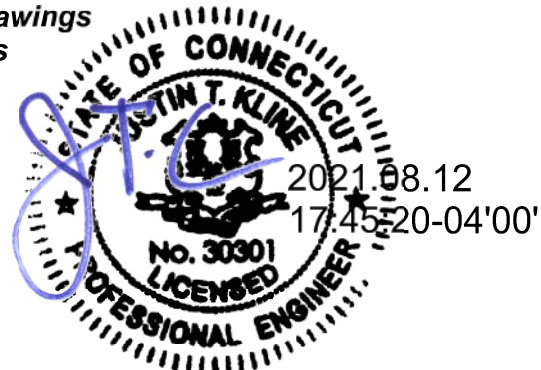
Contractor - Please Review Specific Site PMI Requirements Upon Award

Requirements also Noted on Mount Modification Drawings

Requirements may also be Noted on A & E drawings

Report Prepared By: Kenny Henegar

SP



Executive Summary:

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon RFDS, 2521247, dated July 22, 2021
Previous Mount Analysis Report	Paul J. Ford, Project # 22721-0337.001.7190, dated August 4, 2021
Proposed Mount Modification	Paul J. Ford, Project # 22721-0337.002.7191, dated August 11, 2021
Mount Mapping Report	Structural Components, Project # 21777746, dated April 14, 2021

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 118 mph
	Ice Wind Speed (3-sec. Gust): 50 mph
	Design Ice Thickness: 1.00 in
	Risk Category: II
	Exposure Category: C
	Topographic Category: 1
	Topographic Feature Considered: N/A
	Topographic Method: N/A
	Ground Elevation Factor, K_e : 0.971
Seismic Parameters:	S_s : 0.199
	S_1 : 0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph
	Maintenance Live Load, L_v : 250 lbs.
	Maintenance Live Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V17.0.3)

Final Loading Configuration:

The following equipment has been considered for the analysis of the mount:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
130.00±	132.00	6	Decibel Products	DB844G65ZAXY H	Retained
		6	Andrew	SBNHH-1D65B	
		3	Samsung	MT6407-77A	Added
		3	Commscope	BSAMNT-SBS-1-2	
		1	Raycap	OVP-12	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4440d-13A	

The recent mount mapping reported existing OVP units. It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
RHSDC-1064-PF-48	2	OVP-2
RC3DC-3315-PF-48	6	OVP-6
RC3DC-3300-PF-48	6	OVP-6
RC3DC-4750-PF-48	6	OVP-6
RHSDC-6627-PF-48	12	OVP-12
RHSDC-6600-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Paul J. Ford and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Paul J. Ford to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer’s specifications.

Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped by PJF, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer’s specifications.
4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.
6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Paul J. Ford is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325
8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Paul J. Ford.

Analysis Results:

Component	Utilization %	Pass/Fail
Face Horizontals	48.9%	Pass
Support Rails	26.6%	Pass
Grating Support Members	20.9%	Pass
Standoff Members	21.8%	Pass
Kick-Brace	7.7%	Pass
Mount Pipes	33.8%	Pass
Mount to Tower Connection	22.9%	Pass

Structure Rating – (Controlling Utilization of all Components)	48.9%
-----------------------------------------------------------------------	--------------

Recommendation:

The existing mount will be **SUFFICIENT** for the final loading after the proposed modifications are successfully completed.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

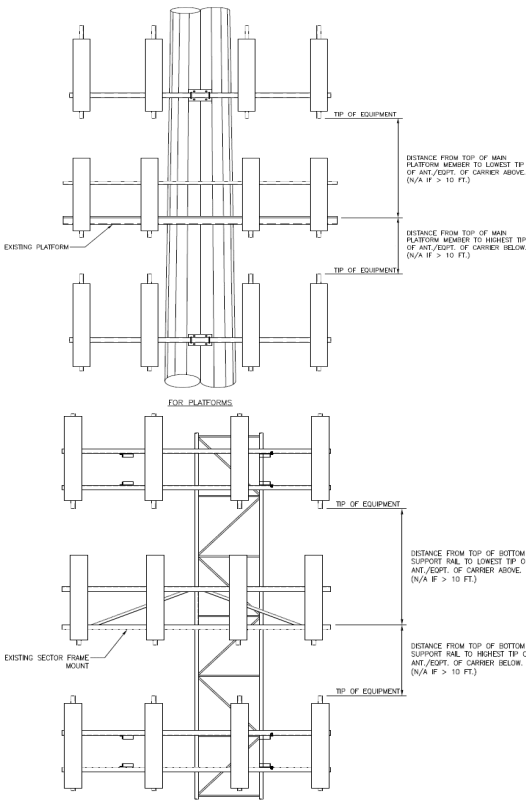
Attachments:

1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. Contractor Required PMI Report Deliverables
5. Antenna Placement Diagrams

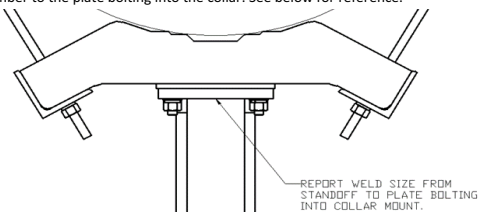


Mount Azimuth (Degree) for Each Sector			Tower Leg Azimuth (Degree) for Each Sector			Sector B										
Sector A:	20.00	Deg	Leg A:		Deg	Ant _{1a}	unknown	9.50	8.00	48.00	jumpers	127.083	29.00	10.00	140.00	12, 15
Sector B:	140.00	Deg	Leg B:		Deg	Ant _{1b}	RFS Diplexor	6.50	0.75	5.00	) 1-5/8" T	127.333	26.00	-2.50		106
Sector C:	260.00	Deg	Leg C:		Deg	Ant _{1c}										
Sector D:		Deg	Leg D:		Deg	Ant _{2a}	sbnhh-1d65b	12.00	7.00	73.00	jumpers	127.792	36.50	9.00	140.00	12, 15
Climbing Facility Information						Ant _{2b}	b13 rrh4x30	12.00	7.50	20.50	jumpers	128.5	28.00	-7.00		111
Location:	f1	Deg	Sector B		Deg	Ant _{2c}										
Climbing Facility	Corrosion Type:	Good condition.				Ant _{3a}	sbnhh-1d65b	12.00	7.00	73.00	jumpers	127.792	36.50	9.50	140.00	12, 15
	Access:	Climbing path was unobstructed.				Ant _{3b}	unknown radio	11.50	7.00	25.50	jumpers	128.833	24.00	-6.00		114
	Condition:	Good condition.				Ant _{3c}										
					Deg	Ant _{4a}	unknown	9.50	8.00	48.00	jumpers	125.375	52.50	10.00	140.00	12, 15
					Deg	Ant _{4b}	RFS Diplexor	6.50	0.75	5.00	) 1-5/8" T	127.292	29.50	-2.50		119
					Deg	Ant _{4c}										
					Deg	Ant _{5a}										
					Deg	Ant _{5b}										
					Deg	Ant _{5c}										
					Deg	Ant on Standoff										
					Deg	Ant on Standoff										
					Deg	Ant on Tower										
					Deg	Ant on Tower										
Sector C						Ant _{1a}	unknown	9.50	8.00	48.00	jumpers	127.375	27.50	10.00	260.00	13, 16
Sector D						Ant _{1b}	RFS Diplexor	6.50	0.75	5.00	) 1-5/8" T	127.208	29.50	-2.50		125
Sector B						Ant _{1c}										
Sector C						Ant _{2a}	sbnhh-1d65b	12.00	7.00	73.00	jumpers	127.917	34.00	9.00	260.00	13, 16
Sector D						Ant _{2b}	b13 rrh4x30	12.00	7.50	20.50	jumpers	128.375	28.50	-7.00		130
Sector B						Ant _{2c}										
Sector C						Ant _{3a}	sbnhh-1d65b	12.00	7.00	73.00	jumpers	127.958	34.50	9.00	260.00	13, 16
Sector D						Ant _{3b}	unknown radio	11.50	7.00	25.50	jumpers	128.458	28.50	-7.00		135
Sector B						Ant _{3c}										
Sector C						Ant _{4a}	unknown	9.50	8.00	48.00	jumpers	127.417	28.00	10.00	260.00	13, 16
Sector D						Ant _{4b}	RFS Diplexor	6.50	0.75	5.00	) 1-5/8" T	127.083	32.00	-3.00		141
Sector B						Ant _{4c}										
Sector C						Ant _{5a}										
Sector D						Ant _{5b}										
Sector B						Ant _{5c}										
Sector C						Ant on Standoff										
Sector D						Ant on Standoff										
Sector B						Ant on Tower										
Sector C						Ant on Tower										

Please insert a photo of the mount centerline measurement here.



For T-Arms/Platforms on monopoles, record the weld size from the main standoff member to the plate bolting into the collar. See below for reference.



Observed Safety and Structural Issues During the Mount Mapping

Issue #	Description of Issue	Photo #
1		
2		
3		
4		
5		
6		
7		
8		

Observed Obstructions to Tower Lighting System

If the tower lighting system is being obstructed by the carrier's equipment (for example: a light nested by the antennas), please provide photos and fill in the information below.		Photo #
Description of Obstruction:		
Type of Light:	Photo #	Additional Comments:
Lighting Technology:	Photo #	
Elevation (AGL) at base of light (Ft.):	Photo #	
Is a service loop available?	Photo #	
Is beacon installed on an extension?	Photo #	

Mapping Notes

1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)
2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.
3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.
4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.
5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.
6. Please measure and report the size and length of all existing antenna mounting pipes.
7. Please measure and report the antenna information for all sectors.
8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions

1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.



