NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

Northeast Site Solutions
Denise Sabo
4 Angela's Way, Burlington CT 06013
203-435-3640
denise@northeastsitesolutions.com

June 16, 2022

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Tower Share Application
398 Pomfret Street, Pomfret, CT 06258
Latitude: 41.890125
Longitude: -71.955075
Site #: CT02217-S_BOBOS00590A_SBA_DISH

Dear Ms. Bachman:

This letter and attachments are submitted on behalf of Dish Wireless LLC. Dish Wireless LLC plans to install antennas and related equipment to the tower site located at 398 Pomfret Street (a/k/a 84 Tyrone Road), Pomfret, Connecticut.

Dish Wireless LLC proposes to install three (3) 600/1900 MHz 5G antennas and six (6) RRUs, at the 135-foot level of the existing 168-foot monopole tower, one (1) Fiber cable will also be installed. Dish Wireless LLC equipment cabinets will be placed within a 7' x 5' lease area within the fenced compound. Included are plans by B+T, dated March 7, 2022, Exhibit C. Also included is a structural analysis prepared by SBA, dated May 9, 2022, confirming that the existing tower is structurally capable of supporting the proposed equipment. Attached as Exhibit D. The facility was approved by the Town of Pomfret Board of Selectmen on December 20, 1999. Please see attached Exhibit A.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies 16-50aa, of Dish Wireless LLC intent to share a telecommunications facility pursuant to R.C.S.A. 16-50j-88. In accordance with R.C.S.A., a copy of this letter is being sent to Maureen Nicholson, First Selectman and Ryan Brais, Zoning Enforcement Officer for the Town of Pomfret, as well as the tower owner (SBA) and property owner (Pomfret School Inc.).

The planned modifications of the facility fall squarely within those activities explicitly provided for in R.C.S.A. 16-50j-89.

1. The proposed modification will not result in an increase in the height of the existing structure. The top of the existing tower is 168-feet and the Dish Wireless LLC antennas will be located at a center line height of 135-feet.

2. The proposed modifications will not result in an increase of the site boundary as depicted on the attached site plan.

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

4. The operation of the proposed antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard. The combined site operations will result in a total power density of 12.04% as evidenced by Exhibit F.

Connecticut General Statutes 16-50aa indicates that the Council must approve the shared use of a telecommunications facility provided it finds the shared use is technically, legally, environmentally, and economically feasible and meets public safety concerns. As demonstrated in this letter, Dish Wireless LLC respectfully submits that the shared use of this facility satisfies these criteria.

A. Technical Feasibility. The existing monopole has been deemed structurally capable of supporting Dish Wireless LLC proposed loading. The structural analysis is included as Exhibit D.

B. Legal Feasibility. As referenced above, C.G.S. 16-50aa has been authorized to issue orders approving the shared use of an existing tower such as this monopole tower in Pomfret. Under the authority granted to the Council, an order of the Council approving the requested shared use would permit Dish Wireless LLC to obtain a building permit for the proposed installation. Further, a Letter of Authorization is included as Exhibit G, authorizing Dish Wireless LLC to file this application for shared use.

C. Environmental Feasibility. The proposed shared use of this facility would have a minimal environmental impact. The installation of Dish Wireless LLC equipment at the 135-foot level of the existing 168-foot tower would have an insignificant visual impact on the area around the tower. Dish Wireless LLC ground equipment would be installed within the existing facility compound. Dish Wireless LLC shared use would therefore not cause any significant alteration in the physical or environmental characteristics of the existing site. Additionally, as evidenced by Exhibit F, the proposed antennas would not increase radio frequency emissions to a level at or above the Federal Communications Commission safety standard.

D. Economic Feasibility. Dish Wireless LLC will be entering into an agreement with the owner of this facility to mutually agreeable terms. As previously mentioned, the Letter of Authorization has been provided by the owner to assist Dish Wireless LLC with this tower sharing application.

E. Public Safety Concerns. As discussed above, the tower is structurally capable of supporting Dish Wireless LLC proposed loading. Dish Wireless LLC is not aware of any public safety concerns relative to the proposed sharing of the existing tower. Dish Wireless LLC intentions of providing new and improved wireless service through the shared use of this facility is expected to enhance the safety and welfare of local residents and individuals traveling through Pomfret.

Sincerely,

Denise Sabo

Denise Sabo
Mobile: 203-435-3640
Fax: 413-521-0558
Office: 4 Angela's Way, Burlington CT 06013
Email: denise@northeastsitesolutions.com

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Attachments

Cc: Maureen Nicholson, First Selectman
Town of Pomfret
5 Haven Road
Pomfret Center, CT 06259

Ryan Brais - Zoning Enforcement Officer
Town of Pomfret
5 Haven Road
Pomfret Center, CT 06259

Pomfret School Inc. – Property Owner
398 Pomfret Street
Pomfret, CT 06258

SBA - Tower Owner

Exhibit A

Original Facility Approval

TOWN OF POMFRET
BOARD OF SELECTMEN'S MINUTES
MEETING OF DECEMBER 20, 1999

Present: David Patenaude, First Selectman, Charles Balch and Thomas Pahl, Selectmen. Others Present: Esther McNany of SBA, Inc. and Henry Woodbridge.

David Patenaude opened the meeting at 8:07 A.M. The minutes of the previous meeting of December 6, 1999 were duly approved with one correction under Other Business from "Also an extension from the year 2000" to "2001".

Citizen Participation: None

Communications: None

Current Business

1. **Road Issues**-None at this time.

2. **SBA, Inc. Application for Wireless Telecommunications Structure-Tyrone Road.** Esther McNany of SBA, Inc. presented the Board of Selectmen with a check in the amount the $15,000 as a donation for recreation land in lieu of the surety bond. The check was accepted by the Selectmen. Motion was made by Tom Pahl to approve the application, Chuck Balch seconded and discussion followed. Dave Patenaude mentioned that a pilot called to say the tower is in the direct line with the Woodstock Airport strip. Esther McNany said that since this is a small, private airport FAA did not require them to take this into consideration. Ms. McNany said the cell tower is below the height that would require lighting. The Selectmen felt all was in order. Motion was voted and approved unanimously.

3. **Recreation Site Committee-Report.** Chuck Balch reported that the Committee would like the Selectmen to take whatever steps necessary so they can begin to take steps to use the Murdock property for a soccer field and senior baseball field. Chuck made a motion to begin development at the Murdock property for recreation purposes. Tom seconded and discussion followed. Chuck said they would like first to make a practice field for soccer and a senior league baseball field. He was not sure on the specifics or exact plans of how and where. Dave reminded him that to do this would include the entrance off Route 101 issue and the fact that we are still taking gravel from this area. Tom felt the Selectmen need a proposal of exactly what the Committee plans on doing and who will handle what needs to be done. Discussion also followed on: 1) the recreation grant and the money to match this; 2) the issue of investing the money for a short term answer to immediate needs; 3) what about the gravel issue; 4) and who will be overseeing the construction etc. Tom Pahl felt the Selectmen would need to check with the State DOT regarding the entrance off Route 101.

There was much discussion on what authority the Recreation Site Committee has or doesn't have and would a new committee need to be appointed or should the Selectmen handle this. Discussion followed on whether the Selectmen should act on the Committee's recommendation and/or find another piece of property better suited. Chuck said the Committee felt, in order to meet the present needs and to use the recreation grant and not lose it, this was the best answer a this time. Chuck amended the motion that the Board of Selectmen accept the recommendation of the Site Committee that we develop recreation in two locations and that one location be the Murdock property. Tom seconded the motion and more discussion followed. Tom felt that they should still keep exploring other pieces of land. He said he would be willing to help on the Committee. He said he would be

TOWN OF POMFRET
BOARD OF SELECTMEN'S MINUTES
MEETING OF DECEMBER 6, 1999

Present: David Patenaude, First Selectman, Thomas Pahl and Charles Balch, Selectmen. Others Present: Robert Ikonen, Ford Fay, and Esther McNany and Maureen Chmielecki of SBA, Inc.

Dave Patenaude opened the meeting at 7:01 P.M. The minutes of the previous meeting of November 15, 1999 were duly approved.

Citizen Participation: Robert Ikonen informed the Selectmen of Pomfret's plans to participate in the "Israel Putnam March". The Democratic Town Committee has volunteered to help with food preparation. There will be one rest stop in Pomfret at the Old Town House. The "march" is scheduled for April 28-30, 2000. There may be a craft fair and Sally Rogers may sing or Donna Dufresne may perform her Dorcas Higginbotham impersonation. The Boy Scouts plan on having a honor guard, and hopefully, the local VFW may get involved. Discussion followed regarding road security.

Communications: None

Current Business

1. Road Issues:

A. Kearney Fork Speed Humps. Dave reported that he had talked to both the State Police and our insurance company about this issue. Both of which were not crazy about the idea. The police mentioned that they could post a cruiser there to help with the speed problems and was concerned about the signs. Dave has asked the State DOT to do a traffic survey. Chuck mentioned that a few citizens in the area have complained that some cars go through the Kearney Rd. and Kearney Fork intersection without stopping.

B. Wrights Crossing Road Bridge-Guardrails. Dave read a letter from WMC Engineering regarding the guardrails. The letter states that extending the rails would cause a hardship to the neighbor and on the other side of the road to the Wyndham Land Trust. Also that the inspection results state that the guardrails are to specification. Discussion followed and Tom Pahl said he would talk to Don Aubrey, Town Engineer.

2. Wolf Den Springs, LLC. Letters regarding the wetland disturbances have been received from the Army Corps of Engineers and from Don Aubrey, Town Engineer. Dave reported that he is writing to request a joint meeting with the Army Corps and the Board of Selectmen, Inland Wetlands Commission, James Rabbitt, Donald Aubrey, and the applicant, Stephen Perrone. Discussion followed. Tom had concerns regarding working out issues sited with Mr. Perrone. He felt the Selectmen should take the recommendations of Don Aubrey seriously and act on them in systemactic way.

3. SBA, Inc. Application for Wireless Telecommunications Structure-Tyrone Road.

Esther McNany of SBA, Inc. submitted the application packet. SBA, Inc. will be using the existing entrance of the Morissettes to get to the site. They have received a declaratory ruling from the Wetlands Commission that a wetlands permit is not required and have received site plan approval from the NEDDH. The tower will be on Pomfret

School property, should have minimal visual impact, and is to extend coverage along Route 44. The tower will be the same height as the existing SNET tower and. Ms. McNany stated that all requirements of the Town Ordinance have been complied with. Discussion followed on the expected cell tower users, whether the use of existing buildings and/or structures were considered. Tom asked what other areas are not covered and will there be other towers. Ms. McNany said there is a need along Route 97 and there may possibily be two more towers. The next tower may be on Easter Hill.

Dave asked about the bond requirement and how this was handled with a $10,000 in lieu of contribution with the last tower SBA did. Discussion followed on this issue and the 65 day timeline for approval. The application fee of $1,000 has been paid. The Selectmen requested the amount of $15,000 that could be paid in lieu of the security bond. SBA, Inc. is to return back to the next meeting with an answer to this request.

New Business

1. Billboards-Moratorium. Dave asked the Selectmen for support to declare a six month moratorium on billboards. He reported that we have (recently) received three applications for these in Town. and that he would like to bring an ordinance to Town Meetmg regarding this. Discussion followed. Tom made motion for a moratorium to construct billboards for six months that began December 1, 1999. Dave seconded the motion. Motion was approved with two in favor and Chuck Balch abstaining due to a conflict of interest.

Other Business:

Tom reported that he attended the Tobacco Needs Assessment in NE CT meeting. He said there was a poor turn out and felt bad for Bob Brex, who sponsored this. Grant money is available to Towns for materials to educate kids on tobacco awareness.

Chuck reported that both a copy of the letter to John LaConche and a proposal letter was submitted at the NELTA board of trustee meeting. Mr. LaConche felt the proposal has a good chance and it will go officially before the board in January. Chuck also reported that the Recreation Committee recommends that the Board of Selectmen go ahead with the soccer field(s) at the Murdock property. Also an extension until mid year 2001 has been received on the DEP recreation grant. The Committee also wishes that the Selectmen take a positive step to use the Murdock property for the grant monies. Discussion followed. Discussion took place on other possible land for recreation. Chuck would like to make inquiries regarding the Modica land with the Recreation Committee.

Discussion took place regarding the Open Space Land Trust Ordinance. The ordinance has been give to the Selectmen for action to take to Town Meeting.

Approve Schedule of Meetings Year 2000. Motion was duly passed to approve the schedule of meetings for 2000 as presented.

Tax Refunds/Abatements: None

Gun Permits: None

Approval to Pay Bills: Manual checks #6076-6086 dated 11/17-11/30/99 for $48,510.37 and checks #6087-6089 dated 12/1/99 for $883.76; checks #17950-17952 dated 11/17 for $897.96; and bill checks dated 12/6/99 for $65,388.44. Motion was duly passed to approve the bills as presented.

Adjournment: Motion was duly approved and the meeting adjourned at 8:40 P.M.

Respectfully submitted, Cheryl A. Grist, Clerk

TOWN ON POMFRET
APPLICATION FOR WIRELESS TELECOMMUNICATION STRUCTURES

Permit Number:
Date Submitted: 10/29/99 /ccg
Received by:
(Section 2.3.1) Fee: $1000.00 Pd 10/29/99 CK#05363

(Procedures for this application are explained in the Wireless Telecommunication ordinance)

APPLICANT TO FILL OUT THIS SECTION - Please print

Applicant's Name SBA, Inc. **Phone** (860) 439 - 0150
Address 125 Shaw St, New London CT 06320 **Fax #** (860) 439 - 0159

Co-Applicant's Name _____ **Phone** _____
Address _____ **Fax #** _____

If there is an agent for the applicant, please fill in name below:
Name Esther McNany **Phone** (860) 439 - 0150
Address SAME AS APPLICANT **Fax #** (860) 439 - 0159

LOCATION OF TOWER

Owner of the land Pomfret School Inc. Phone (860) 963 - 5208
Address 398 Pomfret St, Pomfret, CT 06258
Street Name Pomfret St. Map 19 Block C Lot 001 (Get from Assessor's office)
Nearest roads/intersections: Tyrone Rd.

PROPOSED ACTIVITY: (check those that apply)

☐ Commercial ☐ Industrial ☑ Other-specify Wireless Telecommunication Facility
☐ New Construction ☐ Addition ☐ Alteration

Please provide the following information with this application:

a. Site Plan Ingredients (section 3.2) Five (5) copies of site plan - 24" x 36" at a scale of 1" = 40' prepared by a professional land surveyor licensed in the State of Connecticut.
b. Name of Connecticut Registration Number of Land Surveyor and Professional Engineer. All final plans must have original signatures on maps.
c. Soil Erosion and Sediment Control Plan (section 3.3) a map of 1" = 50'
d. Name of Soil Scientist David H. Lord
e. Architectural Plans (see section 4.1.2)
f. Fees: $1,000.00. Please note: If the cost to process and review the application exceeds the initial fee of $1000.00, the applicant shall pay all associated costs incurred by the Commision and/or the Town prior to the issuance of a permit. (Section 2.3).

The undersigned hereby acknowledges that this application, to the best of his/her knowledge, conforms to the Wireless Telecommunications Regulations Ordinance of the Town of Pomfret and that approval of the plan is contingent upon compliance with all requirements of said ordinance. The undersigned hereby authorizes the Pomfret Board of Selectmen, or its agent, to enter upon the property for the purpose of inspection and enforcement of said regulations.The undersigned warrants and guarantees that all of the improvements as shown on the final approved site plan map will be installed in a good and workmanlike manner, and individually and severally guarantee to provide all necessary funds with respect thereto.

Signed _____ Dated 10/20/99
(Applicant)

Signed Pomfret School, Inc. _____, Bus Mgr Dated 10-28-99
(Property Owner)

Note: Before site plan approval is granted, the applicant shall file a surety with the Board of Selectmen payable to the Treasurer of the Town of Pomfret and in a form satisfactory to the Town Counsel and in an amount approved by the Board of Selectmen as sufficient to guarantee completion of those items specified by the Board of Selectmen and in conformity with the provisions of these Regulations or any amendments thereto in force at the time of filing. Such surety shall be held by the Town Clerk who shall not be authorized by the Board of Selectmen to release such bond until written certification has been received from the Building Official that all of the requirements of these Regulations have been fully satisfied.

A public hearing ☐ was or ☒ was not held on this application. (Section 3.1.1)
Applicant has compiled with all requirements of the Ordinance ☐ yes. ☒ no. In no, explain, IN LIEU OF A SURETY BOND THE TOWN ACCEPTED A PAYMENT OF $15,000.

Signed _____ Date 1-10-99
First Selectmen or Commission Chairman

wireapp.wpd

Exhibit B

Property Card

84 TYRONE RD

Location	84 TYRONE RD	**Mblu**	19/ C/ 1/TAX /
Acct#	P0002000	**Owner**	POMFRET SCHOOL INC
Assessment	$142,500	**Appraisal**	$203,500
PID	102807	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$0	$203,500	$203,500
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$0	$142,500	$142,500

Owner of Record

Owner	POMFRET SCHOOL INC	**Sale Price**	$0
Co-Owner	C/O CELL TOWER LAND LEASE	**Certificate**	
		Book & Page	0000/0000
		Sale Date	10/01/2009

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
POMFRET SCHOOL INC	$0		0000/0000	10/01/2009

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Replacement Cost
Less Depreciation: $0

Building Attributes	
Field	**Description**
Style:	Vacant Land

Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Full Baths:	
Half Baths:	
Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Extra Kitchens	
Whirlpool	
Fireplace	
Xtra Opening	
Blocked FPL	
Gas Fireplace	
Num Park	
Fireplaces	
Fndtn Cndtn	
Basement	

Building Photo

(https://images.vgsi.com/photos/PomfretCTPhotos//default.jpg)

Building Layout

(https://images.vgsi.com/photos/PomfretCTPhotos//Sketches/102807_1024

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Land Line Valuation

Use Code	4300	**Size (Acres)**	0.00
Description	TEL TWR MDL-00	**Frontage**	
Zone		**Depth**	
Neighborhood		**Assessed Value**	$142,500
Alt Land Appr	No	**Appraised Value**	$203,500
Category			

Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$0	$203,500	$203,500
2020	$0	$203,500	$203,500
2019	$0	$203,500	$203,500

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$0	$142,500	$142,500
2020	$0	$142,500	$142,500
2019	$0	$142,500	$142,500

398 POMFRET ST

Location	398 POMFRET ST	**Mblu**	14/ A/ 008.00/ /
Acct#	P0185900	**Owner**	POMFRET SCHOOL INC
Assessment	$24,715,900	**Appraisal**	$35,307,700
PID	584	**Building Count**	24

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$34,229,300	$1,078,400	$35,307,700

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$23,961,100	$754,800	$24,715,900

Owner of Record

Owner	POMFRET SCHOOL INC	**Sale Price**	$0
Co-Owner		**Certificate**	
		Book & Page	0030/0047
		Sale Date	11/21/1928

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
POMFRET SCHOOL INC	$0		0030/0047	11/21/1928

Building Information

Building 1 : Section 1

Year Built:	1870
Living Area:	7,591
Replacement Cost Less Depreciation:	$633,000

Building Attributes	
Field	**Description**
Style:	Office Bldg

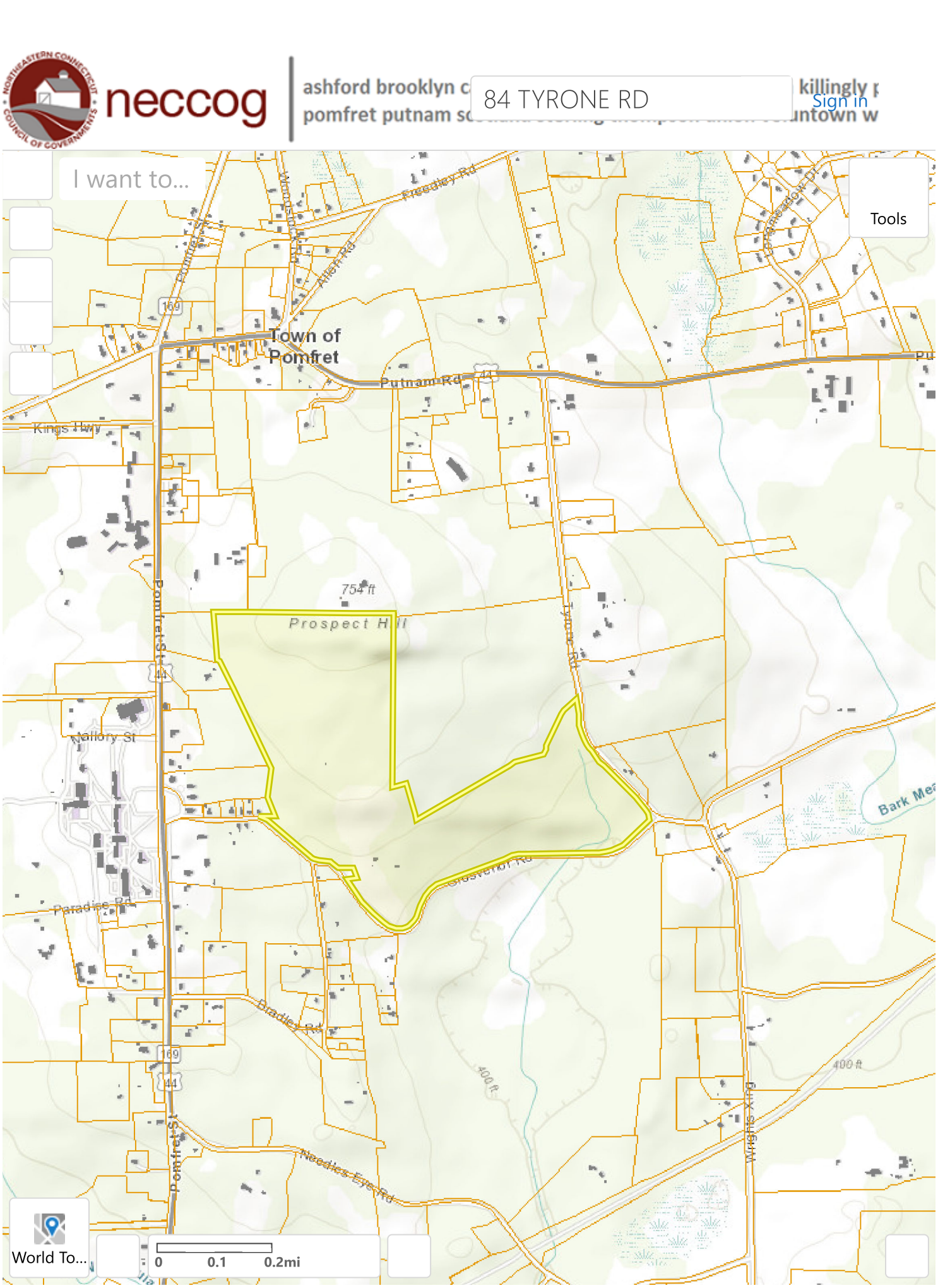

neccog
ashford brooklyn c
pomfret putnam sc
killingly p
ntown w
84 TYRONE RD
Sign in
I want to...
Tools
Town of Pomfret
Putnam Rd
Kings Hwy
Pomfret St
Mallory St
Paradise Rd
Bradley Rd
Needles Eye Rd
Prospect Hill
754 ft
Tyrone Rd
Wrights Xrd
400 ft
Bark Mea
World To...
0
0.1
0.2mi

Exhibit C

Construction Drawings

THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION REMOVAL AND/OR REPLACEMENT OF THE TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR 1.61000 (B)(7).

DISH Wireless L.L.C. SITE ID:

BOBOS00590A

DISH Wireless L.L.C. SITE ADDRESS:

398 POMFRET STREET
POMFRET, CT 06258

CONNECTICUT CODE OF COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES

CODE TYPE	CODE
BUILDING	2018 CT STATE BUILDING CODE/2015 IBC W/ CT AMENDMENTS
MECHANICAL	2018 CT STATE BUILDING CODE/2015 IMC W/ CT AMENDMENTS
ELECTRICAL	2018 CT STATE BUILDING CODE/2017 NEC W/ CT AMENDMENTS

SHEET INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	OVERALL AND ENLARGED SITE PLAN
A-2	ELEVATION, ANTENNA LAYOUT AND SCHEDULE
A-3	EQUIPMENT PLATFORM AND H-FRAME DETAILS
A-4	EQUIPMENT DETAILS
A-5	EQUIPMENT DETAILS
A-6	EQUIPMENT DETAILS
E-1	ELECTRICAL/FIBER ROUTE PLAN AND NOTES
E-2	ELECTRICAL DETAILS
E-3	ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE
G-1	GROUNDING PLANS AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
RF-1	RF CABLE COLOR CODE
GN-1	LEGEND AND ABBREVIATIONS
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
GN-4	GENERAL NOTES

SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

TOWER SCOPE OF WORK:
- INSTALL (3) PROPOSED PANEL ANTENNAS (1 PER SECTOR)
- INSTALL (1) PROPOSED ANTENNA PLATFORM MOUNT
- INSTALL PROPOSED JUMPERS
- INSTALL (6) PROPOSED RRUs (2 PER SECTOR)
- INSTALL (1) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP)
- INSTALL (1) PROPOSED HYBRID CABLE

GROUND SCOPE OF WORK:
- INSTALL (1) PROPOSED METAL PLATFORM
- INSTALL (1) PROPOSED ICE BRIDGE
- INSTALL (1) PROPOSED PPC CABINET
- INSTALL (1) PROPOSED EQUIPMENT CABINET
- INSTALL (1) PROPOSED POWER CONDUIT
- INSTALL (1) PROPOSED TELCO CONDUIT
- INSTALL (1) PROPOSED TELCO-FIBER BOX
- INSTALL (1) PROPOSED GPS UNIT
- INSTALL (1) PROPOSED FIBER NID (IF REQUIRED)

SITE PHOTO

UNDERGROUND SERVICE ALERT CBYD 811
UTILITY NOTIFICATION CENTER OF CONNECTICUT
(800) 922-4455
WWW.CBYD.COM

CALL 2 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

SITE INFORMATION

PROPERTY OWNER:	POMFRET SCHOOL INC
ADDRESS:	76 TYRONE RD POMFRET, CT 06258
TOWER TYPE:	MONOPOLE
TOWER CO SITE ID:	CT02217-S
TOWER APP NUMBER:	167062
COUNTY:	WINDHAM
LATITUDE (NAD 83):	41° 53' 24.34" N 41.89009411
LONGITUDE (NAD 83):	71° 57' 18.03" W -71.95500833
ZONING JURISDICTION:	CONNECTICUT SITTING COUNCIL
ZONING DISTRICT:	RESIDENTIAL
PARCEL NUMBER:	CT-112-19-C-001.00
OCCUPANCY GROUP:	U
CONSTRUCTION TYPE:	II-B
POWER COMPANY:	T.B.D.
TELEPHONE COMPANY:	T.B.D.

PROJECT DIRECTORY

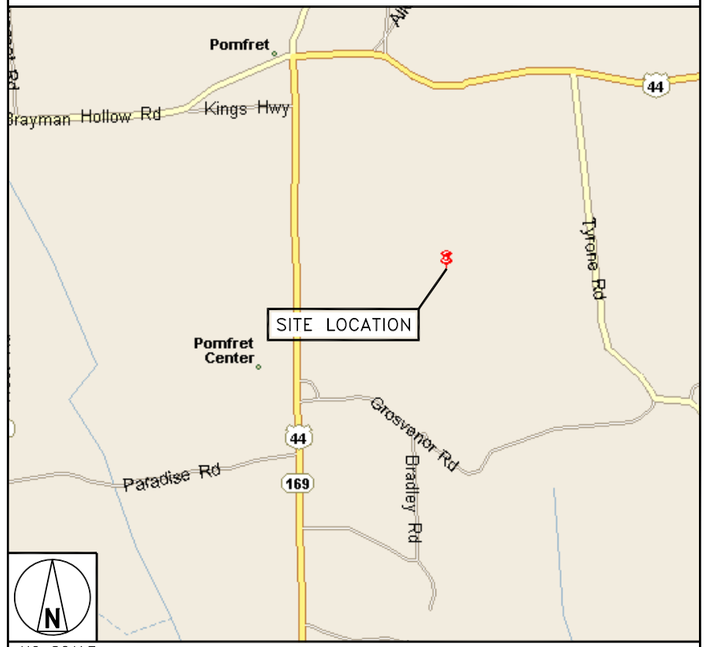
APPLICANT:	DISH Wireless L.L.C. 5701 SOUTH SANTA FE DRIVE LITTLETON, CO 80120
TOWER OWNER:	SBA COMMUNICATAIONS CORP. 8051 CONGRESS AVENUE BOCA RATON, FL 33487 (800) 487-7483
SITE DESIGNER:	B+T GROUP 1717 S. BOULDER AVE, SUITE 300 TULSA, OK 74119 (918) 587-4630
SITE ACQUISITION:	APRIL PARROTT april.parrott@dish.com
CONST. MANAGER:	CHAD WILCOX chad.wilcox@dish.com
RF ENGINEER:	ARVIN SEBASTIAN arvin.sebastian@dish.com

DIRECTIONS

DIRECTIONS FROM BRADLEY INTERNATIONAL AIRPORT:

CONTINUE TO EAST GRANBY, HEAD NORTH TOWARD BRADLEY INTERNATIONAL AIRPORT, SLIGHT LEFT ONTO BRADLEY INTERNATIONAL AIRPORT, CONTINUE STRAIGHT, TAKE I-91 S, I-291 E AND I-84 E TO CT-74 E IN TOLLAND. TAKE EXIT 69 FROM I-84 E, CONTINUE ONTO BRADLEY INTERNATIONAL AIRPORT CON, CONTINUE ONTO CT-20 E/BRADLEY INTERNATIONAL AIRPORT CON, TAKE THE EXIT ONTO I-91 S TOWARD HARTFORD, TAKE EXIT 35A FOR I-291 TOWARD MANCHESTER, CONTINUE ONTO I-291 E, USE THE LEFT LANE TO MERGE WITH I-84 E TOWARD BOSTON, TAKE EXIT 69 FOR CT-74 TOWARD U.S. 44/WILLINGTON/PUTNAM, CONTINUE ON CT-74 E TO YOUR DESTINATION IN POMFRET, TURN RIGHT ONTO CT-74 E, TURN LEFT ONTO US-44 E, TURN LEFT ONTO CT-198 N, TURN RIGHT ONTO CT-244 E, MERGE WITH CT-97 S, CONTINUE STRAIGHT ONTO US-44 E, TURN RIGHT ONTO TYRONE RD, TURN RIGHT RESTRICTED USAGE ROAD, DESTINATION WILL BE ON THE LEFT.

VICINITY MAP



NO SCALE

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SUITE 300
TULSA, OK 74119
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3/7/22

STATE OF CONNECTICUT · CHAD WILCOX · No. 23924 · LICENSED PROFESSIONAL ENGINEER

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	MRE	BEH

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	11/10/21	ISSUED FOR REVIEW
0	3/7/22	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER

149437.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE

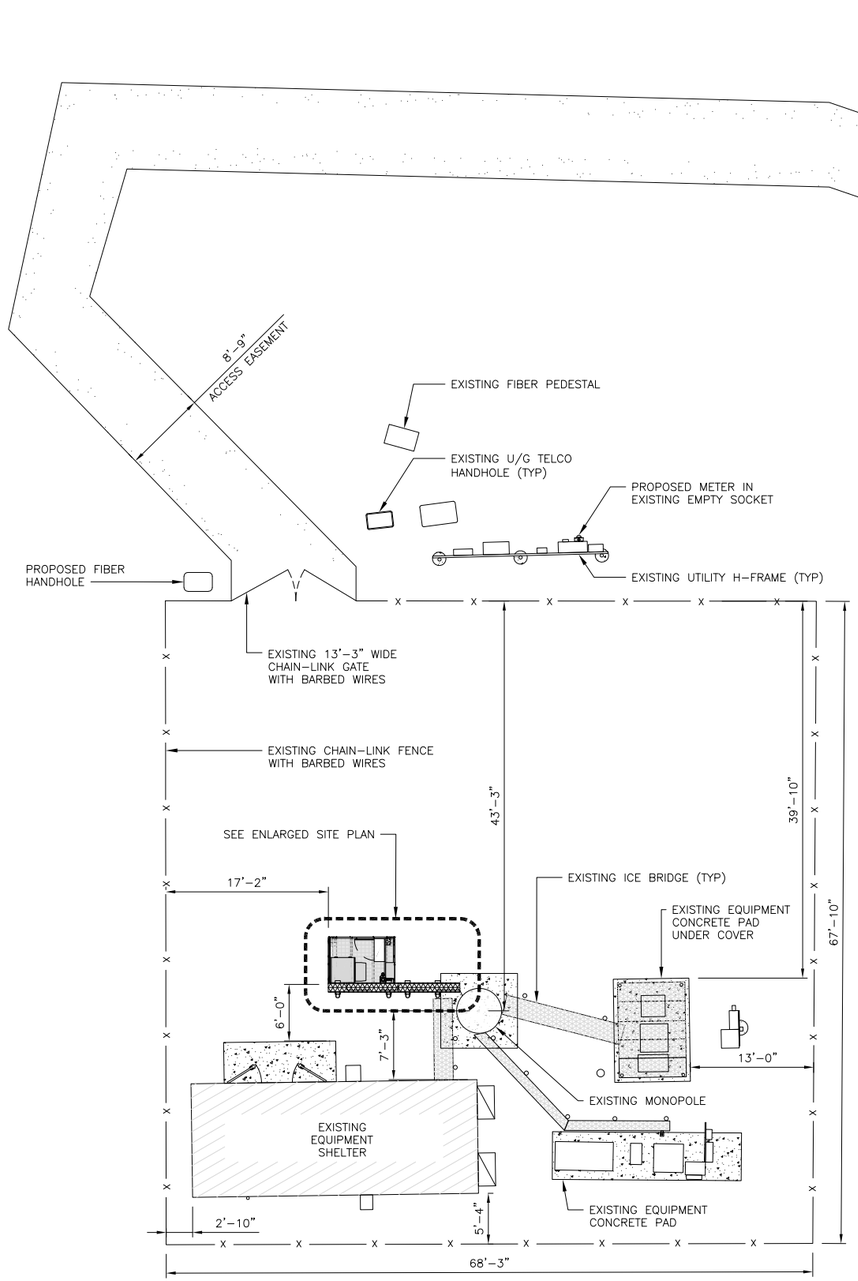
TITLE SHEET

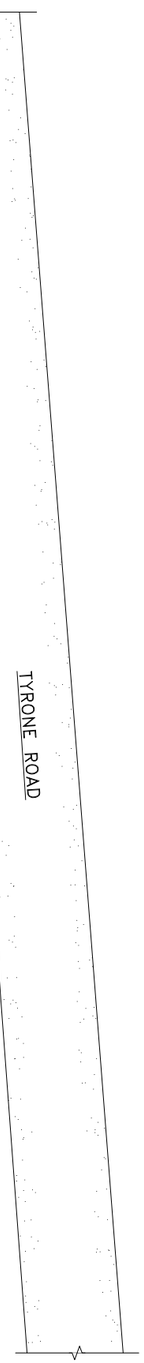
SHEET NUMBER

T-1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.





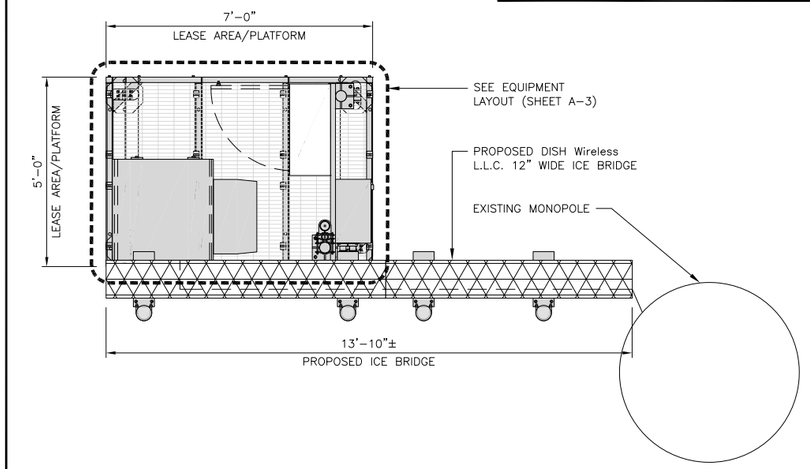
OVERALL SITE PLAN

8' 4' 0 8' 16'
1/8"=1'-0"

1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



ENLARGED SITE PLAN

12" 6" 0 1' 2' 3' 4' 5'
1/2"=1'-0"

2

NOT USED

NO SCALE

3

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DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE

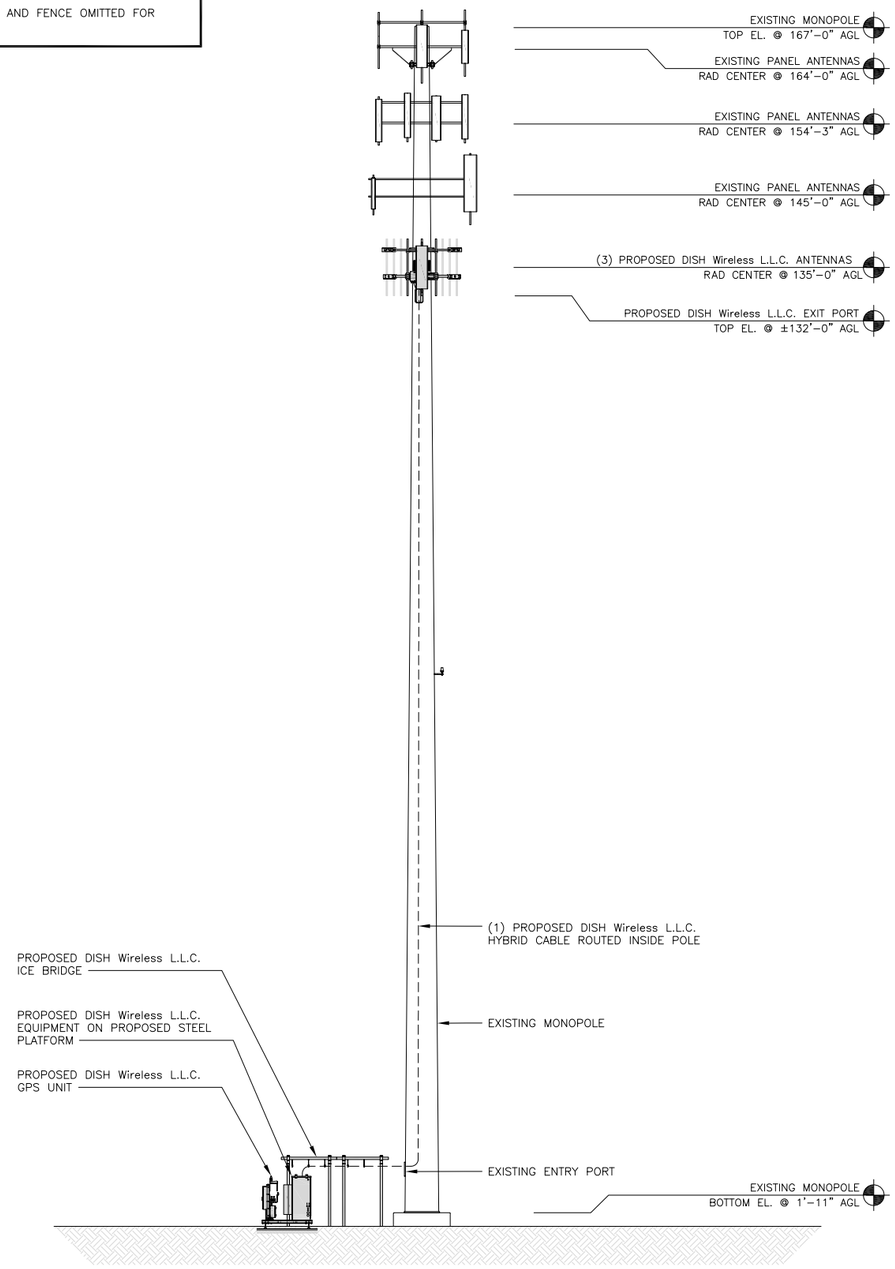
OVERALL AND ENLARGED SITE PLAN

SHEET NUMBER

A-1

NOTES

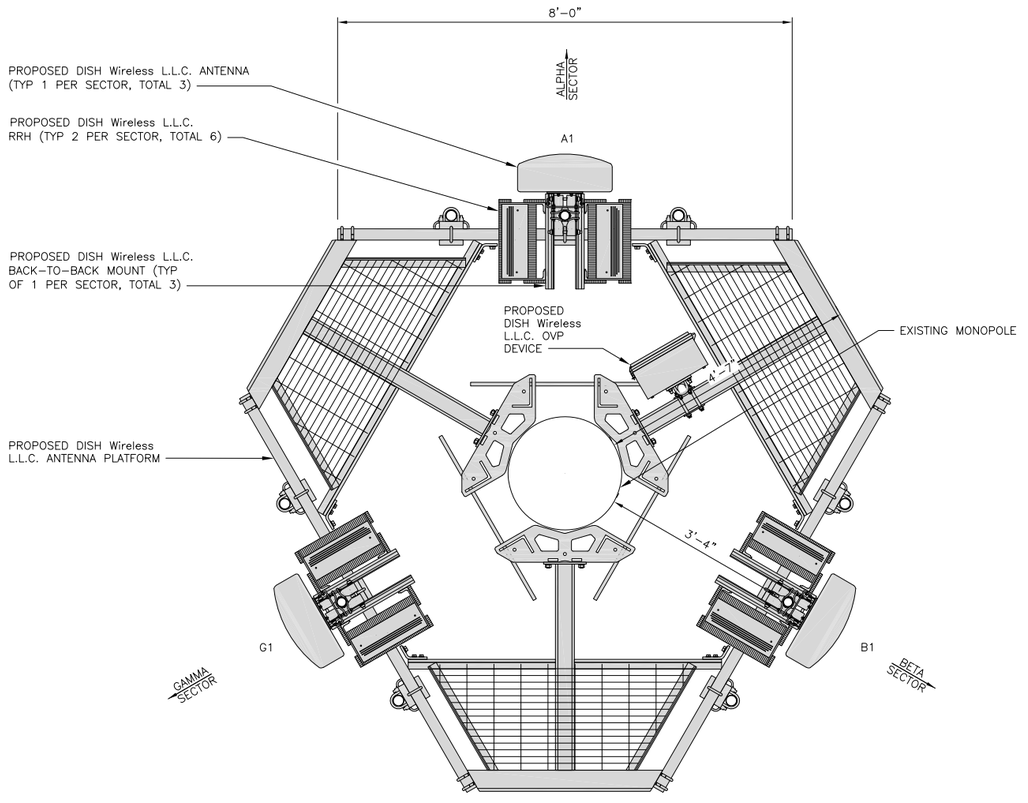
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.



PROPOSED SOUTH ELEVATION

12' 8' 4' 0 10' 20'
3/32"=1'-0"

1



ANTENNA LAYOUT

12" 6" 0 1' 2' 3'
3/4"=1'-0"

2

SECTOR	POSITION	ANTENNA						TRANSMISSION CABLE
		EXISTING OR PROPOSED	MANUFACTURER – MODEL NUMBER	TECHNOLOGY	SIZE (HxW)	AZIMUTH	RAD CENTER	FEED LINE TYPE AND LENGTH
ALPHA	A1	PROPOSED	COMMSCOPE – FFVV-65B-R2	5G	72.0" x 19.6"	0°	135'-0"	(1) HIGH-CAPACITY HYBRID CABLE (180' LONG)
BETA	B1	PROPOSED	COMMSCOPE – FFVV-65B-R2	5G	72.0" x 19.6"	120°	135'-0"	
GAMMA	G1	PROPOSED	COMMSCOPE – FFVV-65B-R2	5G	72.0" x 19.6"	240°	135'-0"	

SECTOR	POSITION	RRH	
		MANUFACTURER – MODEL NUMBER	TECHNOLOGY
ALPHA	A1	FUJITSU-TA08025-B605	5G
	A1	FUJITSU-TA08025-B604	5G
BETA	B1	FUJITSU-TA08025-B605	5G
	B1	FUJITSU-TA08025-B604	5G
GAMMA	G1	FUJITSU-TA08025-B605	5G
	G1	FUJITSU-TA08025-B604	5G

NOTES

1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.

