

PROJECT NARRATIVE

July 5, 2022

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

Re: Request of DISH Wireless LLC for an Order to Approve the Shared Use of an Existing Tower
297 a/k/a 295 North Street, Plymouth, CT 06782
Latitude: 41°41'35.100" / Longitude: -73°3'13.32"

Dear Ms. Bachman:

Pursuant to Connecticut General Statutes ("C.G.S.") §16-50aa, as amended, DISH Wireless LLC ("DISH") hereby requests an order from the Connecticut Siting Council ("Council") to approve the shared use by DISH of an existing telecommunication tower at 297 a/k/a 295 North Street in Plymouth (the "Property"). The existing 180-foot monopole is owned by American Tower Corporation ("ATC"). The underlying property is owned by Francis A. Bart Et Al. DISH requests that the Council find that the proposed shared use of the ATC tower satisfies the criteria of C.G.S. §16-50aa and issue an order approving the proposed shared use. A copy of this filing is being sent to Joseph T. Kilduff, Mayor of the Town of Plymouth, Clarence Atkinson, Town of Plymouth Building Official and Francis A. Bart Et Al., c/o Ray Lagosz as the property owner.

Background

This facility was originally approved by the Council under Docket No. 138 on November 26, 1990. A copy of the Decision and Order is included in this filing. The existing ATC facility consists of a 180-foot monopole tower located within an existing leased area. AT&T Mobility currently maintains antennas at the 185-foot level. The Town of Thomaston currently maintains antennas at the 177-foot level and 110-foot level. Metro PCS currently maintains antennas at the 170-foot level. The Connecticut State Police Department currently maintains antennas between the 157-foot and 143-foot levels, as well as the 88-foot and 80-foot levels. Equipment associated with these antennas are located at various positions within the tower and compound.

DISH is licensed by the Federal Communications Commission ("FCC") to provide wireless services throughout the State of Connecticut. DISH and ATC have agreed to the proposed shared use of the 297 North Street tower pursuant to mutually acceptable terms and conditions. Likewise, DISH and ATC have agreed to the proposed installation of equipment cabinets on the ground within the existing compound. ATC has authorized DISH to apply for all necessary permits and approvals that may be required to share the existing tower.
(See attached Letter of Authorization)

DISH proposes to install three (3) antennas, (1) Tower platform mount, (6) Remote radio units at the 131-foot level along with, (1) over voltage protection device (OVP) and (1) Hybrid cable. DISH will install an equipment cabinet on a 5'x7' equipment platform. DISH's Construction Drawings provide project specifications for all proposed site improvement locations.

The construction drawings also include specifications for DISH's proposed antenna and groundwork.

C.G.S. § 16-50aa(c)(1) provides that, upon written request for approval of a proposed shared use, "if the Council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the council shall issue an order approving such a shared use." DISH respectfully submits that the shared use of the tower satisfies these criteria.

A. Technical Feasibility. The existing ATC tower will undergo modifications as described in project ATC PROJECT NUMBER: 13701212_C6_05. A copy of the modification plan is included in this application. Following the modification, the tower will be structurally capable of supporting DISH's proposed improvements. The proposed shared use of this tower will therefore be technically feasible. A Post-Modification Structural Analysis Report ("Structural Report") prepared for this project confirms that this tower can support DISH's proposed loading. A copy of the Structural Report has been included in this application.

B. Legal Feasibility. Under C.G.S. § 16-50aa, the Council has been authorized to issue order approving the shared use of an existing tower such as the ATC tower. This authority complements the Council's prior-existing authority under C.G.S. § 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. In addition, § 16-50x(a) directs the Council to "give such consideration to the other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing tower facilities. Under the statutory authority vested in the Council, an order by the Council approving the requested shared use would permit the Applicant to obtain a building permit for the proposed installations.

C. Environmental Feasibility. The proposed shared use of the ATC tower would have a minimal environmental effect for the following reasons:

1. The proposed installation will have no visual impact on the area of the tower. DISH's equipment cabinet would be installed within the existing facility compound. DISH's shared use of this tower therefore will not cause any significant change or alteration in the physical or environmental characteristics of the existing site.
2. Operation of DISH's antennas at this site would not exceed the RF emissions standard adopted by the Federal Communications Commission ("FCC"). Included in the EME report of this filing are the approximation tables that demonstrate that DISH's proposed facility will operate well within the FCC RF emissions safety standards.
3. Under ordinary operating conditions, the proposed installation would not require the use of any water or sanitary facilities and would not generate air emissions or discharges to water bodies or sanitary facilities. After construction is complete the proposed installations would not generate any increased traffic to the ATC facility other than periodic maintenance. The proposed shared use of the ATC tower, would, therefore, have a minimal environmental effect, and is environmentally feasible.

D. **Economic Feasibility.** As previously mentioned, DISH has entered into an agreement with ATC for the shared use of the existing facility subject to mutually agreeable terms. The proposed tower sharing is, therefore, economically feasible.

E. **Public Safety Concerns.** As discussed above, the tower is structurally capable of supporting DISH's full array of three (3) antennas, (1) Tower platform mount, (6) Remote radio units, (1) over voltage protection device (OVP) and (1) Hybrid cable and all related equipment. DISH is not aware of any public safety concerns relative to the proposed sharing of the existing ATC tower.

Conclusion

For the reasons discussed above, the proposed shared use of the existing ATC tower at 297 North Street satisfies the criteria stated in C.G.S. §16-50aa and advances the Council's goal of preventing the unnecessary proliferation of towers in Connecticut. The Applicant, therefore, respectfully requests that the Council issue an order approving the proposed shared use.

Sincerely,

David Hoogasian

David Hoogasian
Project Manager

LETTER OF AUTHORIZATION



AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION
LICENSEE: DISH WIRELESS L.L.C.

I, Margaret Robinson, Senior Counsel for American Tower*, owner/operator of the tower facility located at the address identified above (the "Tower Facility"), do hereby authorize DISH WIRELESS L.L.C., its successors and assigns, and/or its agent, (collectively, the "Licensee") to act as American Tower's non-exclusive agent for the sole purpose of filing and consummating any land-use or building permit application(s) as may be required by the applicable permitting authorities for Licensee's telecommunications' installation.

We understand that this application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee's installation and any such conditions of approval or modifications will be Licensee's sole responsibility.

*American Tower includes all affiliates and subsidiaries of American Tower Corporation.

Project #	ATC Site #	ATC Site Name	ATC Site Address
13688133	208450	Enfield	1A Ecology Drive, Enfield CT
13700322	209115	Ridgefield 2	320 Old Stagecoach Road, Ridgefield, CT
13688136	209185	Burlington 2	87 Monce Road, Burlington CT
13700320	209271	Brookfield 2	100 Pocono Road, Brookfield CT
13693702	243036	WEST HAVEN & RT 162 CT	668 Jones Hill Road, West Haven CT
13693677	280501	ROXBURY CT	377 Southbury Road, Roxbury CT
13685406	281416	WILLINGTON CT	196 Tolland Turnpike, Willington CT
13709418	281862	BRIDGEWATER CT	111 SECOND HILL RD, Bridgewater CT
13693659	283418	NORTH HAVEN CT	50 Devine Street, North Haven CT
13694329	283419	PINE ORCHARD BRANFORD CT	123 Pine Orchard Road, Branford CT
13694332	283422	SHORT BEACH BRANFORD CT	171 Short Beach Road, Branford CT
13698427	283423	NAUGATUCK CT	880 Andrew Mountain Road, Naugatuck CT
13685464	283563	MANSFIELD CT	343 Daleville Road, Willington CT
13692735	284983	OLD LYME CT	61-1 Buttonball Road, Old Lyme CT
13693120	284984	PAWCATUCK CT	166 Pawcatuck Ave, Pawcatuck CT
13693144	284988	GUILFORD CT	Moose Hill Road, Guilford CT
13694582	302465	Colchester CT 6	355 Route 85, Colchester CT
13683501	302468	Petro Lock	99 Meadow St, Hartford CT
13685427	302469	Bridgeport CT 2	1069 Connecticut Avenue, Bridgeport CT
13683503	302472	Andover-bunker Hill Road	104 Bunker Hill Road, Andover CT
13683507	302473	E H F R - Prestige Park	310 Prestige Park Road, East Hartford CT



AMERICAN TOWER®
CORPORATION

Project #	ATC Site #	ATC Site Name	ATC Site Address
13683510	302474	South Windsor	391 Niederwerfer Road, South Windsor CT
13683513	302483	Brln - Berlin	286 Beckley Road, Berlin CT
13692185	302488	Cntn - Canton	4 Hoffmann Road, Canton CT
13692173	302495	Tolland CT	56 Ruops Road, Tolland CT
13694579	302496	Clch - Colchester	Chestnut Hill Road, Colchester CT
13701212	302501	Plymouth CT 3	297 North Street, Plymouth CT
13685414	302515	SMFR - North	5 High Ridge Park Road, Stamford CT
13702496	302516	Mlfd - Milford	438 Bridgeport Ave, Milford CT
13688395	302518	Newtown CT 3	25 Meridian Ridge Drive, Newton CT
13692174	302529	Vernon CT 6	777 Talcotville Road, Vernon Rockville CT
13693124	311014	NORWICH CT	202 N Wawecus Hill Rd, Norwich CT
13702522	311305	GLFD-GUILFORD REBUILD CT	10 Tanner Marsh Road, Guilford CT
13693127	370623	MONTVILLE CT	139 Sharp Hill Road, Uncasville CT
13681964	370625	Old Saybrook	77 Springbrook Road, Old Saybrook CT
13702535	383660	North Madison Volunteer FD	864 Opening Hill Road, Madison CT
13702538	411180	Good Hill CT	481 GOOD HILL ROAD, Woodbury CT
13693709	411182	Nepaug CT	20 Antolini Road, New Hartford CT
13693131	411183	WATERFORD CT	53 Dayton Rd., Waterford CT
13693135	411184	SALEM CT SQA	399 West Road, Salem CT
13692177	411186	West Granby, CT CT	207 West Granby Road, Granby CT
13692178	411187	Hartford North 2 CT	811 Blue Hills Avenue, Bloomfield CT
13693705	411188	Southbury CT	111 Upper Fishrock Road, Southbury CT
13692179	411256	CANTON CT	14 CANTON SPRINGS ROAD, Canton CT
13681988	411257	Middle Haddam Road-CROWN CT	191 Middle Haddam Rd, Portland CT
13692180	411258	Farmington North 2 CT	199 Town Farm Road, Farmington CT
13692182	411259	CT Collinsville CAC 802816 CT	650 Albany Turnpike, Collinsville CT
13692184	416862	SUFFIELD SW CT CT	106 South Grand St., West Suffield CT
13694578	6260	NORTH STONINGTON CT	118C Wintechog Hill Rd., off of Rt. 2, North Stonington CT
13681397	88013	Killingworth	131 Little City Road, Killingworth CT

Signature:

Print Name: Margaret Robinson
Senior Counsel
American Tower*



AMERICAN TOWER®
CORPORATION

**LETTER OF AUTHORIZATION
LICENSEE: DISH WIRELESS L.L.C.**

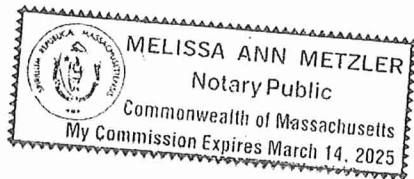
NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Senior Counsel for American Tower*, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

WITNESS my hand and official seal, this 10th day of September 2021.

NOTARY SEAL



Notary Public 
My Commission Expires: March 14, 2025

ORIGINAL FACILITY APPROVAL

DOCKET NO. 138 - An application of SNET Cellular, Inc., for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of cellular facilities in the Towns of Plymouth, Harwinton, Winchester, and New Milford, Connecticut.

Connecticut

Siting

Council

November 26, 1990

DECISION AND ORDER

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

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

1. The facilities shall be constructed in accordance with the State of Connecticut Basic Building Code.
2. The self-supporting monopole towers shall be no taller than necessary to provide the proposed communication service and in no event shall the Plymouth, Harwinton, and Winchester tower structures exceed 192-feet or the New Milford tower structure exceed 162 feet above ground level (AGL), including antennas and appurtenances.
3. The Certificate Holder shall prepare a Development and Management (D&M) Plan, for approval by the Council, for these sites in compliance with sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies (RSA). The D&M Plan shall include detailed plans for the towers, tower pedestals, tower foundations, soil boring reports, antenna structures, equipment buildings, access roads, security fences, erosion and sedimentation control plans

consistent with the Connecticut Guidelines of Soil Erosion and Sedimentation Control, and landscaping plans where necessary to screen the equipment building from adjacent land uses.

At the proposed Harwinton site, the accessway shall be designed to avoid a direct sight-line of the entire tower structure from the adjacent Fowler residence. To further mitigate the visibility of the facility, the tower's site shall be moved as close to the electric transmission line right-of-way as safety clearances allow.

At the alternate Winchester site, the Certificate Holder shall design the accessway to avoid a direct sight-line from the northern end of Oakdale Avenue. Prior to construction, the Certificate Holder shall secure all necessary permits and approvals to construct a crossing of the Tennessee Gas Company's underground gas transmission line. Prior to any necessary blasting activities, the Certificate Holder shall secure all necessary permits and shall conduct such blasting in accordance with State regulations. Copies of all permits and approvals shall be forwarded to the Council immediately upon receipt.

4. The Certificate Holder shall comply with any existing and future radio frequency (RF) standard promulgated by State or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facilities granted in this Decision and Order shall be brought into compliance with such standards.
5. The Certificate Holder shall provide the Council a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power densities above the levels originally calculated and provided in the application.
6. The Certificate Holder shall permit public or private entities to share space on the proposed towers for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
7. If the facilities do not initially provide, or permanently cease to provide cellular service following completion of construction, this Decision and Order shall be void, and the tower(s) and all associated equipment shall be dismantled and removed or reapplication for any new use shall be made to the Council before any such new use is made.
8. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the effective date of this Decision and Order or within three years after all appeals to this Decision and Order have been resolved.

Pursuant to Section 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in The New Milford Times, The Bristol Press, The Registrar-Citizen, and The Danbury News-Times.

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

The parties to this proceeding are:

(PARTIES)

SNET Cellular, Inc.

(ITS REPRESENTATIVES)

Peter J. Tyrrell
Senior Attorney
SNET Cellular, Inc.
227 Church Street
Room 1021
New Haven, CT 06506

(INTERVENORS)

Pikeville Cellular Partnership

Charles Wolf, Esq.
Robinson & Cole
One Commercial Plaza
Hartford, CT 06103-3597

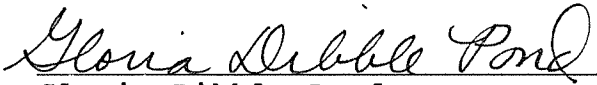
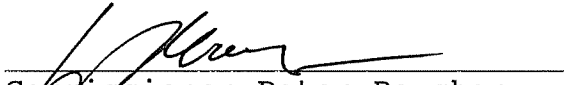
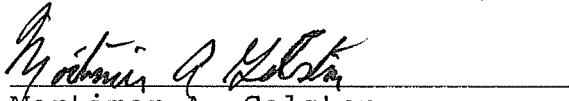
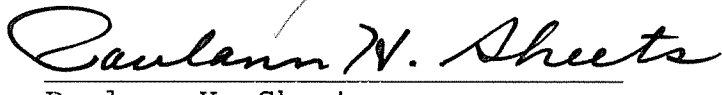
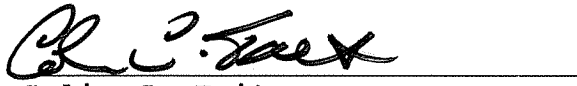
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4886E-1-3

CERTIFICATION

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case in Docket No. 138 or read the record thereof, and that we voted as follows:

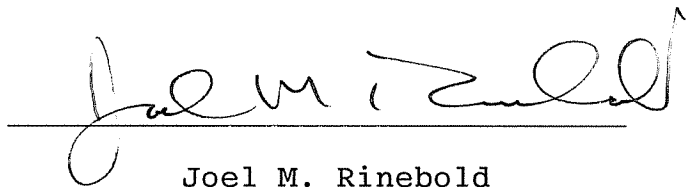
Dated at New Britain, Connecticut the 26 day of November, 1990.

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

STATE OF CONNECTICUT)
 :
ss. New Britain, Connecticut
COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the Decision and Order issued by the Connecticut Siting Council, State of Connecticut.

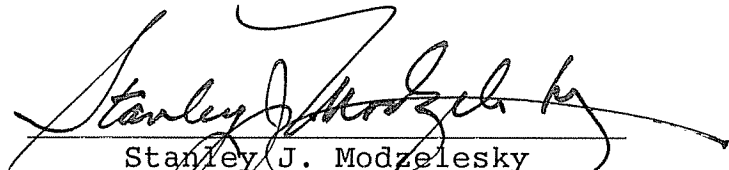
ATTEST:

A handwritten signature in dark ink, appearing to read "Joel M. Rinebold", is written over a horizontal line.

Joel M. Rinebold
Executive Director
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket No. 138 have been forwarded by Certified First Class Return Receipt Requested mail on December 3, 1990, to all parties of record as listed on the attached service list, dated August 22, 1990.

ATTEST:

A handwritten signature in dark ink, appearing to read "Stanley J. Modzelesky", is written over a horizontal line.

Stanley J. Modzelesky
Executive Assistant
Connecticut Siting Council

Date: August 22, 1990

Docket No. 138

LIST OF PARTIES AND INTERVENORS - SERVICE LIST

Status Granted	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Party ☒	SNET Cellular, Inc.	Peter J. Tyrrell Senior Attorney SNET Cellular, Inc. 227 Church Street Room 1021 New Haven, CT 06506
Intervenor ☐		
Party ☐	Pikeville Cellular Partnership	Charles Wolf, Esq. Robinson & Cole One Commercial Plaza Hartford, CT 06103-3597
Intervenor ☒		
Party ☐		
Intervenor ☐		

ENGINEERING DRAWINGS



DISH WIRELESS, L.L.C. SITE ID:

BOHVN00143A

DISH WIRELESS, L.L.C. SITE ADDRESS:

297 NORTH STREET
PLYMOUTH, CT 06782

CONNECTICUT CODE 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-0	SURVEY
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 RRHs (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 SAFETY SWITCH (IF REQUIRED)
 - INSTALL (1) PROPOSED CIENA BOX (IF REQUIRED)
 - INSTALL (1) PROPOSED METER SOCKET

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.

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 TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).

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: RAYMOND LAGOSZ
ADDRESS: 295 NORTH STREET
PLYMOUTH, CT 06782

TOWER TYPE: MONOPOLE

TOWER CO SITE ID: 302501

TOWER APP NUMBER: 13701212

COUNTY: LITCHFIELD

LATITUDE (NAD 83): 41° 41' 35.100" N
41.69308333

LONGITUDE (NAD 83): 73° 3' 13.320" W
-73.0537

ZONING JURISDICTION: CONNECTICUT SITING COUNCIL

ZONING DISTRICT: RA1

PARCEL NUMBER: 017-014-014C

OCCUPANCY GROUP: U

CONSTRUCTION TYPE: II-B

POWER COMPANY: EVERSOURCE

TELEPHONE COMPANY: FRONTIER COMMUNICATIONS

PROJECT DIRECTORY

APPLICANT: DISH WIRELESS, L.L.C.
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120
(303) 706-5008

TOWER OWNER: AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEER: NB+C ENGINEERING SERVICES, LLC.
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615
(919) 657-9131

SITE ACQUISITION: DAVID GOODFELLOW
DAVID.GOODFELLOW@DISH.COM

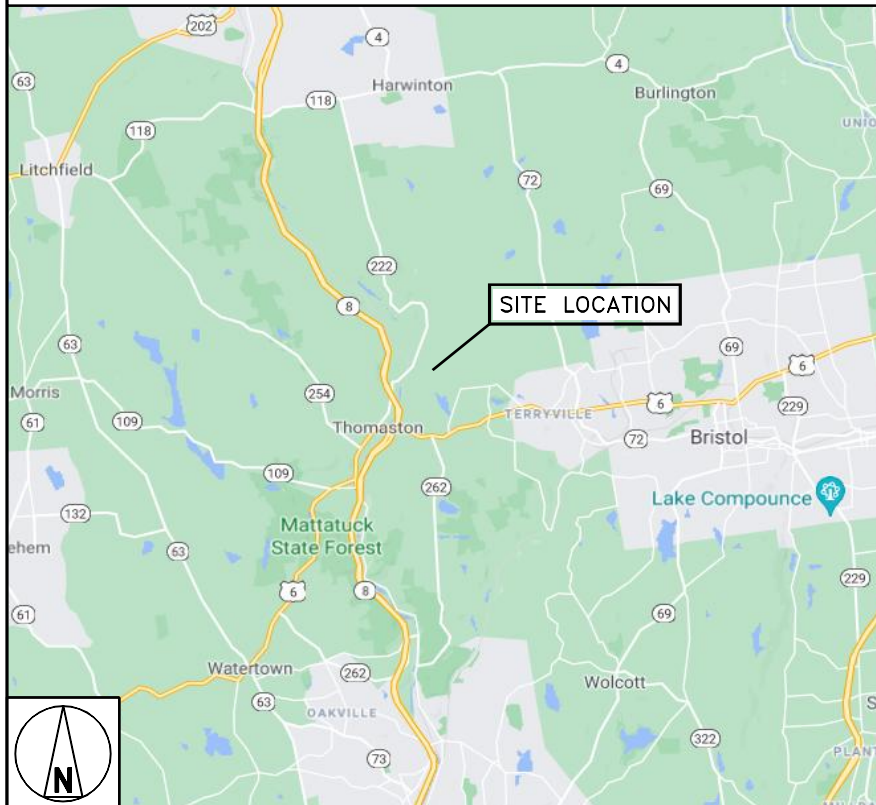
CONSTRUCTION MANAGER: CHAD WILCOX
CHAD.WILCOX@DISH.COM

RF ENGINEER: SYED ZAIDI
SYED.ZAIDI@DISH.COM

DIRECTIONS

FROM HARTFORD TAKE I-84 WEST TO RT 6 WEST. FOLLOW RT 6 INTO PLYMOUTH AND TURN RIGHT ON NORTH STREET. FOLLOW FOR ABOUT 2 MILES. #297 IS ON THE LEFT. TURN INTO DRIVEWAY AND FOLLOW TO SITE.

VICINITY MAP



NO SCALE



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



NB+C ENGINEERING SERVICES, LLC.
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615
(919) 657-9131

DRAWN BY: CHECKED BY: APPROVED BY:

PRI BIW BIW

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	08/19/2021	ISSUED FOR REVIEW
0	08/25/2021	ISSUED FOR CONSTRUCTION
1	05/13/2022	ISSUED FOR CONSTRUCTION
2	06/30/2022	ISSUED FOR CONSTRUCTION



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

A&E PROJECT NUMBER

302501-13701212

DISH WIRELESS, L.L.C.

PROJECT INFORMATION

BOHVN00143A

297 NORTH STREET
PLYMOUTH, CT 06782

SHEET TITLE

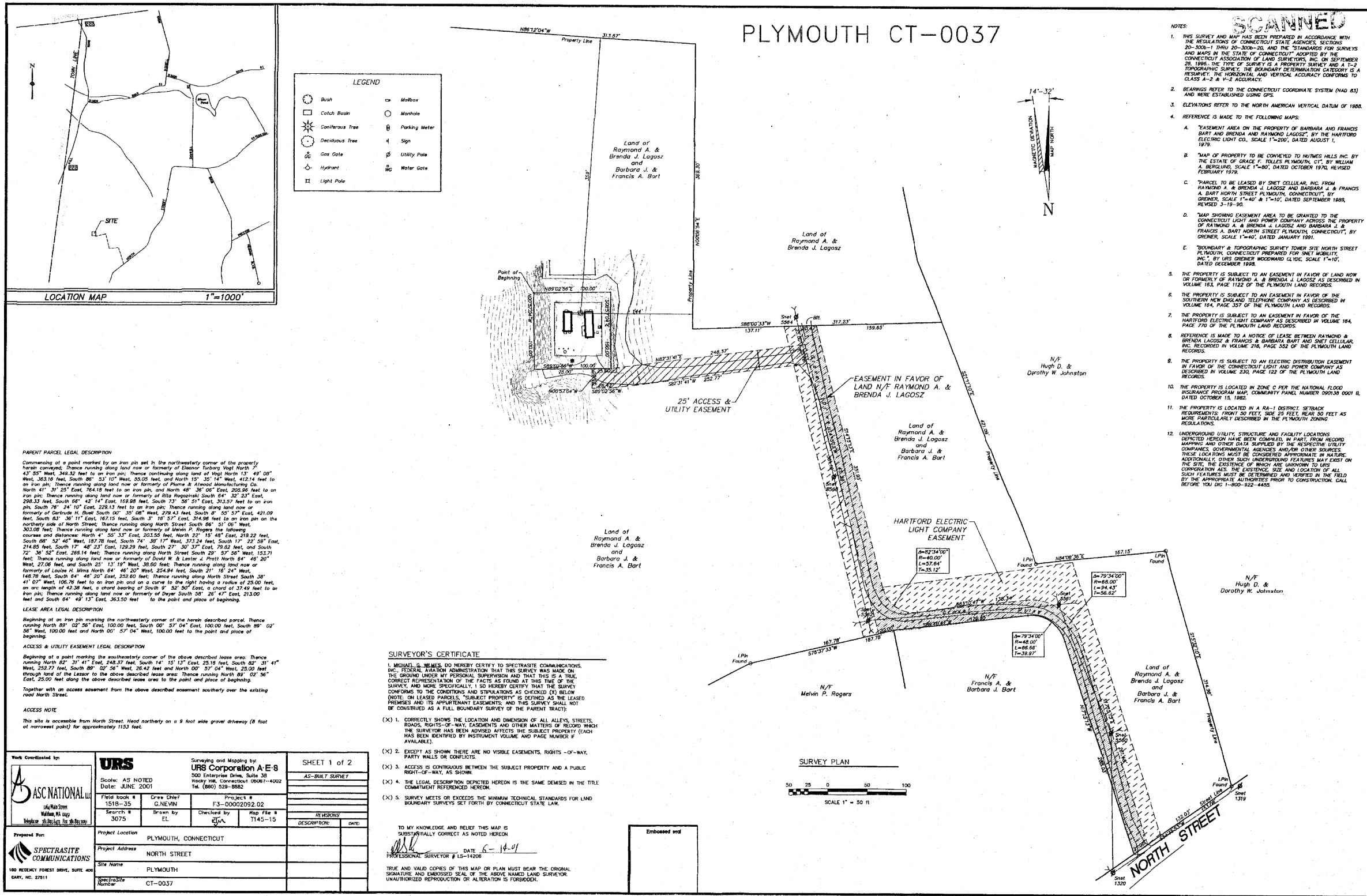
TITLE SHEET

SHEET NUMBER

T-1

NOTES

1. THE SURVEY PROVIDED ON THIS SHEET IS PROVIDED FOR REFERENCE ONLY. THE UTILITY ROUTE AND EXISTING EASEMENTS MUST BE VERIFIED PRIOR TO CONSTRUCTION.



dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

NB+C
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615
(919) 657-9131

DRAWN BY: CHECKED BY: APPROVED BY:

PRI BIW BIW

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
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0	08/25/2021	ISSUED FOR CONSTRUCTION
1	05/13/2022	ISSUED FOR CONSTRUCTION
2	06/30/2022	ISSUED FOR CONSTRUCTION



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A&E PROJECT NUMBER
302501-13701212

DISH WIRELESS, L.L.C.
PROJECT INFORMATION
BOHVN00143A
297 NORTH STREET
PLYMOUTH, CT 06782

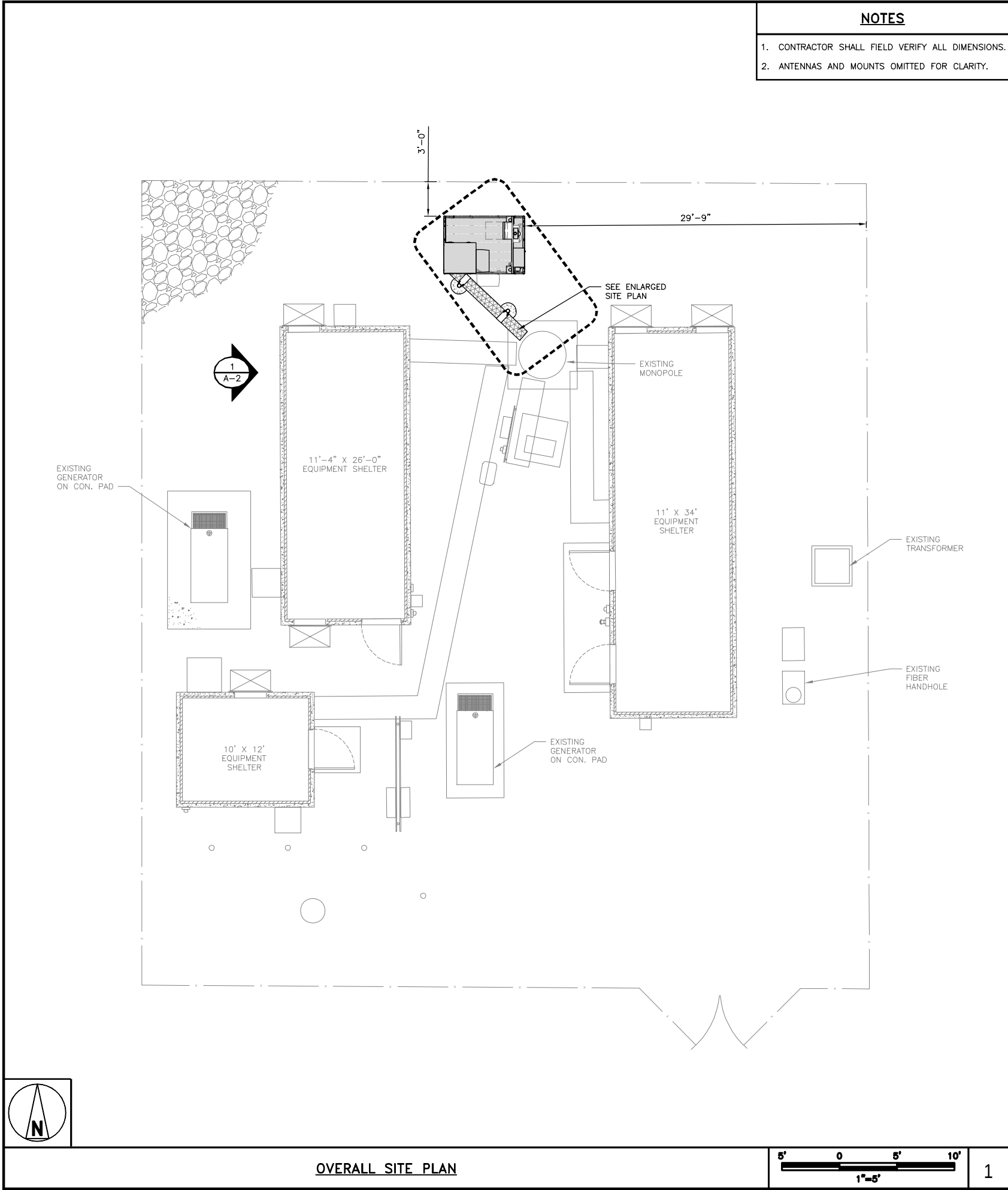
SHEET TITLE
SURVEY

SHEET NUMBER
A-0

SURVEY (BY OTHERS)

NO SCALE

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.

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.



<u>ANTENNA SCHEDULE</u>		NO SCALE
-------------------------	--	----------

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LITTLETON, CO 80120

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RALEIGH, NC 27615
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PRI	BIW	BIW
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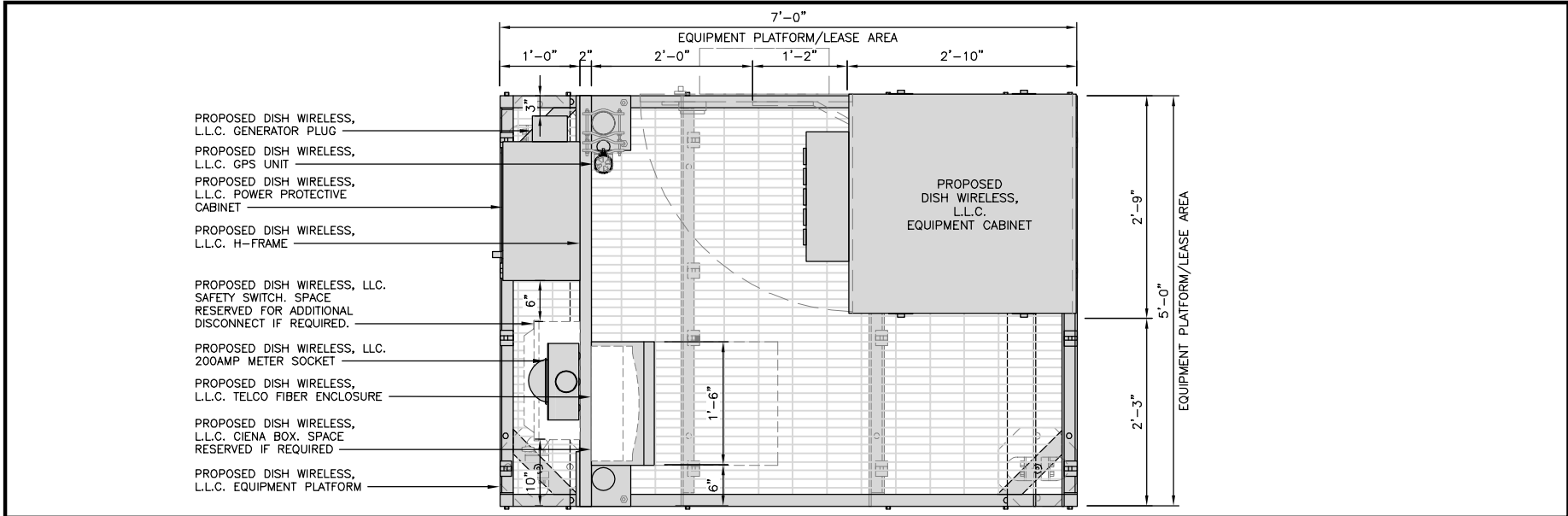
DISH WIRELESS, L.L.C.

PROJECT INFORMATION
BOHVN00143A
297 NORTH STREET
PLYMOUTH, CT 06782

SHEET TITLE
ELEVATION, ANTENNA
LAYOUT AND SCHEDULE

SHEET NUMBER

A-2

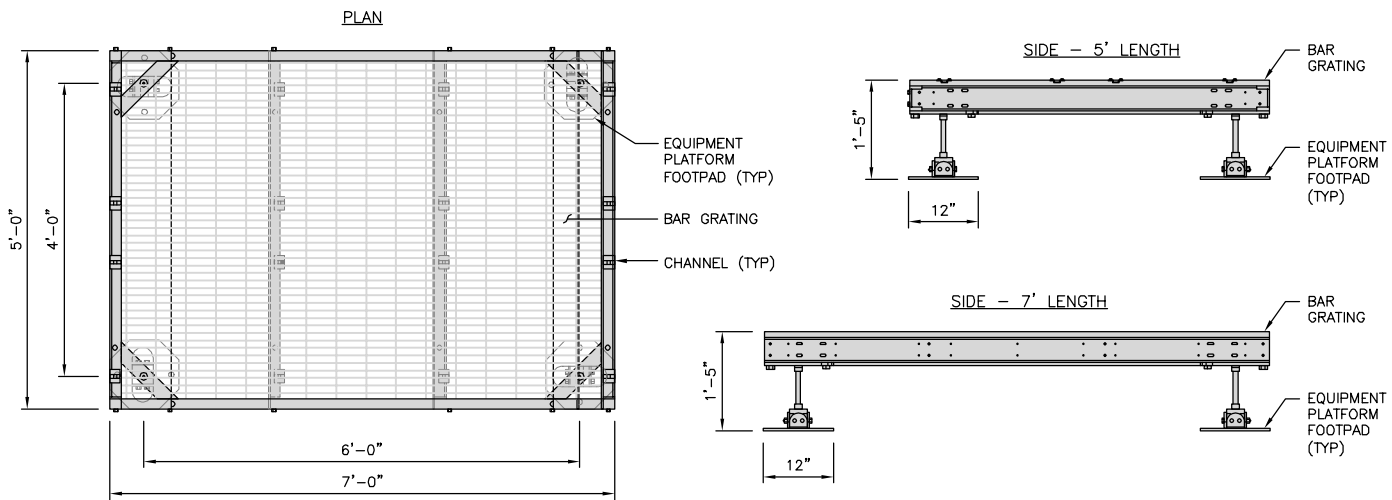


PLATFORM EQUIPMENT PLAN

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"

NOTE:
PLATFORM MUST BE LEVEL
WITHIN 1 DEGREE

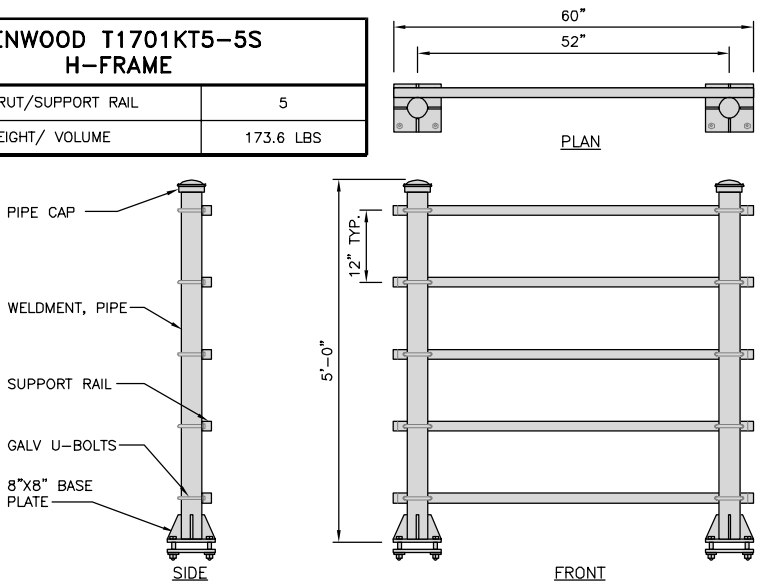


PLATFORM DETAIL

NO SCALE

2

KENWOOD T1701KT5-5S H-FRAME	
UNISTRUT/SUPPORT RAIL	5
WEIGHT/ VOLUME	173.6 LBS



H-FRAME DETAIL

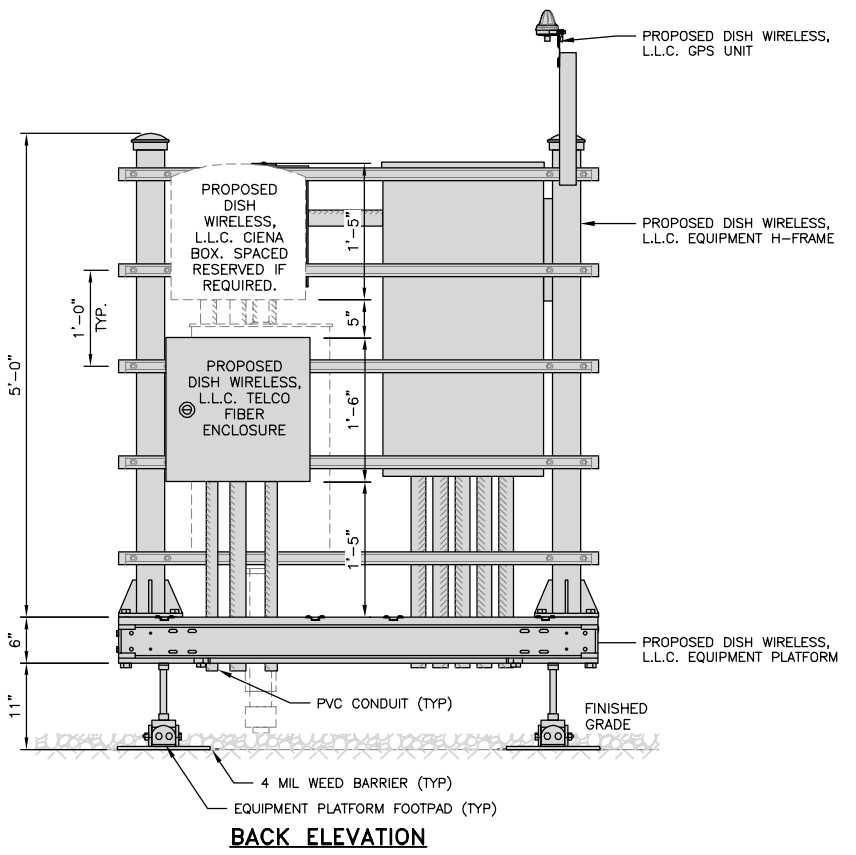
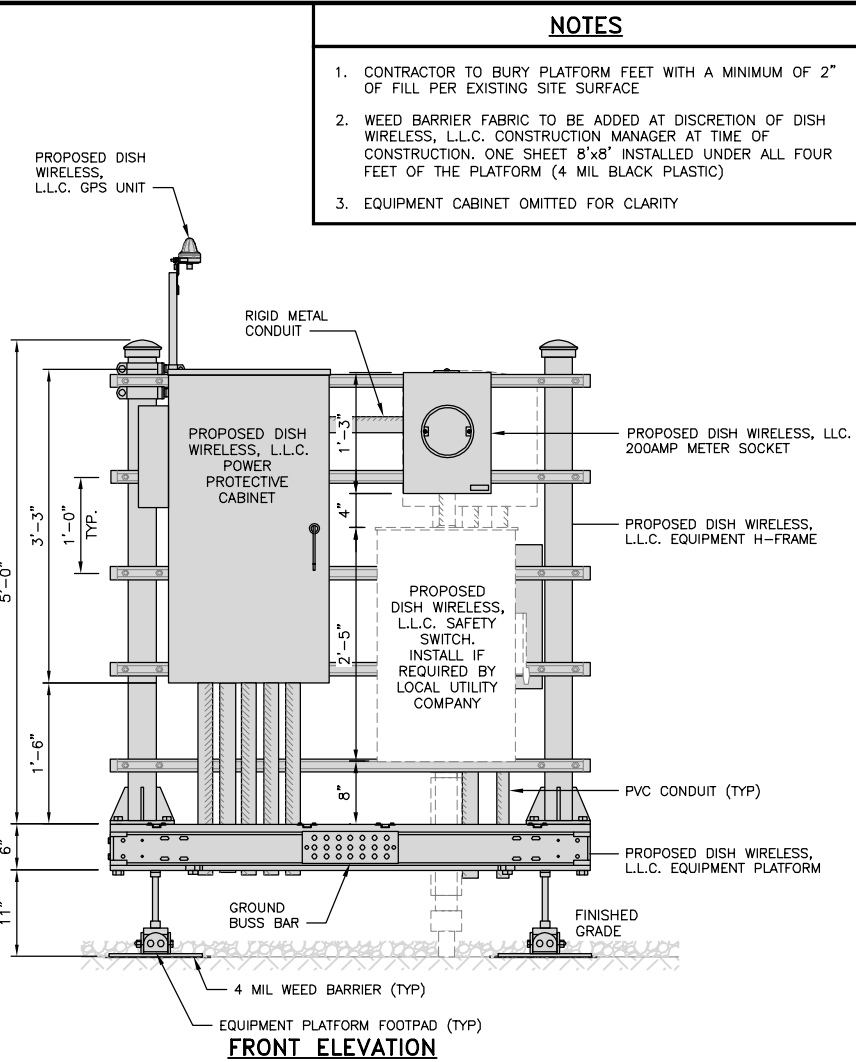
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3

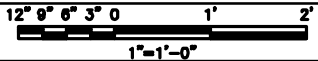
NOT USED

NO SCALE

4



H-FRAME EQUIPMENT ELEVATION



5

NOTES

- CONTRACTOR TO BURY PLATFORM FEET WITH A MINIMUM OF 2" OF FILL PER EXISTING SITE SURFACE
- 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)
- EQUIPMENT CABINET OMITTED FOR CLARITY

dish
wireless.