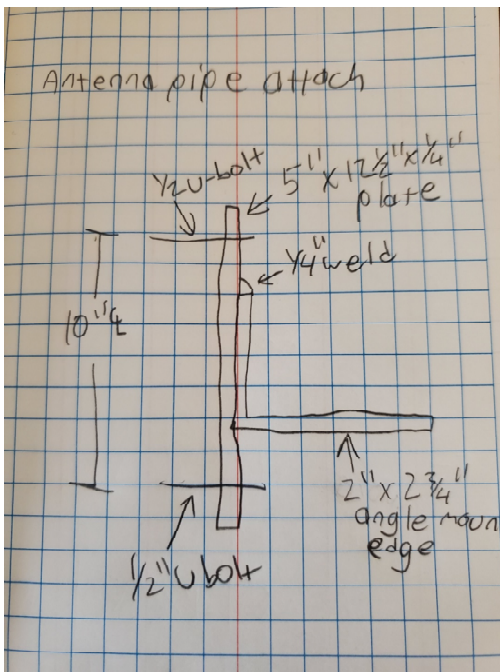
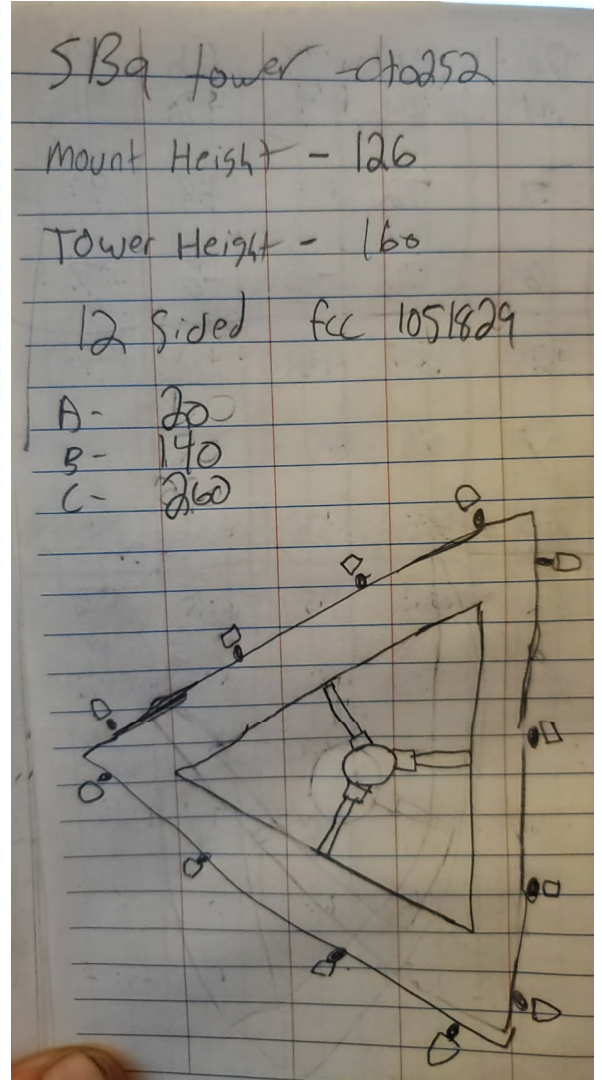
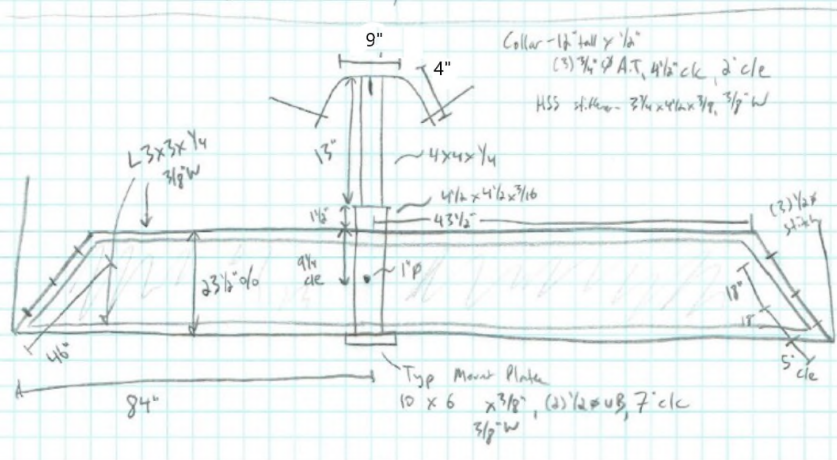
Antenna Mount Mapping Form (PATENT PENDING)

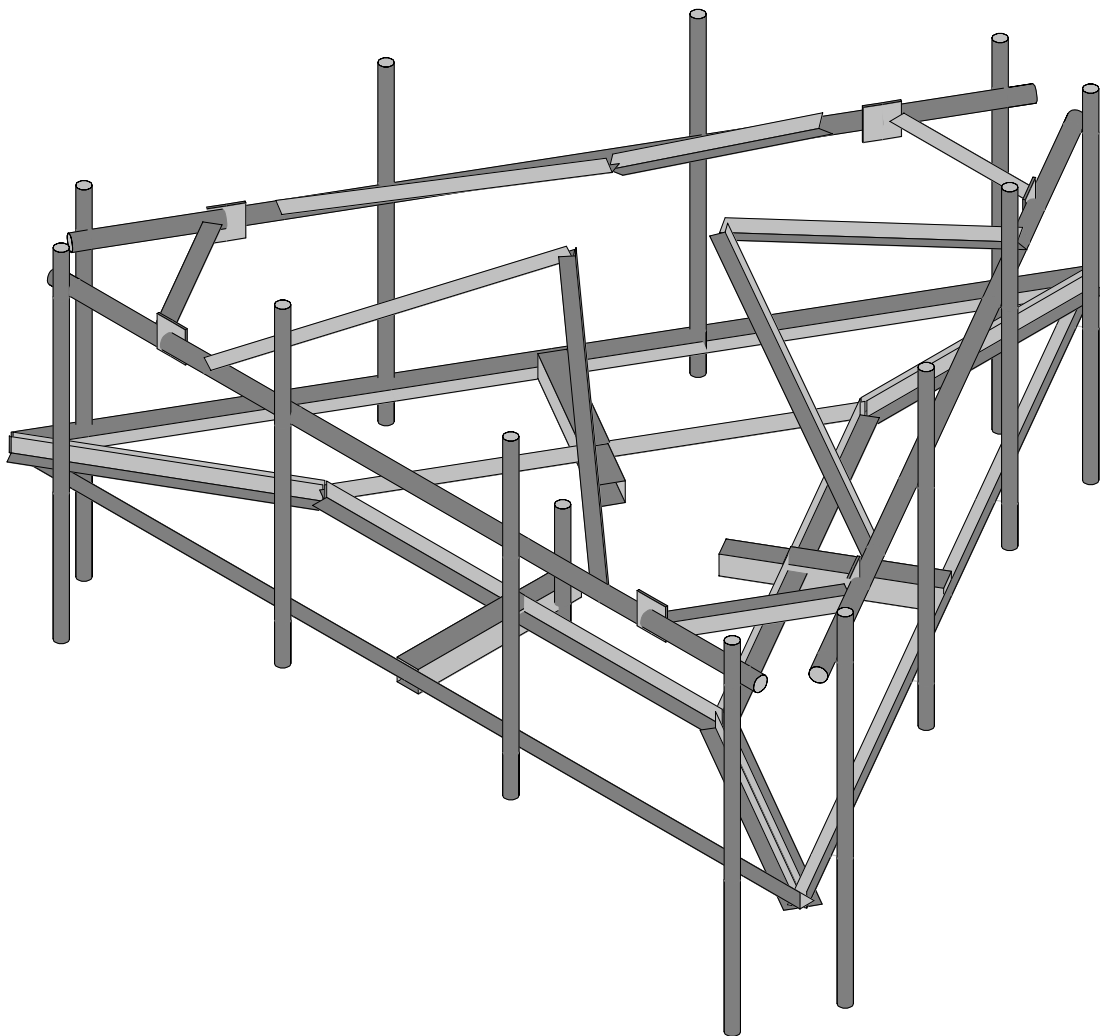
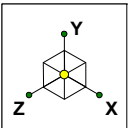
FCC #
1051829

Tower Owner:	SBA	Mapping Date:	4/14/2021
Site Name:	Prospect	Tower Type:	Monopole
Site Number or ID:	2177746	Tower Height (Ft.):	160
Mapping Contractor:	Structural Components	Mount Elevation (Ft.):	126

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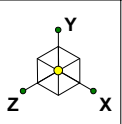
Please Insert Sketches of the Antenna Mount