ANTENNA SCHEDULE

NO SCALE

3

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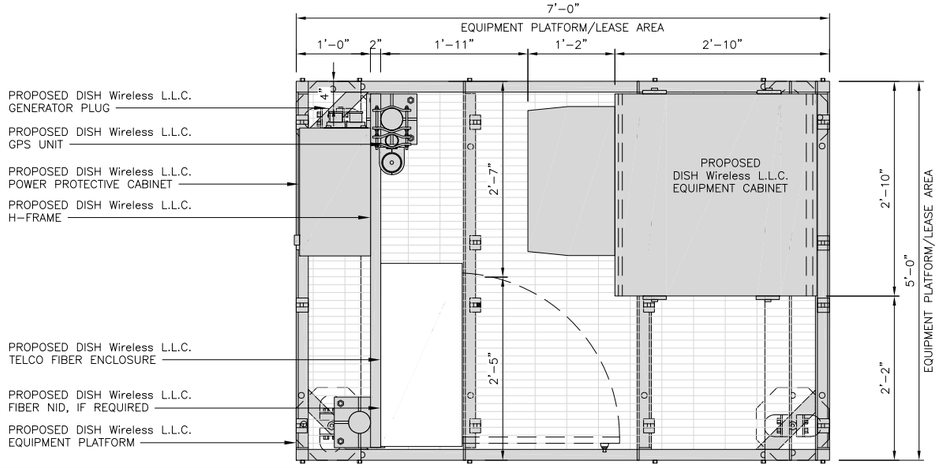
BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE

ELEVATION, ANTENNA LAYOUT AND SCHEDULE

SHEET NUMBER

A-2



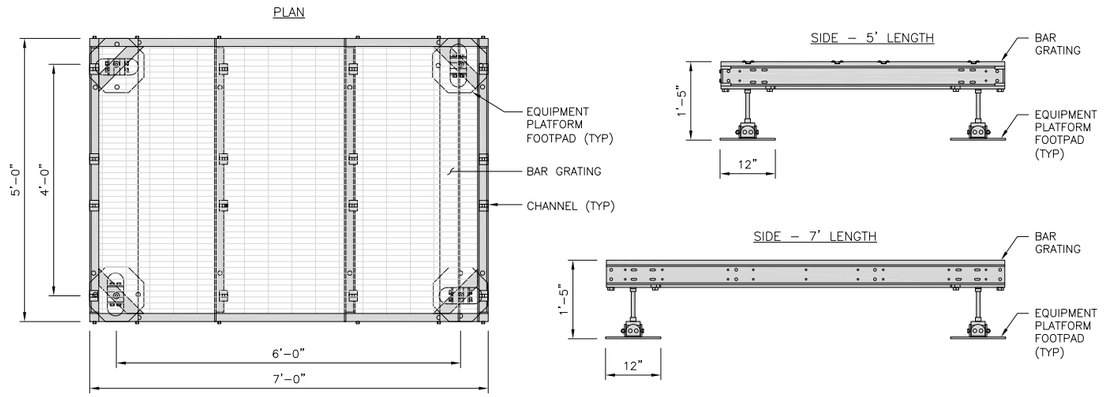
PLATFORM EQUIPMENT PLAN

12" 9" 6" 3" 0 1' 2'
1"=1'-0"

1

COMMSCOPE MTC4045LP 5X7 PLATFORM	
DIMENSIONS (HxWxD)	16"x84"x60"
TOTAL WEIGHT	423 LBS

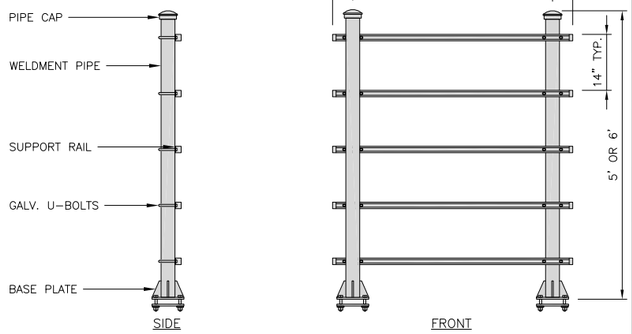
NOTE:
GC TO PROVIDE EXTENDED THREAD FOR PLATFORM IF REQUIRED HEIGHT EXCEEDS 17"



PLATFORM DETAIL | NO SCALE | 2

COMMSCOPE MTC4045HFLD H-FRAME	
UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	59.74 lbs

NOTE:
OR DISH Wireless L.L.C. APPROVED EQUIVALENT

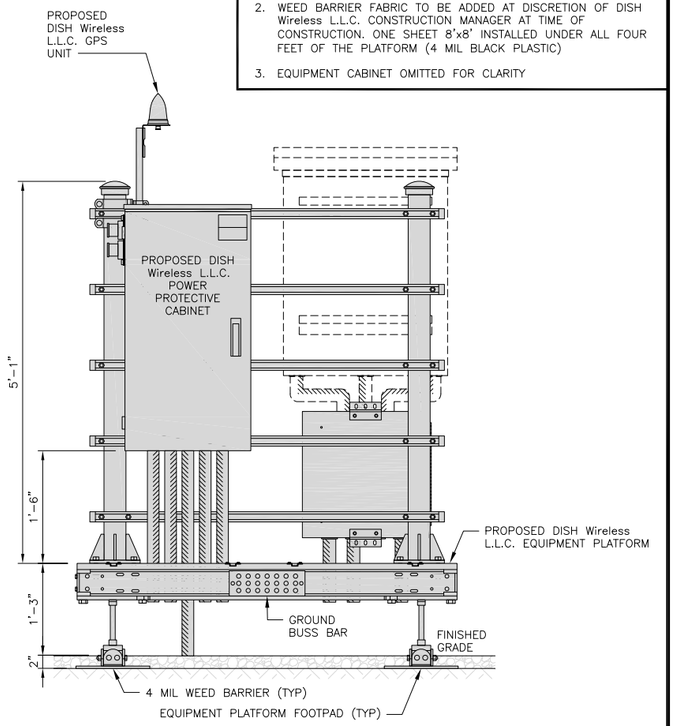


H-FRAME DETAIL | NO SCALE | 3

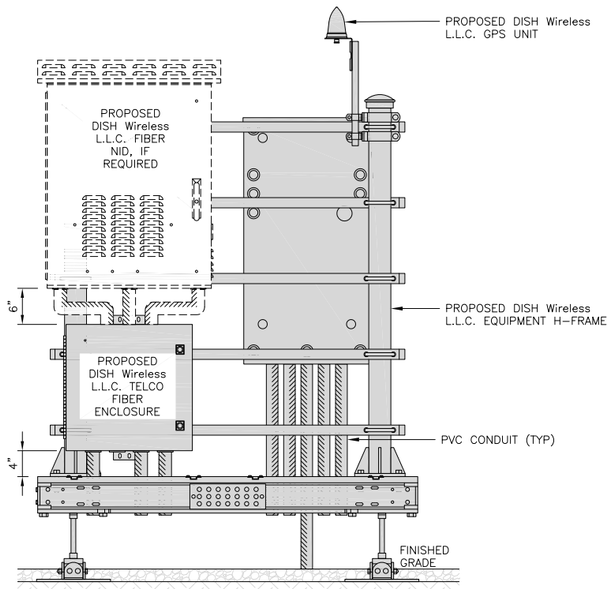
NOT USED | NO SCALE | 4

NOTES

1. CONTRACTOR TO BURY PLATFORM FEET WITH A MINIMUM OF 2" OF FILL PER EXISTING SITE SURFACE
2. WEED BARRIER FABRIC TO BE ADDED AT DISCRETION OF DISH Wireless L.L.C. CONSTRUCTION MANAGER AT TIME OF CONSTRUCTION. ONE SHEET 8'x8' INSTALLED UNDER ALL FOUR FEET OF THE PLATFORM (4 MIL BLACK PLASTIC)
3. EQUIPMENT CABINET OMITTED FOR CLARITY



FRONT ELEVATION



BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION | 12" 9" 6" 3" 0 1' 2' 1"=1'-0" | 5

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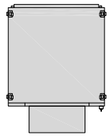
PROJECT INFORMATION
BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

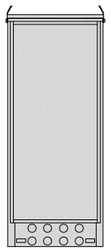
SHEET TITLE
EQUIPMENT PLATFORM AND H-FRAME DETAILS

SHEET NUMBER
A-3

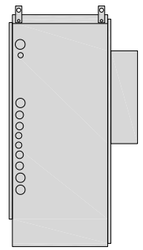
ENERSYS HVAC 2000005995	
DIMENSIONS (HxWxD)	73"x30"x32"
POWER SYSTEM	-48V ALPHA/600A
HVAC	600W
TOTAL WEIGHT (EMPTY)	371 lbs



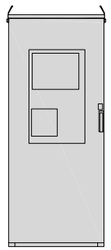
PLAN



BACK



SIDE

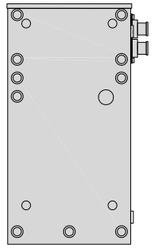


FRONT

CABINET DETAIL — NO SCALE — 1

RAYCAP PPC RDIAC-2465-P-240-MTS	
ENCLOSURE DIMENSIONS (HxWxD):	39"x22.855"x12.593
WEIGHT:	80 lbs
OPERATING AC VOLTAGE	240/120 1 PHASE 3W+G

TOP



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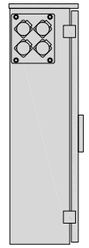
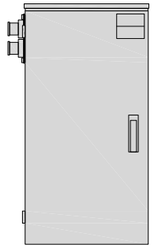
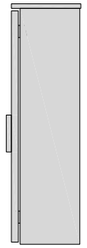


SIDE



FRONT



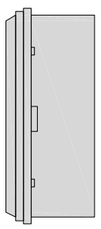
SIDE

POWER PROTECTION CABINET (PPC) DETAIL — NO SCALE — 2

NOT USED — NO SCALE — 3

CIENA 3931 FIBER NID ENCLOSURE	
DIMENSIONS (HxWxD)	17"x16.8"x7"
WEIGHT	28.6 lbs

TOP



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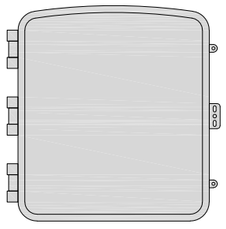
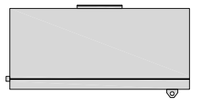


FRONT

FIBER NID ENCLOSURE DETAIL — NO SCALE — 5

CHARLES CFIT-PF2020DSH1 FIBER TELCO ENCLOSURE	
ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4



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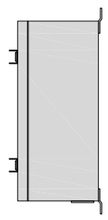

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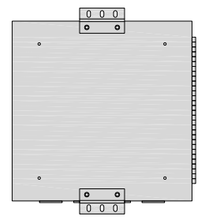

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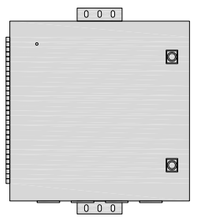


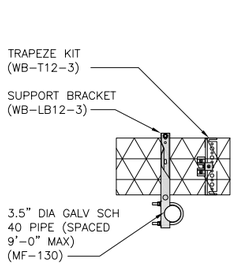
FRONT

FIBER TELCO ENCLOSURE DETAIL — NO SCALE — 6

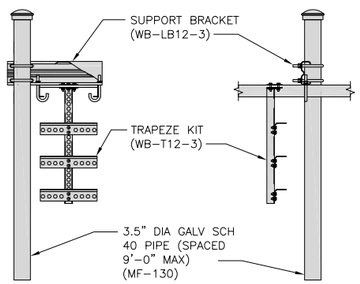
NOT USED — NO SCALE — 4

COMMSCOPE WB-K110-B WAVEGUIDE BRIDGE KIT	
DIMENSIONS (HxL)	160"x10'
WEIGHT/ VOLUME	325.0 LBS
CABLE RUN (QTY)	12

INCLUDED PRODUCTS:	WB-T12-3 TRAPEZE KIT, 3 RUNGS
	WB-LB12-3 SUPPORT BRACKET
	MF-130 DIRECT BURIAL PIPE COLUMN, 13'-4"



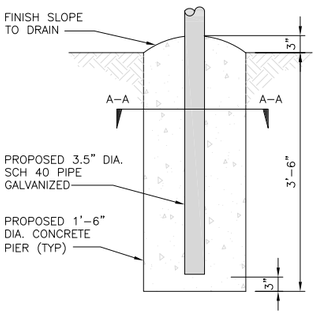
PLAN



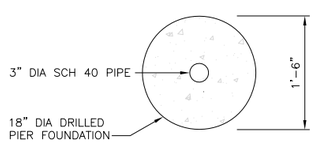
FRONT

SIDE

ICE BRIDGE DETAIL — NO SCALE — 7

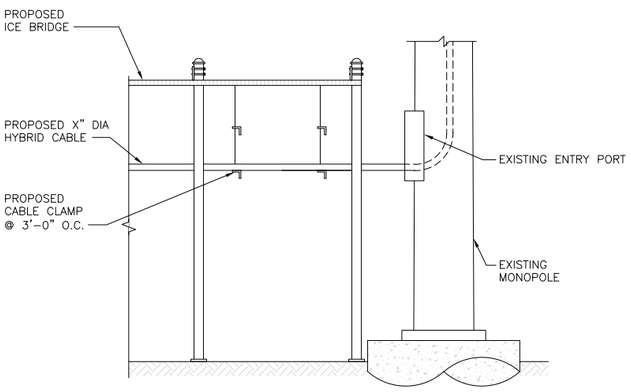


CONCRETE PIER



A-A SECTION

TYPICAL ICE BRIDGE CONCRETE PIER DETAIL — NO SCALE — 8



HYBRID CABLE RUN — NO SCALE — 9

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POMFRET, CT 06258

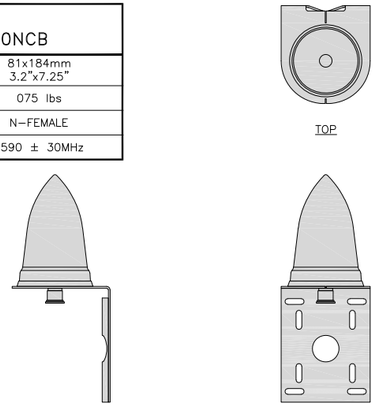
SHEET TITLE

EQUIPMENT DETAILS

SHEET NUMBER

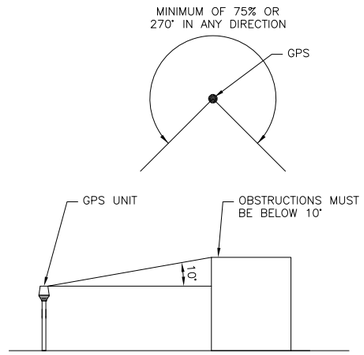
A-4

PCTEL GPSGL-TMG-SPI-40NCB	
DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"
WEIGHT W/ACCESSORIES	075 lbs
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1590 ± 30MHz



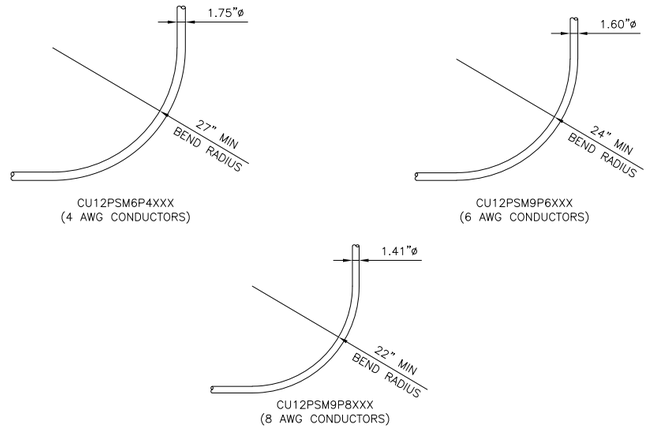
GPS DETAIL

NO SCALE | 1



GPS MINIMUM SKY VIEW REQUIREMENTS

NO SCALE | 2



CABLES UNLIMITED HYBRID CABLE MINIMUM BEND RADIUSES

NO SCALE | 3

NOT USED

NO SCALE | 4

NOT USED

NO SCALE | 5

NOT USED

NO SCALE | 6

NOT USED

NO SCALE | 7

NOT USED

NO SCALE | 8

NOT USED

NO SCALE | 9

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No. 23924
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PEC.0001564
Expires 2/10/22

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CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/10/21	ISSUED FOR REVIEW
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A&E PROJECT NUMBER

149437.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

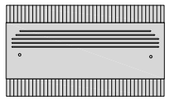
SHEET TITLE

EQUIPMENT DETAILS

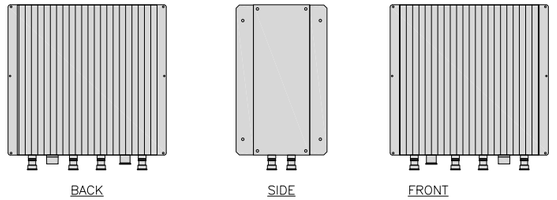
SHEET NUMBER

A-5

FUJITSU TRIPLE BAND TA08025-B605	
DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



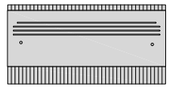
PLAN



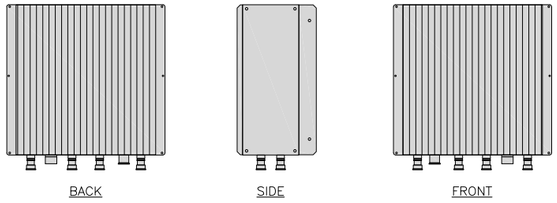
BACK SIDE FRONT

RRH DETAIL | NO SCALE | 1

FUJITSU DUAL BAND TA08025-B604	
DIMENSIONS (HxWxD)	14.9"x15.7"x7.8"
WEIGHT	63.9 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



PLAN

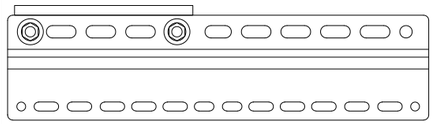


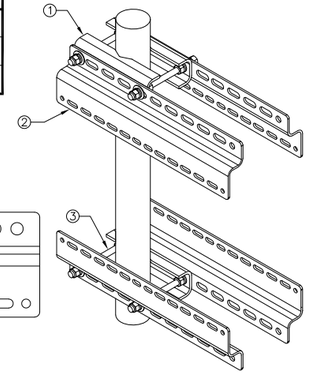
BACK SIDE FRONT

RRH DETAIL | NO SCALE | 2

SABRE DOUBLE Z-BRACKET C10123155	
DIMENSIONS (HxWxD) (1 BRACKET)	5"x20"x1-13/16"
WEIGHT (FULL ASSEMBLY)	35.79 lbs
PACKAGE QUANTITY	4

#	DESCRIPTION
1	PLATE, CHANNEL BRACKET
2	RRH Z BRACKET, 3/16"
3	THREADED ROD ASSEMBLY 1/2"x12"

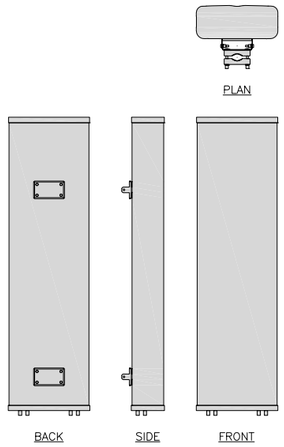




NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

RRH MOUNT DETAIL | NO SCALE | 3

COMMSCOPE FFVV-65B-R2	
DIMENSIONS (HxWxD)(MM/IN)	1828x498x197 72"x19.6"x7.8"
RF CONNECTOR INTERFACE	4.3-10 FEMALE
WEIGHT	70.8 lbs
WEIGHT WITH BRACKETS	98.1 lbs



PLAN

BACK SIDE FRONT

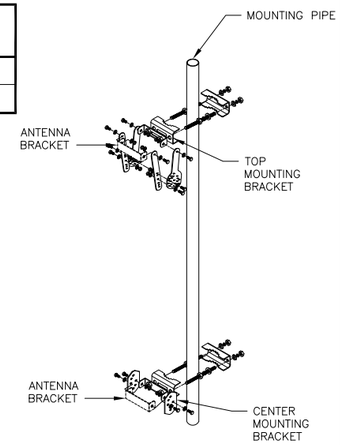
ANTENNA DETAIL | NO SCALE | 4

NOT USED | NO SCALE | 5

JMA ANTENNA MOUNT BRACKET #91900318	
TOTAL WEIGHT (WITH BRACKETS)	18 lbs (8.18 Kg)
POLE DIAMETER RANGE	2.5" TO 4.5"

NOTE:
KIT #91900318: TOP AND BOTTOM BRACKETS FOR 4-,6-, AND 8-FOOT ANTENNAS

ANTENNA BRACKET NOT PART OF KIT

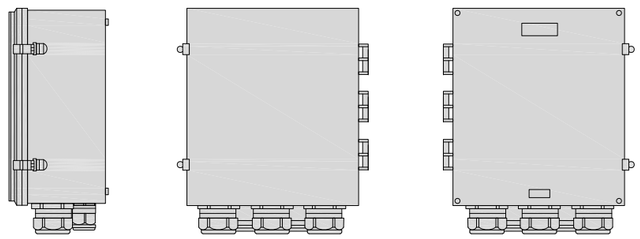


NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

ANTENNA BRACKET DETAIL | NO SCALE | 6

RAYCAP RDIDC-9181-PF-48 DC SURGE PROTECTION (OVP)	
DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS

PLAN

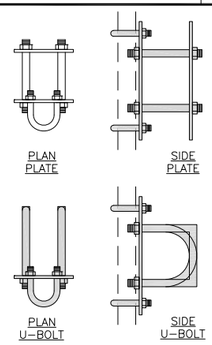


SIDE BACK FRONT

SURGE SUPPRESSION DETAIL (OVP) | NO SCALE | 7

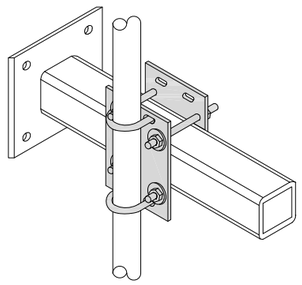
COMMSCOPE XP-2040 CROSSOVER PLATE	
DIMENSIONS (HxW)	10"x12"
WEIGHT	11 lbs

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



PLAN PLATE SIDE PLATE

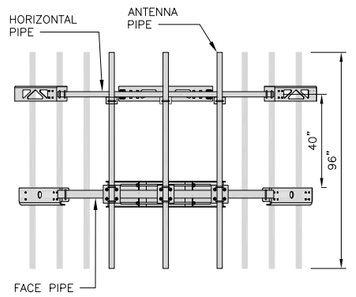
PLAN U-BOLT SIDE U-BOLT

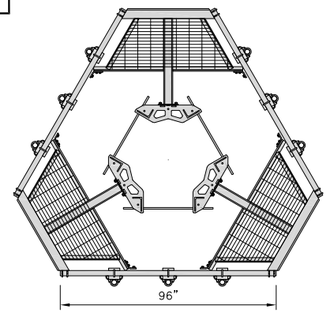


RRH/OVP MOUNT DETAIL | NO SCALE | 8

COMMSCOPE MC-PK8-DSH	
FACE WIDTH	96"
WEIGHT	1373.08 lbs
NOTE: 15" TO 38" O.D.	

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT





ANTENNA PLATFORM DETAIL | NO SCALE | 9

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3/7/22

STATE OF CONNECTICUT CHAD E. TUTTLE No. 23924 LICENSED PROFESSIONAL ENGINEER

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	MRE	BEH

RFDS REV #: 0

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A&E PROJECT NUMBER
149437.001.01

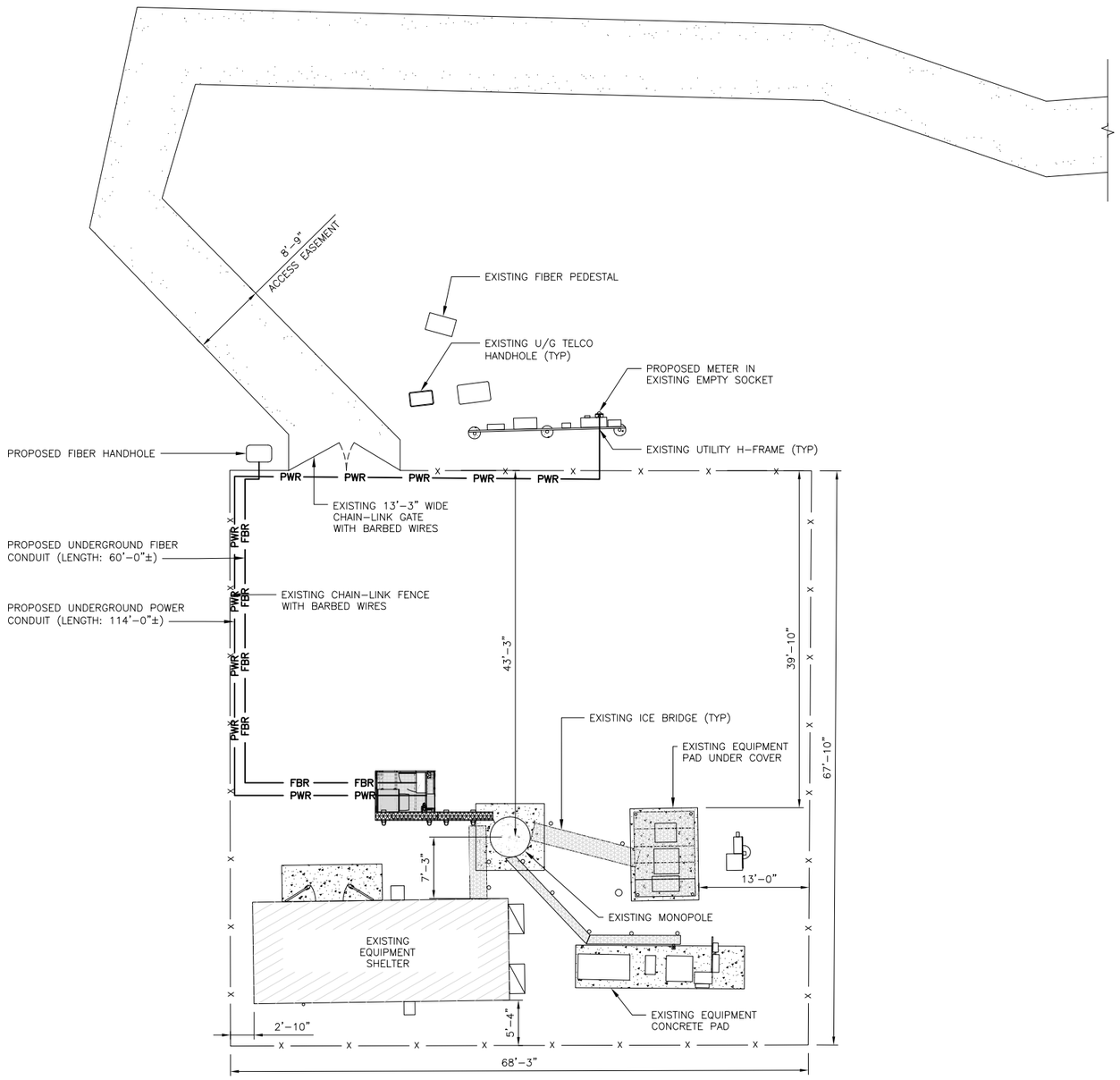
DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-6

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
3. THE GROUND LEASE PROVIDES BROAD/BLANKET UTILITY RIGHTS. "PWR" AND "FBR" PATH DEPICTED ON A-1 AND E-1 ARE BASED ON BEST AVAILABLE INFORMATION INCLUDING BUT NOT LIMITED TO FIELD VERIFICATION, PRIOR PROJECT DOCUMENTATION AND OTHER REAL PROPERTY RIGHTS DOCUMENTS. WHEN INSTALLING THE UTILITIES PLEASE LOCATE AND FOLLOW EXISTING PATH. IF EXISTING PATH IS NOT AN OPTION, PLEASE NOTIFY TOWER OWNER AS FURTHER COORDINATION MAY BE NEEDED.



N

DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V.

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
3. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
4. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
6. CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
7. CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
9. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
10. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
11. PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.
13. ALL TRENCHES IN COMPOUND TO BE HAND DUG

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STATE OF CONNECTICUT
CHAD E. LITTLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
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DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE

ELECTRICAL/FIBER ROUTE PLAN AND NOTES

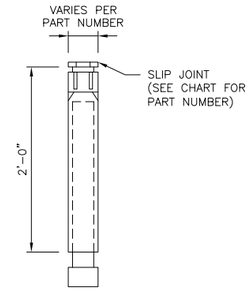
SHEET NUMBER

E-1

UTILITY ROUTE PLAN | 8' 4' 0 8' 16' 1/8"=1'-0" | 1 | ELECTRICAL NOTES | NO SCALE | 2

CARLON EXPANSION FITTINGS

COUPLING END PART#	MALE TERMINAL ADAPTER END PART#	SIZE	STD CTN QTY.	TRAVEL LENGTH
E945D	E945DX	1/2"	20	4"
E945E	E945EX	3/4"	15	4"
E945F	E945FX	1"	10	4"
E945G	E945GX	1 1/4"	5	4"
E945H	E945HX	1 1/2"	5	4"
E945J	E945JX	2"	15	8"
E945K	E945KX	2 1/2"	10	8"
E945L	E945LX	3"	10	8"
E945M	E945MX	3 1/2"	5	8"
E945N	E945NX	4"	5	8"
E945P	E945PX	5"	1	8"
E945R	E945RX	6"	1	8"

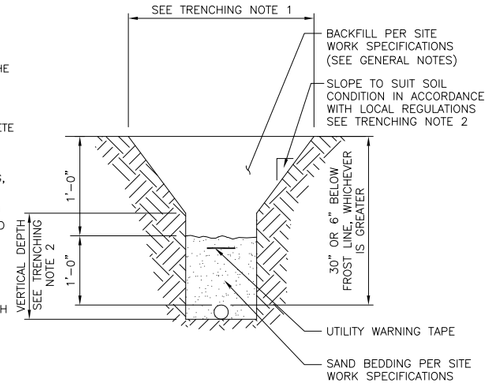


NOTE:
CONTRACTOR TO INSTALL EXPANSION FITTING SLIP JOINT AT METER CENTER CONDUIT TERMINATION, AS PER LOCAL UTILITY POLICY, ORDINANCE AND/OR SPECIFIED REQUIREMENT.

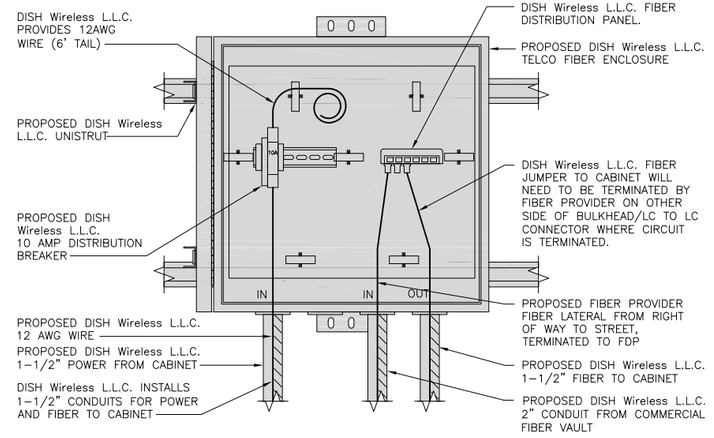
EXPANSION JOINT DETAIL | NO SCALE | 1

TRENCHING NOTES

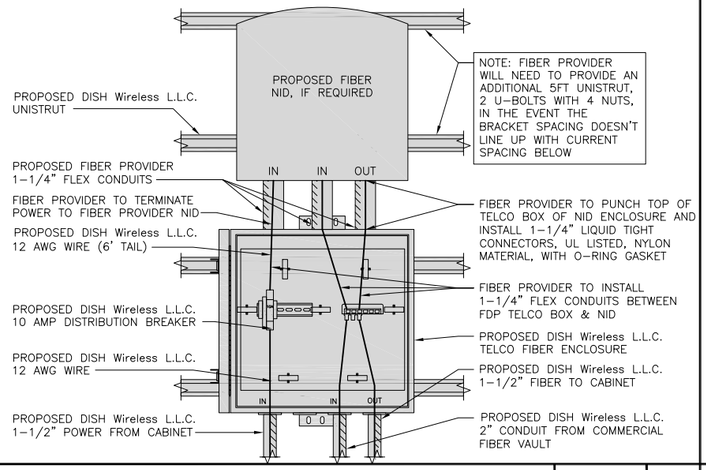
1. CONTRACTOR SHALL RESTORE THE TRENCH TO ITS ORIGINAL CONDITIONS BY EITHER SEEDING OR SODDING GRASS AREAS, OR REPLACING ASPHALT OR CONCRETE AREAS TO ITS ORIGINAL CROSS SECTION.
2. TRENCHING SAFETY; INCLUDING, BUT NOT LIMITED TO SOIL CLASSIFICATION, SLOPING, AND SHORING, SHALL BE GOVERNED BY THE CURRENT OSHA TRENCHING AND EXCAVATION SAFETY STANDARDS.
3. ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT NATIONAL ELECTRIC CODE (NEC) OR AS REQUIRED BY THE LOCAL JURISDICTION, WHICHEVER IS THE MOST STRINGENT.



TYPICAL UNDERGROUND TRENCH DETAIL | NO SCALE | 2



DARK TELCO BOX – INTERIOR WIRING LAYOUT | NO SCALE | 3



LIT TELCO BOX – INTERIOR WIRING LAYOUT (OPTIONAL) | NO SCALE | 4

NOT USED | NO SCALE | 5

NOT USED | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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DISH Wireless L.L.C.
PROJECT INFORMATION

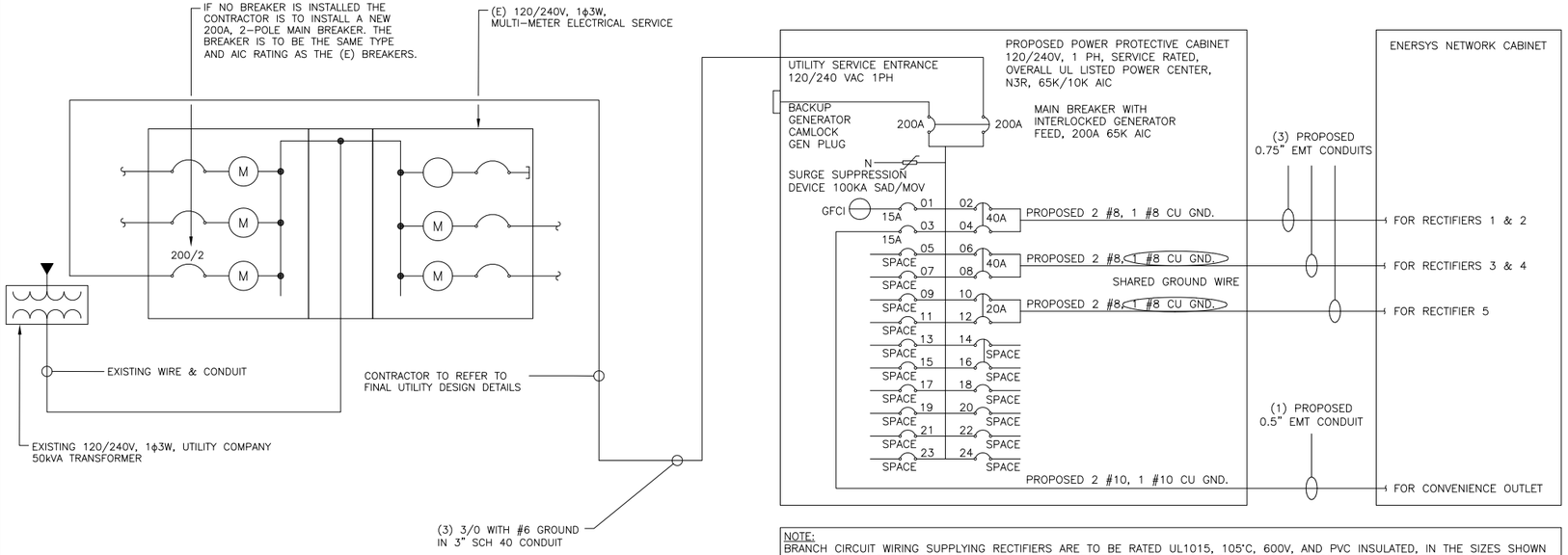
BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE

ELECTRICAL DETAILS

SHEET NUMBER

E-2



NOTE:
BRANCH CIRCUIT WIRING SUPPLYING RECTIFIERS ARE TO BE RATED UL1015, 105°C, 600V, AND PVC INSULATED, IN THE SIZES SHOWN IN THE ONE-LINE DIAGRAM. CONTRACTOR MAY SUBSTITUTE UL1015 WIRE FOR THWN-2 FOR CONVENIENCE OUTLET BRANCH CIRCUIT.

BREAKERS REQUIRED:
(2) 40A, 2P BREAKER - SQUARE D P/N:QO240
(1) 20A, 2P BREAKER - SQUARE D P/N:QO220
(1) 20A, 1P BREAKER - SQUARE D P/N:QO120

NOTES

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED SHORT CIRCUIT CALCULATIONS AND THE AIC RATINGS FOR EACH DEVICE IS ADEQUATE TO PROTECT THE EQUIPMENT AND THE ELECTRICAL SYSTEM.

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED VOLTAGE DROP CALCULATIONS AND ALL BRANCH CIRCUIT AND FEEDERS COMPLY WITH THE NEC (LISTED ON T-1) ARTICLE 210.19(A)(1) FPN NO. 4.

CONDUIT SIZING: AT 40% FILL PER NEC CHAPTER 9, TABLE 4, ARTICLE 358.
0.5" CONDUIT - 0.122 SQ. IN AREA
0.75" CONDUIT - 0.213 SQ. IN AREA
2.0" CONDUIT - 1.316 SQ. IN AREA
3.0" CONDUIT - 2.907 SQ. IN AREA

CABINET CONVENIENCE OUTLET CONDUCTORS (1 CONDUIT): USING THWN-2, CU.

#10 - 0.0211 SQ. IN X 2 = 0.0422 SQ. IN
#10 - 0.0211 SQ. IN X 1 = 0.0211 SQ. IN <GROUND
TOTAL = 0.0633 SQ. IN

0.5" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

RECTIFIER CONDUCTORS (3 CONDUITS): USING UL1015, CU.

#8 - 0.0552 SQ. IN X 2 = 0.1103 SQ. IN
#8 - 0.0131 SQ. IN X 1 = 0.0131 SQ. IN <BARE GROUND
TOTAL = 0.1234 SQ. IN

0.75" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC FEED CONDUCTORS (1 CONDUIT): USING THWN, CU.

3/0 - 0.2679 SQ. IN X 3 = 0.8037 SQ. IN
#6 - 0.0507 SQ. IN X 1 = 0.0507 SQ. IN <GROUND
TOTAL = 0.8544 SQ. IN

3.0" SCH 40 PVC CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (4) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC ONE-LINE DIAGRAM — NO SCALE — 1

PROPOSED ENERSYS PANEL SCHEDULE

LOAD SERVED	VOLT AMPS (WATTS) L1	VOLT AMPS (WATTS) L2	TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPS (WATTS) L1	VOLT AMPS (WATTS) L2	LOAD SERVED
PPC GFCI OUTLET	180		15A	1	A	2	40A	3840		ENERSYS ALPHA CORDEX
ENERSYS GFCI OUTLET		180	15A	3	B	4			3840	RECTIFIERS 1 & 2
-SPACE-				5	A	6	40A	3840		ENERSYS ALPHA CORDEX
-SPACE-				7	B	8			3840	RECTIFIER 3 & 4
-SPACE-				9	A	10	20A	1920		ENERSYS ALPHA CORDEX
-SPACE-				11	B	12			1920	RECTIFIER 5
-SPACE-				13	A	14				-SPACE-
-SPACE-				15	B	16				-SPACE-
-SPACE-				17	A	18				-SPACE-
-SPACE-				19	B	20				-SPACE-
-SPACE-				21	A	22				-SPACE-
-SPACE-				23	B	24				-SPACE-
VOLTAGE AMPS	180	180						9500	9500	

200A MCB, 1ϕ, 24 SPACE, 120/240V	L1	L2	
MB RATING: 65,000 AIC	9680	9680	VOLTAGE AMPS
	81	81	AMPS
	81		MAX AMPS
	102		MAX 125%

PANEL SCHEDULE — NO SCALE — 2

NOT USED — NO SCALE — 3

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3/7/22
STATE OF CONNECTICUT — CHAD TUTTLE — No. 23924 LICENSED PROFESSIONAL ENGINEER

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	MRE	BEH

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS

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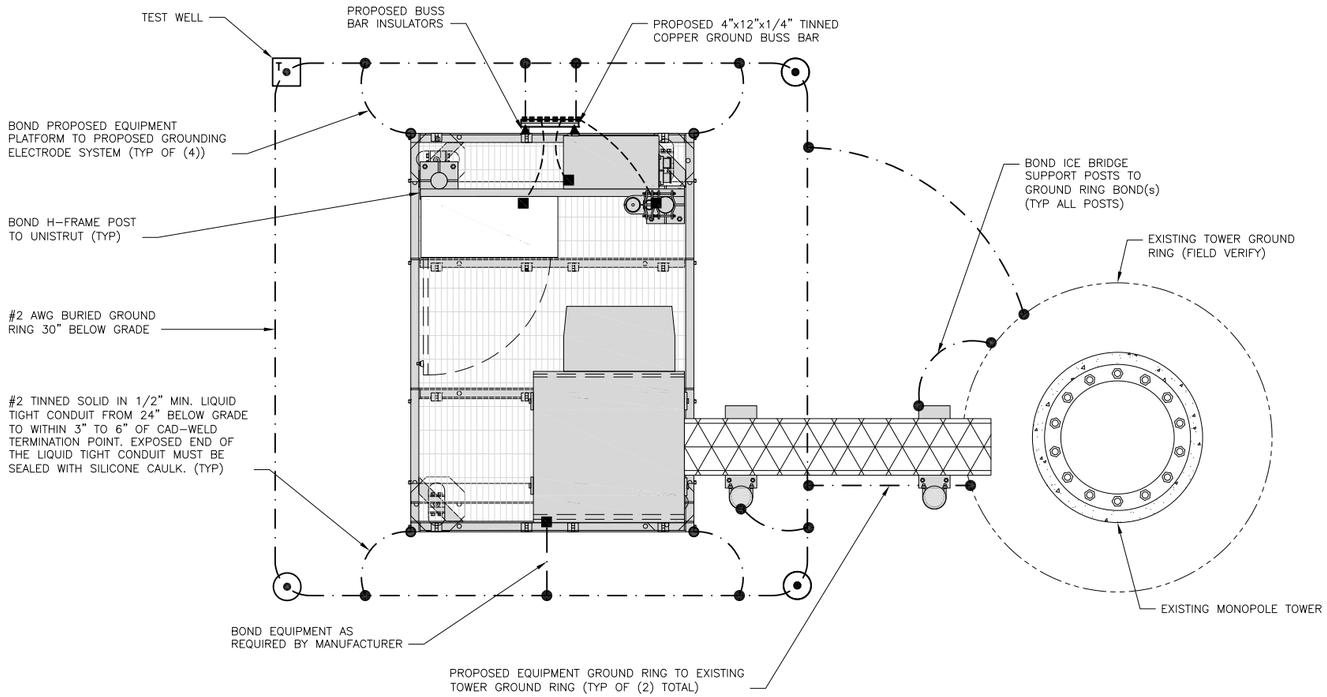
A&E PROJECT NUMBER
149437.001.01

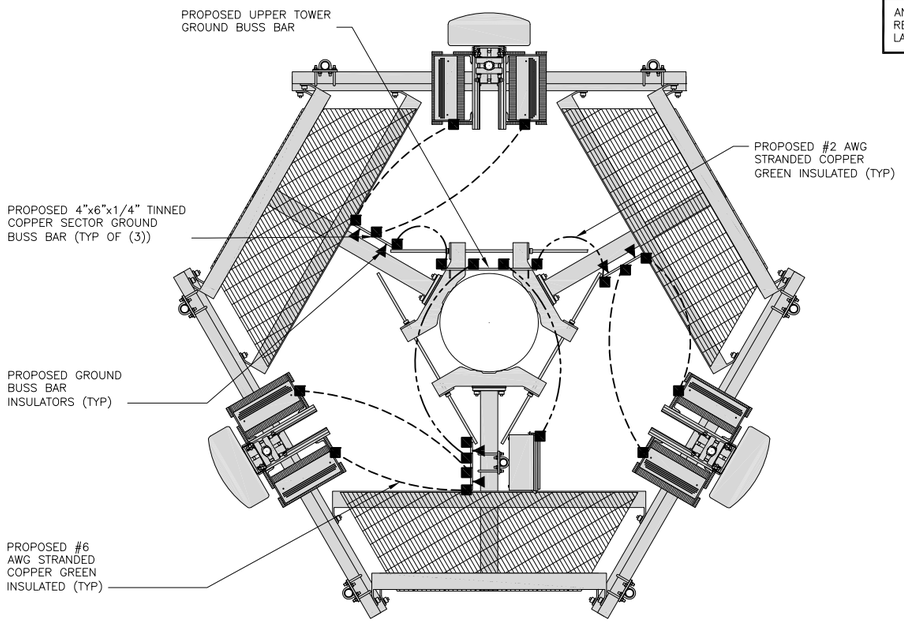
DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE
ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE

SHEET NUMBER
E-3



TYPICAL EQUIPMENT GROUNDING PLAN | NO SCALE | 1



TYPICAL ANTENNA GROUNDING PLAN | NO SCALE | 2

NOTES

ANTENNAS AND OVP SHOWN ARE GENERIC AND NOT REFERENCING TO A SPECIFIC MANUFACTURER. THIS LAYOUT IS FOR REFERENCE PURPOSES ONLY

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- GROUND BUS BAR
- GROUND ROD
- TEST GROUND ROD WITH INSPECTION SLEEVE
- #6 AWG STRANDED & INSULATED
- #2 AWG SOLID COPPER TINNED
- #2 AWG STRANDED & INSULATED
- BUSS BAR INSULATOR

GROUNDING LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH Wireless L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.

GROUNDING KEY NOTES

(A) EXTERIOR GROUND RING: #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.

(B) TOWER GROUND RING: THE GROUND RING SYSTEM SHALL BE INSTALLED AROUND AN ANTENNA TOWER'S LEGS, AND/OR GUY ANCHORS. WHERE SEPARATE SYSTEMS HAVE BEEN PROVIDED FOR THE TOWER AND THE BUILDING, AT LEAST TWO BONDS SHALL BE MADE BETWEEN THE TOWER RING GROUND SYSTEM AND THE BUILDING RING GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.

(C) INTERIOR GROUND RING: #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.

(D) BOND TO INTERIOR GROUND RING: #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING.

(E) GROUND ROD: UL LISTED COPPER CLAD STEEL. MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.

(F) CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.

(G) HATCH PLATE GROUND BAR: BOND TO THE INTERIOR GROUND RING WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.

(H) EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE.

(I) TELCO GROUND BAR: BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.

(J) FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.

(K) INTERIOR UNIT BONDS: METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.

(L) FENCE AND GATE GROUNDING: METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.

(M) EXTERIOR UNIT BONDS: METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE EXTERIOR GROUND RING. USING #2 TINNED SOLID COPPER WIRE

(N) ICE BRIDGE SUPPORTS: EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.

(O) DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR

(P) TOWER TOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO PROPOSED ANTENNA MOUNT COLLAR.

REFER TO DISH Wireless L.L.C. GROUNDING NOTES.

GROUNDING KEY NOTES | NO SCALE | 3

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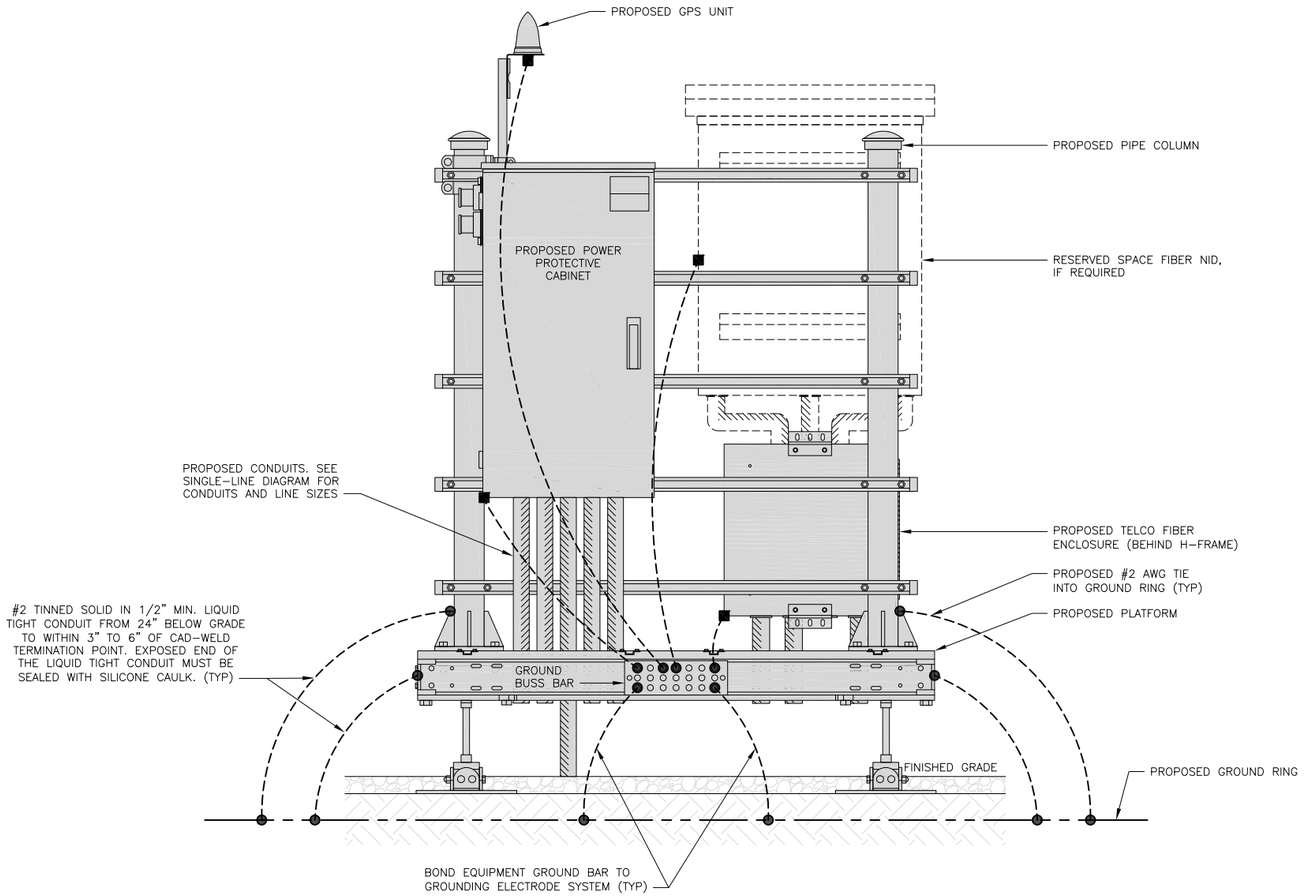
DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE
GROUNDING PLANS AND NOTES

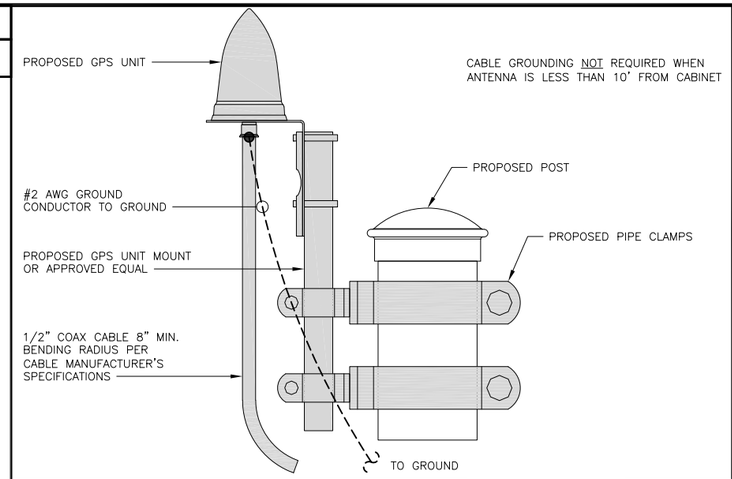
SHEET NUMBER
G-1

NOTES

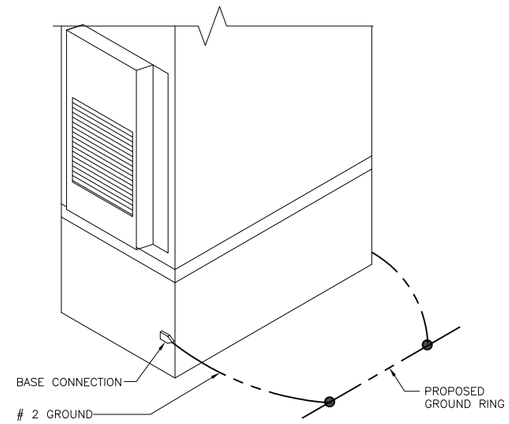
EQUIPMENT CABINET OMITTED FOR CLARITY



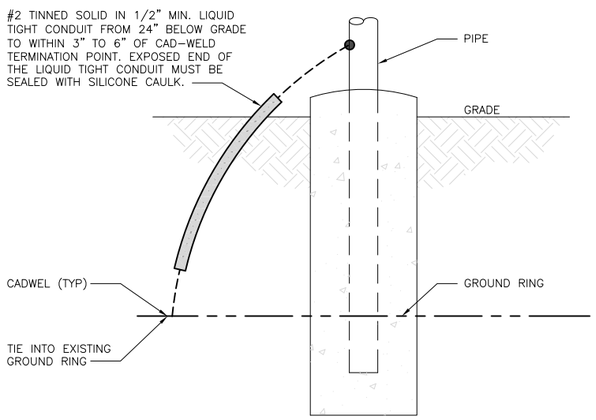
H-FRAME GROUNDING DETAIL | NO SCALE | 1



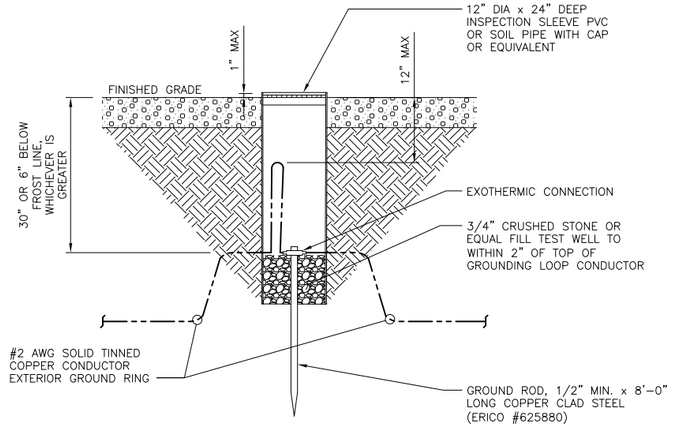
TYPICAL GPS UNIT GROUNDING | NO SCALE | 2



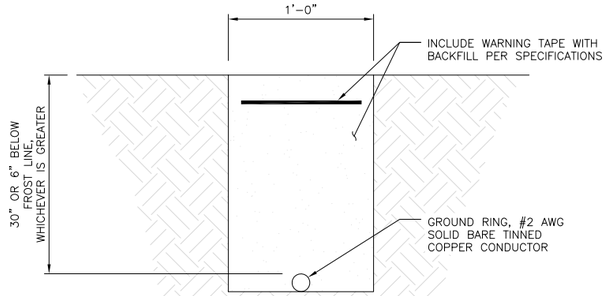
OUTDOOR CABINET GROUNDING | NO SCALE | 3



TRANSITIONING GROUND DETAIL | NO SCALE | 4



TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE | NO SCALE | 5



TYPICAL GROUND RING TRENCH | NO SCALE | 6

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3/7/22

STATE OF CONNECTICUT · CHAD E. TYLER · No. 23924 · LICENSED PROFESSIONAL ENGINEER

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DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE

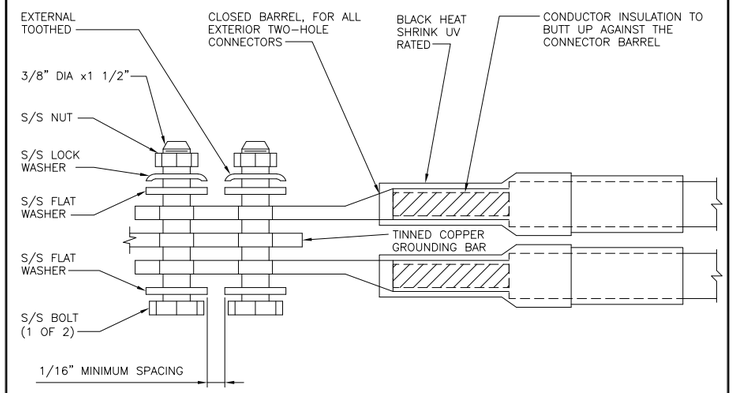
GROUNDING DETAILS

SHEET NUMBER

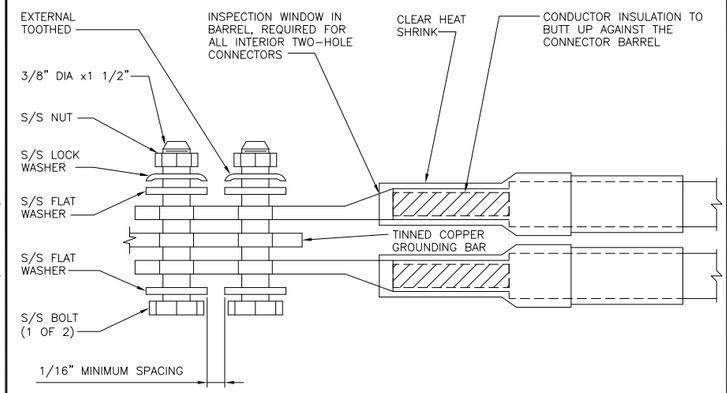
G-2

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR, ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
5. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.
8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).