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297 NORTH STREET
PLYMOUTH, CT 06782

SHEET TITLE
EQUIPMENT PLATFORM AND
H-FRAME DETAILS

SHEET NUMBER

A-3

CHARLES INDUSTRY HEX CUBE-PM639155N4

DIMENSIONS (HxWxD):	74"x32"x32"
POWER PLANT:	-48VDC ABB/600W
TOTAL WEIGHT (EMPTY)	408 LBS

PLAN

SIDE

BACK

SIDE

FRONT

RAYCAP RDIAC-6512-P-240-MTS POWER & TELCO PROTECTION CABINET

DIMENSIONS (HxWxD)	40"x20"x10"
WEIGHT/ VOLUME	124 LBS
MANUAL TRANSFER SWITCH	200A
LOAD CENTER	30 POSITION
MAIN BREAKER	200A, 65kA AIC
GENERATOR RECEPTACLE	CAMLOCK
NEMA RATING	3R POWDER COATED ALUMINUM
SURGE PROTECTION DEVICE	UL 1449 4TH EDITION LISTED

PLAN

SIDE

FRONT

SQUARE D SAFETY SWITCH D324NRB

ENCLOSURE DIM (HxWxD)	29.25"x17.25"x8.25"
TOTAL WEIGHT (EMPTY)	45.33 LBS
MAX VOLTAGE/AMPS/WATT	240V/200A/48000W
ENCLOSURE RATING	OUTDOOR NEMA 3R

PLAN

SIDE

BACK

FRONT

CABINET DETAIL

NO SCALE

1

POWER PROTECTION CABINET (PPC) DETAIL

NO SCALE

2

SAFETY SWITCH

NO SCALE

3

EATON METER SOCKET UNRRS213BEUSE

METER SOCKET TYPE	RING
ENCLOSURE DIM (HxWxD)	16"x12"x6"
MAIN AMPERE RATING	200A
WEIGHT	18 LBS

PLAN

SIDE

BACK

FRONT

CIENA 3931 SERVICE DELIVERY SWITCH

DIMENSIONS (HxWxD)	17.0"x16.8"x7.0" 431x427x178mm
WEIGHT	28.6 LBS/13.0 KG
POWER INPUT	60W MAX

PLAN

FRONT

SIDE

BACK

CHARLES FIBER TELCO ENCLOSURE CUBE-MP1818WB-A

ENCLOSURE DIM (HxWxD)	18.0"x18.0"x9.25"
NEMA RATING	4X
THERMAL	SEALED
MOUNTING BACKBOARD	WOOD

PLAN

SIDE

BACK

FRONT

METER SOCKET DETAIL

NO SCALE

4

CIENA DETAIL

NO SCALE

5

FIBER TELCO ENCLOSURE DETAIL

NO SCALE

6

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"

TRAPEZE KIT (WB-T12-3)

SUPPORT BRACKET (WB-LB12-3)

3.5" DIA GALV SCH 40 PIPE (SPACED 9'-0" MAX) (MF-130)

FRONT

SIDE

FINISH SLOPE TO DRAIN

A-A

PROPOSED 3.5" DIA. SCH 40 PIPE GALVANIZED

PROPOSED 1'-6" DIA. CONCRETE PIER (TYP)

CONCRETE PIER

3" DIA SCH 40 PIPE

18" DIA DRILLED PIER FOUNDATION

A-A SECTION

1'-6"

PROPOSED ICE BRIDGE

PROPOSED 1.60" DIA HYBRID CABLE

PROPOSED CABLE CLAMP @ 3'-0" O.C.

HYBRID SUPPORT BRACKET AND BANDING @ 10'-0" O.C.

EXISTING MONOPOLE

ICE BRIDGE DETAIL

NO SCALE

7

TYPICAL ICE BRIDGE CONCRETE PIER DETAIL

NO SCALE

8

HYBRID CABLE RUN

NO SCALE

9

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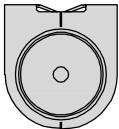
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297 NORTH STREET
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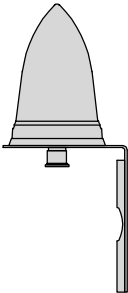
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-4

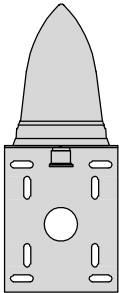
PCTEL GPSGL-TMG-SPI-40NCB	
DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"
WEIGHT W/ACCESSORIES	075 lbs
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1590 ± 30MHz



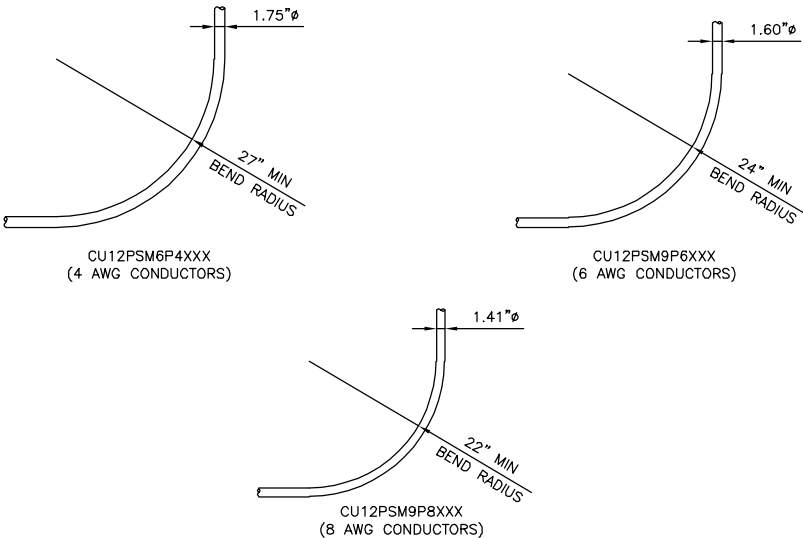
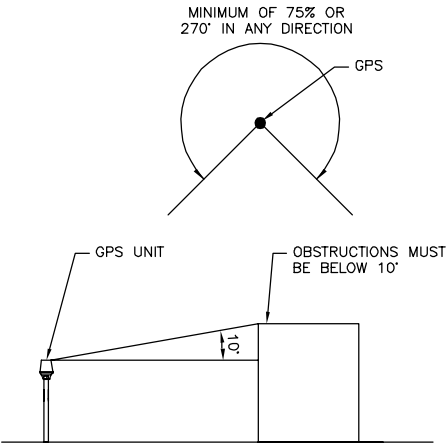
TOP



BACK



SIDE



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

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

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SHEET TITLE
EQUIPMENT DETAILS

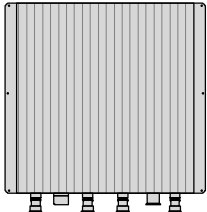
SHEET NUMBER

A-5

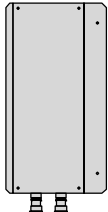
FUJITSU DUAL BAND TA08025-B604	
DIMENSIONS (HxWxD)	14.9"x15.7"x7.8"
WEIGHT	63.9 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



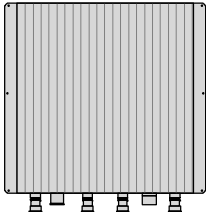
PLAN



BACK

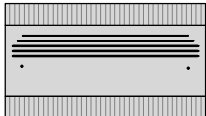


SIDE

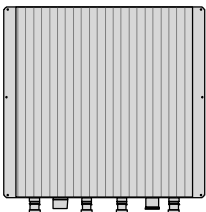


FRONT

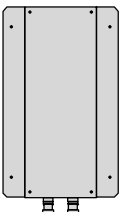
FUJITSU TRIPLE BAND TA08025-B605	
DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



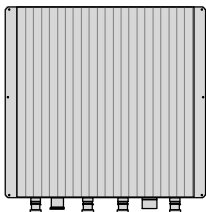
PLAN



BACK



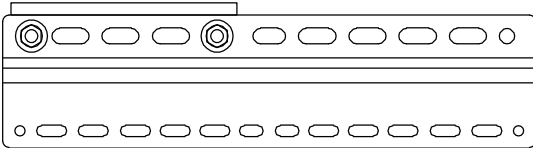
SIDE



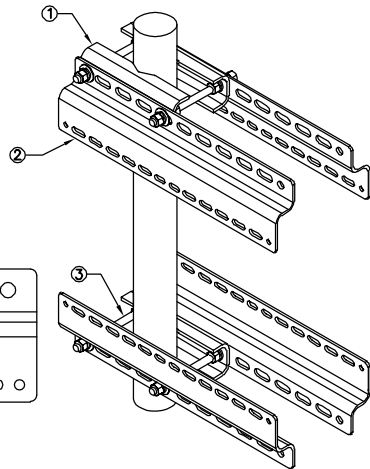
FRONT

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 DETAIL

NO SCALE

1

RRH DETAIL

NO SCALE

2

RRH MOUNT DETAIL

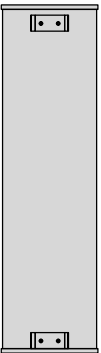
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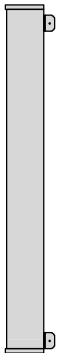
JMA WIRELESS MX08FRO665-21 ANTENNA	
DIMENSIONS (HxWxD)	72.0"x20.0"x8.0"
TOTAL WEIGHT	64.5 LB
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE



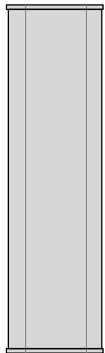
PLAN



BACK



SIDE

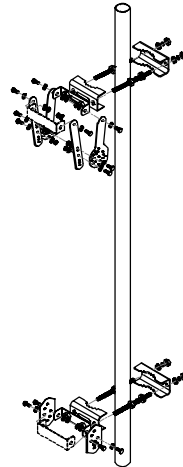


FRONT

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 DETAIL

NO SCALE

4

NOT USED

NO SCALE

5

ANTENNA BRACKET DETAIL

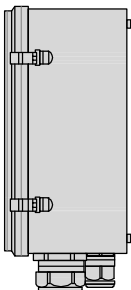
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6

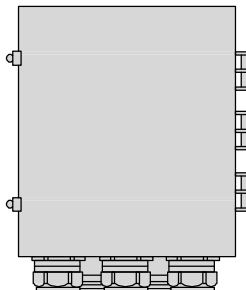
RAYCAP RDIDC-9181-PF-48 DC SURGE PROTECTION (OVP)	
DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS



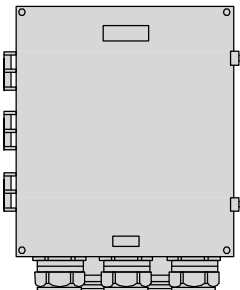
PLAN



SIDE

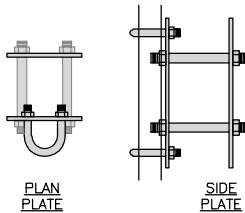


BACK



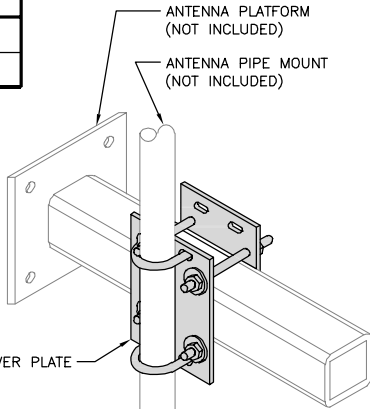
FRONT

COMMSCOPE XP-2040 CROSSOVER PLATE	
DIMENSIONS (HxW)	10"x12"
WEIGHT	11.023 LBS



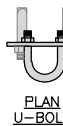
PLAN PLATE

SIDE PLATE

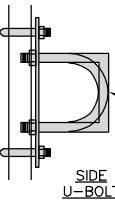


CROSSOVER PLATE

OPTION OF EITHER
SQUARE OR CIRCULAR
U-BOLT



PLAN U-BOLT



SIDE U-BOLT

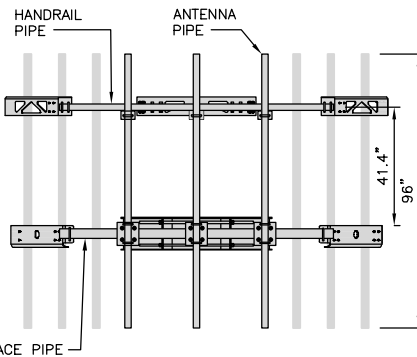
NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

COMMSCOPE
MC-PK8-DSH

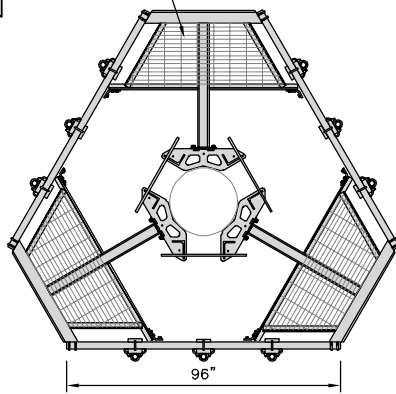
FACE WIDTH	96"
WEIGHT	1373.08 lbs

NOTE: 15" TO 38" O.D.

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



PLATFORM



SURGE SUPPRESSION DETAIL (OVP)

NO SCALE

7

RRH/OVP MOUNT DETAIL

NO SCALE

8

ANTENNA PLATFORM DETAIL

NO SCALE

9

dish
wireless.

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LITTLETON, CO 80120

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TOTALLY COMMITTED.

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A&E PROJECT NUMBER

302501-13701212

DISH WIRELESS, L.L.C.
PROJECT INFORMATION

BOHVN00143A

297 NORTH STREET
PLYMOUTH, CT 06782

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER

A-6

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

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

NO SCALE

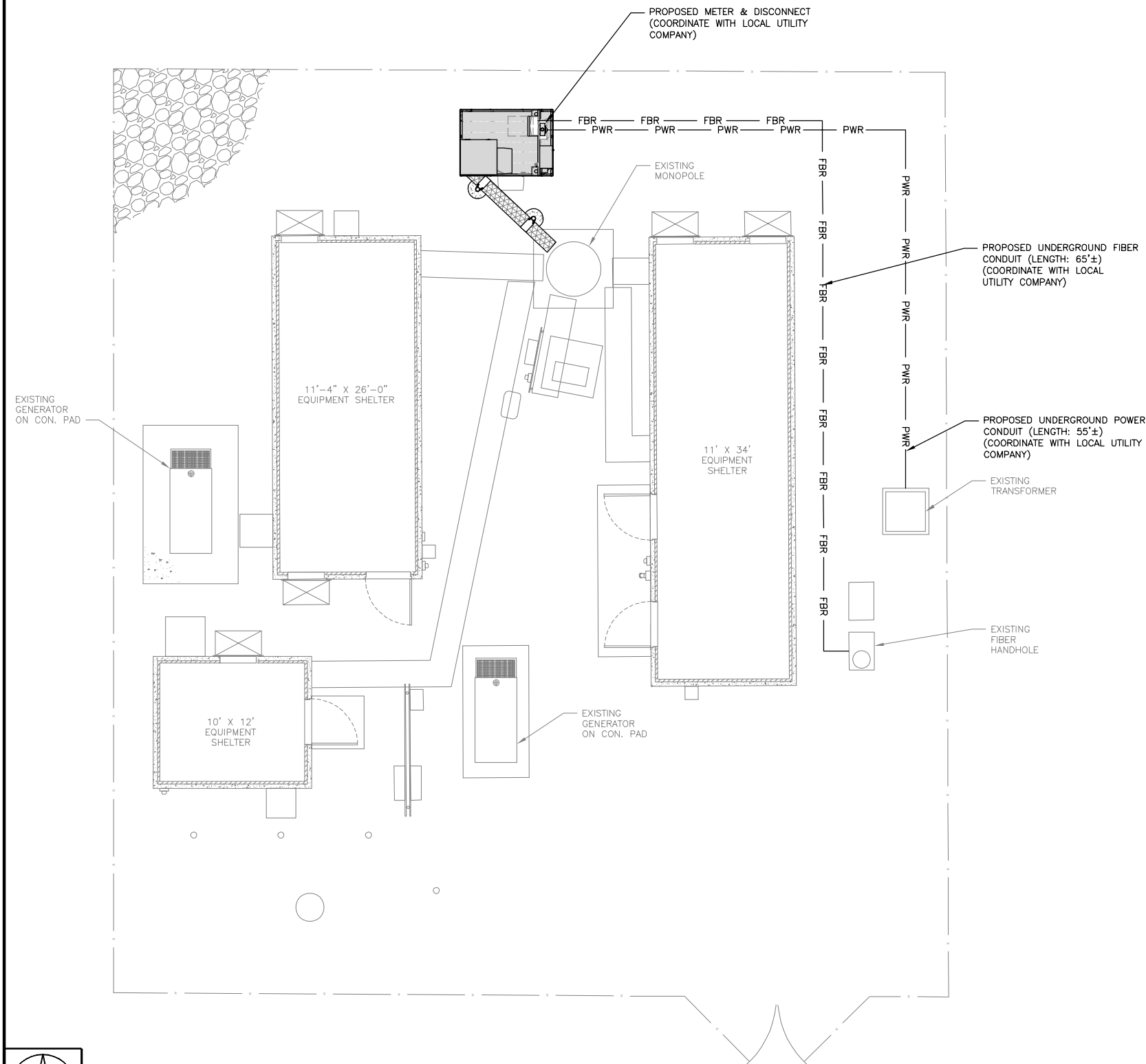
2



OVERALL UTILITY EASEMENT AERIAL VIEW

NO SCALE

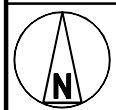
3



UTILITY ROUTE PLAN



1



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

NB+C ENGINEERING SERVICES, LLC.
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615
(919) 657-9131

DRAWN BY:	CHECKED BY:	APPROVED BY:
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RFDS REV #: 1

CONSTRUCTION
DOCUMENTS

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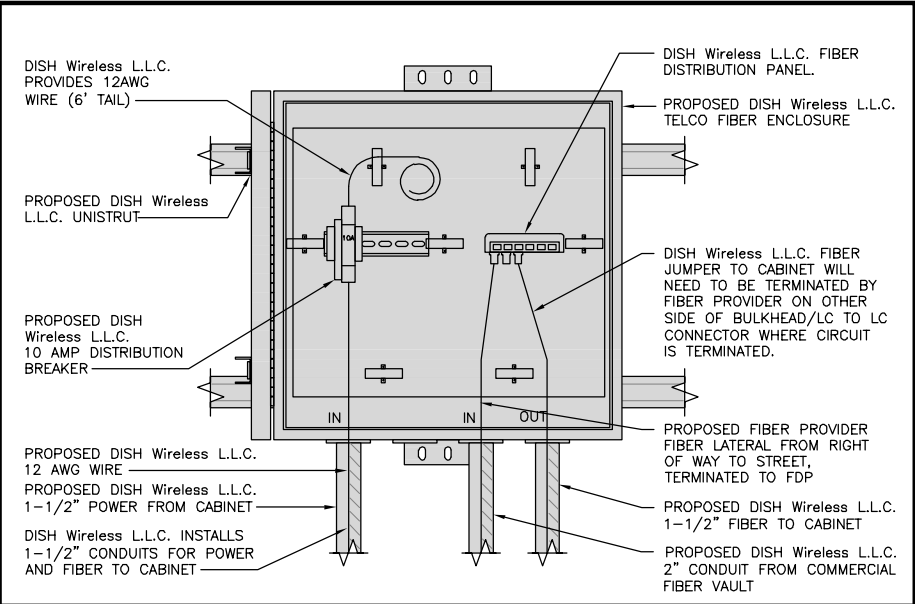
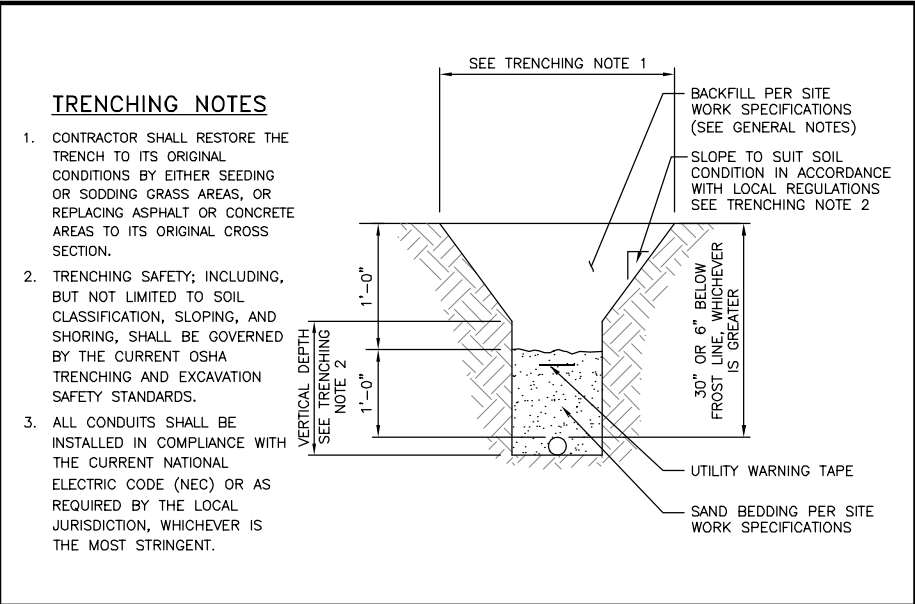
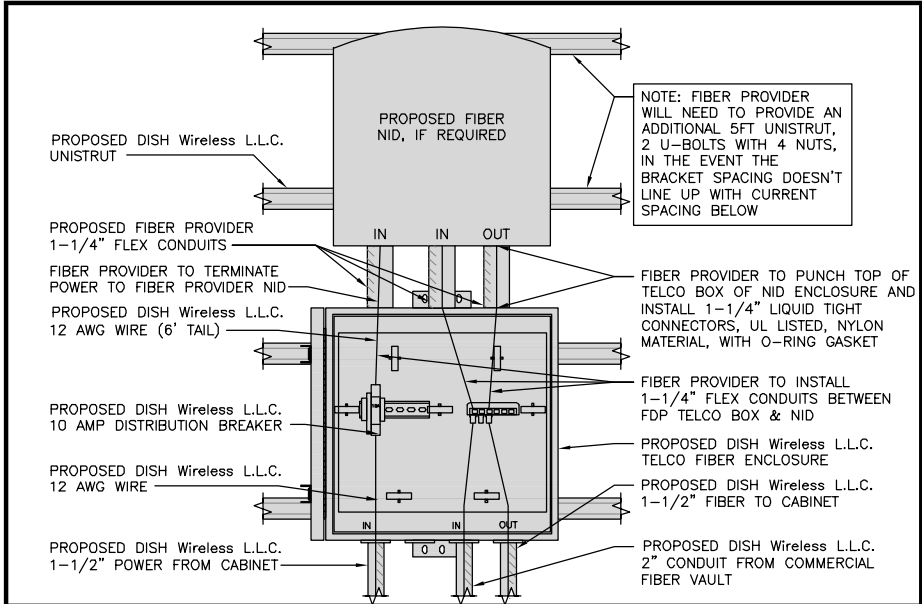
A&E PROJECT NUMBER
302501-13701212

**DISH WIRELESS, L.L.C.
PROJECT INFORMATION
BOHVN00143A
297 NORTH STREET
PLYMOUTH, CT 06782**

SHEET TITLE
ELECTRICAL/FIBER ROUTE
PLAN AND NOTES

SHEET NUMBER

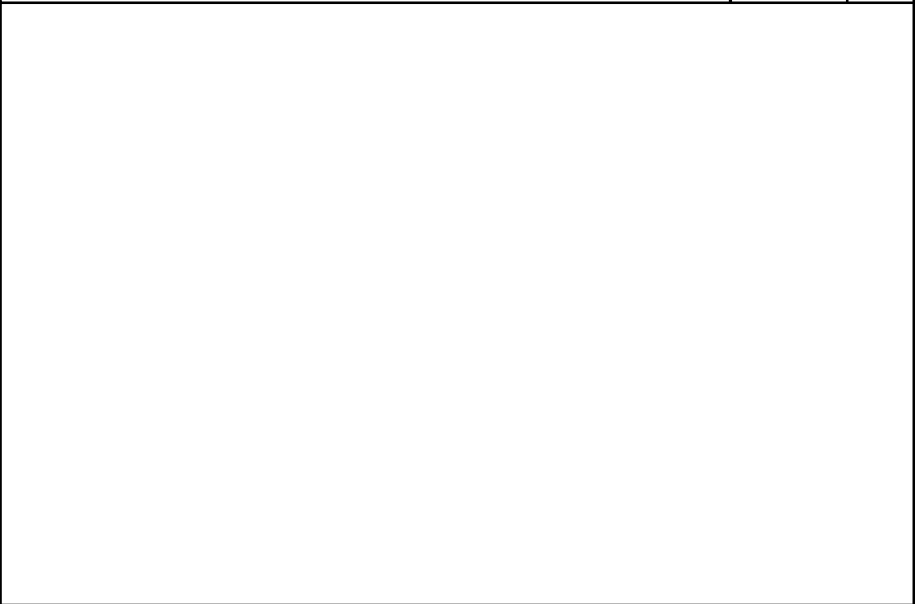
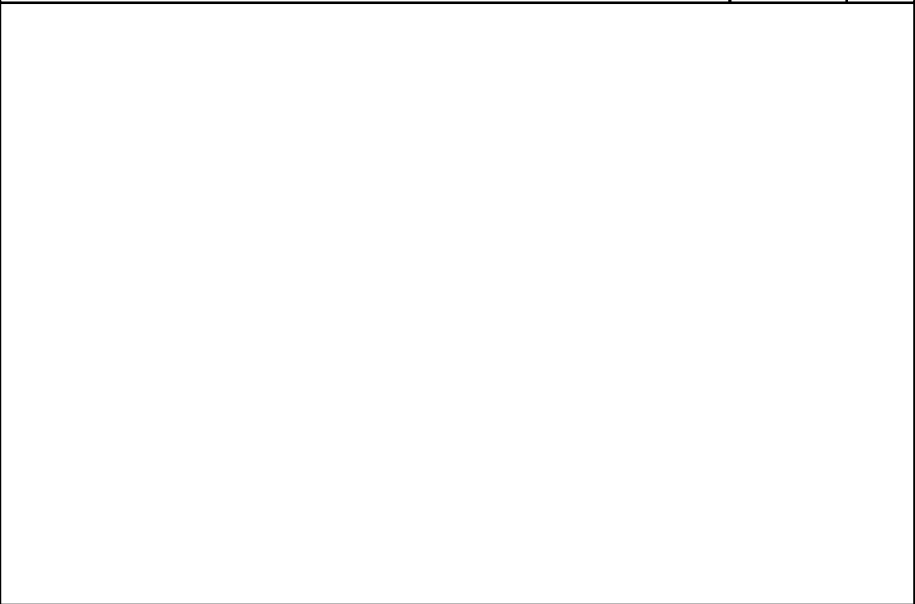
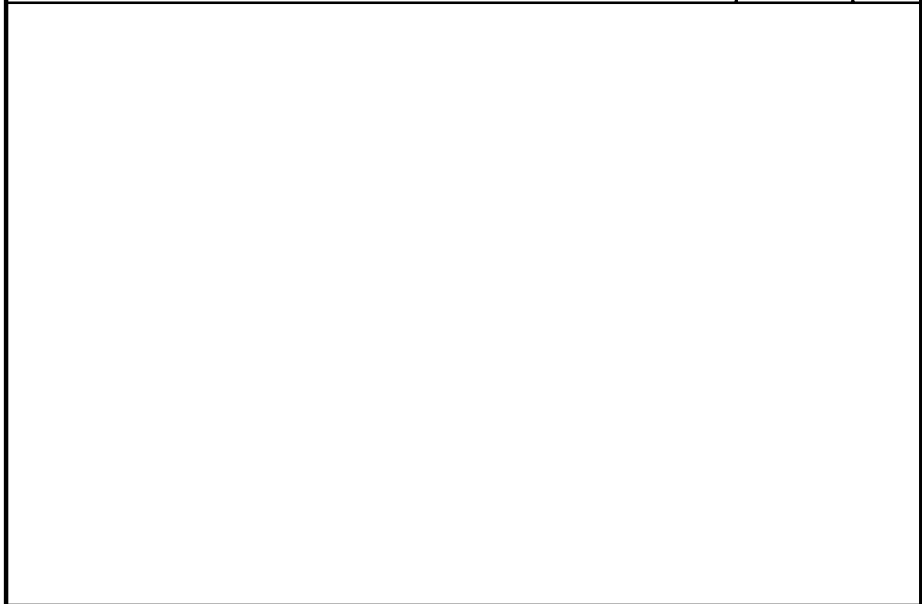
E-1



LIT TELCO BOX – INTERIOR WIRING LAYOUT (OPTIONAL) NO SCALE 1

TYPICAL UNDERGROUND TRENCH DETAIL NO SCALE 2

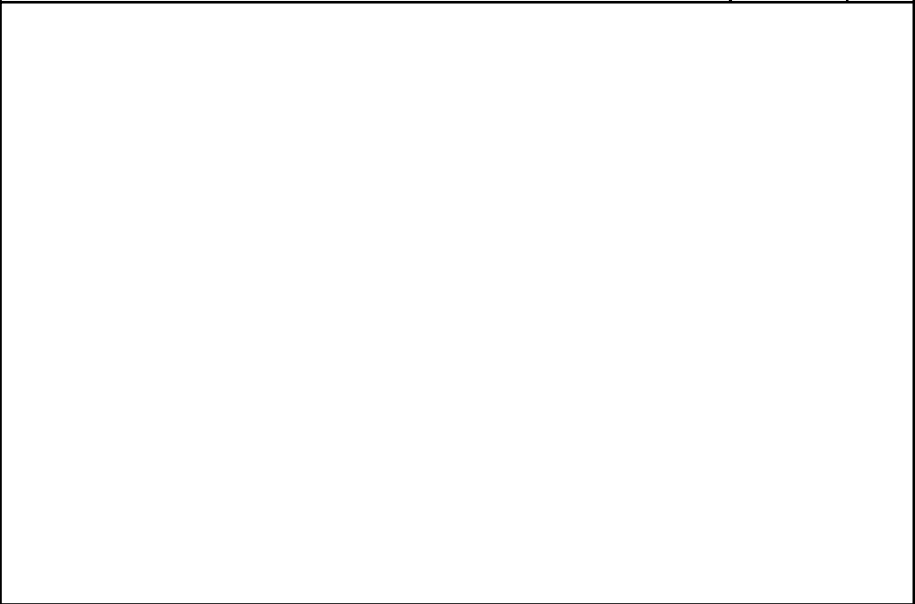
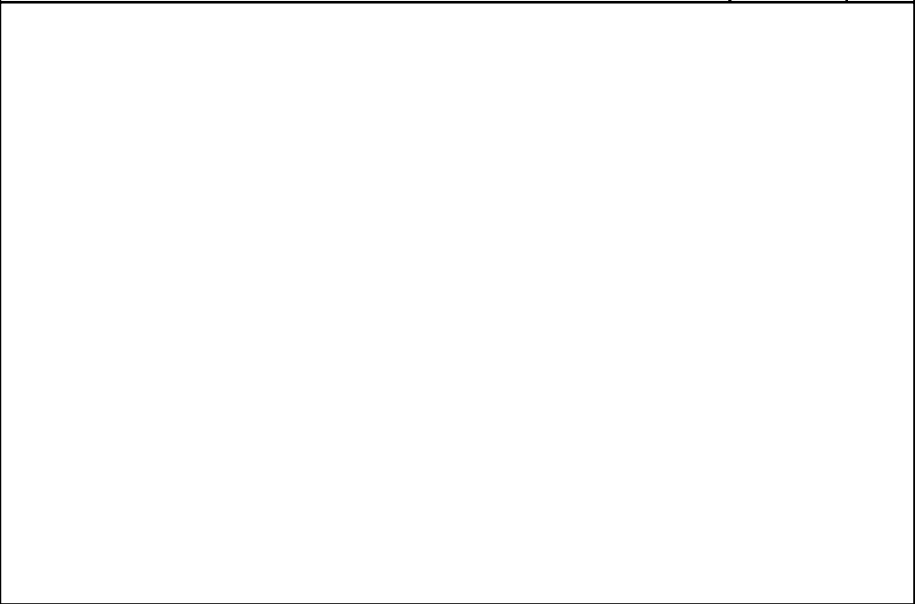
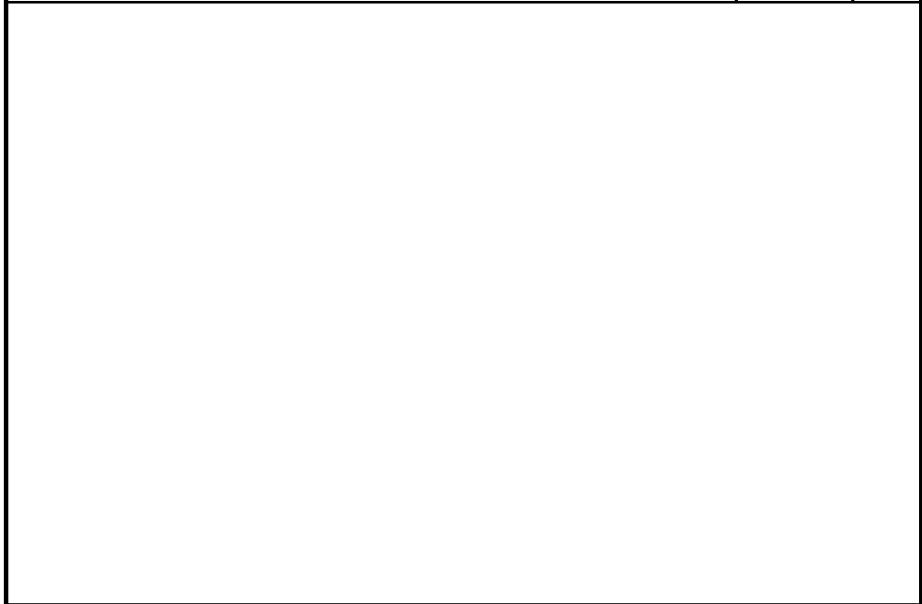
DARK TELCO BOX – INTERIOR WIRING LAYOUT NO SCALE 3



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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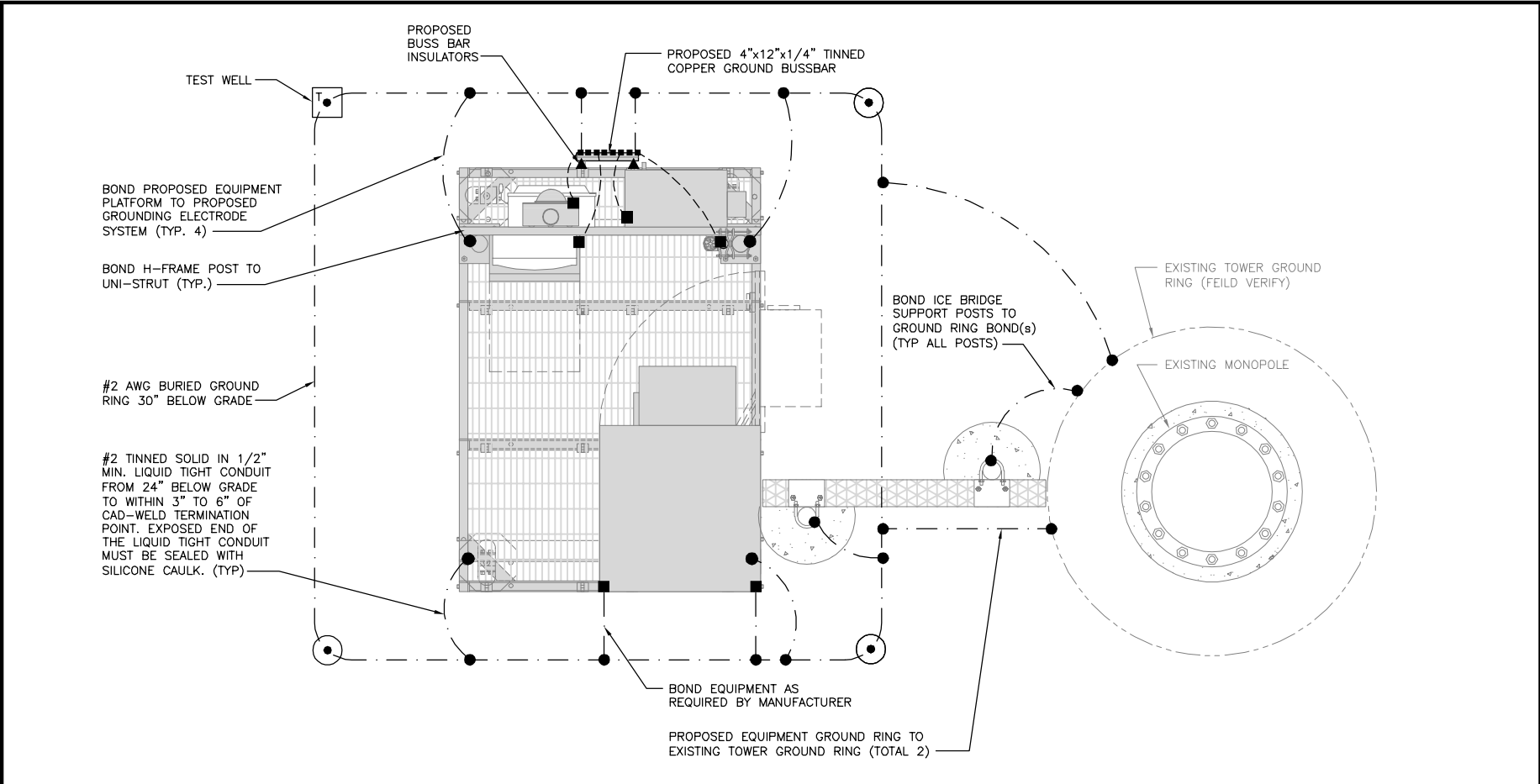
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SHEET TITLE
ELECTRICAL
DETAILS

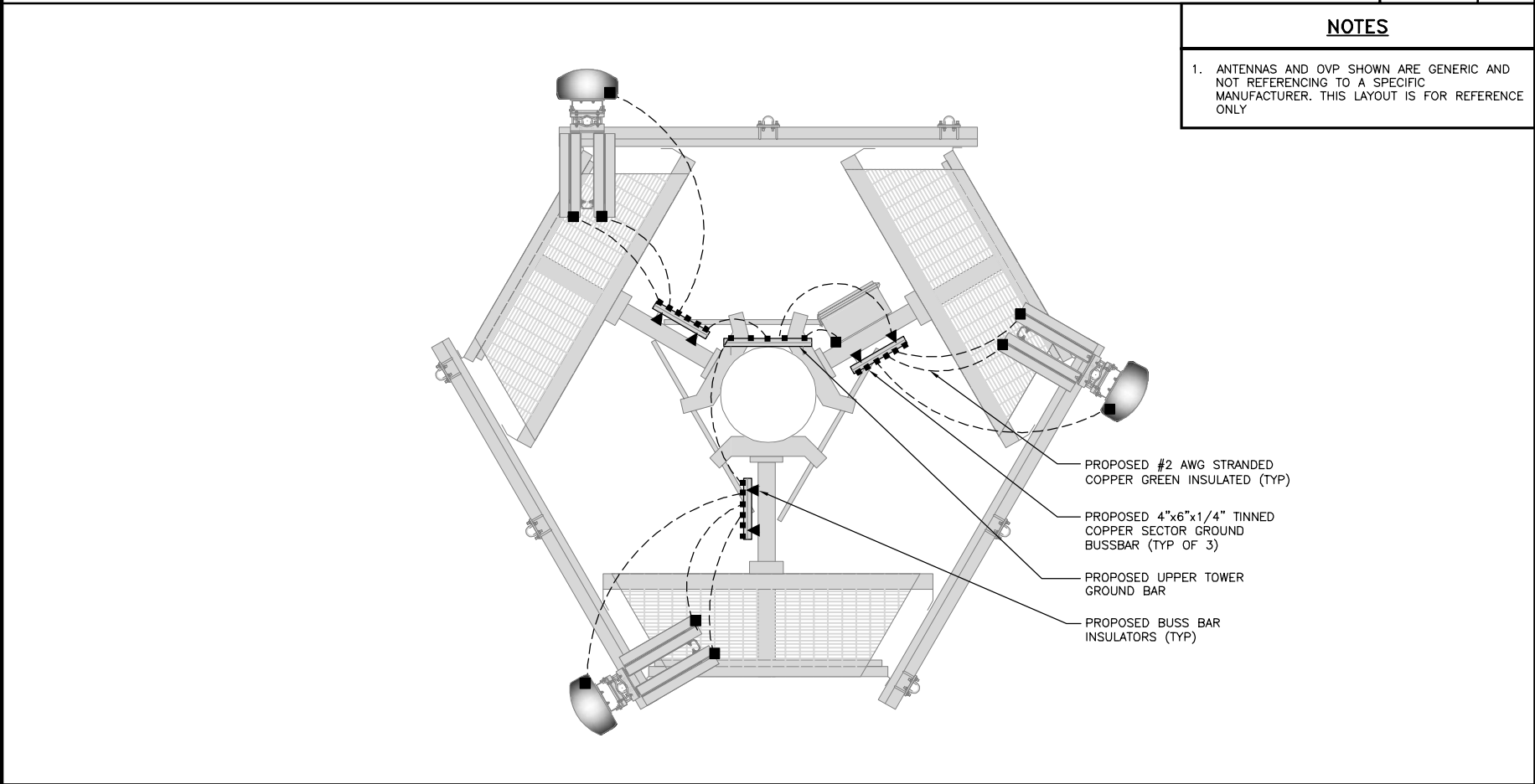
SHEET NUMBER
E-2



TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE

1



TYPICAL ANTENNA GROUNDING PLAN

NO SCALE

2

● EXOTHERMIC CONNECTION

■ MECHANICAL CONNECTION

● T

TEST GROUND ROD WITH INSPECTION SLEEVE

#6 AWG STRANDED & INSULATED

#2 AWG SOLID COPPER TINNED

▲

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 5/8" 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.