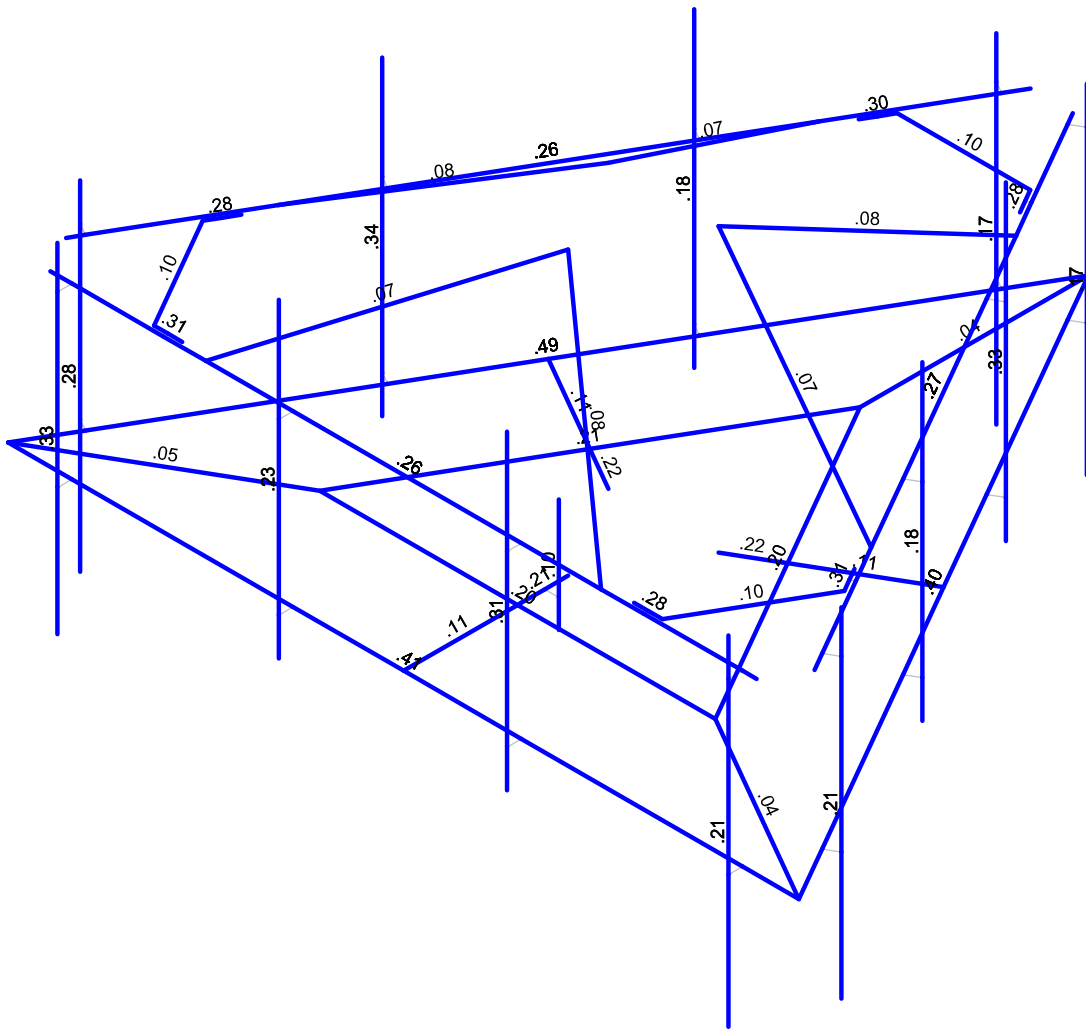


Envelope Only Solution

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KRH		Aug 11, 2021 at 5:27 PM
Project No. 10058924		468161-VZW_MT_LO_H.r3d

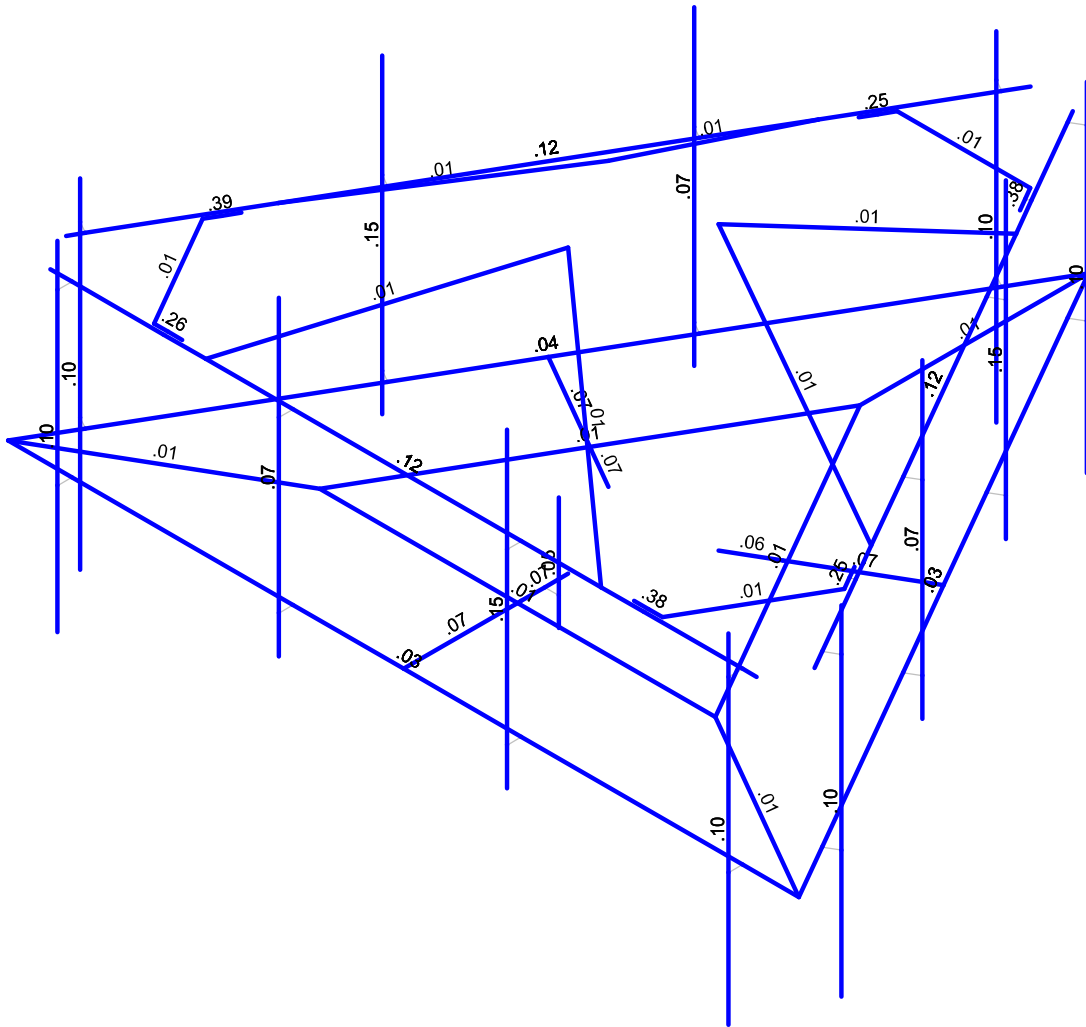
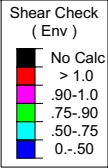
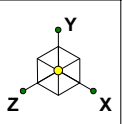


Code Check (Env)	
	No Calc
	> 1.0
	.90-1.0
	.75-.90
	.50-.75
	0-.50



Member Code Checks Displayed (Enveloped)
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Member Shear Checks Displayed (Enveloped)
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Paul J. Ford

KRH

Project No. 10058924

468161-VZW_MT_LO_H

SK - 3

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468161-VZW_MT_LO_H.r3d



Company : Paul J. Ford
 Designer : KRH
 Job Number : Project No. 10058924
 Model Name : 468161-VZW_MT_LO_H

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(Global) Model Settings

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	24
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	Yes(Iterative)
RISACONNECTION CODE	None
Cold Formed Steel Code	None
Wood Code	None
Wood Temperature	< 100F
Concrete Code	None
Masonry Code	None
Aluminum Code	None - Building
Stainless Steel Code	None

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parame Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	Yes
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8



(Global) Model Settings, Continued

Seismic Code	ASCE 7-10
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1

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	65	1.1
3	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.42	29000	11154	.3	.65	.49	42	1.4	58	1.3
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.4	58	1.3
6	A53 Gr. B (35 ksi)	29000	11154	.3	.65	.49	35	1.5	60	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	HR1	W10X33	Beam	None	A36 Gr.36	Typical	9.71	36.6	171	.583

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
1	CBC1	N56	N58		270	L3X3X4	None	None	A36 Gr.36	Typical
2	CBB1	N58	N57A		270	L3X3X4	None	None	A36 Gr.36	Typical
3	CBA1	N57A	N56		270	L3X3X4	None	None	A36 Gr.36	Typical
4	M7	N9	N11			L3X3X4	None	None	A36 Gr.36	Typical
5	M8	N11	N7			L3X3X4	None	None	A36 Gr.36	Typical
6	M9	N7	N9			L3X3X4	None	None	A36 Gr.36	Typical
7	M10	N7	N57A		180	LL3x3x4x0	None	None	A36 Gr.36	Typical
8	M23	N9	N56		180	LL3x3x4x0	None	None	A36 Gr.36	Typical
9	M24	N11	N58		180	LL3x3x4x0	None	None	A36 Gr.36	Typical
10	MP1A	N41	N40			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
11	MP2A	N44	N43			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
12	MP4A	N47A	N46A			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
13	M28	N49	N42			RIGID	None	None	RIGID	Typical
14	M29	N50	N45			RIGID	None	None	RIGID	Typical



Company : Paul J. Ford
 Designer : KRH
 Job Number : Project No. 10058924
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Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
15	M30	N51	N48A			RIGID	None	None	RIGID	Typical
16	M28A	N52	N17			HSS4.5X4.5X3	None	None	A500 Gr.46	Typical
17	M29A	N18	N52			HSS4X4X4	None	None	A500 Gr.46	Typical
18	M30A	N55	N13			HSS4.5X4.5X3	None	None	A500 Gr.46	Typical
19	M32	N58A	N15			HSS4.5X4.5X3	None	None	A500 Gr.46	Typical
20	MP3A	N56A	N55A			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
21	M35	N58B	N57B			RIGID	None	None	RIGID	Typical
22	MP1C	N37	N36			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
23	MP2C	N40A	N39			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
24	MP4C	N43A	N42A			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
25	M27	N45A	N38			RIGID	None	None	RIGID	Typical
26	M28B	N46B	N41A			RIGID	None	None	RIGID	Typical
27	M29B	N47B	N44A			RIGID	None	None	RIGID	Typical
28	MP3C	N49A	N48B			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
29	M31A	N51A	N50A			RIGID	None	None	RIGID	Typical
30	MP1B	N54A	N53			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
31	MP2B	N57C	N56B			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
32	MP4B	N60	N59			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
33	M35A	N62	N55B			RIGID	None	None	RIGID	Typical
34	M36	N63	N58C			RIGID	None	None	RIGID	Typical
35	M37	N64	N61			RIGID	None	None	RIGID	Typical
36	MP3B	N66	N65			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
37	M39	N68	N67			RIGID	None	None	RIGID	Typical
38	M38A	N68A	N58A			HSS4X4X4	None	None	A500 Gr.46	Typical
39	M39A	N67A	N55			HSS4X4X4	None	None	A500 Gr.46	Typical
40	M40	N67B	N68B			RIGID	None	None	RIGID	Typical
41	MPSO	N69	N70			PIPE 2.0	None	None	A53 Gr. B (35 ksi)	Typical
42	M44	N73	N71		270	PIPE 2.5	None	None	A53 Gr. B (35 ksi)	Typical
43	M45	N77	N74			RIGID	None	None	RIGID	Typical
44	M46	N78	N75			RIGID	None	None	RIGID	Typical
45	M47	N79	N76			RIGID	None	None	RIGID	Typical
46	M48	N81	N80			RIGID	None	None	RIGID	Typical
47	M49	N85	N82			RIGID	None	None	RIGID	Typical
48	M50	N86	N83			RIGID	None	None	RIGID	Typical
49	M51	N87	N84			RIGID	None	None	RIGID	Typical
50	M52	N89	N88			RIGID	None	None	RIGID	Typical
51	M53	N93	N90			RIGID	None	None	RIGID	Typical
52	M54	N94	N91			RIGID	None	None	RIGID	Typical
53	M55	N95	N92			RIGID	None	None	RIGID	Typical
54	M56	N97	N96			RIGID	None	None	RIGID	Typical
55	M70A	N134A	N133A		270	PIPE 2.5	None	None	A53 Gr. B (35 ksi)	Typical
56	M71A	N138	N137A		270	PIPE 2.5	None	None	A53 Gr. B (35 ksi)	Typical
57	M72	N141	N144B			RIGID	None	None	RIGID	Typical
58	M73	N144	N145A			RIGID	None	None	RIGID	Typical
59	M74	N146A	N148			PL3/8x6.5	None	None	A36 Gr.36	Typical
60	M75	N147	N149			PL3/8x6.5	None	None	A36 Gr.36	Typical
61	M76	N142A	N152			RIGID	None	None	RIGID	Typical
62	M77	N145	N153			RIGID	None	None	RIGID	Typical
63	M78	N154	N156			PL3/8x6.5	None	None	A36 Gr.36	Typical
64	M79	N155	N157			PL3/8x6.5	None	None	A36 Gr.36	Typical
65	M80	N143	N160			RIGID	None	None	RIGID	Typical
66	M81	N146	N161			RIGID	None	None	RIGID	Typical
67	M82	N162	N164			PL3/8x6.5	None	None	A36 Gr.36	Typical
68	M83	N163	N165			PL3/8x6.5	None	None	A36 Gr.36	Typical
69	M84	N163	N148		180	L3X3X6	None	None	A36 Gr.36	Typical
70	M85	N147	N156		180	L3X3X6	None	None	A36 Gr.36	Typical
71	M86	N164	N155		90	L3X3X6	None	None	A36 Gr.36	Typical