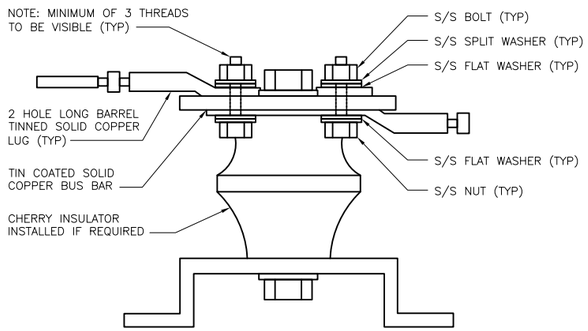
TYPICAL GROUNDING NOTES | NO SCALE | 1



TYPICAL EXTERIOR TWO HOLE LUG | NO SCALE | 2



TYPICAL INTERIOR TWO HOLE LUG | NO SCALE | 3



LUG DETAIL | NO SCALE | 4

NOT USED | NO SCALE | 5

NOT USED | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

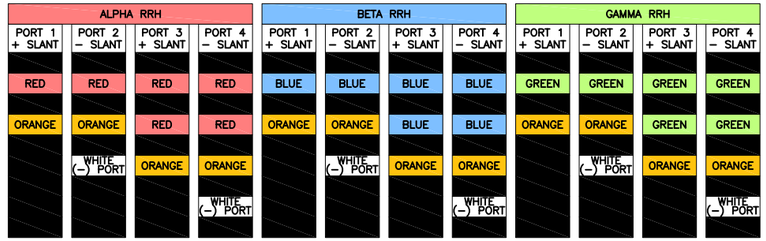
G-3

HYBRID/DISCREET CABLES

3/4" TAPE WIDTHS WITH 3/4" SPACING

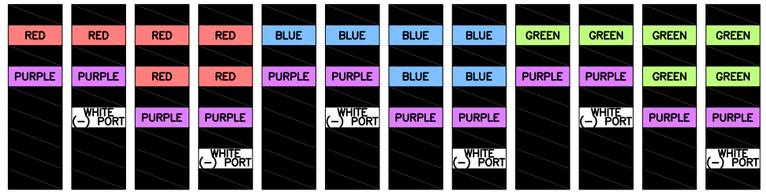
LOW–BAND RRH
(600 MHz N71 BASEBAND) +
(850 MHz N26 BAND) +
(700 MHz N29 BAND) – OPTIONAL PER MARKET

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BAND)



MID–BAND RRH
(AWS BANDS N66+N70)

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BANDS)



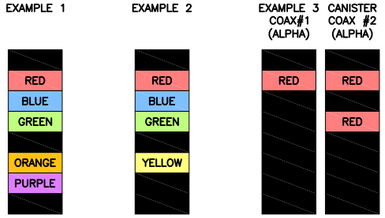
HYBRID/DISCREET CABLES

INCLUDE SECTOR BANDS BEING SUPPORTED ALONG WITH FREQUENCY BANDS.

EXAMPLE 1 – HYBRID, OR DISCREET, SUPPORTS ALL SECTORS, BOTH LOW–BANDS AND MID–BANDS.

EXAMPLE 2 – HYBRID, OR DISCREET, SUPPORTS CBRS ONLY, ALL SECTORS.

EXAMPLE 3 – MAIN COAX WITH GROUND MOUNTED RRHs.



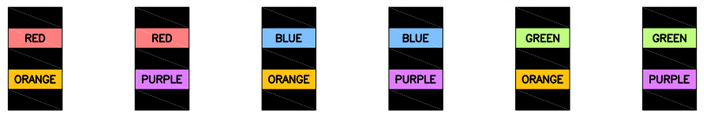
CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RD DETAILS. FINAL RFDS IS IN NEXSYSONE.

FIBER JUMPERS TO RRHs

LOW–BAND HHR FIBER CABLES HAVE SECTOR STRIPE ONLY.

POWER CABLES TO RRHs

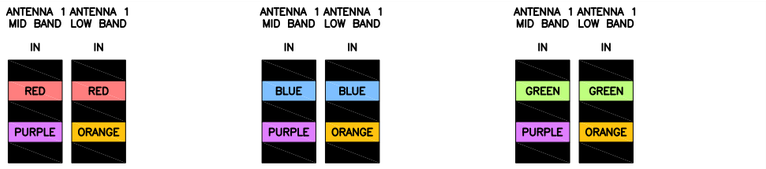
LOW–BAND RRH POWER CABLES HAVE SECTOR STRIPE ONLY



RET MOTORS AT ANTENNAS

RET CONTROL IS HANDLED BY THE MID–BAND RRH WHEN ONE SET OF RET PORTS EXIST ON ANTENNA.

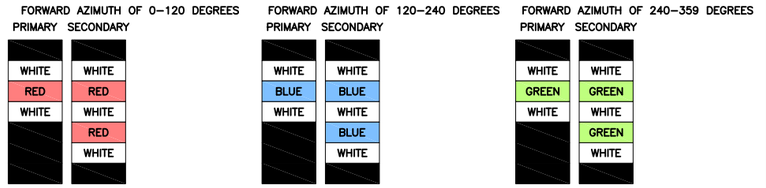
SEPARATE RET CABLES ARE USED WHEN ANTENNA PORTS PROVIDE INPUTS FOR BOTH LOW AND MID BANDS.



MICROWAVE RADIO LINKS

LINKS WILL HAVE A 1.5–2 INCH WHITE WRAP WITH THE AZIMUTH COLOR OVERLAPPING IN THE MIDDLE.
ADD ADDITIONAL SECTOR COLOR BANDS FOR EACH ADDITIONAL MW RADIO.

MICROWAVE CABLES WILL REQUIRE P–TOUCH LABELS INSIDE THE CABINET TO IDENTIFY THE LOCAL AND REMOTE SITE ID's.



RF CABLE COLOR CODES | NO SCALE | 1

LOW BANDS (N71+N26) OPTIONAL – (N29): ORANGE

AWS (N66+N70+H–BLOCK): PURPLE

CBRS TECH (3 GHz): YELLOW

NEGATIVE SLANT PORT ON ANT/RRH: WHITE

ALPHA SECTOR: RED

BETA SECTOR: BLUE

GAMMA SECTOR: GREEN

COLOR IDENTIFIER | NO SCALE | 2

NOT USED | NO SCALE | 3

NOT USED | NO SCALE | 4

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PROJECT INFORMATION

BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE
RF
CABLE COLOR CODES

SHEET NUMBER
RF-1

EXOTHERMIC CONNECTION

MECHANICAL CONNECTION

BUSS BAR INSULATOR

CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

EXOTHERMIC WITH INSPECTION SLEEVE

GROUNDING BAR

GROUND ROD

TEST GROUND ROD WITH INSPECTION SLEEVE

SINGLE POLE SWITCH

DUPLEX RECEPTACLE

DUPLEX GFCI RECEPTACLE

FLUORESCENT LIGHTING FIXTURE (2) TWO LAMPS 48–T8

SMOKE DETECTION (DC)

EMERGENCY LIGHTING (DC)

SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW LED–1–25A400/51K–SR4–120–PE–DDBTXD

CHAIN LINK FENCE

WOOD/WROUGHT IRON FENCE

WALL STRUCTURE

LEASE AREA

PROPERTY LINE (PL)

SETBACKS

ICE BRIDGE

CABLE TRAY

WATER LINE

UNDERGROUND POWER

UNDERGROUND TELCO

OVERHEAD POWER

OVERHEAD TELCO

UNDERGROUND TELCO/POWER

ABOVE GROUND POWER

ABOVE GROUND TELCO

ABOVE GROUND TELCO/POWER

WORKPOINT

W.P.

SECTION REFERENCE

XX
X–X

DETAIL REFERENCE

XX
X–X

LEGEND

AB	ANCHOR BOLT
ABV	ABOVE
AC	ALTERNATING CURRENT
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AGL	ABOVE GROUND LEVEL
AIC	AMPERAGE INTERRUPTION CAPACITY
ALUM	ALUMINUM
ALT	ALTERNATE
ANT	ANTENNA
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BATT	BATTERY
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BTC	BARE TINNED COPPER CONDUCTOR
BOF	BOTTOM OF FOOTING
CAB	CABINET
CANT	CANTILEVERED
CHG	CHARGING
CLG	CEILING
CLR	CLEAR
COL	COLUMN
COMM	COMMON
CONC	CONCRETE
CONSTR	CONSTRUCTION
DBL	DOUBLE
DC	DIRECT CURRENT
DEPT	DEPARTMENT
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DWG	DRAWING
DWL	DOWEL
EA	EACH
EC	ELECTRICAL CONDUCTOR
EL.	ELEVATION
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ENG	ENGINEER
EQ	EQUAL
EXP	EXPANSION
EXT	EXTERIOR
EW	EACH WAY
FAB	FABRICATION
FF	FINISH FLOOR
FG	FINISH GRADE
FIF	FACILITY INTERFACE FRAME
FIN	FINISH(ED)
FLR	FLOOR
FDN	FOUNDATION
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FOW	FACE OF WALL
FS	FINISH SURFACE
FT	FOOT
FTG	FOOTING
GA	GAUGE
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GLB	GLUE LAMINATED BEAM
GLV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE
HDG	HOT DIPPED GALVANIZED
HDR	HEADER
HGR	HANGER
HVAC	HEAT/VENTILATION/AIR CONDITIONING
HT	HEIGHT
IGR	INTERIOR GROUND RING
IN	INCH
INT	INTERIOR
LB(S)	POUND(S)
LF	LINEAR FEET
LTE	LONG TERM EVOLUTION
MAS	MASONRY
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
MTS	MANUAL TRANSFER SWITCH
MW	MICROWAVE
NEC	NATIONAL ELECTRIC CODE
NM	NEWTON METERS
NO.	NUMBER
#	NUMBER
NTS	NOT TO SCALE
OC	ON–CENTER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OPNG	OPENING
P/C	PRECAST CONCRETE
PCS	PERSONAL COMMUNICATION SERVICES
PCU	PRIMARY CONTROL UNIT
PRC	PRIMARY RADIO CABINET
PP	POLARIZING PRESERVING
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PWR	POWER CABINET
QTY	QUANTITY
RAD	RADIUS
RECT	RECTIFIER
REF	REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
RET	REMOTE ELECTRIC TILT
RF	RADIO FREQUENCY
RMC	RIGID METALLIC CONDUIT
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
RWY	RACEWAY
SCH	SCHEDULE
SHT	SHEET
SIAD	SMART INTEGRATED ACCESS DEVICE
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
TEMP	TEMPORARY
THK	THICKNESS
TMA	TOWER MOUNTED AMPLIFIER
TN	TOE NAIL
TOA	TOP OF ANTENNA
TOC	TOP OF CURB
TOF	TOP OF FOUNDATION
TOP	TOP OF PLATE (PARAPET)
TOS	TOP OF STEEL
TOW	TOP OF WALL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
UPS	UNITERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
VIF	VERIFIED IN FIELD
W	WIDE
W/	WITH
WD	WOOD
WP	WEATHERPROOF
WT	WEIGHT

ABBREVIATIONS

dish wireless.
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3/7/22

STATE OF CONNECTICUT
CHAD TUTTLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	MRE	BEH

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	11/10/21	ISSUED FOR REVIEW
0	3/7/22	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER

149437.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE

LEGEND AND ABBREVIATIONS

SHEET NUMBER

GN-1

SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH Wireless L.L.C. AND TOWER OWNER NOC & THE DISH Wireless L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.

2. "LOOK UP" – DISH Wireless L.L.C. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:

THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH Wireless L.L.C. AND DISH Wireless L.L.C. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.

3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.

4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH Wireless L.L.C. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).

5. ALL SITE WORK TO COMPLY WITH DISH Wireless L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH Wireless L.L.C. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."

6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH Wireless L.L.C. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

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

9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.

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

11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.

12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

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

14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.

15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.

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

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

18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

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

20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

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

GENERAL NOTES:

1.FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION

CARRIER:DISH Wireless L.L.C.

TOWER OWNER:TOWER OWNER

2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.

3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.

4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.

5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.

6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CARRIER POC AND TOWER OWNER.

7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

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

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

10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.

12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF DISH Wireless L.L.C. AND TOWER OWNER

13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

dish wireless.

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3/7/22
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CHAD E. TUTTLE
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B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	MRE	BEH

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	11/10/21	ISSUED FOR REVIEW
0	3/7/22	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER

149437.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

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

2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.

3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.

4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.

5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:

#4 BARS AND SMALLER 40 ksi

#5 BARS AND LARGER 60 ksi

6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
- CONCRETE EXPOSED TO EARTH OR WEATHER:
- #6 BARS AND LARGER 2"
- #5 BARS AND SMALLER 1-1/2"
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
- SLAB AND WALLS 3/4"
- BEAMS AND COLUMNS 1-1/2"

7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.

2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.

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

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

4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.

4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.

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

6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).

7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.

8. TIE WRAPS ARE NOT ALLOWED.

9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.

12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).

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

15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.

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

19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.

20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.

21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).

22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).

23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.

24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.

25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.

26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.

27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH Wireless L.L.C. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

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

29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH Wireless L.L.C.".

30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

SBA

8051 CONGRESS AVENUE
BOCA RATON, FL 33487

B+T GRP

1717 S. BOULDER
SUITE 300
TULSA, OK 74119
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www.btgrp.com

3/7/22

STATE OF CONNECTICUT
CHAD CASTLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	MRE	BEH

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	11/10/21	ISSUED FOR REVIEW
0	3/7/22	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER

149437.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-3

GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.

2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.

3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.

4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.

6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.

7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.

8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.

9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.

10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.

11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.

12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.

13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.

14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.

15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.

16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.

17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.

19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).

21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.

dish wireless.

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A&E PROJECT NUMBER

149437.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS00590A
398 POMFRET STREET
POMFRET, CT 06258

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-4

Exhibit D

Structural Analysis Report

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

Structural Analysis Report

Existing 168 ft SUMMIT Monopole
Customer Name: SBA Communications Corp
Customer Site Number: CT02217-S
Customer Site Name: Pomfret School
Carrier Name: Dish Wireless (App#: 167062-3)
Carrier Site ID / Name: BOBOS00590A / 0
Site Location: 398 Pomfret Street
Pomfret, Connecticut
Windham County
Latitude: 41.890094
Longitude: -71.955008

Analysis Result:

Max Structural Usage: 85.3% [Pass]
Max Foundation Usage: 73.0% [Pass]
Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Kevin Azisllari

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

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Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Kevin Azisllari

Introduction

The purpose of this report is to summarize the analysis results on the 168 ft SUMMIT 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	Original shaft section data prepared by Summit, LLC & Paul J. Ford and Company. Dated 11-23-1999. Job No 29299-802. Design No 5762. Previous structural report prepared by FDH Engineering, Inc. Dated 11-14-2014. Project No 146GSJ1400.
Foundation Drawing	Foundation mapping report prepared by FDH Engineering, Inc. Dated 08-21-2012. Project No 1201570EN1.
Geotechnical Report	Geotechnical report prepared by FDH Engineering, Inc. Dated 09-12-2012. Project No 1201570EG1.
Modification Drawings	N/A
Mount Analysis	N/A

Analysis Criteria

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

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed V_{ult} = 130.0 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 101.0 mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" 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:	C
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	S_S = 0.172, S_1 = 0.063

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

Existing Antennas, Mounts and Transmission Lines

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	167.0	3	RFS APXVTM14-C-I20 - Panel	Low Profile Platform w/ Reinforcement Kit (Site Pro PRK-1245L), V-Brace Kit (Site Pro PRK-SFS-H-L), (3) Pipe2.0STD x 15' Horizontal Rail, (3) Pipe2.0STD x 4' Long Corner Braces, & (6) Pipe2.0STD Mount Pipes	(4) 1-1/4" Fiber	Sprint Nextel
2		3	Commscope NNVV-65B-R4 - Panel			
3		3	ALU 1900 Mhz RRU's			
4		6	ALU 800 Mhz RRU's			
5		3	ALU TD-RRH8x20-25 RRU's			
6	157.0	3	Commscope LNX6514DS-AIM - Panel	Platform w/ Handrails w/ (3) Mount Equipment (JMA 91900314-02) + Modifications	(6) 1 5/8" Coax. (2) 1 5/8" Hybrid	Verizon
7		6	JMA Wireless MX06FRO660-03 - Panel			
8		3	Samsung MT6407-77A - Panel			
9		3	Samsung B2/B66A RRU's			
10		3	Samsung B5/B13 RRU's			
11		1	Raycap RVZDC-6627-PF-48 DC Surge			
12	147.0	3	Ericsson - AIR6449 B41 - Panel	Low Profile Platform w/ Reinforcement Kit (Site Pro PRK-1245)	(7) 1 5/8" Coax. (3) 1 5/8" Fiber (1) 1.9" Fiber	T-Mobile
13		3	RFS APXVAARR24_43-U-NA20 - Panel			
14		3	Commscope - VV-65A-R1 - Panel			
15		3	Ericsson KRY 112 489/2 TMA's			
16		3	Allen Telecom FE15501P77/75 TMA's			
17		3	Ericsson 4449 B71 + B85 - RRU			
18		3	Ericsson 4460 B25 + B66 - RRU			
19		3	Kathrein 782 11056 Bias Ts			

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
20	135.0	3	Commscope FFVV-65B-R2 - Panel	Platform w/HRK (Commscope MC-PK8-C)	(1) 1.6" Hybrid	Dish Wireless
21		3	Fujitsu TA08025-B605 - RRU			
22		3	Fujitsu TA08025-B604 - RRU			
23		1	Raycap RDIDC-9181-PF-48 - OVP			

All transmission lines are considered running inside of the pole shafts.

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:	**85.3%**	**77.3%**	**73.4%**
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	5282.7	41.9	55.4

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

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.5216 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

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

Standard Conditions

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

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

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

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

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

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

Usage Diagram - Max Ratio 85.28% at 87.8ft

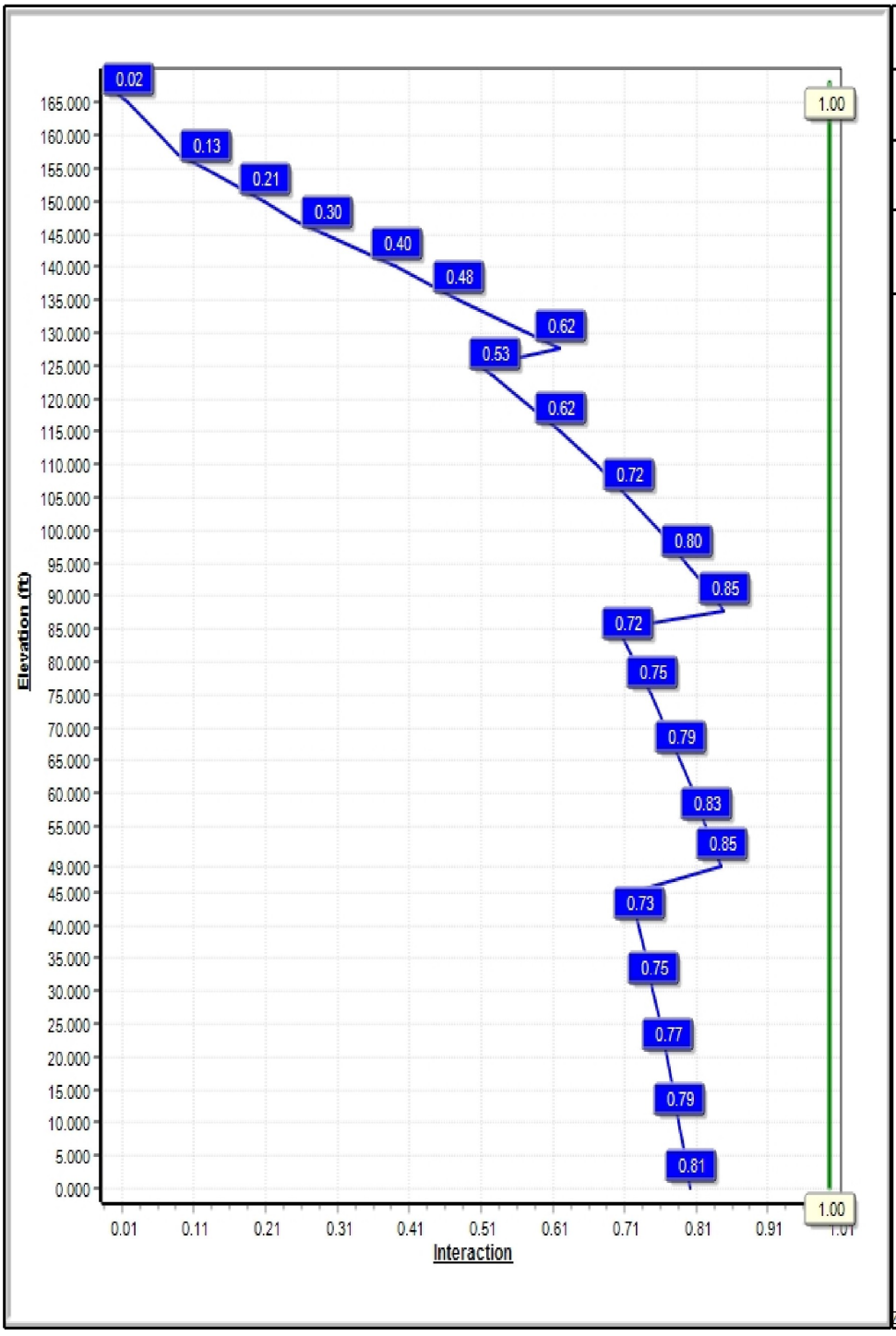
Structure:	CT02217-S-SBA	**Code:**	EIA/TIA-222-G	5/9/2022
Site Name:	Pomfret School	**Exposure:**	C	
Height:	168.00 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

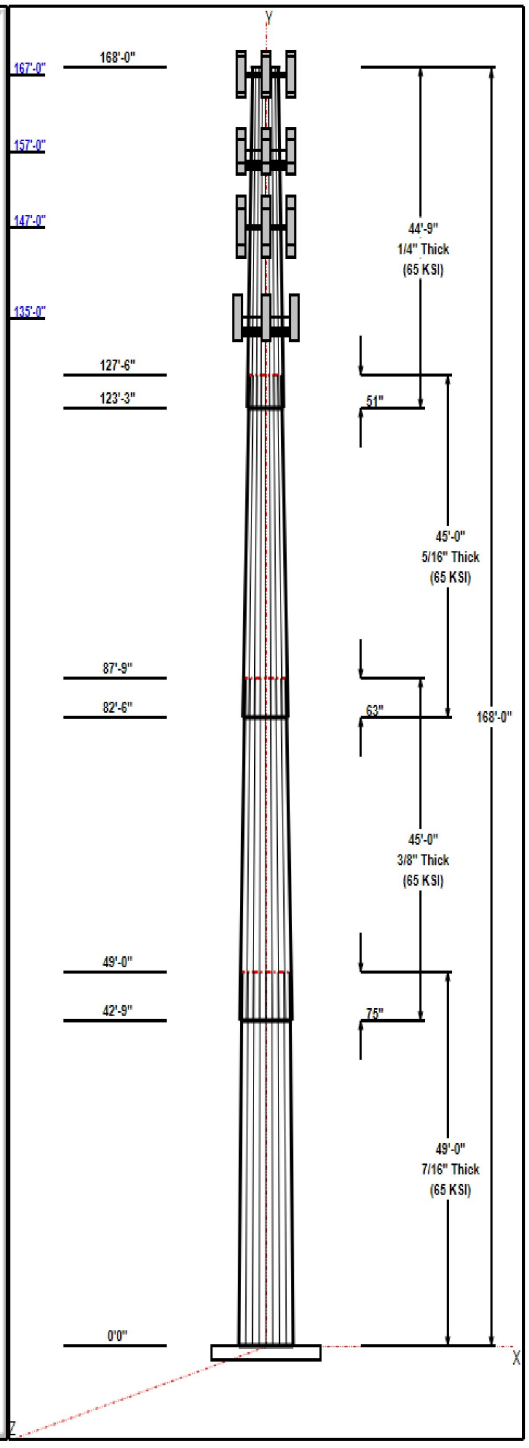
Tower Engineering Solutions

Dead Load Factor:	1.20
Wind Load Factor:	1.60

Load Case : 1.2D + 1.6W 101 mph Wind

Iterations: 25





Structure: CT02217-S-SBA

Type: Tapered
Site Name: Pomfret School
Height: 168.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.22003

5/9/2022

Tower Engineering Solutions

Shaft Properties

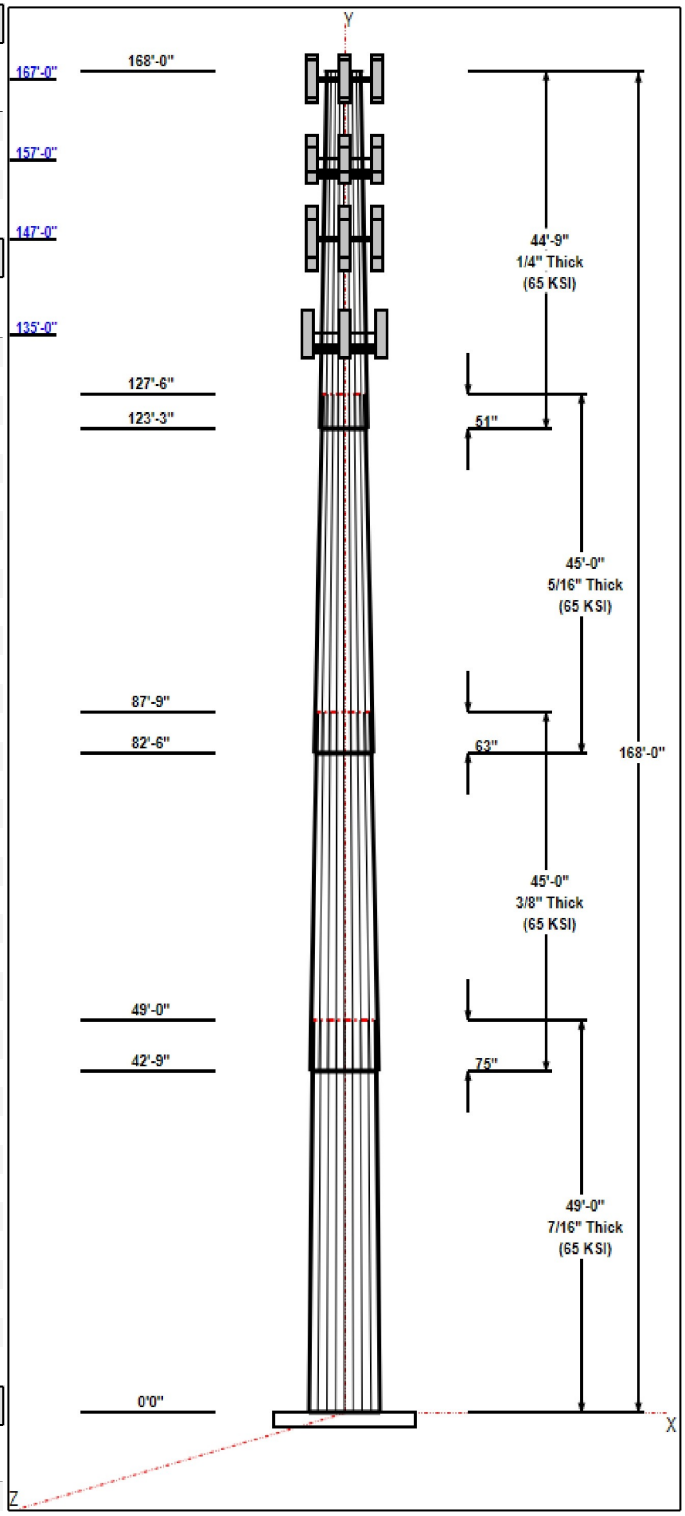
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	49.00	48.31	59.09	0.438		0.22003	65
2	45.00	40.53	50.43	0.375	Slip	0.22003	65
3	45.00	32.41	42.31	0.313	Slip	0.22003	65
4	44.75	24.00	33.85	0.250	Slip	0.22003	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
168.00	170.50	1	Lightning Rod	---
167.00	167.00	3	RFS APXVTM14-C-I20	Sprint Nextel
167.00	167.00	3	Commscope	Sprint Nextel
167.00	167.00	3	ALU 1900 Mhz RRU's	Sprint Nextel
167.00	167.00	6	ALU 800 Mhz RRU's	Sprint Nextel
167.00	167.00	3	ALU TD-RRH8x20-25	Sprint Nextel
167.00	167.00	1	Reinforcement Kit (Site	Sprint Nextel
167.00	167.00	1	V-Brace Kit (Site Pro	Sprint Nextel
167.00	167.00	1	Pipe2.0STD x 15'	Sprint Nextel
167.00	167.00	6	Pipe2.0STD Mount Pipes	Sprint Nextel
167.00	167.00	1	Low Profile Platform	Sprint Nextel
157.00	157.00	3	Commscope	Verizon
157.00	157.00	6	JMA Wireless	Verizon
157.00	157.00	3	Samsung MT6407-77A	Verizon
157.00	157.00	3	Samsung B2/B66A RRU's	Verizon
157.00	157.00	3	Samsung B5/B13 RRU's	Verizon
157.00	157.00	1	Raycap	Verizon
157.00	157.00	3	JMA 91900314-02	Verizon
157.00	157.00	1	Platform w/ Hand Rails	Verizon
157.00	157.00	1	Kicker Kit	Verizon
157.00	157.00	1	Monopole Collar Mount	Verizon
147.00	147.00	3	AIR6449 B41	T-Mobile
147.00	147.00	3	VV-65A-R1	T-Mobile
147.00	147.00	3	4449 B71 + B85	T-Mobile
147.00	147.00	3	4460 B25 + B66	T-Mobile
147.00	147.00	3	RFS	T-Mobile
147.00	147.00	3	Ericsson KRY 112 489/2	T-Mobile
147.00	147.00	3	Allen Telecom	T-Mobile
147.00	147.00	3	Kathrein 782 11056 Bias	T-Mobile
147.00	147.00	1	Low Profile Platform	T-Mobile
147.00	147.00	1	Reinforcement Kit (Site	T-Mobile
135.00	135.00	3	FFVV-65B-R2	Dish Wireless
135.00	135.00	3	Fujitsu TA08025-B605	Dish Wireless
135.00	135.00	3	Fujitsu TA08025-B604	Dish Wireless
135.00	135.00	1	Raycap	Dish Wireless
135.00	135.00	1	Platform w/HRK	Dish Wireless

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
3.00	167.00	Inside	1-1/4" Fiber	Sprint Nextel
3.00	157.00	Inside	1 5/8" Coax	Verizon
3.00	157.00	Inside	1 5/8" Hybrid	Verizon
3.00	147.00	Inside	1 5/8" Coax	T-Mobile
3.00	147.00	Inside	1 5/8" Fiber	T-Mobile
3.00	147.00	Inside	1.9" Fiber	T-Mobile



3.00	135.00	Inside	1.6" Hybrid	Dish Wireless

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
20	2.25" 18J	75.0	Cluster

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
3.0000	65.0	50.0	Clipped

Reactions

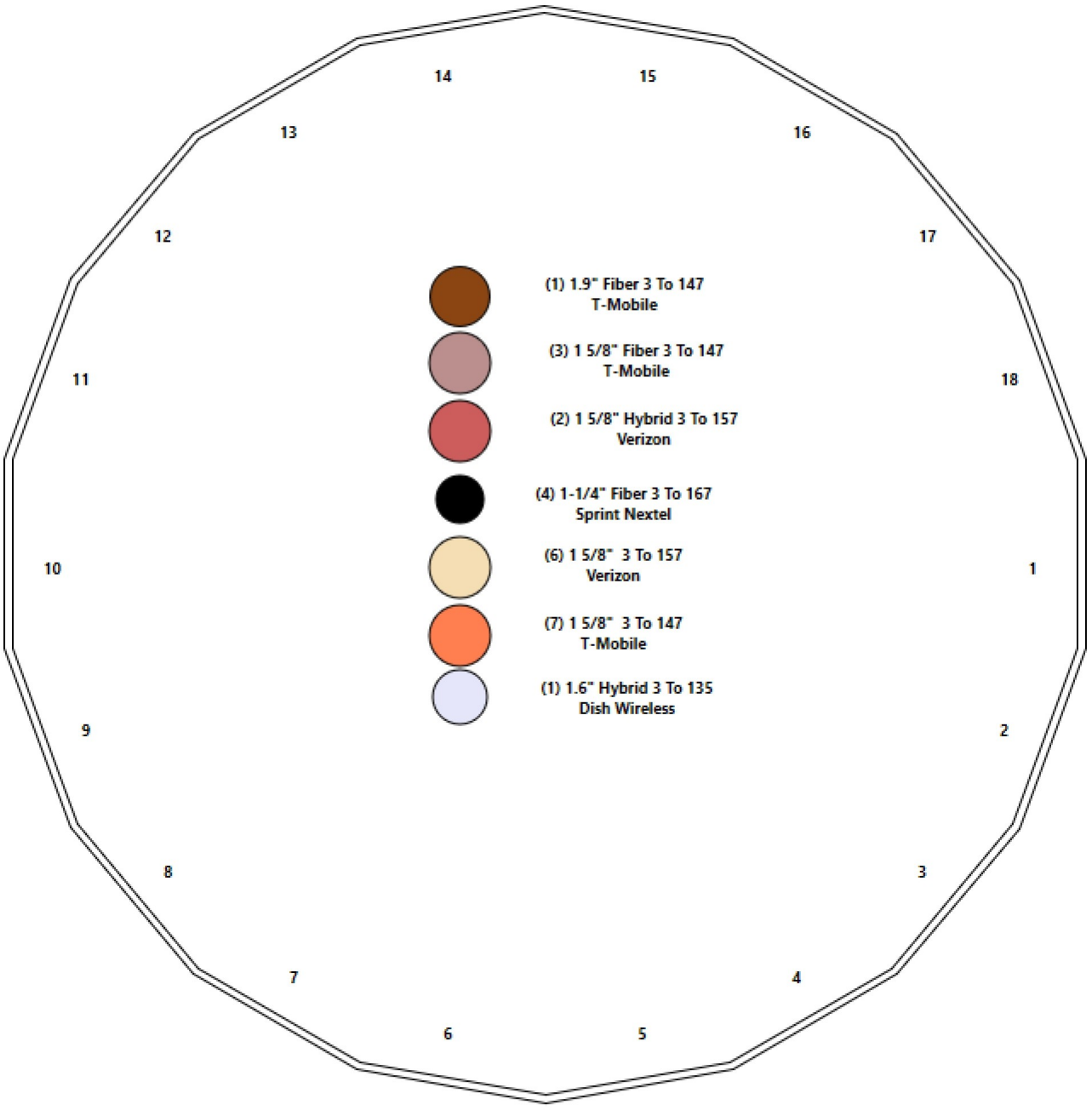
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 101 mph Wind	5282.7	41.9	55.4
0.9D + 1.6W 101 mph Wind	5212.9	41.8	41.5
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1539.5	11.8	96.1
1.2D + 1.0E	351.9	2.5	55.5
0.9D + 1.0E	346.8	2.5	41.6
1.0D + 1.0W 60 mph Wind	1157.7	9.2	46.2

Structure: CT02217-S-SBA - Coax Line Placement

Type: Monopole
Site Name: Pomfret School
Height: 168.00 (ft)

5/9/2022

Tower Engineering Solutions



Shaft Properties

Structure:	CT02217-S-SBA		**Code:**	TIA-222-G	5/9/2022
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 5

Tower Engineering Solutions

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	49.000	0.4375	65		0.00	12,331
2	18	45.000	0.3750	65	Slip	75.00	8,221
3	18	45.000	0.3125	65	Slip	63.00	5,627
4	18	44.750	0.2500	65	Slip	51.00	3,464
					Total Shaft Weight:		**29,644**

	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	59.09	0.00	81.44	35398.27	22.40	135.06	48.31	49.00	66.47	19246.0	18.06	110.4	0.220030
2	50.43	42.75	59.58	18863.19	22.30	134.49	40.53	87.75	47.80	9738.05	17.65	108.0	0.220030
3	42.31	82.50	41.66	9284.18	22.46	135.40	32.41	127.50	31.84	4144.35	16.88	103.7	0.220030
4	33.85	123.2	26.66	3801.54	22.46	135.39	24.00	168.00	18.84	1343.00	15.52	96.00	0.220030

Load Summary

Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

Tower Engineering Solutions

Discrete Appurtenances

				No Ice			Ice				
No.	Elev (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	168.00	Lightning Rod	1	35.00	1.05	1.00	77.36	4.251	1.00	0.00	2.50
2	167.00	RFS APXVTM14-C-I20	3	56.00	6.34	0.78	287.62	7.874	0.78	0.00	0.00
3	167.00	Commscope NNVV-65B-R4	3	84.70	12.27	0.73	505.85	14.232	0.73	0.00	0.00
4	167.00	ALU 1900 Mhz RRU's	3	60.00	2.38	0.67	172.45	3.849	0.67	0.00	0.00
5	167.00	ALU 800 Mhz RRU's	6	53.00	2.13	0.67	152.68	3.449	0.67	0.00	0.00
6	167.00	ALU TD-RRH8x20-25 RRU's	3	70.00	4.05	0.67	229.90	5.175	0.67	0.00	0.00
7	167.00	Reinforcement Kit (Site Pro	1	464.91	9.50	1.00	902.31	22.907	1.00	0.00	0.00
8	167.00	V-Brace Kit (Site Pro PRK-SFS-H-L)	1	230.00	6.70	1.00	662.78	16.155	1.00	0.00	0.00
9	167.00	Pipe2.0STD x 15' Horizontal Rail	1	261.72	6.75	1.00	680.32	15.641	1.00	0.00	0.00
10	167.00	Pipe2.0STD Mount Pipes	6	40.00	1.43	0.80	148.20	5.804	0.80	0.00	0.00
11	167.00	Low Profile Platform	1	1500.00	22.00	1.00	3264.05	45.803	1.00	0.00	0.00
12	157.00	Commscope LNX6514DS-AIM	3	38.80	8.17	0.83	277.37	11.951	0.83	0.00	0.00
13	157.00	JMA Wireless MX06FRO660-03	6	60.00	9.87	0.87	439.22	11.747	0.87	0.00	0.00
14	157.00	Samsung MT6407-77A	3	87.10	4.70	0.70	258.75	5.970	0.70	0.00	0.00
15	157.00	Samsung B2/B66A RRU's	3	84.40	1.88	0.67	195.59	2.663	0.67	0.00	0.00
16	157.00	Samsung B5/B13 RRU's	3	70.30	1.88	0.67	171.51	2.663	0.67	0.00	0.00
17	157.00	Raycap RVZDC-6627-PF-48 DC	1	32.00	4.06	0.67	184.60	5.161	0.67	0.00	0.00
18	157.00	JMA 91900314-02	3	28.00	0.80	0.50	54.18	1.548	0.50	0.00	0.00
19	157.00	Platform w/ Hand Rails	1	2000.00	40.00	1.00	4805.11	68.051	1.00	0.00	0.00
20	157.00	Kicker Kit	1	291.00	9.50	1.00	563.10	22.824	1.00	0.00	0.00
21	157.00	Monopole Collar Mount Assembly	1	150.00	2.50	1.00	430.51	6.006	1.00	0.00	0.00
22	147.00	AIR6449 B41	3	103.00	5.65	0.71	285.46	6.915	0.71	0.00	0.00
23	147.00	VV-65A-R1	3	23.81	7.90	0.74	222.91	7.398	0.74	0.00	0.00
24	147.00	4449 B71 + B85	3	75.00	1.97	0.67	153.72	2.728	0.67	0.00	0.00
25	147.00	4460 B25 + B66	3	104.00	2.85	0.67	195.29	3.748	0.67	0.00	0.00
26	147.00	RFS APXVAARR24_43-U-NA20	3	128.00	20.24	0.72	724.59	22.800	0.72	0.00	0.00
27	147.00	Ericsson KRY 112 489/2 TMA's	3	15.40	0.56	0.60	53.60	1.050	0.60	0.00	0.00
28	147.00	Allen Telecom FE15501P77/75	3	17.50	0.54	0.60	60.33	1.033	0.60	0.00	0.00
29	147.00	Kathrein 782 11056 Bias Ts	3	1.80	0.15	0.60	17.39	0.448	0.60	0.00	0.00
30	147.00	Low Profile Platform	1	1500.00	22.00	1.00	3241.69	45.501	1.00	0.00	0.00
31	147.00	Reinforcement Kit (Site Pro	1	464.91	9.50	1.00	896.77	22.737	1.00	0.00	0.00
32	135.00	FFVV-65B-R2	3	70.80	12.27	0.74	447.05	14.191	0.74	0.00	0.00
33	135.00	Fujitsu TA08025-B605 RRU's	3	74.95	1.96	0.67	143.91	2.700	0.67	0.00	0.00
34	135.00	Fujitsu TA08025-B604 RRU's	3	63.93	1.96	0.67	130.76	2.700	0.67	0.00	0.00
35	135.00	Raycap RDIDC-9181-PF-48 OVP	1	21.85	2.01	0.67	91.94	2.760	0.67	0.00	0.00
36	135.00	Platform w/HRK (Commscope	1	1411.00	33.60	1.00	4010.14	80.020	1.00	0.00	0.00
		Totals:	**91**	**13,052.86**			**38,015.92**				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
3.00	167.00	(4) 1-1/4" Fiber	0.00	Inside
3.00	157.00	(6) 1 5/8" Coax	0.00	Inside
3.00	157.00	(2) 1 5/8" Hybrid	0.00	Inside
3.00	147.00	(7) 1 5/8" Coax	0.00	Inside
3.00	147.00	(3) 1 5/8" Fiber	0.00	Inside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
3.00	147.00	(1) 1.9" Fiber			0.00	Inside					
3.00	135.00	(1) 1.6" Hybrid			0.00	Inside					

Shaft Section Properties

Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 8	

Tower Engineering Solutions

Increment Length: **5 (ft)**

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.4375	59.090	81.443	35398.3	22.40	135.06	75.0	1179.	0.0
5.00		0.4375	57.990	79.916	33443.5	21.96	132.55	75.6	1135.	1372.7
10.00		0.4375	56.890	78.388	31562.0	21.52	130.03	76.1	1092.	1346.7
15.00		0.4375	55.790	76.860	29752.5	21.07	127.52	76.6	1050.	1320.7
20.00		0.4375	54.689	75.333	28013.5	20.63	125.00	77.1	1008.	1294.7
25.00		0.4375	53.589	73.805	26343.6	20.19	122.49	77.7	968.2	1268.7
30.00		0.4375	52.489	72.278	24741.4	19.74	119.98	78.2	928.4	1242.7
35.00		0.4375	51.389	70.750	23205.6	19.30	117.46	78.7	889.4	1216.7
40.00		0.4375	50.289	69.222	21734.6	18.86	114.95	79.2	851.3	1190.7
42.75	Bot - Section 2	0.4375	49.684	68.382	20952.8	18.61	113.56	79.5	830.6	643.8
45.00		0.4375	49.189	67.695	20327.2	18.41	112.43	79.7	813.9	974.8
49.00	Top - Section 1	0.3750	49.059	57.943	17350.9	21.66	130.82	0.0	0.0	1708.9
50.00		0.3750	48.839	57.682	17116.7	21.55	130.24	76.0	690.3	196.7
55.00		0.3750	47.738	56.372	15977.3	21.04	127.30	76.7	659.2	970.2
60.00		0.3750	46.638	55.063	14889.6	20.52	124.37	77.3	628.8	948.0
65.00		0.3750	45.538	53.753	13852.4	20.00	121.43	77.9	599.1	925.7
70.00		0.3750	44.438	52.444	12864.6	19.48	118.50	78.5	570.2	903.4
75.00		0.3750	43.338	51.135	11924.8	18.97	115.57	79.1	542.0	881.1
80.00		0.3750	42.238	49.825	11032.0	18.45	112.63	79.7	514.4	858.9
82.50	Bot - Section 3	0.3750	41.688	49.170	10602.8	18.19	111.17	80.0	501.0	421.1
85.00		0.3750	41.137	48.516	10184.9	17.93	109.70	80.3	487.6	767.6
87.75	Top - Section 2	0.3125	41.157	40.512	8539.0	21.81	131.70	0.0	0.0	832.5
90.00		0.3125	40.662	40.021	8232.3	21.53	130.12	76.1	398.8	308.3
95.00		0.3125	39.562	38.929	7577.1	20.91	126.60	76.8	377.2	671.6
100.00		0.3125	38.462	37.838	6957.6	20.29	123.08	77.5	356.3	653.1
105.00		0.3125	37.362	36.747	6372.9	19.67	119.56	78.3	336.0	634.5
110.00		0.3125	36.262	35.656	5821.9	19.05	116.04	79.0	316.2	615.9
115.00		0.3125	35.162	34.565	5303.6	18.43	112.52	79.7	297.1	597.4
120.00		0.3125	34.061	33.474	4817.0	17.81	109.00	80.5	278.5	578.8
123.25	Bot - Section 4	0.3125	33.346	32.764	4517.2	17.40	106.71	80.9	266.8	366.3
125.00		0.3125	32.961	32.382	4361.1	17.19	105.48	81.2	260.6	351.8
127.50	Top - Section 3	0.2500	32.911	25.916	3492.9	21.80	131.64	0.0	0.0	495.5
130.00		0.2500	32.361	25.479	3319.3	21.41	129.44	76.2	202.0	218.6
135.00		0.2500	31.261	24.606	2989.7	20.64	125.04	77.1	188.4	426.1
140.00		0.2500	30.161	23.733	2682.7	19.86	120.64	78.0	175.2	411.2
145.00		0.2500	29.061	22.860	2397.4	19.09	116.24	79.0	162.5	396.4
147.00		0.2500	28.621	22.511	2289.2	18.78	114.48	79.3	157.5	154.4
150.00		0.2500	27.961	21.988	2133.1	18.31	111.84	79.9	150.3	227.1
155.00		0.2500	26.860	21.115	1889.0	17.53	107.44	80.8	138.5	366.7
157.00		0.2500	26.420	20.765	1796.9	17.22	105.68	81.1	134.0	142.5
160.00		0.2500	25.760	20.242	1664.3	16.76	103.04	81.7	127.3	209.3
165.00		0.2500	24.660	19.369	1458.1	15.98	98.64	82.5	116.5	337.0
167.00		0.2500	24.220	19.020	1380.7	15.67	96.88	82.5	112.3	130.6
168.00		0.2500	24.000	18.845	1343.0	15.52	96.00	82.5	110.2	64.4
										29643.8