J

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

K

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

L

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.

M

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.

N

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

P

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.

Q

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

R

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

REFER TO DISH WIRELESS, L.L.C. GROUNDING NOTES.

dish

wireless.

5701 SOUTH SANTA FE DRIVE
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NB+C

TOTALLY COMMITTED.

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CHECKED BY:

APPROVED BY:

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BIW

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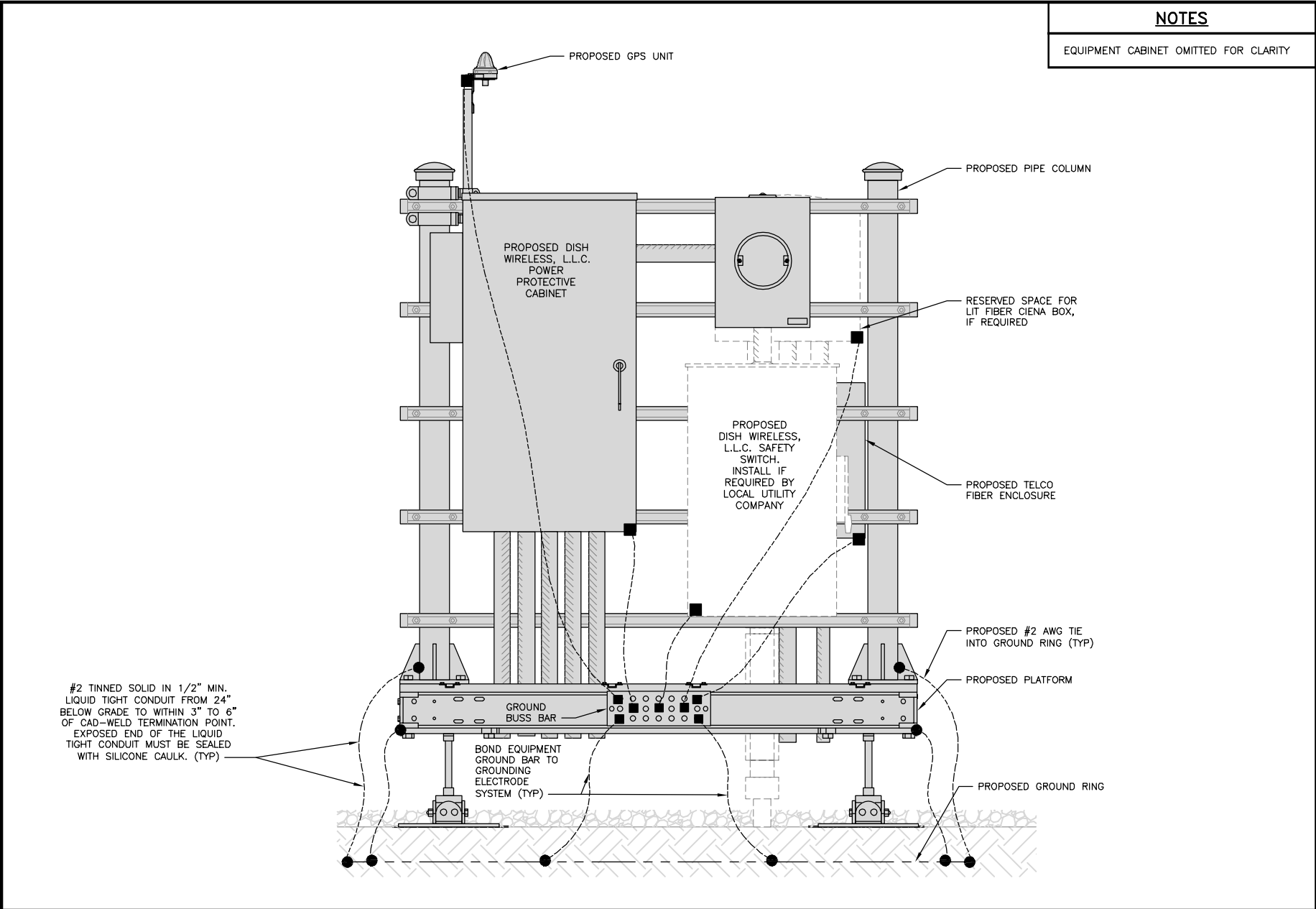
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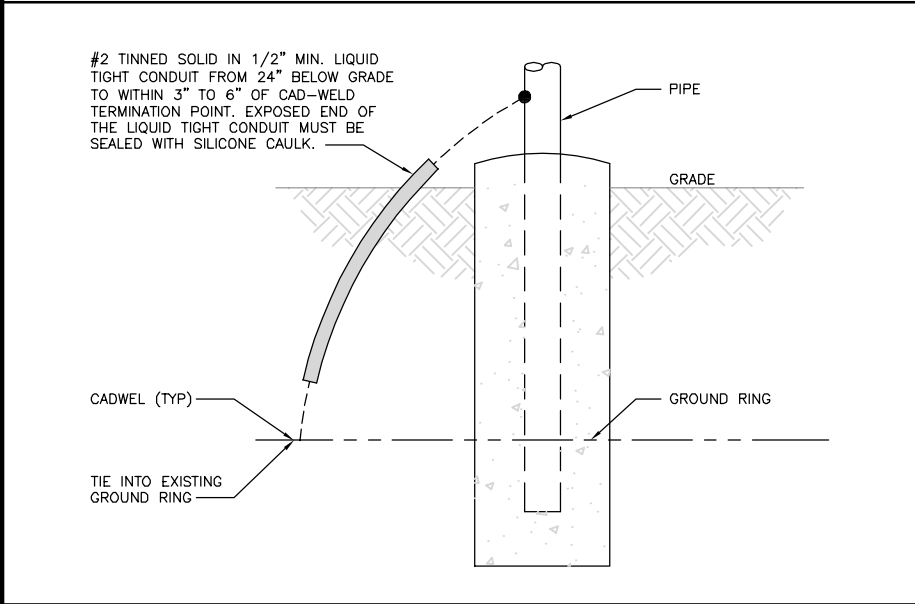
SHEET TITLE
GROUNDING PLANS
AND NOTES

SHEET NUMBER
G-1



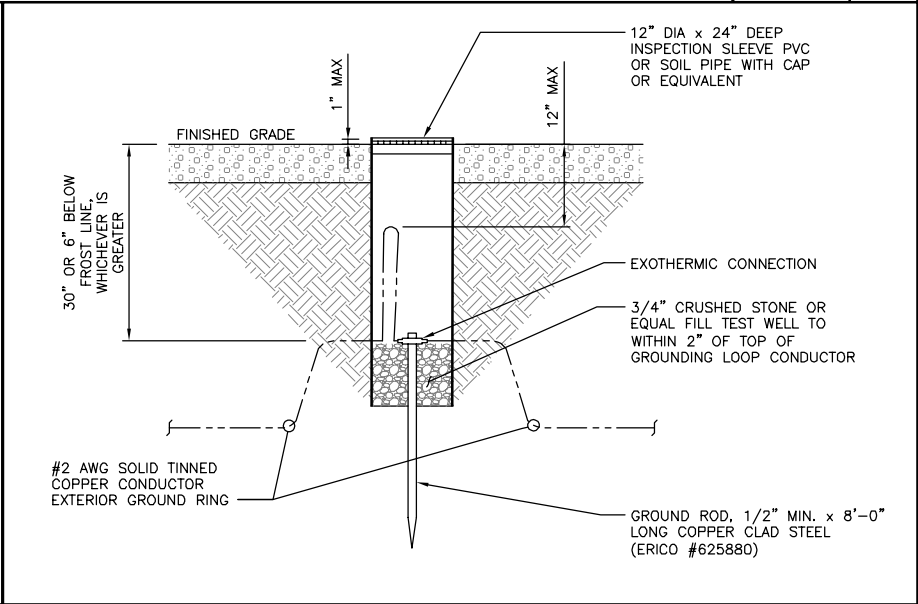
H-FRAME GROUNDING DETAIL

NO SCALE 1



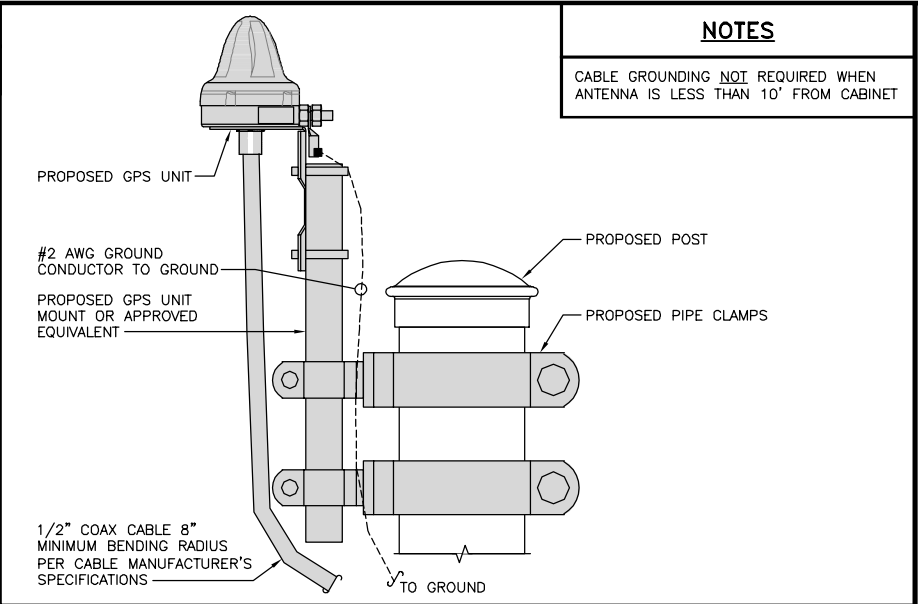
TRANSITIONING GROUND DETAIL

NO SCALE 4



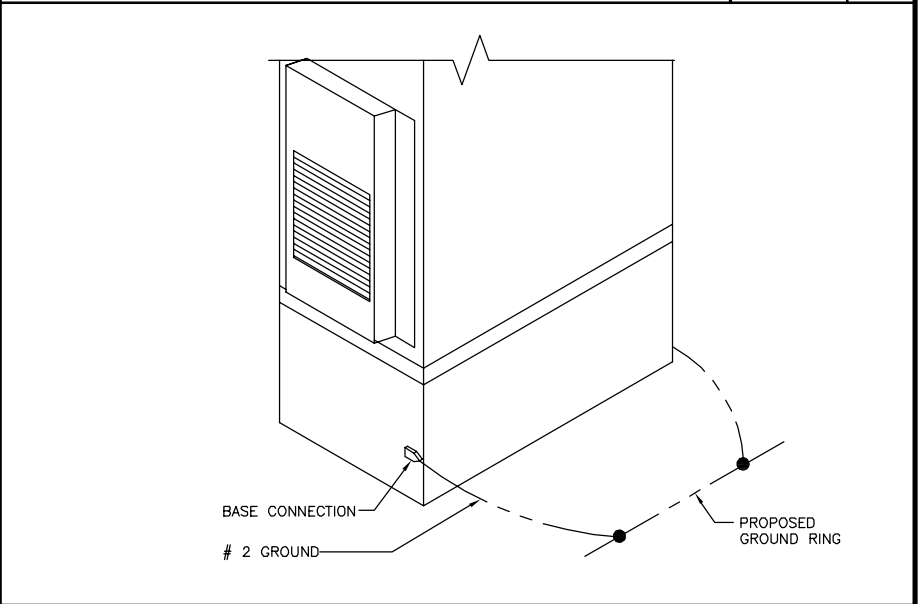
TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE

NO SCALE 5



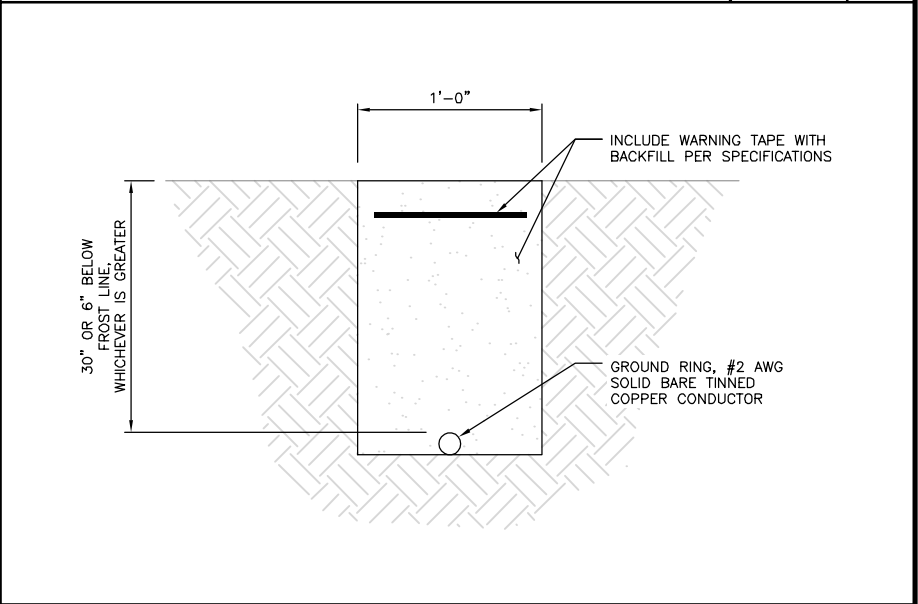
TYPICAL GPS UNIT GROUNDING

NO SCALE 2



OUTDOOR CABINET GROUNDING

NO SCALE 3



TYPICAL GROUND RING TRENCH

NO SCALE 6



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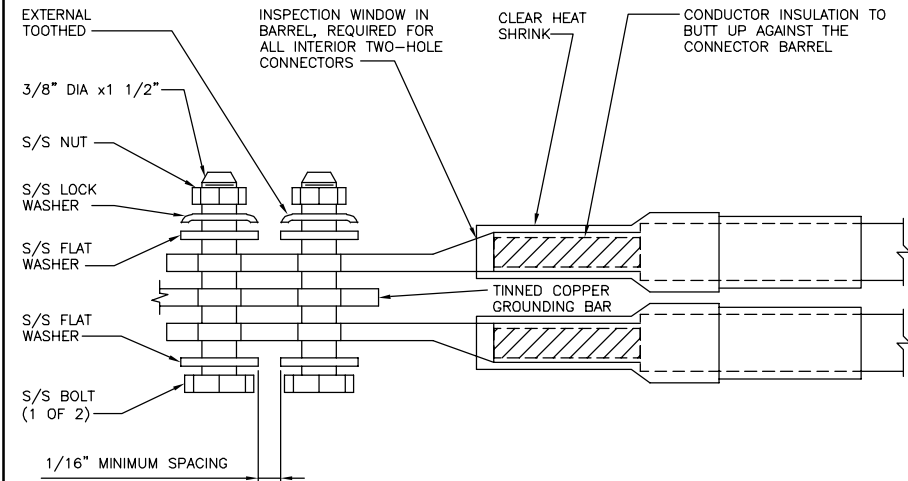
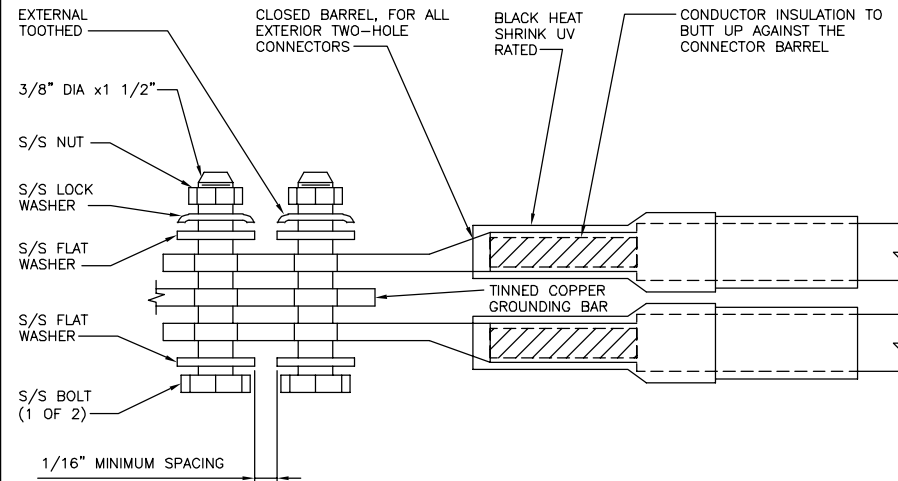
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DISH WIRELESS, L.L.C.
PROJECT INFORMATION
BOHVN00143A
297 NORTH STREET
PLYMOUTH, CT 06782

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.
9. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).

The Dish Wireless logo, featuring the word "dish" in a bold, lowercase sans-serif font, with a stylized satellite dish icon integrated into the letter "i". Below "dish" is the word "wireless." in a smaller, lowercase sans-serif font.

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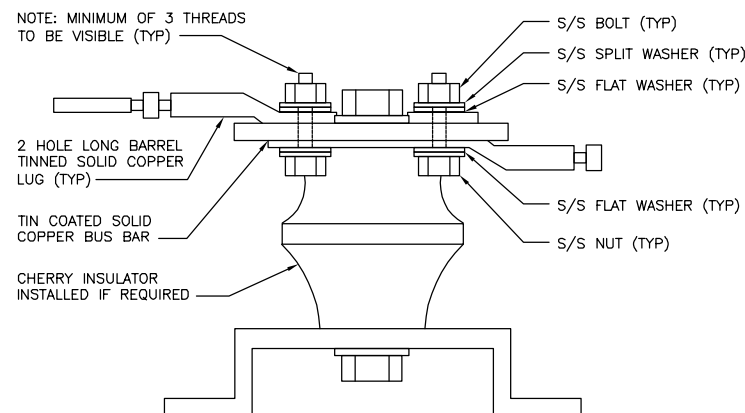
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SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER

G-3



NOT USED

NOT USED

NOT USED

NOT USED

NOT USED

G-3

RF JUMPER COLOR CODING				3/4" TAPE WIDTHS WITH 3/4" SPACING								
LOW-BAND RRH – (600MHz N71 BASEBAND) + (850MHz N26 BAND) + (700MHz N29 BAND) – OPTIONAL PER MARKET	ALPHA RRH				BETA RRH				GAMMA RRH			
	PORT 1 + SLANT	PORT 2 – SLANT	PORT 3 + SLANT	PORT 4 – SLANT	PORT 1 + SLANT	PORT 2 – SLANT	PORT 3 + SLANT	PORT 4 – SLANT	PORT 1 + SLANT	PORT 2 – SLANT	PORT 3 + SLANT	PORT 4 – SLANT
	RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
	ORANGE	ORANGE	RED	RED	ORANGE	ORANGE	BLUE	BLUE	ORANGE	ORANGE	GREEN	GREEN
		WHITE (–) PORT	ORANGE	ORANGE		WHITE (–) PORT	ORANGE	ORANGE		WHITE (–) PORT	ORANGE	ORANGE
ADD FREQUENCY COLOR TO SECTOR BAND (CBRS WILL USE YELLOW BANDS)				WHITE (–) PORT				WHITE (–) PORT				WHITE (–) PORT
MID-BAND RRH – (AWS BANDS N66+N70)	RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
	PURPLE	PURPLE	RED	RED	PURPLE	PURPLE	BLUE	BLUE	PURPLE	PURPLE	GREEN	GREEN
		WHITE (–) PORT	PURPLE	PURPLE		WHITE (–) PORT	PURPLE	PURPLE		WHITE (–) PORT	PURPLE	PURPLE
				WHITE (–) PORT				WHITE (–) PORT				WHITE (–) PORT
HYBRID/DISCREET CABLES	EXAMPLE 1		EXAMPLE 2		EXAMPLE 3							
	RED		RED		RED							
	BLUE		BLUE									
	GREEN		GREEN		ORANGE							
	ORANGE		YELLOW		PURPLE							
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												
FIBER JUMPERS TO RRHs	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH						
	RED	RED	BLUE	BLUE	GREEN	GREEN						
		PURPLE		PURPLE		PURPLE						
POWER CABLES TO RRHs	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH						
	RED	RED	BLUE	BLUE	GREEN	GREEN						
		PURPLE		PURPLE		PURPLE						
RET MOTORS AT ANTENNAS	ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"	ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"	ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"						
	RED	RED	BLUE	BLUE	GREEN	GREEN						
		PURPLE		PURPLE		PURPLE						
MICROWAVE RADIO LINKS	FORWARD AZIMUTH OF 0–120 DEGREES		FORWARD AZIMUTH OF 120–240 DEGREES		FORWARD AZIMUTH OF 240–360 DEGREES							
	PRIMARY	SECONDARY	PRIMARY	SECONDARY	PRIMARY	SECONDARY						
	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE						
	RED	RED	BLUE	BLUE	GREEN	GREEN						
	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE						
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

NOT USED

NO SCALE

4

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

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

NB+C
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615
(919) 657-9131

DRAWN BY: CHECKED BY: APPROVED BY:

PRI

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RFDS REV #: 1

CONSTRUCTION
DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	08/19/2021	ISSUED FOR REVIEW
0	08/25/2021	ISSUED FOR CONSTRUCTION
1	05/13/2022	ISSUED FOR CONSTRUCTION
2	06/30/2022	ISSUED FOR CONSTRUCTION



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

A&E PROJECT NUMBER

302501–13701212

DISH WIRELESS, L.L.C.

PROJECT INFORMATION

BOHVN00143A

297 NORTH STREET
PLYMOUTH, CT 06782

SHEET TITLE

RF
CABLE COLOR CODES

SHEET NUMBER

RF-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.



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A&E PROJECT NUMBER
302501–13701212

DISH WIRELESS, L.L.C.
PROJECT INFORMATION
BOHVN00143A
297 NORTH STREET
PLYMOUTH, CT 06782

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-2

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.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC “SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.”
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:

A. ASTM A–572, GRADE 50 – ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE

B. ASTM A–36 – ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.

C. ASTM A–500, GRADE B – HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)

D. ASTM A–325, TYPE SC OR N – ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS

E. ASTM F–1554 07 – ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT–DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:

A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.

B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.

C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.

D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.

E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.

F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.

G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING ¼" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

H. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE REQUIRED DURING CONSTRUCTION UNTIL ALL CONNECTIONS ARE COMPLETE.

I. ANY FIELD CHANGES OR SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL FROM THE ENGINEER, AND DISH WIRELESS L.L.C. PROJECT MANAGER IN WRITING



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SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-4



VICINITY MAP



SITE NAME: PLYMOUTH CT 3
SITE NUMBER: 302501
ATC PROJECT NUMBER: 13701212_C6_05
SITE ADDRESS: 297 NORTH STREET
PLYMOUTH, CT 06782



LOCATION MAP

180 FT MONOPOLE MODIFICATIONS

PROJECT TEAM	PROJECT DESCRIPTION	SHEET	SHEET TITLE	REV.
TOWER OWNER AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 ENGINEERED BY ATC TOWER SERVICES 3500 REGENCY PARKWAY, SUITE 100 CARY, NC 27518 CARRIER INFORMATION CARRIER: DISH WIRELESS L.L.C. CARRIER SITE NAME: BOHVN00143A CARRIER SITE NUMBER: BOHVN00143A	THE PROJECT DEPICTED IN THESE PLANS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL ANALYSIS COMPLETED UNDER ENGINEERING PROJECT NUMBER 13701212_C3_04 DATED 08/17/21. SATISFACTORY COMPLETION OF THE WORK INDICATED IN THESE PLANS WILL RESULT IN THE STRUCTURE MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE STRUCTURAL WAS COMPLETED.	G-002	IBC GENERAL NOTES	0
		G-003	SPECIAL INSPECTION CHECKLIST	0
		G-004	BILL OF MATERIALS	0
		C-101	DETAILED SITE PLAN	0
		S-201	MODIFICATION PROFILE	0
		S-501	FOUNDATION DETAILS	0
		S-502	REINFORCEMENT INSTALLATION DETAILS	0
		S-503	REINFORCEMENT INSTALLATION DETAILS (CONT'D)	0
		S-504	#20 STEP BOLT BRACKET INSTALLATION DETAILS	0



AMERICAN TOWER®
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CONNECTICUT

SITE ADDRESS:
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PLYMOUTH, CT 06782



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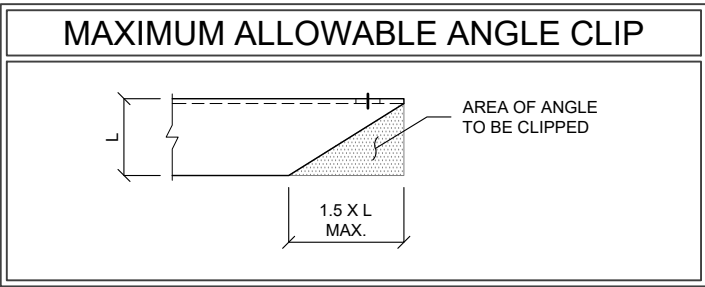
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GENERAL

1. ALL WORK TO BE COMPLETED PER APPLICABLE LOCAL, STATE, FEDERAL CODES AND ORDINANCES AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS FOR WIRELESS TOWER SITES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND ABIDING BY ALL REQUIRED PERMITS.
2. ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TOWER AND FOUNDATION CONSTRUCTION.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY OF ANY INSTALLATION INTERFERENCES. ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. DETAILS NOT SPECIFICALLY SHOWN ON THE DRAWINGS SHALL FOLLOW SIMILAR DETAILS FOR THIS JOB.
4. ANY SUBSTITUTIONS SHALL CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
5. ANY MANUFACTURED DESIGN ELEMENTS SHALL CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS AND SHOULD BE SIMILAR TO THOSE SHOWN. THESE DESIGN ELEMENTS MUST BE STAMPED BY AN ENGINEER PROFESSIONALLY REGISTERED IN THE STATE OF THE PROJECT, AND SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION.
6. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL CODES AND OSHA SAFETY REGULATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY, PER ANSI/TIA-322 AND ANSI/ASSE A10.48, TO PROVIDE A COMPLETE AND STABLE STRUCTURE AS SHOWN ON THESE DRAWINGS.
8. CONTRACTOR'S PROPOSED INSTALLATION SHALL NOT INTERFERE, NOR DENY ACCESS TO, ANY EXISTING OPERATIONAL AND SAFETY EQUIPMENT.

STRUCTURAL STEEL

1. ALL DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS, LATEST EDITION.
2. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
3. ALL U-BOLTS SHALL BE ASTM A36 OR EQUIVALENT, WITH LOCKING DEVICE, UNLESS NOTED OTHERWISE.
4. FIELD CUT EDGES, EXCEPT DRILLED HOLES, SHALL BE GROUND SMOOTH.
5. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES & GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.
6. ALL STRUCTURAL STEEL EMBEDDED IN THE CONCRETE SHALL BE APPLIED WITH (2) BRUSHED COATS OF POLYGUARD CA-9 MASTIC OR EQUIVALENT. REFER TO THE MANUFACTURER SPECIFICATIONS FOR SURFACE PREPARATION AND APPLICATION. APPLICATION OF POLYGUARD 400 WRAP IS NOT ESSENTIAL.
7. CONTRACTOR SHALL PERFORM WORK ON ONLY ONE (1) TOWER FACE AND REPLACE/REINFORCE ONE (1) BOLT/MEMBER AT A TIME.
8. ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.



PAINT

1. AS REQUIRED, CLEAN AND PAINT PROPOSED STEEL ACCORDING TO FAA ADVISORY CIRCULAR AC 70/7460-1L.

WELDING

1. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
2. ALL WELDS SHALL BE INSPECTED VISUALLY. IF DIRECTED BY ENGINEER OF RECORD, 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE (100% IF REJECTABLE DEFECTS ARE FOUND) TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
3. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
4. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER AND/OR BASE METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
5. IN CASES WHERE BASE METAL GRADE IS UNKNOWN, ALL WELDING ON LATTICE TOWERS SHALL BE DONE WITH E70XX ELECTRODES; ALL WELDING ON POLE STRUCTURES SHALL BE DONE WITH E80XX ELECTRODES, UNLESS NOTED OTHERWISE.
6. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING 1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

BOLT TIGHTENING PROCEDURE

1. STRUCTURAL CONNECTIONS TO BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH RCSC SPECIFICATIONS.
2. FLANGE BOLTS SHALL BE INSTALLED AND TIGHTENED USING DIRECT TENSION INDICATING (DTI) SQUIRTER WASHERS. DTI SQUIRTER WASHERS ARE TO BE INSTALLED AND ORIENTED / TIGHTENED PER MANUFACTURER SPECIFICATIONS TO ACHIEVE DESIRED LEVEL OF BOLT PRE-TENSION.
3. IN LIEU OF USING DTI SQUIRTER WASHERS, FLANGE BOLTS MAY BE TIGHTENED USING AISC / RCSC "TURN-OF-THE-NUT" METHOD, PENDING APPROVAL BY THE ENGINEER OF RECORD (EOR). TIGHTEN FLANGE BOLTS USING THE CHART BELOW:

BOLT LENGTHS UP TO AND INCLUDING FOUR DIAMETERS

1/2"	BOLTS UP TO AND INCLUDING 2.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
5/8"	BOLTS UP TO AND INCLUDING 2.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
3/4"	BOLTS UP TO AND INCLUDING 3.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
7/8"	BOLTS UP TO AND INCLUDING 3.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1"	BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/8"	BOLTS UP TO AND INCLUDING 4.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/4"	BOLTS UP TO AND INCLUDING 5.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-3/8"	BOLTS UP TO AND INCLUDING 5.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/2"	BOLTS UP TO AND INCLUDING 6.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT

BOLT LENGTHS OVER FOUR DIAMETERS BUT NOT EXCEEDING EIGHT DIAMETERS

1/2"	BOLTS 2.25 TO 4.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
5/8"	BOLTS 2.75 TO 5.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
3/4"	BOLTS 3.25 TO 6.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
7/8"	BOLTS 3.75 TO 7.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1"	BOLTS 4.25 TO 8.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/8"	BOLTS 4.75 TO 9.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/4"	BOLTS 5.25 TO 10.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-3/8"	BOLTS 5.75 TO 11.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/2"	BOLTS 6.25 TO 12.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT

4. SPLICE BOLTS SUBJECT TO DIRECT TENSION SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8.2.1 OF THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS", LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS PARAPHRASED AS FOLLOWS:

FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SUBSECTION 8.2.1 THROUGH 8.2.4.

8.2.1 TURN-OF-NUT PRETENSIONING
BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1, UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED. FOLLOWING THIS INITIAL OPERATION ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED ABOVE. DURING THE TIGHTENING OPERATION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY.

5. ALL OTHER BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1 OF THE SPECIFICATION.

ALL BOLT HOLES SHALL BE ALIGNED TO PERMIT INSERTION OF THE BOLTS WITHOUT UNDUE DAMAGE TO THE THREADS. BOLTS SHALL BE PLACED IN ALL HOLES WITH WASHERS POSITIONED AS REQUIRED AND NUTS THREADED TO COMPLETE THE ASSEMBLY. COMPACTING THE JOINT TO THE SNUG-TIGHT CONDITION SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT. THE SNUG-TIGHTENED CONDITION IS THE TIGHTNESS THAT IS ATTAINED WITH A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.

APPLICABLE CODES AND STANDARDS

1. ANSI/TIA: STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES, 222-H EDITION.
2. 2018 CONNECTICUT STATE BUILDING CODE.
3. 2015 INTERNATIONAL BUILDING CODE.
4. ACI 318: AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE. REFERENCE LATEST APPROPRIATE EDITION TO MATCH LOCAL AND/OR INTERNATIONAL BUILDING CODE(S) LISTED ABOVE.
5. CRSI: CONCRETE REINFORCING STEEL INSTITUTE, MANUAL OF STANDARD PRACTICE, LATEST EDITION.
6. AISC: AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUAL OF STEEL CONSTRUCTION, LATEST EDITION.
7. AWS: AMERICAN WELDING SOCIETY D1.1, STRUCTURAL WELDING CODE, LATEST EDITION.

SPECIAL INSPECTION

1. A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH IBC 2015, SECTION 1704 AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:

a) STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELD ONLY)

b) HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 EXTENSION FLANGE BOLTS TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD)
2. THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER IN ACCORDANCE WITH IBC 2015, SECTION 1704, UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM SUCH WORK WITHOUT THE SPECIAL INSPECTIONS.

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IBC GENERAL NOTES

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MODIFICATION INSPECTION NOTES

THE SPECIAL INSPECTION (SI) PROCEDURE IS INTENDED TO CONFIRM THAT CONSTRUCTION AND INSTALLATION MEETS ENGINEERING DESIGN, ATC PROCEDURES AND ATC STANDARD SPECIFICATIONS FOR WIRELESS TOWER SITES.

TO ENSURE THAT THE REQUIREMENTS OF THE SI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR AND THE INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED FROM AMERICAN TOWER CORPORATION (ATC). IT IS EXPECTED THAT EACH PARTY WILL PROACTIVELY REACH OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR AMERICAN TOWER POINT OF CONTACT.

SPECIAL INSPECTOR

THE SPECIAL INSPECTOR IS REQUIRED TO CONTACT THE GENERAL CONTRACTOR AS SOON AS RECEIVING A PO FROM ATC. UPON RECEIVING A PO FROM ATC THE SPECIAL INSPECTOR AT A MINIMUM MUST:

- REVIEW THE REQUIREMENTS OF THE SI CHECKLIST.
- WORK WITH THE GENERAL CONTRACTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS.
- ANY CONCERNS WITH THE SCOPE OF WORK OR PROJECT COMMITMENT MUST BE RELAYED TO THE ATC POINT OF CONTACT IMMEDIATELY.

THE SPECIAL INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTOR INSPECTION AND TEST REPORTS, REVIEWING THESE DOCUMENTS FOR ADHERENCE TO CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE SI REPORT TO AMERICAN TOWER CORPORATION.

GENERAL CONTRACTOR

THE GENERAL CONTRACTOR IS REQUIRED TO CONTACT THE SI INSPECTOR AS SOON AS RECEIVING A PO FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE SI CHECKLIST.
- WORK WITH THE SI TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS.
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS.

THE GENERAL CONTRACTOR SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE SI CHECKLIST.