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 Designer : KRH
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Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
72	M87	N162A	N131			L2.5x2.5x4	None	None	A36 Gr.36	Typical
73	M88	N162A	N133			L2.5x2.5x4	None	None	A36 Gr.36	Typical
74	M89	N163A	N135			L2.5x2.5x4	None	None	A36 Gr.36	Typical
75	M90	N163A	N136A			L2.5x2.5x4	None	None	A36 Gr.36	Typical
76	M91	N164A	N139A			L2.5x2.5x4	None	None	A36 Gr.36	Typical
77	M92	N164A	N140A			L2.5x2.5x4	None	None	A36 Gr.36	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	CBC1						Yes	** NA **			None
2	CBB1						Yes	** NA **			None
3	CBA1						Yes	** NA **			None
4	M7						Yes	** NA **			None
5	M8						Yes	** NA **			None
6	M9						Yes	** NA **			None
7	M10						Yes	** NA **			None
8	M23						Yes	** NA **			None
9	M24						Yes	** NA **			None
10	MP1A						Yes	** NA **			None
11	MP2A						Yes	** NA **			None
12	MP4A						Yes	** NA **			None
13	M28	OOOXOX					Yes	** NA **			None
14	M29	OOOXOX					Yes	** NA **			None
15	M30	OOOXOX					Yes	** NA **			None
16	M28A						Yes	** NA **			None
17	M29A						Yes	** NA **			None
18	M30A						Yes	** NA **			None
19	M32						Yes	** NA **			None
20	MP3A						Yes	** NA **			None
21	M35	OOOXOX					Yes	** NA **			None
22	MP1C						Yes	** NA **			None
23	MP2C						Yes	** NA **			None
24	MP4C						Yes	** NA **			None
25	M27	OOOXOX					Yes	** NA **			None
26	M28B	OOOXOX					Yes	** NA **			None
27	M29B	OOOXOX					Yes	** NA **			None
28	MP3C						Yes	** NA **			None
29	M31A	OOOXOX					Yes	** NA **			None
30	MP1B						Yes	** NA **			None
31	MP2B						Yes	** NA **			None
32	MP4B						Yes	** NA **			None
33	M35A	OOOXOX					Yes	** NA **			None
34	M36	OOOXOX					Yes	** NA **			None
35	M37	OOOXOX					Yes	** NA **			None
36	MP3B						Yes	** NA **			None
37	M39	OOOXOX					Yes	** NA **			None
38	M38A						Yes	** NA **			None
39	M39A						Yes	** NA **			None
40	M40						Yes	** NA **			None
41	MPSO						Yes	** NA **			None
42	M44						Yes	** NA **			None
43	M45						Yes	** NA **			None
44	M46						Yes	** NA **			None
45	M47						Yes	** NA **			None
46	M48						Yes	** NA **			None



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Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
47	M49						Yes	** NA **			None
48	M50						Yes	** NA **			None
49	M51						Yes	** NA **			None
50	M52						Yes	** NA **			None
51	M53						Yes	** NA **			None
52	M54						Yes	** NA **			None
53	M55						Yes	** NA **			None
54	M56						Yes	** NA **			None
55	M70A						Yes	** NA **			None
56	M71A						Yes	** NA **			None
57	M72						Yes	** NA **			None
58	M73						Yes	** NA **			None
59	M74						Yes	** NA **			None
60	M75						Yes	** NA **			None
61	M76						Yes	** NA **			None
62	M77						Yes	** NA **			None
63	M78						Yes	** NA **			None
64	M79						Yes	** NA **			None
65	M80						Yes	** NA **			None
66	M81						Yes	** NA **			None
67	M82						Yes	** NA **			None
68	M83						Yes	** NA **			None
69	M84						Yes	** NA **			None
70	M85						Yes	** NA **			None
71	M86						Yes	** NA **			None
72	M87		BenPIN				Yes	** NA **			None
73	M88		BenPIN				Yes	** NA **			None
74	M89		BenPIN				Yes	** NA **			None
75	M90		BenPIN				Yes	** NA **			None
76	M91		BenPIN				Yes	** NA **			None
77	M92		BenPIN				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	CBC1	L3X3X4	14			Lbyy						Lateral
2	CBB1	L3X3X4	14			Lbyy						Lateral
3	CBA1	L3X3X4	14			Lbyy						Lateral
4	M7	L3X3X4	7			Lbyy						Lateral
5	M8	L3X3X4	7			Lbyy						Lateral
6	M9	L3X3X4	7			Lbyy						Lateral
7	M10	LL3x3x4x0	4.041			Lbyy						Lateral
8	M23	LL3x3x4x0	4.041			Lbyy						Lateral
9	M24	LL3x3x4x0	4.041			Lbyy						Lateral
10	MP1A	PIPE 2.0	6			Lbyy						Lateral
11	MP2A	PIPE 2.0	5.5			Lbyy						Lateral
12	MP4A	PIPE 2.0	6			Lbyy						Lateral
13	M28A	HSS4.5X4.5...	2.083									Lateral
14	M29A	HSS4X4X4	.833									Lateral
15	M30A	HSS4.5X4.5...	2.083									Lateral
16	M32	HSS4.5X4.5...	2.083									Lateral
17	MP3A	PIPE 2.0	5.5			Lbyy						Lateral
18	MP1C	PIPE 2.0	6			Lbyy						Lateral
19	MP2C	PIPE 2.0	5.5			Lbyy						Lateral
20	MP4C	PIPE 2.0	6			Lbyy						Lateral
21	MP3C	PIPE 2.0	5.5			Lbyy						Lateral



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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
22	MP1B	PIPE 2.0	6			Lbyy						Lateral
23	MP2B	PIPE 2.0	5.5			Lbyy						Lateral
24	MP4B	PIPE 2.0	6			Lbyy						Lateral
25	MP3B	PIPE 2.0	5.5			Lbyy						Lateral
26	M38A	HSS4X4X4	.833									Lateral
27	M39A	HSS4X4X4	.833									Lateral
28	MPSO	PIPE 2.0	2									Lateral
29	M44	PIPE 2.5	12.5			Lbyy						Lateral
30	M70A	PIPE 2.5	12.5			Lbyy						Lateral
31	M71A	PIPE 2.5	12.5			Lbyy						Lateral
32	M74	PL3/8x6.5	.5									Lateral
33	M75	PL3/8x6.5	.5									Lateral
34	M78	PL3/8x6.5	.5									Lateral
35	M79	PL3/8x6.5	.5									Lateral
36	M82	PL3/8x6.5	.5									Lateral
37	M83	PL3/8x6.5	.5									Lateral
38	M84	L3X3X6	2.356									Lateral
39	M85	L3X3X6	2.356									Lateral
40	M86	L3X3X6	2.356									Lateral
41	M87	L2.5x2.5x4	4.976									Lateral
42	M88	L2.5x2.5x4	4.976									Lateral
43	M89	L2.5x2.5x4	4.976									Lateral
44	M90	L2.5x2.5x4	4.976									Lateral
45	M91	L2.5x2.5x4	4.976									Lateral
46	M92	L2.5x2.5x4	4.976									Lateral

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
1	Antenna D	None					111		
2	Antenna Di	None					111		
3	Antenna Wo (0 Deg)	None					111		
4	Antenna Wo (30 Deg)	None					111		
5	Antenna Wo (60 Deg)	None					111		
6	Antenna Wo (90 Deg)	None					111		
7	Antenna Wo (120 Deg)	None					111		
8	Antenna Wo (150 Deg)	None					111		
9	Antenna Wo (180 Deg)	None					111		
10	Antenna Wo (210 Deg)	None					111		
11	Antenna Wo (240 Deg)	None					111		
12	Antenna Wo (270 Deg)	None					111		
13	Antenna Wo (300 Deg)	None					111		
14	Antenna Wo (330 Deg)	None					111		
15	Antenna Wi (0 Deg)	None					111		
16	Antenna Wi (30 Deg)	None					111		
17	Antenna Wi (60 Deg)	None					111		
18	Antenna Wi (90 Deg)	None					111		
19	Antenna Wi (120 Deg)	None					111		
20	Antenna Wi (150 Deg)	None					111		
21	Antenna Wi (180 Deg)	None					111		
22	Antenna Wi (210 Deg)	None					111		
23	Antenna Wi (240 Deg)	None					111		
24	Antenna Wi (270 Deg)	None					111		
25	Antenna Wi (300 Deg)	None					111		
26	Antenna Wi (330 Deg)	None					111		
27	Antenna Wm (0 Deg)	None					111		