Wind Loading - Shaft

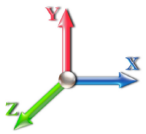
Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

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	0.85	21.088	23.20	465.60	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	21.088	23.20	456.93	0.650	0.000	5.00	24.768	16.10	597.5	0.0	1647.2
10.00		1.00	0.85	21.088	23.20	448.26	0.650	0.000	5.00	24.302	15.80	586.3	0.0	1616.0
15.00		1.00	0.85	21.088	23.20	439.59	0.650	0.000	5.00	23.837	15.49	575.0	0.0	1584.8
20.00		1.00	0.90	22.375	24.61	443.88	0.650	0.000	5.00	23.372	15.19	598.2	0.0	1553.6
25.00		1.00	0.95	23.451	25.80	445.29	0.650	0.000	5.00	22.906	14.89	614.5	0.0	1522.5
30.00		1.00	0.98	24.369	26.81	444.60	0.650	0.000	5.00	22.441	14.59	625.6	0.0	1491.3
35.00		1.00	1.01	25.172	27.69	442.40	0.650	0.000	5.00	21.975	14.28	632.8	0.0	1460.1
40.00		1.00	1.04	25.890	28.48	439.06	0.650	0.000	5.00	21.510	13.98	637.1	0.0	1428.9
42.75	Bot - Section 2	1.00	1.06	26.255	28.88	436.82	0.650	0.000	2.75	11.632	7.56	349.4	0.0	772.6
45.00		1.00	1.07	26.540	29.19	434.81	0.650	0.000	2.25	9.555	6.21	290.1	0.0	1169.8
49.00	Top - Section 1	1.00	1.09	27.020	29.72	430.88	0.650	0.000	4.00	16.754	10.89	517.9	0.0	2050.7
50.00		1.00	1.09	27.135	29.85	436.53	0.650	0.000	1.00	4.142	2.69	128.6	0.0	236.1
55.00		1.00	1.12	27.685	30.45	431.00	0.650	0.000	5.00	20.431	13.28	647.1	0.0	1164.3
60.00		1.00	1.14	28.197	31.02	424.94	0.650	0.000	5.00	19.965	12.98	644.0	0.0	1137.6
65.00		1.00	1.16	28.676	31.54	418.43	0.650	0.000	5.00	19.500	12.67	639.7	0.0	1110.8
70.00		1.00	1.17	29.127	32.04	411.52	0.650	0.000	5.00	19.034	12.37	634.2	0.0	1084.1
75.00		1.00	1.19	29.553	32.51	404.25	0.650	0.000	5.00	18.569	12.07	627.8	0.0	1057.4
80.00		1.00	1.21	29.958	32.95	396.68	0.650	0.000	5.00	18.103	11.77	620.4	0.0	1030.6
82.50	Bot - Section 3	1.00	1.22	30.152	33.17	392.78	0.650	0.000	2.50	8.877	5.77	306.2	0.0	505.3
85.00		1.00	1.22	30.342	33.38	388.82	0.650	0.000	2.50	8.893	5.78	308.7	0.0	921.1
87.75	Top - Section 2	1.00	1.23	30.546	33.60	384.39	0.650	0.000	2.75	9.648	6.27	337.1	0.0	999.0
90.00		1.00	1.24	30.710	33.78	386.65	0.650	0.000	2.25	7.789	5.06	273.6	0.0	369.9
95.00		1.00	1.25	31.061	34.17	378.33	0.650	0.000	5.00	16.971	11.03	603.1	0.0	805.9
100.00		1.00	1.27	31.399	34.54	369.80	0.650	0.000	5.00	16.506	10.73	592.9	0.0	783.7
105.00		1.00	1.28	31.723	34.89	361.08	0.650	0.000	5.00	16.040	10.43	582.1	0.0	761.4
110.00		1.00	1.29	32.035	35.24	352.16	0.650	0.000	5.00	15.575	10.12	570.8	0.0	739.1
115.00		1.00	1.30	32.336	35.57	343.08	0.650	0.000	5.00	15.109	9.82	558.9	0.0	716.8
120.00		1.00	1.32	32.627	35.89	333.84	0.650	0.000	5.00	14.644	9.52	546.6	0.0	694.6
123.25	Bot - Section 4	1.00	1.32	32.811	36.09	327.75	0.650	0.000	3.25	9.269	6.02	347.9	0.0	439.5
125.00		1.00	1.33	32.909	36.20	324.45	0.650	0.000	1.75	4.984	3.24	187.6	0.0	422.2
127.50	Top - Section 3	1.00	1.33	33.046	36.35	319.70	0.650	0.000	2.50	7.020	4.56	265.4	0.0	594.6
130.00		1.00	1.34	33.182	36.50	319.86	0.650	0.000	2.50	6.904	4.49	262.1	0.0	262.3
135.00	Appurtenance(s)	1.00	1.35	33.446	36.79	310.21	0.650	0.000	5.00	13.459	8.75	515.0	0.0	511.3
140.00		1.00	1.36	33.703	37.07	300.45	0.650	0.000	5.00	12.994	8.45	501.0	0.0	493.5
145.00		1.00	1.37	33.953	37.35	290.56	0.650	0.000	5.00	12.528	8.14	486.6	0.0	475.6
147.00	Appurtenance(s)	1.00	1.37	34.051	37.46	286.57	0.650	0.000	2.00	4.881	3.17	190.1	0.0	185.3
150.00		1.00	1.38	34.196	37.62	280.56	0.650	0.000	3.00	7.182	4.67	281.0	0.0	272.6
155.00		1.00	1.39	34.433	37.88	270.45	0.650	0.000	5.00	11.597	7.54	456.8	0.0	440.0
157.00	Appurtenance(s)	1.00	1.39	34.526	37.98	266.38	0.650	0.000	2.00	4.509	2.93	178.1	0.0	171.0
160.00		1.00	1.40	34.664	38.13	260.24	0.650	0.000	3.00	6.623	4.31	262.6	0.0	251.2
165.00		1.00	1.41	34.890	38.38	249.94	0.650	0.000	5.00	10.666	6.93	425.7	0.0	404.4
167.00	Appurtenance(s)	1.00	1.41	34.978	38.48	245.79	0.650	0.000	2.00	4.136	2.69	165.5	0.0	156.8
168.00	Appurtenance(s)	1.00	1.41	35.022	38.52	243.71	0.650	0.000	1.00	2.040	1.33	81.7	0.0	77.3
								Totals:	**168.00**			**19,253.6**		**35,572.5**

Discrete Appurtenance Forces

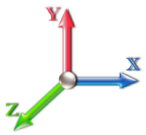
Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 10	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

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	168.00	Lightning Rod	1	35.131	38.644	1.00	1.00	1.05	42.00	0.000	2.500	64.92	0.00	162.31
2	167.00	Commscope	3	34.978	38.476	0.58	0.80	21.50	304.92	0.000	0.000	1323.39	0.00	0.00
3	167.00	V-Brace Kit (Site Pro	1	34.978	38.476	0.75	0.75	5.03	276.00	0.000	0.000	309.35	0.00	0.00
4	167.00	Pipe2.0STD x 15'	1	34.978	38.476	0.75	0.75	5.06	314.06	0.000	0.000	311.66	0.00	0.00
5	167.00	RFS APXVTM14-C-I20	3	34.978	38.476	0.62	0.80	11.87	201.60	0.000	0.000	730.64	0.00	0.00
6	167.00	Pipe2.0STD Mount Pipes	6	34.978	38.476	0.64	0.80	5.49	288.00	0.000	0.000	338.05	0.00	0.00
7	167.00	ALU 800 Mhz RRU's	6	34.978	38.476	0.54	0.80	6.85	381.60	0.000	0.000	421.70	0.00	0.00
8	167.00	ALU TD-RRH8x20-25	3	34.978	38.476	0.54	0.80	6.51	252.00	0.000	0.000	400.91	0.00	0.00
9	167.00	Reinforcement Kit (Site	1	34.978	38.476	0.75	0.75	7.13	557.89	0.000	0.000	438.63	0.00	0.00
10	167.00	Low Profile Platform	1	34.978	38.476	1.00	1.00	22.00	1800.00	0.000	0.000	1354.35	0.00	0.00
11	167.00	ALU 1900 Mhz RRU's	3	34.978	38.476	0.54	0.80	3.83	216.00	0.000	0.000	235.60	0.00	0.00
12	157.00	Raycap	1	34.526	37.979	0.50	0.75	2.04	38.40	0.000	0.000	123.97	0.00	0.00
13	157.00	Samsung B2/B66A RRU's	3	34.526	37.979	0.50	0.75	2.83	303.84	0.000	0.000	172.22	0.00	0.00
14	157.00	Samsung B5/B13 RRU's	3	34.526	37.979	0.50	0.75	2.83	253.08	0.000	0.000	172.22	0.00	0.00
15	157.00	Monopole Collar Mount	1	34.526	37.979	1.00	1.00	2.50	180.00	0.000	0.000	151.92	0.00	0.00
16	157.00	JMA 91900314-02	3	34.526	37.979	0.38	0.75	0.90	100.80	0.000	0.000	54.69	0.00	0.00
17	157.00	Platform w/ Hand Rails	1	34.526	37.979	1.00	1.00	40.00	2400.00	0.000	0.000	2430.66	0.00	0.00
18	157.00	Kicker Kit	1	34.526	37.979	1.00	1.00	9.50	349.20	0.000	0.000	577.28	0.00	0.00
19	157.00	Samsung MT6407-77A	3	34.526	37.979	0.52	0.75	7.40	313.56	0.000	0.000	449.82	0.00	0.00
20	157.00	Commscope	3	34.526	37.979	0.62	0.75	15.26	139.68	0.000	0.000	927.14	0.00	0.00
21	157.00	JMA Wireless	6	34.526	37.979	0.65	0.75	38.64	432.00	0.000	0.000	2348.08	0.00	0.00
22	147.00	RFS	3	34.051	37.456	0.54	0.75	32.79	460.80	0.000	0.000	1965.04	0.00	0.00
23	147.00	AIR6449 B41	3	34.051	37.456	0.53	0.75	9.03	370.80	0.000	0.000	540.92	0.00	0.00
24	147.00	VV-65A-R1	3	34.051	37.456	0.55	0.75	13.15	85.72	0.000	0.000	788.29	0.00	0.00
25	147.00	4449 B71 + B85	3	34.051	37.456	0.50	0.75	2.97	270.00	0.000	0.000	177.98	0.00	0.00
26	147.00	4460 B25 + B66	3	34.051	37.456	0.50	0.75	4.30	374.40	0.000	0.000	257.48	0.00	0.00
27	147.00	Ericsson KRY 112 489/2	3	34.051	37.456	0.45	0.75	0.76	55.44	0.000	0.000	45.31	0.00	0.00
28	147.00	Allen Telecom	3	34.051	37.456	0.45	0.75	0.73	63.00	0.000	0.000	43.69	0.00	0.00
29	147.00	Kathrein 782 11056 Bias	3	34.051	37.456	0.48	0.80	0.22	6.48	0.000	0.000	12.94	0.00	0.00
30	147.00	Low Profile Platform	1	34.051	37.456	1.00	1.00	22.00	1800.00	0.000	0.000	1318.47	0.00	0.00
31	147.00	Reinforcement Kit (Site	1	34.051	37.456	0.75	0.75	7.13	557.89	0.000	0.000	427.00	0.00	0.00
32	135.00	Platform w/HRK	1	33.446	36.791	1.00	1.00	33.60	1693.20	0.000	0.000	1977.88	0.00	0.00
33	135.00	Raycap	1	33.446	36.791	0.50	0.75	1.01	26.22	0.000	0.000	59.46	0.00	0.00
34	135.00	Fujitsu TA08025-B604	3	33.446	36.791	0.50	0.75	2.95	230.15	0.000	0.000	173.93	0.00	0.00
35	135.00	Fujitsu TA08025-B605	3	33.446	36.791	0.50	0.75	2.95	269.82	0.000	0.000	173.93	0.00	0.00
36	135.00	FFVV-65B-R2	3	33.446	36.791	0.55	0.75	20.43	254.88	0.000	0.000	1202.59	0.00	0.00
							Totals:		**15,663.43**			**22,502.12**		

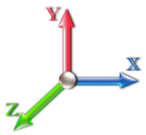
Total Applied Force Summary

Structure:	CT02217-S-SBA		**Code:**	TIA-222-G	5/9/2022
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 11

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

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
5.00		597.50	1704.33	0.00	0.00
10.00		586.27	1758.82	0.00	0.00
15.00		575.05	1727.63	0.00	0.00
20.00		598.23	1696.44	0.00	0.00
25.00		614.52	1665.25	0.00	0.00
30.00		625.59	1634.06	0.00	0.00
35.00		632.82	1602.87	0.00	0.00
40.00		637.08	1571.68	0.00	0.00
42.75		349.37	851.13	0.00	0.00
45.00		290.11	1234.05	0.00	0.00
49.00		517.89	2164.90	0.00	0.00
50.00		128.58	264.63	0.00	0.00
55.00		647.08	1307.10	0.00	0.00
60.00		644.02	1280.37	0.00	0.00
65.00		639.70	1253.63	0.00	0.00
70.00		634.25	1226.90	0.00	0.00
75.00		627.79	1200.16	0.00	0.00
80.00		620.43	1173.43	0.00	0.00
82.50		306.21	576.69	0.00	0.00
85.00		308.69	992.47	0.00	0.00
87.75		337.14	1077.57	0.00	0.00
90.00		273.64	434.20	0.00	0.00
95.00		603.06	948.75	0.00	0.00
100.00		592.89	926.47	0.00	0.00
105.00		582.12	904.19	0.00	0.00
110.00		570.79	881.91	0.00	0.00
115.00		558.93	859.63	0.00	0.00
120.00		546.59	837.36	0.00	0.00
123.25		347.92	532.34	0.00	0.00
125.00		187.62	472.14	0.00	0.00
127.50		265.41	665.97	0.00	0.00
130.00		262.08	333.73	0.00	0.00
135.00	(11) attachments	4102.77	3128.36	0.00	0.00
140.00		500.99	625.35	0.00	0.00
145.00		486.62	607.53	0.00	0.00
147.00	(26) attachments	5767.27	4282.55	0.00	0.00
150.00		280.96	312.44	0.00	0.00
155.00		456.83	506.48	0.00	0.00
157.00	(25) attachments	7586.08	4708.16	0.00	0.00
160.00		262.65	260.67	0.00	0.00
165.00		425.73	420.20	0.00	0.00
167.00	(28) attachments	6029.79	4755.16	0.00	0.00
168.00	(1) attachments	146.66	119.31	0.00	162.31
	Totals:	**41,755.70**	**55,487.02**	**0.00**	**162.31**

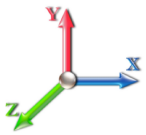
Calculated Forces

Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 12	

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

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	-55.41	-41.86	0.00	-5282.7	0.00	5282.73	5501.01	2750.51	13262.9	6641.33	0.00	0.000	0.000	0.806
5.00	-53.55	-41.45	0.00	-5073.4	0.00	5073.45	5435.34	2717.67	12856.9	6438.04	0.11	-0.208	0.000	0.798
10.00	-51.65	-41.05	0.00	-4866.1	0.00	4866.18	5368.23	2684.11	12453.6	6236.09	0.44	-0.419	0.000	0.790
15.00	-49.77	-40.65	0.00	-4660.9	0.00	4660.94	5299.69	2649.84	12053.2	6035.57	1.00	-0.634	0.000	0.782
20.00	-47.93	-40.21	0.00	-4457.7	0.00	4457.70	5229.71	2614.86	11655.8	5836.57	1.78	-0.852	0.000	0.773
25.00	-46.12	-39.75	0.00	-4256.6	0.00	4256.65	5158.30	2579.15	11261.6	5639.20	2.79	-1.073	0.000	0.764
30.00	-44.34	-39.26	0.00	-4057.9	0.00	4057.91	5085.46	2542.73	10870.9	5443.55	4.04	-1.298	0.000	0.754
35.00	-42.60	-38.76	0.00	-3861.5	0.00	3861.59	5011.18	2505.59	10483.8	5249.72	5.52	-1.526	0.000	0.744
40.00	-40.93	-38.21	0.00	-3667.7	0.00	3667.78	4935.46	2467.73	10100.6	5057.82	7.24	-1.756	0.000	0.734
42.75	-40.01	-37.92	0.00	-3562.7	0.00	3562.71	4893.21	2446.61	9891.54	4953.12	8.29	-1.886	0.000	0.728
45.00	-38.69	-37.69	0.00	-3477.4	0.00	3477.40	4858.32	2429.16	9721.41	4867.93	9.20	-1.994	0.000	0.723
49.00	-36.47	-37.17	0.00	-3326.6	0.00	3326.66	3959.59	1979.80	7922.06	3966.92	10.96	-2.184	0.000	0.848
50.00	-36.11	-37.13	0.00	-3289.4	0.00	3289.49	3948.01	1974.01	7862.92	3937.31	11.42	-2.233	0.000	0.845
55.00	-34.66	-36.59	0.00	-3103.8	0.00	3103.86	3889.26	1944.63	7568.72	3789.99	13.90	-2.499	0.000	0.828
60.00	-33.24	-36.04	0.00	-2920.9	0.00	2920.93	3829.07	1914.54	7277.15	3643.98	16.66	-2.767	0.000	0.811
65.00	-31.85	-35.49	0.00	-2740.7	0.00	2740.72	3767.45	1883.72	6988.40	3499.39	19.70	-3.038	0.000	0.792
70.00	-30.50	-34.94	0.00	-2563.2	0.00	2563.27	3704.39	1852.20	6702.67	3356.32	23.03	-3.310	0.000	0.772
75.00	-29.17	-34.38	0.00	-2388.5	0.00	2388.59	3639.90	1819.95	6420.16	3214.85	26.64	-3.584	0.000	0.751
80.00	-27.92	-33.78	0.00	-2216.7	0.00	2216.71	3573.98	1786.99	6141.06	3075.10	30.54	-3.859	0.000	0.729
82.50	-27.28	-33.50	0.00	-2132.2	0.00	2132.25	3540.48	1770.24	6002.85	3005.89	32.60	-3.999	0.000	0.717
85.00	-26.23	-33.19	0.00	-2048.4	0.00	2048.49	3506.62	1753.31	5865.57	2937.15	34.73	-4.139	0.000	0.705
87.75	-25.10	-32.84	0.00	-1957.2	0.00	1957.21	2761.71	1380.86	4636.01	2321.45	37.15	-4.293	0.000	0.853
90.00	-24.56	-32.63	0.00	-1883.3	0.00	1883.33	2740.07	1370.04	4543.51	2275.13	39.21	-4.419	0.000	0.837
95.00	-23.49	-32.08	0.00	-1720.1	0.00	1720.19	2690.94	1345.47	4339.45	2172.95	44.00	-4.730	0.000	0.801
100.00	-22.45	-31.53	0.00	-1559.8	0.00	1559.80	2640.38	1320.19	4137.62	2071.89	49.11	-5.038	0.000	0.762
105.00	-21.44	-30.98	0.00	-1402.1	0.00	1402.15	2588.38	1294.19	3938.22	1972.04	54.55	-5.341	0.000	0.720
110.00	-20.46	-30.43	0.00	-1247.2	0.00	1247.25	2534.95	1267.48	3741.44	1873.50	60.29	-5.637	0.000	0.674
115.00	-19.52	-29.89	0.00	-1095.0	0.00	1095.09	2480.09	1240.04	3547.48	1776.38	66.34	-5.923	0.000	0.625
120.00	-18.63	-29.33	0.00	-945.67	0.00	945.67	2423.79	1211.90	3356.53	1680.76	72.68	-6.197	0.000	0.571
123.25	-18.07	-28.96	0.00	-850.36	0.00	850.36	2386.43	1193.21	3234.12	1619.46	76.95	-6.369	0.000	0.533
125.00	-17.57	-28.76	0.00	-799.68	0.00	799.68	2366.06	1183.03	3168.79	1586.75	79.30	-6.460	0.000	0.512
127.50	-16.88	-28.45	0.00	-727.79	0.00	727.79	1766.99	883.49	2371.88	1187.70	82.71	-6.584	0.000	0.623
130.00	-16.48	-28.21	0.00	-656.66	0.00	656.66	1747.69	873.85	2306.16	1154.80	86.18	-6.703	0.000	0.579
135.00	-13.77	-23.82	0.00	-515.61	0.00	515.61	1708.02	854.01	2176.01	1089.62	93.33	-6.954	0.000	0.482
140.00	-13.13	-23.29	0.00	-396.52	0.00	396.52	1666.92	833.46	2047.71	1025.37	100.71	-7.171	0.000	0.395
145.00	-12.54	-22.76	0.00	-280.07	0.00	280.07	1624.39	812.19	1921.45	962.15	108.31	-7.351	0.000	0.300
147.00	-9.02	-16.50	0.00	-234.55	0.00	234.55	1606.97	803.49	1871.57	937.18	111.39	-7.412	0.000	0.256
150.00	-8.72	-16.19	0.00	-185.06	0.00	185.06	1580.42	790.21	1797.44	900.06	116.06	-7.490	0.000	0.212
155.00	-8.26	-15.68	0.00	-104.10	0.00	104.10	1535.02	767.51	1675.88	839.18	123.94	-7.587	0.000	0.130
157.00	-4.59	-7.54	0.00	-72.74	0.00	72.74	1516.46	758.23	1627.98	815.20	127.12	-7.613	0.000	0.092
160.00	-4.37	-7.25	0.00	-50.11	0.00	50.11	1488.18	744.09	1556.95	779.63	131.90	-7.642	0.000	0.067
165.00	-4.01	-6.77	0.00	-13.87	0.00	13.87	1439.00	719.50	1439.93	721.04	139.89	-7.670	0.000	0.022
167.00	-0.10	-0.16	0.00	-0.32	0.00	0.32	1413.06	706.53	1388.23	695.14	143.10	-7.672	0.000	0.001
168.00	0.00	-0.15	0.00	-0.16	0.00	0.16	1400.09	700.04	1362.73	682.38	144.70	-7.672	0.000	0.000

Wind Loading - Shaft

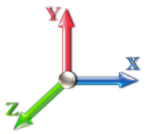
Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 13	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

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	0.85	21.088	23.20	465.60	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	21.088	23.20	456.93	0.650	0.000	5.00	24.768	16.10	597.5	0.0	1235.4
10.00		1.00	0.85	21.088	23.20	448.26	0.650	0.000	5.00	24.302	15.80	586.3	0.0	1212.0
15.00		1.00	0.85	21.088	23.20	439.59	0.650	0.000	5.00	23.837	15.49	575.0	0.0	1188.6
20.00		1.00	0.90	22.375	24.61	443.88	0.650	0.000	5.00	23.372	15.19	598.2	0.0	1165.2
25.00		1.00	0.95	23.451	25.80	445.29	0.650	0.000	5.00	22.906	14.89	614.5	0.0	1141.8
30.00		1.00	0.98	24.369	26.81	444.60	0.650	0.000	5.00	22.441	14.59	625.6	0.0	1118.4
35.00		1.00	1.01	25.172	27.69	442.40	0.650	0.000	5.00	21.975	14.28	632.8	0.0	1095.1
40.00		1.00	1.04	25.890	28.48	439.06	0.650	0.000	5.00	21.510	13.98	637.1	0.0	1071.7
42.75	Bot - Section 2	1.00	1.06	26.255	28.88	436.82	0.650	0.000	2.75	11.632	7.56	349.4	0.0	579.4
45.00		1.00	1.07	26.540	29.19	434.81	0.650	0.000	2.25	9.555	6.21	290.1	0.0	877.3
49.00	Top - Section 1	1.00	1.09	27.020	29.72	430.88	0.650	0.000	4.00	16.754	10.89	517.9	0.0	1538.0
50.00		1.00	1.09	27.135	29.85	436.53	0.650	0.000	1.00	4.142	2.69	128.6	0.0	177.1
55.00		1.00	1.12	27.685	30.45	431.00	0.650	0.000	5.00	20.431	13.28	647.1	0.0	873.2
60.00		1.00	1.14	28.197	31.02	424.94	0.650	0.000	5.00	19.965	12.98	644.0	0.0	853.2
65.00		1.00	1.16	28.676	31.54	418.43	0.650	0.000	5.00	19.500	12.67	639.7	0.0	833.1
70.00		1.00	1.17	29.127	32.04	411.52	0.650	0.000	5.00	19.034	12.37	634.2	0.0	813.1
75.00		1.00	1.19	29.553	32.51	404.25	0.650	0.000	5.00	18.569	12.07	627.8	0.0	793.0
80.00		1.00	1.21	29.958	32.95	396.68	0.650	0.000	5.00	18.103	11.77	620.4	0.0	773.0
82.50	Bot - Section 3	1.00	1.22	30.152	33.17	392.78	0.650	0.000	2.50	8.877	5.77	306.2	0.0	379.0
85.00		1.00	1.22	30.342	33.38	388.82	0.650	0.000	2.50	8.893	5.78	308.7	0.0	690.8
87.75	Top - Section 2	1.00	1.23	30.546	33.60	384.39	0.650	0.000	2.75	9.648	6.27	337.1	0.0	749.3
90.00		1.00	1.24	30.710	33.78	386.65	0.650	0.000	2.25	7.789	5.06	273.6	0.0	277.5
95.00		1.00	1.25	31.061	34.17	378.33	0.650	0.000	5.00	16.971	11.03	603.1	0.0	604.5
100.00		1.00	1.27	31.399	34.54	369.80	0.650	0.000	5.00	16.506	10.73	592.9	0.0	587.8
105.00		1.00	1.28	31.723	34.89	361.08	0.650	0.000	5.00	16.040	10.43	582.1	0.0	571.0
110.00		1.00	1.29	32.035	35.24	352.16	0.650	0.000	5.00	15.575	10.12	570.8	0.0	554.3
115.00		1.00	1.30	32.336	35.57	343.08	0.650	0.000	5.00	15.109	9.82	558.9	0.0	537.6
120.00		1.00	1.32	32.627	35.89	333.84	0.650	0.000	5.00	14.644	9.52	546.6	0.0	520.9
123.25	Bot - Section 4	1.00	1.32	32.811	36.09	327.75	0.650	0.000	3.25	9.269	6.02	347.9	0.0	329.6
125.00		1.00	1.33	32.909	36.20	324.45	0.650	0.000	1.75	4.984	3.24	187.6	0.0	316.6
127.50	Top - Section 3	1.00	1.33	33.046	36.35	319.70	0.650	0.000	2.50	7.020	4.56	265.4	0.0	445.9
130.00		1.00	1.34	33.182	36.50	319.86	0.650	0.000	2.50	6.904	4.49	262.1	0.0	196.7
135.00	Appurtenance(s)	1.00	1.35	33.446	36.79	310.21	0.650	0.000	5.00	13.459	8.75	515.0	0.0	383.5
140.00		1.00	1.36	33.703	37.07	300.45	0.650	0.000	5.00	12.994	8.45	501.0	0.0	370.1
145.00		1.00	1.37	33.953	37.35	290.56	0.650	0.000	5.00	12.528	8.14	486.6	0.0	356.7
147.00	Appurtenance(s)	1.00	1.37	34.051	37.46	286.57	0.650	0.000	2.00	4.881	3.17	190.1	0.0	139.0
150.00		1.00	1.38	34.196	37.62	280.56	0.650	0.000	3.00	7.182	4.67	281.0	0.0	204.4
155.00		1.00	1.39	34.433	37.88	270.45	0.650	0.000	5.00	11.597	7.54	456.8	0.0	330.0
157.00	Appurtenance(s)	1.00	1.39	34.526	37.98	266.38	0.650	0.000	2.00	4.509	2.93	178.1	0.0	128.3
160.00		1.00	1.40	34.664	38.13	260.24	0.650	0.000	3.00	6.623	4.31	262.6	0.0	188.4
165.00		1.00	1.41	34.890	38.38	249.94	0.650	0.000	5.00	10.666	6.93	425.7	0.0	303.3
167.00	Appurtenance(s)	1.00	1.41	34.978	38.48	245.79	0.650	0.000	2.00	4.136	2.69	165.5	0.0	117.6
168.00	Appurtenance(s)	1.00	1.41	35.022	38.52	243.71	0.650	0.000	1.00	2.040	1.33	81.7	0.0	58.0
								Totals:	**168.00**			**19,253.6**		**26,679.4**

Discrete Appurtenance Forces

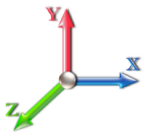
Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 14	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

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	168.00	Lightning Rod	1	35.131	38.644	1.00	1.00	1.05	31.50	0.000	2.500	64.92	0.00	162.31
2	167.00	Commscope	3	34.978	38.476	0.58	0.80	21.50	228.69	0.000	0.000	1323.39	0.00	0.00
3	167.00	V-Brace Kit (Site Pro	1	34.978	38.476	0.75	0.75	5.03	207.00	0.000	0.000	309.35	0.00	0.00
4	167.00	Pipe2.0STD x 15'	1	34.978	38.476	0.75	0.75	5.06	235.55	0.000	0.000	311.66	0.00	0.00
5	167.00	RFS APXVTM14-C-I20	3	34.978	38.476	0.62	0.80	11.87	151.20	0.000	0.000	730.64	0.00	0.00
6	167.00	Pipe2.0STD Mount Pipes	6	34.978	38.476	0.64	0.80	5.49	216.00	0.000	0.000	338.05	0.00	0.00
7	167.00	ALU 800 Mhz RRU's	6	34.978	38.476	0.54	0.80	6.85	286.20	0.000	0.000	421.70	0.00	0.00
8	167.00	ALU TD-RRH8x20-25	3	34.978	38.476	0.54	0.80	6.51	189.00	0.000	0.000	400.91	0.00	0.00
9	167.00	Reinforcement Kit (Site	1	34.978	38.476	0.75	0.75	7.13	418.42	0.000	0.000	438.63	0.00	0.00
10	167.00	Low Profile Platform	1	34.978	38.476	1.00	1.00	22.00	1350.00	0.000	0.000	1354.35	0.00	0.00
11	167.00	ALU 1900 Mhz RRU's	3	34.978	38.476	0.54	0.80	3.83	162.00	0.000	0.000	235.60	0.00	0.00
12	157.00	Raycap	1	34.526	37.979	0.50	0.75	2.04	28.80	0.000	0.000	123.97	0.00	0.00
13	157.00	Samsung B2/B66A RRU's	3	34.526	37.979	0.50	0.75	2.83	227.88	0.000	0.000	172.22	0.00	0.00
14	157.00	Samsung B5/B13 RRU's	3	34.526	37.979	0.50	0.75	2.83	189.81	0.000	0.000	172.22	0.00	0.00
15	157.00	Monopole Collar Mount	1	34.526	37.979	1.00	1.00	2.50	135.00	0.000	0.000	151.92	0.00	0.00
16	157.00	JMA 91900314-02	3	34.526	37.979	0.38	0.75	0.90	75.60	0.000	0.000	54.69	0.00	0.00
17	157.00	Platform w/ Hand Rails	1	34.526	37.979	1.00	1.00	40.00	1800.00	0.000	0.000	2430.66	0.00	0.00
18	157.00	Kicker Kit	1	34.526	37.979	1.00	1.00	9.50	261.90	0.000	0.000	577.28	0.00	0.00
19	157.00	Samsung MT6407-77A	3	34.526	37.979	0.52	0.75	7.40	235.17	0.000	0.000	449.82	0.00	0.00
20	157.00	Commscope	3	34.526	37.979	0.62	0.75	15.26	104.76	0.000	0.000	927.14	0.00	0.00
21	157.00	JMA Wireless	6	34.526	37.979	0.65	0.75	38.64	324.00	0.000	0.000	2348.08	0.00	0.00
22	147.00	RFS	3	34.051	37.456	0.54	0.75	32.79	345.60	0.000	0.000	1965.04	0.00	0.00
23	147.00	AIR6449 B41	3	34.051	37.456	0.53	0.75	9.03	278.10	0.000	0.000	540.92	0.00	0.00
24	147.00	VV-65A-R1	3	34.051	37.456	0.55	0.75	13.15	64.29	0.000	0.000	788.29	0.00	0.00
25	147.00	4449 B71 + B85	3	34.051	37.456	0.50	0.75	2.97	202.50	0.000	0.000	177.98	0.00	0.00
26	147.00	4460 B25 + B66	3	34.051	37.456	0.50	0.75	4.30	280.80	0.000	0.000	257.48	0.00	0.00
27	147.00	Ericsson KRY 112 489/2	3	34.051	37.456	0.45	0.75	0.76	41.58	0.000	0.000	45.31	0.00	0.00
28	147.00	Allen Telecom	3	34.051	37.456	0.45	0.75	0.73	47.25	0.000	0.000	43.69	0.00	0.00
29	147.00	Kathrein 782 11056 Bias	3	34.051	37.456	0.48	0.80	0.22	4.86	0.000	0.000	12.94	0.00	0.00
30	147.00	Low Profile Platform	1	34.051	37.456	1.00	1.00	22.00	1350.00	0.000	0.000	1318.47	0.00	0.00
31	147.00	Reinforcement Kit (Site	1	34.051	37.456	0.75	0.75	7.13	418.42	0.000	0.000	427.00	0.00	0.00
32	135.00	Platform w/HRK	1	33.446	36.791	1.00	1.00	33.60	1269.90	0.000	0.000	1977.88	0.00	0.00
33	135.00	Raycap	1	33.446	36.791	0.50	0.75	1.01	19.67	0.000	0.000	59.46	0.00	0.00
34	135.00	Fujitsu TA08025-B604	3	33.446	36.791	0.50	0.75	2.95	172.61	0.000	0.000	173.93	0.00	0.00
35	135.00	Fujitsu TA08025-B605	3	33.446	36.791	0.50	0.75	2.95	202.37	0.000	0.000	173.93	0.00	0.00
36	135.00	FFVV-65B-R2	3	33.446	36.791	0.55	0.75	20.43	191.16	0.000	0.000	1202.59	0.00	0.00
							Totals:		**11,747.57**			**22,502.12**		

Total Applied Force Summary

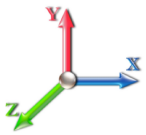
Structure:	CT02217-S-SBA		**Code:**	TIA-222-G	5/9/2022
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 15

TES Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

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
5.00		597.50	1278.25	0.00	0.00
10.00		586.27	1319.11	0.00	0.00
15.00		575.05	1295.72	0.00	0.00
20.00		598.23	1272.33	0.00	0.00
25.00		614.52	1248.94	0.00	0.00
30.00		625.59	1225.55	0.00	0.00
35.00		632.82	1202.15	0.00	0.00
40.00		637.08	1178.76	0.00	0.00
42.75		349.37	638.35	0.00	0.00
45.00		290.11	925.54	0.00	0.00
49.00		517.89	1623.68	0.00	0.00
50.00		128.58	198.47	0.00	0.00
55.00		647.08	980.32	0.00	0.00
60.00		644.02	960.27	0.00	0.00
65.00		639.70	940.22	0.00	0.00
70.00		634.25	920.17	0.00	0.00
75.00		627.79	900.12	0.00	0.00
80.00		620.43	880.07	0.00	0.00
82.50		306.21	432.52	0.00	0.00
85.00		308.69	744.36	0.00	0.00
87.75		337.14	808.18	0.00	0.00
90.00		273.64	325.65	0.00	0.00
95.00		603.06	711.56	0.00	0.00
100.00		592.89	694.85	0.00	0.00
105.00		582.12	678.14	0.00	0.00
110.00		570.79	661.43	0.00	0.00
115.00		558.93	644.73	0.00	0.00
120.00		546.59	628.02	0.00	0.00
123.25		347.92	399.25	0.00	0.00
125.00		187.62	354.11	0.00	0.00
127.50		265.41	499.48	0.00	0.00
130.00		262.08	250.30	0.00	0.00
135.00	(11) attachments	4102.77	2346.27	0.00	0.00
140.00		500.99	469.01	0.00	0.00
145.00		486.62	455.64	0.00	0.00
147.00	(26) attachments	5767.27	3211.91	0.00	0.00
150.00		280.96	234.33	0.00	0.00
155.00		456.83	379.86	0.00	0.00
157.00	(25) attachments	7586.08	3531.12	0.00	0.00
160.00		262.65	195.50	0.00	0.00
165.00		425.73	315.15	0.00	0.00
167.00	(28) attachments	6029.79	3566.37	0.00	0.00
168.00	(1) attachments	146.66	89.48	0.00	162.31
	Totals:	**41,755.70**	**41,615.26**	**0.00**	**162.31**

Calculated Forces

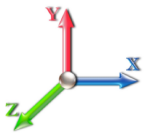
Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

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	-41.54	-41.83	0.00	-5212.8	0.00	5212.89	5501.01	2750.51	13262.9	6641.33	0.00	0.000	0.000	0.793
5.00	-40.11	-41.38	0.00	-5003.7	0.00	5003.74	5435.34	2717.67	12856.9	6438.04	0.11	-0.205	0.000	0.785
10.00	-38.65	-40.93	0.00	-4796.8	0.00	4796.86	5368.23	2684.11	12453.6	6236.09	0.44	-0.414	0.000	0.777
15.00	-37.21	-40.48	0.00	-4592.2	0.00	4592.24	5299.69	2649.84	12053.2	6035.57	0.98	-0.625	0.000	0.768
20.00	-35.79	-40.00	0.00	-4389.8	0.00	4389.86	5229.71	2614.86	11655.8	5836.57	1.75	-0.840	0.000	0.759
25.00	-34.40	-39.49	0.00	-4189.8	0.00	4189.87	5158.30	2579.15	11261.6	5639.20	2.75	-1.058	0.000	0.750
30.00	-33.04	-38.97	0.00	-3992.4	0.00	3992.40	5085.46	2542.73	10870.9	5443.55	3.98	-1.279	0.000	0.740
35.00	-31.70	-38.44	0.00	-3797.5	0.00	3797.54	5011.18	2505.59	10483.8	5249.72	5.44	-1.503	0.000	0.730
40.00	-30.42	-37.86	0.00	-3605.3	0.00	3605.36	4935.46	2467.73	10100.6	5057.82	7.13	-1.730	0.000	0.719
42.75	-29.72	-37.55	0.00	-3501.2	0.00	3501.25	4893.21	2446.61	9891.54	4953.12	8.17	-1.858	0.000	0.713
45.00	-28.71	-37.30	0.00	-3416.7	0.00	3416.76	4858.32	2429.16	9721.41	4867.93	9.07	-1.963	0.000	0.708
49.00	-27.03	-36.78	0.00	-3267.5	0.00	3267.55	3959.59	1979.80	7922.06	3966.92	10.79	-2.150	0.000	0.831
50.00	-26.74	-36.72	0.00	-3230.7	0.00	3230.76	3948.01	1974.01	7862.92	3937.31	11.25	-2.198	0.000	0.828
55.00	-25.62	-36.15	0.00	-3047.1	0.00	3047.16	3889.26	1944.63	7568.72	3789.99	13.69	-2.459	0.000	0.811
60.00	-24.52	-35.58	0.00	-2866.4	0.00	2866.41	3829.07	1914.54	7277.15	3643.98	16.41	-2.722	0.000	0.793
65.00	-23.45	-35.00	0.00	-2688.5	0.00	2688.52	3767.45	1883.72	6988.40	3499.39	19.40	-2.988	0.000	0.775
70.00	-22.41	-34.42	0.00	-2513.5	0.00	2513.51	3704.39	1852.20	6702.67	3356.32	22.67	-3.255	0.000	0.755
75.00	-21.39	-33.84	0.00	-2341.4	0.00	2341.40	3639.90	1819.95	6420.16	3214.85	26.22	-3.523	0.000	0.735
80.00	-20.43	-33.24	0.00	-2172.1	0.00	2172.18	3573.98	1786.99	6141.06	3075.10	30.06	-3.793	0.000	0.712
82.50	-19.94	-32.95	0.00	-2089.0	0.00	2089.07	3540.48	1770.24	6002.85	3005.89	32.08	-3.930	0.000	0.701
85.00	-19.14	-32.64	0.00	-2006.6	0.00	2006.69	3506.62	1753.31	5865.57	2937.15	34.17	-4.067	0.000	0.689
87.75	-18.28	-32.29	0.00	-1916.9	0.00	1916.92	2761.71	1380.86	4636.01	2321.45	36.56	-4.218	0.000	0.833
90.00	-17.86	-32.06	0.00	-1844.2	0.00	1844.27	2740.07	1370.04	4543.51	2275.13	38.57	-4.342	0.000	0.818
95.00	-17.03	-31.50	0.00	-1683.9	0.00	1683.95	2690.94	1345.47	4339.45	2172.95	43.28	-4.646	0.000	0.782
100.00	-16.22	-30.93	0.00	-1526.4	0.00	1526.48	2640.38	1320.19	4137.62	2071.89	48.30	-4.948	0.000	0.743
105.00	-15.44	-30.37	0.00	-1371.8	0.00	1371.82	2588.38	1294.19	3938.22	1972.04	53.64	-5.244	0.000	0.702
110.00	-14.69	-29.81	0.00	-1219.9	0.00	1219.96	2534.95	1267.48	3741.44	1873.50	59.28	-5.533	0.000	0.658
115.00	-13.97	-29.26	0.00	-1070.8	0.00	1070.89	2480.09	1240.04	3547.48	1776.38	65.22	-5.813	0.000	0.609
120.00	-13.29	-28.70	0.00	-924.58	0.00	924.58	2423.79	1211.90	3356.53	1680.76	71.44	-6.081	0.000	0.556
123.25	-12.87	-28.34	0.00	-831.30	0.00	831.30	2386.43	1193.21	3234.12	1619.46	75.63	-6.249	0.000	0.519
125.00	-12.48	-28.14	0.00	-781.70	0.00	781.70	2366.06	1183.03	3168.79	1586.75	77.94	-6.338	0.000	0.498
127.50	-11.96	-27.85	0.00	-711.35	0.00	711.35	1766.99	883.49	2371.88	1187.70	81.28	-6.460	0.000	0.607
130.00	-11.65	-27.60	0.00	-641.73	0.00	641.73	1747.69	873.85	2306.16	1154.80	84.69	-6.576	0.000	0.563
135.00	-9.71	-23.29	0.00	-503.75	0.00	503.75	1708.02	854.01	2176.01	1089.62	91.70	-6.822	0.000	0.469
140.00	-9.23	-22.76	0.00	-387.33	0.00	387.33	1666.92	833.46	2047.71	1025.37	98.94	-7.034	0.000	0.384
145.00	-8.79	-22.24	0.00	-273.51	0.00	273.51	1624.39	812.19	1921.45	962.15	106.39	-7.209	0.000	0.290
147.00	-6.31	-16.12	0.00	-229.03	0.00	229.03	1606.97	803.49	1871.57	937.18	109.42	-7.268	0.000	0.249
150.00	-6.09	-15.82	0.00	-180.66	0.00	180.66	1580.42	790.21	1797.44	900.06	114.00	-7.345	0.000	0.205
155.00	-5.76	-15.33	0.00	-101.55	0.00	101.55	1535.02	767.51	1675.88	839.18	121.72	-7.439	0.000	0.125
157.00	-3.24	-7.35	0.00	-70.89	0.00	70.89	1516.46	758.23	1627.98	815.20	124.84	-7.465	0.000	0.089
160.00	-3.07	-7.06	0.00	-48.84	0.00	48.84	1488.18	744.09	1556.95	779.63	129.53	-7.493	0.000	0.065
165.00	-2.82	-6.60	0.00	-13.52	0.00	13.52	1439.00	719.50	1439.93	721.04	137.37	-7.520	0.000	0.021
167.00	-0.07	-0.16	0.00	-0.32	0.00	0.32	1413.06	706.53	1388.23	695.14	140.51	-7.523	0.000	0.001
168.00	0.00	-0.15	0.00	-0.16	0.00	0.16	1400.09	700.04	1362.73	682.38	142.08	-7.523	0.000	0.000

Wind Loading - Shaft

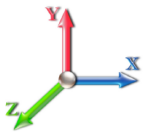
Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 17	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

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	0.85	5.168	5.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.168	5.68	0.00	1.200	1.656	5.00	26.148	31.38	178.4	618.7	2265.9
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.775	5.00	25.782	30.94	175.9	652.2	2268.2
15.00		1.00	0.85	5.168	5.68	0.00	1.200	1.848	5.00	25.377	30.45	173.1	667.3	2252.1
20.00		1.00	0.90	5.483	6.03	0.00	1.200	1.902	5.00	24.957	29.95	180.6	674.3	2227.9
25.00		1.00	0.95	5.747	6.32	0.00	1.200	1.945	5.00	24.527	29.43	186.1	676.6	2199.1
30.00		1.00	0.98	5.972	6.57	0.00	1.200	1.981	5.00	24.091	28.91	189.9	675.8	2167.1
35.00		1.00	1.01	6.169	6.79	0.00	1.200	2.012	5.00	23.652	28.38	192.6	672.9	2132.9
40.00		1.00	1.04	6.345	6.98	0.00	1.200	2.039	5.00	23.209	27.85	194.4	668.2	2097.1
42.75	Bot - Section 2	1.00	1.06	6.434	7.08	0.00	1.200	2.052	2.75	12.573	15.09	106.8	365.8	1138.4
45.00		1.00	1.07	6.504	7.15	0.00	1.200	2.063	2.25	10.329	12.39	88.7	302.3	1472.1
49.00	Top - Section 1	1.00	1.09	6.622	7.28	0.00	1.200	2.081	4.00	18.141	21.77	158.6	533.1	2583.8
50.00		1.00	1.09	6.650	7.32	0.00	1.200	2.085	1.00	4.489	5.39	39.4	133.0	369.0
55.00		1.00	1.12	6.785	7.46	0.00	1.200	2.105	5.00	22.185	26.62	198.7	657.0	1821.3
60.00		1.00	1.14	6.910	7.60	0.00	1.200	2.123	5.00	21.734	26.08	198.3	648.4	1785.9
65.00		1.00	1.16	7.028	7.73	0.00	1.200	2.140	5.00	21.283	25.54	197.4	639.0	1749.9
70.00		1.00	1.17	7.138	7.85	0.00	1.200	2.156	5.00	20.831	25.00	196.3	629.1	1713.2
75.00		1.00	1.19	7.243	7.97	0.00	1.200	2.171	5.00	20.378	24.45	194.8	618.7	1676.1
80.00		1.00	1.21	7.342	8.08	0.00	1.200	2.185	5.00	19.924	23.91	193.1	607.9	1638.5
82.50	Bot - Section 3	1.00	1.22	7.390	8.13	0.00	1.200	2.192	2.50	9.790	11.75	95.5	301.1	806.4
85.00		1.00	1.22	7.436	8.18	0.00	1.200	2.198	2.50	9.809	11.77	96.3	302.6	1223.7
87.75	Top - Section 2	1.00	1.23	7.486	8.23	0.00	1.200	2.205	2.75	10.659	12.79	105.3	329.4	1328.4
90.00		1.00	1.24	7.526	8.28	0.00	1.200	2.211	2.25	8.618	10.34	85.6	267.1	637.1
95.00		1.00	1.25	7.612	8.37	0.00	1.200	2.223	5.00	18.824	22.59	189.1	581.6	1387.6
100.00		1.00	1.27	7.695	8.46	0.00	1.200	2.234	5.00	18.368	22.04	186.6	569.4	1353.1
105.00		1.00	1.28	7.774	8.55	0.00	1.200	2.245	5.00	17.912	21.49	183.8	556.8	1318.2
110.00		1.00	1.29	7.851	8.64	0.00	1.200	2.256	5.00	17.455	20.95	180.9	544.0	1283.1
115.00		1.00	1.30	7.925	8.72	0.00	1.200	2.266	5.00	16.998	20.40	177.8	531.0	1247.8
120.00		1.00	1.32	7.996	8.80	0.00	1.200	2.276	5.00	16.540	19.85	174.6	517.7	1212.2
123.25	Bot - Section 4	1.00	1.32	8.041	8.85	0.00	1.200	2.282	3.25	10.505	12.61	111.5	330.8	770.3
125.00		1.00	1.33	8.065	8.87	0.00	1.200	2.285	1.75	5.650	6.78	60.1	179.0	601.1
127.50	Top - Section 3	1.00	1.33	8.099	8.91	0.00	1.200	2.289	2.50	7.974	9.57	85.2	252.3	846.8
130.00		1.00	1.34	8.132	8.95	0.00	1.200	2.294	2.50	7.860	9.43	84.4	248.8	511.2
135.00	Appurtenance(s)	1.00	1.35	8.197	9.02	0.00	1.200	2.303	5.00	15.378	18.45	166.4	483.8	995.1
140.00		1.00	1.36	8.260	9.09	0.00	1.200	2.311	5.00	14.919	17.90	162.7	469.7	963.2
145.00		1.00	1.37	8.321	9.15	0.00	1.200	2.319	5.00	14.461	17.35	158.8	455.5	931.2
147.00	Appurtenance(s)	1.00	1.37	8.345	9.18	0.00	1.200	2.322	2.00	5.655	6.79	62.3	179.9	365.2
150.00		1.00	1.38	8.381	9.22	0.00	1.200	2.327	3.00	8.345	10.01	92.3	264.7	537.2
155.00		1.00	1.39	8.439	9.28	0.00	1.200	2.335	5.00	13.543	16.25	150.9	426.6	866.6
157.00	Appurtenance(s)	1.00	1.39	8.462	9.31	0.00	1.200	2.338	2.00	5.288	6.35	59.1	168.3	339.3
160.00		1.00	1.40	8.495	9.34	0.00	1.200	2.342	3.00	7.794	9.35	87.4	247.2	498.3
165.00		1.00	1.41	8.551	9.41	0.00	1.200	2.349	5.00	12.624	15.15	142.5	397.1	801.5
167.00	Appurtenance(s)	1.00	1.41	8.572	9.43	0.00	1.200	2.352	2.00	4.920	5.90	55.7	156.5	313.2
168.00	Appurtenance(s)	1.00	1.41	8.583	9.44	0.00	1.200	2.353	1.00	2.432	2.92	27.6	77.6	154.9
								Totals:	**168.00**			**6,025.3**		**54,851.5**