SPECIAL INSPECTION CHECKLIST								
INSPECTION DOCUMENT	DESCRIPTION	INSPECTION TESTING REQUIRED	RESPONSIBILITY	SI REVIEW REQUIRED			INSPECTION FREQUENCY	
				PRE CX	DURING CX	POST CX	PERIODIC	CONTINUOUS
SPECIAL INSPECTION FIELD WORK & REPORT	DOCUMENTATION AND SITE VISIT CONDUCTED BY AN ATC APPROVED SPECIAL INSPECTOR AS REQUIRED BY ATC AND OTHER AUTHORITIES HAVING JURISDICTION. INSPECTION PARAMETERS TO FOLLOW ATC'S STANDARD SPECIFICATION FOR WIRELESS TOWER SITES.	✓	SI			✓		
ENGINEERING ASSEMBLY DRAWINGS	GC SHALL SUBMIT DRAWINGS TO SI FOR INCLUSION IN SI REPORT	✓	GC	✓				
FABRICATED MATERIAL VERIFICATION & INSPECTION	MTR AND OR MILL CERTIFICATIONS FOR SUPPLIED MATERIALS GC SHALL SUPPLY SI WITH REPORTS TO BE INCLUDED IN SI REPORT WHEN REQUIRED BY ATC	✓	SI	✓				
CERTIFIED WELD INSPECTION	INSPECTION AND REPORT OF STRUCTURAL WELDING PERFORMED DURING PROJECT COMPLETED BY A CWI AND INCLUDED WITHIN SI REPORT		GC / TA					
FOUNDATION INSPECTION & VERIFICATION	VISUAL OBSERVATION AND APPROVAL OF FOUNDATION EXCAVATION, REBAR PLACEMENT, CASING/SHORING/FORMING PLACEMENT, AND ANCHOR TEMPLATE AND ANCHOR PLACEMENT - TO BE SI APPROVED PRIOR TO CONCRETE POUR AND DOCUMENTED IN THE SI REPORT		SI					
ANCHOR, ROCK ANCHOR OR HELICAL PULL-OUT TEST	PULL TESTING OF INSTALLED ANCHORS TO BE COMPLETED AND DOCUMENTED IN SI REPORT		GC / TA					
CONCRETE INSPECTION & VERIFICATION	CONCRETE MIX DESIGN, SLUMP TEST, COMPRESSIVE TESTING, AND SAMPLE GATHERING TECHNIQUES ARE TO BE PROVIDED FOR INCLUSION IN THE SI REPORT. SI SHALL VERIFY CONCRETE PLACEMENT AS REQUIRED BY THE DESIGN DOCUMENTS (INSPECTION FREQUENCY IS MARKED CONTINUOUS)		GC / TA					
DYWIDAG PLACEMENT/ANCHOR BOLT EMBEDMENT - EPOXY/GROUT INSTALL	ANCHOR/BAR EMBEDMENT, HOLE SIZE, EPOXY/GROUT TYPE, INSTALLATION TEMPERATURE AND INSTALLATION SHALL BE VERIFIED BY THE SI AND INCLUDED IN THE SI REPORT	✓	GC / SI		✓			✓
BASE PLATE GROUT INSPECTION & VERIFICATION	BASE PLATE GROUTING TYPE AND PLACEMENT SHALL BE CONFIRMED BY THE SI AND INCLUDED IN THE SI REPORT		GC / SI					
EARTHWORK INSPECTION & VERIFICATION	EXCAVATION, FILL, SLOPE, GRADE AND OTHER EARTHWORK REQUIREMENTS PER PLANS SHALL BE VERIFIED BY THE SI AND INCLUDED IN THE SI REPORT		GC / TA					
COMPACTION VERIFICATION	CONTRACTOR SHALL PROVIDE AN INDEPENDENT THIRD PARTY CERTIFIED INSPECTION WHICH PROVIDES TEST RESULTS FOR COMPACTION TEST OF SOILS IN PLACE TO ASTM STANDARDS.		GC / TA					
GROUND TESTING & VERIFICATION	GC SHALL PROVIDE DOCUMENTATION SHOWING THAT THE GROUNDING SYSTEM SHALL HAVE A MEASURED RESISTANCE TO THE GROUND OF NOT MORE THAN THE RECOMMENDED 10 OHMS. PER THE ATC CONSTRUCTION SPECIFICATION UNDER SECTION 2.15 THIS DOCUMENTATION MUST BE AN INDEPENDENT CERTIFICATION.		GC					
STEEL CONSTRUCTION INSPECTION & VERIFICATION	VISUAL OBSERVATION AND APPROVAL OF STEEL CONSTRUCTION TO BE PERFORMED BY THE SI. INSPECTION TO INCLUDE VERIFICATION OF NEW CONSTRUCTION OR MODIFICATION OF EXISTING CONSTRUCTION PER ENGINEERED PLANS. DETAILED VERIFICATION SHALL BE INCLUDED IN SI REPORT.	✓	SI			✓	✓	
ON-SITE COLD GALVANIZING VERIFICATION	SI SHALL VERIFY WITH GC ALL COLD GALVANIZATION TYPE AND APPLICATION AND INCLUDE SUMMARY IN SI REPORT	✓	GC			✓	✓	
GUY WIRE TENSIONING & TOWER ALIGNMENT REPORT	GC SHALL PROVIDE SI EVIDENCE OF PROPER GUY TENSIONING AND TOWER PLUMB PER PLANS. SI SHALL VERIFY AND INCLUDE PLUMB AND TENSION REPORTING IN SI REPORT.		GC					
GC AS-BUILT DRAWINGS WITH CONSTRUCTION RED-LINES	GC SHALL SUBMIT "AS-BUILT" DRAWINGS INDICATING ANY APPROVED CHANGES TO ENGINEERED PLANS TO SI FOR APPROVAL/REVIEW AND INCLUSION IN SI REPORT	✓	GC			✓		
SI AS-BUILT DRAWINGS WITH INSPECTION RED-LINES (AS REQUIRED)	SI SHALL SUBMIT "AS-BUILT" DRAWINGS INDICATING ANY APPROVED CHANGES TO ENGINEERED PLANS WITHIN SI REPORT	✓	SI			✓		
TIA INSPECTION	SI SHALL COMPLETE TIA INSPECTION AND PROVIDE SEPARATE TIA INSPECTION DOCUMENTATION TO ATC CM		SI					
PHOTOGRAPHS	PHOTOGRAPHIC EVIDENCE OF SPECIAL INSPECTION, ON SITE REMEDIATION, AND ITEMS FAILING INSPECTION & REQUIRING FOLLOW UP TO BE INCLUDED WITHIN THE SI REPORT. COMPLETE PHOTO LOG IS TO BE SUBMITTED WITHIN SI REPORT.	✓	GC / SI			✓		
NOTE: SPECIAL INSPECTIONS ARE INTENDED TO BE A COLLABORATIVE EFFORT BETWEEN GC AND SI. WHENEVER POSSIBLE GC IS TO PROVIDE SI WITH PHOTOGRAPHIC OR OTHER ACCEPTABLE EVIDENCE OF PROPER INSTALLATION IF PERIODIC INSPECTION FREQUENCY IS ACCEPTABLE. THE GC AND SI SHALL WORK TO COMPILE EVIDENCE OF PROPER CONSTRUCTION AND LIMIT THE NUMBER OF SI SITE VISITS REQUIRED.								
TABLE KEY: SI - ATC APPROVED SPECIAL INSPECTOR CX - CONSTRUCTION GC - GENERAL CONTRACTOR CM - CONSTRUCTION MANAGER TA - 3RD PARTY TESTING AGENCY ATC - AMERICAN TOWER CORPORATION								



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SPECIAL INSPECTION CHECKLIST

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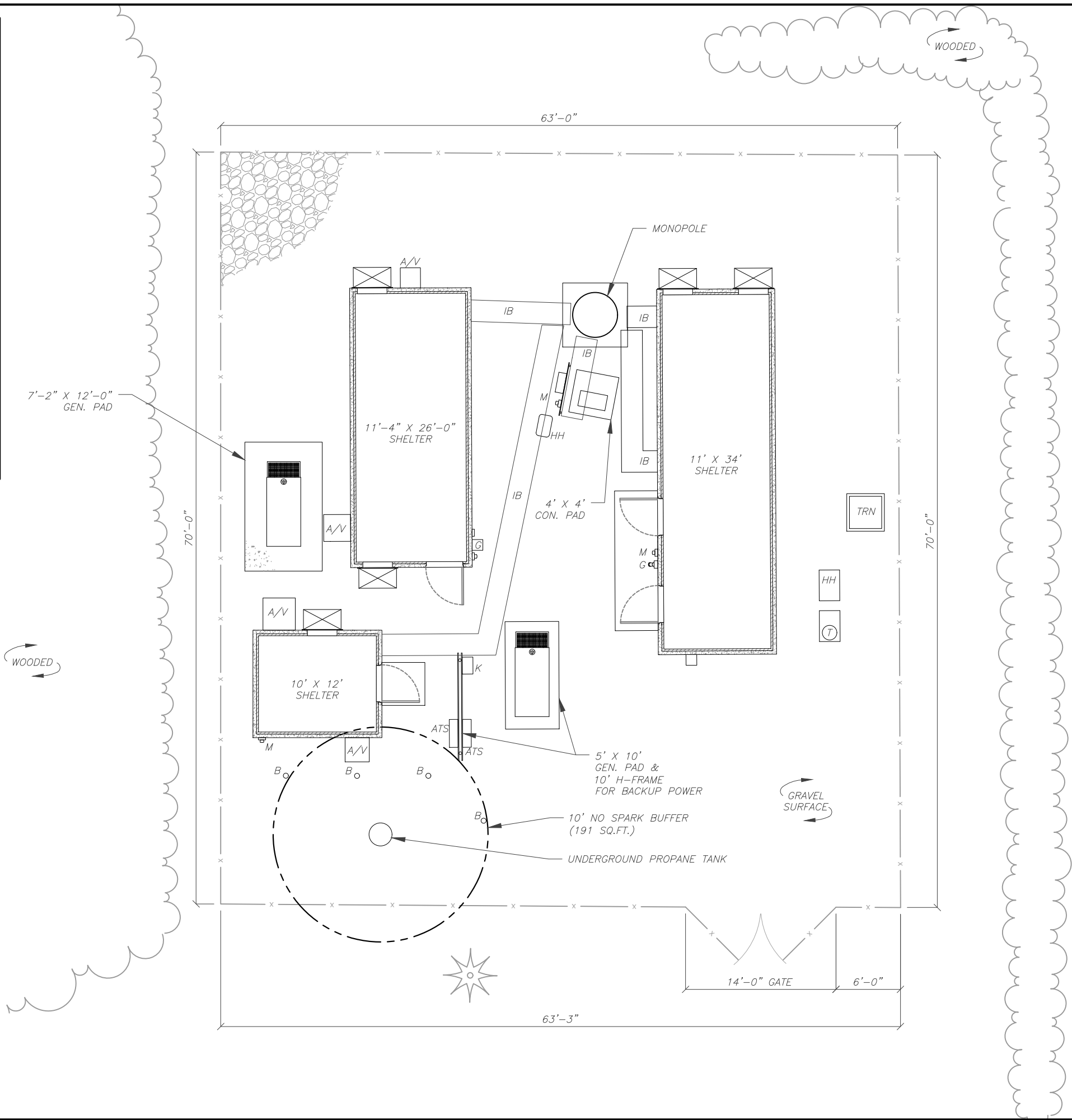
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TRN

GROUNDING TEST WELL
AIR VENT
AUTOMATIC TRANSFER SWITCH
BOLLARD
CABINET
COAX SHROUD
CELL SITE CABINET
DISCONNECT
ELECTRICAL
FIBER
GENERATOR
GENERATOR RECEPTACLE
HAND HOLE, VAULT
HYDROGEN FUEL CELL
HYDROGEN STORAGE MATERIAL
ICE BRIDGE
KENTROX BOX
LIGHTING CONTROL
LIQUID PROPANE GAS
METER
OVERHEAD WIRE
POWER
PULL BOX
POWER POLE
TELCO
TRANSFORMER
PROPERTY LINE
ADJACENT PROPERTY LINE
LEASE AREA
EASEMENT
WOOD FENCE
WIRE FENCE
METAL FENCE
GUARD RAIL
CHAINLINK FENCE
ROAD (DIRT)
ROAD (STONE)
ROAD (PAVED)





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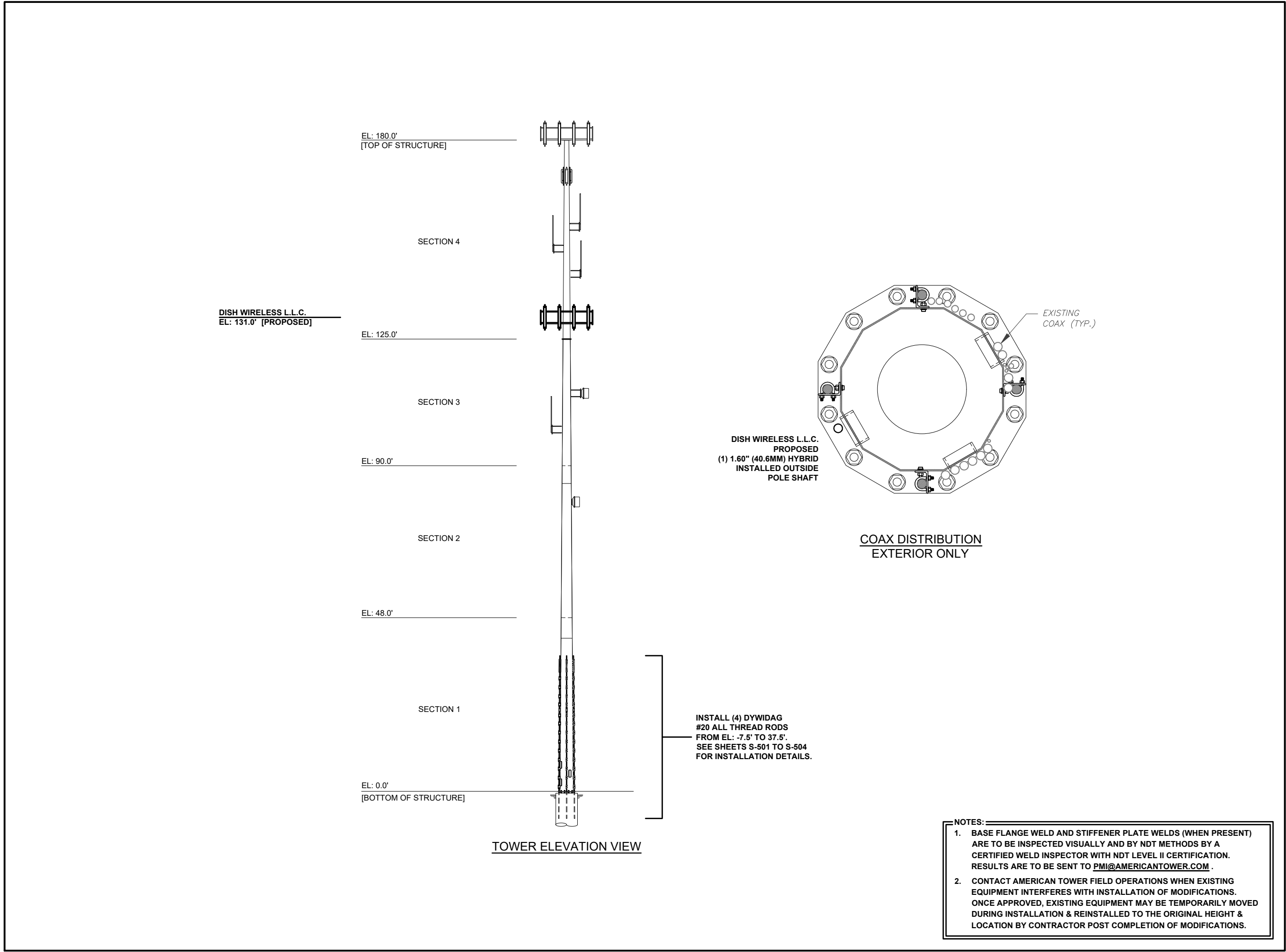
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297 NORTH STREET
PLYMOUTH, CT 06782



DRAWN BY:	NYG
APPROVED BY:	CLJ
DATE DRAWN:	04/13/22
ATC JOB NO:	13701212_C6_05

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0





AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NYG	04/13/22

ATC SITE NUMBER:
302501

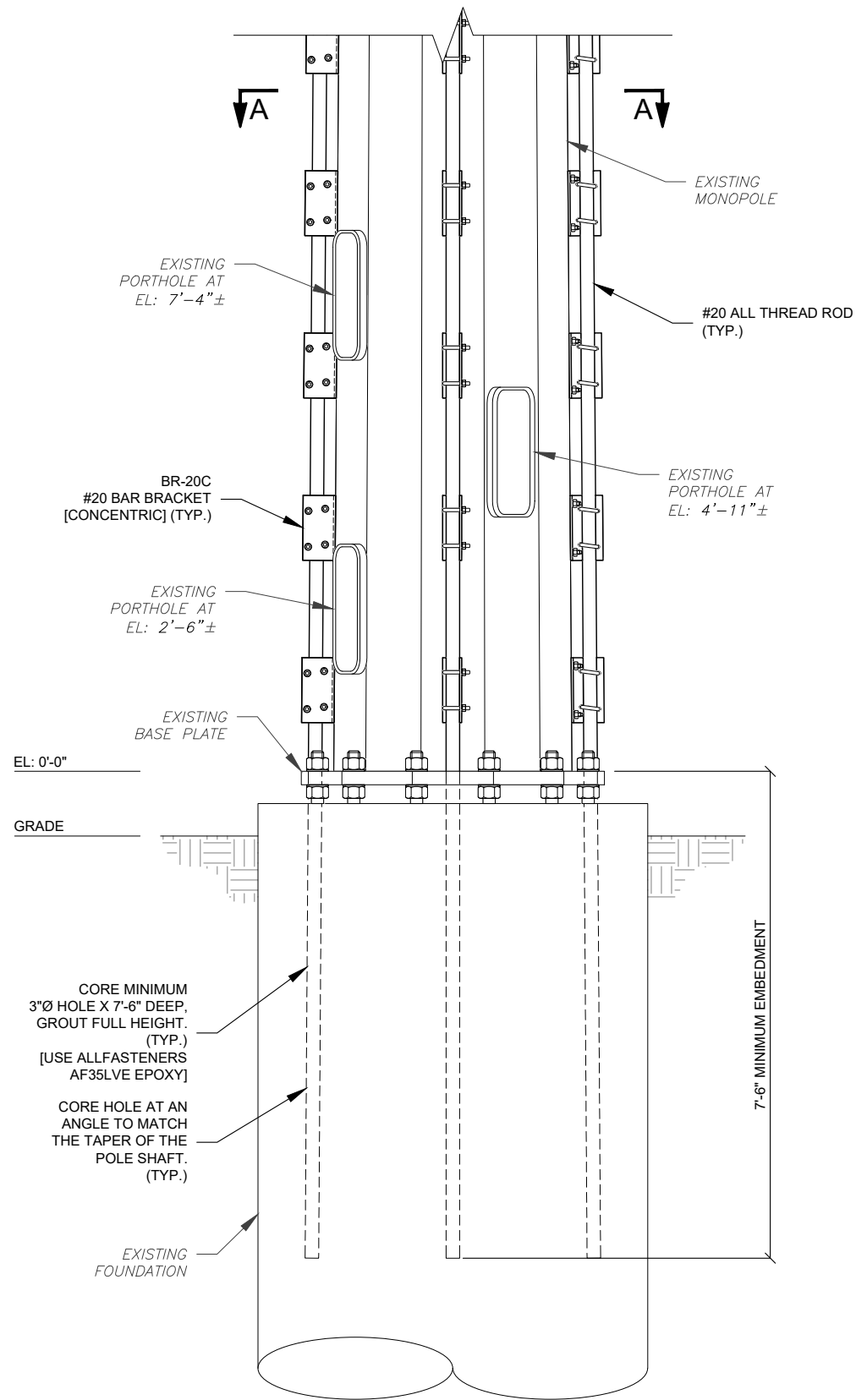
ATC SITE NAME:
PLYMOUTH CT 3
CONNECTICUT

SITE ADDRESS:
297 NORTH STREET
PLYMOUTH, CT 06782



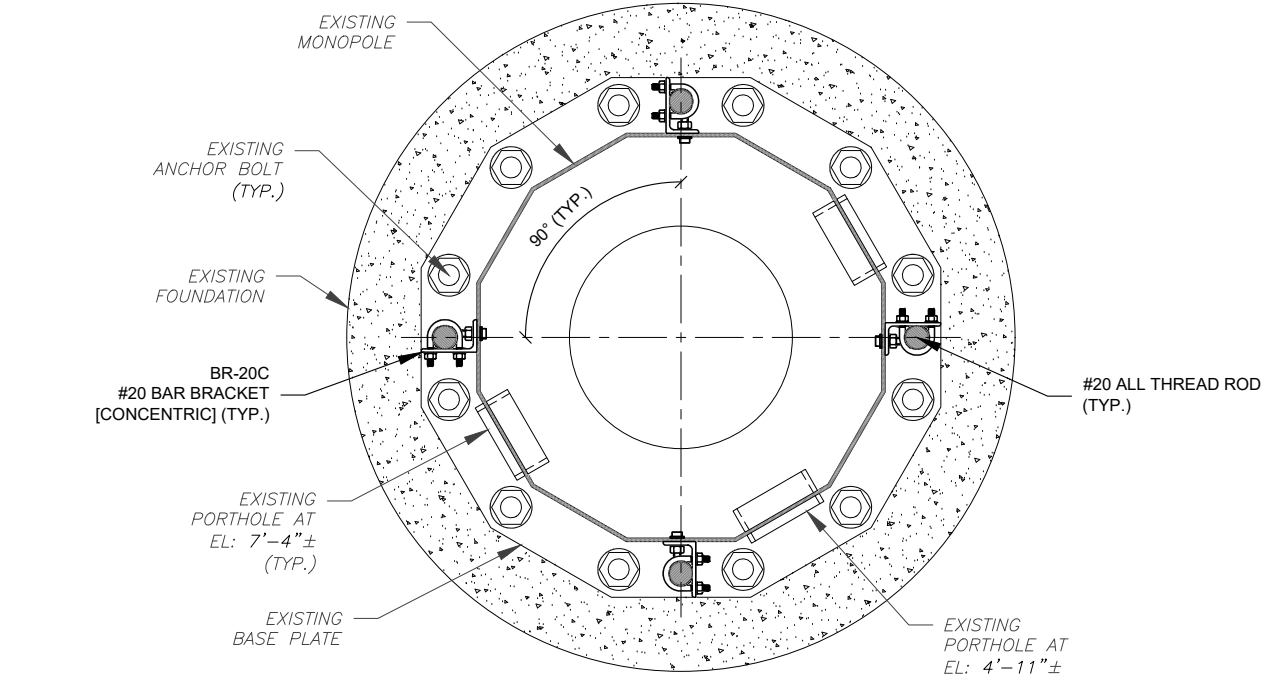
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ATC JOB NO:	13701212_C6_05

MODIFICATION PROFILE	
SHEET NUMBER: S-201	REVISION: 0

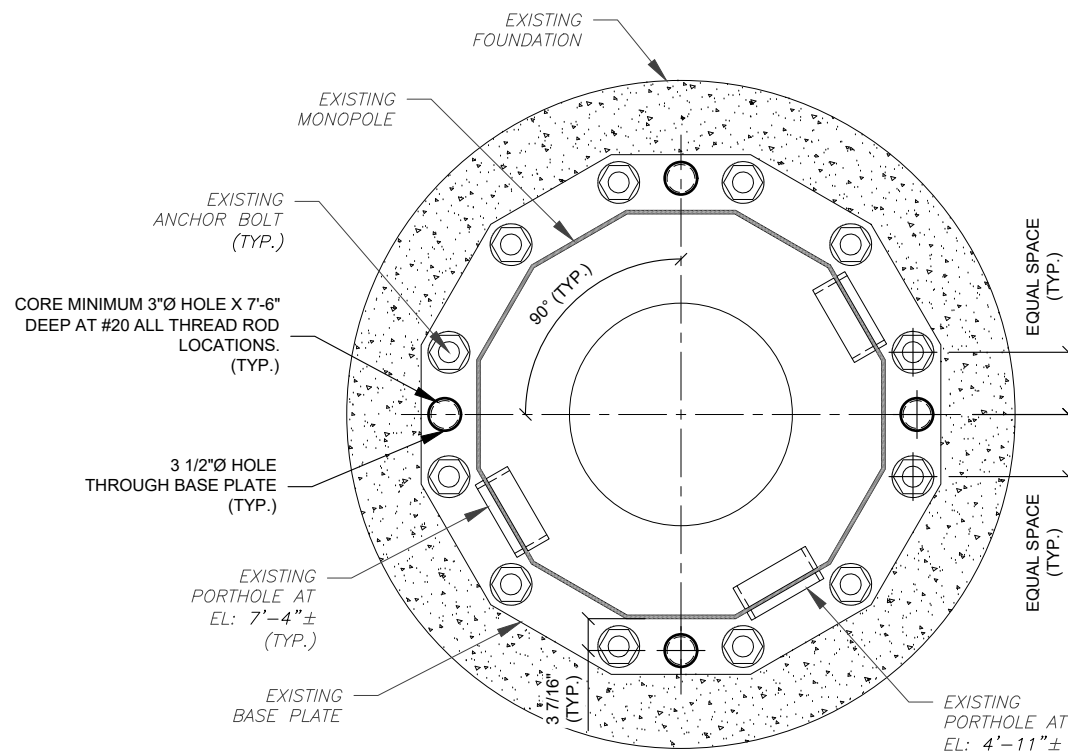


ELEVATION VIEW
FOUNDATION DETAIL

NOTE:
CONTRACTOR TO CONTACT ENGINEER OF RECORD IF
EXISTING REBAR IS ENCOUNTERED DURING CORING.



PLAN VIEW
SECTION "A-A"



PLAN VIEW
HOLE DRILL DETAIL



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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NYG	04/13/22
1			
2			
3			
4			

ATC SITE NUMBER:

302501

ATC SITE NAME:

PLYMOUTH CT 3

CONNECTICUT

SITE ADDRESS:

297 NORTH STREET
PLYMOUTH, CT 06782



DRAWN BY:	NYG
APPROVED BY:	CLJ
DATE DRAWN:	04/13/22
ATC JOB NO:	13701212_C6_05

FOUNDATION DETAILS

SHEET NUMBER:

S-501

REVISION:

0



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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NYG	04/13/22

ATC SITE NUMBER:

302501

ATC SITE NAME:

PLYMOUTH CT 3

CONNECTICUT

SITE ADDRESS:

297 NORTH STREET
PLYMOUTH, CT 06782



DRAWN BY:	NYG
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ATC JOB NO:	13701212_C6_05

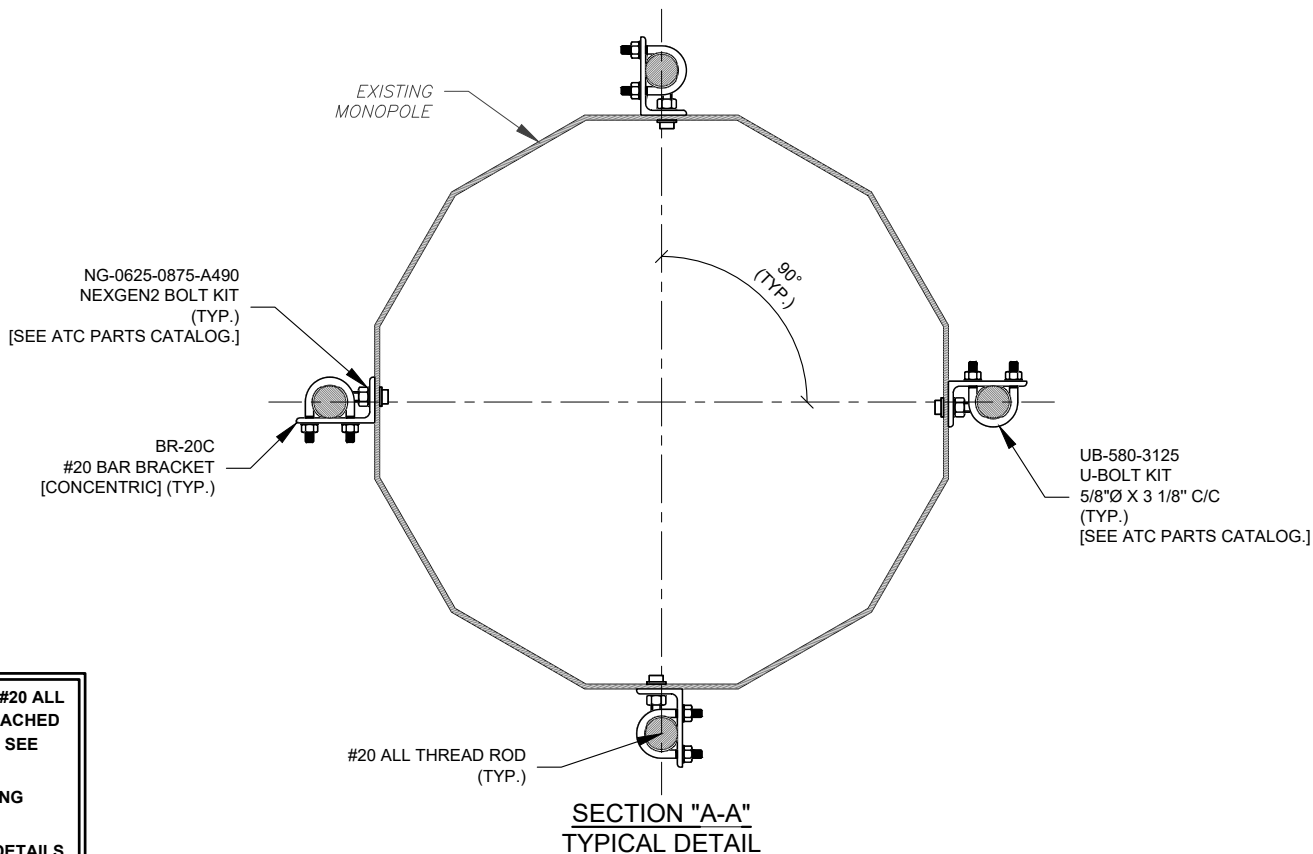
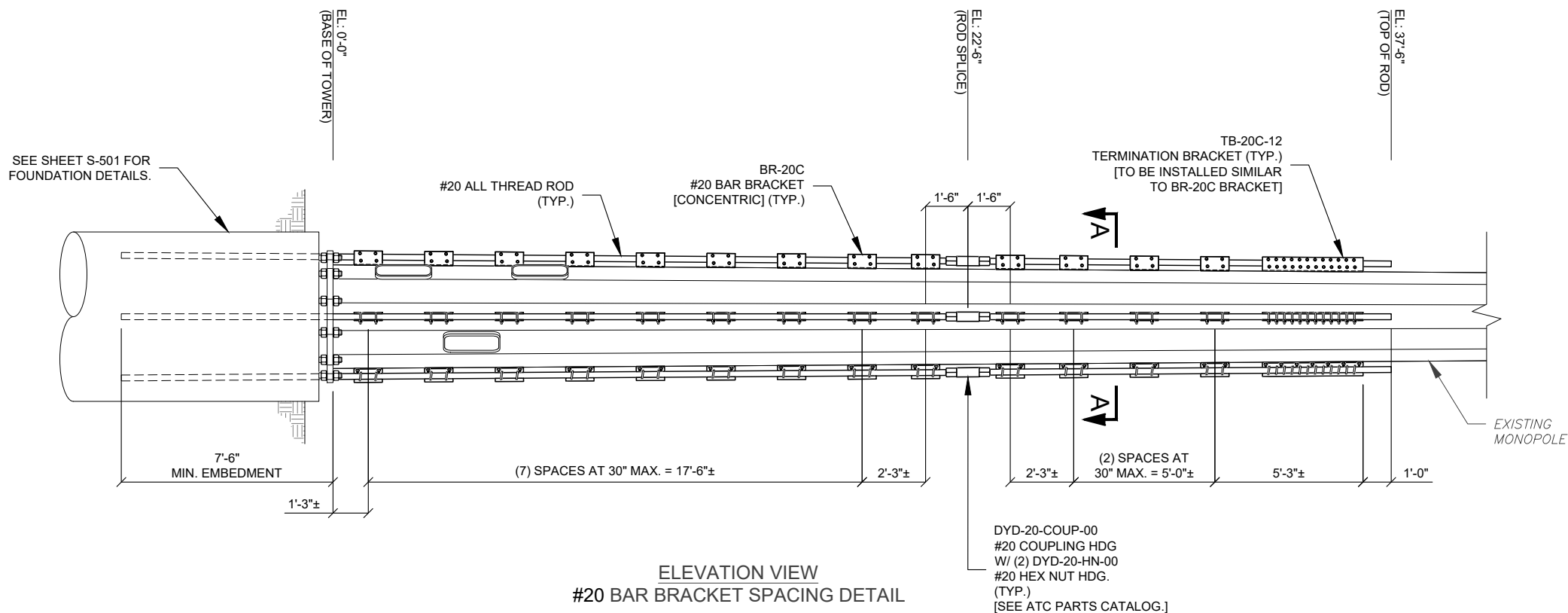
REINFORCEMENT INSTALLATION DETAILS

SHEET NUMBER:

S-502

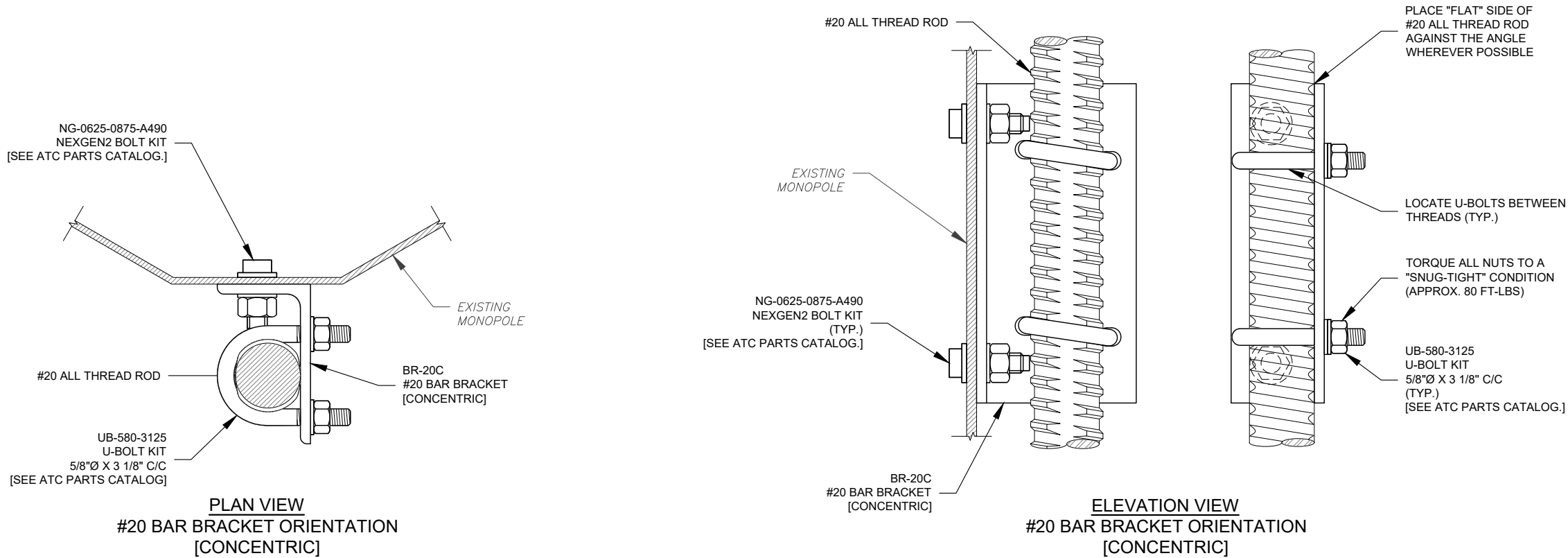
REVISION:

0



NOTES:

- REPLACE ANY EXISTING STEP BOLTS THAT INTERFERE WITH THE NEW #20 ALL THREAD ROD REINFORCEMENTS. THE NEW STEP BOLTS SHALL BE ATTACHED TO THE #20 ALL THREAD RODS IN THE SAME APPROXIMATE LOCATION. SEE SHEET S-504 FOR INSTALLATION DETAILS.
- PLACE A BRACKET (BR-20C) DIRECTLY ABOVE AND BELOW ANY EXISTING PORTHOLE AS REQUIRED.
- SEE SHEET S-503 FOR #20 ALL THREAD ROD BRACKET INSTALLATION DETAILS.
- NG-0938-1438-A490 NEXGEN2 BOLT KITS ARE SUPPLIED AS REQUIRED FOR BAR BRACKET CONNECTIONS THAT FALL WITHIN SLIP JOINT LOCATIONS.



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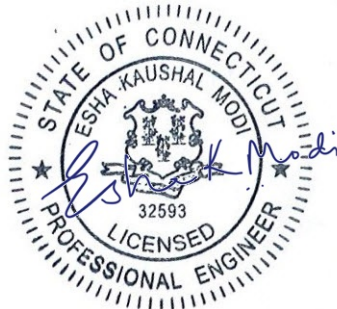
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NYG	04/13/22

ATC SITE NUMBER:
302501

ATC SITE NAME:
PLYMOUTH CT 3

CONNECTICUT

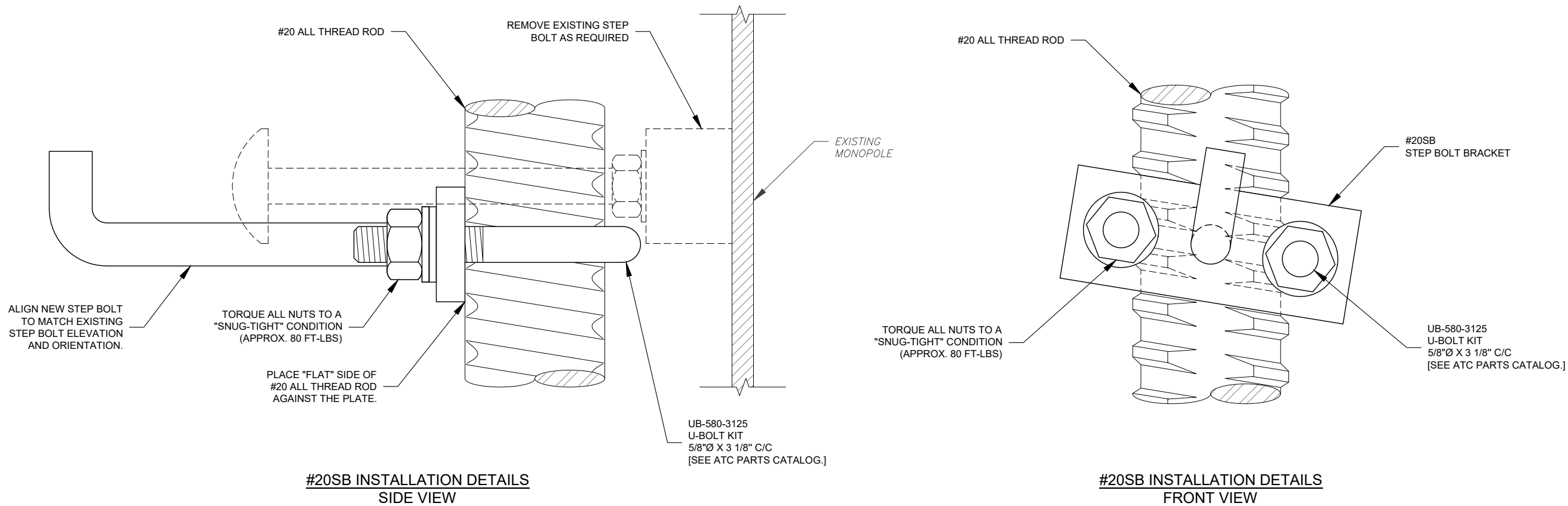
SITE ADDRESS:
297 NORTH STREET
PLYMOUTH, CT 06782



DRAWN BY:	NYG
APPROVED BY:	CLJ
DATE DRAWN:	04/13/22
ATC JOB NO:	13701212_C6_05

**REINFORCEMENT
INSTALLATION DETAILS
(CONT'D)**

SHEET NUMBER:	REVISION:
S-503	0



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0	FIRST ISSUE	NYG	04/13/22

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302501

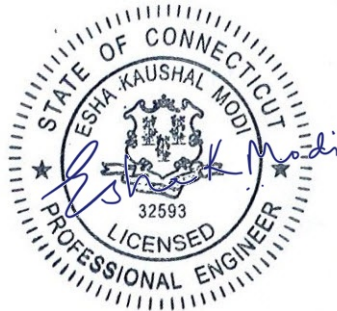
ATC SITE NAME:

PLYMOUTH CT 3

CONNECTICUT

SITE ADDRESS:

297 NORTH STREET
PLYMOUTH, CT 06782



DRAWN BY:	NYG
APPROVED BY:	CLJ
DATE DRAWN:	04/13/22
ATC JOB NO:	13701212_C6_05

#20 STEP BOLT BRACKET
INSTALLATION DETAILS

SHEET NUMBER:

S-504

REVISION:

0

ENGINEERING:
STRUCTURAL ANALYSIS
MOUNT ANALYSIS



AMERICAN TOWER®
CORPORATION

Post – Modification Structural Analysis Report

Structure : 180 ft Monopole
ATC Site Name : Plymouth CT 3,CT
ATC Site Number : 302501
Engineering Number : 13701212_C4_05
Proposed Carrier : DISH WIRELESS L.L.C.
Carrier Site Name : BOHVN00143A
Carrier Site Number : BOHVN00143A
Site Location : 297 North Street
Plymouth, CT 06782-2009
41.6931, -73.0537
County : Litchfield
Date : May 13, 2022
Max Usage : 98%
Result : Pass

Prepared By:

Thomas Pham
Structural Engineer II

Reviewed By:



COA : PEC.0001553

Table of Contents

Introduction.....	3
Supporting Documents	3
Analysis	3
Conclusion	3
Existing and Reserved Equipment.....	4
Equipment to be Removed	4
Proposed Equipment	4
Structure Usages.....	5
Foundations	5
Deflection and Sway*	5
Standard Conditions	6
Calculations	Attached

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 180 ft Monopole to reflect the change in loading by DISH WIRELESS L.L.C..

Supporting Documents

Tower Drawings	Valmont Drawing #DC0732Z, dated January 30, 1991
Foundation Drawing	SNET Job #3C238, dated April 24, 1990
Geotechnical Report	GEOServices, LLC Project #21-07254, dated December 2, 2008
Modifications	ATC Project #13701212_C6_05, dated April 13, 2022 (Pending)

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	116 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	$S_s = 0.18$, $S_i = 0.05$
Site Class:	D - Stiff Soil - Default

****Wind load and Ice thickness have been reduced by applicable existing structure load modification factors in accordance with TIA-222-H, Annex S.**

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report. If the pending modifications cited in the supporting documents table are not completed, the results of this analysis are no longer valid, and Dish Wireless L.L.C. should contact American Tower's Site Manager for further direction on how to proceed.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
186.0	1	Generic 6' Omni		-	OTHER
185.0	3	CCI DMP65R-BU6DA	Triangular Platform with Handrails	(2) 0.39" (10mm) Fiber Trunk (4) 0.78" (19.7mm) 8 AWG 6 (6) 1 1/4" Coax (2) 2" conduit	AT&T MOBILITY
	3	CCI HPA-65R-BUU-H6			
	3	Ericsson RRUS 32 B2			
	3	Ericsson RRUS 4449 B5, B12			
	3	Powerwave Allgon 7770.00			
	2	Raycap DC6-48-60-18-8F ("Squid")			
	6	Powerwave Allgon LGP21401			
	3	CCI OPA65R-BU6D			
	3	Ericsson RRUS 4478 B14			
177.0	1	Radio Waves HPD2-4.7NS	Flush	(4) 0.405" (10.3mm) Coax (1) 1/2" Coax	TOWN OF THOMASTON
	2	Motorola PTP 800 ODU			
170.0	3	RFS APXV18-206517S-C	Flush	(6) 1 5/8" Coax	METRO PCS INC
157.0	1	Sinclair SC479-HF1LDF	Stand-Off	(2) 1 5/8" Coax	CONNECTICUT STATE POLICE DEPT OF PUBLIC
156.0	1	Scala OGT9-840			
150.0	1	Bird 432-83H-01-T	Stand-Off	(1) 1/2" Coax	
144.0	2	Antel BCD-80609	Stand-Off	(4) 1 5/8" Coax	
143.0	1	Sinclair SC479-HF1LDF			
	1	Sinclair SC479-HF1LDF			
113.0	1	Lone Star Electronics LS-230	Side Arm	(2) 1/2" Coax	TOWN OF THOMASTON
110.0	2	Motorola PTP 800 ODU			
	1	Andrew VHLP2.6			
100.0	1	Bird FSA-10-67-DIN	Stand-Off	(1) 1/2" Coax	
88.0	2	Generic Radio/ODU	Flush	-	
80.0	1	Andrew Microwaves P6F-0-9-N7A	Flush	(1) 7/8" Coax	

Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
No loading was considered as removed as part of this analysis.					