Company : Paul J. Ford
 Designer : KRH
 Job Number : Project No. 10058924
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Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
28	Antenna Wm (30 Deg)	None					111		
29	Antenna Wm (60 Deg)	None					111		
30	Antenna Wm (90 Deg)	None					111		
31	Antenna Wm (120 Deg)	None					111		
32	Antenna Wm (150 Deg)	None					111		
33	Antenna Wm (180 Deg)	None					111		
34	Antenna Wm (210 Deg)	None					111		
35	Antenna Wm (240 Deg)	None					111		
36	Antenna Wm (270 Deg)	None					111		
37	Antenna Wm (300 Deg)	None					111		
38	Antenna Wm (330 Deg)	None					111		
39	Structure D	None		-1				3	
40	Structure Di	None						46	3
41	Structure Wo (0 Deg)	None						92	
42	Structure Wo (30 Deg)	None						92	
43	Structure Wo (60 Deg)	None						92	
44	Structure Wo (90 Deg)	None						92	
45	Structure Wo (120 D...	None						92	
46	Structure Wo (150 D...	None						92	
47	Structure Wo (180 D...	None						92	
48	Structure Wo (210 D...	None						92	
49	Structure Wo (240 D...	None						92	
50	Structure Wo (270 D...	None						92	
51	Structure Wo (300 D...	None						92	
52	Structure Wo (330 D...	None						92	
53	Structure Wi (0 Deg)	None						92	
54	Structure Wi (30 Deg)	None						92	
55	Structure Wi (60 Deg)	None						92	
56	Structure Wi (90 Deg)	None						92	
57	Structure Wi (120 De..	None						92	
58	Structure Wi (150 De..	None						92	
59	Structure Wi (180 De..	None						92	
60	Structure Wi (210 De..	None						92	
61	Structure Wi (240 De..	None						92	
62	Structure Wi (270 De..	None						92	
63	Structure Wi (300 De..	None						92	
64	Structure Wi (330 De..	None						92	
65	Structure Wm (0 Deg)	None						92	
66	Structure Wm (30 De..	None						92	
67	Structure Wm (60 De..	None						92	
68	Structure Wm (90 De..	None						92	
69	Structure Wm (120 D...	None						92	
70	Structure Wm (150 D...	None						92	
71	Structure Wm (180 D...	None						92	
72	Structure Wm (210 D...	None						92	
73	Structure Wm (240 D...	None						92	
74	Structure Wm (270 D...	None						92	
75	Structure Wm (300 D...	None						92	
76	Structure Wm (330 D...	None						92	
77	Lm1	None					1		
78	Lm2	None					1		
79	Lv1	None					1		
80	Lv2	None					1		
81	BLC 39 Transient Are..	None						22	
82	BLC 40 Transient Are..	None						22	



Company : Paul J. Ford
 Designer : KRH
 Job Number : Project No. 10058924
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Load Combinations

	Description	So...	P...	S...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...
1	1.2D+1.0Wo (0 ...	Yes	Y		1	1.2	39	1.2	3	1	41	1				
2	1.2D+1.0Wo (30...	Yes	Y		1	1.2	39	1.2	4	1	42	1				
3	1.2D+1.0Wo (60...	Yes	Y		1	1.2	39	1.2	5	1	43	1				
4	1.2D+1.0Wo (90...	Yes	Y		1	1.2	39	1.2	6	1	44	1				
5	1.2D+1.0Wo (12...	Yes	Y		1	1.2	39	1.2	7	1	45	1				
6	1.2D+1.0Wo (15...	Yes	Y		1	1.2	39	1.2	8	1	46	1				
7	1.2D+1.0Wo (18...	Yes	Y		1	1.2	39	1.2	9	1	47	1				
8	1.2D+1.0Wo (21...	Yes	Y		1	1.2	39	1.2	10	1	48	1				
9	1.2D+1.0Wo (24...	Yes	Y		1	1.2	39	1.2	11	1	49	1				
10	1.2D+1.0Wo (27...	Yes	Y		1	1.2	39	1.2	12	1	50	1				
11	1.2D+1.0Wo (30...	Yes	Y		1	1.2	39	1.2	13	1	51	1				
12	1.2D+1.0Wo (33...	Yes	Y		1	1.2	39	1.2	14	1	52	1				
13	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1
14	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1
15	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1
16	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1
17	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1
18	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1
19	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1
20	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1
21	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1
22	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1
23	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1
24	1.2D + 1.0Di + 1...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1
25	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1		
26	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1		
27	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1		
28	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1		
29	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1		
30	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1		
31	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1		
32	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1		
33	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1		
34	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1		
35	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1		
36	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1		
37	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1		
38	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1		
39	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1		
40	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1		
41	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1		
42	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1		
43	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1		
44	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1		
45	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1		
46	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1		
47	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1		
48	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1		
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5						
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5						
51	1.4D	Yes	Y		1	1.4	39	1.4								
52	Seismic Mass		Y		1	1	39	1								
53	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX		SY	1	SZ	-1		
54	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866		
55	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5		
56	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	1	SY	1	SZ			



Company : Paul J. Ford
 Designer : KRH
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Load Combinations (Continued)

Description	So...	P...	S...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...	BLC Fac...
57	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX .866	SY 1	SZ .5			
58	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX .5	SY 1	SZ .866			
59	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX	SY 1	SZ 1			
60	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX -.5	SY 1	SZ .866			
61	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX -.866	SY 1	SZ .5			
62	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX -1	SY 1	SZ			
63	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX -.866	SY 1	SZ -.5			
64	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX -.5	SY 1	SZ -.866			

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	N18	max 1433.309	11	1218.94	13	842.492	1	.474	7	1.18	12	.373	10
2		min -1411.6...	5	-92.313	7	-678.664	7	-2.346	13	-1.172	6	-.561	28
3	N67A	max 972.246	10	1080.565	21	1231.638	2	1.373	8	1.204	8	2.092	9
4		min -838.023	4	-131.877	3	-1326.921	8	-.379	2	-1.202	2	-.54	3
5	N68A	max 934.095	10	1097.176	17	1118.708	12	1.164	5	1.205	4	.523	11
6		min -1087.2...	4	-126.575	11	-1183.427	6	-.305	11	-1.202	10	-2.31	41
7	N162A	max 319.481	11	1572.398	19	488.687	1	0	51	0	51	0	51
8		min -346.192	5	-276.261	1	-2216.826	19	0	1	0	1	0	1
9	N163A	max 385.067	9	1571.985	15	1218.989	2	0	51	0	51	0	51
10		min -1887.9...	15	-273.512	9	-397.916	8	0	1	0	1	0	1
11	N164A	max 1960.161	23	1575.626	23	1067.152	24	0	51	0	51	0	51
12		min -451.659	5	-272.477	5	-261.017	6	0	1	0	1	0	1
13	Totals:	max 5423.736	10	7137.691	13	5461.611	1						
14		min -5423.7...	4	3030.474	7	-5461.612	7						

Envelope AISC 15th(360-16): LRFD Steel Code Checks

Member	Shape	Code Check	Loc[ft]	LC	Shear Ch...	Loc[ft]	Dir	LC	phi*Pnc	phi*Pnt	phi*Mn	phi*Mn	Cb	Eqn
1	CBB1	L3X3X4	.489	7	40	.042	7	z	40	3944.532	46656	1.688	2.733	1.. H2-1
2	CBA1	L3X3X4	.408	7	1	.031	7	y	1	3944.532	46656	1.688	2.75	1.. H2-1
3	CBC1	L3X3X4	.404	7	9	.031	7	y	9	3944.532	46656	1.688	2.748	1.. H2-1
4	MP2B	PIPE 2.0	.338	1.833	10	.150	4.87	2	22356.0...	32130	1.872	1.872	2.. H1-1b	
5	MP4A	PIPE 2.0	.330	.75	29	.096	3.75	5	20866.7...	32130	1.872	1.872	2.. H1-1b	
6	MP2C	PIPE 2.0	.328	1.833	2	.150	4.87	6	22356.0...	32130	1.872	1.872	1.. H1-1b	
7	MP2A	PIPE 2.0	.311	1.833	1	.150	4.87	10	22356.0...	32130	1.872	1.872	2.. H1-1b	
8	M74	PL3/8x6.5	.307	.5	21	.263	.5	y	36	67181.9...	78975	.617	10.695	1.. H1-1b
9	M78	PL3/8x6.5	.305	.5	17	.246	.5	y	8	67181.9...	78975	.617	10.695	1.. H1-1b
10	M82	PL3/8x6.5	.304	.5	13	.249	.5	y	4	67181.9...	78975	.617	10.695	1.. H1-1b
11	MP1B	PIPE 2.0	.282	.688	25	.101	3.625	1	20866.7...	32130	1.872	1.872	1.. H1-1b	
12	M79	PL3/8x6.5	.278	0	13	.378	0	y	9	67181.9...	78975	.617	10.695	1.. H1-1b
13	M75	PL3/8x6.5	.278	0	17	.382	0	y	1	67181.9...	78975	.617	10.695	1.. H1-1b
14	M83	PL3/8x6.5	.276	0	21	.386	0	y	5	67181.9...	78975	.617	10.695	1.. H1-1b
15	M70A	PIPE 2.5	.266	2.865	15	.123	9.635	9	14558.7...	50715	3.596	3.596	1.. H1-1b	
16	M71A	PIPE 2.5	.264	2.865	23	.124	9.635	5	14558.7...	50715	3.596	3.596	1.. H1-1b	
17	M44	PIPE 2.5	.263	2.865	19	.123	9.635	1	14558.7...	50715	3.596	3.596	1.. H1-1b	
18	MP3A	PIPE 2.0	.228	1.833	29	.072	4.812	2	22356.0...	32130	1.872	1.872	2.. H1-1b	
19	M38A	HSS4X4X4	.218	0	4	.065	0	z	3	139113...	139518	16.181	16.181	1.. H1-1b
20	M39A	HSS4X4X4	.216	0	8	.065	0	z	7	139113...	139518	16.181	16.181	1.. H1-1b
21	MP4C	PIPE 2.0	.214	.75	49	.096	3.75	1	20866.7...	32130	1.872	1.872	1.. H1-1b	
22	M29A	HSS4X4X4	.207	0	12	.070	.417	z	11	139113...	139518	16.181	16.181	1.. H1-1b
23	MP1A	PIPE 2.0	.207	.688	49	.100	3.625	9	20866.7...	32130	1.872	1.872	2.. H1-1b	
24	M8	L3X3X4	.206	3.5	18	.011	3.5	y	16	15778.1...	46656	1.688	3.233	1.. H2-1
25	M9	L3X3X4	.199	3.5	26	.010	3.5	y	29	15778.1...	46656	1.688	3.215	1.. H2-1
26	M7	L3X3X4	.195	3.5	22	.010	0	z	8	15778.1...	46656	1.688	3.203	1.. H2-1