Discrete Appurtenance Forces

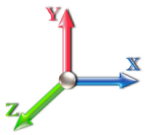
Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 18	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

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	168.00	Lightning Rod	1	8.610	9.471	1.00	1.00	4.25	75.36	0.000	2.500	40.26	0.00	100.64
2	167.00	Commscope	3	8.572	9.429	0.58	0.80	24.94	1392.88	0.000	0.000	235.13	0.00	0.00
3	167.00	V-Brace Kit (Site Pro	1	8.572	9.429	0.75	0.75	12.12	607.78	0.000	0.000	114.25	0.00	0.00
4	167.00	Pipe2.0STD x 15'	1	8.572	9.429	0.75	0.75	11.73	994.38	0.000	0.000	110.61	0.00	0.00
5	167.00	RFS APXVTM14-C-I20	3	8.572	9.429	0.62	0.80	14.74	896.46	0.000	0.000	138.99	0.00	0.00
6	167.00	Pipe2.0STD Mount Pipes	6	8.572	9.429	0.64	0.80	22.29	799.17	0.000	0.000	210.15	0.00	0.00
7	167.00	ALU 800 Mhz RRU's	6	8.572	9.429	0.54	0.80	11.09	853.07	0.000	0.000	104.58	0.00	0.00
8	167.00	ALU TD-RRH8x20-25	3	8.572	9.429	0.54	0.80	8.32	731.70	0.000	0.000	78.47	0.00	0.00
9	167.00	Reinforcement Kit (Site	1	8.572	9.429	0.75	0.75	17.18	900.20	0.000	0.000	162.00	0.00	0.00
10	167.00	Low Profile Platform	1	8.572	9.429	1.00	1.00	45.80	3264.05	0.000	0.000	431.90	0.00	0.00
11	167.00	ALU 1900 Mhz RRU's	3	8.572	9.429	0.54	0.80	6.19	481.64	0.000	0.000	58.36	0.00	0.00
12	157.00	Raycap	1	8.462	9.308	0.50	0.75	2.59	165.80	0.000	0.000	24.14	0.00	0.00
13	157.00	Samsung B2/B66A RRU's	3	8.462	9.308	0.50	0.75	4.01	637.40	0.000	0.000	37.37	0.00	0.00
14	157.00	Samsung B5/B13 RRU's	3	8.462	9.308	0.50	0.75	4.01	556.70	0.000	0.000	37.37	0.00	0.00
15	157.00	Monopole Collar Mount	1	8.462	9.308	1.00	1.00	6.01	393.61	0.000	0.000	55.91	0.00	0.00
16	157.00	JMA 91900314-02	3	8.462	9.308	0.38	0.75	1.74	8.34	0.000	0.000	16.21	0.00	0.00
17	157.00	Platform w/ Hand Rails	1	8.462	9.308	1.00	1.00	68.05	4605.11	0.000	0.000	633.40	0.00	0.00
18	157.00	Kicker Kit	1	8.462	9.308	1.00	1.00	22.82	352.30	0.000	0.000	212.44	0.00	0.00
19	157.00	Samsung MT6407-77A	3	8.462	9.308	0.52	0.75	9.40	828.51	0.000	0.000	87.51	0.00	0.00
20	157.00	Commscope	3	8.462	9.308	0.62	0.75	22.32	705.10	0.000	0.000	207.74	0.00	0.00
21	157.00	JMA Wireless	6	8.462	9.308	0.65	0.75	45.99	2707.32	0.000	0.000	428.05	0.00	0.00
22	147.00	RFS	3	8.345	9.180	0.54	0.75	36.94	2250.56	0.000	0.000	339.05	0.00	0.00
23	147.00	AIR6449 B41	3	8.345	9.180	0.53	0.75	11.05	823.07	0.000	0.000	101.40	0.00	0.00
24	147.00	VV-65A-R1	3	8.345	9.180	0.55	0.75	12.32	683.01	0.000	0.000	113.08	0.00	0.00
25	147.00	4449 B71 + B85	3	8.345	9.180	0.50	0.75	4.11	336.37	0.000	0.000	37.75	0.00	0.00
26	147.00	4460 B25 + B66	3	8.345	9.180	0.50	0.75	5.65	582.28	0.000	0.000	51.86	0.00	0.00
27	147.00	Ericsson KRY 112 489/2	3	8.345	9.180	0.45	0.75	1.42	170.03	0.000	0.000	13.01	0.00	0.00
28	147.00	Allen Telecom	3	8.345	9.180	0.45	0.75	1.39	191.49	0.000	0.000	12.80	0.00	0.00
29	147.00	Kathrein 782 11056 Bias	3	8.345	9.180	0.48	0.80	0.65	53.26	0.000	0.000	5.92	0.00	0.00
30	147.00	Low Profile Platform	1	8.345	9.180	1.00	1.00	45.50	3241.69	0.000	0.000	417.68	0.00	0.00
31	147.00	Reinforcement Kit (Site	1	8.345	9.180	0.75	0.75	17.05	894.66	0.000	0.000	156.54	0.00	0.00
32	135.00	Platform w/HRK	1	8.197	9.016	1.00	1.00	80.02	3671.34	0.000	0.000	721.50	0.00	0.00
33	135.00	Raycap	1	8.197	9.016	0.50	0.75	1.39	83.56	0.000	0.000	12.50	0.00	0.00
34	135.00	Fujitsu TA08025-B604	3	8.197	9.016	0.50	0.75	4.07	394.43	0.000	0.000	36.70	0.00	0.00
35	135.00	Fujitsu TA08025-B605	3	8.197	9.016	0.50	0.75	4.07	438.76	0.000	0.000	36.70	0.00	0.00
36	135.00	FFVV-65B-R2	3	8.197	9.016	0.55	0.75	23.63	1186.24	0.000	0.000	213.04	0.00	0.00
							Totals:		**36,957.63**			**5,694.35**		

Total Applied Force Summary

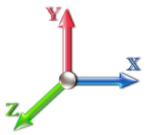
Structure:	CT02217-S-SBA		**Code:**	TIA-222-G	5/9/2022
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 19

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

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
5.00		178.38	2323.07	0.00	0.00
10.00		175.88	2411.03	0.00	0.00
15.00		173.12	2394.93	0.00	0.00
20.00		180.64	2370.73	0.00	0.00
25.00		186.07	2341.86	0.00	0.00
30.00		189.92	2309.90	0.00	0.00
35.00		192.60	2275.72	0.00	0.00
40.00		194.38	2239.86	0.00	0.00
42.75		106.78	1216.90	0.00	0.00
45.00		88.68	1536.39	0.00	0.00
49.00		158.57	2698.00	0.00	0.00
50.00		39.41	397.61	0.00	0.00
55.00		198.69	1964.12	0.00	0.00
60.00		198.25	1928.73	0.00	0.00
65.00		197.44	1892.68	0.00	0.00
70.00		196.28	1856.04	0.00	0.00
75.00		194.82	1818.90	0.00	0.00
80.00		193.09	1781.29	0.00	0.00
82.50		95.50	877.83	0.00	0.00
85.00		96.28	1295.07	0.00	0.00
87.75		105.33	1406.94	0.00	0.00
90.00		85.62	701.32	0.00	0.00
95.00		189.15	1530.39	0.00	0.00
100.00		186.57	1495.86	0.00	0.00
105.00		183.81	1461.04	0.00	0.00
110.00		180.89	1425.95	0.00	0.00
115.00		177.81	1390.61	0.00	0.00
120.00		174.58	1355.04	0.00	0.00
123.25		111.50	863.14	0.00	0.00
125.00		60.15	651.11	0.00	0.00
127.50		85.25	918.23	0.00	0.00
130.00		84.37	582.56	0.00	0.00
135.00	(11) attachments	1186.83	6912.21	0.00	0.00
140.00		162.67	1095.09	0.00	0.00
145.00		158.83	1063.05	0.00	0.00
147.00	(26) attachments	1311.38	9644.35	0.00	0.00
150.00		92.32	577.13	0.00	0.00
155.00		150.85	933.09	0.00	0.00
157.00	(25) attachments	1799.19	11326.09	0.00	0.00
160.00		87.40	507.83	0.00	0.00
165.00		142.48	817.30	0.00	0.00
167.00	(28) attachments	1700.11	11240.88	0.00	0.00
168.00	(1) attachments	67.82	230.30	0.00	100.64
	Totals:	**11,719.67**	**96,060.17**	**0.00**	**100.64**

Calculated Forces

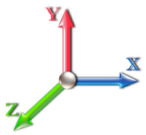
Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 20	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

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	-96.05	-11.77	0.00	-1539.5	0.00	1539.53	5501.01	2750.51	13262.9	6641.33	0.00	0.000	0.000	0.249
5.00	-93.72	-11.69	0.00	-1480.6	0.00	1480.67	5435.34	2717.67	12856.9	6438.04	0.03	-0.061	0.000	0.247
10.00	-91.30	-11.61	0.00	-1422.2	0.00	1422.21	5368.23	2684.11	12453.6	6236.09	0.13	-0.122	0.000	0.245
15.00	-88.89	-11.53	0.00	-1364.1	0.00	1364.16	5299.69	2649.84	12053.2	6035.57	0.29	-0.185	0.000	0.243
20.00	-86.51	-11.44	0.00	-1306.5	0.00	1306.51	5229.71	2614.86	11655.8	5836.57	0.52	-0.249	0.000	0.240
25.00	-84.15	-11.34	0.00	-1249.3	0.00	1249.32	5158.30	2579.15	11261.6	5639.20	0.82	-0.314	0.000	0.238
30.00	-81.83	-11.23	0.00	-1192.6	0.00	1192.65	5085.46	2542.73	10870.9	5443.55	1.18	-0.380	0.000	0.235
35.00	-79.54	-11.11	0.00	-1136.5	0.00	1136.51	5011.18	2505.59	10483.8	5249.72	1.61	-0.447	0.000	0.232
40.00	-77.29	-10.97	0.00	-1080.9	0.00	1080.96	4935.46	2467.73	10100.6	5057.82	2.12	-0.515	0.000	0.229
42.75	-76.07	-10.90	0.00	-1050.7	0.00	1050.79	4893.21	2446.61	9891.54	4953.12	2.43	-0.553	0.000	0.228
45.00	-74.53	-10.85	0.00	-1026.2	0.00	1026.27	4858.32	2429.16	9721.41	4867.93	2.69	-0.585	0.000	0.226
49.00	-71.83	-10.71	0.00	-982.86	0.00	982.86	3959.59	1979.80	7922.06	3966.92	3.21	-0.641	0.000	0.266
50.00	-71.42	-10.72	0.00	-972.15	0.00	972.15	3948.01	1974.01	7862.92	3937.31	3.34	-0.656	0.000	0.265
55.00	-69.44	-10.60	0.00	-918.54	0.00	918.54	3889.26	1944.63	7568.72	3789.99	4.07	-0.734	0.000	0.260
60.00	-67.50	-10.47	0.00	-865.56	0.00	865.56	3829.07	1914.54	7277.15	3643.98	4.88	-0.814	0.000	0.255
65.00	-65.60	-10.33	0.00	-813.23	0.00	813.23	3767.45	1883.72	6988.40	3499.39	5.78	-0.894	0.000	0.250
70.00	-63.73	-10.20	0.00	-761.57	0.00	761.57	3704.39	1852.20	6702.67	3356.32	6.76	-0.975	0.000	0.244
75.00	-61.90	-10.06	0.00	-710.59	0.00	710.59	3639.90	1819.95	6420.16	3214.85	7.82	-1.056	0.000	0.238
80.00	-60.11	-9.89	0.00	-660.30	0.00	660.30	3573.98	1786.99	6141.06	3075.10	8.97	-1.138	0.000	0.232
82.50	-59.23	-9.82	0.00	-635.57	0.00	635.57	3540.48	1770.24	6002.85	3005.89	9.58	-1.180	0.000	0.228
85.00	-57.93	-9.75	0.00	-611.01	0.00	611.01	3506.62	1753.31	5865.57	2937.15	10.21	-1.221	0.000	0.225
87.75	-56.52	-9.65	0.00	-584.21	0.00	584.21	2761.71	1380.86	4636.01	2321.45	10.93	-1.267	0.000	0.272
90.00	-55.81	-9.61	0.00	-562.49	0.00	562.49	2740.07	1370.04	4543.51	2275.13	11.53	-1.305	0.000	0.268
95.00	-54.27	-9.48	0.00	-514.42	0.00	514.42	2690.94	1345.47	4339.45	2172.95	12.95	-1.398	0.000	0.257
100.00	-52.76	-9.34	0.00	-467.04	0.00	467.04	2640.38	1320.19	4137.62	2071.89	14.46	-1.490	0.000	0.245
105.00	-51.29	-9.19	0.00	-420.36	0.00	420.36	2588.38	1294.19	3938.22	1972.04	16.07	-1.581	0.000	0.233
110.00	-49.86	-9.05	0.00	-374.39	0.00	374.39	2534.95	1267.48	3741.44	1873.50	17.78	-1.670	0.000	0.220
115.00	-48.46	-8.90	0.00	-329.15	0.00	329.15	2480.09	1240.04	3547.48	1776.38	19.57	-1.756	0.000	0.205
120.00	-47.10	-8.74	0.00	-284.65	0.00	284.65	2423.79	1211.90	3356.53	1680.76	21.45	-1.838	0.000	0.189
123.25	-46.24	-8.63	0.00	-256.25	0.00	256.25	2386.43	1193.21	3234.12	1619.46	22.72	-1.890	0.000	0.178
125.00	-45.58	-8.58	0.00	-241.15	0.00	241.15	2366.06	1183.03	3168.79	1586.75	23.42	-1.917	0.000	0.171
127.50	-44.66	-8.49	0.00	-219.71	0.00	219.71	1766.99	883.49	2371.88	1187.70	24.44	-1.955	0.000	0.210
130.00	-44.08	-8.43	0.00	-198.49	0.00	198.49	1747.69	873.85	2306.16	1154.80	25.47	-1.991	0.000	0.197
135.00	-37.20	-7.04	0.00	-156.36	0.00	156.36	1708.02	854.01	2176.01	1089.62	27.60	-2.067	0.000	0.165
140.00	-36.11	-6.88	0.00	-121.15	0.00	121.15	1666.92	833.46	2047.71	1025.37	29.80	-2.133	0.000	0.140
145.00	-35.05	-6.70	0.00	-86.76	0.00	86.76	1624.39	812.19	1921.45	962.15	32.06	-2.188	0.000	0.112
147.00	-25.46	-5.03	0.00	-73.36	0.00	73.36	1606.97	803.49	1871.57	937.18	32.98	-2.207	0.000	0.094
150.00	-24.88	-4.93	0.00	-58.27	0.00	58.27	1580.42	790.21	1797.44	900.06	34.38	-2.231	0.000	0.081
155.00	-23.95	-4.75	0.00	-33.63	0.00	33.63	1535.02	767.51	1675.88	839.18	36.73	-2.262	0.000	0.056
157.00	-12.71	-2.50	0.00	-24.14	0.00	24.14	1516.46	758.23	1627.98	815.20	37.68	-2.271	0.000	0.038
160.00	-12.20	-2.40	0.00	-16.62	0.00	16.62	1488.18	744.09	1556.95	779.63	39.11	-2.280	0.000	0.030
165.00	-11.39	-2.22	0.00	-4.63	0.00	4.63	1439.00	719.50	1439.93	721.04	41.50	-2.289	0.000	0.014
167.00	-0.23	-0.08	0.00	-0.18	0.00	0.18	1413.06	706.53	1388.23	695.14	42.46	-2.290	0.000	0.000
168.00	0.00	-0.07	0.00	-0.10	0.00	0.10	1400.09	700.04	1362.73	682.38	42.94	-2.290	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

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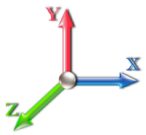
Load Case: 1.2D + 1.0E

Gust Response Factor	1.10			**Sds**	0.18	**Iterations**	23
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.10	**Ss**	0.17
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31	**SA**	0.03	**S1**	0.06
						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	
5.00		1372.6	0.00	0.03	0.02	23.63	
10.00		1346.6	0.01	0.05	0.03	34.05	
15.00		1320.6	0.02	0.06	0.04	38.93	
20.00		1294.7	0.03	0.07	0.04	41.09	
25.00		1268.7	0.04	0.07	0.04	41.91	
30.00		1242.7	0.06	0.07	0.04	42.15	
35.00		1216.7	0.08	0.07	0.04	42.18	
40.00		1190.7	0.11	0.07	0.04	42.18	
42.75	Bot - Section 2	643.83	0.12	0.07	0.03	23.07	
45.00		974.82	0.14	0.07	0.03	35.24	
49.00	Top - Section 1	1708.8	0.16	0.07	0.03	62.58	
50.00		196.72	0.17	0.07	0.03	7.22	
55.00		970.25	0.20	0.06	0.02	35.71	
60.00		947.97	0.24	0.06	0.02	34.18	
65.00		925.69	0.28	0.05	0.01	31.41	
70.00		903.42	0.33	0.04	0.01	26.95	
75.00		881.14	0.38	0.03	0.01	20.45	
80.00		858.86	0.43	0.01	0.01	11.92	
82.50	Bot - Section 3	421.08	0.46	0.00	0.01	3.50	
85.00		767.56	0.48	-0.01	0.01	1.77	
87.75	Top - Section 2	832.52	0.52	-0.02	0.01	-3.80	
90.00		308.29	0.54	-0.03	0.01	-3.15	
95.00		671.62	0.60	-0.05	0.02	-14.66	
100.00		653.06	0.67	-0.08	0.02	-20.18	
105.00		634.49	0.74	-0.10	0.04	-23.10	
110.00		615.93	0.81	-0.11	0.06	-23.36	
115.00		597.36	0.89	-0.12	0.08	-21.15	
120.00		578.80	0.96	-0.12	0.11	-16.76	
123.25	Bot - Section 4	366.26	1.02	-0.11	0.14	-8.31	
125.00		351.80	1.05	-0.10	0.16	-6.56	
127.50	Top - Section 3	495.47	1.09	-0.08	0.18	-5.98	
130.00		218.61	1.13	-0.05	0.21	-0.99	
135.00	Appurtenance(s)	2487.9	1.22	0.02	0.27	33.22	
140.00		411.22	1.31	0.14	0.35	14.41	
145.00		396.37	1.41	0.30	0.44	24.03	
147.00	Appurtenance(s)	3524.8	1.45	0.38	0.48	253.56	
150.00		227.13	1.51	0.52	0.55	20.47	
155.00		366.67	1.61	0.81	0.68	45.33	
157.00	Appurtenance(s)	3901.3	1.65	0.94	0.74	539.01	
160.00		209.31	1.71	1.18	0.84	33.75	
165.00		336.96	1.82	1.65	1.02	68.41	
167.00	Appurtenance(s)	3957.3	1.87	1.86	1.10	874.28	
168.00	Appurtenance(s)	99.42	1.89	1.98	1.14	22.88	
	Totals:	**42,696.6**				**2,381.5**	**Total Wind:** **41,755.7**

Calculated Forces

Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 22	

IES Tower Engineering Solutions

Load Case:	1.2D + 1.0E							**Iterations**	23
Gust Response Factor	1.10			**Sds**	0.18			**Ss**	0.17
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31	**SA**	0.03	**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	-55.49	-2.54	0.00	-351.91	0.00	351.91	5501.01	2750.51	13262.9	6641.33		0.00	0.00	0.063
5.00	-53.78	-2.52	0.00	-339.23	0.00	339.23	5435.34	2717.67	12856.9	6438.04		0.01	-0.01	0.063
10.00	-52.02	-2.50	0.00	-326.61	0.00	326.61	5368.23	2684.11	12453.6	6236.09		0.03	-0.03	0.062
15.00	-50.29	-2.48	0.00	-314.09	0.00	314.09	5299.69	2649.84	12053.2	6035.57		0.07	-0.04	0.062
20.00	-48.60	-2.45	0.00	-301.71	0.00	301.71	5229.71	2614.86	11655.8	5836.57		0.12	-0.06	0.061
25.00	-46.93	-2.41	0.00	-289.48	0.00	289.48	5158.30	2579.15	11261.6	5639.20		0.19	-0.07	0.060
30.00	-45.30	-2.38	0.00	-277.41	0.00	277.41	5085.46	2542.73	10870.9	5443.55		0.27	-0.09	0.060
35.00	-43.69	-2.35	0.00	-265.50	0.00	265.50	5011.18	2505.59	10483.8	5249.72		0.37	-0.10	0.059
40.00	-42.12	-2.31	0.00	-253.75	0.00	253.75	4935.46	2467.73	10100.6	5057.82		0.49	-0.12	0.059
42.75	-41.27	-2.29	0.00	-247.39	0.00	247.39	4893.21	2446.61	9891.54	4953.12		0.56	-0.13	0.058
45.00	-40.04	-2.26	0.00	-242.22	0.00	242.22	4858.32	2429.16	9721.41	4867.93		0.62	-0.14	0.058
49.00	-37.87	-2.20	0.00	-233.17	0.00	233.17	3959.59	1979.80	7922.06	3966.92		0.74	-0.15	0.068
50.00	-37.61	-2.20	0.00	-230.97	0.00	230.97	3948.01	1974.01	7862.92	3937.31		0.77	-0.15	0.068
55.00	-36.30	-2.17	0.00	-219.96	0.00	219.96	3889.26	1944.63	7568.72	3789.99		0.94	-0.17	0.067
60.00	-35.02	-2.15	0.00	-209.10	0.00	209.10	3829.07	1914.54	7277.15	3643.98		1.13	-0.19	0.067
65.00	-33.76	-2.12	0.00	-198.36	0.00	198.36	3767.45	1883.72	6988.40	3499.39		1.34	-0.21	0.066
70.00	-32.53	-2.10	0.00	-187.75	0.00	187.75	3704.39	1852.20	6702.67	3356.32		1.57	-0.23	0.065
75.00	-31.33	-2.09	0.00	-177.24	0.00	177.24	3639.90	1819.95	6420.16	3214.85		1.82	-0.25	0.064
80.00	-30.16	-2.08	0.00	-166.80	0.00	166.80	3573.98	1786.99	6141.06	3075.10		2.09	-0.27	0.063
82.50	-29.58	-2.08	0.00	-161.60	0.00	161.60	3540.48	1770.24	6002.85	3005.89		2.24	-0.28	0.062
85.00	-28.59	-2.08	0.00	-156.40	0.00	156.40	3506.62	1753.31	5865.57	2937.15		2.39	-0.29	0.061
87.75	-27.51	-2.08	0.00	-150.69	0.00	150.69	2761.71	1380.86	4636.01	2321.45		2.56	-0.30	0.075
90.00	-27.08	-2.08	0.00	-146.02	0.00	146.02	2740.07	1370.04	4543.51	2275.13		2.70	-0.31	0.074
95.00	-26.13	-2.09	0.00	-135.61	0.00	135.61	2690.94	1345.47	4339.45	2172.95		3.05	-0.34	0.072
100.00	-25.20	-2.09	0.00	-125.16	0.00	125.16	2640.38	1320.19	4137.62	2071.89		3.41	-0.36	0.070
105.00	-24.30	-2.10	0.00	-114.70	0.00	114.70	2588.38	1294.19	3938.22	1972.04		3.80	-0.39	0.068
110.00	-23.41	-2.10	0.00	-104.21	0.00	104.21	2534.95	1267.48	3741.44	1873.50		4.22	-0.41	0.065
115.00	-22.55	-2.10	0.00	-93.70	0.00	93.70	2480.09	1240.04	3547.48	1776.38		4.66	-0.43	0.062
120.00	-21.71	-2.11	0.00	-83.17	0.00	83.17	2423.79	1211.90	3356.53	1680.76		5.13	-0.46	0.058
123.25	-21.18	-2.11	0.00	-76.33	0.00	76.33	2386.43	1193.21	3234.12	1619.46		5.45	-0.47	0.056
125.00	-20.71	-2.11	0.00	-72.65	0.00	72.65	2366.06	1183.03	3168.79	1586.75		5.63	-0.48	0.055
127.50	-20.04	-2.10	0.00	-67.38	0.00	67.38	1766.99	883.49	2371.88	1187.70		5.88	-0.49	0.068
130.00	-19.71	-2.11	0.00	-62.12	0.00	62.12	1747.69	873.85	2306.16	1154.80		6.14	-0.50	0.065
135.00	-16.58	-2.05	0.00	-51.59	0.00	51.59	1708.02	854.01	2176.01	1089.62		6.68	-0.53	0.057
140.00	-15.95	-2.04	0.00	-41.33	0.00	41.33	1666.92	833.46	2047.71	1025.37		7.25	-0.55	0.050
145.00	-15.35	-2.01	0.00	-31.14	0.00	31.14	1624.39	812.19	1921.45	962.15		7.84	-0.57	0.042
147.00	-11.07	-1.72	0.00	-27.12	0.00	27.12	1606.97	803.49	1871.57	937.18		8.08	-0.58	0.036
150.00	-10.75	-1.69	0.00	-21.97	0.00	21.97	1580.42	790.21	1797.44	900.06		8.45	-0.59	0.031
155.00	-10.25	-1.65	0.00	-13.49	0.00	13.49	1535.02	767.51	1675.88	839.18		9.07	-0.60	0.023
157.00	-5.54	-1.06	0.00	-10.20	0.00	10.20	1516.46	758.23	1627.98	815.20		9.32	-0.60	0.016
160.00	-5.28	-1.02	0.00	-7.03	0.00	7.03	1488.18	744.09	1556.95	779.63		9.70	-0.61	0.013
165.00	-4.86	-0.95	0.00	-1.92	0.00	1.92	1439.00	719.50	1439.93	721.04		10.33	-0.61	0.006
167.00	-0.12	-0.02	0.00	-0.02	0.00	0.02	1413.06	706.53	1388.23	695.14		10.59	-0.61	0.000
168.00	0.00	-0.02	0.00	0.00	0.00	0.00	1400.09	700.04	1362.73	682.38		10.72	-0.61	0.000

Seismic Segment Forces (Factored)

Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 23	

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Load Case: 0.9D + 1.0E

Gust Response Factor	1.10			**Sds**	0.18	**Iterations**	23
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.10	**Ss**	0.17
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31	**SA**	0.03	**S1**	0.06
						Seismic Importance Factor	1.00

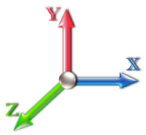
Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1372.6	0.00	0.03	0.02	23.63	
10.00		1346.6	0.01	0.05	0.03	34.05	
15.00		1320.6	0.02	0.06	0.04	38.93	
20.00		1294.7	0.03	0.07	0.04	41.09	
25.00		1268.7	0.04	0.07	0.04	41.91	
30.00		1242.7	0.06	0.07	0.04	42.15	
35.00		1216.7	0.08	0.07	0.04	42.18	
40.00		1190.7	0.11	0.07	0.04	42.18	
42.75	Bot - Section 2	643.83	0.12	0.07	0.03	23.07	
45.00		974.82	0.14	0.07	0.03	35.24	
49.00	Top - Section 1	1708.8	0.16	0.07	0.03	62.58	
50.00		196.72	0.17	0.07	0.03	7.22	
55.00		970.25	0.20	0.06	0.02	35.71	
60.00		947.97	0.24	0.06	0.02	34.18	
65.00		925.69	0.28	0.05	0.01	31.41	
70.00		903.42	0.33	0.04	0.01	26.95	
75.00		881.14	0.38	0.03	0.01	20.45	
80.00		858.86	0.43	0.01	0.01	11.92	
82.50	Bot - Section 3	421.08	0.46	0.00	0.01	3.50	
85.00		767.56	0.48	-0.01	0.01	1.77	
87.75	Top - Section 2	832.52	0.52	-0.02	0.01	-3.80	
90.00		308.29	0.54	-0.03	0.01	-3.15	
95.00		671.62	0.60	-0.05	0.02	-14.66	
100.00		653.06	0.67	-0.08	0.02	-20.18	
105.00		634.49	0.74	-0.10	0.04	-23.10	
110.00		615.93	0.81	-0.11	0.06	-23.36	
115.00		597.36	0.89	-0.12	0.08	-21.15	
120.00		578.80	0.96	-0.12	0.11	-16.76	
123.25	Bot - Section 4	366.26	1.02	-0.11	0.14	-8.31	
125.00		351.80	1.05	-0.10	0.16	-6.56	
127.50	Top - Section 3	495.47	1.09	-0.08	0.18	-5.98	
130.00		218.61	1.13	-0.05	0.21	-0.99	
135.00	Appurtenance(s)	2487.9	1.22	0.02	0.27	33.22	
140.00		411.22	1.31	0.14	0.35	14.41	
145.00		396.37	1.41	0.30	0.44	24.03	
147.00	Appurtenance(s)	3524.8	1.45	0.38	0.48	253.56	
150.00		227.13	1.51	0.52	0.55	20.47	
155.00		366.67	1.61	0.81	0.68	45.33	
157.00	Appurtenance(s)	3901.3	1.65	0.94	0.74	539.01	
160.00		209.31	1.71	1.18	0.84	33.75	
165.00		336.96	1.82	1.65	1.02	68.41	
167.00	Appurtenance(s)	3957.3	1.87	1.86	1.10	874.28	
168.00	Appurtenance(s)	99.42	1.89	1.98	1.14	22.88	
	Totals:	**42,696.6**				**2,381.5**	**Total Wind:** **41,755.7**

Calculated Forces

Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 24	

IES Tower Engineering Solutions

Load Case: 0.9D + 1.0E



Gust Response Factor	1.10			**Sds**	0.18			**Iterations**	23
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.10			**Ss**	0.17
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31	**SA**	0.03			**S1**	0.06
								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	-41.61	-2.53	0.00	-346.84	0.00	346.84	5501.01	2750.51	13262.9	6641.33		0.00	0.00	0.060
5.00	-40.34	-2.52	0.00	-334.17	0.00	334.17	5435.34	2717.67	12856.9	6438.04		0.01	-0.01	0.059
10.00	-39.02	-2.49	0.00	-321.57	0.00	321.57	5368.23	2684.11	12453.6	6236.09		0.03	-0.03	0.059
15.00	-37.72	-2.46	0.00	-309.09	0.00	309.09	5299.69	2649.84	12053.2	6035.57		0.07	-0.04	0.058
20.00	-36.45	-2.43	0.00	-296.77	0.00	296.77	5229.71	2614.86	11655.8	5836.57		0.12	-0.06	0.058
25.00	-35.20	-2.40	0.00	-284.61	0.00	284.61	5158.30	2579.15	11261.6	5639.20		0.18	-0.07	0.057
30.00	-33.97	-2.36	0.00	-272.63	0.00	272.63	5085.46	2542.73	10870.9	5443.55		0.27	-0.09	0.057
35.00	-32.77	-2.33	0.00	-260.81	0.00	260.81	5011.18	2505.59	10483.8	5249.72		0.37	-0.10	0.056
40.00	-31.59	-2.29	0.00	-249.17	0.00	249.17	4935.46	2467.73	10100.6	5057.82		0.48	-0.12	0.056
42.75	-30.95	-2.27	0.00	-242.88	0.00	242.88	4893.21	2446.61	9891.54	4953.12		0.55	-0.13	0.055
45.00	-30.03	-2.24	0.00	-237.77	0.00	237.77	4858.32	2429.16	9721.41	4867.93		0.61	-0.13	0.055
49.00	-28.40	-2.18	0.00	-228.82	0.00	228.82	3959.59	1979.80	7922.06	3966.92		0.73	-0.15	0.065
50.00	-28.20	-2.17	0.00	-226.64	0.00	226.64	3948.01	1974.01	7862.92	3937.31		0.76	-0.15	0.065
55.00	-27.22	-2.14	0.00	-215.78	0.00	215.78	3889.26	1944.63	7568.72	3789.99		0.93	-0.17	0.064
60.00	-26.26	-2.11	0.00	-205.06	0.00	205.06	3829.07	1914.54	7277.15	3643.98		1.11	-0.19	0.063
65.00	-25.32	-2.09	0.00	-194.49	0.00	194.49	3767.45	1883.72	6988.40	3499.39		1.32	-0.21	0.062
70.00	-24.40	-2.07	0.00	-184.05	0.00	184.05	3704.39	1852.20	6702.67	3356.32		1.54	-0.23	0.061
75.00	-23.50	-2.05	0.00	-173.71	0.00	173.71	3639.90	1819.95	6420.16	3214.85		1.79	-0.25	0.060
80.00	-22.62	-2.04	0.00	-163.46	0.00	163.46	3573.98	1786.99	6141.06	3075.10		2.06	-0.27	0.059
82.50	-22.18	-2.04	0.00	-158.36	0.00	158.36	3540.48	1770.24	6002.85	3005.89		2.20	-0.28	0.059
85.00	-21.44	-2.04	0.00	-153.26	0.00	153.26	3506.62	1753.31	5865.57	2937.15		2.35	-0.29	0.058
87.75	-20.63	-2.04	0.00	-147.65	0.00	147.65	2761.71	1380.86	4636.01	2321.45		2.52	-0.30	0.071
90.00	-20.31	-2.04	0.00	-143.07	0.00	143.07	2740.07	1370.04	4543.51	2275.13		2.66	-0.31	0.070
95.00	-19.59	-2.05	0.00	-132.86	0.00	132.86	2690.94	1345.47	4339.45	2172.95		2.99	-0.33	0.068
100.00	-18.90	-2.05	0.00	-122.63	0.00	122.63	2640.38	1320.19	4137.62	2071.89		3.35	-0.36	0.066
105.00	-18.22	-2.05	0.00	-112.38	0.00	112.38	2588.38	1294.19	3938.22	1972.04		3.74	-0.38	0.064
110.00	-17.56	-2.06	0.00	-102.11	0.00	102.11	2534.95	1267.48	3741.44	1873.50		4.15	-0.40	0.061
115.00	-16.91	-2.06	0.00	-91.83	0.00	91.83	2480.09	1240.04	3547.48	1776.38		4.58	-0.43	0.059
120.00	-16.28	-2.06	0.00	-81.54	0.00	81.54	2423.79	1211.90	3356.53	1680.76		5.04	-0.45	0.055
123.25	-15.88	-2.06	0.00	-74.85	0.00	74.85	2386.43	1193.21	3234.12	1619.46		5.35	-0.46	0.053
125.00	-15.53	-2.06	0.00	-71.24	0.00	71.24	2366.06	1183.03	3168.79	1586.75		5.52	-0.47	0.051
127.50	-15.03	-2.06	0.00	-66.10	0.00	66.10	1766.99	883.49	2371.88	1187.70		5.78	-0.48	0.064
130.00	-14.78	-2.06	0.00	-60.95	0.00	60.95	1747.69	873.85	2306.16	1154.80		6.03	-0.50	0.061
135.00	-12.43	-2.01	0.00	-50.65	0.00	50.65	1708.02	854.01	2176.01	1089.62		6.56	-0.52	0.054
140.00	-11.96	-2.00	0.00	-40.60	0.00	40.60	1666.92	833.46	2047.71	1025.37		7.12	-0.54	0.047
145.00	-11.50	-1.97	0.00	-30.62	0.00	30.62	1624.39	812.19	1921.45	962.15		7.70	-0.56	0.039
147.00	-8.30	-1.69	0.00	-26.68	0.00	26.68	1606.97	803.49	1871.57	937.18		7.93	-0.57	0.034
150.00	-8.06	-1.67	0.00	-21.62	0.00	21.62	1580.42	790.21	1797.44	900.06		8.29	-0.58	0.029
155.00	-7.68	-1.62	0.00	-13.29	0.00	13.29	1535.02	767.51	1675.88	839.18		8.90	-0.59	0.021
157.00	-4.16	-1.04	0.00	-10.05	0.00	10.05	1516.46	758.23	1627.98	815.20		9.15	-0.59	0.015
160.00	-3.96	-1.01	0.00	-6.93	0.00	6.93	1488.18	744.09	1556.95	779.63		9.52	-0.59	0.012
165.00	-3.65	-0.94	0.00	-1.89	0.00	1.89	1439.00	719.50	1439.93	721.04		10.14	-0.60	0.005
167.00	-0.09	-0.02	0.00	-0.02	0.00	0.02	1413.06	706.53	1388.23	695.14		10.40	-0.60	0.000
168.00	0.00	-0.02	0.00	0.00	0.00	0.00	1400.09	700.04	1362.73	682.38		10.52	-0.60	0.000

Wind Loading - Shaft

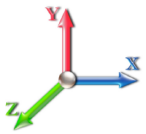
Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 25	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



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	0.85	7.442	8.19	276.59	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.19	271.44	0.650	0.000	5.00	24.768	16.10	131.8	0.0	1372.7
10.00		1.00	0.85	7.442	8.19	266.29	0.650	0.000	5.00	24.302	15.80	129.3	0.0	1346.7
15.00		1.00	0.85	7.442	8.19	261.14	0.650	0.000	5.00	23.837	15.49	126.8	0.0	1320.7
20.00		1.00	0.90	7.896	8.69	263.69	0.650	0.000	5.00	23.372	15.19	132.0	0.0	1294.7
25.00		1.00	0.95	8.276	9.10	264.53	0.650	0.000	5.00	22.906	14.89	135.5	0.0	1268.7
30.00		1.00	0.98	8.600	9.46	264.12	0.650	0.000	5.00	22.441	14.59	138.0	0.0	1242.7
35.00		1.00	1.01	8.883	9.77	262.81	0.650	0.000	5.00	21.975	14.28	139.6	0.0	1216.7
40.00		1.00	1.04	9.137	10.05	260.83	0.650	0.000	5.00	21.510	13.98	140.5	0.0	1190.7
42.75	Bot - Section 2	1.00	1.06	9.266	10.19	259.50	0.650	0.000	2.75	11.632	7.56	77.1	0.0	643.8
45.00		1.00	1.07	9.366	10.30	258.30	0.650	0.000	2.25	9.555	6.21	64.0	0.0	974.8
49.00	Top - Section 1	1.00	1.09	9.536	10.49	255.97	0.650	0.000	4.00	16.754	10.89	114.2	0.0	1708.9
50.00		1.00	1.09	9.576	10.53	259.33	0.650	0.000	1.00	4.142	2.69	28.4	0.0	196.7
55.00		1.00	1.12	9.770	10.75	256.04	0.650	0.000	5.00	20.431	13.28	142.7	0.0	970.2
60.00		1.00	1.14	9.951	10.95	252.44	0.650	0.000	5.00	19.965	12.98	142.1	0.0	948.0
65.00		1.00	1.16	10.120	11.13	248.57	0.650	0.000	5.00	19.500	12.67	141.1	0.0	925.7
70.00		1.00	1.17	10.279	11.31	244.47	0.650	0.000	5.00	19.034	12.37	139.9	0.0	903.4
75.00		1.00	1.19	10.430	11.47	240.15	0.650	0.000	5.00	18.569	12.07	138.5	0.0	881.1
80.00		1.00	1.21	10.572	11.63	235.65	0.650	0.000	5.00	18.103	11.77	136.8	0.0	858.9
82.50	Bot - Section 3	1.00	1.22	10.641	11.71	233.34	0.650	0.000	2.50	8.877	5.77	67.5	0.0	421.1
85.00		1.00	1.22	10.708	11.78	230.98	0.650	0.000	2.50	8.893	5.78	68.1	0.0	767.6
87.75	Top - Section 2	1.00	1.23	10.780	11.86	228.35	0.650	0.000	2.75	9.648	6.27	74.4	0.0	832.5
90.00		1.00	1.24	10.838	11.92	229.69	0.650	0.000	2.25	7.789	5.06	60.4	0.0	308.3
95.00		1.00	1.25	10.962	12.06	224.75	0.650	0.000	5.00	16.971	11.03	133.0	0.0	671.6
100.00		1.00	1.27	11.081	12.19	219.69	0.650	0.000	5.00	16.506	10.73	130.8	0.0	653.1
105.00		1.00	1.28	11.195	12.31	214.50	0.650	0.000	5.00	16.040	10.43	128.4	0.0	634.5
110.00		1.00	1.29	11.305	12.44	209.21	0.650	0.000	5.00	15.575	10.12	125.9	0.0	615.9
115.00		1.00	1.30	11.412	12.55	203.81	0.650	0.000	5.00	15.109	9.82	123.3	0.0	597.4
120.00		1.00	1.32	11.514	12.67	198.32	0.650	0.000	5.00	14.644	9.52	120.6	0.0	578.8
123.25	Bot - Section 4	1.00	1.32	11.579	12.74	194.70	0.650	0.000	3.25	9.269	6.02	76.7	0.0	366.3
125.00		1.00	1.33	11.614	12.78	192.74	0.650	0.000	1.75	4.984	3.24	41.4	0.0	351.8
127.50	Top - Section 3	1.00	1.33	11.662	12.83	189.92	0.650	0.000	2.50	7.020	4.56	58.5	0.0	495.5
130.00		1.00	1.34	11.710	12.88	190.01	0.650	0.000	2.50	6.904	4.49	57.8	0.0	218.6
135.00	Appurtenance(s)	1.00	1.35	11.803	12.98	184.29	0.650	0.000	5.00	13.459	8.75	113.6	0.0	426.1
140.00		1.00	1.36	11.894	13.08	178.48	0.650	0.000	5.00	12.994	8.45	110.5	0.0	411.2
145.00		1.00	1.37	11.982	13.18	172.61	0.650	0.000	5.00	12.528	8.14	107.3	0.0	396.4
147.00	Appurtenance(s)	1.00	1.37	12.017	13.22	170.24	0.650	0.000	2.00	4.881	3.17	41.9	0.0	154.4
150.00		1.00	1.38	12.068	13.27	166.67	0.650	0.000	3.00	7.182	4.67	62.0	0.0	227.1
155.00		1.00	1.39	12.152	13.37	160.66	0.650	0.000	5.00	11.597	7.54	100.8	0.0	366.7
157.00	Appurtenance(s)	1.00	1.39	12.185	13.40	158.24	0.650	0.000	2.00	4.509	2.93	39.3	0.0	142.5
160.00		1.00	1.40	12.233	13.46	154.60	0.650	0.000	3.00	6.623	4.31	57.9	0.0	209.3
165.00		1.00	1.41	12.313	13.54	148.48	0.650	0.000	5.00	10.666	6.93	93.9	0.0	337.0
167.00	Appurtenance(s)	1.00	1.41	12.344	13.58	146.01	0.650	0.000	2.00	4.136	2.69	36.5	0.0	130.6
168.00	Appurtenance(s)	1.00	1.41	12.360	13.60	144.78	0.650	0.000	1.00	2.040	1.33	18.0	0.0	64.4
								Totals:	**168.00**			**4,246.7**		**29,643.8**

Discrete Appurtenance Forces

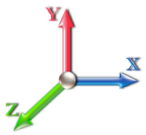
Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 26	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



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	168.00	Lightning Rod	1	12.398	13.638	1.00	1.00	1.05	35.00	0.000	2.500	14.32	0.00	35.80
2	167.00	Commscope	3	12.344	13.578	0.58	0.80	21.50	254.10	0.000	0.000	291.90	0.00	0.00
3	167.00	V-Brace Kit (Site Pro	1	12.344	13.578	0.75	0.75	5.03	230.00	0.000	0.000	68.23	0.00	0.00
4	167.00	Pipe2.0STD x 15'	1	12.344	13.578	0.75	0.75	5.06	261.72	0.000	0.000	68.74	0.00	0.00
5	167.00	RFS APXVTM14-C-I20	3	12.344	13.578	0.62	0.80	11.87	168.00	0.000	0.000	161.16	0.00	0.00
6	167.00	Pipe2.0STD Mount Pipes	6	12.344	13.578	0.64	0.80	5.49	240.00	0.000	0.000	74.56	0.00	0.00
7	167.00	ALU 800 Mhz RRU's	6	12.344	13.578	0.54	0.80	6.85	318.00	0.000	0.000	93.01	0.00	0.00
8	167.00	ALU TD-RRH8x20-25	3	12.344	13.578	0.54	0.80	6.51	210.00	0.000	0.000	88.43	0.00	0.00
9	167.00	Reinforcement Kit (Site	1	12.344	13.578	0.75	0.75	7.13	464.91	0.000	0.000	96.75	0.00	0.00
10	167.00	Low Profile Platform	1	12.344	13.578	1.00	1.00	22.00	1500.00	0.000	0.000	298.73	0.00	0.00
11	167.00	ALU 1900 Mhz RRU's	3	12.344	13.578	0.54	0.80	3.83	180.00	0.000	0.000	51.97	0.00	0.00
12	157.00	Raycap	1	12.185	13.403	0.50	0.75	2.04	32.00	0.000	0.000	27.34	0.00	0.00
13	157.00	Samsung B2/B66A RRU's	3	12.185	13.403	0.50	0.75	2.83	253.20	0.000	0.000	37.99	0.00	0.00
14	157.00	Samsung B5/B13 RRU's	3	12.185	13.403	0.50	0.75	2.83	210.90	0.000	0.000	37.99	0.00	0.00
15	157.00	Monopole Collar Mount	1	12.185	13.403	1.00	1.00	2.50	150.00	0.000	0.000	33.51	0.00	0.00
16	157.00	JMA 91900314-02	3	12.185	13.403	0.38	0.75	0.90	84.00	0.000	0.000	12.06	0.00	0.00
17	157.00	Platform w/ Hand Rails	1	12.185	13.403	1.00	1.00	40.00	2000.00	0.000	0.000	536.12	0.00	0.00
18	157.00	Kicker Kit	1	12.185	13.403	1.00	1.00	9.50	291.00	0.000	0.000	127.33	0.00	0.00
19	157.00	Samsung MT6407-77A	3	12.185	13.403	0.52	0.75	7.40	261.30	0.000	0.000	99.22	0.00	0.00
20	157.00	Commscope	3	12.185	13.403	0.62	0.75	15.26	116.40	0.000	0.000	204.50	0.00	0.00
21	157.00	JMA Wireless	6	12.185	13.403	0.65	0.75	38.64	360.00	0.000	0.000	517.91	0.00	0.00
22	147.00	RFS	3	12.017	13.219	0.54	0.75	32.79	384.00	0.000	0.000	433.42	0.00	0.00
23	147.00	AIR6449 B41	3	12.017	13.219	0.53	0.75	9.03	309.00	0.000	0.000	119.31	0.00	0.00
24	147.00	VV-65A-R1	3	12.017	13.219	0.55	0.75	13.15	71.43	0.000	0.000	173.87	0.00	0.00
25	147.00	4449 B71 + B85	3	12.017	13.219	0.50	0.75	2.97	225.00	0.000	0.000	39.26	0.00	0.00
26	147.00	4460 B25 + B66	3	12.017	13.219	0.50	0.75	4.30	312.00	0.000	0.000	56.79	0.00	0.00
27	147.00	Ericsson KRY 112 489/2	3	12.017	13.219	0.45	0.75	0.76	46.20	0.000	0.000	9.99	0.00	0.00
28	147.00	Allen Telecom	3	12.017	13.219	0.45	0.75	0.73	52.50	0.000	0.000	9.64	0.00	0.00
29	147.00	Kathrein 782 11056 Bias	3	12.017	13.219	0.48	0.80	0.22	5.40	0.000	0.000	2.86	0.00	0.00
30	147.00	Low Profile Platform	1	12.017	13.219	1.00	1.00	22.00	1500.00	0.000	0.000	290.81	0.00	0.00
31	147.00	Reinforcement Kit (Site	1	12.017	13.219	0.75	0.75	7.13	464.91	0.000	0.000	94.18	0.00	0.00
32	135.00	Platform w/HRK	1	11.803	12.984	1.00	1.00	33.60	1411.00	0.000	0.000	436.25	0.00	0.00
33	135.00	Raycap	1	11.803	12.984	0.50	0.75	1.01	21.85	0.000	0.000	13.11	0.00	0.00
34	135.00	Fujitsu TA08025-B604	3	11.803	12.984	0.50	0.75	2.95	191.79	0.000	0.000	38.36	0.00	0.00
35	135.00	Fujitsu TA08025-B605	3	11.803	12.984	0.50	0.75	2.95	224.85	0.000	0.000	38.36	0.00	0.00
36	135.00	FFVV-65B-R2	3	11.803	12.984	0.55	0.75	20.43	212.40	0.000	0.000	265.25	0.00	0.00
							Totals:		**13,052.86**			**4,963.22**		