Proposed Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
131.0	1	Commscope RDIDC-9181-PF-48	Triangular Platform with Handrails	(1) 1.60" (40.6mm) Hybrid	DISH WIRELESS L.L.C.
	3	Fujitsu TA08025-B605			
	3	Fujitsu TA08025-B604			
	3	JMA Wireless MX08FRO665-21			

¹ Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed lines outside the pole shaft. Stacking lines is not allowed.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	76%	Pass
Shaft	98%	Pass
Base Plate	67%	Pass
Flange Plate	62%	Pass
Reinforcement	77%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	3214.0	72%
Axial (Kips)	42.0	36%
Shear (Kips)	28.0	40%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
177.0	Radio Waves HPD2-4.7NS	TOWN OF THOMASTON	5.010	3.410
131.0	Fujitsu TA08025-B605	DISH WIRELESS L.L.C.	2.564	2.550
	Fujitsu TA08025-B604			
	Commscope RDIDC-9181-PF-48			
	JMA Wireless MX08FRO665-21			
110.0	Andrew VHLP2.6	TOWN OF THOMASTON	1.723	2.050
80.0	Andrew Microwaves P6F-0-9-N7A	CONNECTICUT STATE POLICE DEPT OF PUBLIC	0.832	1.370

*Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H

Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

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

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

JOB INFORMATION

Asset : 302501, Plymouth CT 3
 Client : DISH WIRELESS L.L.C.
 Code : ANSI/TIA-222-H

Height : 180 ft
 Base Width : 44
 Shape : 12 Sides

SITE PARAMETERS

Nominal Wind: 113.06 mph wind with no ic **Topo Category:** 1
 Ice Wind: 48.73 mph wind with 0.850" **Topo Method:** Method 1
 Base Elev (ft): 0.00 **Taper :** 0.17000 (in/ft) **Topo Feature:**
 Structure Class: II **Exposure :** B **S_s :** 0.183 **S₁ :** 0.054

SECTION PROPERTIES

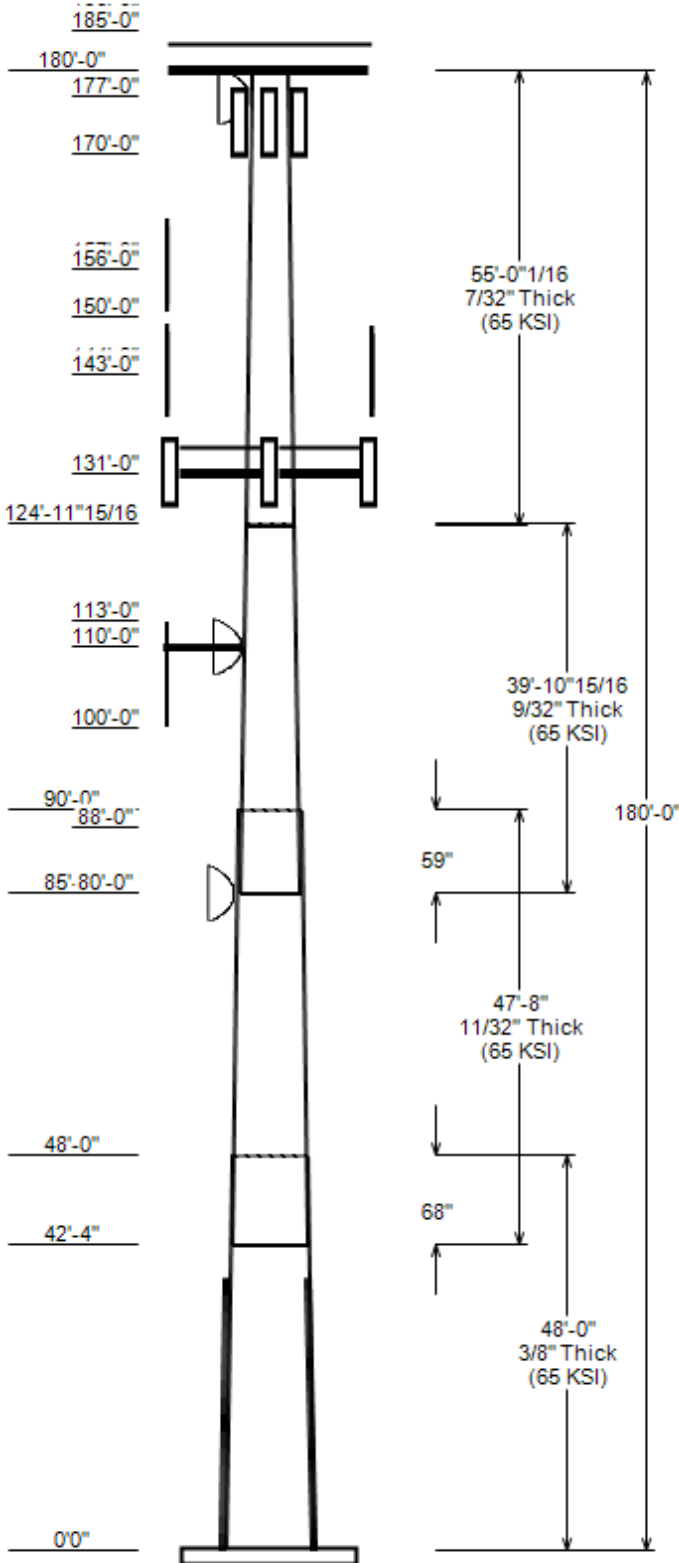
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
		Across Flats	Top Bottom					
1	48.000	35.84	44.00	0.375		0.000	12 Sides	65
2	47.667	29.39	37.49	0.344	Slip Joint	67.990	12 Sides	65
3	39.910	24.00	30.79	0.281	Slip Joint	59.000	12 Sides	65
4	55.006	14.65	24.00	0.219	Butt Joint	0.000	12 Sides	65

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
186.0	186.0	1	Generic 6' Omni
185.0	185.0	6	Powerwave Allgon LGP21401
185.0	185.0	2	Raycap DC6-48-60-18-8F ("Squid
185.0	185.0	3	Ericsson RRUS 4449 B5, B12
185.0	185.0	3	Ericsson RRUS 4478 B14
185.0	185.0	3	Ericsson RRUS 32 B2
185.0	185.0	3	Powerwave Allgon 7770.00
185.0	185.0	3	CCI HPA-65R-BUU-H6
185.0	185.0	3	CCI DMP65R-BU6DA
185.0	185.0	3	CCI OPA65R-BU6D
180.0	180.0	1	Generic Round Platform with Ha
177.0	177.0	2	Motorola PTP 800 ODU
177.0	177.0	1	Radio Waves HPD2-4.7NS
170.0	172.0	3	RFS APXV18-206517S-C
157.0	157.0	1	Sinclair SC479-HF1LDF
156.0	156.0	1	Scala OGT9-840
150.0	150.0	1	Bird 432-83H-01-T
150.0	150.0	2	Stand-Off
144.0	144.0	2	Antel BCD-80609
143.0	143.0	1	Sinclair SC479-HF1LDF
143.0	143.0	1	Sinclair SC479-HF1LDF
131.0	131.0	1	Commscope RDIDC-9181-PF-48
131.0	131.0	3	Fujitsu TA08025-B604
131.0	131.0	3	Fujitsu TA08025-B605
131.0	131.0	3	JMA Wireless MX08FRO665-21
131.0	131.0	1	Generic Flat Platform with Han
113.0	110.0	1	Lone Star Electronics LS-230
110.0	110.0	2	Motorola PTP 800 ODU
110.0	110.0	1	Flat Side Arm
110.0	110.0	1	Andrew VHLP2.6
100.0	102.0	1	Bird FSA-10-67-DIN
100.0	100.0	1	Stand-Off
88.0	88.0	2	Generic Radio/ODU
80.0	80.0	1	Andrew Microwaves P6F-0-9-N7A

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	185.0	2" conduit	No
0.0	185.0	1 1/4" Coax	No
0.0	185.0	0.78" (19.7mm) 8 AWG 6	No
0.0	185.0	0.39" (10mm) Fiber Trunk	No



JOB INFORMATION

Asset : 302501, Plymouth CT 3
 Client : DISH WIRELESS L.L.C.
 Code : ANSI/TIA-222-H

Height : 180 ft
 Base Width : 44
 Shape : 12 Sides

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	177.0	1/2" Coax	No
0.0	177.0	0.405" (10.3mm) Coax	No
0.0	170.0	1 5/8" Coax	Yes
0.0	157.0	1 5/8" Coax	Yes
0.0	156.0	1 5/8" Coax	Yes
0.0	150.0	1/2" Coax	Yes
0.0	144.0	1 5/8" Coax	Yes
0.0	143.0	1 5/8" Coax	No
0.0	143.0	1 5/8" Coax	No
0.0	131.0	1.60" (40.6mm) Hybrid	Yes
0.0	113.0	1/2" Coax	No
0.0	110.0	1/2" Coax	No
0.0	100.0	1/2" Coax	No
0.0	80.0	7/8" Coax	No
0.0	37.5	#20	Yes
0.0	37.5	#20	Yes
0.0	37.5	#20	Yes
0.0	37.5	#20	Yes

LOAD CASES

1.2D + 1.0W Normal	113.06 mph wind with no ice
0.9D + 1.0W Normal	113.06 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Nor	48.73 mph wind with 0.850" radial
1.2D + 1.0Ev + 1.0Eh Nor	Seismic
0.9D - 1.0Ev + 1.0Eh Nor	Seismic (Reduced DL)
1.0D + 1.0W Service Norm	60 mph Wind with No Ice

REACTIONS

Load Case	Moment (kip-ft)	Shear (Kip)	Axial (Kip)
1.2D + 1.0W Normal	3213.95	27.99	42.00
0.9D + 1.0W Normal	3141.58	27.98	31.50
1.2D + 1.0Di + 1.0Wi Normal	711.80	5.57	56.36
1.2D + 1.0Ev + 1.0Eh Normal	166.29	1.05	43.02
0.9D - 1.0Ev + 1.0Eh Normal	160.62	1.05	29.89
1.0D + 1.0W Service Normal	801.66	7.05	35.01

DISH DEFLECTIONS

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W Service Normal	80.00	9.979	1.367
1.0D + 1.0W Service Normal	110.00	20.676	2.054
1.0D + 1.0W Service Normal	177.00	60.119	3.414

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

ANALYSIS PARAMETERS

Location:	Litchfield County,CT	Height:	180 ft
Type and Shape:	Taper, 12 Sides	Base Diameter:	44.00 in
Manufacturer:	Valmont	Top Diameter:	14.65 in
K_d (non-service):	0.95	Taper:	0.1700 in/ft
K_e:	0.97	Rotation:	0.000°

ICE & WIND PARAMETERS

Exposure Category:	B	Design Wind Speed w/o Ice:	113 mph
Risk Category:	II	Design Wind Speed w/Ice:	49 mph
Topo Factor Procedure:	Method 1	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	0.85 in
Crest Height:	0 ft	HMSL:	818.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	3.71
T_L (sec):	6	P:	1
S_s:	0.183	S₁:	0.054
F_a:	1.600	F_v:	2.400
S_{ds}:	0.195	S_{d1}:	0.086
		C_s:	0.030
		C_s Max:	0.030
		C_s Min:	0.030

LOAD CASES

1.2D + 1.0W Normal	113.06 mph wind with no ice
0.9D + 1.0W Normal	113.06 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Normal	48.73 mph wind with 0.850" radial ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL)
1.0D + 1.0W Service Normal	60 mph Wind with No Ice

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint len (in)	Weight (lb)	Bottom						Top						Taper (in/ft)
							Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	
1-12	48.00	0.3750	65		0.00	7,799	44.00	0.000	52.68	12,796.2	28.76	117.33	35.84	48.00	42.82	6,875.0	22.93	95.57	0.1700
2-12	47.67	0.3438	65	Slip	67.99	5,942	37.49	42.333	41.12	7,243.0	26.54	109.05	29.39	90.00	32.15	3,461.8	20.22	85.48	0.1700
3-12	39.91	0.2813	65	Slip	59.00	3,334	30.79	85.080	27.63	3,281.8	26.65	109.44	24.00	124.99	21.49	1,542.9	20.18	85.32	0.1700
								124.99								270.3			
4-12	55.01	0.2188	65	Butt	0.00	2,519	24.00	4	16.76	1,209.6	26.71	109.69	14.65	180.00	10.17		15.26	66.96	0.1700
Shaft Weight							19,594												

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice			Ice		
					Weight (lb)	EPAA (sf)	Orientation Factor	Weight (lb)	EPAA (sf)	Orientation Factor
186.00	Generic 6' Omni	1	1.00	0.000	25.00	1.760	1.00	51.65	2.487	1.00
185.00	CCI OPA65R-BU6D	3	0.75	0.000	63.20	12.871	0.63	214.29	14.488	0.63
185.00	CCI HPA-65R-BUU-H6	3	0.75	0.000	51.00	9.658	0.64	177.84	11.261	0.64
185.00	CCI DMP65R-BU6DA	3	0.75	0.000	79.40	12.709	0.63	228.32	14.321	0.63
185.00	Powerwave Allgon 7770.00	3	0.75	0.000	35.00	5.508	0.65	105.61	6.098	0.65
185.00	Ericsson RRUS 32 B2	3	0.75	0.000	53.00	2.743	0.50	95.52	3.419	0.50
185.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.40	2.021	0.50	94.88	2.566	0.50
185.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	108.26	2.508	0.50
185.00	Raycap DC6-48-60-18-8F ("Squid	2	0.75	0.000	31.80	1.470	0.50	67.47	1.874	0.50
185.00	Powerwave Allgon LGP21401	6	0.75	0.000	14.10	1.104	0.50	28.52	1.517	0.50
180.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	3436.39	41.332	1.00
177.00	Radio Waves HPD2-4.7NS	1	1.00	0.000	27.00	3.960	0.63	74.97	4.637	0.63
177.00	Motorola PTP 800 ODU	2	1.00	0.000	10.10	0.919	0.50	23.73	1.288	0.50
170.00	RFS APXV18-206517S-C	3	1.00	2.000	26.40	5.160	0.64	79.66	6.520	0.64
157.00	Sinclair SC479-HF1LDF	1	1.00	0.000	34.00	5.030	1.00	104.79	7.959	1.00
156.00	Scala OGT9-840	1	1.00	0.000	18.50	2.270	1.00	72.04	4.596	1.00
150.00	Stand-Off	2	1.00	0.000	100.00	3.000	0.90	139.55	4.186	0.90
150.00	Bird 432-83H-01-T	1	1.00	0.000	25.00	1.400	0.50	49.61	1.845	0.50
144.00	Antel BCD-80609	2	1.00	0.000	26.50	2.947	1.00	90.05	5.253	1.00
143.00	Sinclair SC479-HF1LDF	1	1.00	0.000	34.00	5.030	1.00	104.13	7.932	1.00
143.00	Sinclair SC479-HF1LDF	1	1.00	0.000	34.00	5.030	1.00	104.13	7.932	1.00
131.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	3494.78	54.144	1.00
131.00	JMA Wireless MX08FRO665-21	3	0.75	0.000	64.50	12.489	0.64	208.43	14.063	0.64
131.00	Fujitsu TA08025-B604	3	0.75	0.000	63.90	1.962	0.50	96.56	2.477	0.50
131.00	Fujitsu TA08025-B605	3	0.75	0.000	75.00	1.962	0.50	110.08	2.477	0.50
131.00	Commscope RDIDC-9181-PF-48	1	0.75	0.000	21.90	1.867	1.00	53.77	2.371	1.00
113.00	Lone Star Electronics LS-230	1	1.00	-3.000	11.00	1.610	1.00	34.54	3.008	1.00
110.00	Andrew VHL P2.6	1	1.00	0.000	48.00	8.420	0.49	142.83	9.356	0.49
110.00	Flat Side Arm	1	1.00	0.000	150.00	6.300	1.00	190.25	7.652	1.00
110.00	Motorola PTP 800 ODU	2	1.00	0.000	10.10	0.919	0.50	23.10	1.271	0.50
100.00	Bird FSA-10-67-DIN	1	1.00	2.000	9.00	1.410	1.00	35.84	3.319	1.00
100.00	Stand-Off	1	1.00	0.000	0.00	3.000	1.00	0.00	4.139	1.00
88.00	Generic Radio/ODU	2	1.00	0.000	30.00	1.600	0.50	57.52	2.053	0.50
80.00	Andrew Microwaves P6F-0-9-N7A	1	1.00	0.000	134.00	52.839	1.00	409.05	55.428	1.00
Totals	Num Loadings: 34	67			7,998.40			13,891.08		

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg) : 350.00_

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	185.00	6	1 1/4" Coax	1.55	0.63	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	185.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	185.00	2	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	185.00	2	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	177.00	4	0.405" (10.3mm) Coax	0.41	0.11	N	0	0	0	0	0	N	TOWN OF THOMA
0.00	177.00	1	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	TOWN OF THOMA
0.00	170.00	6	1 5/8" Coax	1.98	0.82	N	6	0.5	0.5	280	0.5	Y	METRO PCS INC
0.00	157.00	1	1 5/8" Coax	1.98	0.82	N	1	1	1	95	0.5	Y	CONNECTICUT S
0.00	156.00	1	1 5/8" Coax	1.98	0.82	N	1	1	1	100	0.5	Y	CONNECTICUT S
0.00	150.00	1	1/2" Coax	0.63	0.15	N	1	1	1	105	0.5	Y	CONNECTICUT S

ASSET: 302501, Plymouth CT 3
 CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
 ENG NO: 13701212_C4_05

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	144.00	2	1 5/8" Coax	1.98	0.82	N	2	0.5	0.5	90	0.5	Y	CONNECTICUT S
0.00	143.00	1	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	CONNECTICUT S
0.00	143.00	1	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	CONNECTICUT S
0.00	131.00	1	1.60" (40.6mm) Hybrid	1.6	2.34	N	1	1	1	270	0.5	Y	DISH WIRELESS
0.00	113.00	1	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	TOWN OF THOMA
0.00	110.00	1	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	TOWN OF THOMA
0.00	100.00	1	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	TOWN OF THOMA
0.00	80.00	1	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	CONNECTICUT S
0.00	37.50	1	#20	4	4.68	N	1	0	0	180	0	Y	
0.00	37.50	1	#20	4	4.68	N	1	0	0	270	0	Y	
0.00	37.50	1	#20	4	4.68	N	1	0	0	0	0	Y	
0.00	37.50	1	#20	4	4.68	N	1	0	0	90	0	Y	

ADDITIONAL STEEL

Intermediate Connectors

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Description	Spacing (in)	Len (in)	Connectors	Continuation?
0.00	32.94	4	SOL #20 All Thread Bar	80	2.19	6" Angle Bracket	30.00	3.13	5/8" Hollo Bolt	N

ASSET: 302501, Plymouth CT 3
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CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

SEGMENT PROPERTIES

(Max Len: 1.ft)

Additional Reinforcing

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)	Area (in ²)	Ix (in ⁴)	Weight (lb)
0.00		0.3750	44.000	52.677	12,796.20	28.76	117.33	73.3	561.8	0.0	0.0	19.640	6,363.10	0.0
1.00		0.3750	43.830	52.472	12,647.10	28.64	116.88	73.5	557.4	0.0	178.9	19.640	6,320.70	66.8
2.00		0.3750	43.660	52.267	12,499.30	28.52	116.43	73.6	553.1	0.0	178.2	19.640	6,278.50	66.8
3.00		0.3750	43.490	52.061	12,352.60	28.40	115.97	73.7	548.7	0.0	177.5	19.640	6,236.30	66.8
4.00		0.3750	43.320	51.856	12,207.10	28.27	115.52	73.9	544.4	0.0	176.8	19.640	6,194.40	66.8
5.00		0.3750	43.150	51.651	12,062.70	28.15	115.07	74	540.1	0.0	176.1	19.640	6,152.50	66.8
6.00		0.3750	42.980	51.446	11,919.40	28.03	114.61	74.1	535.7	0.0	175.4	19.640	6,110.80	66.8
7.00		0.3750	42.810	51.240	11,777.30	27.91	114.16	74.3	531.5	0.0	174.7	19.640	6,069.30	66.8
8.00		0.3750	42.640	51.035	11,636.30	27.79	113.71	74.4	527.2	0.0	174.0	19.640	6,027.90	66.8
9.00		0.3750	42.470	50.830	11,496.50	27.67	113.25	74.5	522.9	0.0	173.3	19.640	5,986.60	66.8
10.00		0.3750	42.300	50.624	11,357.70	27.55	112.80	74.7	518.7	0.0	172.6	19.640	5,945.50	66.8
11.00		0.3750	42.130	50.419	11,220.10	27.42	112.35	74.8	514.5	0.0	171.9	19.640	5,904.50	66.8
12.00		0.3750	41.960	50.214	11,083.70	27.30	111.89	74.9	510.3	0.0	171.2	19.640	5,863.70	66.8
13.00		0.3750	41.790	50.009	10,948.30	27.18	111.44	75.1	506.1	0.0	170.5	19.640	5,823.00	66.8
14.00		0.3750	41.620	49.803	10,814.00	27.06	110.99	75.2	501.9	0.0	169.8	19.640	5,782.40	66.8
15.00		0.3750	41.450	49.598	10,680.80	26.94	110.53	75.3	497.8	0.0	169.1	19.640	5,742.00	66.8
16.00		0.3750	41.280	49.393	10,548.80	26.82	110.08	75.5	493.7	0.0	168.4	19.640	5,701.80	66.8
17.00		0.3750	41.110	49.188	10,417.80	26.69	109.63	75.6	489.6	0.0	167.7	19.640	5,661.60	66.8
18.00		0.3750	40.940	48.982	10,287.90	26.57	109.17	75.7	485.5	0.0	167.0	19.640	5,621.60	66.8
19.00		0.3750	40.770	48.777	10,159.10	26.45	108.72	75.9	481.4	0.0	166.3	19.640	5,581.80	66.8
20.00		0.3750	40.600	48.572	10,031.40	26.33	108.27	76	477.3	0.0	165.6	19.640	5,542.10	66.8
21.00		0.3750	40.430	48.366	9,904.70	26.21	107.81	76.1	473.3	0.0	164.9	19.640	5,502.50	66.8
22.00		0.3750	40.260	48.161	9,779.20	26.09	107.36	76.3	469.2	0.0	164.2	19.640	5,463.10	66.8
23.00		0.3750	40.090	47.956	9,654.60	25.97	106.91	76.4	465.2	0.0	163.5	19.640	5,423.80	66.8
24.00		0.3750	39.920	47.751	9,531.20	25.84	106.45	76.5	461.2	0.0	162.8	19.640	5,384.70	66.8
25.00		0.3750	39.750	47.545	9,408.80	25.72	106.00	76.7	457.3	0.0	162.1	19.640	5,345.70	66.8
26.00		0.3750	39.580	47.340	9,287.50	25.60	105.55	76.8	453.3	0.0	161.4	19.640	5,306.90	66.8
27.00		0.3750	39.410	47.135	9,167.20	25.48	105.09	76.9	449.4	0.0	160.7	19.640	5,268.20	66.8
28.00		0.3750	39.240	46.929	9,047.90	25.36	104.64	77.1	445.4	0.0	160.0	19.640	5,229.60	66.8
29.00		0.3750	39.070	46.724	8,929.70	25.24	104.19	77.2	441.5	0.0	159.3	19.640	5,191.20	66.8
30.00		0.3750	38.900	46.519	8,812.50	25.12	103.73	77.3	437.6	0.0	158.6	19.640	5,152.90	66.8
31.00		0.3750	38.730	46.314	8,696.40	24.99	103.28	77.5	433.8	0.0	157.9	19.640	5,114.70	66.8
32.00		0.3750	38.560	46.108	8,581.30	24.87	102.83	77.6	429.9	0.0	157.2	19.640	5,076.70	66.8
32.94	Reinf. Top	0.3750	38.400	45.915	8,474.00	24.76	102.40	77.7	426.3	0.0	147.2	19.640	5,041.10	62.8
33.00		0.3750	38.390	45.903	8,467.20	24.75	102.37	77.7	426.1	0.0	9.4			
34.00		0.3750	38.220	45.698	8,354.10	24.63	101.92	77.9	422.3	0.0	155.8			
35.00		0.3750	38.050	45.493	8,242.00	24.51	101.47	78	418.5	0.0	155.2			
36.00		0.3750	37.880	45.287	8,130.90	24.39	101.01	78.1	414.7	0.0	154.5			
37.00		0.3750	37.710	45.082	8,020.90	24.27	100.56	78.2	410.9	0.0	153.8			
38.00		0.3750	37.540	44.877	7,911.80	24.14	100.11	78.4	407.2	0.0	153.1			
39.00		0.3750	37.370	44.671	7,803.70	24.02	99.65	78.5	403.4	0.0	152.4			
40.00		0.3750	37.200	44.466	7,696.60	23.90	99.20	78.6	399.7	0.0	151.7			
41.00		0.3750	37.030	44.261	7,590.50	23.78	98.75	78.8	396.0	0.0	151.0			
42.00		0.3750	36.860	44.056	7,485.40	23.66	98.29	78.9	392.3	0.0	150.3			
42.33	Bot - Section 2	0.3750	36.803	43.987	7,450.50	23.62	98.14	79	391.1	0.0	50.1			
43.00		0.3750	36.690	43.850	7,381.30	23.54	97.84	79	388.6	0.0	192.5			
44.00		0.3750	36.520	43.645	7,278.10	23.42	97.39	79.2	385.0	0.0	288.0			
45.00		0.3750	36.350	43.440	7,175.90	23.29	96.93	79.3	381.4	0.0	286.7			
46.00		0.3750	36.180	43.235	7,074.60	23.17	96.48	79.4	377.8	0.0	285.4			
47.00		0.3750	36.010	43.029	6,974.30	23.05	96.03	79.6	374.2	0.0	284.0			
48.00	Top - Section 1	0.3438	36.528	40.057	6,694.10	25.79	106.25	76.6	354.0	0.0	282.7			
49.00		0.3438	36.358	39.869	6,600.10	25.66	105.75	76.7	350.7	0.0	136.0			
50.00		0.3438	36.188	39.680	6,507.10	25.52	105.26	76.9	347.4	0.0	135.3			
51.00		0.3438	36.018	39.492	6,415.00	25.39	104.76	77	344.1	0.0	134.7			
52.00		0.3438	35.848	39.304	6,323.70	25.26	104.27	77.2	340.8	0.0	134.1			
53.00		0.3438	35.678	39.116	6,233.30	25.13	103.77	77.3	337.5	0.0	133.4			
54.00		0.3438	35.508	38.928	6,143.80	24.99	103.28	77.5	334.3	0.0	132.8			
55.00		0.3438	35.338	38.739	6,055.10	24.86	102.79	77.6	331.0	0.0	132.1			
56.00		0.3438	35.168	38.551	5,967.30	24.73	102.29	77.7	327.8	0.0	131.5			

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

SEGMENT PROPERTIES

(Max Len: 1.ft)

Additional Reinforcing

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)	Area (in ²)	Ix (in ⁴)	Weight (lb)
57.00		0.3438	34.998	38.363	5,880.30	24.60	101.80	77.9	324.6	0.0	130.9			
58.00		0.3438	34.828	38.175	5,794.20	24.46	101.30	78	321.4	0.0	130.2			
59.00		0.3438	34.658	37.987	5,708.90	24.33	100.81	78.2	318.2	0.0	129.6			
60.00		0.3438	34.488	37.798	5,624.50	24.20	100.31	78.3	315.1	0.0	128.9			
61.00		0.3438	34.318	37.610	5,540.90	24.07	99.82	78.5	311.9	0.0	128.3			
62.00		0.3438	34.148	37.422	5,458.10	23.93	99.32	78.6	308.8	0.0	127.7			
63.00		0.3438	33.978	37.234	5,376.20	23.80	98.83	78.8	305.7	0.0	127.0			
64.00		0.3438	33.808	37.046	5,295.10	23.67	98.33	78.9	302.6	0.0	126.4			
65.00		0.3438	33.638	36.857	5,214.80	23.54	97.84	79	299.5	0.0	125.7			
66.00		0.3438	33.468	36.669	5,135.30	23.40	97.35	79.2	296.4	0.0	125.1			
67.00		0.3438	33.298	36.481	5,056.70	23.27	96.85	79.3	293.4	0.0	124.5			
68.00		0.3438	33.128	36.293	4,978.80	23.14	96.36	79.5	290.3	0.0	123.8			
69.00		0.3438	32.958	36.105	4,901.70	23.01	95.86	79.6	287.3	0.0	123.2			
70.00		0.3438	32.788	35.916	4,825.50	22.87	95.37	79.8	284.3	0.0	122.5			
71.00		0.3438	32.618	35.728	4,750.00	22.74	94.87	79.9	281.3	0.0	121.9			
72.00		0.3438	32.448	35.540	4,675.40	22.61	94.38	80.1	278.4	0.0	121.3			
73.00		0.3438	32.278	35.352	4,601.50	22.48	93.88	80.2	275.4	0.0	120.6			
74.00		0.3438	32.108	35.164	4,528.40	22.34	93.39	80.3	272.5	0.0	120.0			
75.00		0.3438	31.938	34.975	4,456.10	22.21	92.90	80.5	269.5	0.0	119.3			
76.00		0.3438	31.768	34.787	4,384.50	22.08	92.40	80.6	266.6	0.0	118.7			
77.00		0.3438	31.598	34.599	4,313.70	21.95	91.91	80.8	263.7	0.0	118.1			
78.00		0.3438	31.428	34.411	4,243.70	21.81	91.41	80.9	260.9	0.0	117.4			
79.00		0.3438	31.258	34.223	4,174.50	21.68	90.92	81.1	258.0	0.0	116.8			
80.00		0.3438	31.088	34.034	4,106.00	21.55	90.42	81.2	255.2	0.0	116.1			
81.00		0.3438	30.918	33.846	4,038.30	21.42	89.93	81.4	252.3	0.0	115.5			
82.00		0.3438	30.748	33.658	3,971.30	21.28	89.43	81.5	249.5	0.0	114.9			
83.00		0.3438	30.578	33.470	3,905.00	21.15	88.94	81.6	246.7	0.0	114.2			
84.00		0.3438	30.408	33.282	3,839.50	21.02	88.45	81.8	243.9	0.0	113.6			
85.00		0.3438	30.238	33.093	3,774.80	20.89	87.95	81.9	241.2	0.0	112.9			
85.08	Bot - Section 3	0.3438	30.223	33.078	3,769.30	20.88	87.91	81.9	240.9	0.0	9.5			
86.00		0.3438	30.068	32.905	3,710.70	20.75	87.46	81.9	238.4	0.0	188.7			
87.00		0.3438	29.898	32.717	3,647.40	20.62	86.96	81.9	235.7	0.0	204.9			
88.00		0.3438	29.728	32.529	3,584.80	20.49	86.47	81.9	233.0	0.0	203.8			
89.00		0.3438	29.558	32.341	3,523.00	20.36	85.97	81.9	230.3	0.0	202.6			
90.00		0.3438	29.388	32.152	3,461.80	20.22	85.48	81.9	227.6	0.0	201.4			
90.00	Top - Section 2	0.2813	29.950	26.874	3,019.30	25.85	106.47	76.5	194.8	0.0	0.2			
91.00		0.2813	29.780	26.720	2,967.70	25.69	105.87	76.7	192.5	0.0	91.1			
92.00		0.2813	29.610	26.566	2,916.70	25.53	105.26	76.9	190.3	0.0	90.7			
93.00		0.2813	29.440	26.412	2,866.30	25.36	104.66	77.1	188.1	0.0	90.1			
94.00		0.2813	29.270	26.258	2,816.50	25.20	104.05	77.2	185.9	0.0	89.6			
95.00		0.2813	29.100	26.104	2,767.20	25.04	103.45	77.4	183.7	0.0	89.1			
96.00		0.2813	28.930	25.950	2,718.50	24.88	102.84	77.6	181.5	0.0	88.6			
97.00		0.2813	28.760	25.796	2,670.40	24.72	102.24	77.8	179.4	0.0	88.0			
98.00		0.2813	28.590	25.642	2,622.90	24.55	101.64	77.9	177.2	0.0	87.5			
99.00		0.2813	28.420	25.488	2,575.90	24.39	101.03	78.1	175.1	0.0	87.0			
100.00		0.2813	28.250	25.334	2,529.50	24.23	100.43	78.3	173.0	0.0	86.5			
101.00		0.2813	28.080	25.180	2,483.70	24.07	99.82	78.5	170.9	0.0	85.9			
102.00		0.2813	27.910	25.026	2,438.40	23.91	99.22	78.6	168.8	0.0	85.4			
103.00		0.2813	27.740	24.872	2,393.60	23.74	98.61	78.8	166.7	0.0	84.9			
104.00		0.2813	27.570	24.718	2,349.50	23.58	98.01	79	164.6	0.0	84.4			
105.00		0.2813	27.400	24.564	2,305.80	23.42	97.41	79.2	162.6	0.0	83.8			
106.00		0.2813	27.230	24.410	2,262.70	23.26	96.80	79.3	160.5	0.0	83.3			
107.00		0.2813	27.060	24.256	2,220.20	23.10	96.20	79.5	158.5	0.0	82.8			
108.00		0.2813	26.890	24.102	2,178.20	22.93	95.59	79.7	156.5	0.0	82.3			
109.00		0.2813	26.720	23.948	2,136.70	22.77	94.99	79.9	154.5	0.0	81.8			
110.00		0.2813	26.550	23.794	2,095.70	22.61	94.38	80.1	152.5	0.0	81.2			
111.00		0.2813	26.380	23.640	2,055.30	22.45	93.78	80.2	150.5	0.0	80.7			
112.00		0.2813	26.210	23.486	2,015.40	22.29	93.18	80.4	148.5	0.0	80.2			
113.00		0.2813	26.040	23.332	1,976.00	22.12	92.57	80.6	146.6	0.0	79.7			

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

SEGMENT PROPERTIES

(Max Len: 1.ft)

Additional Reinforcing

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)	Area (in ²)	Ix (in ⁴)	Weight (lb)
114.00		0.2813	25.870	23.178	1,937.20	21.96	91.97	80.8	144.7	0.0	79.1			
115.00		0.2813	25.700	23.024	1,898.80	21.80	91.36	80.9	142.7	0.0	78.6			
116.00		0.2813	25.530	22.870	1,861.00	21.64	90.76	81.1	140.8	0.0	78.1			
117.00		0.2813	25.360	22.716	1,823.60	21.48	90.15	81.3	138.9	0.0	77.6			
118.00		0.2813	25.190	22.562	1,786.80	21.32	89.55	81.5	137.0	0.0	77.0			
119.00		0.2813	25.020	22.408	1,750.50	21.15	88.94	81.6	135.2	0.0	76.5			
120.00		0.2813	24.850	22.254	1,714.60	20.99	88.34	81.8	133.3	0.0	76.0			
121.00		0.2813	24.680	22.100	1,679.30	20.83	87.74	81.9	131.4	0.0	75.5			
122.00		0.2813	24.510	21.946	1,644.40	20.67	87.13	81.9	129.6	0.0	74.9			
123.00		0.2813	24.340	21.792	1,610.00	20.51	86.53	81.9	127.8	0.0	74.4			
124.00		0.2813	24.170	21.638	1,576.10	20.34	85.92	81.9	126.0	0.0	73.9			
124.99	Top - Section 3	0.2813	24.001	21.485	1,542.90	20.18	85.32	81.9	124.2	0.0	72.9			
124.99	Bot - Section 4	0.2188	24.001	16.756	1,209.60	26.71	109.69	75.6	97.4	0.0				
125.00		0.2188	24.000	16.755	1,209.50	26.71	109.69	75.6	97.4	0.0	0.3			
126.00		0.2188	23.830	16.635	1,183.70	26.50	108.91	75.8	96.0	0.0	56.8			
127.00		0.2188	23.660	16.515	1,158.30	26.30	108.14	76	94.6	0.0	56.4			
128.00		0.2188	23.490	16.395	1,133.30	26.09	107.36	76.3	93.2	0.0	56.0			
129.00		0.2188	23.320	16.276	1,108.70	25.88	106.58	76.5	91.8	0.0	55.6			
130.00		0.2188	23.150	16.156	1,084.40	25.67	105.81	76.7	90.5	0.0	55.2			
131.00		0.2188	22.980	16.036	1,060.40	25.46	105.03	76.9	89.1	0.0	54.8			
132.00		0.2188	22.810	15.916	1,036.80	25.25	104.25	77.2	87.8	0.0	54.4			
133.00		0.2188	22.640	15.797	1,013.60	25.05	103.47	77.4	86.5	0.0	54.0			
134.00		0.2188	22.470	15.677	990.70	24.84	102.70	77.6	85.2	0.0	53.5			
135.00		0.2188	22.300	15.557	968.20	24.63	101.92	77.9	83.9	0.0	53.1			
136.00		0.2188	22.130	15.437	946.00	24.42	101.14	78.1	82.6	0.0	52.7			
137.00		0.2188	21.960	15.318	924.20	24.21	100.37	78.3	81.3	0.0	52.3			
138.00		0.2188	21.790	15.198	902.70	24.01	99.59	78.5	80.0	0.0	51.9			
139.00		0.2188	21.620	15.078	881.50	23.80	98.81	78.8	78.8	0.0	51.5			
140.00		0.2188	21.450	14.958	860.60	23.59	98.04	79	77.5	0.0	51.1			
141.00		0.2188	21.280	14.838	840.10	23.38	97.26	79.2	76.3	0.0	50.7			
142.00		0.2188	21.110	14.719	820.00	23.17	96.48	79.4	75.0	0.0	50.3			
143.00		0.2188	20.940	14.599	800.10	22.96	95.70	79.7	73.8	0.0	49.9			
144.00		0.2188	20.770	14.479	780.60	22.76	94.93	79.9	72.6	0.0	49.5			
145.00		0.2188	20.600	14.359	761.40	22.55	94.15	80.1	71.4	0.0	49.1			
146.00		0.2188	20.430	14.240	742.50	22.34	93.37	80.3	70.2	0.0	48.7			
147.00		0.2188	20.260	14.120	723.90	22.13	92.60	80.6	69.0	0.0	48.3			
148.00		0.2188	20.090	14.000	705.60	21.92	91.82	80.8	67.9	0.0	47.8			
149.00		0.2188	19.920	13.880	687.70	21.72	91.04	81	66.7	0.0	47.4			
150.00		0.2188	19.750	13.761	670.00	21.51	90.27	81.3	65.5	0.0	47.0			
151.00		0.2188	19.580	13.641	652.70	21.30	89.49	81.5	64.4	0.0	46.6			
152.00		0.2188	19.410	13.521	635.60	21.09	88.71	81.7	63.3	0.0	46.2			
153.00		0.2188	19.240	13.401	618.90	20.88	87.93	81.9	62.1	0.0	45.8			
154.00		0.2188	19.070	13.281	602.40	20.67	87.16	81.9	61.0	0.0	45.4			
155.00		0.2188	18.900	13.162	586.30	20.47	86.38	81.9	59.9	0.0	45.0			
156.00		0.2188	18.730	13.042	570.40	20.26	85.60	81.9	58.8	0.0	44.6			
157.00		0.2188	18.560	12.922	554.90	20.05	84.83	81.9	57.8	0.0	44.2			
158.00		0.2188	18.390	12.802	539.60	19.84	84.05	81.9	56.7	0.0	43.8			
159.00		0.2188	18.220	12.683	524.60	19.63	83.27	81.9	55.6	0.0	43.4			
160.00		0.2188	18.050	12.563	509.80	19.43	82.50	81.9	54.6	0.0	43.0			
161.00		0.2188	17.880	12.443	495.40	19.22	81.72	81.9	53.5	0.0	42.5			
162.00		0.2188	17.710	12.323	481.20	19.01	80.94	81.9	52.5	0.0	42.1			
163.00		0.2188	17.540	12.203	467.30	18.80	80.17	81.9	51.5	0.0	41.7			
164.00		0.2188	17.370	12.084	453.70	18.59	79.39	81.9	50.5	0.0	41.3			
165.00		0.2188	17.200	11.964	440.40	18.38	78.61	81.9	49.5	0.0	40.9			
166.00		0.2188	17.030	11.844	427.30	18.18	77.83	81.9	48.5	0.0	40.5			
167.00		0.2188	16.860	11.724	414.40	17.97	77.06	81.9	47.5	0.0	40.1			
168.00		0.2188	16.690	11.605	401.90	17.76	76.28	81.9	46.5	0.0	39.7			
169.00		0.2188	16.520	11.485	389.50	17.55	75.50	81.9	45.6	0.0	39.3			
170.00		0.2188	16.350	11.365	377.50	17.34	74.73	81.9	44.6	0.0	38.9			