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Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC	Shear Ch...	Loc[ft]	Dir	LC	phi*Pnc	phi*Pnt	phi*Mn	phi*Mn	Cb	Eqn	
27	MP3B	PIPE 2.0	.181	1.833	12	.072	4.812	6	22356.0...	32130	1.872	1.872	2..	H1-1b	
28	MP3C	PIPE 2.0	.179	1.833	4	.072	4.812	10	22356.0...	32130	1.872	1.872	3..	H1-1b	
29	MP4B	PIPE 2.0	.174	.75	21	.096	3.75	9	20866.7...	32130	1.872	1.872	2..	H1-1b	
30	MP1C	PIPE 2.0	.170	.688	17	.100	3.625	5	20866.7...	32130	1.872	1.872	2..	H1-1b	
31	M32	HSS4.5X4...	.109	.065	4	.069	0	z	3	119656...	121302	16.25	16.25	1..	H1-1b
32	M28A	HSS4.5X4...	.109	0	12	.071	0	z	11	119656...	121302	16.25	16.25	1..	H1-1b
33	M30A	HSS4.5X4...	.108	.065	8	.069	0	z	7	119656...	121302	16.25	16.25	1..	H1-1b
34	M84	L3X3X6	.102	2.356	18	.014	0	y	35	60353.93	68364	2.307	5.322	1..	H2-1
35	MPSO	PIPE 2.0	.100	1.5	1	.050	1.5	4	30625.4...	32130	1.872	1.872	1	H1-1b	
36	M85	L3X3X6	.100	2.356	14	.009	2.356	y	2	60353.93	68364	2.307	5.322	1..	H2-1
37	M86	L3X3X6	.099	0	22	.009	0	z	10	60353.93	68364	2.307	5.322	1..	H2-1
38	M92	L2.5x2.5x4	.077	2.54	22	.011	0	z	6	17189.2...	38556	1.114	2.537	2..	H2-1
39	M88	L2.5x2.5x4	.077	2.54	18	.011	0	z	2	17189.2...	38556	1.114	2.537	2..	H2-1
40	M90	L2.5x2.5x4	.076	2.54	14	.011	0	z	10	17189.2...	38556	1.114	2.537	2..	H2-1
41	M91	L2.5x2.5x4	.075	0	10	.012	0	z	5	17189.2...	38556	1.114	2.284	1..	H2-1
42	M87	L2.5x2.5x4	.075	0	6	.012	0	z	1	17189.2...	38556	1.114	2.284	1..	H2-1
43	M89	L2.5x2.5x4	.075	0	2	.012	0	z	9	17189.2...	38556	1.114	2.284	1..	H2-1
44	M10	LL3x3x4x0	.052	0	26	.013	0	z	6	76243.9	93312	6.48	4.355	1..	H1-1b
45	M23	LL3x3x4x0	.042	4.041	49	.013	0	z	2	76243.9	93312	6.48	4.911	1..	H1-1b
46	M24	LL3x3x4x0	.038	4.041	3	.013	0	z	10	76243.9	93312	6.48	4.355	1..	H1-1b

Mount to Tower Connection Checks

(Version v5.3 - Effective Date 09/09/2021)

Total Populated Members: 27
 Total Populated Nodes: 134

Risa File Path: G:\100402\127_Mount\2021\2724_037_68181_PROSPECT CT\2724_037_002.7191_MTD\NSA\68181_V072_MT_ID_H04

Apply Capacity Normalization Per Section 11.5 Print Forces Manually

Codes:	TIA-222-H
Main Check(s) Performed:	Welds
Consider Epoxy Capacity:	No

Consider Tie-Backs:	No
Consider Kickers:	No
Consider Horizontal Members Only:	Yes

Controlling Load Case:	4
Controlling Member:	M38A
Member Orientation:	Horizontal
Member Local Rotation:	0

(In global Risa coordinate system)
 (about its longitudinal axis)

	Shear (kip)	Moment (kip-ft)
Local Z Axis (Global Horizontal):	1.217	2.283
Local Y Axis (Global Vertical):	0.900	1.205
Local X Axis (Global Horizontal):	0.553	0.281

Note: Forces are relative to member local axis

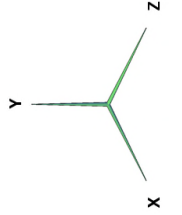
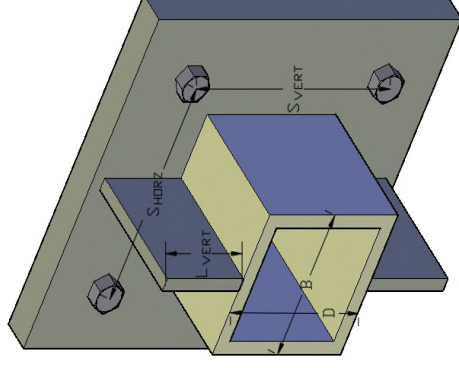
Type:	A-325-N
Diameter:	0.625 in
Quantity:	4
Vertical Spacing (S _{vert}):	in
Horizontal Spacing (S _{horz}):	in

Standoff Member Information

Type:	Rectangular
Width (B):	4 in
Depth (D):	4 in
Thickness:	0.25 in
Weld Size:	0.1875 in
Weld Size Assumed:	Yes

Stiffener Information

Present:	Yes	
Vertical Stiffener (in)	Horizontal Stiffener (in)	
Quantity:	2	0
Length (L):	4	
Thickness:	0.1875	
Notch:	0.75	
Sides Welded:	2	2



Member Local Axis Connection Type: Collar

Analysis Results

Bolt Capacity 22.9% Pass

N/A

Weld Capacity

Applied Resultant Load: 0.96 kip/in
 Capacity: 4.18 kip/in 22.5%

Notes:

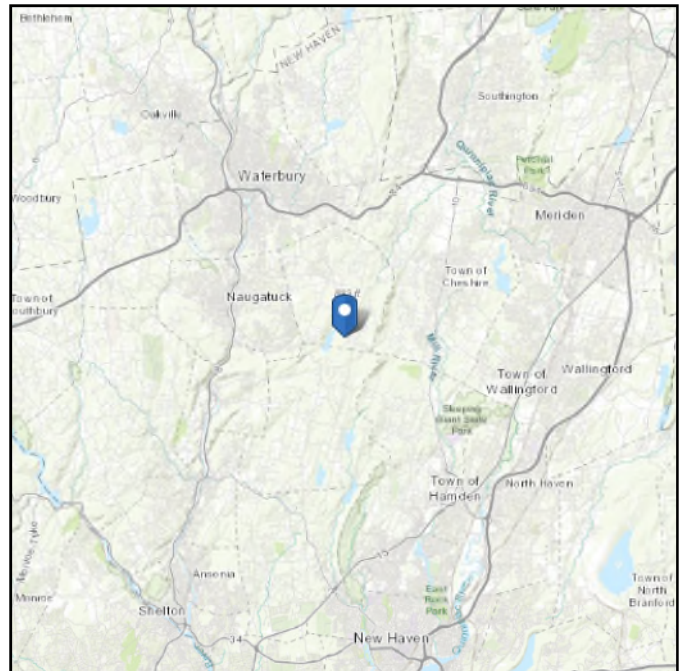
1. Connection is considered fixed.
2. Allowable capacity limit is 105%.
3. Calculations are in accordance with TIA-222-H and AISC 15th Ed.

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

Elevation: 801.91 ft (NAVD 88)
Latitude: 41.472303
Longitude: -72.971458



Wind

Results:

Wind Speed:	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Tue Aug 03 2021

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

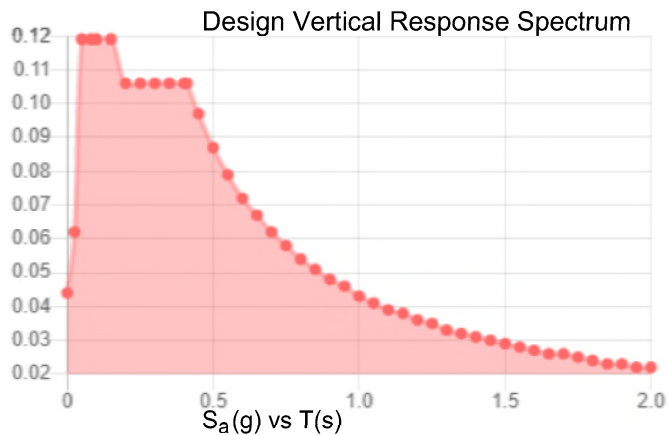
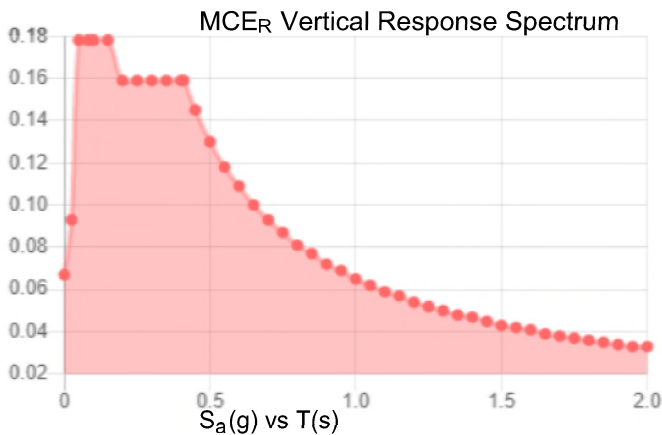
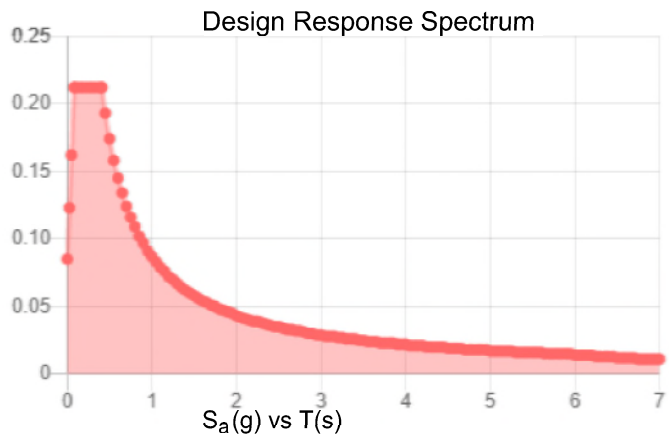
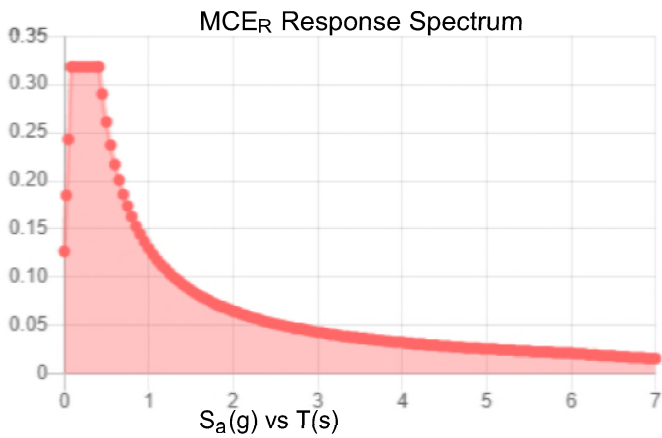
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_s :	0.199	S_{D1} :	0.087
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.11
F_v :	2.4	PGA _M :	0.174
S_{MS} :	0.318	F_{PGA} :	1.579
S_{M1} :	0.13	I_e :	1
S_{DS} :	0.212	C_v :	0.7

Seismic Design Category B



Data Accessed:

Tue Aug 03 2021

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 1.00 in.

Concurrent Temperature: 15 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Tue Aug 03 2021

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

Subject TIA-222-H Usage

Site Information Site ID: 468161-VZW / PROSPECT CT
Site Name: **PROSPECT CT**
Carrier Name: Verizon Wireless
Address: 178 New Haven Rd.
Prospect, Connecticut 06712, New Haven County
Latitude: 41.472303°
Longitude: -72.971458°

Structure Information Tower Type: 160-Ft Monopole
Mount Type: 14.00-Ft Platform w/ Support Rails

To Whom It May Concern,

We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

The 2015 International Building Code states that, in Section 3108, telecommunication towers shall be designed and constructed in accordance with the provisions of TIA-222. The TIA-222-H is the latest revision of the TIA-222 Standard, effective as of January 01, 2018.

As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates the latest wind speed map by ASCE 7 based on updated studies of the wind data.

The TIA-222-H standard clarifies these specific requirements for the antenna mount analysis such as modeling method, seismic analysis, 30-degree increment wind direction and maintenance loading. Therefore, it is our opinion that TIA-222-H is the most appropriate standard for antenna mount structural analysis and is acceptable for use at this tower site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,

Kenny Henegar

Kenny Henegar

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

Purpose – to provide PJF the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the drawings
- Provide “as built drawings” showing contractor’s name, preparer’s signature, and date. Any deviations from the drawings (proposed modification) must be shown.
- Notation that all hardware was properly installed, and the existing hardware was inspected for any issues.
- Verification that loading is as communicated in the modification drawings. NOTE If loading is different than what is conveyed in the modification drawing contact PJF immediately.
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope.
- The photos in the file structure should be uploaded to <https://pmi.vzwsmart.com> as depicted on the drawings

Photo Requirements:

- Base and “During Installation Photos”
 - Base pictures include
 - Photo of Gate Signs showing the tower owner, site name, and number
 - Photo of carrier shelter showing the carrier site name and number if available
 - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
 - “During Installation Photos if provided - must be placed only in this folder
- Photos taken at ground level
 - Overall tower structure before and after installation of the modifications
 - Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

- Photos taken at Mount Elevation

- Photos showing each individual sector before and also after installation of modifications. Each entire sector must be in one photo to show in the inter-connection of members.
These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis
- Close-up photos of each installed modification per the modification drawings; pictures should also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the measurements of the installed modification member sizes (i.e. lengths, widths, depths, diameters, thicknesses)
- Photos showing the elevation or distances of the installed modifications from the appropriate reference locations shown in the modification drawings
- Photos showing the installed modifications onto the tower with tape drop measurements (if applicable) (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, a tape drop measurement shall be provided before the elevation change
- Photos showing the safety climb wire rope above and below the mount prior to modification.
- Photos showing the climbing facility and safety climb if present.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by PJF.
 - If the drawings are as specified on the drawings
The contractor should provide the packing list or the materials utilized to perform the mount modification
 - If an equivalent is utilized
It is required that the PJF certification of such is included in the contractor submission package. There may be an additional charge for this certification if the equivalent submission doesn't meet specifications as prescribed in the drawings.
- The contractor must certify that the materials meet these specifications by one of these methods.

☐ The Material utilized was as specified on the PJF Mount Modification Drawings and included in the Material certification folder is a packing list or invoice for these materials


















☐ The material utilized was an "equivalent" and included as part of the contractor submission is the PJF certification, invoices, or specifications validating accepted status

Certifying Individual: Company _____

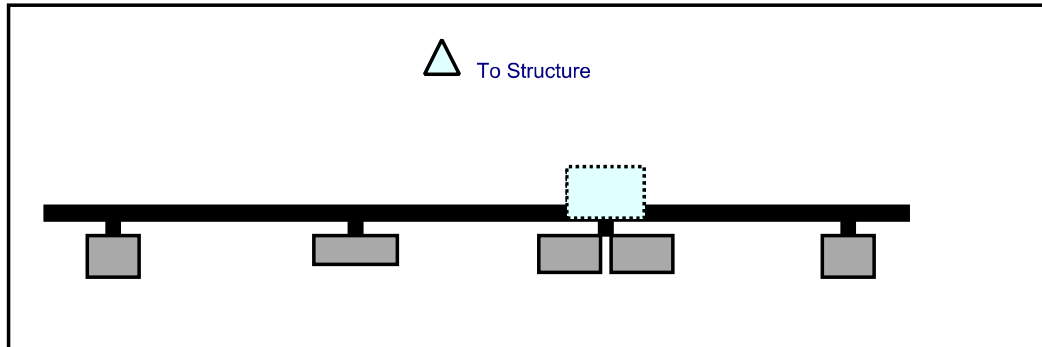
Name _____

Signature _____

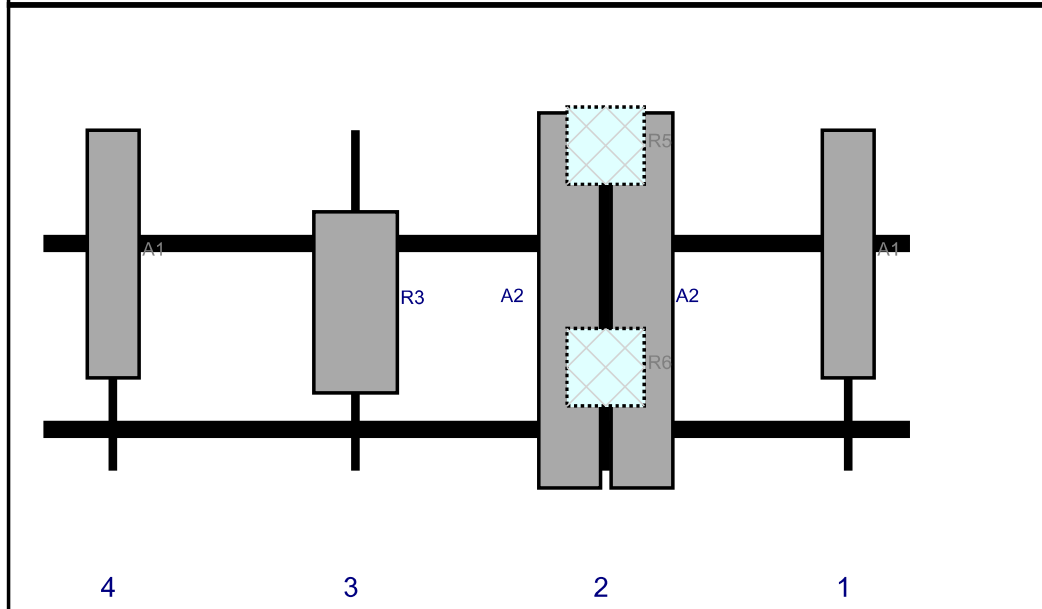
Schedule A – Photo & Document File Structure

-  VzW Site Number / Name
 -  Base & “During Installation” Photos
 -  Pre-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop
 -  Post-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop
 -  Photos of climbing facility and safety climb – If Present
-  Certifications – Submission of this document including certifications
-  Specific Required Additional Photos