Total Applied Force Summary

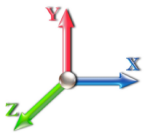
Structure:	CT02217-S-SBA		**Code:**	TIA-222-G	5/9/2022
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 27

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



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
5.00		131.79	1420.27	0.00	0.00
10.00		129.31	1465.68	0.00	0.00
15.00		126.84	1439.69	0.00	0.00
20.00		131.95	1413.70	0.00	0.00
25.00		135.54	1387.71	0.00	0.00
30.00		137.98	1361.72	0.00	0.00
35.00		139.58	1335.73	0.00	0.00
40.00		140.52	1309.74	0.00	0.00
42.75		77.06	709.28	0.00	0.00
45.00		63.99	1028.37	0.00	0.00
49.00		114.23	1804.09	0.00	0.00
50.00		28.36	220.52	0.00	0.00
55.00		142.72	1089.25	0.00	0.00
60.00		142.05	1066.97	0.00	0.00
65.00		141.10	1044.69	0.00	0.00
70.00		139.89	1022.42	0.00	0.00
75.00		138.47	1000.14	0.00	0.00
80.00		136.85	977.86	0.00	0.00
82.50		67.54	480.58	0.00	0.00
85.00		68.09	827.06	0.00	0.00
87.75		74.36	897.97	0.00	0.00
90.00		60.36	361.84	0.00	0.00
95.00		133.01	790.62	0.00	0.00
100.00		130.77	772.06	0.00	0.00
105.00		128.40	753.49	0.00	0.00
110.00		125.90	734.93	0.00	0.00
115.00		123.28	716.36	0.00	0.00
120.00		120.56	697.80	0.00	0.00
123.25		76.74	443.61	0.00	0.00
125.00		41.38	393.45	0.00	0.00
127.50		58.54	554.97	0.00	0.00
130.00		57.81	278.11	0.00	0.00
135.00	(11) attachments	904.93	2606.97	0.00	0.00
140.00		110.50	521.12	0.00	0.00
145.00		107.33	506.27	0.00	0.00
147.00	(26) attachments	1272.07	3568.79	0.00	0.00
150.00		61.97	260.37	0.00	0.00
155.00		100.76	422.07	0.00	0.00
157.00	(25) attachments	1673.24	3923.47	0.00	0.00
160.00		57.93	217.23	0.00	0.00
165.00		93.90	350.16	0.00	0.00
167.00	(28) attachments	1329.97	3962.64	0.00	0.00
168.00	(1) attachments	32.35	99.42	0.00	35.80
	Totals:	**9,209.91**	**46,239.18**	**0.00**	**35.80**

Calculated Forces

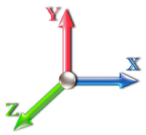
Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 28	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

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	-46.24	-9.23	0.00	-1157.7	0.00	1157.73	5501.01	2750.51	13262.9	6641.33	0.00	0.000	0.000	0.183
5.00	-44.81	-9.13	0.00	-1111.5	0.00	1111.59	5435.34	2717.67	12856.9	6438.04	0.02	-0.046	0.000	0.181
10.00	-43.34	-9.04	0.00	-1065.9	0.00	1065.94	5368.23	2684.11	12453.6	6236.09	0.10	-0.092	0.000	0.179
15.00	-41.89	-8.94	0.00	-1020.7	0.00	1020.76	5299.69	2649.84	12053.2	6035.57	0.22	-0.139	0.000	0.177
20.00	-40.47	-8.84	0.00	-976.05	0.00	976.05	5229.71	2614.86	11655.8	5836.57	0.39	-0.187	0.000	0.175
25.00	-39.07	-8.73	0.00	-931.86	0.00	931.86	5158.30	2579.15	11261.6	5639.20	0.61	-0.235	0.000	0.173
30.00	-37.70	-8.62	0.00	-888.20	0.00	888.20	5085.46	2542.73	10870.9	5443.55	0.88	-0.284	0.000	0.171
35.00	-36.36	-8.50	0.00	-845.10	0.00	845.10	5011.18	2505.59	10483.8	5249.72	1.21	-0.334	0.000	0.168
40.00	-35.05	-8.38	0.00	-802.58	0.00	802.58	4935.46	2467.73	10100.6	5057.82	1.59	-0.385	0.000	0.166
42.75	-34.33	-8.31	0.00	-779.54	0.00	779.54	4893.21	2446.61	9891.54	4953.12	1.82	-0.413	0.000	0.164
45.00	-33.30	-8.26	0.00	-760.83	0.00	760.83	4858.32	2429.16	9721.41	4867.93	2.02	-0.437	0.000	0.163
49.00	-31.50	-8.15	0.00	-727.79	0.00	727.79	3959.59	1979.80	7922.06	3966.92	2.40	-0.478	0.000	0.191
50.00	-31.27	-8.14	0.00	-719.64	0.00	719.64	3948.01	1974.01	7862.92	3937.31	2.50	-0.489	0.000	0.191
55.00	-30.17	-8.01	0.00	-678.96	0.00	678.96	3889.26	1944.63	7568.72	3789.99	3.04	-0.547	0.000	0.187
60.00	-29.10	-7.89	0.00	-638.89	0.00	638.89	3829.07	1914.54	7277.15	3643.98	3.65	-0.606	0.000	0.183
65.00	-28.05	-7.77	0.00	-599.44	0.00	599.44	3767.45	1883.72	6988.40	3499.39	4.31	-0.665	0.000	0.179
70.00	-27.02	-7.64	0.00	-560.60	0.00	560.60	3704.39	1852.20	6702.67	3356.32	5.04	-0.724	0.000	0.174
75.00	-26.01	-7.52	0.00	-522.39	0.00	522.39	3639.90	1819.95	6420.16	3214.85	5.83	-0.784	0.000	0.170
80.00	-25.03	-7.39	0.00	-484.79	0.00	484.79	3573.98	1786.99	6141.06	3075.10	6.69	-0.844	0.000	0.165
82.50	-24.55	-7.33	0.00	-466.32	0.00	466.32	3540.48	1770.24	6002.85	3005.89	7.14	-0.875	0.000	0.162
85.00	-23.72	-7.26	0.00	-448.01	0.00	448.01	3506.62	1753.31	5865.57	2937.15	7.61	-0.906	0.000	0.159
87.75	-22.82	-7.18	0.00	-428.05	0.00	428.05	2761.71	1380.86	4636.01	2321.45	8.14	-0.939	0.000	0.193
90.00	-22.45	-7.13	0.00	-411.89	0.00	411.89	2740.07	1370.04	4543.51	2275.13	8.59	-0.967	0.000	0.189
95.00	-21.66	-7.01	0.00	-376.22	0.00	376.22	2690.94	1345.47	4339.45	2172.95	9.64	-1.035	0.000	0.181
100.00	-20.88	-6.89	0.00	-341.15	0.00	341.15	2640.38	1320.19	4137.62	2071.89	10.76	-1.102	0.000	0.173
105.00	-20.12	-6.77	0.00	-306.69	0.00	306.69	2588.38	1294.19	3938.22	1972.04	11.95	-1.169	0.000	0.163
110.00	-19.38	-6.65	0.00	-272.83	0.00	272.83	2534.95	1267.48	3741.44	1873.50	13.21	-1.233	0.000	0.153
115.00	-18.66	-6.53	0.00	-239.56	0.00	239.56	2480.09	1240.04	3547.48	1776.38	14.53	-1.296	0.000	0.142
120.00	-17.96	-6.41	0.00	-206.90	0.00	206.90	2423.79	1211.90	3356.53	1680.76	15.92	-1.356	0.000	0.131
123.25	-17.52	-6.33	0.00	-186.06	0.00	186.06	2386.43	1193.21	3234.12	1619.46	16.86	-1.394	0.000	0.122
125.00	-17.12	-6.29	0.00	-174.97	0.00	174.97	2366.06	1183.03	3168.79	1586.75	17.37	-1.413	0.000	0.118
127.50	-16.56	-6.22	0.00	-159.25	0.00	159.25	1766.99	883.49	2371.88	1187.70	18.12	-1.441	0.000	0.144
130.00	-16.28	-6.17	0.00	-143.69	0.00	143.69	1747.69	873.85	2306.16	1154.80	18.88	-1.467	0.000	0.134
135.00	-13.70	-5.21	0.00	-112.83	0.00	112.83	1708.02	854.01	2176.01	1089.62	20.45	-1.522	0.000	0.112
140.00	-13.17	-5.10	0.00	-86.77	0.00	86.77	1666.92	833.46	2047.71	1025.37	22.07	-1.569	0.000	0.093
145.00	-12.67	-4.98	0.00	-61.29	0.00	61.29	1624.39	812.19	1921.45	962.15	23.73	-1.608	0.000	0.072
147.00	-9.14	-3.61	0.00	-51.33	0.00	51.33	1606.97	803.49	1871.57	937.18	24.41	-1.622	0.000	0.060
150.00	-8.88	-3.55	0.00	-40.49	0.00	40.49	1580.42	790.21	1797.44	900.06	25.44	-1.639	0.000	0.051
155.00	-8.46	-3.43	0.00	-22.77	0.00	22.77	1535.02	767.51	1675.88	839.18	27.16	-1.660	0.000	0.033
157.00	-4.58	-1.65	0.00	-15.90	0.00	15.90	1516.46	758.23	1627.98	815.20	27.86	-1.666	0.000	0.023
160.00	-4.37	-1.58	0.00	-10.95	0.00	10.95	1488.18	744.09	1556.95	779.63	28.91	-1.672	0.000	0.017
165.00	-4.02	-1.48	0.00	-3.03	0.00	3.03	1439.00	719.50	1439.93	721.04	30.66	-1.678	0.000	0.007
167.00	-0.10	-0.04	0.00	-0.07	0.00	0.07	1413.06	706.53	1388.23	695.14	31.37	-1.679	0.000	0.000
168.00	0.00	-0.03	0.00	-0.04	0.00	0.04	1400.09	700.04	1362.73	682.38	31.72	-1.679	0.000	0.000

Final Analysis Summary

Structure:	CT02217-S-SBA	**Code:**	TIA-222-G	5/9/2022	
Site Name:	Pomfret School	**Exposure:**	C		
Height:	168.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 29	

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 101 mph Wind	41.9	0.00	55.41	0.00	0.00	5282.73
0.9D + 1.6W 101 mph Wind	41.8	0.00	41.54	0.00	0.00	5212.89
1.2D + 1.0Di + 1.0Wi 50 mph Wind	11.8	0.00	96.05	0.00	0.00	1539.53
1.2D + 1.0E	2.5	0.00	55.49	0.00	0.00	351.91
0.9D + 1.0E	2.5	0.00	41.61	0.00	0.00	346.84
1.0D + 1.0W 60 mph Wind	9.2	0.00	46.24	0.00	0.00	1157.73

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 101 mph Wind	-25.10	-32.84	0.00	-1957.2	0.00	-1957.2	2761.71	1380.8	4636.01	2321.45	87.75	0.853
0.9D + 1.6W 101 mph Wind	-18.28	-32.29	0.00	-1916.9	0.00	-1916.9	2761.71	1380.8	4636.01	2321.45	87.75	0.833
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-56.52	-9.65	0.00	-584.21	0.00	-584.21	2761.71	1380.8	4636.01	2321.45	87.75	0.272
1.2D + 1.0E	-27.51	-2.08	0.00	-150.69	0.00	-150.69	2761.71	1380.8	4636.01	2321.45	87.75	0.075
0.9D + 1.0E	-20.63	-2.04	0.00	-147.65	0.00	-147.65	2761.71	1380.8	4636.01	2321.45	87.75	0.071
1.0D + 1.0W 60 mph Wind	-22.82	-7.18	0.00	-428.05	0.00	-428.05	2761.71	1380.8	4636.01	2321.45	87.75	0.193

Base Plate Summary

Structure:	CT02217-S-SB		**Code:**	TIA-222-G	5/9/2022
Site Name:	Pomfret School		**Exposure:**	C	
Height:	168.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 30

Tower Engineering Solutions

Reactions	
Original Design	
Moment (kip-ft):	4750.00
Axial (kip):	38.00
Shear (kip):	37.50
Analysis (1.2D + 1.6W)	
Moment (kip-ft):	5282.73
Axial (kip):	55.41
Shear (kip):	41.86

Base Plate	
Yield (ksi):	50.00
Width (in):	65.00
Style:	Clipped
Polygon Sides:	0.00
Clip Length (in):	13.00
Effective Len (in):	9.15
Moment (kip-in):	680.30
Allow Stress (ksi):	67.50
Applied Stress (ksi):	49.27
Stress Ratio:	0.73

Anchor Bolts	
Bolt Circle:	66.00
Number Bolts:	20.00
Bolt Type:	2.25" 18J
Bolt Diameter (in):	2.25
Yield (ksi):	75.00
Ultimate (ksi):	100.00
Arrangement:	Clustered
Cluster Dist (in):	6.00
Start Angle (deg):	45.00
Compression	
Force (kip):	196.90
Allowable (kip):	260.00
Ratio:	0.77
Tension	
Force (kip):	187.30
Allowable (kip):	260.00
Ratio:	0.74

Monopole Mat Foundation Design

			Date: 5/9/2022
Customer Name:	Dish Wireless	**TIA Standard:**	TIA-222-G
Site Name:		**Structure Height (Ft.):**	168
Site Number:	CT02217-S-SBA	**Engineer Name:**	K. Azisllari
Engr. Number:	128876	**Engineer Login ID:**	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

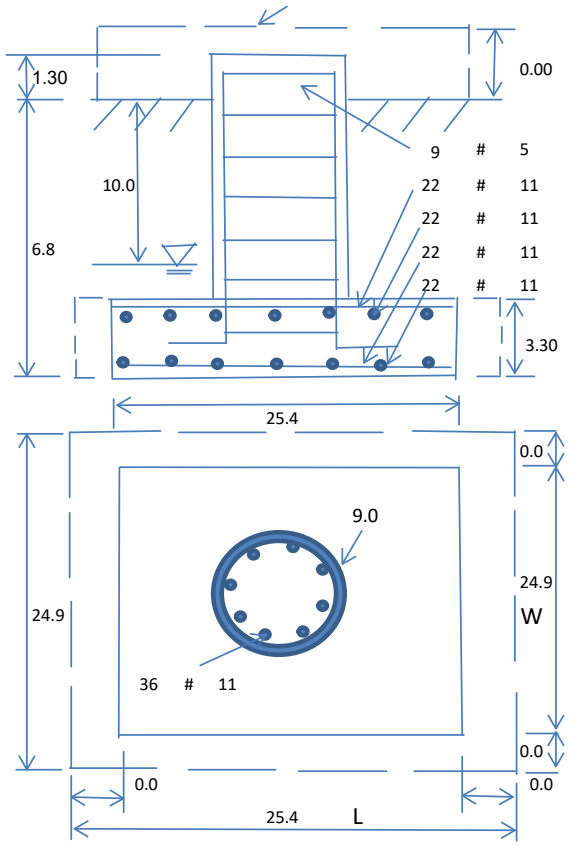
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	55.4	Shear Force (Kips):	41.9
Uplift Force (Kips):	0.0	Moment (Kips-ft):	5282.7
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	9.0	Depth of Base BG (ft.):	6.8
Pier Height A. G. (ft.):	1.30	Thickness of Pad (ft):	3.30
Length of Pad (ft.):	25.4	Width of Pad (ft.):	24.9
Final Length of pad (ft)	25.4	Final width of pad (ft):	24.9



Material Properties and Reabr Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	11	Tie / Stirrup Size #:	5	
Qty. of Vertical Rebars:	36	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	11	
Concrete Cover (in.):	5	Unit Weight of Concrete:	150.0	pcf

Rebar at the bottom of the concrete pad:

Qty. of Rebar in Pad (L):	22	Qty. of Rebar in Pad (W):	22

Rebar at the top of the concrete pad:

Qty. of Rebar in Pad (L):	22	Qty. of Rebar in Pad (W):	22
Apply 1.35 factor for e/w Per G:	1.35		

Soil Design Parameters:

Soil Unit Weight (pcf):	120.0	Soil Buoyant Weight:	50.0	Pcf		
Water Table B.G.S. (ft):	10.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	30000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	Yes		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	Yes	Reduction factor on the maximum soil bearing pressure:			1.00	

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

Total Dry Soil Volume (cu. Ft.):	1990.95	Total Dry Soil Weight (Kips):	238.91
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	238.91	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	2392.48	Total Dry Concrete Weight (Kips):	358.87
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	358.87	Total Vertical Load on Base (Kips):	653.19

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	3883	<	Allowable Factored Soil Bearing (psf):	22500	0.17	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	7387.9	>	Design Factored Momont (kips-ft):	5394	0.73	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.37	OK!				

Check the capacities of Reinforceing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90		Strength reduction factor (Shear):	0.75		
Strength reduction factor (Axial compresion):	0.65		Wind Load Factor on Concrete Design:	1.00		
					Load/ Capacity Ratio	
(1) Concrete Pier:						
Vertical Steel Rebar Area (sq. in./each):	1.56		Tie / Stirrup Area (sq. in./each):	0.31		
Calculated Moment Capacity (Mn,Kips-Ft):	12145.2	>	Design Factored Moment (Mu, Kips-F	5483.8	0.45	OK!
Calculated Shear Capacity (Kips):	1136.9	>	Design Factored Shear (Kips):	41.9	0.04	OK!
Calculated Tension Capacity (Tn, Kips):	3032.6	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	16097.2	>	Design Factored Axial Load (Pu Kips):	55.4	0.00	OK!
Moment & Axial Strength Combination:	0.45	OK!	Check Tie Spacing (Design/Required):		1	OK!
Pier Reinforcement Ratio:	0.006		Reinforcement Ratio is satisfied per ACI			
(2).Concrete Pad:						
One-Way Design Shear Capacity (L-Direction, Kips):	980.6	>	One-Way Factored Shear (L-D. Kips):	290.5	0.30	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	961.3	>	One-Way Factored Shear (W-D., Kips)	277.0	0.29	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	807.5	>	One-Way Factored Shear (C-C, Kips):	275.0	0.34	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0034	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0033		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	5080.9	>	Moment at Bottom (L-Dir. K-Ft):	1420.0	0.28	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	5084.0	>	Moment at Bottom (W-Dir. K-Ft):	1420.0	0.28	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	7113.5	>	Moment at Bottom (C-C Dir. K-Ft):	2008.2	0.28	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0034	OK!	Upper Steel Reinf. Ratio (W-Dir.):	0.0033		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	5080.9	>	Moment at the top (L-Dir K-Ft):	643.5	0.13	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	5084.0	>	Moment at the top (W-Dir K-Ft):	643.5	0.13	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	7113.5	>	Moment at the top (C-C Dir. K-Ft):	626.5	0.09	OK!
(3).Check Punching Shear Capacity due to Moment in the Pier:						
Moment transferred by punching shear:	2113.1	k-ft.	Max. factored shear stress v_{u_CD}:		2.7	Psi
Max. factored shear stress v_{u_AB}:	8.6	Psi	Factored shear Strength ϕv_n:		189.7	Psi
Max. factored shear stress v_u:	8.6	Psi	Check Usage of Punching Shear Capacity:		0.05	OK!

Exhibit E

Mount Analysis

June 14, 2022

David Evans
SBA Network Services, LLC.
470 Davidson Road
Pittsburgh, PA 15239
(412) 515 - 0111 x 2410

MTS Engineering, P.L.L.C.
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630
btwo@btgrp.com

Subject:	**Appurtenance Mount Analysis Report**	
Carrier Designation:	***Dish Wireless* Co-Locate**	
	Site Number:	BOBOS00590A
	Site Name:	N/A
SBA Network Services Designation:	**Site Number:**	CT02217-S-04
	Site Name:	Pomfret School
	Application Number:	167062, v3
Engineering Firm Designation:	**Project Number:**	149437.004.01
Site Data:	**398 Pomfret Street, Pomfret, CT, 06258, Windham County** **Latitude *41.89009*°, Longitude *-71.95500*°** **Monopole** **8 ft. Platform Mount**	

Dear Mr. Evans,

We are pleased to submit this **"Appurtenance Mount Analysis Report"** to determine the structural integrity of the antenna mount on the above-mentioned structure.

The purpose of the analysis is to determine acceptability of the mount's stress level. Based on our analysis we have determined the stress level for the mount under the following load case to be:

Proposed Equipment Note: See Table 1 for the final loading configuration	**Sufficient Capacity** **(Passing at 51.2%)**

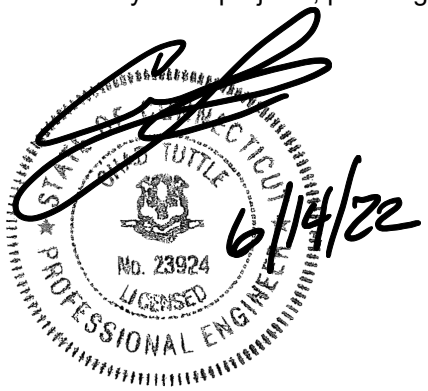
This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

All the equipment proposed in this report shall be installed in accordance with the drawings for the determined available structural capacity to be effective.

We appreciate the opportunity of providing our continuing professional services to you and *SBA Network Services, LLC*. If you have any questions or need further assistance on this or any other projects, please give us a call.

Mount structural analysis prepared by: Erik Perez

Respectfully submitted by: MTS Engineering, P.L.L.C.
COA: BER:2386985 Expires: 03/31/2023



Chad E. Tuttle, P.E.

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Additional Calculations

1) INTRODUCTION

The appurtenance mount consists of Commscope platform mount (Part #MC-PK8-C) at 135 ft., attached to monopole at 398 Pomfret Street, Pomfret, CT, 06258, Windham County. The proposed antenna loading information was obtained from SBA Network Services, LLC. All information provided to us was assumed accurate and complete.

2) ANALYSIS CRITERIA

The structural analysis was performed for this mount in accordance with the ANSI/TIA-222-H-2017 Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures using a 3-second gust wind speed of 120 mph with no ice and 50 mph with 1-inch escalated ice thickness Exposure Category C, Topographic Category 1 and Risk Category II were used in the analysis. In addition, the platform mount has been analyzed for various live loading conditions consisting of a 250-lb man live load applied individually at the midpoint and cantilevered ends of horizontal members as well as a 500-pound man live load applied individually at mount pipe locations using a 3-second gust of 30mph. The mount was analyzed under 30º increments in the wind direction. The analyzed loading is detailed in Table 1.

Table 1 – Proposed Equipment Information

Loading	RAD Center Elev. (ft.)	Position	Qty.	Description	Note
Proposed	135	2	3	Commscope FFVV-65B-R2	1
			3	Fujitsu TA08025-B605	2
			3	Fujitsu TA08025-B604	
		-	1	Raycap RDIDC-9181-PF-48	3

Note:
1) Proposed Antenna to be installed on the Proposed Mount Pipe.
2) Proposed Equipment to be installed directly behind the Antenna.
3) Proposed Equipment to be installed on Mount.

Table 2 - Documents Provided

Documents	Remarks	Reference	Source
SBA Application	Proposed Loading	Date: 06/02/2022	SBA Network Services, LLC.
RFDS		Date: 07/22/2021	

3) ANALYSIS PROCEDURE

3.1) Analysis Method

RISA-3D (Version 20.0.2), a commercially available analysis software package, was used to create a three-dimensional model of the mount and calculate member stresses and deflections for various loading cases. Selected output from the analysis is included in Appendix A.

Manufacturer's drawings were used to create the model.

3.2) Assumptions

1. The mount was built in accordance with the manufacturer's specifications.
2. The mount has been maintained in accordance with the manufacturer's specifications and is free of damage.
3. The configuration of antennas and other appurtenances are as specified in Table 1.
4. All mount components have been assumed to be in sufficient condition to carry their full design capacity for the analysis.
   The following assumptions have been included in the analysis of the mount

5. Mount areas and weights are determined from field measurements, standard material properties, and/or manufacturer product data.
6. Serviceability with respect to antenna twist, tilt, roll, or lateral translation is not checked and is left to the carrier or tower owner to ensure conformance.
7. All prior structural modifications if any are assumed to be correctly installed and fully effective.
8. 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.
9. The following material grades were assumed (Unless Noted Otherwise):
   a) Connection Bolts : ASTM A325
   b) Steel Pipe : ASTM A53 (GR. 35)
   c) HSS (Round) : ASTM 500 (GR. B-42)
   d) HSS (Rectangular) : ASTM 500 (GR. B-46)
   e) Channel : ASTM A36 (GR. 36)
   f) Steel Solid Rod : ASTM A36 (GR. 36)
   g) Steel Plate : ASTM A36 (GR. 36)
   h) Steel Angle : ASTM A36 (GR. 36)
   i) UNISTRUT : ASTM A570 (GR. 33)

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

4) ANALYSIS RESULTS

Table 3 – Mount Component Stresses vs. Capacity

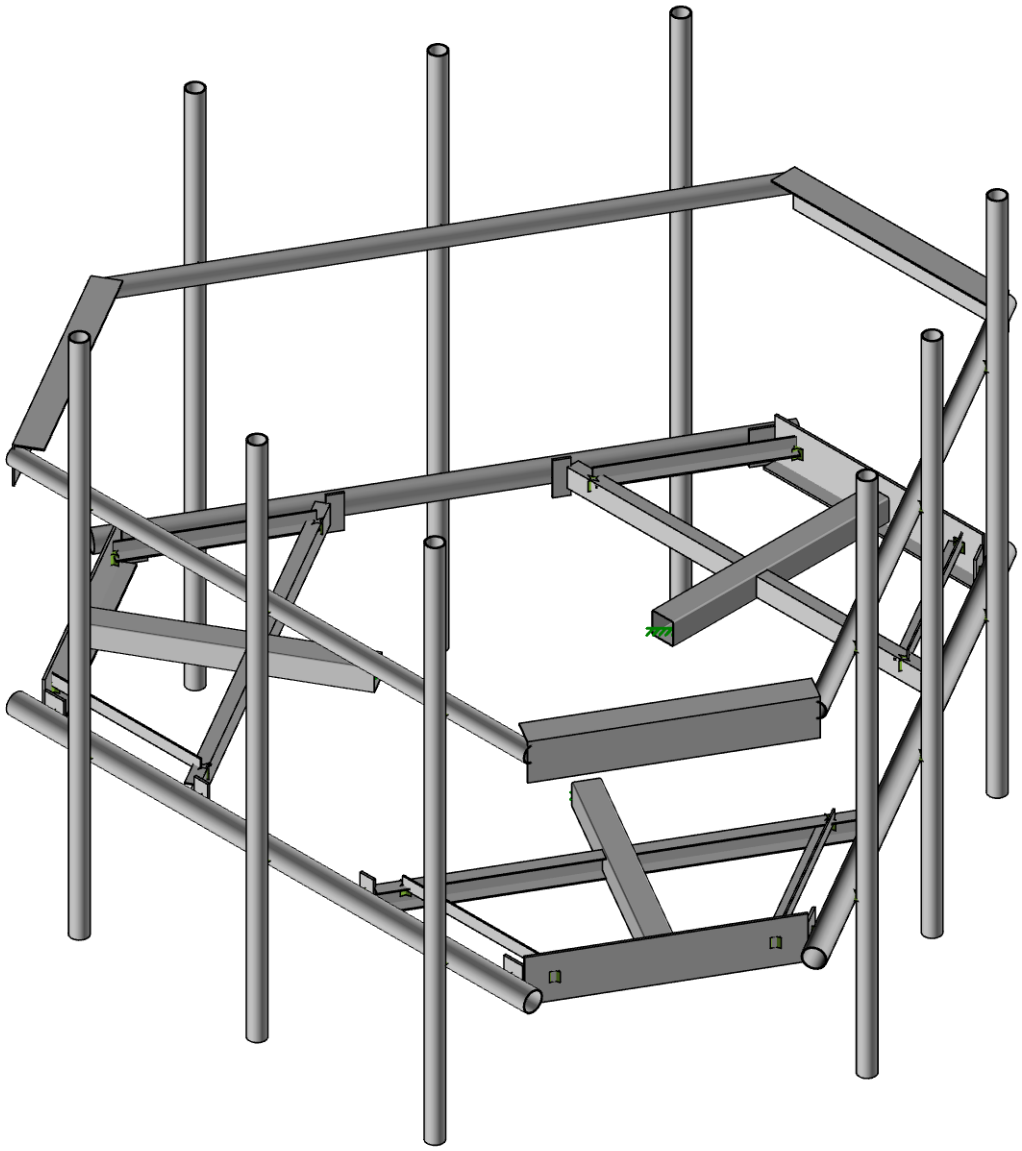
Notes	Component	Elevation (ft.)	% Capacity	Pass / Fail
-	Main Horizontals	135	7.6	Pass
-	Support Rails	135	13.2	Pass
-	Support Tubes	135	51.2	Pass
-	Support Channels	135	35.3	Pass
-	Support Angles	135	34.2	Pass
-	Mount Pipes	135	14.3	Pass
-	Connection Plates	135	19.9	Pass
-	Connection Angles	135	22.6	Pass

5) RECOMMENDATIONS

The Commscope platform mount, Part #MC-PK8-C has sufficient capacity to carry the proposed loads and is in compliance with the ANSI/TIA-222-H standard for the proposed loading. (Refer to the RISA output for the specific members).

APPENDIX A

(RISA-3D Output)



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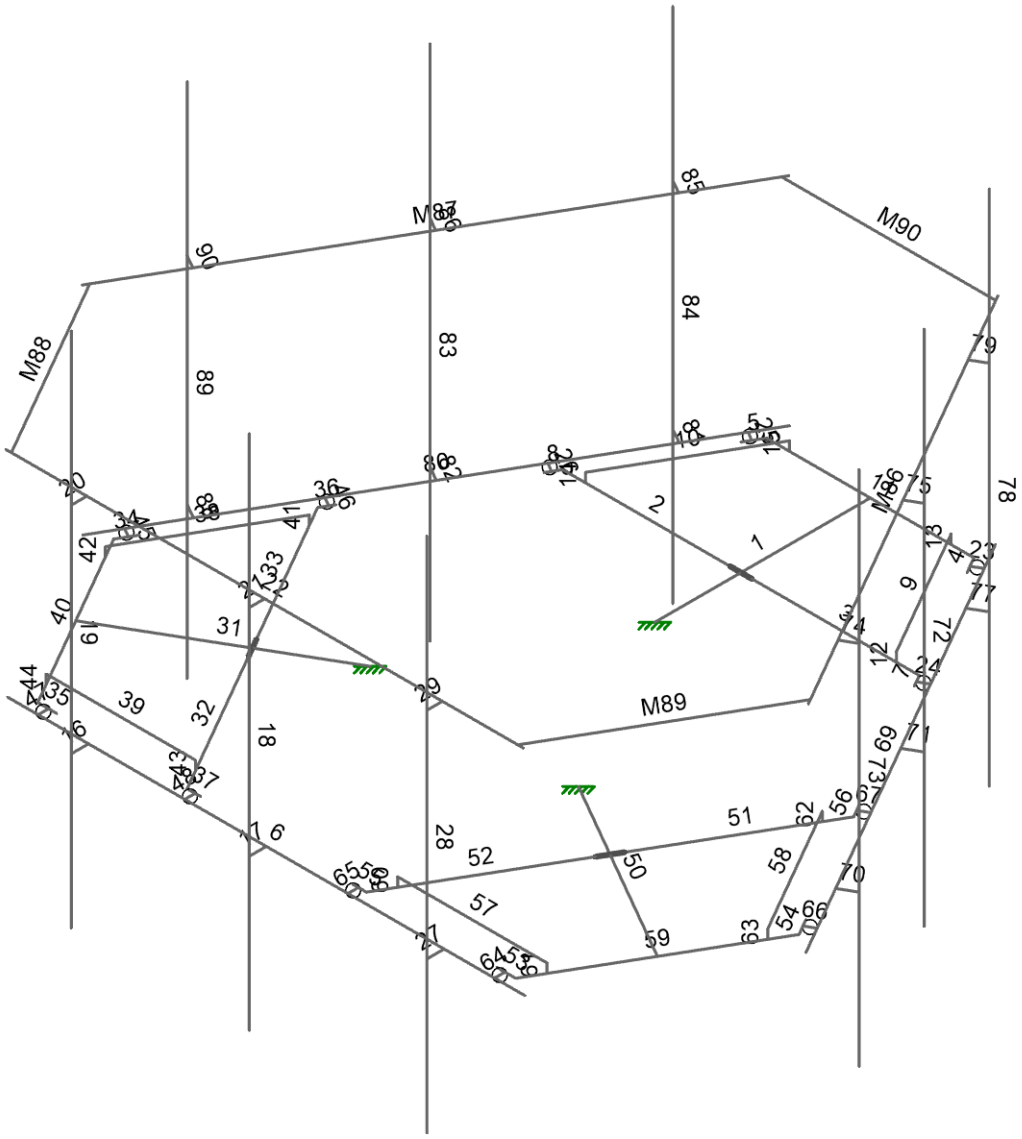

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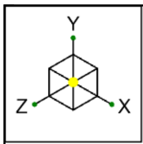

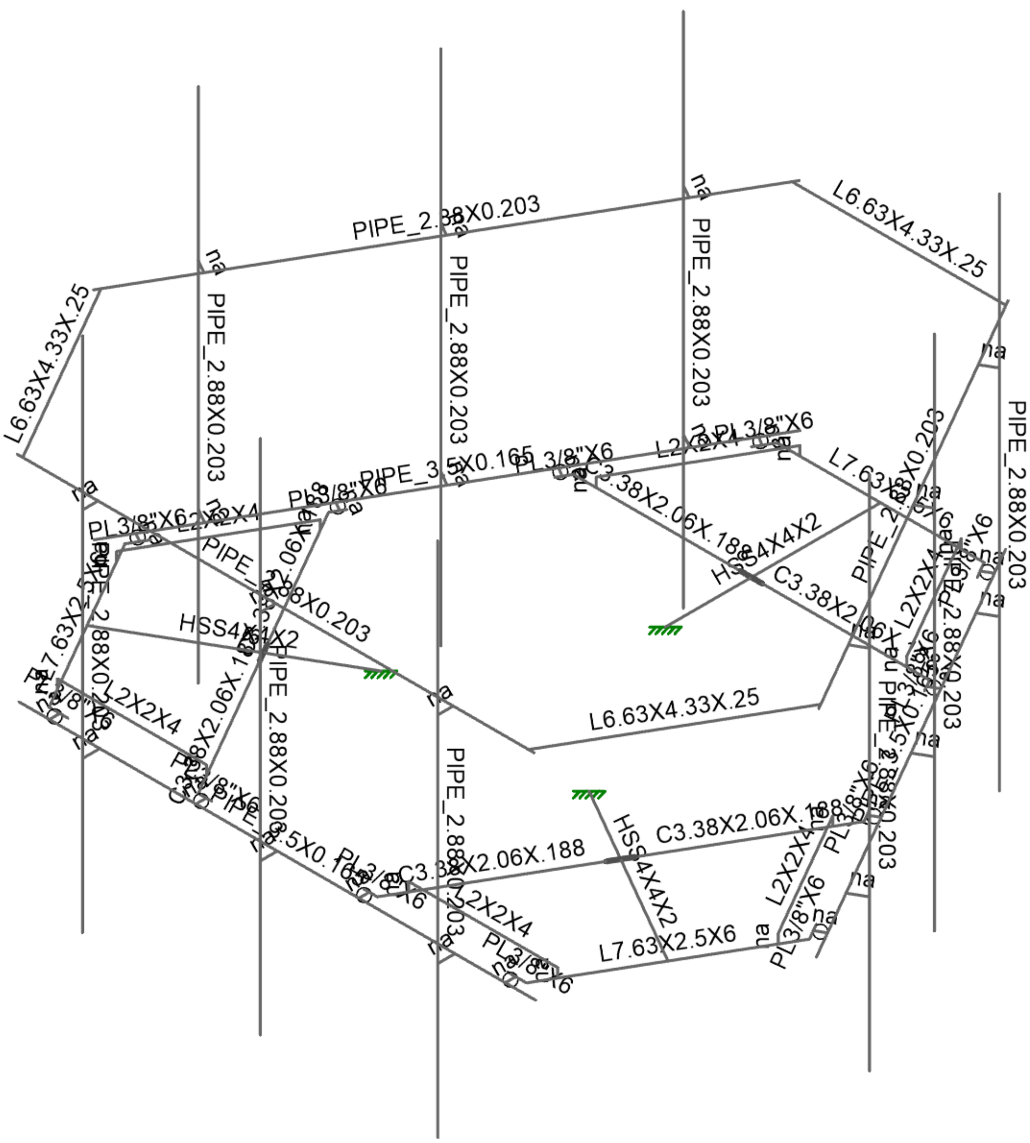

Envelope Only Solution

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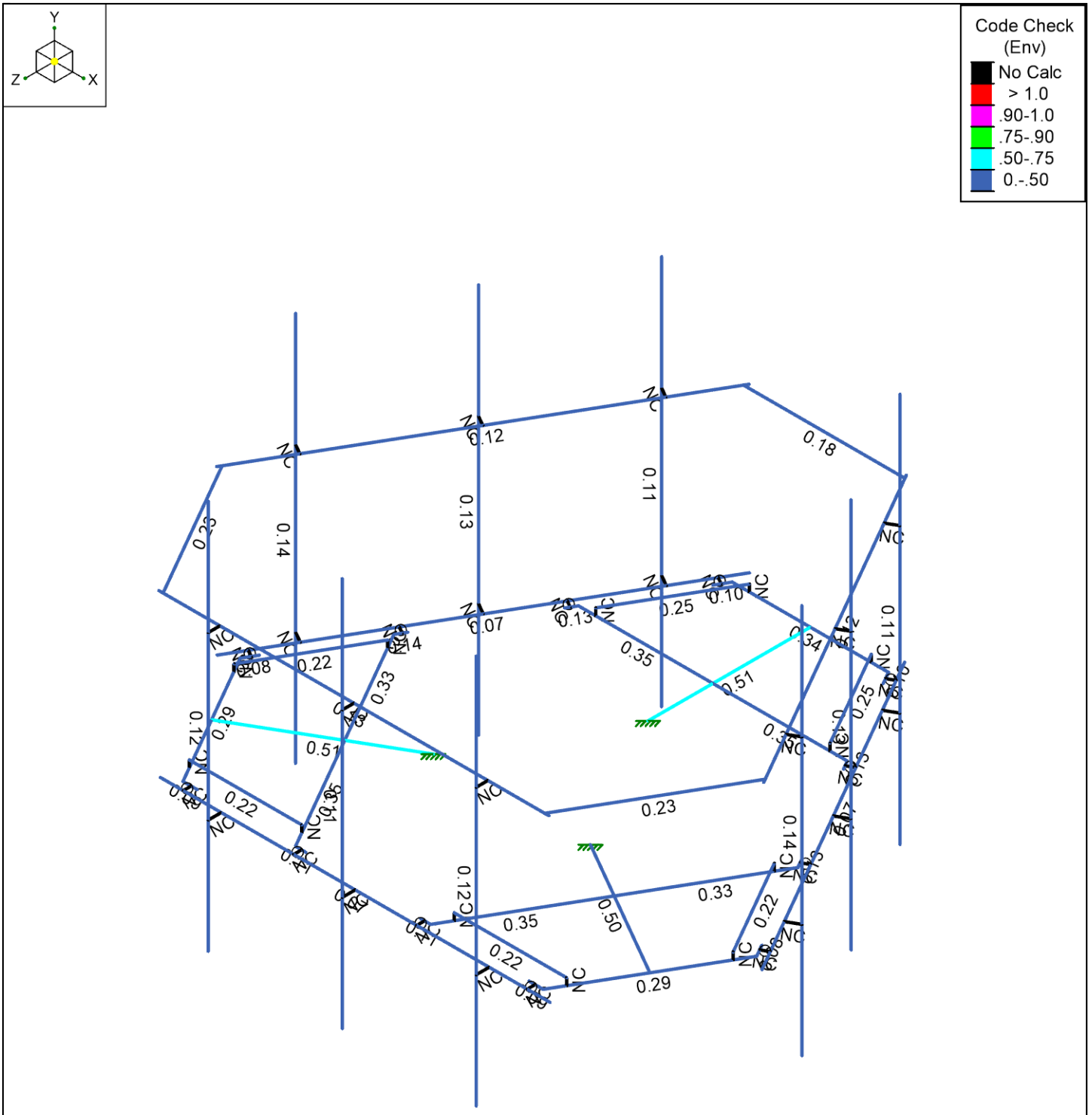

Member Code Checks Displayed (Enveloped)
Envelope Only Solution

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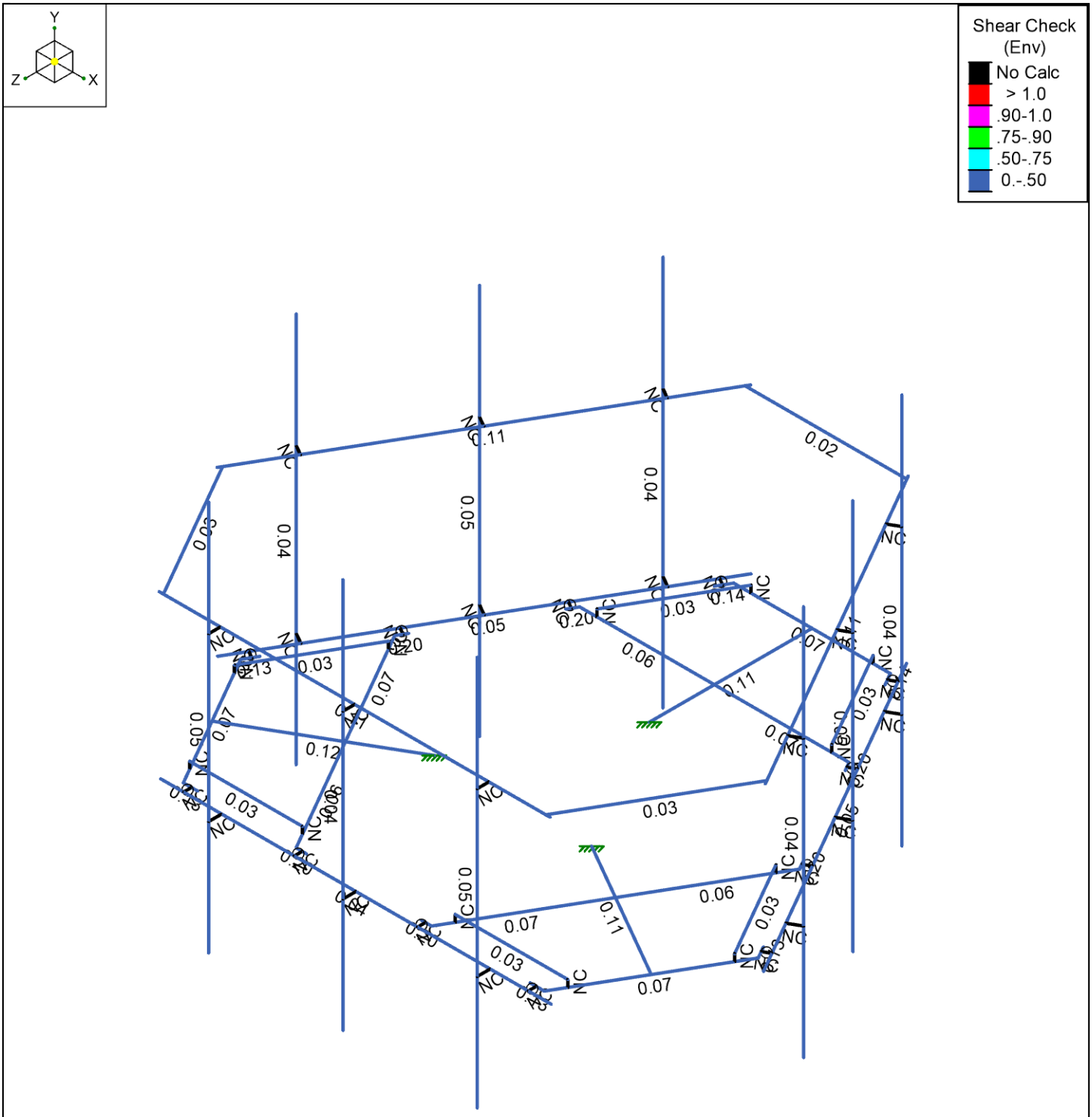

Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

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MP		Jun 14, 2022
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Node Coordinates

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	1	0	0.167	-1.860962	
2	2	0	0.167	-5.194295	
3	3	0	0.167	-3.194295	
4	4	2.758333	0.167	-3.194295	
5	5	-2.758333	0.167	-3.194295	
6	6	-1.603633	0.167	-5.194295	
7	7	1.603633	0.167	-5.194295	
8	8	1.749466	0.167	-4.941704	
9	9	-1.749466	0.167	-4.941704	
10	10	1.686966	0.167	-5.049958	
11	11	1.826838	0.167	-5.130713	
12	12	-1.686966	0.167	-5.049958	
13	13	-1.826838	0.167	-5.130713	
14	14	-3.999998	0.167	4.147445	
15	15	3.999998	0.167	4.147445	
16	16	2.8625	0.167	-3.013873	
17	17	2.820833	0.167	-3.086043	
18	18	2.960705	0.167	-3.166798	
19	19	-2.8625	0.167	-3.013873	
20	20	-2.820833	0.167	-3.086043	
21	21	-2.960705	0.167	-3.166798	
22	22	-1.25	0.307833	-5.194295	
23	23	-2.404701	0.307833	-3.194295	
24	24	2.404701	0.307833	-3.194295	
25	25	1.25	0.307833	-5.194295	
26	26	-1.25	0.167	-5.194295	
27	27	-2.404701	0.167	-3.194295	
28	28	2.404701	0.167	-3.194295	
29	29	1.25	0.167	-5.194295	
30	30	-2.749998	0.167	4.147445	
31	31	0.000002	0.167	4.147445	
32	32	-2.749998	0.167	4.41307	
33	33	0.000002	0.167	4.41307	
34	34	-2.749998	-2.1667	4.41307	
35	35	0.000002	-2.1667	4.41307	
36	36	-2.749998	5.8333	4.41307	
37	37	0.000002	5.8333	4.41307	
38	38	-2.749998	3.500227	4.41307	
39	39	0.000002	3.500227	4.41307	
40	40	-2.749998	3.500227	4.173945	
41	41	0.000002	3.500227	4.173945	
42	42	-4	3.500227	4.173945	
43	43	4	3.500227	4.173945	
44	44	2.749998	0.167	4.147445	
45	45	2.749998	0.167	4.41307	
46	46	2.749998	-2.1667	4.41307	
47	47	2.749998	5.8333	4.41307	
48	48	2.749998	3.500227	4.41307	
49	49	2.749998	3.500227	4.173945	
50	50	0	0.167	0	
51	53	-1.61164	0.167	0.930481	
52	54	-4.498392	0.167	2.597148	
53	55	-2.766341	0.167	1.597148	
54	56	-4.145507	0.167	-0.791639	
55	57	-1.387174	0.167	3.985934	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
56	58	-3.696575	0.167	3.985934	
57	59	-5.300208	0.167	1.208361	
58	60	-5.154375	0.167	0.95577	
59	61	-3.404908	0.167	3.985934	
60	62	-5.216875	0.167	1.064023	
61	63	-5.356747	0.167	0.983268	
62	64	-3.529908	0.167	3.985934	
63	65	-3.529908	0.167	4.147445	
64	66	-4.041341	0.167	-0.972061	
65	67	-4.083008	0.167	-0.899891	
66	68	-4.22288	0.167	-0.980647	
67	69	-1.178841	0.167	3.985934	
68	70	-1.262175	0.167	3.985934	
69	71	-1.262175	0.167	4.147445	
70	72	-3.873392	0.307833	3.679679	
71	73	-1.56399	0.307833	3.679679	
72	74	-3.968691	0.307833	-0.485384	
73	75	-5.123392	0.307833	1.514616	
74	76	-3.873392	0.167	3.679679	
75	77	-1.56399	0.167	3.679679	
76	78	-3.968691	0.167	-0.485384	
77	79	-5.123392	0.167	1.514616	
78	82	1.61164	0.167	0.930481	
79	83	4.498392	0.167	2.597148	
80	84	2.766341	0.167	1.597148	
81	85	1.387174	0.167	3.985934	
82	86	4.145507	0.167	-0.791639	
83	87	5.300208	0.167	1.208361	
84	88	3.696575	0.167	3.985934	
85	89	3.404908	0.167	3.985934	
86	90	5.154375	0.167	0.95577	
87	91	3.529908	0.167	3.985934	
88	92	3.529908	0.167	4.147445	
89	93	5.216875	0.167	1.064023	
90	94	5.356747	0.167	0.983268	
91	95	1.178841	0.167	3.985934	
92	96	1.262175	0.167	3.985934	
93	97	1.262175	0.167	4.147445	
94	98	4.041341	0.167	-0.972061	
95	99	4.083008	0.167	-0.899891	
96	100	4.22288	0.167	-0.980647	
97	101	5.123392	0.307833	1.514616	
98	102	3.968691	0.307833	-0.485384	
99	103	1.56399	0.307833	3.679679	
100	104	3.873392	0.307833	3.679679	
101	105	5.123392	0.167	1.514616	
102	106	3.968691	0.167	-0.485384	
103	107	1.56399	0.167	3.679679	
104	108	3.873392	0.167	3.679679	
105	111	5.591792	0.167	1.390378	
106	112	1.591793	0.167	-5.537822	
107	113	4.966792	0.167	0.307846	
108	114	3.591792	0.167	-2.073724	
109	115	5.19683	0.167	0.175033	
110	116	3.82183	0.167	-2.206537	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
111	117	5.19683	-2.1667	0.175033	
112	118	3.82183	-2.1667	-2.206537	
113	119	5.19683	5.8333	0.175033	
114	120	3.82183	5.8333	-2.206537	
115	121	5.19683	3.500227	0.175033	
116	122	3.82183	3.500227	-2.206537	
117	123	4.989741	3.500227	0.294596	
118	124	3.614741	3.500227	-2.086974	
119	127	2.216793	0.167	-4.455291	
120	128	2.446831	0.167	-4.588103	
121	129	2.446831	-2.1667	-4.588103	
122	130	2.446831	5.8333	-4.588103	
123	131	2.446831	3.500227	-4.588103	
124	132	2.239743	3.500227	-4.468541	
125	133	-1.591793	0.167	-5.537822	
126	134	-5.591792	0.167	1.390378	
127	135	-2.216793	0.167	-4.455291	
128	136	-3.591793	0.167	-2.073721	
129	137	-2.446831	0.167	-4.588103	
130	138	-3.821831	0.167	-2.206533	
131	139	-2.446831	-2.1667	-4.588103	
132	140	-3.821831	-2.1667	-2.206533	
133	141	-2.446831	5.8333	-4.588103	
134	142	-3.821831	5.8333	-2.206533	
135	143	-2.446831	3.500227	-4.588103	
136	144	-3.821831	3.500227	-2.206533	
137	145	-2.239743	3.500227	-4.468541	
138	146	-3.614743	3.500227	-2.086971	
139	149	-4.966792	0.167	0.307846	
140	150	-5.19683	0.167	0.175033	
141	151	-5.19683	-2.1667	0.175033	
142	152	-5.19683	5.8333	0.175033	
143	153	-5.19683	3.500227	0.175033	
144	154	-4.989741	3.500227	0.294596	
145	N145	5.614742	3.500227	1.377129	
146	N146	1.614742	3.500227	-5.551074	
147	N147	-1.614742	3.500227	-5.551074	
148	N148	-5.614742	3.500227	1.377129	
149	N149	-3.916667	3.500227	4.173945	
150	N150	3.916667	3.500227	4.173945	
151	N151	1.656409	3.500227	-5.478905	
152	N152	5.573076	3.500227	1.30496	
153	N153	-5.573076	3.500227	1.30496	
154	N154	-1.656409	3.500227	-5.478905	