SEGMENT PROPERTIES														
(Max Len: 1.ft)											<u>Additional Reinforcing</u>			
Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)	Area (in ²)	Ix (in ⁴)	Weight (lb)
171.00		0.2188	16.180	11.245	365.70	17.14	73.95	81.9	43.7	0.0	38.5			
172.00		0.2188	16.010	11.126	354.10	16.93	73.17	81.9	42.7	0.0	38.1			
173.00		0.2188	15.840	11.006	342.80	16.72	72.40	81.9	41.8	0.0	37.7			
174.00		0.2188	15.670	10.886	331.70	16.51	71.62	81.9	40.9	0.0	37.2			
175.00		0.2188	15.500	10.766	320.90	16.30	70.84	81.9	40.0	0.0	36.8			
176.00		0.2188	15.330	10.646	310.30	16.09	70.06	81.9	39.1	0.0	36.4			
177.00		0.2188	15.160	10.527	300.00	15.89	69.29	81.9	38.2	0.0	36.0			
178.00		0.2188	14.990	10.407	289.80	15.68	68.51	81.9	37.4	0.0	35.6			
179.00		0.2188	14.820	10.287	279.90	15.47	67.73	81.9	36.5	0.0	35.2			
180.00		0.2188	14.650	10.167	270.30	15.26	66.96	81.9	35.6	0.0	34.8			
Totals:										19,596.2		2,200.4		

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

Load Case: 1.2D + 1.0W Normal	113.06 mph wind with no ice	42 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.20		
Wind Load Factor: 1.00		

CALCULATED FORCES

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 (deg)	Ratio
0.00	-42.00	-27.99	0.00	-3,214.0	0.00	3,213.95	3,477.38	924.48	3,804.54	3,090.64	0	0	0.704
1.00	-41.63	-27.90	0.00	-3,186.0	0.00	3,185.96	3,470.08	920.88	3,774.95	3,072.04	0.01	-0.05	0.701
2.00	-41.25	-27.82	0.00	-3,158.1	0.00	3,158.06	3,462.74	917.28	3,745.48	3,053.44	0.02	-0.1	0.698
3.00	-40.88	-27.74	0.00	-3,130.2	0.00	3,130.24	3,455.35	913.68	3,716.13	3,034.85	0.05	-0.14	0.695
4.00	-40.51	-27.66	0.00	-3,102.5	0.00	3,102.50	3,447.91	910.07	3,686.89	3,016.27	0.08	-0.19	0.692
5.00	-40.14	-27.57	0.00	-3,074.8	0.00	3,074.84	3,440.42	906.47	3,657.77	2,997.70	0.13	-0.24	0.689
6.00	-39.78	-27.49	0.00	-3,047.3	0.00	3,047.27	3,432.88	902.87	3,628.76	2,979.14	0.18	-0.29	0.686
7.00	-39.41	-27.40	0.00	-3,019.8	0.00	3,019.78	3,425.29	899.27	3,599.87	2,960.59	0.25	-0.33	0.682
8.00	-39.04	-27.32	0.00	-2,992.4	0.00	2,992.38	3,417.65	895.66	3,571.09	2,942.06	0.32	-0.38	0.679
9.00	-38.68	-27.23	0.00	-2,965.1	0.00	2,965.06	3,409.97	892.06	3,542.43	2,923.53	0.41	-0.43	0.676
10.00	-38.31	-27.15	0.00	-2,937.8	0.00	2,937.83	3,402.23	888.46	3,513.88	2,905.01	0.5	-0.48	0.673
11.00	-37.95	-27.06	0.00	-2,910.7	0.00	2,910.68	3,394.45	884.86	3,485.45	2,886.51	0.61	-0.53	0.670
12.00	-37.59	-26.97	0.00	-2,883.6	0.00	2,883.62	3,386.61	881.25	3,457.14	2,868.02	0.73	-0.57	0.666
13.00	-37.23	-26.88	0.00	-2,856.6	0.00	2,856.65	3,378.73	877.65	3,428.94	2,849.54	0.85	-0.62	0.663
14.00	-36.86	-26.80	0.00	-2,829.8	0.00	2,829.77	3,370.80	874.05	3,400.85	2,831.08	0.99	-0.67	0.660
15.00	-36.51	-26.71	0.00	-2,803.0	0.00	2,802.97	3,362.82	870.45	3,372.89	2,812.63	1.13	-0.72	0.657
16.00	-36.15	-26.62	0.00	-2,776.3	0.00	2,776.27	3,354.79	866.84	3,345.03	2,794.20	1.29	-0.77	0.654
17.00	-35.79	-26.53	0.00	-2,749.6	0.00	2,749.65	3,346.72	863.24	3,317.30	2,775.78	1.45	-0.82	0.650
18.00	-35.43	-26.44	0.00	-2,723.1	0.00	2,723.12	3,338.59	859.64	3,289.67	2,757.38	1.63	-0.86	0.647
19.00	-35.08	-26.35	0.00	-2,696.7	0.00	2,696.68	3,330.41	856.04	3,262.17	2,738.99	1.82	-0.91	0.644
20.00	-34.72	-26.26	0.00	-2,670.3	0.00	2,670.34	3,322.19	852.43	3,234.78	2,720.63	2.01	-0.96	0.641
21.00	-34.37	-26.16	0.00	-2,644.1	0.00	2,644.08	3,313.92	848.83	3,207.50	2,702.28	2.22	-1.01	0.637
22.00	-34.02	-26.07	0.00	-2,617.9	0.00	2,617.92	3,305.59	845.23	3,180.34	2,683.94	2.44	-1.06	0.634
23.00	-33.67	-25.98	0.00	-2,591.8	0.00	2,591.84	3,297.22	841.63	3,153.30	2,665.63	2.66	-1.11	0.631
24.00	-33.32	-25.89	0.00	-2,565.9	0.00	2,565.87	3,288.80	838.02	3,126.37	2,647.33	2.9	-1.16	0.627
25.00	-32.97	-25.79	0.00	-2,540.0	0.00	2,539.98	3,280.33	834.42	3,099.55	2,629.06	3.15	-1.2	0.624
26.00	-32.62	-25.70	0.00	-2,514.2	0.00	2,514.19	3,271.82	830.82	3,072.86	2,610.80	3.41	-1.25	0.621
27.00	-32.27	-25.60	0.00	-2,488.5	0.00	2,488.49	3,263.25	827.21	3,046.27	2,592.57	3.68	-1.3	0.617
28.00	-31.92	-25.51	0.00	-2,462.9	0.00	2,462.89	3,254.63	823.61	3,019.81	2,574.36	3.95	-1.35	0.614
29.00	-31.58	-25.41	0.00	-2,437.4	0.00	2,437.38	3,245.97	820.01	2,993.46	2,556.16	4.24	-1.4	0.611
30.00	-31.24	-25.31	0.00	-2,412.0	0.00	2,411.97	3,237.25	816.41	2,967.22	2,537.99	4.54	-1.45	0.607
31.00	-30.89	-25.22	0.00	-2,386.7	0.00	2,386.66	3,228.49	812.80	2,941.10	2,519.85	4.85	-1.5	0.604
32.00	-30.55	-25.12	0.00	-2,361.4	0.00	2,361.44	3,219.68	809.20	2,915.09	2,501.72	5.17	-1.55	0.601
32.94	-30.24	-25.07	0.00	-2,337.8	0.00	2,337.83	3,211.35	805.82	2,890.75	2,484.71	5.48	-1.59	0.597
32.94	-30.24	-25.07	0.00	-2,337.8	0.00	2,337.83	3,211.35	805.82	2,890.75	2,484.71	5.48	-1.59	0.951
33.00	-30.21	-25.02	0.00	-2,336.3	0.00	2,336.33	3,210.82	805.60	2,889.20	2,483.62	5.5	-1.59	0.951
34.00	-29.93	-24.94	0.00	-2,311.3	0.00	2,311.31	3,201.91	802.00	2,863.43	2,465.55	5.84	-1.67	0.948
35.00	-29.66	-24.85	0.00	-2,286.4	0.00	2,286.37	3,192.95	798.39	2,837.77	2,447.50	6.2	-1.75	0.944
36.00	-29.39	-24.76	0.00	-2,261.5	0.00	2,261.52	3,183.94	794.79	2,812.23	2,429.47	6.57	-1.83	0.941
37.00	-29.12	-24.67	0.00	-2,236.8	0.00	2,236.75	3,174.88	791.19	2,786.80	2,411.47	6.97	-1.91	0.938
38.00	-28.86	-24.60	0.00	-2,212.1	0.00	2,212.08	3,165.78	787.59	2,761.49	2,393.50	7.37	-1.99	0.934
39.00	-28.62	-24.54	0.00	-2,187.5	0.00	2,187.48	3,156.62	783.98	2,736.29	2,375.55	7.8	-2.07	0.931
40.00	-28.37	-24.48	0.00	-2,162.9	0.00	2,162.94	3,147.42	780.38	2,711.21	2,357.63	8.24	-2.15	0.927
41.00	-28.13	-24.42	0.00	-2,138.5	0.00	2,138.46	3,138.17	776.78	2,686.24	2,339.74	8.7	-2.22	0.924
42.00	-27.90	-24.38	0.00	-2,114.0	0.00	2,114.04	3,128.87	773.18	2,661.39	2,321.87	9.17	-2.3	0.920
42.33	-27.81	-24.35	0.00	-2,105.9	0.00	2,105.89	3,125.75	771.97	2,653.11	2,315.91	9.34	-2.33	0.919
43.00	-27.53	-24.29	0.00	-2,089.7	0.00	2,089.68	3,119.52	769.57	2,636.66	2,304.04	9.66	-2.38	0.917
44.00	-27.12	-24.22	0.00	-2,065.4	0.00	2,065.38	3,110.12	765.97	2,612.04	2,286.23	10.17	-2.46	0.913
45.00	-26.72	-24.15	0.00	-2,041.2	0.00	2,041.16	3,100.67	762.37	2,587.53	2,268.46	10.7	-2.55	0.909
46.00	-26.31	-24.07	0.00	-2,017.0	0.00	2,017.01	3,091.17	758.77	2,563.15	2,250.71	11.24	-2.63	0.906
47.00	-25.91	-24.00	0.00	-1,992.9	0.00	1,992.94	3,081.63	755.16	2,538.87	2,233.00	11.8	-2.71	0.902
48.00	-25.51	-23.92	0.00	-1,969.0	0.00	1,968.95	2,761.07	703.00	2,399.72	2,033.59	12.37	-2.79	0.979
49.00	-25.29	-23.85	0.00	-1,945.0	0.00	1,945.03	2,753.28	699.69	2,377.23	2,018.24	12.97	-2.87	0.974
50.00	-25.06	-23.78	0.00	-1,921.2	0.00	1,921.17	2,745.45	696.39	2,354.85	2,002.90	13.58	-2.95	0.969
51.00	-24.84	-23.71	0.00	-1,897.4	0.00	1,897.39	2,737.56	693.09	2,332.57	1,987.59	14.2	-3.03	0.965
52.00	-24.61	-23.64	0.00	-1,873.7	0.00	1,873.68	2,729.63	689.78	2,310.40	1,972.29	14.85	-3.12	0.960
53.00	-24.39	-23.57	0.00	-1,850.0	0.00	1,850.04	2,721.65	686.48	2,288.33	1,957.02	15.51	-3.2	0.955
54.00	-24.17	-23.50	0.00	-1,826.5	0.00	1,826.47	2,713.61	683.18	2,266.37	1,941.76	16.19	-3.29	0.951
55.00	-23.95	-23.43	0.00	-1,803.0	0.00	1,802.97	2,705.53	679.88	2,244.52	1,926.53	16.89	-3.37	0.946
56.00	-23.73	-23.35	0.00	-1,779.5	0.00	1,779.54	2,697.40	676.57	2,222.77	1,911.32	17.6	-3.45	0.941
57.00	-23.52	-23.28	0.00	-1,756.2	0.00	1,756.19	2,689.22	673.27	2,201.13	1,896.13	18.33	-3.54	0.936
58.00	-23.30	-23.20	0.00	-1,732.9	0.00	1,732.92	2,681.00	669.97	2,179.59	1,880.97	19.08	-3.62	0.931
59.00	-23.08	-23.12	0.00	-1,709.7	0.00	1,709.72	2,672.72	666.66	2,158.16	1,865.82	19.85	-3.71	0.926
60.00	-22.87	-23.05	0.00	-1,686.6	0.00	1,686.60	2,664.40	663.36	2,136.84	1,850.71	20.64	-3.79	0.921
61.00	-22.66	-22.97	0.00	-1,663.6	0.00	1,663.55	2,656.02	660.06	2,115.62	1,835.61	21.44	-3.88	0.916

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

133.00	-7.13	-10.47	0.00	-364.4	0.00	364.43	1,100.37	277.23	586.41	502.06	127.8	-10.46	0.734
134.00	-7.03	-10.37	0.00	-354.0	0.00	353.96	1,095.23	275.13	577.56	495.89	129.99	-10.56	0.722
135.00	-6.94	-10.26	0.00	-343.6	0.00	343.60	1,090.04	273.03	568.77	489.74	132.2	-10.66	0.709
136.00	-6.85	-10.16	0.00	-333.3	0.00	333.34	1,084.80	270.93	560.05	483.60	134.43	-10.76	0.697
137.00	-6.77	-10.06	0.00	-323.2	0.00	323.18	1,079.51	268.82	551.40	477.47	136.68	-10.86	0.685
138.00	-6.68	-9.95	0.00	-313.1	0.00	313.12	1,074.18	266.72	542.81	471.36	138.95	-10.96	0.672
139.00	-6.59	-9.85	0.00	-303.2	0.00	303.17	1,068.79	264.62	534.29	465.26	141.25	-11.06	0.659
140.00	-6.50	-9.75	0.00	-293.3	0.00	293.32	1,063.36	262.52	525.84	459.18	143.56	-11.15	0.646
141.00	-6.42	-9.65	0.00	-283.6	0.00	283.57	1,057.88	260.42	517.45	453.12	145.89	-11.25	0.633
142.00	-6.34	-9.54	0.00	-273.9	0.00	273.92	1,052.35	258.31	509.14	447.07	148.24	-11.34	0.620
143.00	-6.25	-9.07	0.00	-264.4	0.00	264.38	1,046.77	256.21	500.89	441.05	150.61	-11.44	0.607
144.00	-6.15	-8.74	0.00	-255.3	0.00	255.31	1,041.14	254.11	492.71	435.04	153	-11.53	0.594
145.00	-6.07	-8.64	0.00	-246.6	0.00	246.57	1,035.46	252.01	484.59	429.05	155.41	-11.62	0.582
146.00	-5.99	-8.55	0.00	-237.9	0.00	237.92	1,029.73	249.91	476.54	423.08	157.83	-11.71	0.569
147.00	-5.92	-8.45	0.00	-229.4	0.00	229.38	1,023.96	247.80	468.56	417.13	160.28	-11.8	0.557
148.00	-5.84	-8.35	0.00	-220.9	0.00	220.93	1,018.13	245.70	460.65	411.20	162.74	-11.89	0.544
149.00	-5.77	-8.25	0.00	-212.6	0.00	212.58	1,012.26	243.60	452.81	405.29	165.22	-11.98	0.531
150.00	-5.48	-7.88	0.00	-204.3	0.00	204.33	1,006.34	241.50	445.03	399.41	167.72	-12.06	0.518
151.00	-5.41	-7.78	0.00	-196.5	0.00	196.46	1,000.37	239.40	437.32	393.54	170.24	-12.15	0.506
152.00	-5.34	-7.68	0.00	-188.7	0.00	188.68	994.35	237.29	429.68	387.70	172.77	-12.23	0.493
153.00	-5.27	-7.58	0.00	-181.0	0.00	181.00	987.80	235.19	422.10	381.70	175.33	-12.31	0.481
154.00	-5.20	-7.48	0.00	-173.4	0.00	173.42	978.97	233.09	414.59	374.87	177.89	-12.39	0.469
155.00	-5.13	-7.39	0.00	-165.9	0.00	165.94	970.15	230.99	407.15	368.10	180.48	-12.48	0.457
156.00	-5.06	-7.20	0.00	-158.6	0.00	158.55	961.32	228.89	399.78	361.39	183.08	-12.55	0.445
157.00	-5.00	-6.92	0.00	-151.3	0.00	151.34	952.49	226.78	392.47	354.75	185.7	-12.63	0.433
158.00	-4.93	-6.84	0.00	-144.4	0.00	144.43	943.66	224.68	385.23	348.16	188.33	-12.71	0.421
159.00	-4.86	-6.77	0.00	-137.6	0.00	137.58	934.83	222.58	378.06	341.64	190.98	-12.78	0.409
160.00	-4.79	-6.70	0.00	-130.8	0.00	130.81	926.00	220.48	370.96	335.18	193.64	-12.85	0.396
161.00	-4.73	-6.62	0.00	-124.1	0.00	124.12	917.18	218.38	363.92	328.78	196.32	-12.93	0.384
162.00	-4.66	-6.55	0.00	-117.5	0.00	117.50	908.35	216.27	356.95	322.44	199.01	-12.99	0.370
163.00	-4.60	-6.47	0.00	-111.0	0.00	110.95	899.52	214.17	350.05	316.17	201.71	-13.06	0.357
164.00	-4.54	-6.40	0.00	-104.5	0.00	104.48	890.69	212.07	343.21	309.95	204.43	-13.13	0.343
165.00	-4.47	-6.32	0.00	-98.1	0.00	98.08	881.86	209.97	336.45	303.80	207.16	-13.19	0.329
166.00	-4.41	-6.25	0.00	-91.8	0.00	91.76	873.03	207.87	329.75	297.71	209.91	-13.25	0.314
167.00	-4.35	-6.17	0.00	-85.5	0.00	85.51	864.21	205.76	323.12	291.68	212.67	-13.31	0.299
168.00	-4.29	-6.10	0.00	-79.3	0.00	79.34	855.38	203.66	316.55	285.72	215.44	-13.37	0.284
169.00	-4.24	-6.02	0.00	-73.2	0.00	73.25	846.55	201.56	310.05	279.81	218.22	-13.42	0.268
170.00	-4.17	-5.56	0.00	-66.5	0.00	66.47	837.72	199.46	303.62	273.97	221.01	-13.47	0.248
171.00	-4.12	-5.50	0.00	-60.9	0.00	60.91	828.89	197.36	297.26	268.18	223.81	-13.52	0.233
172.00	-4.06	-5.44	0.00	-55.4	0.00	55.41	820.06	195.25	290.96	262.46	226.62	-13.57	0.217
173.00	-4.01	-5.38	0.00	-50.0	0.00	49.97	811.24	193.15	284.74	256.80	229.44	-13.61	0.200
174.00	-3.96	-5.32	0.00	-44.6	0.00	44.59	802.41	191.05	278.58	251.21	232.27	-13.65	0.183
175.00	-3.91	-5.26	0.00	-39.3	0.00	39.27	793.58	188.95	272.48	245.67	235.1	-13.68	0.166
176.00	-3.86	-5.20	0.00	-34.0	0.00	34.01	784.75	186.85	266.46	240.20	237.95	-13.72	0.147
177.00	-3.79	-5.00	0.00	-28.8	0.00	28.81	775.92	184.74	260.50	234.79	240.79	-13.75	0.128
178.00	-3.74	-4.94	0.00	-23.8	0.00	23.81	767.09	182.64	254.61	229.44	243.65	-13.77	0.109
179.00	-3.69	-4.88	0.00	-18.9	0.00	18.87	758.27	180.54	248.78	224.15	246.51	-13.79	0.090
180.00	0.00	-3.86	0.00	-14.0	0.00	13.98	749.44	178.44	243.03	218.92	249.37	-13.81	0.064

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

Load Case: 0.9D + 1.0W Normal	113.06 mph wind with no ice	42 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 0.90		
Wind Load Factor: 1.00		

CALCULATED FORCES

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 (deg)	Ratio
0.00	-31.50	-27.98	0.00	-3,141.6	0.00	3,141.58	3,477.38	924.48	3,804.54	3,090.64	0	0	0.686
1.00	-31.21	-27.89	0.00	-3,113.6	0.00	3,113.60	3,470.08	920.88	3,774.95	3,072.04	0.01	-0.05	0.683
2.00	-30.93	-27.80	0.00	-3,085.7	0.00	3,085.71	3,462.74	917.28	3,745.48	3,053.44	0.02	-0.09	0.680
3.00	-30.64	-27.71	0.00	-3,057.9	0.00	3,057.91	3,455.35	913.68	3,716.13	3,034.85	0.05	-0.14	0.677
4.00	-30.36	-27.62	0.00	-3,030.2	0.00	3,030.20	3,447.91	910.07	3,686.89	3,016.27	0.08	-0.19	0.674
5.00	-30.08	-27.52	0.00	-3,002.6	0.00	3,002.58	3,440.42	906.47	3,657.77	2,997.70	0.12	-0.23	0.671
6.00	-29.80	-27.43	0.00	-2,975.1	0.00	2,975.06	3,432.88	902.87	3,628.76	2,979.14	0.18	-0.28	0.667
7.00	-29.52	-27.34	0.00	-2,947.6	0.00	2,947.63	3,425.29	899.27	3,599.87	2,960.59	0.24	-0.33	0.664
8.00	-29.24	-27.24	0.00	-2,920.3	0.00	2,920.29	3,417.65	895.66	3,571.09	2,942.06	0.32	-0.37	0.661
9.00	-28.96	-27.15	0.00	-2,893.0	0.00	2,893.05	3,409.97	892.06	3,542.43	2,923.53	0.4	-0.42	0.658
10.00	-28.68	-27.06	0.00	-2,865.9	0.00	2,865.90	3,402.23	888.46	3,513.88	2,905.01	0.49	-0.47	0.655
11.00	-28.40	-26.96	0.00	-2,838.8	0.00	2,838.84	3,394.45	884.86	3,485.45	2,886.51	0.6	-0.51	0.651
12.00	-28.13	-26.87	0.00	-2,811.9	0.00	2,811.88	3,386.61	881.25	3,457.14	2,868.02	0.71	-0.56	0.648
13.00	-27.85	-26.77	0.00	-2,785.0	0.00	2,785.01	3,378.73	877.65	3,428.94	2,849.54	0.83	-0.61	0.645
14.00	-27.58	-26.68	0.00	-2,758.2	0.00	2,758.24	3,370.80	874.05	3,400.85	2,831.08	0.96	-0.65	0.642
15.00	-27.30	-26.58	0.00	-2,731.6	0.00	2,731.57	3,362.82	870.45	3,372.89	2,812.63	1.11	-0.7	0.638
16.00	-27.03	-26.48	0.00	-2,705.0	0.00	2,704.99	3,354.79	866.84	3,345.03	2,794.20	1.26	-0.75	0.635
17.00	-26.76	-26.39	0.00	-2,678.5	0.00	2,678.50	3,346.72	863.24	3,317.30	2,775.78	1.42	-0.8	0.632
18.00	-26.48	-26.29	0.00	-2,652.1	0.00	2,652.12	3,338.59	859.64	3,289.67	2,757.38	1.59	-0.84	0.629
19.00	-26.21	-26.19	0.00	-2,625.8	0.00	2,625.83	3,330.41	856.04	3,262.17	2,738.99	1.77	-0.89	0.625
20.00	-25.94	-26.09	0.00	-2,599.6	0.00	2,599.64	3,322.19	852.43	3,234.78	2,720.63	1.97	-0.94	0.622
21.00	-25.67	-26.00	0.00	-2,573.5	0.00	2,573.54	3,313.92	848.83	3,207.50	2,702.28	2.17	-0.98	0.619
22.00	-25.41	-25.90	0.00	-2,547.6	0.00	2,547.55	3,305.59	845.23	3,180.34	2,683.94	2.38	-1.03	0.615
23.00	-25.14	-25.80	0.00	-2,521.6	0.00	2,521.65	3,297.22	841.63	3,153.30	2,665.63	2.6	-1.08	0.612
24.00	-24.87	-25.70	0.00	-2,495.8	0.00	2,495.85	3,288.80	838.02	3,126.37	2,647.33	2.83	-1.13	0.609
25.00	-24.60	-25.60	0.00	-2,470.2	0.00	2,470.16	3,280.33	834.42	3,099.55	2,629.06	3.07	-1.17	0.605
26.00	-24.34	-25.50	0.00	-2,444.6	0.00	2,444.56	3,271.82	830.82	3,072.86	2,610.80	3.32	-1.22	0.602
27.00	-24.07	-25.40	0.00	-2,419.1	0.00	2,419.06	3,263.25	827.21	3,046.27	2,592.57	3.59	-1.27	0.599
28.00	-23.81	-25.30	0.00	-2,393.7	0.00	2,393.66	3,254.63	823.61	3,019.81	2,574.36	3.86	-1.32	0.595
29.00	-23.55	-25.20	0.00	-2,368.4	0.00	2,368.36	3,245.97	820.01	2,993.46	2,556.16	4.14	-1.36	0.592
30.00	-23.29	-25.09	0.00	-2,343.2	0.00	2,343.17	3,237.25	816.41	2,967.22	2,537.99	4.43	-1.41	0.589
31.00	-23.02	-24.99	0.00	-2,318.1	0.00	2,318.07	3,228.49	812.80	2,941.10	2,519.85	4.73	-1.46	0.585
32.00	-22.76	-24.89	0.00	-2,293.1	0.00	2,293.08	3,219.68	809.20	2,915.09	2,501.72	5.04	-1.51	0.582
32.94	-22.53	-24.83	0.00	-2,269.7	0.00	2,269.68	3,211.35	805.82	2,890.75	2,484.71	5.34	-1.55	0.579
32.94	-22.53	-24.83	0.00	-2,269.7	0.00	2,269.68	3,211.35	805.82	2,890.75	2,484.71	5.34	-1.55	0.921
33.00	-22.50	-24.79	0.00	-2,268.2	0.00	2,268.19	3,210.82	805.60	2,889.20	2,483.62	5.36	-1.55	0.921
34.00	-22.29	-24.69	0.00	-2,243.4	0.00	2,243.41	3,201.91	802.00	2,863.43	2,465.55	5.7	-1.63	0.918
35.00	-22.08	-24.60	0.00	-2,218.7	0.00	2,218.72	3,192.95	798.39	2,837.77	2,447.50	6.04	-1.71	0.914
36.00	-21.87	-24.50	0.00	-2,194.1	0.00	2,194.12	3,183.94	794.79	2,812.23	2,429.47	6.41	-1.78	0.911
37.00	-21.66	-24.40	0.00	-2,169.6	0.00	2,169.62	3,174.88	791.19	2,786.80	2,411.47	6.79	-1.86	0.907
38.00	-21.46	-24.32	0.00	-2,145.2	0.00	2,145.22	3,165.78	787.59	2,761.49	2,393.50	7.19	-1.93	0.904
39.00	-21.27	-24.25	0.00	-2,120.9	0.00	2,120.91	3,156.62	783.98	2,736.29	2,375.55	7.6	-2.01	0.901
40.00	-21.08	-24.18	0.00	-2,096.7	0.00	2,096.66	3,147.42	780.38	2,711.21	2,357.63	8.03	-2.09	0.897
41.00	-20.89	-24.11	0.00	-2,072.5	0.00	2,072.47	3,138.17	776.78	2,686.24	2,339.74	8.48	-2.16	0.893
42.00	-20.71	-24.07	0.00	-2,048.4	0.00	2,048.36	3,128.87	773.18	2,661.39	2,321.87	8.94	-2.24	0.890
42.33	-20.65	-24.03	0.00	-2,040.3	0.00	2,040.32	3,125.75	771.97	2,653.11	2,315.91	9.1	-2.27	0.889
43.00	-20.43	-23.97	0.00	-2,024.3	0.00	2,024.32	3,119.52	769.57	2,636.66	2,304.04	9.42	-2.32	0.886
44.00	-20.12	-23.89	0.00	-2,000.4	0.00	2,000.35	3,110.12	765.97	2,612.04	2,286.23	9.91	-2.4	0.882
45.00	-19.81	-23.81	0.00	-1,976.5	0.00	1,976.46	3,100.67	762.37	2,587.53	2,268.46	10.42	-2.48	0.879
46.00	-19.50	-23.73	0.00	-1,952.6	0.00	1,952.65	3,091.17	758.77	2,563.15	2,250.71	10.95	-2.55	0.875
47.00	-19.19	-23.65	0.00	-1,928.9	0.00	1,928.92	3,081.63	755.16	2,538.87	2,233.00	11.49	-2.63	0.871
48.00	-18.89	-23.57	0.00	-1,905.3	0.00	1,905.27	2,761.07	703.00	2,399.72	2,033.59	12.05	-2.71	0.945
49.00	-18.71	-23.49	0.00	-1,881.7	0.00	1,881.71	2,753.28	699.69	2,377.23	2,018.24	12.63	-2.79	0.940
50.00	-18.54	-23.41	0.00	-1,858.2	0.00	1,858.22	2,745.45	696.39	2,354.85	2,002.90	13.22	-2.87	0.936
51.00	-18.36	-23.34	0.00	-1,834.8	0.00	1,834.81	2,737.56	693.09	2,332.57	1,987.59	13.83	-2.95	0.931
52.00	-18.19	-23.26	0.00	-1,811.5	0.00	1,811.47	2,729.63	689.78	2,310.40	1,972.29	14.46	-3.03	0.926
53.00	-18.02	-23.18	0.00	-1,788.2	0.00	1,788.22	2,721.65	686.48	2,288.33	1,957.02	15.1	-3.11	0.922
54.00	-17.85	-23.10	0.00	-1,765.0	0.00	1,765.04	2,713.61	683.18	2,266.37	1,941.76	15.76	-3.19	0.917
55.00	-17.68	-23.02	0.00	-1,741.9	0.00	1,741.94	2,705.53	679.88	2,244.52	1,926.53	16.44	-3.27	0.912
56.00	-17.51	-22.94	0.00	-1,718.9	0.00	1,718.92	2,697.40	676.57	2,222.77	1,911.32	17.13	-3.35	0.907
57.00	-17.34	-22.86	0.00	-1,696.0	0.00	1,695.98	2,689.22	673.27	2,201.13	1,896.13	17.84	-3.44	0.902
58.00	-17.17	-22.77	0.00	-1,673.1	0.00	1,673.13	2,681.00	669.97	2,179.59	1,880.97	18.57	-3.52	0.897

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

59.00	-17.00	-22.69	0.00	-1,650.4	0.00	1,650.36	2,672.72	666.66	2,158.16	1,865.82	19.32	-3.6	0.892
60.00	-16.84	-22.61	0.00	-1,627.7	0.00	1,627.67	2,664.40	663.36	2,136.84	1,850.71	20.08	-3.68	0.887
61.00	-16.67	-22.52	0.00	-1,605.1	0.00	1,605.06	2,656.02	660.06	2,115.62	1,835.61	20.86	-3.76	0.882
62.00	-16.51	-22.44	0.00	-1,582.5	0.00	1,582.54	2,647.60	656.76	2,094.51	1,820.54	21.65	-3.84	0.877
63.00	-16.34	-22.35	0.00	-1,560.1	0.00	1,560.11	2,639.12	653.45	2,073.50	1,805.50	22.47	-3.93	0.871
64.00	-16.18	-22.26	0.00	-1,537.8	0.00	1,537.76	2,630.60	650.15	2,052.60	1,790.48	23.3	-4.01	0.866
65.00	-16.02	-22.17	0.00	-1,515.5	0.00	1,515.49	2,622.03	646.85	2,031.81	1,775.49	24.15	-4.09	0.861
66.00	-15.86	-22.09	0.00	-1,493.3	0.00	1,493.32	2,613.41	643.54	2,011.12	1,760.52	25.01	-4.17	0.855
67.00	-15.70	-22.00	0.00	-1,471.2	0.00	1,471.23	2,604.75	640.24	1,990.54	1,745.59	25.89	-4.25	0.850
68.00	-15.54	-21.91	0.00	-1,449.2	0.00	1,449.24	2,596.03	636.94	1,970.06	1,730.68	26.79	-4.34	0.845
69.00	-15.38	-21.82	0.00	-1,427.3	0.00	1,427.33	2,587.26	633.64	1,949.69	1,715.80	27.71	-4.42	0.839
70.00	-15.22	-21.73	0.00	-1,405.5	0.00	1,405.51	2,578.45	630.33	1,929.42	1,700.94	28.64	-4.5	0.833
71.00	-15.07	-21.64	0.00	-1,383.8	0.00	1,383.78	2,569.58	627.03	1,909.26	1,686.12	29.59	-4.58	0.828
72.00	-14.91	-21.54	0.00	-1,362.2	0.00	1,362.15	2,560.67	623.73	1,889.21	1,671.33	30.56	-4.67	0.822
73.00	-14.76	-21.45	0.00	-1,340.6	0.00	1,340.60	2,551.71	620.42	1,869.26	1,656.57	31.55	-4.75	0.816
74.00	-14.60	-21.36	0.00	-1,319.2	0.00	1,319.15	2,542.70	617.12	1,849.42	1,641.84	32.55	-4.83	0.810
75.00	-14.45	-21.26	0.00	-1,297.8	0.00	1,297.80	2,533.64	613.82	1,829.68	1,627.14	33.57	-4.91	0.804
76.00	-14.30	-21.17	0.00	-1,276.5	0.00	1,276.53	2,524.53	610.52	1,810.05	1,612.47	34.6	-4.99	0.799
77.00	-14.14	-21.07	0.00	-1,255.4	0.00	1,255.36	2,515.37	607.21	1,790.53	1,597.83	35.66	-5.08	0.792
78.00	-13.99	-20.98	0.00	-1,234.3	0.00	1,234.29	2,506.16	603.91	1,771.11	1,583.23	36.73	-5.16	0.786
79.00	-13.85	-20.88	0.00	-1,213.3	0.00	1,213.31	2,496.91	600.61	1,751.80	1,568.66	37.82	-5.24	0.780
80.00	-13.73	-19.15	0.00	-1,192.4	0.00	1,192.43	2,487.60	597.30	1,732.59	1,554.13	38.92	-5.32	0.774
81.00	-13.58	-19.06	0.00	-1,173.3	0.00	1,173.28	2,478.25	594.00	1,713.49	1,539.63	40.04	-5.4	0.769
82.00	-13.44	-18.96	0.00	-1,154.2	0.00	1,154.22	2,468.85	590.70	1,694.50	1,525.16	41.18	-5.49	0.763
83.00	-13.30	-18.86	0.00	-1,135.3	0.00	1,135.26	2,459.40	587.40	1,675.61	1,510.74	42.34	-5.57	0.758
84.00	-13.15	-18.76	0.00	-1,116.4	0.00	1,116.40	2,449.90	584.09	1,656.82	1,496.34	43.51	-5.65	0.752
85.00	-13.02	-18.70	0.00	-1,097.6	0.00	1,097.64	2,439.32	580.79	1,638.15	1,481.36	44.7	-5.73	0.747
85.08	-13.00	-18.66	0.00	-1,096.1	0.00	1,096.07	2,438.15	580.51	1,636.58	1,479.94	44.8	-5.74	0.747
86.00	-12.80	-18.55	0.00	-1,079.0	0.00	1,078.98	2,425.45	577.49	1,619.57	1,464.47	45.91	-5.81	0.743
87.00	-12.57	-18.44	0.00	-1,060.4	0.00	1,060.43	2,411.58	574.18	1,601.11	1,447.67	47.13	-5.9	0.739
88.00	-12.30	-18.27	0.00	-1,042.0	0.00	1,042.00	2,397.70	570.88	1,582.75	1,430.97	48.38	-5.98	0.734
89.00	-12.08	-18.16	0.00	-1,023.7	0.00	1,023.73	2,383.83	567.58	1,564.50	1,414.36	49.64	-6.06	0.730
90.00	-11.87	-18.09	0.00	-1,005.6	0.00	1,005.57	2,369.96	564.28	1,546.35	1,397.85	50.91	-6.14	0.725
90.00	-11.86	-18.04	0.00	-1,005.6	0.00	1,005.56	1,850.78	471.63	1,320.06	1,117.72	50.91	-6.14	0.908
91.00	-11.74	-17.94	0.00	-987.5	0.00	987.53	1,844.43	468.93	1,304.99	1,107.45	52.2	-6.22	0.900
92.00	-11.62	-17.84	0.00	-969.6	0.00	969.59	1,838.03	466.23	1,290.00	1,097.18	53.52	-6.32	0.891
93.00	-11.50	-17.74	0.00	-951.7	0.00	951.74	1,831.57	463.53	1,275.09	1,086.93	54.85	-6.41	0.883
94.00	-11.38	-17.64	0.00	-934.0	0.00	934.00	1,825.06	460.82	1,260.27	1,076.70	56.2	-6.51	0.875
95.00	-11.26	-17.54	0.00	-916.4	0.00	916.36	1,818.51	458.12	1,245.54	1,066.48	57.57	-6.6	0.867
96.00	-11.14	-17.44	0.00	-898.8	0.00	898.82	1,811.91	455.42	1,230.89	1,056.28	58.96	-6.69	0.859
97.00	-11.02	-17.33	0.00	-881.4	0.00	881.39	1,805.26	452.72	1,216.33	1,046.10	60.36	-6.79	0.850
98.00	-10.90	-17.23	0.00	-864.1	0.00	864.06	1,798.56	450.01	1,201.86	1,035.93	61.79	-6.88	0.842
99.00	-10.79	-17.13	0.00	-846.8	0.00	846.83	1,791.81	447.31	1,187.47	1,025.78	63.24	-6.97	0.833
100.00	-10.68	-16.88	0.00	-829.6	0.00	829.61	1,785.01	444.61	1,173.17	1,015.66	64.71	-7.06	0.824
101.00	-10.57	-16.77	0.00	-812.7	0.00	812.73	1,778.16	441.91	1,158.96	1,005.55	66.19	-7.16	0.816
102.00	-10.45	-16.67	0.00	-796.0	0.00	795.96	1,771.27	439.20	1,144.83	995.46	67.7	-7.25	0.807
103.00	-10.34	-16.56	0.00	-779.3	0.00	779.30	1,764.32	436.50	1,130.79	985.40	69.22	-7.34	0.798
104.00	-10.23	-16.45	0.00	-762.7	0.00	762.74	1,757.33	433.80	1,116.84	975.35	70.76	-7.43	0.789
105.00	-10.12	-16.35	0.00	-746.3	0.00	746.28	1,750.28	431.10	1,102.97	965.33	72.33	-7.52	0.780
106.00	-10.01	-16.24	0.00	-729.9	0.00	729.94	1,743.19	428.39	1,089.19	955.33	73.91	-7.61	0.771
107.00	-9.90	-16.13	0.00	-713.7	0.00	713.70	1,736.05	425.69	1,075.50	945.35	75.51	-7.7	0.762
108.00	-9.80	-16.02	0.00	-697.6	0.00	697.57	1,728.86	422.99	1,061.89	935.40	77.13	-7.8	0.753
109.00	-9.69	-15.91	0.00	-681.5	0.00	681.54	1,721.62	420.29	1,048.37	925.47	78.76	-7.89	0.743
110.00	-9.44	-15.40	0.00	-665.6	0.00	665.63	1,714.33	417.58	1,034.94	915.56	80.42	-7.98	0.734
111.00	-9.34	-15.29	0.00	-650.2	0.00	650.23	1,707.00	414.88	1,021.59	905.68	82.1	-8.06	0.725
112.00	-9.24	-15.18	0.00	-634.9	0.00	634.94	1,699.61	412.18	1,008.33	895.83	83.79	-8.15	0.716
113.00	-9.13	-15.01	0.00	-619.8	0.00	619.77	1,692.18	409.48	995.16	886.00	85.5	-8.24	0.706
114.00	-9.03	-14.90	0.00	-604.8	0.00	604.76	1,684.69	406.77	982.07	876.20	87.23	-8.33	0.697
115.00	-8.93	-14.79	0.00	-589.8	0.00	589.85	1,677.16	404.07	969.07	866.42	88.98	-8.42	0.687
116.00	-8.83	-14.68	0.00	-575.1	0.00	575.07	1,669.58	401.37	956.15	856.67	90.74	-8.51	0.678
117.00	-8.74	-14.56	0.00	-560.4	0.00	560.39	1,661.95	398.67	943.33	846.95	92.53	-8.59	0.668
118.00	-8.64	-14.45	0.00	-545.8	0.00	545.83	1,654.27	395.96	930.59	837.26	94.33	-8.68	0.658
119.00	-8.54	-14.34	0.00	-531.4	0.00	531.37	1,646.54	393.26	917.93	827.60	96.15	-8.76	0.649
120.00	-8.45	-14.23	0.00	-517.0	0.00	517.04	1,638.76	390.56	905.36	817.97	97.99	-8.85	0.639
121.00	-8.35	-14.11	0.00	-502.8	0.00	502.81	1,629.00	387.86	892.88	807.40	99.84	-8.93	0.629
122.00	-8.26	-14.00	0.00	-488.7	0.00	488.70	1,617.65	385.15	880.49	796.13	101.72	-9.02	0.620
123.00	-8.17	-13.88	0.00	-474.7	0.00	474.70	1,606.30	382.45	868.18	784.93	103.61	-9.1	0.611
124.00	-8.08	-13.77	0.00	-460.8	0.00	460.82	1,594.95	379.75	855.96	773.81	105.51	-9.18	0.602
124.99	-7.99	-13.71	0.00	-447.1	0.00	447.13	1,583.67	377.06	843.90	762.84	107.43	-9.27	0.593
124.99	-7.99	-13.71	0.00	-447.1	0.00	447.13	1,139.75	294.06	659.74	551.90	107.43	-9.27	0.819
125.00	-7.99	-13.66	0.00	-447.0	0.00	447.05	1,139.72	294.05	659.69	551.87	107.44	-9.27	0.819
126.00	-7.91	-13.55	0.00	-433.4	0.00	433.39	1,134.97	291.94	650.29	545.60	109.38	-9.37	0.803
127.00	-7.83	-13.44	0.00	-419.8	0.00	419.84	1,130.17	289.84	640.96	539.35	111.35	-9.47	0.787
128.00	-7.75	-13.33	0.00	-406.4	0.00	406.39	1,125.33	287.74	631.70	533.11	113.33	-9.57	0.771
129.00	-7.67	-13.23	0.00	-393.1	0.00	393.06	1,120.43	285.64	622.51	526.88	115.34	-9.67	0.755