Plan View



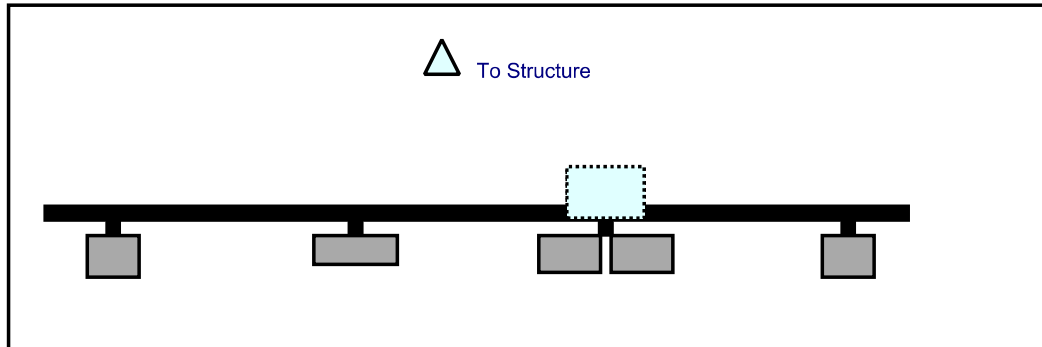
Front View
Looking at Structure



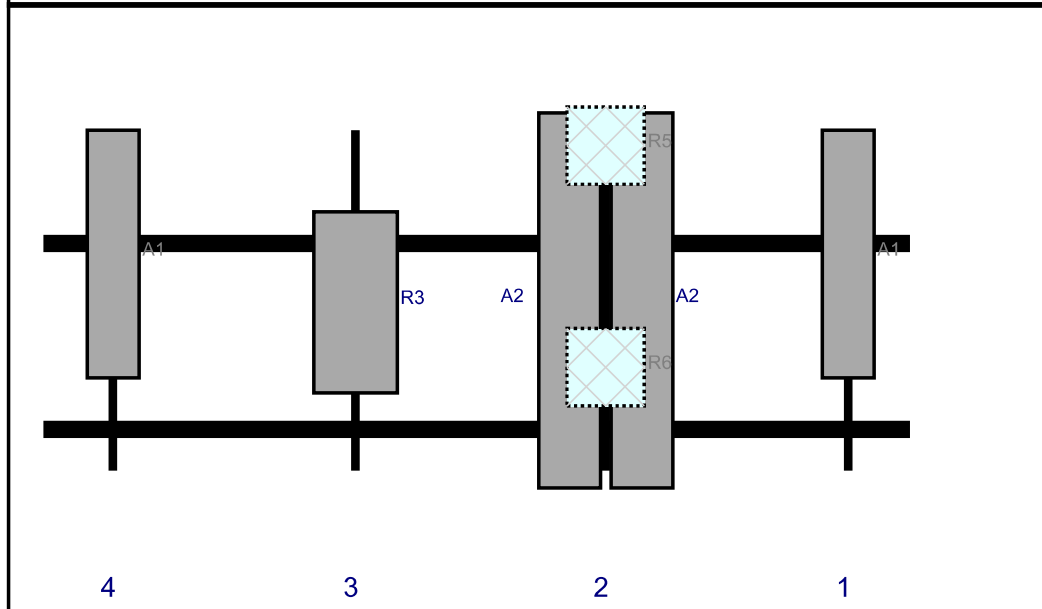
PROPOSED RAYCAP LOCATED ON STANDOFF MEMBER

Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A1	DB844G65ZAXY	48	10	156	1	a	Front	24	0	Retained	08/03/2021
A2	SBNHH-1D65B	72.6	11.9	109	2	a	Front	33	7	Retained	
A2	SBNHH-1D65B	72.6	11.9	109	2	b	Front	33	-7	Retained	
R5	RF4439d-25A	15	15	109	2	a	Behind	3	0	Added	
R6	RF4440d-13A	15	15	109	2	b	Behind	45.96	0	Added	
R3	MT6407-77A	35.1	16.1	60.5	3	a	Front	33.36	0	Added	
A1	DB844G65ZAXY	48	10	13.5	4	a	Front	24	0	Retained	08/03/2021

Plan View

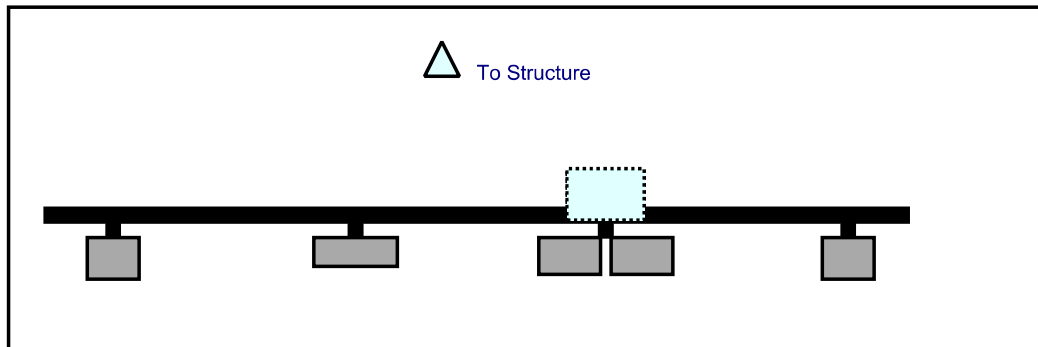


Front View
Looking at Structure

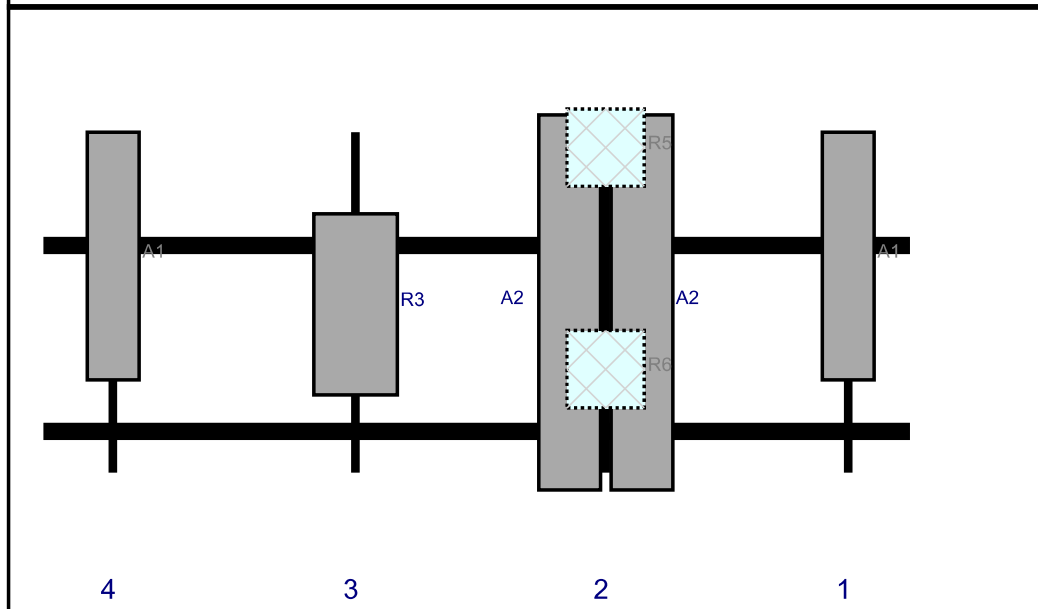


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A1	DB844G65ZAXY	48	10	156	1	a	Front	24	0	Retained	08/03/2021
A2	SBNHH-1D65B	72.6	11.9	109	2	a	Front	33	7	Retained	
A2	SBNHH-1D65B	72.6	11.9	109	2	b	Front	33	-7	Retained	
R5	RF4439d-25A	15	15	109	2	a	Behind	3	0	Added	
R6	RF4440d-13A	15	15	109	2	b	Behind	45.96	0	Added	
R3	MT6407-77A	35.1	16.1	60.5	3	a	Front	33.36	0	Added	
A1	DB844G65ZAXY	48	10	13.5	4	a	Front	24	0	Retained	08/03/2021

Plan View



Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A1	DB844G65ZAXY	48	10	156	1	a	Front	24	0	Retained	08/03/2021
A2	SBNHH-1D65B	72.6	11.9	109	2	a	Front	33	7	Retained	
A2	SBNHH-1D65B	72.6	11.9	109	2	b	Front	33	-7	Retained	
R5	RF4439d-25A	15	15	109	2	a	Behind	3	0	Added	
R6	RF4440d-13A	15	15	109	2	b	Behind	45.96	0	Added	
R3	MT6407-77A	35.1	16.1	60.5	3	a	Front	33.36	0	Added	
A1	DB844G65ZAXY	48	10	13.5	4	a	Front	24	0	Retained	08/03/2021

ATTACHMENT 5



Lee Rd

George St

State Hwy 69 - New Haven Rd

Kluge Rd

Radio Tower Rd

214
4.15 AC

213

1

3

5

2

4

6

8

225

18

223

18
4 AC

220

224

10
1.09 AC

12

8
0.94 AC

232
0.96 AC

227
2.18 AC

1
0.63 AC

3
1.0 AC

15
35 AC

235

4



Parcel Information

Location:	24 KLUGE RD	Property Use:	Residential	Primary Use:	Residential
Unique ID:	V0301201	Map Block Lot:	112 74 178	Acres:	2.52
490 Acres:	0.00	Zone:	RA-1	Volume / Page:	0548/0303
Developers Map / Lot:		Census:			

Value Information

	Appraised Value	Assessed Value
Land	201,456	141,020
Buildings	0	0
Detached Outbuildings	300,000	210,000
Total	501,456	351,020

Owner's Information

Owner's Data
VISOCKIS PETER JOSEPH & VICTOR AUSTIN 73 GRANVIEW AVE NEWINGTON CT 06111

ATTACHMENT 6



**PROSPECT
Certificate of Mailing — Firm**

Name and Address of Sender Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	TOTAL NO. of Pieces Listed by Sender 3	TOTAL NO. of Pieces Received at Post Office™ 3	Affix Stamp Here <i>Postmark with Date of Receipt.</i> neopost SM 11/18/2021 US POSTAGE \$002.99⁰ ZIP 06103 041L12203937 OLD STATE HOUSE STATION 06103 NOV 18 2021 USPS		
	Postmaster, per (name of receiving employee) 				

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Robert J. Chatfield, Mayor Town of Prospect 36 Center Street Prospect, CT 06712				
2.	Mary Barton, Land Use Inspector Town of Prospect 36 Center Street Prospect, CT 06712				
3.	Peter and Victor Visockis 73 Grandview Avenue Newington, CT 06111				
4.					
5.					
6.					