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	2						
3	3						
4	4						
5	5						
6	16						
7	17						
8	19						

Node Boundary Conditions (Continued)

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
9	20						
10	22						
11	25						
12	26						
13	29						
14	53	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
15	54						
16	55						
17	56						
18	57						
19	66						
20	67						
21	69						
22	70						
23	72						
24	75						
25	76						
26	79						
27	82	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
28	83						
29	84						
30	85						
31	86						
32	95						
33	96						
34	98						
35	99						
36	101						
37	104						
38	105						
39	108						

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
8	A500 Gr.C	29000	11154	0.3	0.65	0.49	46	1.4	62	1.3

Cold Formed Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]	Yield [ksi]	Fu [ksi]
1	A653 SS Gr33	29500	11346	0.3	0.65	0.49	33	45
2	A653 SS Gr50/1	29500	11346	0.3	0.65	0.49	50	65

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	MF-H1	PIPE_3.5X0.165	Beam	Pipe	A500 Gr.C	Typical	1.729	2.409	2.409	4.819
2	MF-H2	PIPE_2.88X0.203	Beam	Pipe	A500 Gr.C	Typical	1.704	1.53	1.53	3.059

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
3	SF-H1	HSS4X4X2	Beam	Tube	A500 Gr.B Rect	Typical	1.77	4.4	4.4	6.91
4	SF-H2	C3.38X2.06X.188	Beam	Channel	A36 Gr.36	Typical	1.339	0.562	2.4	0.015
5	SF-H3	L2X2X4	Beam	Single Angle	A36 Gr.36	Typical	0.944	0.346	0.346	0.021
6	SF-H4	L7.63X2.5X6	Beam	Single Angle	A36 Gr.36	Typical	3.658	1.307	22.092	0.163
7	MF-P1	PIPE_2.88X0.203	Column	Pipe	A500 Gr.C	Typical	1.704	1.53	1.53	3.059
8	MF-CP1	PL3/8"X6	Beam	RECT	A36 Gr.36	Typical	2.25	0.026	6.75	0.101
9	MF-H3	L6.63X4.33X.25	Beam	Single Angle	A36 Gr.36	Typical	2.678	4.383	12.502	0.054

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	CF1	8CU1.25X057	Beam	None	A653 SS Gr33	Typical	0.581	0.057	4.41	0.00063

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	1	1	2		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical
2	2	5	3	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
3	3	3	4	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
4	4	7	8		MF-CP1	Beam	RECT	A36 Gr.36	Typical
5	5	6	9		MF-CP1	Beam	RECT	A36 Gr.36	Typical
6	6	14	15		MF-H1	Beam	Pipe	A500 Gr.C	Typical
7	7	16	4		MF-CP1	Beam	RECT	A36 Gr.36	Typical
8	8	5	19		MF-CP1	Beam	RECT	A36 Gr.36	Typical
9	9	25	24		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
10	10	23	22		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
11	11	6	7		SF-H4	Beam	Single Angle	A36 Gr.36	Typical
12	12	28	24		RIGID	None	None	RIGID	Typical
13	13	29	25		RIGID	None	None	RIGID	Typical
14	14	27	23		RIGID	None	None	RIGID	Typical
15	15	26	22		RIGID	None	None	RIGID	Typical
16	16	32	30		RIGID	None	None	RIGID	Typical
17	17	33	31		RIGID	None	None	RIGID	Typical
18	18	37	35		MF-P1	Column	Pipe	A500 Gr.C	Typical
19	19	36	34		MF-P1	Column	Pipe	A500 Gr.C	Typical
20	20	38	40		RIGID	None	None	RIGID	Typical
21	21	39	41		RIGID	None	None	RIGID	Typical
22	22	42	43		MF-H2	Beam	Pipe	A500 Gr.C	Typical
23	23	11	10		RIGID	None	None	RIGID	Typical
24	24	18	17		RIGID	None	None	RIGID	Typical
25	25	13	12		RIGID	None	None	RIGID	Typical
26	26	21	20		RIGID	None	None	RIGID	Typical
27	27	45	44		RIGID	None	None	RIGID	Typical
28	28	47	46		MF-P1	Column	Pipe	A500 Gr.C	Typical
29	29	48	49		RIGID	None	None	RIGID	Typical
30	31	53	54		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical
31	32	57	55	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
32	33	55	56	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
33	34	59	60		MF-CP1	Beam	RECT	A36 Gr.36	Typical
34	35	58	61		MF-CP1	Beam	RECT	A36 Gr.36	Typical
35	36	66	56		MF-CP1	Beam	RECT	A36 Gr.36	Typical
36	37	57	69		MF-CP1	Beam	RECT	A36 Gr.36	Typical
37	38	75	74		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
38	39	73	72		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
39	40	58	59		SF-H4	Beam	Single Angle	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
40	41	78	74		RIGID	None	None	RIGID	Typical
41	42	79	75		RIGID	None	None	RIGID	Typical
42	43	77	73		RIGID	None	None	RIGID	Typical
43	44	76	72		RIGID	None	None	RIGID	Typical
44	45	63	62		RIGID	None	None	RIGID	Typical
45	46	68	67		RIGID	None	None	RIGID	Typical
46	47	65	64		RIGID	None	None	RIGID	Typical
47	48	71	70		RIGID	None	None	RIGID	Typical
48	50	82	83		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical
49	51	86	84	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
50	52	84	85	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
51	53	88	89		MF-CP1	Beam	RECT	A36 Gr.36	Typical
52	54	87	90		MF-CP1	Beam	RECT	A36 Gr.36	Typical
53	55	95	85		MF-CP1	Beam	RECT	A36 Gr.36	Typical
54	56	86	98		MF-CP1	Beam	RECT	A36 Gr.36	Typical
55	57	104	103		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
56	58	102	101		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
57	59	87	88		SF-H4	Beam	Single Angle	A36 Gr.36	Typical
58	60	107	103		RIGID	None	None	RIGID	Typical
59	61	108	104		RIGID	None	None	RIGID	Typical
60	62	106	102		RIGID	None	None	RIGID	Typical
61	63	105	101		RIGID	None	None	RIGID	Typical
62	64	92	91		RIGID	None	None	RIGID	Typical
63	65	97	96		RIGID	None	None	RIGID	Typical
64	66	94	93		RIGID	None	None	RIGID	Typical
65	67	100	99		RIGID	None	None	RIGID	Typical
66	69	111	112		MF-H1	Beam	Pipe	A500 Gr.C	Typical
67	70	115	113		RIGID	None	None	RIGID	Typical
68	71	116	114		RIGID	None	None	RIGID	Typical
69	72	120	118		MF-P1	Column	Pipe	A500 Gr.C	Typical
70	73	119	117		MF-P1	Column	Pipe	A500 Gr.C	Typical
71	74	121	123		RIGID	None	None	RIGID	Typical
72	75	122	124		RIGID	None	None	RIGID	Typical
73	77	128	127		RIGID	None	None	RIGID	Typical
74	78	130	129		MF-P1	Column	Pipe	A500 Gr.C	Typical
75	79	131	132		RIGID	None	None	RIGID	Typical
76	80	133	134		MF-H1	Beam	Pipe	A500 Gr.C	Typical
77	81	137	135		RIGID	None	None	RIGID	Typical
78	82	138	136		RIGID	None	None	RIGID	Typical
79	83	142	140		MF-P1	Column	Pipe	A500 Gr.C	Typical
80	84	141	139		MF-P1	Column	Pipe	A500 Gr.C	Typical
81	85	143	145		RIGID	None	None	RIGID	Typical
82	86	144	146		RIGID	None	None	RIGID	Typical
83	88	150	149		RIGID	None	None	RIGID	Typical
84	89	152	151		MF-P1	Column	Pipe	A500 Gr.C	Typical
85	90	153	154		RIGID	None	None	RIGID	Typical
86	M86	N145	N146		MF-H2	Beam	Pipe	A500 Gr.C	Typical
87	M87	N147	N148		MF-H2	Beam	Pipe	A500 Gr.C	Typical
88	M88	N153	N149	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical
89	M89	N150	N152	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical
90	M90	N151	N154	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical

Member Advanced Data

	Label	I Release	I Offset [in]	J Offset [in]	Physical	Deflection Ratio Options	Seismic DR
1	1				Yes	Default	None
2	2			2	Yes	N/A	None
3	3		2		Yes	N/A	None
4	4				Yes	N/A	None
5	5				Yes	N/A	None
6	6				Yes	N/A	None
7	7				Yes	N/A	None
8	8				Yes	N/A	None
9	9				Yes	N/A	None
10	10				Yes	N/A	None
11	11				Yes	N/A	None
12	12				Yes	** NA **	None
13	13				Yes	** NA **	None
14	14				Yes	** NA **	None
15	15				Yes	** NA **	None
16	16				Yes	** NA **	None
17	17				Yes	** NA **	None
18	18				Yes	** NA **	None
19	19				Yes	** NA **	None
20	20				Yes	** NA **	None
21	21				Yes	** NA **	None
22	22				Yes	N/A	None
23	23	OOOOOX			Yes	** NA **	None
24	24	OOOOOX			Yes	** NA **	None
25	25	OOOOOX			Yes	** NA **	None
26	26	OOOOOX			Yes	** NA **	None
27	27				Yes	** NA **	None
28	28				Yes	** NA **	None
29	29				Yes	** NA **	None
30	31				Yes	Default	None
31	32			2	Yes	N/A	None
32	33		2		Yes	N/A	None
33	34				Yes	N/A	None
34	35				Yes	N/A	None
35	36				Yes	N/A	None
36	37				Yes	N/A	None
37	38				Yes	N/A	None
38	39				Yes	N/A	None
39	40				Yes	N/A	None
40	41				Yes	** NA **	None
41	42				Yes	** NA **	None
42	43				Yes	** NA **	None
43	44				Yes	** NA **	None
44	45	OOOOOX			Yes	** NA **	None
45	46	OOOOOX			Yes	** NA **	None
46	47	OOOOOX			Yes	** NA **	None
47	48	OOOOOX			Yes	** NA **	None
48	50				Yes	Default	None
49	51			2	Yes	N/A	None
50	52		2		Yes	N/A	None
51	53				Yes	N/A	None
52	54				Yes	N/A	None
53	55				Yes	N/A	None
54	56				Yes	N/A	None
55	57				Yes	N/A	None

Member Advanced Data (Continued)

	Label	I Release	I Offset [in]	J Offset [in]	Physical	Deflection Ratio Options	Seismic DR
56	58				Yes	N/A	None
57	59				Yes	N/A	None
58	60				Yes	** NA **	None
59	61				Yes	** NA **	None
60	62				Yes	** NA **	None
61	63				Yes	** NA **	None
62	64	OOOOOX			Yes	** NA **	None
63	65	OOOOOX			Yes	** NA **	None
64	66	OOOOOX			Yes	** NA **	None
65	67	OOOOOX			Yes	** NA **	None
66	69				Yes	N/A	None
67	70				Yes	** NA **	None
68	71				Yes	** NA **	None
69	72				Yes	** NA **	None
70	73				Yes	** NA **	None
71	74				Yes	** NA **	None
72	75				Yes	** NA **	None
73	77				Yes	** NA **	None
74	78				Yes	** NA **	None
75	79				Yes	** NA **	None
76	80				Yes	N/A	None
77	81				Yes	** NA **	None
78	82				Yes	** NA **	None
79	83				Yes	** NA **	None
80	84				Yes	** NA **	None
81	85				Yes	** NA **	None
82	86				Yes	** NA **	None
83	88				Yes	** NA **	None
84	89				Yes	** NA **	None
85	90				Yes	** NA **	None
86	M86				Yes	N/A	None
87	M87				Yes	N/A	None
88	M88				Yes	Default	None
89	M89				Yes	Default	None
90	M90				Yes	Default	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [ft]	Lcomp top [ft]	Channel Conn.	a [ft]	Function
1	1	SF-H1	3.333	Lbyy	N/A	N/A	Lateral
2	2	SF-H2	2.758	Lbyy	N/A	N/A	Lateral
3	3	SF-H2	2.758	Lbyy	N/A	N/A	Lateral
4	4	MF-CP1	0.292	Lbyy	N/A	N/A	Lateral
5	5	MF-CP1	0.292	Lbyy	N/A	N/A	Lateral
6	6	MF-H1	8	Lbyy	N/A	N/A	Lateral
7	7	MF-CP1	0.208	Lbyy	N/A	N/A	Lateral
8	8	MF-CP1	0.208	Lbyy	N/A	N/A	Lateral
9	9	SF-H3	2.309	Lbyy	N/A	N/A	Lateral
10	10	SF-H3	2.309	Lbyy	N/A	N/A	Lateral
11	11	SF-H4	3.207	Lbyy	N/A	N/A	Lateral
12	18	MF-P1	8	Lbyy	N/A	N/A	Lateral
13	19	MF-P1	8	Lbyy	N/A	N/A	Lateral
14	22	MF-H2	8	Lbyy	N/A	N/A	Lateral
15	28	MF-P1	8	Lbyy	N/A	N/A	Lateral
16	31	SF-H1	3.333	Lbyy	N/A	N/A	Lateral
17	32	SF-H2	2.758	Lbyy	N/A	N/A	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [ft]	Lcomp top [ft]	Channel Conn.	a [ft]	Function
18	33	SF-H2	2.758	Lbyy	N/A	N/A	Lateral
19	34	MF-CP1	0.292	Lbyy	N/A	N/A	Lateral
20	35	MF-CP1	0.292	Lbyy	N/A	N/A	Lateral
21	36	MF-CP1	0.208	Lbyy	N/A	N/A	Lateral
22	37	MF-CP1	0.208	Lbyy	N/A	N/A	Lateral
23	38	SF-H3	2.309	Lbyy	N/A	N/A	Lateral
24	39	SF-H3	2.309	Lbyy	N/A	N/A	Lateral
25	40	SF-H4	3.207	Lbyy	N/A	N/A	Lateral
26	50	SF-H1	3.333	Lbyy	N/A	N/A	Lateral
27	51	SF-H2	2.758	Lbyy	N/A	N/A	Lateral
28	52	SF-H2	2.758	Lbyy	N/A	N/A	Lateral
29	53	MF-CP1	0.292	Lbyy	N/A	N/A	Lateral
30	54	MF-CP1	0.292	Lbyy	N/A	N/A	Lateral
31	55	MF-CP1	0.208	Lbyy	N/A	N/A	Lateral
32	56	MF-CP1	0.208	Lbyy	N/A	N/A	Lateral
33	57	SF-H3	2.309	Lbyy	N/A	N/A	Lateral
34	58	SF-H3	2.309	Lbyy	N/A	N/A	Lateral
35	59	SF-H4	3.207	Lbyy	N/A	N/A	Lateral
36	69	MF-H1	8	Lbyy	N/A	N/A	Lateral
37	72	MF-P1	8	Lbyy	N/A	N/A	Lateral
38	73	MF-P1	8	Lbyy	N/A	N/A	Lateral
39	78	MF-P1	8	Lbyy	N/A	N/A	Lateral
40	80	MF-H1	8	Lbyy	N/A	N/A	Lateral
41	83	MF-P1	8	Lbyy	N/A	N/A	Lateral
42	84	MF-P1	8	Lbyy	N/A	N/A	Lateral
43	89	MF-P1	8	Lbyy	N/A	N/A	Lateral
44	M86	MF-H2	8	Lbyy	N/A	N/A	Lateral
45	M87	MF-H2	8	Lbyy	N/A	N/A	Lateral
46	M88	MF-H3	3.313	Lbyy	N/A	N/A	Lateral
47	M89	MF-H3	3.313	Lbyy	N/A	N/A	Lateral
48	M90	MF-H3	3.313	Lbyy	N/A	N/A	Lateral

Cold Formed Steel Design Parameters

No Data to Print...

Member Point Loads (BLC 1 : Dead)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Y	-0.035	%15
2	18	Y	-0.035	%85
3	18	Y	-0.075	%20
4	18	Y	-0.064	%50
5	18	Y	0	0
6	83	Y	-0.035	%15
7	83	Y	-0.035	%85
8	83	Y	-0.075	%20
9	83	Y	-0.064	%50
10	83	Y	0	0
11	72	Y	-0.035	%15
12	72	Y	-0.035	%85
13	72	Y	-0.075	%20
14	72	Y	-0.064	%50
15	72	Y	0	0
16	31	Y	-0.022	%20
17	31	Y	0	0

Member Point Loads (BLC 1 : Dead) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
18	31	Y	0	0
19	31	Y	0	0
20	31	Y	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Z	-0.176	%15
2	18	Z	-0.176	%85
3	18	Z	-0.081	%20
4	18	Z	-0.081	%50
5	18	Z	0	0
6	83	Z	-0.176	%15
7	83	Z	-0.176	%85
8	83	Z	-0.081	%20
9	83	Z	-0.081	%50
10	83	Z	0	0
11	72	Z	-0.176	%15
12	72	Z	-0.176	%85
13	72	Z	-0.081	%20
14	72	Z	-0.081	%50
15	72	Z	0	0
16	31	Z	-0.106	%20
17	31	Z	0	0
18	31	Z	0	0
19	31	Z	0	0
20	31	Z	0	0

Member Point Loads (BLC 3 : 90 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	X	-0.069	%15
2	18	X	-0.069	%85
3	18	X	-0.049	%20
4	18	X	-0.043	%50
5	18	X	0	0
6	83	X	-0.069	%15
7	83	X	-0.069	%85
8	83	X	-0.049	%20
9	83	X	-0.043	%50
10	83	X	0	0
11	72	X	-0.069	%15
12	72	X	-0.069	%85
13	72	X	-0.049	%20
14	72	X	-0.043	%50
15	72	X	0	0
16	31	X	-0.062	%20
17	31	X	0	0
18	31	X	0	0
19	31	X	0	0
20	31	X	0	0

Member Point Loads (BLC 4 : 0 Wind - Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Z	-0.035	%15
2	18	Z	-0.035	%85
3	18	Z	-0.014	%20
4	18	Z	-0.014	%50
5	18	Z	0	0
6	83	Z	-0.035	%15
7	83	Z	-0.035	%85
8	83	Z	-0.014	%20
9	83	Z	-0.014	%50
10	83	Z	0	0
11	72	Z	-0.035	%15
12	72	Z	-0.035	%85
13	72	Z	-0.014	%20
14	72	Z	-0.014	%50
15	72	Z	0	0
16	31	Z	-0.018	%20
17	31	Z	0	0
18	31	Z	0	0
19	31	Z	0	0
20	31	Z	0	0

Member Point Loads (BLC 5 : 90 Wind - Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	X	-0.016	%15
2	18	X	-0.016	%85
3	18	X	-0.009	%20
4	18	X	-0.007	%50
5	18	X	0	0
6	83	X	-0.016	%15
7	83	X	-0.016	%85
8	83	X	-0.009	%20
9	83	X	-0.007	%50
10	83	X	0	0
11	72	X	-0.016	%15
12	72	X	-0.016	%85
13	72	X	-0.009	%20
14	72	X	-0.007	%50
15	72	X	0	0
16	31	X	-0.011	%20
17	31	X	0	0
18	31	X	0	0
19	31	X	0	0
20	31	X	0	0

Member Point Loads (BLC 6 : 0 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Z	-0.011	%15
2	18	Z	-0.011	%85
3	18	Z	-0.005	%20
4	18	Z	-0.005	%50
5	18	Z	0	0
6	83	Z	-0.011	%15

Member Point Loads (BLC 6 : 0 Wind - Service) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
7	83	Z	-0.011	%85
8	83	Z	-0.005	%20
9	83	Z	-0.005	%50
10	83	Z	0	0
11	72	Z	-0.011	%15
12	72	Z	-0.011	%85
13	72	Z	-0.005	%20
14	72	Z	-0.005	%50
15	72	Z	0	0
16	31	Z	-0.007	%20
17	31	Z	0	0
18	31	Z	0	0
19	31	Z	0	0
20	31	Z	0	0

Member Point Loads (BLC 7 : 90 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	X	-0.004	%15
2	18	X	-0.004	%85
3	18	X	-0.003	%20
4	18	X	-0.003	%50
5	18	X	0	0
6	83	X	-0.004	%15
7	83	X	-0.004	%85
8	83	X	-0.003	%20
9	83	X	-0.003	%50
10	83	X	0	0
11	72	X	-0.004	%15
12	72	X	-0.004	%85
13	72	X	-0.003	%20
14	72	X	-0.003	%50
15	72	X	0	0
16	31	X	-0.004	%20
17	31	X	0	0
18	31	X	0	0
19	31	X	0	0
20	31	X	0	0

Member Point Loads (BLC 8 : Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Y	-0.118	%15
2	18	Y	-0.118	%85
3	18	Y	-0.034	%20
4	18	Y	-0.033	%50
5	18	Y	0	0
6	83	Y	-0.118	%15
7	83	Y	-0.118	%85
8	83	Y	-0.034	%20
9	83	Y	-0.033	%50
10	83	Y	0	0
11	72	Y	-0.118	%15
12	72	Y	-0.118	%85
13	72	Y	-0.034	%20

Member Point Loads (BLC 8 : Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
14	72	Y	-0.033	%50
15	72	Y	0	0
16	31	Y	-0.044	%20
17	31	Y	0	0
18	31	Y	0	0
19	31	Y	0	0
20	31	Y	0	0

Member Point Loads (BLC 9 : 0 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Z	-0.015	%15
2	18	Z	-0.015	%85
3	18	Z	-0.016	%20
4	18	Z	-0.014	%50
5	18	Z	0	0
6	83	Z	-0.015	%15
7	83	Z	-0.015	%85
8	83	Z	-0.016	%20
9	83	Z	-0.014	%50
10	83	Z	0	0
11	72	Z	-0.015	%15
12	72	Z	-0.015	%85
13	72	Z	-0.016	%20
14	72	Z	-0.014	%50
15	72	Z	0	0
16	31	Z	-0.005	%20
17	31	Z	0	0
18	31	Z	0	0
19	31	Z	0	0
20	31	Z	0	0

Member Point Loads (BLC 10 : 90 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	X	-0.015	%15
2	18	X	-0.015	%85
3	18	X	-0.016	%20
4	18	X	-0.014	%50
5	18	X	0	0
6	83	X	-0.015	%15
7	83	X	-0.015	%85
8	83	X	-0.016	%20
9	83	X	-0.014	%50
10	83	X	0	0
11	72	X	-0.015	%15
12	72	X	-0.015	%85
13	72	X	-0.016	%20
14	72	X	-0.014	%50
15	72	X	0	0
16	31	X	-0.005	%20
17	31	X	0	0
18	31	X	0	0
19	31	X	0	0
20	31	X	0	0

Member Point Loads (BLC 15 : Maint LL 1)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	6	Y	-0.25	%5

Member Point Loads (BLC 16 : Maint LL 2)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	22	Y	-0.25	%5

Member Point Loads (BLC 17 : Maint LL 3)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	80	Y	-0.25	%5

Member Point Loads (BLC 19 : Maint LL 5)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	69	Y	-0.25	%5

Member Point Loads (BLC 21 : Maint LL 7)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	6	Y	-0.25	%95

Member Point Loads (BLC 22 : Maint LL 8)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	22	Y	-0.25	%95

Member Point Loads (BLC 23 : Maint LL 9)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	80	Y	-0.25	%95

Member Point Loads (BLC 25 : Maint LL 11)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	69	Y	-0.25	%95

Member Point Loads (BLC 27 : Maint LL 13)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	31	Y	-0.25	%95

Member Point Loads (BLC 28 : Maint LL 14)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	1	Y	-0.25	%95

Member Point Loads (BLC 29 : Maint LL 15)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	50	Y	-0.25	%95

Member Distributed Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.02	-0.02	0	%100
2	2	Z	-0.017	-0.017	0	%100
3	3	Z	-0.017	-0.017	0	%100
4	4	Z	-0.025	-0.025	0	%100
5	5	Z	-0.025	-0.025	0	%100
6	6	Z	-0.014	-0.014	0	%100
7	7	Z	-0.025	-0.025	0	%100
8	8	Z	-0.025	-0.025	0	%100
9	9	Z	-0.011	-0.011	0	%100
10	10	Z	-0.011	-0.011	0	%100
11	11	Z	-0.034	-0.034	0	%100
12	18	Z	-0.012	-0.012	0	%100
13	19	Z	-0.012	-0.012	0	%100
14	22	Z	-0.012	-0.012	0	%100
15	28	Z	-0.012	-0.012	0	%100
16	31	Z	-0.02	-0.02	0	%100
17	32	Z	-0.017	-0.017	0	%100
18	33	Z	-0.017	-0.017	0	%100
19	34	Z	-0.025	-0.025	0	%100
20	35	Z	-0.025	-0.025	0	%100
21	36	Z	-0.025	-0.025	0	%100
22	37	Z	-0.025	-0.025	0	%100
23	38	Z	-0.011	-0.011	0	%100
24	39	Z	-0.011	-0.011	0	%100
25	40	Z	-0.034	-0.034	0	%100
26	50	Z	-0.02	-0.02	0	%100
27	51	Z	-0.017	-0.017	0	%100
28	52	Z	-0.017	-0.017	0	%100
29	53	Z	-0.025	-0.025	0	%100
30	54	Z	-0.025	-0.025	0	%100
31	55	Z	-0.025	-0.025	0	%100
32	56	Z	-0.025	-0.025	0	%100
33	57	Z	-0.011	-0.011	0	%100
34	58	Z	-0.011	-0.011	0	%100
35	59	Z	-0.034	-0.034	0	%100
36	69	Z	-0.014	-0.014	0	%100
37	72	Z	-0.012	-0.012	0	%100
38	73	Z	-0.012	-0.012	0	%100
39	78	Z	-0.012	-0.012	0	%100
40	80	Z	-0.014	-0.014	0	%100
41	83	Z	-0.012	-0.012	0	%100
42	84	Z	-0.012	-0.012	0	%100
43	89	Z	-0.012	-0.012	0	%100
44	M86	Z	-0.012	-0.012	0	%100
45	M87	Z	-0.012	-0.012	0	%100
46	M88	Z	-0.03	-0.03	0	%100
47	M89	Z	-0.03	-0.03	0	%100
48	M90	Z	-0.03	-0.03	0	%100

Member Distributed Loads (BLC 3 : 90 Wind - No Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.02	-0.02	0	%100
2	2	X	-0.017	-0.017	0	%100
3	3	X	-0.017	-0.017	0	%100
4	4	X	-0.025	-0.025	0	%100
5	5	X	-0.025	-0.025	0	%100
6	6	X	-0.014	-0.014	0	%100
7	7	X	-0.025	-0.025	0	%100
8	8	X	-0.025	-0.025	0	%100
9	9	X	-0.011	-0.011	0	%100
10	10	X	-0.011	-0.011	0	%100
11	11	X	-0.034	-0.034	0	%100
12	18	X	-0.012	-0.012	0	%100
13	19	X	-0.012	-0.012	0	%100
14	22	X	-0.012	-0.012	0	%100
15	28	X	-0.012	-0.012	0	%100
16	31	X	-0.02	-0.02	0	%100
17	32	X	-0.017	-0.017	0	%100
18	33	X	-0.017	-0.017	0	%100
19	34	X	-0.025	-0.025	0	%100
20	35	X	-0.025	-0.025	0	%100
21	36	X	-0.025	-0.025	0	%100
22	37	X	-0.025	-0.025	0	%100
23	38	X	-0.011	-0.011	0	%100
24	39	X	-0.011	-0.011	0	%100
25	40	X	-0.034	-0.034	0	%100
26	50	X	-0.02	-0.02	0	%100
27	51	X	-0.017	-0.017	0	%100
28	52	X	-0.017	-0.017	0	%100
29	53	X	-0.025	-0.025	0	%100
30	54	X	-0.025	-0.025	0	%100
31	55	X	-0.025	-0.025	0	%100
32	56	X	-0.025	-0.025	0	%100
33	57	X	-0.011	-0.011	0	%100
34	58	X	-0.011	-0.011	0	%100
35	59	X	-0.034	-0.034	0	%100
36	69	X	-0.014	-0.014	0	%100
37	72	X	-0.012	-0.012	0	%100
38	73	X	-0.012	-0.012	0	%100
39	78	X	-0.012	-0.012	0	%100
40	80	X	-0.014	-0.014	0	%100
41	83	X	-0.012	-0.012	0	%100
42	84	X	-0.012	-0.012	0	%100
43	89	X	-0.012	-0.012	0	%100
44	M86	X	-0.012	-0.012	0	%100
45	M87	X	-0.012	-0.012	0	%100
46	M88	X	-0.03	-0.03	0	%100
47	M89	X	-0.03	-0.03	0	%100
48	M90	X	-0.03	-0.03	0	%100

Member Distributed Loads (BLC 4 : 0 Wind - Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.006	-0.006	0	%100
2	2	Z	-0.005	-0.005	0	%100
3	3	Z	-0.005	-0.005	0	%100

Member Distributed Loads (BLC 4 : 0 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
4	4	Z	-0.01	-0.01	0	%100
5	5	Z	-0.01	-0.01	0	%100
6	6	Z	-0.002	-0.002	0	%100
7	7	Z	-0.012	-0.012	0	%100
8	8	Z	-0.012	-0.012	0	%100
9	9	Z	-0.005	-0.005	0	%100
10	10	Z	-0.005	-0.005	0	%100
11	11	Z	-0.008	-0.008	0	%100
12	18	Z	-0.002	-0.002	0	%100
13	19	Z	-0.002	-0.002	0	%100
14	22	Z	-0.002	-0.002	0	%100
15	28	Z	-0.002	-0.002	0	%100
16	31	Z	-0.006	-0.006	0	%100
17	32	Z	-0.005	-0.005	0	%100
18	33	Z	-0.005	-0.005	0	%100
19	34	Z	-0.01	-0.01	0	%100
20	35	Z	-0.01	-0.01	0	%100
21	36	Z	-0.012	-0.012	0	%100
22	37	Z	-0.012	-0.012	0	%100
23	38	Z	-0.005	-0.005	0	%100
24	39	Z	-0.005	-0.005	0	%100
25	40	Z	-0.008	-0.008	0	%100
26	50	Z	-0.006	-0.006	0	%100
27	51	Z	-0.005	-0.005	0	%100
28	52	Z	-0.005	-0.005	0	%100
29	53	Z	-0.01	-0.01	0	%100
30	54	Z	-0.01	-0.01	0	%100
31	55	Z	-0.012	-0.012	0	%100
32	56	Z	-0.012	-0.012	0	%100
33	57	Z	-0.005	-0.005	0	%100
34	58	Z	-0.005	-0.005	0	%100
35	59	Z	-0.008	-0.008	0	%100
36	69	Z	-0.002	-0.002	0	%100
37	72	Z	-0.002	-0.002	0	%100
38	73	Z	-0.002	-0.002	0	%100
39	78	Z	-0.002	-0.002	0	%100
40	80	Z	-0.002	-0.002	0	%100
41	83	Z	-0.002	-0.002	0	%100
42	84	Z	-0.002	-0.002	0	%100
43	89	Z	-0.002	-0.002	0	%100
44	M86	Z	-0.002	-0.002	0	%100
45	M87	Z	-0.002	-0.002	0	%100
46	M88	Z	-0.008	-0.008	0	%100
47	M89	Z	-0.008	-0.008	0	%100
48	M90	Z	-0.008	-0.008	0	%100

Member Distributed Loads (BLC 5 : 90 Wind - Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.006	-0.006	0	%100
2	2	X	-0.005	-0.005	0	%100
3	3	X	-0.005	-0.005	0	%100
4	4	X	-0.01	-0.01	0	%100
5	5	X	-0.01	-0.01	0	%100
6	6	X	-0.002	-0.002	0	%100
7	7	X	-0.012	-0.012	0	%100

Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
8	8	X	-0.012	-0.012	0	%100
9	9	X	-0.005	-0.005	0	%100
10	10	X	-0.005	-0.005	0	%100
11	11	X	-0.008	-0.008	0	%100
12	18	X	-0.002	-0.002	0	%100
13	19	X	-0.002	-0.002	0	%100
14	22	X	-0.002	-0.002	0	%100
15	28	X	-0.002	-0.002	0	%100
16	31	X	-0.006	-0.006	0	%100
17	32	X	-0.005	-0.005	0	%100
18	33	X	-0.005	-0.005	0	%100
19	34	X	-0.01	-0.01	0	%100
20	35	X	-0.01	-0.01	0	%100
21	36	X	-0.012	-0.012	0	%100
22	37	X	-0.012	-0.012	0	%100
23	38	X	-0.005	-0.005	0	%100
24	39	X	-0.005	-0.005	0	%100
25	40	X	-0.008	-0.008	0	%100
26	50	X	-0.006	-0.006	0	%100
27	51	X	-0.005	-0.005	0	%100
28	52	X	-0.005	-0.005	0	%100
29	53	X	-0.01	-0.01	0	%100
30	54	X	-0.01	-0.01	0	%100
31	55	X	-0.012	-0.012	0	%100
32	56	X	-0.012	-0.012	0	%100
33	57	X	-0.005	-0.005	0	%100
34	58	X	-0.005	-0.005	0	%100
35	59	X	-0.008	-0.008	0	%100
36	69	X	-0.002	-0.002	0	%100
37	72	X	-0.002	-0.002	0	%100
38	73	X	-0.002	-0.002	0	%100
39	78	X	-0.002	-0.002	0	%100
40	80	X	-0.002	-0.002	0	%100
41	83	X	-0.002	-0.002	0	%100
42	84	X	-0.002	-0.002	0	%100
43	89	X	-0.002	-0.002	0	%100
44	M86	X	-0.002	-0.002	0	%100
45	M87	X	-0.002	-0.002	0	%100
46	M88	X	-0.008	-0.008	0	%100
47	M89	X	-0.008	-0.008	0	%100
48	M90	X	-0.008	-0.008	0	%100

Member Distributed Loads (BLC 6 : 0 Wind - Service)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.001	-0.001	0	%100
2	2	Z	-0.001	-0.001	0	%100
3	3	Z	-0.001	-0.001	0	%100
4	4	Z	-0.002	-0.002	0	%100
5	5	Z	-0.002	-0.002	0	%100
6	6	Z	-0.0005	-0.0005	0	%100
7	7	Z	-0.002	-0.002	0	%100
8	8	Z	-0.002	-0.002	0	%100
9	9	Z	-0.0007	-0.0007	0	%100
10	10	Z	-0.0007	-0.0007	0	%100
11	11	Z	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 6 : 0 Wind - Service) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
12	18	Z	-0.0004	-0.0004	0	%100
13	19	Z	-0.0004	-0.0004	0	%100
14	22	Z	-0.0004	-0.0004	0	%100
15	28	Z	-0.0004	-0.0004	0	%100
16	31	Z	-0.001	-0.001	0	%100
17	32	Z	-0.001	-0.001	0	%100
18	33	Z	-0.001	-0.001	0	%100
19	34	Z	-0.002	-0.002	0	%100
20	35	Z	-0.002	-0.002	0	%100
21	36	Z	-0.002	-0.002	0	%100
22	37	Z	-0.002	-0.002	0	%100
23	38	Z	-0.0007	-0.0007	0	%100
24	39	Z	-0.0007	-0.0007	0	%100
25	40	Z	-0.002	-0.002	0	%100
26	50	Z	-0.001	-0.001	0	%100
27	51	Z	-0.001	-0.001	0	%100
28	52	Z	-0.001	-0.001	0	%100
29	53	Z	-0.002	-0.002	0	%100
30	54	Z	-0.002	-0.002	0	%100
31	55	Z	-0.002	-0.002	0	%100
32	56	Z	-0.002	-0.002	0	%100
33	57	Z	-0.0007	-0.0007	0	%100
34	58	Z	-0.0007	-0.0007	0	%100
35	59	Z	-0.002	-0.002	0	%100
36	69	Z	-0.0005	-0.0005	0	%100
37	72	Z	-0.0004	-0.0004	0	%100
38	73	Z	-0.0004	-0.0004	0	%100
39	78	Z	-0.0004	-0.0004	0	%100
40	80	Z	-0.0005	-0.0005	0	%100
41	83	Z	-0.0004	-0.0004	0	%100
42	84	Z	-0.0004	-0.0004	0	%100
43	89	Z	-0.0004	-0.0004	0	%100
44	M86	Z	-0.0004	-0.0004	0	%100
45	M87	Z	-0.0004	-0.0004	0	%100
46	M88	Z	-0.002	-0.002	0	%100
47	M89	Z	-0.002	-0.002	0	%100
48	M90	Z	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 7 : 90 Wind - Service)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.001	-0.001	0	%100
2	2	X	-0.001	-0.001	0	%100
3	3	X	-0.001	-0.001	0	%100
4	4	X	-0.002	-0.002	0	%100
5	5	X	-0.002	-0.002	0	%100
6	6	X	-0.0005	-0.0005	0	%100
7	7	X	-0.002	-0.002	0	%100
8	8	X	-0.002	-0.002	0	%100
9	9	X	-0.0007	-0.0007	0	%100
10	10	X	-0.0007	-0.0007	0	%100
11	11	X	-0.002	-0.002	0	%100
12	18	X	-0.0004	-0.0004	0	%100
13	19	X	-0.0004	-0.0004	0	%100
14	22	X	-0.0004	-0.0004	0	%100
15	28	X	-0.0004	-0.0004	0	%100

Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
16	31	X	-0.001	-0.001	0	%100
17	32	X	-0.001	-0.001	0	%100
18	33	X	-0.001	-0.001	0	%100
19	34	X	-0.002	-0.002	0	%100
20	35	X	-0.002	-0.002	0	%100
21	36	X	-0.002	-0.002	0	%100
22	37	X	-0.002	-0.002	0	%100
23	38	X	-0.0007	-0.0007	0	%100
24	39	X	-0.0007	-0.0007	0	%100
25	40	X	-0.002	-0.002	0	%100
26	50	X	-0.001	-0.001	0	%100
27	51	X	-0.001	-0.001	0	%100
28	52	X	-0.001	-0.001	0	%100
29	53	X	-0.002	-0.002	0	%100
30	54	X	-0.002	-0.002	0	%100
31	55	X	-0.002	-0.002	0	%100
32	56	X	-0.002	-0.002	0	%100
33	57	X	-0.0007	-0.0007	0	%100
34	58	X	-0.0007	-0.0007	0	%100
35	59	X	-0.002	-0.002	0	%100
36	69	X	-0.0005	-0.0005	0	%100
37	72	X	-0.0004	-0.0004	0	%100
38	73	X	-0.0004	-0.0004	0	%100
39	78	X	-0.0004	-0.0004	0	%100
40	80	X	-0.0005	-0.0005	0	%100
41	83	X	-0.0004	-0.0004	0	%100
42	84	X	-0.0004	-0.0004	0	%100
43	89	X	-0.0004	-0.0004	0	%100
44	M86	X	-0.0004	-0.0004	0	%100
45	M87	X	-0.0004	-0.0004	0	%100
46	M88	X	-0.002	-0.002	0	%100
47	M89	X	-0.002	-0.002	0	%100
48	M90	X	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 8 : Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Y	-0.01	-0.01	0	%100
2	2	Y	-0.007	-0.007	0	%100
3	3	Y	-0.007	-0.007	0	%100
4	4	Y	-0.01	-0.01	0	%100
5	5	Y	-0.01	-0.01	0	%100
6	6	Y	-0.007	-0.007	0	%100
7	7	Y	-0.01	-0.01	0	%100
8	8	Y	-0.01	-0.01	0	%100
9	9	Y	-0.006	-0.006	0	%100
10	10	Y	-0.006	-0.006	0	%100
11	11	Y	-0.013	-0.013	0	%100
12	18	Y	-0.006	-0.006	0	%100
13	19	Y	-0.006	-0.006	0	%100
14	22	Y	-0.006	-0.006	0	%100
15	28	Y	-0.006	-0.006	0	%100
16	31	Y	-0.01	-0.01	0	%100
17	32	Y	-0.007	-0.007	0	%100
18	33	Y	-0.007	-0.007	0	%100
19	34	Y	-0.01	-0.01	0	%100

Member Distributed Loads (BLC 8 : Ice) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
20	35	Y	-0.01	-0.01	0	%100
21	36	Y	-0.01	-0.01	0	%100
22	37	Y	-0.01	-0.01	0	%100
23	38	Y	-0.006	-0.006	0	%100
24	39	Y	-0.006	-0.006	0	%100
25	40	Y	-0.013	-0.013	0	%100
26	50	Y	-0.01	-0.01	0	%100
27	51	Y	-0.007	-0.007	0	%100
28	52	Y	-0.007	-0.007	0	%100
29	53	Y	-0.01	-0.01	0	%100
30	54	Y	-0.01	-0.01	0	%100
31	55	Y	-0.01	-0.01	0	%100
32	56	Y	-0.01	-0.01	0	%100
33	57	Y	-0.006	-0.006	0	%100
34	58	Y	-0.006	-0.006	0	%100
35	59	Y	-0.013	-0.013	0	%100
36	69	Y	-0.007	-0.007	0	%100
37	72	Y	-0.006	-0.006	0	%100
38	73	Y	-0.006	-0.006	0	%100
39	78	Y	-0.006	-0.006	0	%100
40	80	Y	-0.007	-0.007	0	%100
41	83	Y	-0.006	-0.006	0	%100
42	84	Y	-0.006	-0.006	0	%100
43	89	Y	-0.006	-0.006	0	%100
44	M86	Y	-0.006	-0.006	0	%100
45	M87	Y	-0.006	-0.006	0	%100
46	M88	Y	-0.013	-0.013	0	%100
47	M89	Y	-0.013	-0.013	0	%100
48	M90	Y	-0.013	-0.013	0	%100

Member Distributed Loads (BLC 9 : 0 Seismic)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.001	-0.001	0	%100
2	2	Z	-0.0009	-0.0009	0	%100
3	3	Z	-0.0009	-0.0009	0	%100
4	4	Z	-0.002	-0.002	0	%100
5	5	Z	-0.002	-0.002	0	%100
6	6	Z	-0.001	-0.001	0	%100
7	7	Z	-0.002	-0.002	0	%100
8	8	Z	-0.002	-0.002	0	%100
9	9	Z	-0.0007	-0.0007	0	%100
10	10	Z	-0.0007	-0.0007	0	%100
11	11	Z	-0.003	-0.003	0	%100
12	18	Z	-0.001	-0.001	0	%100
13	19	Z	-0.001	-0.001	0	%100
14	22	Z	-0.001	-0.001	0	%100
15	28	Z	-0.001	-0.001	0	%100
16	31	Z	-0.001	-0.001	0	%100
17	32	Z	-0.0009	-0.0009	0	%100
18	33	Z	-0.0009	-0.0009	0	%100
19	34	Z	-0.002	-0.002	0	%100
20	35	Z	-0.002	-0.002	0	%100
21	36	Z	-0.002	-0.002	0	%100
22	37	Z	-0.002	-0.002	0	%100
23	38	Z	-0.0007	-0.0007	0	%100

Member Distributed Loads (BLC 9 : 0 Seismic) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
24	39	Z	-0.0007	-0.0007	0	%100
25	40	Z	-0.003	-0.003	0	%100
26	50	Z	-0.001	-0.001	0	%100
27	51	Z	-0.0009	-0.0009	0	%100
28	52	Z	-0.0009	-0.0009	0	%100
29	53	Z	-0.002	-0.002	0	%100
30	54	Z	-0.002	-0.002	0	%100
31	55	Z	-0.002	-0.002	0	%100
32	56	Z	-0.002	-0.002	0	%100
33	57	Z	-0.0007	-0.0007	0	%100
34	58	Z	-0.0007	-0.0007	0	%100
35	59	Z	-0.003	-0.003	0	%100
36	69	Z	-0.001	-0.001	0	%100
37	72	Z	-0.001	-0.001	0	%100
38	73	Z	-0.001	-0.001	0	%100
39	78	Z	-0.001	-0.001	0	%100
40	80	Z	-0.001	-0.001	0	%100
41	83	Z	-0.001	-0.001	0	%100
42	84	Z	-0.001	-0.001	0	%100
43	89	Z	-0.001	-0.001	0	%100
44	M86	Z	-0.001	-0.001	0	%100
45	M87	Z	-0.001	-0.001	0	%100
46	M88	Z	-0.002	-0.002	0	%100
47	M89	Z	-0.002	-0.002	0	%100
48	M90	Z	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.001	-0.001	0	%100
2	2	X	-0.0009	-0.0009	0	%100
3	3	X	-0.0009	-0.0009	0	%100
4	4	X	-0.002	-0.002	0	%100
5	5	X	-0.002	-0.002	0	%100
6	6	X	-0.001	-0.001	0	%100
7	7	X	-0.002	-0.002	0	%100
8	8	X	-0.002	-0.002	0	%100
9	9	X	-0.0007	-0.0007	0	%100
10	10	X	-0.0007	-0.0007	0	%100
11	11	X	-0.003	-0.003	0	%100
12	18	X	-0.001	-0.001	0	%100
13	19	X	-0.001	-0.001	0	%100
14	22	X	-0.001	-0.001	0	%100
15	28	X	-0.001	-0.001	0	%100
16	31	X	-0.001	-0.001	0	%100
17	32	X	-0.0009	-0.0009	0	%100
18	33	X	-0.0009	-0.0009	0	%100
19	34	X	-0.002	-0.002	0	%100
20	35	X	-0.002	-0.002	0	%100
21	36	X	-0.002	-0.002	0	%100
22	37	X	-0.002	-0.002	0	%100
23	38	X	-0.0007	-0.0007	0	%100
24	39	X	-0.0007	-0.0007	0	%100
25	40	X	-0.003	-0.003	0	%100
26	50	X	-0.001	-0.001	0	%100
27	51	X	-0.0009	-0.0009	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
28	52	X	-0.0009	-0.0009	0	%100
29	53	X	-0.002	-0.002	0	%100
30	54	X	-0.002	-0.002	0	%100
31	55	X	-0.002	-0.002	0	%100
32	56	X	-0.002	-0.002	0	%100
33	57	X	-0.0007	-0.0007	0	%100
34	58	X	-0.0007	-0.0007	0	%100
35	59	X	-0.003	-0.003	0	%100
36	69	X	-0.001	-0.001	0	%100
37	72	X	-0.001	-0.001	0	%100
38	73	X	-0.001	-0.001	0	%100
39	78	X	-0.001	-0.001	0	%100
40	80	X	-0.001	-0.001	0	%100
41	83	X	-0.001	-0.001	0	%100
42	84	X	-0.001	-0.001	0	%100
43	89	X	-0.001	-0.001	0	%100
44	M86	X	-0.001	-0.001	0	%100
45	M87	X	-0.001	-0.001	0	%100
46	M88	X	-0.002	-0.002	0	%100
47	M89	X	-0.002	-0.002	0	%100
48	M90	X	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 30 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	10	Y	-0.02	-0.026	1.27	2.309
2	38	Y	-0.035	-0.016	0	1.155
3	38	Y	-0.016	0.0006163	1.155	2.309
4	39	Y	-0.018	-0.016	0.231	2.309
5	57	Y	-0.018	-0.016	0	2.078
6	58	Y	0.0006164	-0.016	0	1.155
7	58	Y	-0.016	-0.035	1.155	2.309
8	9	Y	-0.015	-0.015	0	2.078
9	10	Y	-0.014	-0.02	0.231	1.27