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

130.00	-7.59	-13.13	0.00	-379.8	0.00	379.83	1,115.49	283.54	613.39	520.65	117.37	-9.77	0.738
131.00	-5.14	-10.23	0.00	-366.7	0.00	366.70	1,110.50	281.44	604.33	514.45	119.41	-9.87	0.719
132.00	-5.07	-10.13	0.00	-356.5	0.00	356.47	1,105.46	279.33	595.34	508.25	121.48	-9.97	0.707
133.00	-5.00	-10.03	0.00	-346.3	0.00	346.34	1,100.37	277.23	586.41	502.06	123.57	-10.06	0.696
134.00	-4.94	-9.92	0.00	-336.3	0.00	336.31	1,095.23	275.13	577.56	495.89	125.68	-10.16	0.684
135.00	-4.87	-9.82	0.00	-326.4	0.00	326.39	1,090.04	273.03	568.77	489.74	127.8	-10.25	0.672
136.00	-4.80	-9.72	0.00	-316.6	0.00	316.57	1,084.80	270.93	560.05	483.60	129.95	-10.35	0.660
137.00	-4.74	-9.62	0.00	-306.8	0.00	306.85	1,079.51	268.82	551.40	477.47	132.12	-10.44	0.648
138.00	-4.67	-9.52	0.00	-297.2	0.00	297.23	1,074.18	266.72	542.81	471.36	134.3	-10.54	0.636
139.00	-4.61	-9.41	0.00	-287.7	0.00	287.71	1,068.79	264.62	534.29	465.26	136.51	-10.63	0.624
140.00	-4.55	-9.31	0.00	-278.3	0.00	278.30	1,063.36	262.52	525.84	459.18	138.73	-10.72	0.612
141.00	-4.48	-9.21	0.00	-269.0	0.00	268.99	1,057.88	260.42	517.45	453.12	140.97	-10.81	0.599
142.00	-4.42	-9.11	0.00	-259.8	0.00	259.78	1,052.35	258.31	509.14	447.07	143.23	-10.9	0.587
143.00	-4.37	-8.64	0.00	-250.7	0.00	250.66	1,046.77	256.21	500.89	441.05	145.51	-10.99	0.574
144.00	-4.31	-8.32	0.00	-242.0	0.00	242.03	1,041.14	254.11	492.71	435.04	147.81	-11.08	0.562
145.00	-4.25	-8.22	0.00	-233.7	0.00	233.71	1,035.46	252.01	484.59	429.05	150.12	-11.16	0.550
146.00	-4.20	-8.12	0.00	-225.5	0.00	225.48	1,029.73	249.91	476.54	423.08	152.45	-11.25	0.538
147.00	-4.14	-8.03	0.00	-217.4	0.00	217.36	1,023.96	247.80	468.56	417.13	154.8	-11.33	0.526
148.00	-4.09	-7.93	0.00	-209.3	0.00	209.33	1,018.13	245.70	460.65	411.20	157.17	-11.42	0.514
149.00	-4.03	-7.83	0.00	-201.4	0.00	201.40	1,012.26	243.60	452.81	405.29	159.56	-11.5	0.502
150.00	-3.83	-7.48	0.00	-193.6	0.00	193.57	1,006.34	241.50	445.03	399.41	161.96	-11.58	0.489
151.00	-3.78	-7.38	0.00	-186.1	0.00	186.09	1,000.37	239.40	437.32	393.54	164.37	-11.66	0.478
152.00	-3.73	-7.28	0.00	-178.7	0.00	178.71	994.35	237.29	429.68	387.70	166.81	-11.74	0.466
153.00	-3.68	-7.19	0.00	-171.4	0.00	171.43	987.80	235.19	422.10	381.70	169.26	-11.82	0.454
154.00	-3.63	-7.09	0.00	-164.2	0.00	164.24	978.97	233.09	414.59	374.87	171.73	-11.9	0.443
155.00	-3.58	-7.00	0.00	-157.2	0.00	157.15	970.15	230.99	407.15	368.10	174.21	-11.97	0.432
156.00	-3.53	-6.82	0.00	-150.2	0.00	150.15	961.32	228.89	399.78	361.39	176.71	-12.05	0.420
157.00	-3.50	-6.54	0.00	-143.3	0.00	143.33	952.49	226.78	392.47	354.75	179.22	-12.12	0.409
158.00	-3.45	-6.47	0.00	-136.8	0.00	136.80	943.66	224.68	385.23	348.16	181.75	-12.19	0.397
159.00	-3.40	-6.39	0.00	-130.3	0.00	130.33	934.83	222.58	378.06	341.64	184.29	-12.26	0.386
160.00	-3.35	-6.32	0.00	-123.9	0.00	123.94	926.00	220.48	370.96	335.18	186.84	-12.33	0.374
161.00	-3.30	-6.25	0.00	-117.6	0.00	117.62	917.18	218.38	363.92	328.78	189.41	-12.4	0.362
162.00	-3.26	-6.18	0.00	-111.4	0.00	111.37	908.35	216.27	356.95	322.44	192	-12.47	0.350
163.00	-3.21	-6.11	0.00	-105.2	0.00	105.19	899.52	214.17	350.05	316.17	194.6	-12.53	0.337
164.00	-3.16	-6.03	0.00	-99.1	0.00	99.08	890.69	212.07	343.21	309.95	197.21	-12.59	0.324
165.00	-3.12	-5.96	0.00	-93.0	0.00	93.05	881.86	209.97	336.45	303.80	199.83	-12.65	0.311
166.00	-3.08	-5.89	0.00	-87.1	0.00	87.09	873.03	207.87	329.75	297.71	202.46	-12.71	0.297
167.00	-3.03	-5.82	0.00	-81.2	0.00	81.20	864.21	205.76	323.12	291.68	205.11	-12.77	0.283
168.00	-2.99	-5.74	0.00	-75.4	0.00	75.39	855.38	203.66	316.55	285.72	207.77	-12.82	0.268
169.00	-2.95	-5.67	0.00	-69.6	0.00	69.64	846.55	201.56	310.05	279.81	210.43	-12.87	0.253
170.00	-2.92	-5.22	0.00	-63.2	0.00	63.21	837.72	199.46	303.62	273.97	213.11	-12.92	0.235
171.00	-2.88	-5.16	0.00	-58.0	0.00	57.99	828.89	197.36	297.26	268.18	215.8	-12.97	0.220
172.00	-2.84	-5.11	0.00	-52.8	0.00	52.83	820.06	195.25	290.96	262.46	218.5	-13.01	0.205
173.00	-2.81	-5.05	0.00	-47.7	0.00	47.72	811.24	193.15	284.74	256.80	221.2	-13.05	0.190
174.00	-2.77	-4.99	0.00	-42.7	0.00	42.68	802.41	191.05	278.58	251.21	223.92	-13.09	0.174
175.00	-2.73	-4.93	0.00	-37.7	0.00	37.68	793.58	188.95	272.48	245.67	226.64	-13.12	0.158
176.00	-2.70	-4.88	0.00	-32.8	0.00	32.75	784.75	186.85	266.46	240.20	229.37	-13.15	0.140
177.00	-2.65	-4.68	0.00	-27.9	0.00	27.87	775.92	184.74	260.50	234.79	232.1	-13.18	0.123
178.00	-2.62	-4.63	0.00	-23.2	0.00	23.19	767.09	182.64	254.61	229.44	234.84	-13.2	0.105
179.00	-2.58	-4.57	0.00	-18.6	0.00	18.56	758.27	180.54	248.78	224.15	237.58	-13.22	0.087
180.00	0.00	-3.86	0.00	-14.0	0.00	13.98	749.44	178.44	243.03	218.92	240.33	-13.24	0.064

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

Load Case: 1.2D + 1.0Di + 1.0Wi Normal				48.73 mph wind with 0.850" radial ice				41 Iterations			
Gust Response Factor: 1.10		Ice Dead Load Factor 1.00									
Dead load Factor: 1.20								Ice Importance Factor		1.00	
Wind Load Factor: 1.00											

CALCULATED FORCES

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 (deg)	Ratio
0.00	-56.36	-5.57	0.00	-711.8	0.00	711.80	3,477.38	924.48	3,804.54	3,090.64	0	0	0.166
1.00	-55.95	-5.56	0.00	-706.2	0.00	706.23	3,470.08	920.88	3,774.95	3,072.04	0	-0.01	0.165
2.00	-55.55	-5.55	0.00	-700.7	0.00	700.66	3,462.74	917.28	3,745.48	3,053.44	0	-0.02	0.164
3.00	-55.14	-5.54	0.00	-695.1	0.00	695.11	3,455.35	913.68	3,716.13	3,034.85	0.01	-0.03	0.164
4.00	-54.73	-5.53	0.00	-689.6	0.00	689.56	3,447.91	910.07	3,686.89	3,016.27	0.02	-0.04	0.163
5.00	-54.32	-5.52	0.00	-684.0	0.00	684.03	3,440.42	906.47	3,657.77	2,997.70	0.03	-0.05	0.163
6.00	-53.90	-5.51	0.00	-678.5	0.00	678.50	3,432.88	902.87	3,628.76	2,979.14	0.04	-0.06	0.162
7.00	-53.49	-5.50	0.00	-673.0	0.00	672.99	3,425.29	899.27	3,599.87	2,960.59	0.05	-0.07	0.161
8.00	-53.08	-5.49	0.00	-667.5	0.00	667.49	3,417.65	895.66	3,571.09	2,942.06	0.07	-0.08	0.161
9.00	-52.67	-5.48	0.00	-662.0	0.00	661.99	3,409.97	892.06	3,542.43	2,923.53	0.09	-0.1	0.160
10.00	-52.26	-5.47	0.00	-656.5	0.00	656.51	3,402.23	888.46	3,513.88	2,905.01	0.11	-0.11	0.159
11.00	-51.85	-5.46	0.00	-651.0	0.00	651.04	3,394.45	884.86	3,485.45	2,886.51	0.14	-0.12	0.159
12.00	-51.44	-5.45	0.00	-645.6	0.00	645.58	3,386.61	881.25	3,457.14	2,868.02	0.16	-0.13	0.158
13.00	-51.03	-5.44	0.00	-640.1	0.00	640.12	3,378.73	877.65	3,428.94	2,849.54	0.19	-0.14	0.158
14.00	-50.62	-5.43	0.00	-634.7	0.00	634.68	3,370.80	874.05	3,400.85	2,831.08	0.22	-0.15	0.157
15.00	-50.22	-5.42	0.00	-629.2	0.00	629.25	3,362.82	870.45	3,372.89	2,812.63	0.25	-0.16	0.156
16.00	-49.81	-5.41	0.00	-623.8	0.00	623.84	3,354.79	866.84	3,345.03	2,794.20	0.29	-0.17	0.156
17.00	-49.40	-5.40	0.00	-618.4	0.00	618.43	3,346.72	863.24	3,317.30	2,775.78	0.32	-0.18	0.155
18.00	-48.99	-5.39	0.00	-613.0	0.00	613.03	3,338.59	859.64	3,289.67	2,757.38	0.36	-0.19	0.154
19.00	-48.59	-5.38	0.00	-607.6	0.00	607.64	3,330.41	856.04	3,262.17	2,738.99	0.4	-0.2	0.154
20.00	-48.18	-5.36	0.00	-602.3	0.00	602.27	3,322.19	852.43	3,234.78	2,720.63	0.45	-0.21	0.153
21.00	-47.78	-5.35	0.00	-596.9	0.00	596.90	3,313.92	848.83	3,207.50	2,702.28	0.49	-0.23	0.152
22.00	-47.37	-5.34	0.00	-591.6	0.00	591.55	3,305.59	845.23	3,180.34	2,683.94	0.54	-0.24	0.152
23.00	-46.97	-5.33	0.00	-586.2	0.00	586.21	3,297.22	841.63	3,153.30	2,665.63	0.59	-0.25	0.151
24.00	-46.57	-5.32	0.00	-580.9	0.00	580.88	3,288.80	838.02	3,126.37	2,647.33	0.65	-0.26	0.150
25.00	-46.17	-5.31	0.00	-575.6	0.00	575.56	3,280.33	834.42	3,099.55	2,629.06	0.7	-0.27	0.150
26.00	-45.77	-5.30	0.00	-570.2	0.00	570.25	3,271.82	830.82	3,072.86	2,610.80	0.76	-0.28	0.149
27.00	-45.37	-5.28	0.00	-565.0	0.00	564.96	3,263.25	827.21	3,046.27	2,592.57	0.82	-0.29	0.148
28.00	-44.97	-5.27	0.00	-559.7	0.00	559.67	3,254.63	823.61	3,019.81	2,574.36	0.88	-0.3	0.148
29.00	-44.57	-5.26	0.00	-554.4	0.00	554.40	3,245.97	820.01	2,993.46	2,556.16	0.95	-0.31	0.147
30.00	-44.17	-5.25	0.00	-549.1	0.00	549.14	3,237.25	816.41	2,967.22	2,537.99	1.01	-0.33	0.146
31.00	-43.77	-5.24	0.00	-543.9	0.00	543.89	3,228.49	812.80	2,941.10	2,519.85	1.08	-0.34	0.145
32.00	-43.38	-5.23	0.00	-538.6	0.00	538.65	3,219.68	809.20	2,915.09	2,501.72	1.16	-0.35	0.145
32.94	-43.01	-5.22	0.00	-533.7	0.00	533.74	3,211.35	805.82	2,890.75	2,484.71	1.22	-0.36	0.144
32.94	-43.01	-5.22	0.00	-533.7	0.00	533.74	3,211.35	805.82	2,890.75	2,484.71	1.22	-0.36	0.228
33.00	-42.99	-5.22	0.00	-533.4	0.00	533.43	3,210.82	805.60	2,889.20	2,483.62	1.23	-0.36	0.228
34.00	-42.67	-5.21	0.00	-528.2	0.00	528.21	3,201.91	802.00	2,863.43	2,465.55	1.31	-0.38	0.228
35.00	-42.36	-5.20	0.00	-523.0	0.00	523.00	3,192.95	798.39	2,837.77	2,447.50	1.39	-0.39	0.227
36.00	-42.04	-5.19	0.00	-517.8	0.00	517.80	3,183.94	794.79	2,812.23	2,429.47	1.47	-0.41	0.226
37.00	-41.73	-5.19	0.00	-512.6	0.00	512.61	3,174.88	791.19	2,786.80	2,411.47	1.56	-0.43	0.226
38.00	-41.44	-5.18	0.00	-507.4	0.00	507.42	3,165.78	787.59	2,761.49	2,393.50	1.65	-0.45	0.225
39.00	-41.16	-5.17	0.00	-502.2	0.00	502.25	3,156.62	783.98	2,736.29	2,375.55	1.75	-0.47	0.225
40.00	-40.88	-5.16	0.00	-497.1	0.00	497.08	3,147.42	780.38	2,711.21	2,357.63	1.85	-0.48	0.224
41.00	-40.60	-5.15	0.00	-491.9	0.00	491.92	3,138.17	776.78	2,686.24	2,339.74	1.95	-0.5	0.223
42.00	-40.33	-5.15	0.00	-486.8	0.00	486.76	3,128.87	773.18	2,661.39	2,321.87	2.06	-0.52	0.223
42.33	-40.23	-5.14	0.00	-485.0	0.00	485.04	3,125.75	771.97	2,653.11	2,315.91	2.1	-0.53	0.222
43.00	-39.94	-5.13	0.00	-481.6	0.00	481.62	3,119.52	769.57	2,636.66	2,304.04	2.17	-0.54	0.222
44.00	-39.50	-5.12	0.00	-476.5	0.00	476.49	3,110.12	765.97	2,612.04	2,286.23	2.29	-0.56	0.221
45.00	-39.05	-5.11	0.00	-471.4	0.00	471.36	3,100.67	762.37	2,587.53	2,268.46	2.4	-0.58	0.220
46.00	-38.62	-5.10	0.00	-466.2	0.00	466.25	3,091.17	758.77	2,563.15	2,250.71	2.53	-0.6	0.220
47.00	-38.18	-5.09	0.00	-461.2	0.00	461.15	3,081.63	755.16	2,538.87	2,233.00	2.65	-0.61	0.219
48.00	-37.74	-5.08	0.00	-456.1	0.00	456.06	2,761.07	703.00	2,399.72	2,033.59	2.78	-0.63	0.238
49.00	-37.48	-5.07	0.00	-451.0	0.00	450.98	2,753.28	699.69	2,377.23	2,018.24	2.92	-0.65	0.237
50.00	-37.22	-5.06	0.00	-445.9	0.00	445.92	2,745.45	696.39	2,354.85	2,002.90	3.06	-0.67	0.236
51.00	-36.97	-5.05	0.00	-440.9	0.00	440.86	2,737.56	693.09	2,332.57	1,987.59	3.2	-0.69	0.235
52.00	-36.71	-5.04	0.00	-435.8	0.00	435.81	2,729.63	689.78	2,310.40	1,972.29	3.35	-0.71	0.234
53.00	-36.45	-5.03	0.00	-430.8	0.00	430.78	2,721.65	686.48	2,288.33	1,957.02	3.5	-0.73	0.234
54.00	-36.20	-5.02	0.00	-425.8	0.00	425.75	2,713.61	683.18	2,266.37	1,941.76	3.65	-0.75	0.233
55.00	-35.94	-5.01	0.00	-420.7	0.00	420.73	2,705.53	679.88	2,244.52	1,926.53	3.81	-0.77	0.232
56.00	-35.69	-4.99	0.00	-415.7	0.00	415.73	2,697.40	676.57	2,222.77	1,911.32	3.97	-0.79	0.231
57.00	-35.44	-4.98	0.00	-410.7	0.00	410.74	2,689.22	673.27	2,201.13	1,896.13	4.14	-0.81	0.230
58.00	-35.19	-4.97	0.00	-405.8	0.00	405.75	2,681.00	669.97	2,179.59	1,880.97	4.31	-0.83	0.229

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

59.00	-34.93	-4.96	0.00	-400.8	0.00	400.78	2,672.72	666.66	2,158.16	1,865.82	4.49	-0.85	0.228
60.00	-34.68	-4.95	0.00	-395.8	0.00	395.82	2,664.40	663.36	2,136.84	1,850.71	4.67	-0.87	0.227
61.00	-34.43	-4.94	0.00	-390.9	0.00	390.87	2,656.02	660.06	2,115.62	1,835.61	4.85	-0.89	0.226
62.00	-34.19	-4.93	0.00	-385.9	0.00	385.93	2,647.60	656.76	2,094.51	1,820.54	5.04	-0.91	0.225
63.00	-33.94	-4.91	0.00	-381.0	0.00	381.01	2,639.12	653.45	2,073.50	1,805.50	5.23	-0.93	0.224
64.00	-33.69	-4.90	0.00	-376.1	0.00	376.10	2,630.60	650.15	2,052.60	1,790.48	5.43	-0.95	0.223
65.00	-33.45	-4.89	0.00	-371.2	0.00	371.19	2,622.03	646.85	2,031.81	1,775.49	5.63	-0.97	0.222
66.00	-33.20	-4.88	0.00	-366.3	0.00	366.30	2,613.41	643.54	2,011.12	1,760.52	5.83	-0.99	0.221
67.00	-32.96	-4.87	0.00	-361.4	0.00	361.43	2,604.75	640.24	1,990.54	1,745.59	6.04	-1.01	0.220
68.00	-32.71	-4.85	0.00	-356.6	0.00	356.56	2,596.03	636.94	1,970.06	1,730.68	6.26	-1.03	0.219
69.00	-32.47	-4.84	0.00	-351.7	0.00	351.71	2,587.26	633.64	1,949.69	1,715.80	6.47	-1.05	0.218
70.00	-32.23	-4.83	0.00	-346.9	0.00	346.87	2,578.45	630.33	1,929.42	1,700.94	6.69	-1.07	0.216
71.00	-31.99	-4.81	0.00	-342.0	0.00	342.04	2,569.58	627.03	1,909.26	1,686.12	6.92	-1.09	0.215
72.00	-31.75	-4.80	0.00	-337.2	0.00	337.23	2,560.67	623.73	1,889.21	1,671.33	7.15	-1.11	0.214
73.00	-31.51	-4.79	0.00	-332.4	0.00	332.42	2,551.71	620.42	1,869.26	1,656.57	7.39	-1.13	0.213
74.00	-31.28	-4.78	0.00	-327.6	0.00	327.64	2,542.70	617.12	1,849.42	1,641.84	7.62	-1.15	0.212
75.00	-31.04	-4.76	0.00	-322.9	0.00	322.86	2,533.64	613.82	1,829.68	1,627.14	7.87	-1.17	0.211
76.00	-30.80	-4.75	0.00	-318.1	0.00	318.10	2,524.53	610.52	1,810.05	1,612.47	8.11	-1.19	0.210
77.00	-30.57	-4.74	0.00	-313.4	0.00	313.35	2,515.37	607.21	1,790.53	1,597.83	8.37	-1.21	0.208
78.00	-30.33	-4.72	0.00	-308.6	0.00	308.61	2,506.16	603.91	1,771.11	1,583.23	8.62	-1.23	0.207
79.00	-30.10	-4.71	0.00	-303.9	0.00	303.89	2,496.91	600.61	1,751.80	1,568.66	8.88	-1.25	0.206
80.00	-29.51	-4.37	0.00	-299.2	0.00	299.18	2,487.60	597.30	1,732.59	1,554.13	9.15	-1.27	0.204
81.00	-29.28	-4.36	0.00	-294.8	0.00	294.81	2,478.25	594.00	1,713.49	1,539.63	9.41	-1.29	0.203
82.00	-29.05	-4.34	0.00	-290.5	0.00	290.46	2,468.85	590.70	1,694.50	1,525.16	9.69	-1.31	0.202
83.00	-28.82	-4.33	0.00	-286.1	0.00	286.12	2,459.40	587.40	1,675.61	1,510.74	9.97	-1.33	0.201
84.00	-28.60	-4.31	0.00	-281.8	0.00	281.79	2,449.90	584.09	1,656.82	1,496.34	10.25	-1.35	0.200
85.00	-28.37	-4.30	0.00	-277.5	0.00	277.48	2,439.32	580.79	1,638.15	1,481.36	10.53	-1.38	0.199
85.08	-28.35	-4.30	0.00	-277.1	0.00	277.12	2,438.15	580.51	1,636.58	1,479.94	10.56	-1.38	0.199
86.00	-28.04	-4.28	0.00	-273.2	0.00	273.18	2,425.45	577.49	1,619.57	1,464.47	10.82	-1.4	0.198
87.00	-27.70	-4.26	0.00	-268.9	0.00	268.90	2,411.58	574.18	1,601.11	1,447.67	11.12	-1.42	0.197
88.00	-27.25	-4.23	0.00	-264.6	0.00	264.64	2,397.70	570.88	1,582.75	1,430.97	11.42	-1.44	0.196
89.00	-26.92	-4.21	0.00	-260.4	0.00	260.41	2,383.83	567.58	1,564.50	1,414.36	11.72	-1.46	0.195
90.00	-26.58	-4.20	0.00	-256.2	0.00	256.20	2,369.96	564.28	1,546.35	1,397.85	12.03	-1.48	0.195
90.00	-26.58	-4.19	0.00	-256.2	0.00	256.19	1,850.78	471.63	1,320.06	1,117.72	12.03	-1.48	0.244
91.00	-26.38	-4.18	0.00	-252.0	0.00	252.00	1,844.43	468.93	1,304.99	1,107.45	12.34	-1.5	0.242
92.00	-26.18	-4.17	0.00	-247.8	0.00	247.82	1,838.03	466.23	1,290.00	1,097.18	12.66	-1.52	0.240
93.00	-25.98	-4.15	0.00	-243.7	0.00	243.66	1,831.57	463.53	1,275.09	1,086.93	12.98	-1.55	0.238
94.00	-25.78	-4.14	0.00	-239.5	0.00	239.51	1,825.06	460.82	1,260.27	1,076.70	13.31	-1.57	0.237
95.00	-25.59	-4.12	0.00	-235.4	0.00	235.37	1,818.51	458.12	1,245.54	1,066.48	13.64	-1.6	0.235
96.00	-25.39	-4.11	0.00	-231.2	0.00	231.24	1,811.91	455.42	1,230.89	1,056.28	13.98	-1.62	0.233
97.00	-25.19	-4.10	0.00	-227.1	0.00	227.13	1,805.26	452.72	1,216.33	1,046.10	14.32	-1.64	0.231
98.00	-25.00	-4.08	0.00	-223.0	0.00	223.04	1,798.56	450.01	1,201.86	1,035.93	14.66	-1.67	0.229
99.00	-24.80	-4.07	0.00	-219.0	0.00	218.96	1,791.81	447.31	1,187.47	1,025.78	15.02	-1.69	0.227
100.00	-24.58	-4.01	0.00	-214.8	0.00	214.85	1,785.01	444.61	1,173.17	1,015.66	15.37	-1.72	0.225
101.00	-24.39	-3.99	0.00	-210.8	0.00	210.84	1,778.16	441.91	1,158.96	1,005.55	15.74	-1.74	0.223
102.00	-24.20	-3.98	0.00	-206.8	0.00	206.85	1,771.27	439.20	1,144.83	995.46	16.1	-1.76	0.222
103.00	-24.00	-3.96	0.00	-202.9	0.00	202.87	1,764.32	436.50	1,130.79	985.40	16.47	-1.79	0.220
104.00	-23.81	-3.95	0.00	-198.9	0.00	198.91	1,757.33	433.80	1,116.84	975.35	16.85	-1.81	0.218
105.00	-23.62	-3.93	0.00	-195.0	0.00	194.96	1,750.28	431.10	1,102.97	965.33	17.23	-1.84	0.216
106.00	-23.43	-3.92	0.00	-191.0	0.00	191.03	1,743.19	428.39	1,089.19	955.33	17.62	-1.86	0.213
107.00	-23.25	-3.90	0.00	-187.1	0.00	187.11	1,736.05	425.69	1,075.50	945.35	18.01	-1.88	0.211
108.00	-23.06	-3.89	0.00	-183.2	0.00	183.21	1,728.86	422.99	1,061.89	935.40	18.41	-1.91	0.209
109.00	-22.87	-3.87	0.00	-179.3	0.00	179.32	1,721.62	420.29	1,048.37	925.47	18.81	-1.93	0.207
110.00	-22.31	-3.76	0.00	-175.4	0.00	175.45	1,714.33	417.58	1,034.94	915.56	19.22	-1.95	0.205
111.00	-22.13	-3.74	0.00	-171.7	0.00	171.69	1,707.00	414.88	1,021.59	905.68	19.63	-1.98	0.203
112.00	-21.94	-3.73	0.00	-167.9	0.00	167.94	1,699.61	412.18	1,008.33	895.83	20.05	-2	0.200
113.00	-21.73	-3.69	0.00	-164.2	0.00	164.22	1,692.18	409.48	995.16	886.00	20.47	-2.02	0.198
114.00	-21.55	-3.68	0.00	-160.5	0.00	160.52	1,684.69	406.77	982.07	876.20	20.9	-2.05	0.196
115.00	-21.36	-3.66	0.00	-156.8	0.00	156.85	1,677.16	404.07	969.07	866.42	21.33	-2.07	0.194
116.00	-21.18	-3.65	0.00	-153.2	0.00	153.18	1,669.58	401.37	956.15	856.67	21.76	-2.09	0.192
117.00	-21.00	-3.63	0.00	-149.5	0.00	149.54	1,661.95	398.67	943.33	846.95	22.2	-2.12	0.189
118.00	-20.83	-3.61	0.00	-145.9	0.00	145.91	1,654.27	395.96	930.59	837.26	22.65	-2.14	0.187
119.00	-20.65	-3.60	0.00	-142.3	0.00	142.30	1,646.54	393.26	917.93	827.60	23.1	-2.16	0.185
120.00	-20.47	-3.58	0.00	-138.7	0.00	138.70	1,638.76	390.56	905.36	817.97	23.56	-2.19	0.182
121.00	-20.29	-3.56	0.00	-135.1	0.00	135.12	1,629.00	387.86	892.88	807.40	24.02	-2.21	0.180
122.00	-20.12	-3.55	0.00	-131.6	0.00	131.56	1,617.65	385.15	880.49	796.13	24.48	-2.23	0.178
123.00	-19.94	-3.53	0.00	-128.0	0.00	128.01	1,606.30	382.45	868.18	784.93	24.95	-2.25	0.176
124.00	-19.77	-3.51	0.00	-124.5	0.00	124.48	1,594.95	379.75	855.96	773.81	25.43	-2.28	0.173
124.99	-19.60	-3.50	0.00	-121.0	0.00	120.98	1,583.67	377.06	843.90	762.84	25.9	-2.3	0.171
124.99	-19.60	-3.50	0.00	-121.0	0.00	120.98	1,139.75	294.06	659.74	551.90	25.9	-2.3	0.237
125.00	-19.60	-3.50	0.00	-121.0	0.00	120.96	1,139.72	294.05	659.69	551.87	25.91	-2.3	0.237
126.00	-19.44	-3.49	0.00	-117.5	0.00	117.46	1,134.97	291.94	650.29	545.60	26.39	-2.33	0.233
127.00	-19.29	-3.47	0.00	-114.0	0.00	113.98	1,130.17	289.84	640.96	539.35	26.88	-2.35	0.229
128.00	-19.14	-3.46	0.00	-110.5	0.00	110.51	1,125.33	287.74	631.70	533.11	27.38	-2.38	0.224
129.00	-18.99	-3.44	0.00	-107.0	0.00	107.05	1,120.43	285.64	622.51	526.88	27.88	-2.41	0.220

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

130.00	-18.84	-3.43	0.00	-103.6	0.00	103.61	1,115.49	283.54	613.39	520.65	28.39	-2.44	0.216
131.00	-13.72	-2.66	0.00	-100.2	0.00	100.18	1,110.50	281.44	604.33	514.45	28.9	-2.46	0.207
132.00	-13.58	-2.64	0.00	-97.5	0.00	97.52	1,105.46	279.33	595.34	508.25	29.42	-2.49	0.204
133.00	-13.43	-2.63	0.00	-94.9	0.00	94.88	1,100.37	277.23	586.41	502.06	29.94	-2.52	0.201
134.00	-13.29	-2.61	0.00	-92.3	0.00	92.26	1,095.23	275.13	577.56	495.89	30.47	-2.54	0.198
135.00	-13.15	-2.59	0.00	-89.6	0.00	89.65	1,090.04	273.03	568.77	489.74	31.01	-2.57	0.195
136.00	-13.00	-2.57	0.00	-87.1	0.00	87.06	1,084.80	270.93	560.05	483.60	31.55	-2.59	0.192
137.00	-12.86	-2.56	0.00	-84.5	0.00	84.48	1,079.51	268.82	551.40	477.47	32.09	-2.62	0.189
138.00	-12.72	-2.54	0.00	-81.9	0.00	81.93	1,074.18	266.72	542.81	471.36	32.65	-2.65	0.186
139.00	-12.58	-2.52	0.00	-79.4	0.00	79.39	1,068.79	264.62	534.29	465.26	33.2	-2.67	0.182
140.00	-12.44	-2.50	0.00	-76.9	0.00	76.86	1,063.36	262.52	525.84	459.18	33.76	-2.7	0.179
141.00	-12.30	-2.49	0.00	-74.4	0.00	74.36	1,057.88	260.42	517.45	453.12	34.33	-2.72	0.176
142.00	-12.17	-2.47	0.00	-71.9	0.00	71.87	1,052.35	258.31	509.14	447.07	34.9	-2.75	0.172
143.00	-11.85	-2.34	0.00	-69.4	0.00	69.41	1,046.77	256.21	500.89	441.05	35.48	-2.77	0.169
144.00	-11.53	-2.24	0.00	-67.1	0.00	67.07	1,041.14	254.11	492.71	435.04	36.07	-2.8	0.165
145.00	-11.40	-2.22	0.00	-64.8	0.00	64.83	1,035.46	252.01	484.59	429.05	36.65	-2.82	0.162
146.00	-11.27	-2.20	0.00	-62.6	0.00	62.61	1,029.73	249.91	476.54	423.08	37.25	-2.84	0.159
147.00	-11.15	-2.18	0.00	-60.4	0.00	60.41	1,023.96	247.80	468.56	417.13	37.84	-2.87	0.156
148.00	-11.02	-2.17	0.00	-58.2	0.00	58.23	1,018.13	245.70	460.65	411.20	38.45	-2.89	0.153
149.00	-10.90	-2.15	0.00	-56.1	0.00	56.06	1,012.26	243.60	452.81	405.29	39.05	-2.91	0.149
150.00	-10.43	-2.06	0.00	-53.9	0.00	53.91	1,006.34	241.50	445.03	399.41	39.67	-2.94	0.145
151.00	-10.31	-2.04	0.00	-51.8	0.00	51.85	1,000.37	239.40	437.32	393.54	40.28	-2.96	0.142
152.00	-10.19	-2.02	0.00	-49.8	0.00	49.81	994.35	237.29	429.68	387.70	40.91	-2.98	0.139
153.00	-10.07	-2.00	0.00	-47.8	0.00	47.79	987.80	235.19	422.10	381.70	41.53	-3	0.135
154.00	-9.95	-1.99	0.00	-45.8	0.00	45.79	978.97	233.09	414.59	374.87	42.16	-3.02	0.132
155.00	-9.83	-1.97	0.00	-43.8	0.00	43.80	970.15	230.99	407.15	368.10	42.8	-3.05	0.129
156.00	-9.64	-1.91	0.00	-41.8	0.00	41.84	961.32	228.89	399.78	361.39	43.44	-3.07	0.126
157.00	-9.43	-1.84	0.00	-39.9	0.00	39.92	952.49	226.78	392.47	354.75	44.08	-3.09	0.123
158.00	-9.32	-1.82	0.00	-38.1	0.00	38.09	943.66	224.68	385.23	348.16	44.73	-3.11	0.119
159.00	-9.21	-1.80	0.00	-36.3	0.00	36.27	934.83	222.58	378.06	341.64	45.38	-3.13	0.116
160.00	-9.10	-1.78	0.00	-34.5	0.00	34.47	926.00	220.48	370.96	335.18	46.04	-3.15	0.113
161.00	-8.99	-1.77	0.00	-32.7	0.00	32.69	917.18	218.38	363.92	328.78	46.7	-3.16	0.109
162.00	-8.88	-1.75	0.00	-30.9	0.00	30.92	908.35	216.27	356.95	322.44	47.36	-3.18	0.106
163.00	-8.77	-1.73	0.00	-29.2	0.00	29.17	899.52	214.17	350.05	316.17	48.03	-3.2	0.102
164.00	-8.67	-1.71	0.00	-27.4	0.00	27.44	890.69	212.07	343.21	309.95	48.7	-3.22	0.098
165.00	-8.56	-1.70	0.00	-25.7	0.00	25.73	881.86	209.97	336.45	303.80	49.38	-3.23	0.094
166.00	-8.45	-1.68	0.00	-24.0	0.00	24.03	873.03	207.87	329.75	297.71	50.06	-3.25	0.090
167.00	-8.35	-1.66	0.00	-22.4	0.00	22.35	864.21	205.76	323.12	291.68	50.74	-3.27	0.086
168.00	-8.24	-1.64	0.00	-20.7	0.00	20.69	855.38	203.66	316.55	285.72	51.42	-3.28	0.082
169.00	-8.14	-1.63	0.00	-19.0	0.00	19.05	846.55	201.56	310.05	279.81	52.11	-3.29	0.078
170.00	-7.83	-1.51	0.00	-17.2	0.00	17.24	837.72	199.46	303.62	273.97	52.8	-3.31	0.072
171.00	-7.74	-1.49	0.00	-15.7	0.00	15.74	828.89	197.36	297.26	268.18	53.5	-3.32	0.068
172.00	-7.66	-1.47	0.00	-14.2	0.00	14.24	820.06	195.25	290.96	262.46	54.19	-3.33	0.064
173.00	-7.58	-1.46	0.00	-12.8	0.00	12.77	811.24	193.15	284.74	256.80	54.89	-3.34	0.059
174.00	-7.49	-1.44	0.00	-11.3	0.00	11.31	802.41	191.05	278.58	251.21	55.59	-3.35	0.054
175.00	-7.41	-1.42	0.00	-9.9	0.00	9.87	793.58	188.95	272.48	245.67	56.3	-3.36	0.050
176.00	-7.33	-1.41	0.00	-8.4	0.00	8.45	784.75	186.85	266.46	240.20	57	-3.37	0.045
177.00	-7.14	-1.35	0.00	-7.0	0.00	7.04	775.92	184.74	260.50	234.79	57.71	-3.38	0.039
178.00	-7.06	-1.34	0.00	-5.7	0.00	5.69	767.09	182.64	254.61	229.44	58.41	-3.38	0.034
179.00	-6.98	-1.32	0.00	-4.4	0.00	4.35	758.27	180.54	248.78	224.15	59.12	-3.39	0.029
180.00	0.00	-0.91	0.00	-3.0	0.00	3.03	749.44	178.44	243.03	218.92	59.83	-3.39	0.014

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

Load Case: 1.0D + 1.0W Service Normal	60 mph Wind with No Ice	40 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.00		
Wind Load Factor: 1.00		