Member Distributed Loads (BLC 31 : BLC 8 Transient Area Loads)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	9	Y	-0.008	-0.008	0	2.078
2	10	Y	-0.008	-0.011	0.231	1.27
3	10	Y	-0.011	-0.014	1.27	2.309
4	38	Y	-0.017	-0.008	0	1.155
5	38	Y	-0.008	0.0003082	1.155	2.309
6	39	Y	-0.009	-0.008	0.231	2.309
7	57	Y	-0.009	-0.008	0	2.078
8	58	Y	0.0003082	-0.008	0	1.155
9	58	Y	-0.008	-0.017	1.155	2.309

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
1	Dead	DL	-1		20		3
2	0 Wind - No Ice	WLZ			20	48	
3	90 Wind - No Ice	WLX			20	48	
4	0 Wind - Ice	WLZ			20	48	

Basic Load Cases (Continued)

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
5	90 Wind - Ice	WLX			20	48	
6	0 Wind - Service	WLZ			20	48	
7	90 Wind - Service	WLX			20	48	
8	Ice	OL1			20	48	3
9	0 Seismic	ELZ			20	48	
10	90 Seismic	ELX			20	48	
11	Live Load a	LL		3			
12	Live Load b	LL		3			
13	Live Load c	LL		3			
14	Live Load d	LL					
15	Maint LL 1	LL			1		
16	Maint LL 2	LL			1		
17	Maint LL 3	LL			1		
18	Maint LL 4	LL					
19	Maint LL 5	LL			1		
20	Maint LL 6	LL					
21	Maint LL 7	LL			1		
22	Maint LL 8	LL			1		
23	Maint LL 9	LL			1		
24	Maint LL 10	LL					
25	Maint LL 11	LL			1		
26	Maint LL 12	LL					
27	Maint LL 13	LL			1		
28	Maint LL 14	LL			1		
29	Maint LL 15	LL			1		
30	BLC 1 Transient Area Loads	None				9	
31	BLC 8 Transient Area Loads	None				9	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4 Dead	Yes	Y	1	1.4						
2	1.2 D + 1.0 - 0 W	Yes	Y	1	1.2	2	1				
3	1.2 D + 1.0 - 30 W	Yes	Y	1	1.2	2	0.866	3	0.5		
4	1.2 D + 1.0 - 60 W	Yes	Y	1	1.2	3	0.866	2	0.5		
5	1.2 D + 1.0 - 90 W	Yes	Y	1	1.2	3	1				
6	1.2 D + 1.0 - 120 W	Yes	Y	1	1.2	3	0.866	2	-0.5		
7	1.2 D + 1.0 - 150 W	Yes	Y	1	1.2	2	-0.866	3	0.5		
8	1.2 D + 1.0 - 180 W	Yes	Y	1	1.2	2	-1				
9	1.2 D + 1.0 - 210 W	Yes	Y	1	1.2	2	-0.866	3	-0.5		
10	1.2 D + 1.0 - 240 W	Yes	Y	1	1.2	3	-0.866	2	-0.5		
11	1.2 D + 1.0 - 270 W	Yes	Y	1	1.2	3	-1				
12	1.2 D + 1.0 - 300 W	Yes	Y	1	1.2	3	-0.866	2	0.5		
13	1.2 D + 1.0 - 330 W	Yes	Y	1	1.2	2	0.866	3	-0.5		
14	1.2 D + 1.0 - 0 W/Ice	Yes	Y	1	1.2	4	1			8	1
15	1.2 D + 1.0 - 30 W/Ice	Yes	Y	1	1.2	4	0.866	5	0.5	8	1
16	1.2 D + 1.0 - 60 W/Ice	Yes	Y	1	1.2	5	0.866	4	0.5	8	1
17	1.2 D + 1.0 - 90 W/Ice	Yes	Y	1	1.2	5	1			8	1
18	1.2 D + 1.0 - 120 W/Ice	Yes	Y	1	1.2	5	0.866	4	-0.5	8	1
19	1.2 D + 1.0 - 150 W/Ice	Yes	Y	1	1.2	4	-0.866	5	0.5	8	1
20	1.2 D + 1.0 - 180 W/Ice	Yes	Y	1	1.2	4	-1			8	1
21	1.2 D + 1.0 - 210 W/Ice	Yes	Y	1	1.2	4	-0.866	5	-0.5	8	1
22	1.2 D + 1.0 - 240 W/Ice	Yes	Y	1	1.2	5	-0.866	4	-0.5	8	1
23	1.2 D + 1.0 - 270 W/Ice	Yes	Y	1	1.2	5	-1			8	1
24	1.2 D + 1.0 - 300 W/Ice	Yes	Y	1	1.2	5	-0.866	4	0.5	8	1
25	1.2 D + 1.0 - 330 W/Ice	Yes	Y	1	1.2	4	0.866	5	-0.5	8	1

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
26	1.2 D + 1.0 E - 0	Yes	Y	1	1.2	9	1				
27	1.2 D + 1.0 E - 30	Yes	Y	1	1.2	9	0.866	10	0.5		
28	1.2 D + 1.0 E - 60	Yes	Y	1	1.2	10	0.866	9	0.5		
29	1.2 D + 1.0 E - 90	Yes	Y	1	1.2	10	1				
30	1.2 D + 1.0 E - 120	Yes	Y	1	1.2	10	0.866	9	-0.5		
31	1.2 D + 1.0 E - 150	Yes	Y	1	1.2	9	-0.866	10	0.5		
32	1.2 D + 1.0 E - 180	Yes	Y	1	1.2	9	-1				
33	1.2 D + 1.0 E - 210	Yes	Y	1	1.2	9	-0.866	10	-0.5		
34	1.2 D + 1.0 E - 240	Yes	Y	1	1.2	10	-0.866	9	-0.5		
35	1.2 D + 1.0 E - 270	Yes	Y	1	1.2	10	-1				
36	1.2 D + 1.0 E - 300	Yes	Y	1	1.2	10	-0.866	9	0.5		
37	1.2 D + 1.0 E - 330	Yes	Y	1	1.2	9	0.866	10	-0.5		
38	1.2 D + 1.5 LL a + Service - 0 W	Yes	Y	1	1.2	6	1			11	1.5
39	1.2 D + 1.5 LL a + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	11	1.5
40	1.2 D + 1.5 LL a + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	11	1.5
41	1.2 D + 1.5 LL a + Service - 90 W	Yes	Y	1	1.2	7	1			11	1.5
42	1.2 D + 1.5 LL a + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	11	1.5
43	1.2 D + 1.5 LL a + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	11	1.5
44	1.2 D + 1.5 LL a + Service - 180 W	Yes	Y	1	1.2	6	-1			11	1.5
45	1.2 D + 1.5 LL a + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	11	1.5
46	1.2 D + 1.5 LL a + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	11	1.5
47	1.2 D + 1.5 LL a + Service - 270 W	Yes	Y	1	1.2	7	-1			11	1.5
48	1.2 D + 1.5 LL a + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	11	1.5
49	1.2 D + 1.5 LL a + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	11	1.5
50	1.2 D + 1.5 LL b + Service - 0 W	Yes	Y	1	1.2	6	1			12	1.5
51	1.2 D + 1.5 LL b + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	12	1.5
52	1.2 D + 1.5 LL b + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	12	1.5
53	1.2 D + 1.5 LL b + Service - 90 W	Yes	Y	1	1.2	7	1			12	1.5
54	1.2 D + 1.5 LL b + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	12	1.5
55	1.2 D + 1.5 LL b + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	12	1.5
56	1.2 D + 1.5 LL b + Service - 180 W	Yes	Y	1	1.2	6	-1			12	1.5
57	1.2 D + 1.5 LL b + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	12	1.5
58	1.2 D + 1.5 LL b + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	12	1.5
59	1.2 D + 1.5 LL b + Service - 270 W	Yes	Y	1	1.2	7	-1			12	1.5
60	1.2 D + 1.5 LL b + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	12	1.5
61	1.2 D + 1.5 LL b + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	12	1.5
62	1.2 D + 1.5 LL c + Service - 0 W	Yes	Y	1	1.2	6	1			13	1.5
63	1.2 D + 1.5 LL c + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	13	1.5
64	1.2 D + 1.5 LL c + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	13	1.5
65	1.2 D + 1.5 LL c + Service - 90 W	Yes	Y	1	1.2	7	1			13	1.5
66	1.2 D + 1.5 LL c + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	13	1.5
67	1.2 D + 1.5 LL c + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	13	1.5
68	1.2 D + 1.5 LL c + Service - 180 W	Yes	Y	1	1.2	6	-1			13	1.5
69	1.2 D + 1.5 LL c + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	13	1.5
70	1.2 D + 1.5 LL c + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	13	1.5
71	1.2 D + 1.5 LL c + Service - 270 W	Yes	Y	1	1.2	7	-1			13	1.5
72	1.2 D + 1.5 LL c + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	13	1.5
73	1.2 D + 1.5 LL c + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	13	1.5
74	1.2 D + 1.5 LL d + Service - 0 W	Yes	Y	1	1.2	6	1			14	1.5
75	1.2 D + 1.5 LL d + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	14	1.5
76	1.2 D + 1.5 LL d + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	14	1.5
77	1.2 D + 1.5 LL d + Service - 90 W	Yes	Y	1	1.2	7	1			14	1.5
78	1.2 D + 1.5 LL d + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	14	1.5
79	1.2 D + 1.5 LL d + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	14	1.5
80	1.2 D + 1.5 LL d + Service - 180 W	Yes	Y	1	1.2	6	-1			14	1.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
81	1.2 D + 1.5 LL d + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	14	1.5
82	1.2 D + 1.5 LL d + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	14	1.5
83	1.2 D + 1.5 LL d + Service - 270 W	Yes	Y	1	1.2	7	-1			14	1.5
84	1.2 D + 1.5 LL d + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	14	1.5
85	1.2 D + 1.5 LL d + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	14	1.5
86	1.2 D + 1.5 LL Maint (1)	Yes	Y	1	1.2					15	1.5
87	1.2 D + 1.5 LL Maint (2)	Yes	Y	1	1.2					16	1.5
88	1.2 D + 1.5 LL Maint (3)	Yes	Y	1	1.2					17	1.5
89	1.2 D + 1.5 LL Maint (4)	Yes	Y	1	1.2					18	1.5
90	1.2 D + 1.5 LL Maint (5)	Yes	Y	1	1.2					19	1.5
91	1.2 D + 1.5 LL Maint (6)	Yes	Y	1	1.2					20	1.5
92	1.2 D + 1.5 LL Maint (7)	Yes	Y	1	1.2					21	1.5
93	1.2 D + 1.5 LL Maint (8)	Yes	Y	1	1.2					22	1.5
94	1.2 D + 1.5 LL Maint (9)	Yes	Y	1	1.2					23	1.5
95	1.2 D + 1.5 LL Maint (10)	Yes	Y	1	1.2					24	1.5
96	1.2 D + 1.5 LL Maint (11)	Yes	Y	1	1.2					25	1.5
97	1.2 D + 1.5 LL Maint (12)	Yes	Y	1	1.2					26	1.5
98	1.2 D + 1.5 LL Maint (13)	Yes	Y	1	1.2					27	1.5
99	1.2 D + 1.5 LL Maint (14)	Yes	Y	1	1.2					28	1.5
100	1.2 D + 1.5 LL Maint (15)	Yes	Y	1	1.2					29	1.5

Envelope Node Reactions

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	1	max	1.2	5	1.736	14	1.305	2	3.831	2	1.188	11	0.264	96
2		min	-1.201	11	-0.129	8	-1.424	8	-0.867	8	-1.188	5	-0.278	88
3	53	max	1.156	5	1.778	18	1.624	2	0.302	13	1.474	3	0.326	12
4		min	-1.258	11	0.07	12	-1.565	8	-1.809	7	-1.474	9	-2.945	6
5	82	max	1.198	5	1.703	22	1.519	2	0.31	3	1.42	7	2.925	10
6		min	-1.095	11	0.041	4	-1.459	8	-1.802	9	-1.421	13	-0.346	4
7	Totals:	max	3.554	5	4.765	19	4.448	2						
8		min	-3.554	11	2.378	13	-4.448	8						

Envelope NONE Member Cold Formed Steel Code Checks

No Data to Print...

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	1	HSS4X4X2	0.507	0	13	0.11	0	y	39	70.173	73.278	8.24	8.24	2.013	H1-1b
2	2	C3.38X2.06X.188	0.353	2.592	3	0.059	0.351	y	64	35.676	43.394	1.694	4.483	1.6	H1-1b
3	3	C3.38X2.06X.188	0.353	0	13	0.067	2.241	y	45	35.676	43.394	1.694	4.483	1.599	H1-1b
4	4	PL3/8"X6	0.097	0	13	0.143	0	y	2	68.997	72.9	0.57	9.113	2.114	H1-1b
5	5	PL3/8"X6	0.096	0	3	0.141	0	y	2	68.997	72.9	0.57	9.113	2.131	H1-1b
6	6	PIPE_3.5X0.165	0.074	4	52	0.044	2.75		4	45.872	71.57	6.336	6.336	1	H1-1b
7	7	PL3/8"X6	0.129	0.208	3	0.198	0.208	y	61	70.882	72.9	0.57	9.113	2.887	H1-1b
8	8	PL3/8"X6	0.13	0	13	0.197	0	y	51	70.882	72.9	0.57	9.113	2.89	H1-1b
9	9	L2X2X4	0.252	0	8	0.033	2.309	y	48	23.349	30.586	0.691	1.577	1.5	H2-1
10	10	L2X2X4	0.254	2.309	8	0.033	0	y	64	23.349	30.586	0.691	1.577	1.5	H2-1
11	11	L7.63X2.5X6	0.342	1.604	8	0.074	2.873	y	38	75.414	118.523	1.798	13.532	1.197	H2-1
12	18	PIPE_2.88X0.203	0.106	5.583	5	0.042	5.583		5	35.361	70.548	5.01	5.01	1	H1-1b
13	19	PIPE_2.88X0.203	0.12	2.333	9	0.052	5.583		8	35.361	70.548	5.01	5.01	1	H1-1b
14	22	PIPE_2.88X0.203	0.127	1.25	9	0.114	1.25		8	35.361	70.548	5.01	5.01	1	H1-1b
15	28	PIPE_2.88X0.203	0.12	2.333	7	0.052	5.583		8	35.361	70.548	5.01	5.01	1	H1-1b
16	31	HSS4X4X2	0.512	0	7	0.116	0	z	3	70.173	73.278	8.24	8.24	2.032	H1-1b

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
17	32	C3.38X2.06X.188	0.353	2.592	7	0.059	0.351	y	68	35.676	43.394	1.694	4.483	1.601	H1-1b
18	33	C3.38X2.06X.188	0.332	0	17	0.068	2.241	y	49	35.676	43.394	1.694	4.483	1.628	H1-1b
19	34	PL3/8"X6	0.077	0	5	0.131	0	y	67	68.997	72.9	0.57	9.113	2.012	H1-1b
20	35	PL3/8"X6	0.091	0	7	0.132	0	y	42	68.997	72.9	0.57	9.113	2.028	H1-1b
21	36	PL3/8"X6	0.135	0.208	7	0.199	0.208	y	53	70.882	72.9	0.57	9.113	2.913	H1-1b
22	37	PL3/8"X6	0.11	0	5	0.198	0	y	55	70.882	72.9	0.57	9.113	2.951	H1-1b
23	38	L2X2X4	0.217	0	12	0.033	2.309	y	39	23.349	30.586	0.691	1.577	1.5	H2-1
24	39	L2X2X4	0.223	2.309	13	0.033	0	y	68	23.349	30.586	0.691	1.577	1.5	H2-1
25	40	L7.63X2.5X6	0.287	1.604	12	0.073	0	z	66	75.414	118.523	1.798	13.375	1.165	H2-1
26	50	HSS4X4X2	0.504	0	9	0.111	0	z	7	70.173	73.278	8.24	8.24	2.024	H1-1b
27	51	C3.38X2.06X.188	0.33	2.592	23	0.059	0.351	y	73	35.676	43.394	1.694	4.483	1.628	H1-1b
28	52	C3.38X2.06X.188	0.352	0	9	0.067	2.241	y	42	35.676	43.394	1.694	4.483	1.601	H1-1b
29	53	PL3/8"X6	0.091	0	9	0.132	0	y	70	68.997	72.9	0.57	9.113	2.03	H1-1b
30	54	PL3/8"X6	0.077	0	11	0.131	0	y	45	68.997	72.9	0.57	9.113	2.013	H1-1b
31	55	PL3/8"X6	0.111	0.208	11	0.198	0.208	y	57	70.882	72.9	0.57	9.113	2.947	H1-1b
32	56	PL3/8"X6	0.135	0	9	0.198	0	y	59	70.882	72.9	0.57	9.113	2.909	H1-1b
33	57	L2X2X4	0.223	0	3	0.033	2.309	y	44	23.349	30.586	0.691	1.577	1.5	H2-1
34	58	L2X2X4	0.218	2.309	4	0.033	0	y	73	23.349	30.586	0.691	1.577	1.5	H2-1
35	59	L7.63X2.5X6	0.288	1.604	4	0.073	3.207	z	46	75.414	118.523	1.798	13.378	1.166	H2-1
36	69	PIPE_3.5X0.165	0.074	4	8	0.055	2.75		9	45.872	71.57	6.336	6.336	1	H1-1b
37	72	PIPE_2.88X0.203	0.134	5.583	9	0.053	5.583		3	35.361	70.548	5.01	5.01	1	H1-1b
38	73	PIPE_2.88X0.203	0.143	2.333	8	0.043	5.583		13	35.361	70.548	5.01	5.01	1	H1-1b
39	78	PIPE_2.88X0.203	0.114	2.333	4	0.041	5.583		13	35.361	70.548	5.01	5.01	1	H1-1b
40	80	PIPE_3.5X0.165	0.074	4	8	0.055	5.25		7	45.872	71.57	6.336	6.336	1	H1-1b
41	83	PIPE_2.88X0.203	0.134	5.583	7	0.054	5.583		7	35.361	70.548	5.01	5.01	1	H1-1b
42	84	PIPE_2.88X0.203	0.115	2.333	12	0.041	5.583		3	35.361	70.548	5.01	5.01	1	H1-1b
43	89	PIPE_2.88X0.203	0.143	2.333	8	0.044	5.583		3	35.361	70.548	5.01	5.01	1	H1-1b
44	M86	PIPE_2.88X0.203	0.124	1.25	13	0.105	0.083		7	35.361	70.548	5.01	5.01	1	H1-1b
45	M87	PIPE_2.88X0.203	0.124	6.75	3	0.105	7.917		9	35.361	70.548	5.01	5.01	1	H1-1b
46	M88	L6.63X4.33X.25	0.226	0	2	0.029	3.313	y	9	51.723	86.751	2.311	6.976	1.5	H2-1
47	M89	L6.63X4.33X.25	0.226	3.313	2	0.029	0	y	7	51.723	86.751	2.311	6.976	1.5	H2-1
48	M90	L6.63X4.33X.25	0.181	0	10	0.022	0	y	11	51.723	86.751	2.311	6.976	1.5	H2-1

APPENDIX B
(Additional Calculations)

PROJECT	**149437.004.01 - Pomfret School, CT**	**KSC**
SUBJECT	**Platform Mount Analysis**	
DATE	**06/14/22**	

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Tower Type		:	Monopole		
Ground Elevation	z_s	:	676	ft	[ASCE7 Hazard Tool]
Tower Height		:	168.00	ft	
Mount Elevation		:	135.00	ft	
Antenna Elevation		:	135.00	ft	
Crest Height		:	0	ft	
Risk Category		:	II		[Table 2-1]
Exposure Category		:	C		[Sec. 2.6.5.1.2]
Topography Category		:	1.00		[Sec. 2.6.6.2]
Wind Velocity	V	:	120	mph	[ASCE7 Hazard Tool]
Ice wind Velocity	V_i	:	50	mph	[ASCE7 Hazard Tool]
Service Velocity	V_s	:	30	mph	[ASCE7 Hazard Tool]
Base Ice thickness	t_i	:	1.00	in	[ASCE7 Hazard Tool]
Seismic Design Cat.		:	B		[ASCE7 Hazard Tool]
	S_S	:	0.18		
	S_1	:	0.06		
	S_{DS}	:	0.20		
	S_{D1}	:	0.09		

Gust Factor	G_h	:	1.00		[Sec. 16.6]
Pressure Coefficient	K_z	:	1.35		[Sec. 2.6.5.2]
Topography Facto	K_{zt}	:	1.00		[Sec. 2.6.6]
Elevation Factor	K_e	:	0.98		[Sec. 2.6.8]
Directionality Factor	K_d	:	0.95		[Sec. 16.6]
Shielding Factor	K_a	:	0.90		[Sec. 16.6]
Design Ice Thickness	t_{iz}	:	1.15	in	[Sec. 2.6.10]

Importance Factor	I_e	:	1		[Table 2-3]
Response Coefficient	C_s	:	0.098		[Sec. 2.7.7.1]
Amplification	A_s	:	2.214286		[Sec. 16.7]

	q_z	:	46.07	psf

PROJECT	149437.004.01 - Pomfret School, CT	KSC
SUBJECT	Platform Mount Analysis	
DATE	06/14/22	

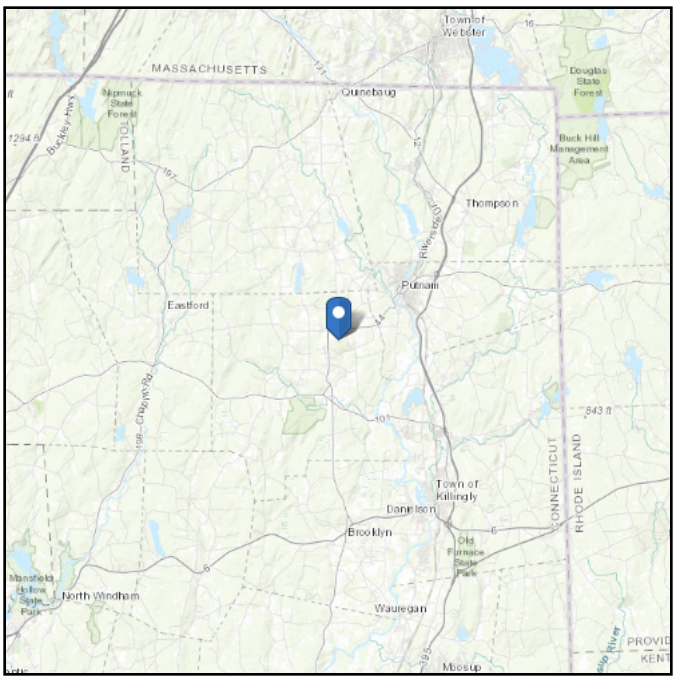
B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Manufacturer	Model	Qty	Height (in²)	Width (in²)	Depth (in²)	Weight (lbs)	C_aA_a (N) (ft²)	C_aA_a (T) (ft²)	C_aA_a (N) Ice (ft²)	C_aA_a (T) Ice (ft²)	$F_{A\ (N)}$ (k)	$F_{A\ (T)}$ (k)	$F_{A\ (N)}$ Ice (k)	$F_{A\ (T)}$ Ice (k)
Commscope	FFVV-65B-R2	0.5	72.0	19.6	7.8	70.8	3.81	1.51	4.32	1.95	0.18	0.07	0.03	0.02
Commscope	FFVV-65B-R2	0.5					3.81	1.51	4.32	1.95	0.18	0.07	0.03	0.02
Fujitsu	TA08025-B605	1	15.8	15.0	9.1	75.0	1.96	1.19	2.60	1.71	0.08	0.05	0.01	0.01
Fujitsu	TA08025-B604	1	15.8	15.0	7.9	63.9	1.96	1.03	2.60	1.53	0.08	0.04	0.01	0.01
Commscope	FFVV-65B-R2	0.5	72.0	19.6	7.8	70.8	3.81	1.51	4.32	1.95	0.18	0.07	0.03	0.02
Commscope	FFVV-65B-R2	0.5					3.81	1.51	4.32	1.95	0.18	0.07	0.03	0.02
Fujitsu	TA08025-B605	1	15.8	15.0	9.1	75.0	1.96	1.19	2.60	1.71	0.08	0.05	0.01	0.01
Fujitsu	TA08025-B604	1	15.8	15.0	7.9	63.9	1.96	1.03	2.60	1.53	0.08	0.04	0.01	0.01
Commscope	FFVV-65B-R2	0.5	72.0	19.6	7.8	70.8	3.81	1.51	4.32	1.95	0.18	0.07	0.03	0.02
Commscope	FFVV-65B-R2	0.5					3.81	1.51	4.32	1.95	0.18	0.07	0.03	0.02
Fujitsu	TA08025-B605	1	15.8	15.0	9.1	75.0	1.96	1.19	2.60	1.71	0.08	0.05	0.01	0.01
Fujitsu	TA08025-B604	1	15.8	15.0	7.9	63.9	1.96	1.03	2.60	1.53	0.08	0.04	0.01	0.01
Raycap	RDIDC-9181-PF-48	1	19.0	16.2	9.4	21.9	2.56	1.49	3.28	2.07	0.11	0.06	0.02	0.01

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Elevation:**	676.02 ft (NAVD 88)
Risk Category:	II	**Latitude:**	41.890094
Soil Class:	D - Default (see Section 11.4.3)	**Longitude:**	-71.955008



Wind

Results:

Wind Speed	120 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	93 Vmph
100-year MRI	99 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:	Sat Jun 11 2022

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.

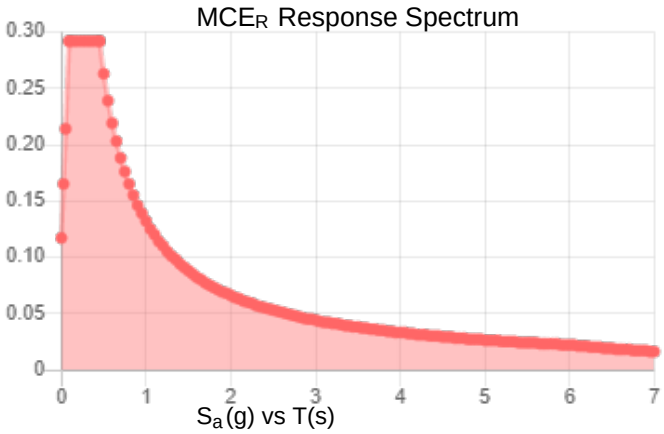
Seismic

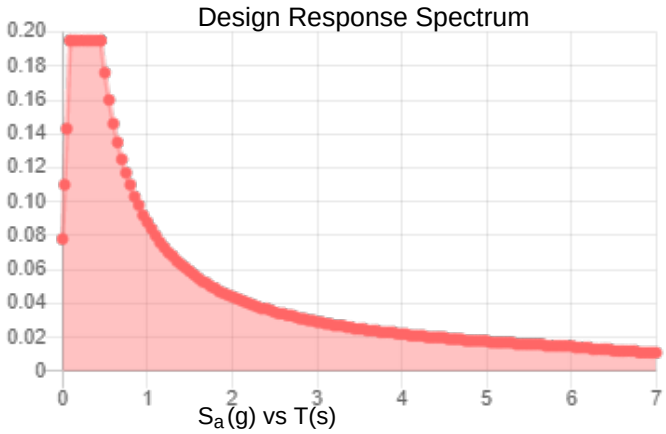
Site Soil Class: D - Default (see Section 11.4.3)

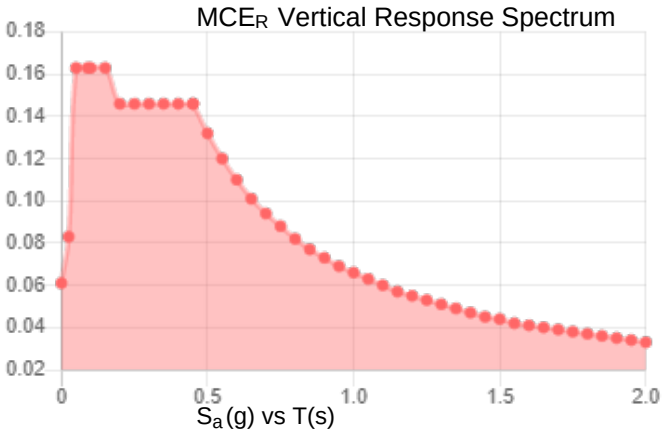
Results:

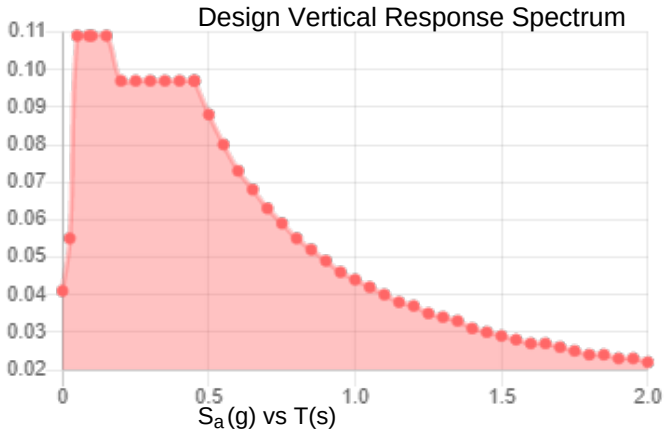
S_S :	0.182	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.098
F_v :	2.4	PGA_M :	0.157
S_{MS} :	0.292	F_{PGA} :	1.6
S_{M1} :	0.132	I_e :	1
S_{DS} :	0.195	C_v :	0.7

Seismic Design Category B









Data Accessed: **Sat Jun 11 2022**

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:	Sat Jun 11 2022

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.

Exhibit F

Power Density/RF Emissions Report

Fox Hill Telecom

Radio Frequency Emissions Analysis Report

Site ID: BOBOS00590A

SBA - Pomfret Street
398 Pomfret Street
Pomfret, CT 06258

May 5, 2022

Fox Hill Telecom Project Number: 220990

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**12.04 %**

Fox Hill Telecom

May 5, 2022

Dish Wireless
5701 South Santa Fe Drive
Littleton, CO 80120

Emissions Analysis for Site: **BOBOS00590A – SBA - Pomfret Street**

Fox Hill Telecom, Inc ("Fox Hill") was directed to analyze the proposed radio installation for Dish Wireless, LLC (Dish) facility located at **398 Pomfret Street, Pomfret, CT**, for the purpose of determining whether the emissions from the Proposed Dish radio and antenna installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

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

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

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 600 MHz & 700 MHz bands are approximately 400 $\mu W/cm^2$ and 467 $\mu W/cm^2$ respectively. The general population exposure limit for the 1900 MHz (PCS) and 2100 MHz (AWS / AWS-4) bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were performed for the proposed radio system installation for **Dish** on the subject site located at **398 Pomfret Street, Pomfret, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since **Dish** is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

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

All emissions values for additional carriers were taken from the Connecticut Siting Council (CSC) active MPE database. Values in this database are provided by the individual carriers themselves

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

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
5G	n71 (600 MHz)	4	61.5
5G	n70 (AWS-4 / 1995-2020)	4	40
5G	n66 (AWS-4 / 2180-2200)	4	40

Table 1: Channel Data Table

The following antennas listed in *Table 2* were used in the modeling for transmission in the 600 MHz (n71) frequency band, and the 2100 MHz (AWS 4) frequency bands at 1995-2020 MHz (n70) and 2180-2200 MHz (n66). This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Commscope FFVV-65B-R2	135
B	1	Commscope FFVV-65B-R2	135
C	1	Commscope FFVV-65B-R2	135

Table 2: Antenna Data

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

RESULTS

Per the calculations completed for the proposed **Dish** configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Commscope FFVV-65B-R2	n71 (600 MHz) / n70 (AWS-4 / 1995-2020) / n66 (AWS-4 / 2180-2200)	12.15 / 15.95 / 16.25	12	566	17,079.80	5.00
						Sector A Composite MPE%	**5.00**
Antenna B1	Commscope FFVV-65B-R2	n71 (600 MHz) / n70 (AWS-4 / 1995-2020) / n66 (AWS-4 / 2180-2200)	12.15 / 15.95 / 16.25	12	566	17,079.80	5.00
						Sector B Composite MPE%	**5.00**
Antenna C1	Commscope FFVV-65B-R2	n71 (600 MHz) / n70 (AWS-4 / 1995-2020) / n66 (AWS-4 / 2180-2200)	12.15 / 15.95 / 16.25	12	566	17,079.80	5.00
						Sector C Composite MPE%	**5.00**

Table 3: Dish Emissions Levels

The Following table (*table 4*) shows all additional carriers on site and their MPE% as recorded in the CSC active MPE database for this facility along with the newly calculated maximum **Dish** MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three sectors have the same configuration yielding the same results on all three sectors. *Table 5* below shows a summary for each **Dish** Sector as well as the composite MPE value for the site.

Site Composite MPE%	
Carrier	**MPE%**
Dish – Max Per Sector Value	**5.00 %**
Verizon Wireless	2.98 %
Sprint	2.13 %
T-Mobile	1.93 %
Site Total MPE %:	**12.04 %**

Table 4: All Carrier MPE Contributions

Dish Sector A Total:	5.00 %
Dish Sector B Total:	5.00 %
Dish Sector C Total:	5.00 %
Site Total:	12.04 %

Table 5: Site MPE Summary

FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated **Dish** sector(s). For this site, all three sectors have the same configuration yielding the same results on all three sectors.

Dish _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
Dish n71 (600 MHz) 5G	4	1,008.96	135	8.72	n71 (600 MHz)	400	2.18%
Dish n70 (AWS-4 / 1995-2020) 5G	4	1,574.20	135	13.60	n70 (AWS-4 / 1995-2020)	1000	1.36%
Dish n66 (AWS-4 / 2180-2200) 5G	4	1,686.79	135	14.58	n66 (AWS-4 / 2180-2200)	1000	1.46%
						Total:	**5.00**

Table 6: Dish Maximum Sector MPE Power Values

Summary

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

The anticipated maximum composite contributions from the Dish facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Dish Sector	Power Density Value (%)
Sector A:	5.00 %
Sector B:	5.00 %
Sector C:	5.00 %
Dish Maximum Total (per sector):	5.00 %
Site Total:	12.04 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **12.04 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Scott Heffernan
Principal RF Engineer
Fox Hill Telecom, Inc
Holden, MA 01520
(978)660-3998

Exhibit G

Letter of Authorization

SBA Letter of Authorization

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

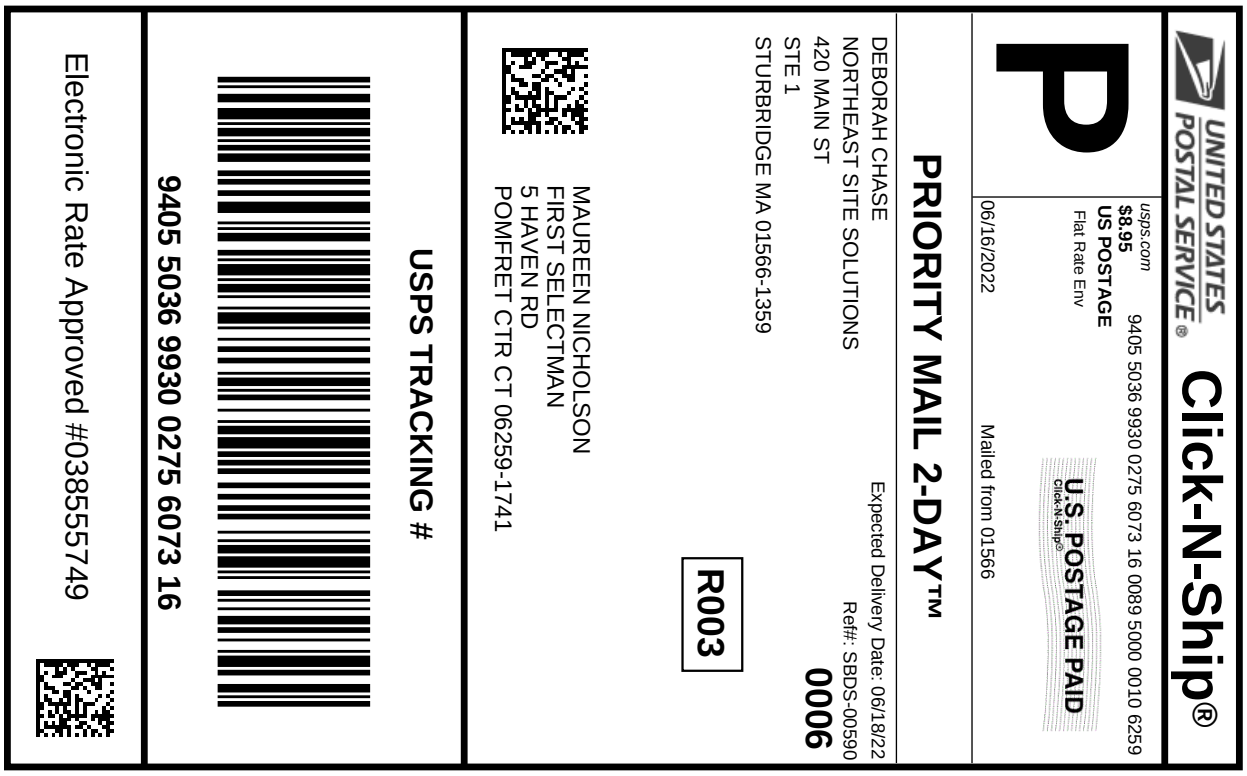
Re: Tower Share Application

SBA COMMUNICATIONS CORPORATION hereby authorizes DISH Wireless LLC, including their Agent, to act as our Agent in the processing of all zoning applications, building permits and approvals through the CONNECTICUT SITING COUNCIL for existing wireless communications towers.

Kri Pelletier
Site Development Manager
SBA COMMUNICATIONS CORPORATION
134 Flanders Road, Suite 125
Westboro, MA 01581

Exhibit H

Recipient Mailings



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4. **To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.**
5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

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9405 5036 9930 0275 6073 16

Trans. #:	565798938
Print Date:	06/16/2022
Ship Date:	06/16/2022
Expected Delivery Date:	06/18/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: SBDS-00590

To: MAUREEN NICHOLSON
FIRST SELECTMAN
5 HAVEN RD
POMFRET CTR CT 06259-1741

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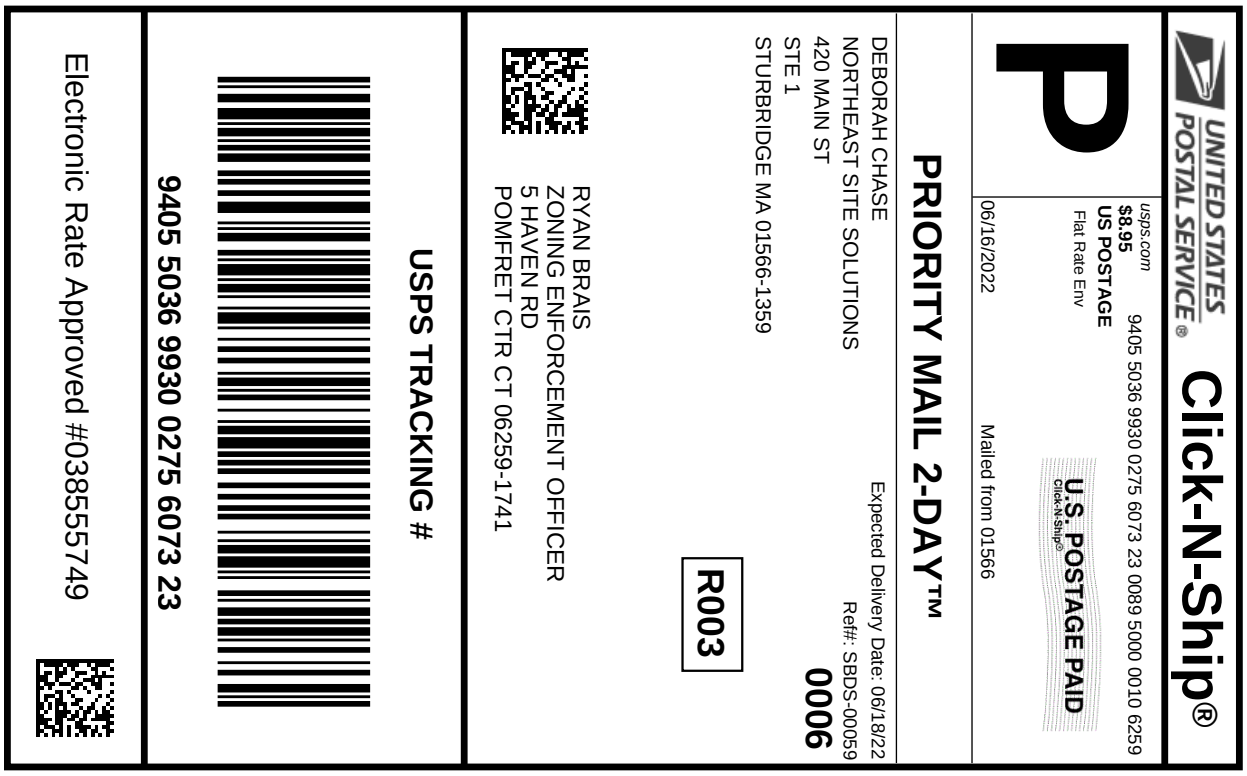
Check the status of your shipment on the USPS Tracking® page at usps.com



Cut on dotted line.

Instructions

1. **Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.**
2. **Place your label so it does not wrap around the edge of the package.**
3. **Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.**
4. **To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.**
5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0275 6073 23

Trans. #:	565798938
Print Date:	06/16/2022
Ship Date:	06/16/2022
Expected Delivery Date:	06/18/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: SBDS-00059

To: RYAN BRAIS
ZONING ENFORCEMENT OFFICER
5 HAVEN RD
POMFRET CTR CT 06259-1741

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

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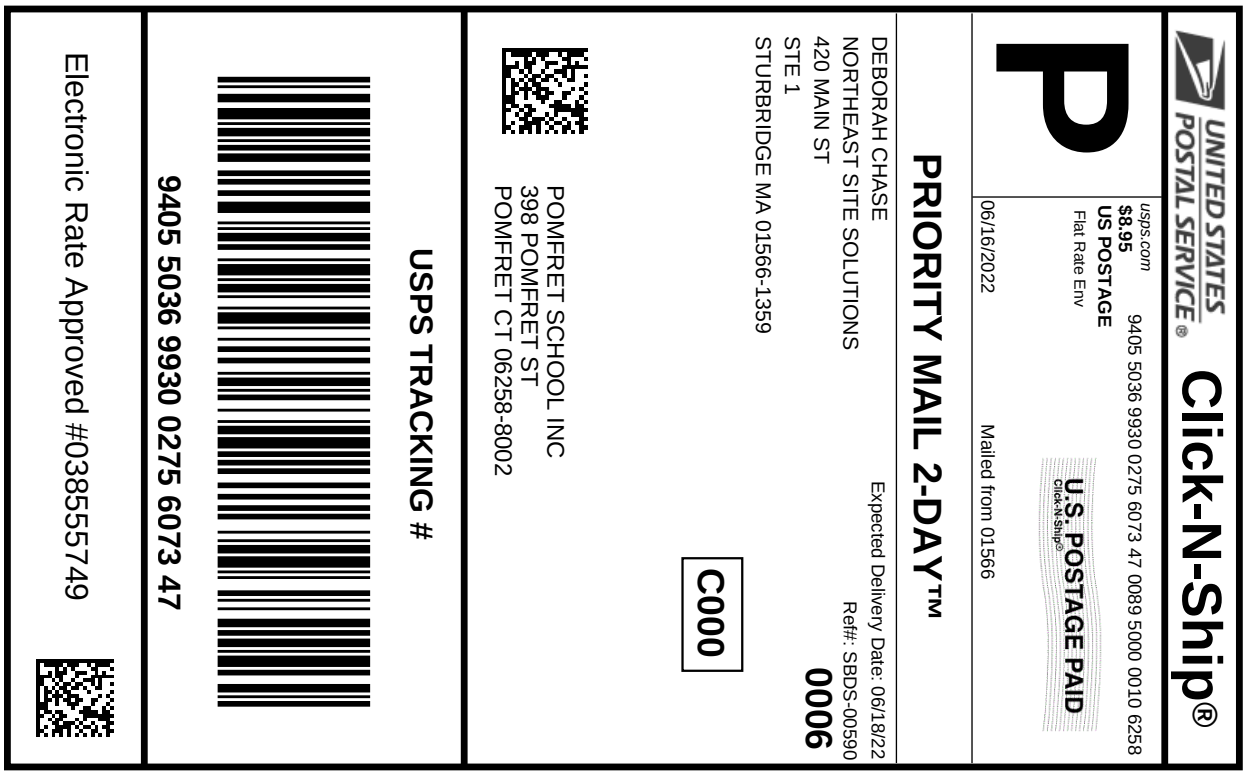

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5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0275 6073 47

Trans. #:	565798938
Print Date:	06/16/2022
Ship Date:	06/16/2022
Expected Delivery Date:	06/18/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: SBDS-00590

To: POMFRET SCHOOL INC
398 POMFRET ST
POMFRET CT 06258-8002

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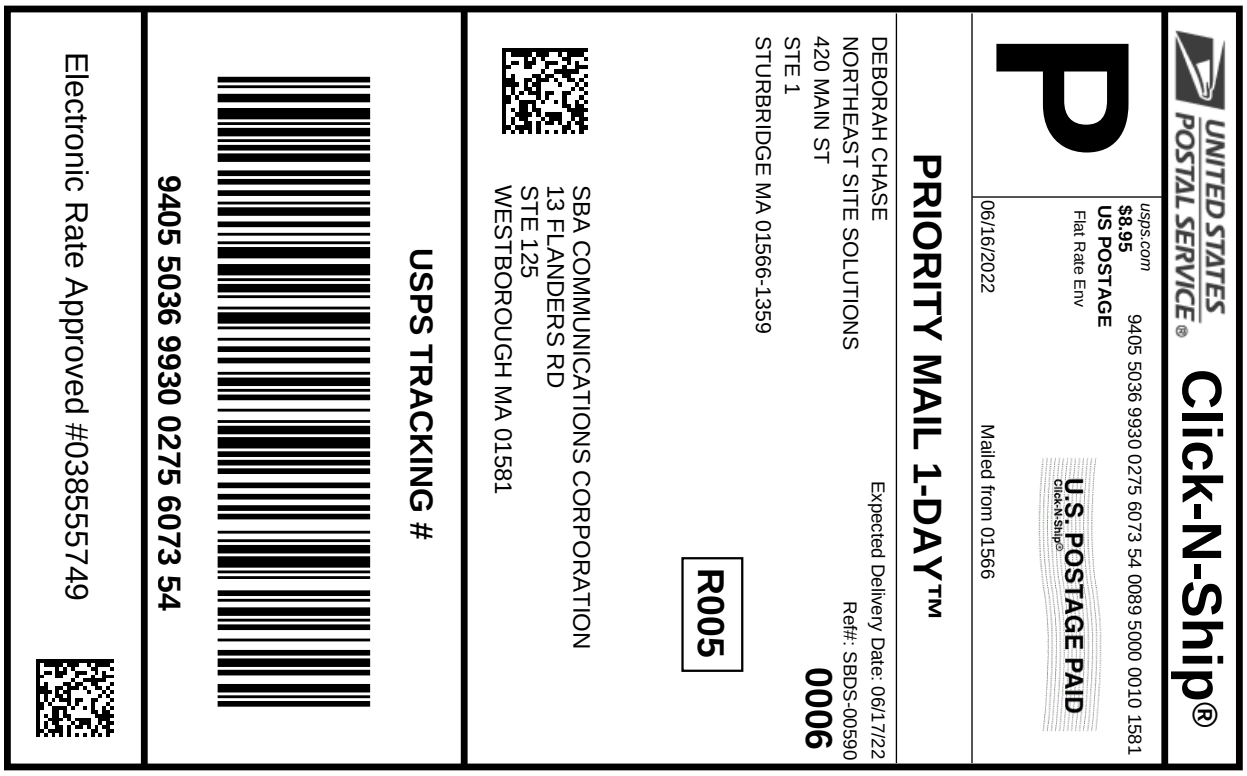
Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com



Cut on dotted line.

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Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0275 6073 54

Trans. #:	565798938
Print Date:	06/16/2022
Ship Date:	06/16/2022
Expected Delivery Date:	06/17/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: SBDS-00590

To: SBA COMMUNICATIONS CORPORATION
13 FLANDERS RD
STE 125
WESTBOROUGH MA 01581

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

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UNITED STATES POSTAL SERVICE.

FARMINGTON
210 MAIN ST
FARMINGTON, CT 06032-9998
(800)275-8777

06/21/2022 09:32 AM

Product	Qty	Unit Price	Price
Prepaid Mail Pomfret Center, CT 06259 Weight: 0 lb 9.60 oz Acceptance Date: Tue 06/21/2022 Tracking #: 9405 5036 9930 0275 6073 16	1		$0.00
Prepaid Mail Westborough, MA 01581 Weight: 0 lb 1.90 oz Acceptance Date: Tue 06/21/2022 Tracking #: 9405 5036 9930 0275 6073 54	1		$0.00
Prepaid Mail Pomfret, CT 06258 Weight: 0 lb 9.60 oz Acceptance Date: Tue 06/21/2022 Tracking #: 9405 5036 9930 0275 6073 47	1		$0.00
Prepaid Mail Pomfret Center, CT 06259 Weight: 1 lb 3.20 oz Acceptance Date: Tue 06/21/2022 Tracking #: 9405 5036 9930 0275 6073 23	1		$0.00
Grand Total:			$0.00

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Every household in the U.S. is now
eligible to receive a third set
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