CALCULATED FORCES

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 (deg)	Ratio
0.00	-35.01	-7.05	0.00	-801.7	0.00	801.66	3,477.38	924.48	3,804.54	3,090.64	0	0	0.181
1.00	-34.72	-7.03	0.00	-794.6	0.00	794.61	3,470.08	920.88	3,774.95	3,072.04	0	-0.01	0.180
2.00	-34.42	-7.01	0.00	-787.6	0.00	787.58	3,462.74	917.28	3,745.48	3,053.44	0.01	-0.02	0.179
3.00	-34.13	-6.98	0.00	-780.6	0.00	780.57	3,455.35	913.68	3,716.13	3,034.85	0.01	-0.04	0.178
4.00	-33.84	-6.96	0.00	-773.6	0.00	773.59	3,447.91	910.07	3,686.89	3,016.27	0.02	-0.05	0.177
5.00	-33.55	-6.94	0.00	-766.6	0.00	766.63	3,440.42	906.47	3,657.77	2,997.70	0.03	-0.06	0.176
6.00	-33.26	-6.92	0.00	-759.7	0.00	759.69	3,432.88	902.87	3,628.76	2,979.14	0.05	-0.07	0.176
7.00	-32.97	-6.89	0.00	-752.8	0.00	752.78	3,425.29	899.27	3,599.87	2,960.59	0.06	-0.08	0.175
8.00	-32.68	-6.87	0.00	-745.9	0.00	745.88	3,417.65	895.66	3,571.09	2,942.06	0.08	-0.1	0.174
9.00	-32.40	-6.85	0.00	-739.0	0.00	739.01	3,409.97	892.06	3,542.43	2,923.53	0.1	-0.11	0.173
10.00	-32.11	-6.82	0.00	-732.2	0.00	732.17	3,402.23	888.46	3,513.88	2,905.01	0.13	-0.12	0.172
11.00	-31.82	-6.80	0.00	-725.3	0.00	725.34	3,394.45	884.86	3,485.45	2,886.51	0.15	-0.13	0.171
12.00	-31.54	-6.78	0.00	-718.5	0.00	718.54	3,386.61	881.25	3,457.14	2,868.02	0.18	-0.14	0.171
13.00	-31.25	-6.75	0.00	-711.8	0.00	711.76	3,378.73	877.65	3,428.94	2,849.54	0.21	-0.16	0.170
14.00	-30.97	-6.73	0.00	-705.0	0.00	705.01	3,370.80	874.05	3,400.85	2,831.08	0.25	-0.17	0.169
15.00	-30.69	-6.71	0.00	-698.3	0.00	698.28	3,362.82	870.45	3,372.89	2,812.63	0.28	-0.18	0.168
16.00	-30.40	-6.68	0.00	-691.6	0.00	691.57	3,354.79	866.84	3,345.03	2,794.20	0.32	-0.19	0.167
17.00	-30.12	-6.66	0.00	-684.9	0.00	684.88	3,346.72	863.24	3,317.30	2,775.78	0.36	-0.2	0.166
18.00	-29.84	-6.64	0.00	-678.2	0.00	678.22	3,338.59	859.64	3,289.67	2,757.38	0.41	-0.22	0.165
19.00	-29.56	-6.61	0.00	-671.6	0.00	671.59	3,330.41	856.04	3,262.17	2,738.99	0.45	-0.23	0.165
20.00	-29.28	-6.59	0.00	-665.0	0.00	664.97	3,322.19	852.43	3,234.78	2,720.63	0.5	-0.24	0.164
21.00	-29.00	-6.56	0.00	-658.4	0.00	658.39	3,313.92	848.83	3,207.50	2,702.28	0.55	-0.25	0.163
22.00	-28.72	-6.54	0.00	-651.8	0.00	651.82	3,305.59	845.23	3,180.34	2,683.94	0.61	-0.26	0.162
23.00	-28.45	-6.52	0.00	-645.3	0.00	645.28	3,297.22	841.63	3,153.30	2,665.63	0.66	-0.28	0.161
24.00	-28.17	-6.49	0.00	-638.8	0.00	638.76	3,288.80	838.02	3,126.37	2,647.33	0.72	-0.29	0.160
25.00	-27.89	-6.47	0.00	-632.3	0.00	632.27	3,280.33	834.42	3,099.55	2,629.06	0.79	-0.3	0.159
26.00	-27.62	-6.44	0.00	-625.8	0.00	625.81	3,271.82	830.82	3,072.86	2,610.80	0.85	-0.31	0.159
27.00	-27.34	-6.42	0.00	-619.4	0.00	619.36	3,263.25	827.21	3,046.27	2,592.57	0.92	-0.32	0.158
28.00	-27.07	-6.39	0.00	-612.9	0.00	612.94	3,254.63	823.61	3,019.81	2,574.36	0.99	-0.34	0.157
29.00	-26.80	-6.37	0.00	-606.6	0.00	606.55	3,245.97	820.01	2,993.46	2,556.16	1.06	-0.35	0.156
30.00	-26.52	-6.34	0.00	-600.2	0.00	600.18	3,237.25	816.41	2,967.22	2,537.99	1.13	-0.36	0.155
31.00	-26.25	-6.32	0.00	-593.8	0.00	593.84	3,228.49	812.80	2,941.10	2,519.85	1.21	-0.37	0.154
32.00	-25.98	-6.29	0.00	-587.5	0.00	587.52	3,219.68	809.20	2,915.09	2,501.72	1.29	-0.39	0.153
32.94	-25.73	-6.28	0.00	-581.6	0.00	581.61	3,211.35	805.82	2,890.75	2,484.71	1.36	-0.4	0.152
32.94	-25.73	-6.28	0.00	-581.6	0.00	581.61	3,211.35	805.82	2,890.75	2,484.71	1.36	-0.4	0.242
33.00	-25.71	-6.27	0.00	-581.2	0.00	581.23	3,210.82	805.60	2,889.20	2,483.62	1.37	-0.4	0.242
34.00	-25.51	-6.24	0.00	-575.0	0.00	574.96	3,201.91	802.00	2,863.43	2,465.55	1.46	-0.42	0.241
35.00	-25.31	-6.22	0.00	-568.7	0.00	568.72	3,192.95	798.39	2,837.77	2,447.50	1.54	-0.44	0.240
36.00	-25.10	-6.20	0.00	-562.5	0.00	562.50	3,183.94	794.79	2,812.23	2,429.47	1.64	-0.46	0.239
37.00	-24.90	-6.17	0.00	-556.3	0.00	556.30	3,174.88	791.19	2,786.80	2,411.47	1.74	-0.48	0.239
38.00	-24.71	-6.15	0.00	-550.1	0.00	550.13	3,165.78	787.59	2,761.49	2,393.50	1.84	-0.49	0.238
39.00	-24.53	-6.14	0.00	-544.0	0.00	543.97	3,156.62	783.98	2,736.29	2,375.55	1.94	-0.51	0.237
40.00	-24.35	-6.12	0.00	-537.8	0.00	537.83	3,147.42	780.38	2,711.21	2,357.63	2.05	-0.53	0.236
41.00	-24.17	-6.11	0.00	-531.7	0.00	531.71	3,138.17	776.78	2,686.24	2,339.74	2.17	-0.55	0.235
42.00	-23.99	-6.09	0.00	-525.6	0.00	525.61	3,128.87	773.18	2,661.39	2,321.87	2.29	-0.57	0.234
42.33	-23.93	-6.09	0.00	-523.6	0.00	523.57	3,125.75	771.97	2,653.11	2,315.91	2.33	-0.58	0.234
43.00	-23.72	-6.07	0.00	-519.5	0.00	519.52	3,119.52	769.57	2,636.66	2,304.04	2.41	-0.59	0.233
44.00	-23.40	-6.05	0.00	-513.4	0.00	513.45	3,110.12	765.97	2,612.04	2,286.23	2.53	-0.61	0.232
45.00	-23.08	-6.03	0.00	-507.4	0.00	507.39	3,100.67	762.37	2,587.53	2,268.46	2.67	-0.63	0.231
46.00	-22.77	-6.01	0.00	-501.4	0.00	501.36	3,091.17	758.77	2,563.15	2,250.71	2.8	-0.65	0.230
47.00	-22.46	-5.99	0.00	-495.4	0.00	495.35	3,081.63	755.16	2,538.87	2,233.00	2.94	-0.67	0.229
48.00	-22.15	-5.97	0.00	-489.4	0.00	489.35	2,761.07	703.00	2,399.72	2,033.59	3.08	-0.69	0.249
49.00	-21.98	-5.96	0.00	-483.4	0.00	483.38	2,753.28	699.69	2,377.23	2,018.24	3.23	-0.71	0.248
50.00	-21.82	-5.94	0.00	-477.4	0.00	477.42	2,745.45	696.39	2,354.85	2,002.90	3.38	-0.73	0.246
51.00	-21.65	-5.92	0.00	-471.5	0.00	471.48	2,737.56	693.09	2,332.57	1,987.59	3.54	-0.76	0.245
52.00	-21.49	-5.90	0.00	-465.6	0.00	465.57	2,729.63	689.78	2,310.40	1,972.29	3.7	-0.78	0.244
53.00	-21.33	-5.88	0.00	-459.7	0.00	459.67	2,721.65	686.48	2,288.33	1,957.02	3.86	-0.8	0.243
54.00	-21.17	-5.86	0.00	-453.8	0.00	453.78	2,713.61	683.18	2,266.37	1,941.76	4.03	-0.82	0.242
55.00	-21.00	-5.84	0.00	-447.9	0.00	447.92	2,705.53	679.88	2,244.52	1,926.53	4.21	-0.84	0.240
56.00	-20.84	-5.82	0.00	-442.1	0.00	442.08	2,697.40	676.57	2,222.77	1,911.32	4.38	-0.86	0.239
57.00	-20.68	-5.80	0.00	-436.2	0.00	436.25	2,689.22	673.27	2,201.13	1,896.13	4.57	-0.88	0.238
58.00	-20.52	-5.78	0.00	-430.4	0.00	430.45	2,681.00	669.97	2,179.59	1,880.97	4.75	-0.9	0.237

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

59.00	-20.37	-5.76	0.00	-424.7	0.00	424.66	2,672.72	666.66	2,158.16	1,865.82	4.94	-0.92	0.235
60.00	-20.21	-5.74	0.00	-418.9	0.00	418.90	2,664.40	663.36	2,136.84	1,850.71	5.14	-0.94	0.234
61.00	-20.05	-5.72	0.00	-413.2	0.00	413.15	2,656.02	660.06	2,115.62	1,835.61	5.34	-0.96	0.233
62.00	-19.89	-5.70	0.00	-407.4	0.00	407.43	2,647.60	656.76	2,094.51	1,820.54	5.54	-0.99	0.231
63.00	-19.74	-5.68	0.00	-401.7	0.00	401.73	2,639.12	653.45	2,073.50	1,805.50	5.75	-1.01	0.230
64.00	-19.58	-5.66	0.00	-396.0	0.00	396.04	2,630.60	650.15	2,052.60	1,790.48	5.97	-1.03	0.229
65.00	-19.43	-5.64	0.00	-390.4	0.00	390.38	2,622.03	646.85	2,031.81	1,775.49	6.18	-1.05	0.227
66.00	-19.27	-5.62	0.00	-384.7	0.00	384.74	2,613.41	643.54	2,011.12	1,760.52	6.41	-1.07	0.226
67.00	-19.12	-5.60	0.00	-379.1	0.00	379.12	2,604.75	640.24	1,990.54	1,745.59	6.63	-1.09	0.225
68.00	-18.97	-5.58	0.00	-373.5	0.00	373.52	2,596.03	636.94	1,970.06	1,730.68	6.86	-1.11	0.223
69.00	-18.82	-5.56	0.00	-368.0	0.00	367.95	2,587.26	633.64	1,949.69	1,715.80	7.1	-1.13	0.222
70.00	-18.67	-5.53	0.00	-362.4	0.00	362.39	2,578.45	630.33	1,929.42	1,700.94	7.34	-1.15	0.220
71.00	-18.51	-5.51	0.00	-356.9	0.00	356.86	2,569.58	627.03	1,909.26	1,686.12	7.58	-1.18	0.219
72.00	-18.36	-5.49	0.00	-351.4	0.00	351.35	2,560.67	623.73	1,889.21	1,671.33	7.83	-1.2	0.217
73.00	-18.22	-5.47	0.00	-345.9	0.00	345.86	2,551.71	620.42	1,869.26	1,656.57	8.08	-1.22	0.216
74.00	-18.07	-5.44	0.00	-340.4	0.00	340.39	2,542.70	617.12	1,849.42	1,641.84	8.34	-1.24	0.215
75.00	-17.92	-5.42	0.00	-335.0	0.00	334.95	2,533.64	613.82	1,829.68	1,627.14	8.6	-1.26	0.213
76.00	-17.77	-5.40	0.00	-329.5	0.00	329.52	2,524.53	610.52	1,810.05	1,612.47	8.87	-1.28	0.211
77.00	-17.62	-5.38	0.00	-324.1	0.00	324.13	2,515.37	607.21	1,790.53	1,597.83	9.14	-1.3	0.210
78.00	-17.48	-5.35	0.00	-318.8	0.00	318.75	2,506.16	603.91	1,771.11	1,583.23	9.42	-1.32	0.208
79.00	-17.33	-5.33	0.00	-313.4	0.00	313.40	2,496.91	600.61	1,751.80	1,568.66	9.7	-1.35	0.207
80.00	-17.06	-4.89	0.00	-308.1	0.00	308.07	2,487.60	597.30	1,732.59	1,554.13	9.98	-1.37	0.205
81.00	-16.92	-4.87	0.00	-303.2	0.00	303.18	2,478.25	594.00	1,713.49	1,539.63	10.27	-1.39	0.204
82.00	-16.78	-4.84	0.00	-298.3	0.00	298.31	2,468.85	590.70	1,694.50	1,525.16	10.56	-1.41	0.202
83.00	-16.64	-4.82	0.00	-293.5	0.00	293.47	2,459.40	587.40	1,675.61	1,510.74	10.86	-1.43	0.201
84.00	-16.49	-4.80	0.00	-288.6	0.00	288.64	2,449.90	584.09	1,656.82	1,496.34	11.16	-1.45	0.200
85.00	-16.35	-4.78	0.00	-283.8	0.00	283.85	2,439.32	580.79	1,638.15	1,481.36	11.47	-1.47	0.198
85.08	-16.34	-4.77	0.00	-283.4	0.00	283.45	2,438.15	580.51	1,636.58	1,479.94	11.49	-1.47	0.198
86.00	-16.13	-4.74	0.00	-279.1	0.00	279.08	2,425.45	577.49	1,619.57	1,464.47	11.78	-1.49	0.197
87.00	-15.89	-4.72	0.00	-274.3	0.00	274.33	2,411.58	574.18	1,601.11	1,447.67	12.09	-1.52	0.196
88.00	-15.60	-4.67	0.00	-269.6	0.00	269.62	2,397.70	570.88	1,582.75	1,430.97	12.41	-1.54	0.195
89.00	-15.37	-4.65	0.00	-264.9	0.00	264.94	2,383.83	567.58	1,564.50	1,414.36	12.74	-1.56	0.194
90.00	-15.14	-4.63	0.00	-260.3	0.00	260.29	2,369.96	564.28	1,546.35	1,397.85	13.06	-1.58	0.193
90.00	-15.14	-4.62	0.00	-260.3	0.00	260.29	1,850.78	471.63	1,320.06	1,117.72	13.06	-1.58	0.241
91.00	-15.02	-4.59	0.00	-255.7	0.00	255.68	1,844.43	468.93	1,304.99	1,107.45	13.4	-1.6	0.239
92.00	-14.91	-4.57	0.00	-251.1	0.00	251.08	1,838.03	466.23	1,290.00	1,097.18	13.74	-1.62	0.237
93.00	-14.79	-4.55	0.00	-246.5	0.00	246.51	1,831.57	463.53	1,275.09	1,086.93	14.08	-1.65	0.235
94.00	-14.67	-4.52	0.00	-242.0	0.00	241.97	1,825.06	460.82	1,260.27	1,076.70	14.43	-1.67	0.233
95.00	-14.55	-4.50	0.00	-237.4	0.00	237.45	1,818.51	458.12	1,245.54	1,066.48	14.78	-1.7	0.231
96.00	-14.44	-4.47	0.00	-233.0	0.00	232.95	1,811.91	455.42	1,230.89	1,056.28	15.14	-1.72	0.229
97.00	-14.32	-4.45	0.00	-228.5	0.00	228.48	1,805.26	452.72	1,216.33	1,046.10	15.5	-1.75	0.226
98.00	-14.21	-4.42	0.00	-224.0	0.00	224.03	1,798.56	450.01	1,201.86	1,035.93	15.87	-1.77	0.224
99.00	-14.09	-4.40	0.00	-219.6	0.00	219.61	1,791.81	447.31	1,187.47	1,025.78	16.24	-1.79	0.222
100.00	-13.97	-4.33	0.00	-215.2	0.00	215.19	1,785.01	444.61	1,173.17	1,015.66	16.62	-1.82	0.220
101.00	-13.85	-4.31	0.00	-210.9	0.00	210.86	1,778.16	441.91	1,158.96	1,005.55	17	-1.84	0.218
102.00	-13.74	-4.28	0.00	-206.6	0.00	206.55	1,771.27	439.20	1,144.83	995.46	17.39	-1.87	0.215
103.00	-13.63	-4.26	0.00	-202.3	0.00	202.27	1,764.32	436.50	1,130.79	985.40	17.78	-1.89	0.213
104.00	-13.52	-4.23	0.00	-198.0	0.00	198.01	1,757.33	433.80	1,116.84	975.35	18.18	-1.91	0.211
105.00	-13.41	-4.20	0.00	-193.8	0.00	193.78	1,750.28	431.10	1,102.97	965.33	18.59	-1.94	0.208
106.00	-13.29	-4.18	0.00	-189.6	0.00	189.58	1,743.19	428.39	1,089.19	955.33	18.99	-1.96	0.206
107.00	-13.18	-4.15	0.00	-185.4	0.00	185.40	1,736.05	425.69	1,075.50	945.35	19.41	-1.98	0.204
108.00	-13.07	-4.13	0.00	-181.2	0.00	181.25	1,728.86	422.99	1,061.89	935.40	19.83	-2.01	0.201
109.00	-12.97	-4.10	0.00	-177.1	0.00	177.12	1,721.62	420.29	1,048.37	925.47	20.25	-2.03	0.199
110.00	-12.64	-3.97	0.00	-173.0	0.00	173.02	1,714.33	417.58	1,034.94	915.56	20.68	-2.05	0.196
111.00	-12.53	-3.94	0.00	-169.1	0.00	169.06	1,707.00	414.88	1,021.59	905.68	21.11	-2.08	0.194
112.00	-12.43	-3.91	0.00	-165.1	0.00	165.12	1,699.61	412.18	1,008.33	895.83	21.55	-2.1	0.192
113.00	-12.31	-3.87	0.00	-161.2	0.00	161.20	1,692.18	409.48	995.16	886.00	21.99	-2.12	0.189
114.00	-12.20	-3.84	0.00	-157.3	0.00	157.33	1,684.69	406.77	982.07	876.20	22.44	-2.15	0.187
115.00	-12.10	-3.82	0.00	-153.5	0.00	153.49	1,677.16	404.07	969.07	866.42	22.89	-2.17	0.184
116.00	-11.99	-3.79	0.00	-149.7	0.00	149.67	1,669.58	401.37	956.15	856.67	23.34	-2.19	0.182
117.00	-11.89	-3.76	0.00	-145.9	0.00	145.88	1,661.95	398.67	943.33	846.95	23.81	-2.21	0.179
118.00	-11.79	-3.73	0.00	-142.1	0.00	142.12	1,654.27	395.96	930.59	837.26	24.27	-2.24	0.177
119.00	-11.68	-3.71	0.00	-138.4	0.00	138.39	1,646.54	393.26	917.93	827.60	24.74	-2.26	0.174
120.00	-11.58	-3.68	0.00	-134.7	0.00	134.68	1,638.76	390.56	905.36	817.97	25.22	-2.28	0.172
121.00	-11.48	-3.65	0.00	-131.0	0.00	131.00	1,629.00	387.86	892.88	807.40	25.7	-2.3	0.169
122.00	-11.38	-3.62	0.00	-127.4	0.00	127.35	1,617.65	385.15	880.49	796.13	26.18	-2.33	0.167
123.00	-11.28	-3.59	0.00	-123.7	0.00	123.73	1,606.30	382.45	868.18	784.93	26.67	-2.35	0.165
124.00	-11.17	-3.57	0.00	-120.1	0.00	120.14	1,594.95	379.75	855.96	773.81	27.17	-2.37	0.162
124.99	-11.08	-3.55	0.00	-116.6	0.00	116.60	1,583.67	377.06	843.90	762.84	27.66	-2.39	0.160
124.99	-11.08	-3.55	0.00	-116.6	0.00	116.60	1,139.75	294.06	659.74	551.90	27.66	-2.39	0.221
125.00	-11.07	-3.54	0.00	-116.6	0.00	116.58	1,139.72	294.05	659.69	551.87	27.67	-2.39	0.221
126.00	-10.99	-3.51	0.00	-113.0	0.00	113.04	1,134.97	291.94	650.29	545.60	28.17	-2.42	0.217
127.00	-10.91	-3.48	0.00	-109.5	0.00	109.53	1,130.17	289.84	640.96	539.35	28.68	-2.44	0.213
128.00	-10.83	-3.46	0.00	-106.0	0.00	106.04	1,125.33	287.74	631.70	533.11	29.19	-2.47	0.209
129.00	-10.74	-3.43	0.00	-102.6	0.00	102.59	1,120.43	285.64	622.51	526.88	29.71	-2.5	0.204

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

130.00	-10.66	-3.41	0.00	-99.2	0.00	99.15	1,115.49	283.54	613.39	520.65	30.24	-2.52	0.200
131.00	-7.48	-2.65	0.00	-95.8	0.00	95.75	1,110.50	281.44	604.33	514.45	30.77	-2.55	0.193
132.00	-7.40	-2.63	0.00	-93.1	0.00	93.09	1,105.46	279.33	595.34	508.25	31.31	-2.57	0.190
133.00	-7.32	-2.60	0.00	-90.5	0.00	90.47	1,100.37	277.23	586.41	502.06	31.85	-2.6	0.187
134.00	-7.24	-2.58	0.00	-87.9	0.00	87.87	1,095.23	275.13	577.56	495.89	32.39	-2.62	0.184
135.00	-7.17	-2.55	0.00	-85.3	0.00	85.29	1,090.04	273.03	568.77	489.74	32.95	-2.65	0.181
136.00	-7.09	-2.52	0.00	-82.7	0.00	82.74	1,084.80	270.93	560.05	483.60	33.5	-2.67	0.178
137.00	-7.01	-2.50	0.00	-80.2	0.00	80.22	1,079.51	268.82	551.40	477.47	34.07	-2.7	0.175
138.00	-6.94	-2.47	0.00	-77.7	0.00	77.72	1,074.18	266.72	542.81	471.36	34.63	-2.72	0.171
139.00	-6.86	-2.45	0.00	-75.2	0.00	75.24	1,068.79	264.62	534.29	465.26	35.21	-2.75	0.168
140.00	-6.79	-2.42	0.00	-72.8	0.00	72.80	1,063.36	262.52	525.84	459.18	35.78	-2.77	0.165
141.00	-6.71	-2.40	0.00	-70.4	0.00	70.37	1,057.88	260.42	517.45	453.12	36.37	-2.79	0.162
142.00	-6.64	-2.37	0.00	-68.0	0.00	67.97	1,052.35	258.31	509.14	447.07	36.95	-2.82	0.158
143.00	-6.50	-2.25	0.00	-65.6	0.00	65.60	1,046.77	256.21	500.89	441.05	37.55	-2.84	0.155
144.00	-6.38	-2.17	0.00	-63.4	0.00	63.35	1,041.14	254.11	492.71	435.04	38.14	-2.86	0.152
145.00	-6.31	-2.15	0.00	-61.2	0.00	61.18	1,035.46	252.01	484.59	429.05	38.74	-2.89	0.149
146.00	-6.24	-2.12	0.00	-59.0	0.00	59.04	1,029.73	249.91	476.54	423.08	39.35	-2.91	0.146
147.00	-6.17	-2.10	0.00	-56.9	0.00	56.92	1,023.96	247.80	468.56	417.13	39.96	-2.93	0.143
148.00	-6.10	-2.07	0.00	-54.8	0.00	54.82	1,018.13	245.70	460.65	411.20	40.58	-2.95	0.139
149.00	-6.04	-2.05	0.00	-52.8	0.00	52.75	1,012.26	243.60	452.81	405.29	41.2	-2.97	0.136
150.00	-5.75	-1.95	0.00	-50.7	0.00	50.70	1,006.34	241.50	445.03	399.41	41.82	-3	0.133
151.00	-5.68	-1.93	0.00	-48.8	0.00	48.75	1,000.37	239.40	437.32	393.54	42.45	-3.02	0.130
152.00	-5.61	-1.91	0.00	-46.8	0.00	46.82	994.35	237.29	429.68	387.70	43.09	-3.04	0.126
153.00	-5.55	-1.88	0.00	-44.9	0.00	44.91	987.80	235.19	422.10	381.70	43.73	-3.06	0.123
154.00	-5.48	-1.86	0.00	-43.0	0.00	43.03	978.97	233.09	414.59	374.87	44.37	-3.08	0.120
155.00	-5.42	-1.83	0.00	-41.2	0.00	41.17	970.15	230.99	407.15	368.10	45.01	-3.1	0.118
156.00	-5.34	-1.79	0.00	-39.3	0.00	39.34	961.32	228.89	399.78	361.39	45.66	-3.12	0.114
157.00	-5.24	-1.71	0.00	-37.6	0.00	37.55	952.49	226.78	392.47	354.75	46.32	-3.14	0.111
158.00	-5.18	-1.70	0.00	-35.8	0.00	35.84	943.66	224.68	385.23	348.16	46.98	-3.16	0.108
159.00	-5.12	-1.68	0.00	-34.1	0.00	34.14	934.83	222.58	378.06	341.64	47.64	-3.17	0.105
160.00	-5.05	-1.66	0.00	-32.5	0.00	32.47	926.00	220.48	370.96	335.18	48.31	-3.19	0.102
161.00	-4.99	-1.64	0.00	-30.8	0.00	30.81	917.18	218.38	363.92	328.78	48.98	-3.21	0.099
162.00	-4.93	-1.62	0.00	-29.2	0.00	29.17	908.35	216.27	356.95	322.44	49.65	-3.23	0.096
163.00	-4.87	-1.60	0.00	-27.5	0.00	27.54	899.52	214.17	350.05	316.17	50.33	-3.24	0.093
164.00	-4.81	-1.59	0.00	-25.9	0.00	25.94	890.69	212.07	343.21	309.95	51.01	-3.26	0.089
165.00	-4.75	-1.57	0.00	-24.4	0.00	24.35	881.86	209.97	336.45	303.80	51.69	-3.28	0.086
166.00	-4.69	-1.55	0.00	-22.8	0.00	22.79	873.03	207.87	329.75	297.71	52.38	-3.29	0.082
167.00	-4.64	-1.53	0.00	-21.2	0.00	21.24	864.21	205.76	323.12	291.68	53.07	-3.31	0.078
168.00	-4.58	-1.51	0.00	-19.7	0.00	19.71	855.38	203.66	316.55	285.72	53.77	-3.32	0.074
169.00	-4.52	-1.49	0.00	-18.2	0.00	18.19	846.55	201.56	310.05	279.81	54.46	-3.33	0.070
170.00	-4.39	-1.38	0.00	-16.5	0.00	16.51	837.72	199.46	303.62	273.97	55.16	-3.35	0.066
171.00	-4.34	-1.36	0.00	-15.1	0.00	15.13	828.89	197.36	297.26	268.18	55.86	-3.36	0.062
172.00	-4.29	-1.35	0.00	-13.8	0.00	13.77	820.06	195.25	290.96	262.46	56.57	-3.37	0.058
173.00	-4.23	-1.33	0.00	-12.4	0.00	12.43	811.24	193.15	284.74	256.80	57.27	-3.38	0.054
174.00	-4.18	-1.32	0.00	-11.1	0.00	11.10	802.41	191.05	278.58	251.21	57.98	-3.39	0.049
175.00	-4.13	-1.30	0.00	-9.8	0.00	9.78	793.58	188.95	272.48	245.67	58.69	-3.4	0.045
176.00	-4.08	-1.29	0.00	-8.5	0.00	8.48	784.75	186.85	266.46	240.20	59.4	-3.41	0.041
177.00	-3.99	-1.24	0.00	-7.2	0.00	7.19	775.92	184.74	260.50	234.79	60.12	-3.41	0.036
178.00	-3.94	-1.22	0.00	-6.0	0.00	5.95	767.09	182.64	254.61	229.44	60.83	-3.42	0.031
179.00	-3.89	-1.21	0.00	-4.7	0.00	4.73	758.27	180.54	248.78	224.15	61.55	-3.43	0.026
180.00	0.00	-0.97	0.00	-3.5	0.00	3.52	749.44	178.44	243.03	218.92	62.27	-3.43	0.016

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period (S_s):	0.183
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.054
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.000
Site Coefficient F_a :	1.600
Site Coefficient F_v :	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.195
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.086
Seismic Response Coefficient (C_s):	0.030
Upper Limit C_s :	0.030
Lower Limit C_s :	0.030
Period based on Rayleigh Method (sec):	3.710
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	2.000
Total Unfactored Dead Load:	35.010 k
Seismic Base Shear (E):	1.050 k

1.2D + 1.0Ev + 1.0Eh Normal

Seismic

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
185	179.5	48	1,558	0.004	4	60
184	178.5	49	1,554	0.004	4	60
183	177.5	49	1,549	0.004	4	61
182	176.5	50	1,563	0.004	4	62
181	175.5	51	1,558	0.004	4	63
180	174.5	51	1,553	0.004	4	63
179	173.5	51	1,547	0.004	4	64
178	172.5	52	1,541	0.004	4	64
177	171.5	52	1,536	0.004	4	65
176	170.5	53	1,530	0.004	4	65
175	169.5	58	1,665	0.004	5	72
174	168.5	58	1,657	0.004	5	72
173	167.5	59	1,649	0.004	5	73
172	166.5	59	1,640	0.004	5	73
171	165.5	60	1,632	0.004	5	74
170	164.5	60	1,623	0.004	5	74
169	163.5	60	1,614	0.004	5	75
168	162.5	61	1,605	0.004	5	75
167	161.5	61	1,596	0.004	5	76
166	160.5	62	1,587	0.004	5	76
165	159.5	62	1,578	0.004	5	77
164	158.5	62	1,568	0.004	4	77
163	157.5	63	1,559	0.004	4	78
162	156.5	64	1,569	0.004	4	79
161	155.5	65	1,579	0.004	5	81
160	154.5	66	1,568	0.004	4	81
159	153.5	66	1,558	0.004	4	82
158	152.5	67	1,547	0.004	4	82
157	151.5	67	1,536	0.004	4	83
156	150.5	67	1,525	0.004	4	83
155	149.5	68	1,517	0.004	4	84
154	148.5	68	1,506	0.004	4	85
153	147.5	69	1,495	0.004	4	85
152	146.5	69	1,483	0.004	4	86

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
151	145.5	70	1,472	0.004	4	86
150	144.5	70	1,460	0.004	4	87
149	143.5	72	1,482	0.004	4	89
148	142.5	74	1,503	0.004	4	92
147	141.5	74	1,490	0.004	4	92
146	140.5	75	1,477	0.004	4	93
145	139.5	75	1,464	0.004	4	93
144	138.5	76	1,451	0.004	4	94
143	137.5	76	1,438	0.004	4	94
142	136.5	76	1,425	0.004	4	95
141	135.5	77	1,411	0.004	4	95
140	134.5	77	1,398	0.004	4	96
139	133.5	78	1,385	0.004	4	96
138	132.5	78	1,371	0.004	4	97
137	131.5	79	1,358	0.004	4	97
136	130.5	81	1,384	0.004	4	101
135	129.5	82	1,369	0.004	4	101
134	128.5	82	1,355	0.004	4	102
133	127.5	82	1,341	0.004	4	102
132	126.5	83	1,326	0.004	4	103
131	125.5	83	1,312	0.004	4	103
130	124.9971	0	8	0.000	0	1
129	124.4971	99	1,539	0.004	4	123
128	123.5	100	1,531	0.004	4	124
127	122.5	101	1,514	0.004	4	125
126	121.5	101	1,497	0.004	4	126
125	120.5	102	1,480	0.004	4	126
124	119.5	102	1,463	0.004	4	127
123	118.5	103	1,446	0.004	4	128
122	117.5	104	1,429	0.004	4	128
121	116.5	104	1,412	0.004	4	129
120	115.5	105	1,395	0.004	4	130
119	114.5	105	1,378	0.004	4	130
118	113.5	106	1,361	0.004	4	131
117	112.5	106	1,345	0.004	4	132
116	111.5	107	1,328	0.004	4	132
115	110.5	107	1,311	0.004	4	133
114	109.5	108	1,295	0.004	4	134
113	108.5	109	1,278	0.004	4	134
112	107.5	109	1,260	0.003	4	135
111	106.5	110	1,243	0.003	4	136
110	105.5	110	1,225	0.003	4	136
109	104.5	111	1,208	0.003	3	137
108	103.5	111	1,191	0.003	3	138
107	102.5	112	1,173	0.003	3	138
106	101.5	112	1,156	0.003	3	139
105	100.5	113	1,139	0.003	3	140
104	99.5	113	1,123	0.003	3	141
103	98.5	114	1,105	0.003	3	141
102	97.5	114	1,088	0.003	3	142
101	96.5	115	1,071	0.003	3	142
100	95.5	115	1,053	0.003	3	143
99	94.5	116	1,036	0.003	3	144
98	93.5	117	1,019	0.003	3	144
97	92.5	117	1,002	0.003	3	145
96	91.5	118	984	0.003	3	146
95	90.5004	118	967	0.003	3	146
94	90.0004	0	1	0.000	0	0
93	89.5	228	1,829	0.005	5	283
92	88.5	230	1,798	0.005	5	284
91	87.5	231	1,766	0.005	5	286
90	86.5	232	1,735	0.005	5	287
89	85.5421	213	1,561	0.004	4	264
88	85.0421	12	85	0.000	0	15
87	84.5	140	999	0.003	3	173
86	83.5	141	980	0.003	3	174
85	82.5	141	961	0.003	3	175
84	81.5	142	942	0.003	3	176
83	80.5	142	923	0.002	3	176
82	79.5	143	906	0.002	3	178

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
81	78.5	144	888	0.002	3	178
80	77.5	145	869	0.002	2	179
79	76.5	145	850	0.002	2	180
78	75.5	146	832	0.002	2	181
77	74.5	147	814	0.002	2	182
76	73.5	147	795	0.002	2	182
75	72.5	148	777	0.002	2	183
74	71.5	149	759	0.002	2	184
73	70.5	149	741	0.002	2	185
72	69.5	150	724	0.002	2	186
71	68.5	150	706	0.002	2	186
70	67.5	151	688	0.002	2	187
69	66.5	152	671	0.002	2	188
68	65.5	152	654	0.002	2	189
67	64.5	153	637	0.002	2	190
66	63.5	154	620	0.002	2	190
65	62.5	154	603	0.002	2	191
64	61.5	155	586	0.002	2	192
63	60.5	156	569	0.002	2	193
62	59.5	156	553	0.002	2	194
61	58.5	157	537	0.002	2	194
60	57.5	157	521	0.001	1	195
59	56.5	158	505	0.001	1	196
58	55.5	159	489	0.001	1	197
57	54.5	159	473	0.001	1	198
56	53.5	160	458	0.001	1	198
55	52.5	161	443	0.001	1	199
54	51.5	161	428	0.001	1	200
53	50.5	162	413	0.001	1	201
52	49.5	163	398	0.001	1	201
51	48.5	163	384	0.001	1	202
50	47.5	310	699	0.002	2	384
49	46.5	311	673	0.002	2	386
48	45.5	313	647	0.002	2	387
47	44.5	314	622	0.002	2	389
46	43.5	315	597	0.002	2	391
45	42.6671	211	384	0.001	1	261
44	42.1671	59	105	0.000	0	73
43	41.5	178	306	0.001	1	220
42	40.5	178	292	0.001	1	221
41	39.5	179	279	0.001	1	222
40	38.5	180	266	0.001	1	223
39	37.5	190	267	0.001	1	235
38	36.5	200	266	0.001	1	247
37	35.5	200	253	0.001	1	248
36	34.5	201	239	0.001	1	249
35	33.5	202	227	0.001	1	250
34	32.97	12	13	0.000	0	15
33	32.47	253	267	0.001	1	314
32	31.5	270	268	0.001	1	335
31	30.5	271	252	0.001	1	335
30	29.5	271	236	0.001	1	336
29	28.5	272	221	0.001	1	337
28	27.5	273	206	0.001	1	338
27	26.5	274	192	0.000	1	339
26	25.5	274	178	0.000	1	340
25	24.5	275	165	0.000	0	341
24	23.5	276	152	0.000	0	341
23	22.5	276	140	0.000	0	342
22	21.5	277	128	0.000	0	343
21	20.5	278	117	0.000	0	344
20	19.5	278	106	0.000	0	345
19	18.5	279	96	0.000	0	346
18	17.5	280	86	0.000	0	347
17	16.5	281	76	0.000	0	348
16	15.5	281	68	0.000	0	348
15	14.5	282	59	0.000	0	349
14	13.5	283	52	0.000	0	350
13	12.5	283	44	0.000	0	351
12	11.5	284	38	0.000	0	352

ASSET: 302501, Plymouth CT 3
 CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
 ENG NO: 13701212_C4_05

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
11	10.5	285	31	0.000	0	353
10	9.5	285	26	0.000	0	354
9	8.5	286	21	0.000	0	354
8	7.5	287	16	0.000	0	355
7	6.5	287	12	0.000	0	356
6	5.5	288	9	0.000	0	357
5	4.5	289	6	0.000	0	358
4	3.5	290	4	0.000	0	359
3	2.5	290	2	0.000	0	360
2	1.5	291	1	0.000	0	361
1	0.5	292	0	0.000	0	361
Generic 6' Omni	180	25	810	0.002	2	31
Powerwave Allgon LGP21401	180	85	2,741	0.008	8	105
Raycap DC6-48-60-18-8F ("Squid")	180	64	2,061	0.006	6	79
Ericsson RRUS 4449 B5, B12	180	213	6,901	0.019	20	264
Ericsson RRUS 4478 B14	180	178	5,774	0.016	16	221
Ericsson RRUS 32 B2	180	159	5,152	0.014	15	197
Powerwave Allgon 7770.00	180	105	3,402	0.009	10	130
CCI HPA-65R-BUU-H6	180	153	4,957	0.014	14	190
CCI DMP65R-BU6DA	180	238	7,718	0.021	22	295
CCI OPA65R-BU6D	180	190	6,143	0.017	18	235
Generic Round Platform with Handrails	180	2,500	81,000	0.220	231	3,098
Motorola PTP 800 ODU	177	20	633	0.002	2	25
Motorola PTP 800 ODU	110	20	244	0.001	1	25
Radio Waves HPD2-4.7NS	177	27	846	0.002	2	33
RFS APXV18-206517S-C	170	79	2,289	0.006	7	98
Sinclair SC479-HF1LDF	157	34	838	0.002	2	42
Sinclair SC479-HF1LDF	143	34	695	0.002	2	42
Sinclair SC479-HF1LDF	143	34	695	0.002	2	42
Scala OGT9-840	156	18	450	0.001	1	23
Bird 432-83H-01-T	150	25	562	0.002	2	31
Stand-Off	150	200	4,500	0.012	13	248
Stand-Off	100	0	0	0.000	0	0
Antel BCD-80609	144	53	1,099	0.003	3	66
Commscope RDIDC-9181-PF-48	131	22	376	0.001	1	27
Fujitsu TA08025-B605	131	225	3,861	0.010	11	279
Fujitsu TA08025-B604	131	192	3,290	0.009	9	238
JMA Wireless MX08FRO665-21	131	194	3,321	0.009	9	240
Generic Flat Platform with Handrails	131	2,500	42,902	0.117	123	3,098
Lone Star Electronics LS-230	113	11	140	0.000	0	14
Flat Side Arm	110	150	1,815	0.005	5	186
Andrew VHLP2.6	110	48	581	0.002	2	59
Bird FSA-10-67-DIN	100	9	90	0.000	0	11
Generic Radio/ODU	88	60	465	0.001	1	74
Andrew Microwaves P6F-0-9-N7A	80	134	858	0.002	2	166
		35,010	367,556	0.999	1,050	43,379

0.9D - 1.0Ev + 1.0Eh Normal

Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
185	179.5	48	1,558	0.004	4	42
184	178.5	49	1,554	0.004	4	42
183	177.5	49	1,549	0.004	4	42
182	176.5	50	1,563	0.004	4	43
181	175.5	51	1,558	0.004	4	44
180	174.5	51	1,553	0.004	4	44
179	173.5	51	1,547	0.004	4	44
178	172.5	52	1,541	0.004	4	45
177	171.5	52	1,536	0.004	4	45
176	170.5	53	1,530	0.004	4	45
175	169.5	58	1,665	0.004	5	50
174	168.5	58	1,657	0.004	5	50

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
173	167.5	59	1,649	0.004	5	51
172	166.5	59	1,640	0.004	5	51
171	165.5	60	1,632	0.004	5	51
170	164.5	60	1,623	0.004	5	52
169	163.5	60	1,614	0.004	5	52
168	162.5	61	1,605	0.004	5	52
167	161.5	61	1,596	0.004	5	53
166	160.5	62	1,587	0.004	5	53
165	159.5	62	1,578	0.004	5	53
164	158.5	62	1,568	0.004	4	54
163	157.5	63	1,559	0.004	4	54
162	156.5	64	1,569	0.004	4	55
161	155.5	65	1,579	0.004	5	56
160	154.5	66	1,568	0.004	4	57
159	153.5	66	1,558	0.004	4	57
158	152.5	67	1,547	0.004	4	57
157	151.5	67	1,536	0.004	4	58
156	150.5	67	1,525	0.004	4	58
155	149.5	68	1,517	0.004	4	58
154	148.5	68	1,506	0.004	4	59
153	147.5	69	1,495	0.004	4	59
152	146.5	69	1,483	0.004	4	60
151	145.5	70	1,472	0.004	4	60
150	144.5	70	1,460	0.004	4	60
149	143.5	72	1,482	0.004	4	62
148	142.5	74	1,503	0.004	4	64
147	141.5	74	1,490	0.004	4	64
146	140.5	75	1,477	0.004	4	64
145	139.5	75	1,464	0.004	4	65
144	138.5	76	1,451	0.004	4	65
143	137.5	76	1,438	0.004	4	65
142	136.5	76	1,425	0.004	4	66
141	135.5	77	1,411	0.004	4	66
140	134.5	77	1,398	0.004	4	67
139	133.5	78	1,385	0.004	4	67
138	132.5	78	1,371	0.004	4	67
137	131.5	79	1,358	0.004	4	68
136	130.5	81	1,384	0.004	4	70
135	129.5	82	1,369	0.004	4	70
134	128.5	82	1,355	0.004	4	71
133	127.5	82	1,341	0.004	4	71
132	126.5	83	1,326	0.004	4	71
131	125.5	83	1,312	0.004	4	72
130	124.9971	0	8	0.000	0	0
129	124.4971	99	1,539	0.004	4	85
128	123.5	100	1,531	0.004	4	86
127	122.5	101	1,514	0.004	4	87
126	121.5	101	1,497	0.004	4	87
125	120.5	102	1,480	0.004	4	88
124	119.5	102	1,463	0.004	4	88
123	118.5	103	1,446	0.004	4	89
122	117.5	104	1,429	0.004	4	89
121	116.5	104	1,412	0.004	4	90
120	115.5	105	1,395	0.004	4	90
119	114.5	105	1,378	0.004	4	90
118	113.5	106	1,361	0.004	4	91
117	112.5	106	1,345	0.004	4	92
116	111.5	107	1,328	0.004	4	92
115	110.5	107	1,311	0.004	4	92
114	109.5	108	1,295	0.004	4	93
113	108.5	109	1,278	0.004	4	93
112	107.5	109	1,260	0.003	4	94
111	106.5	110	1,243	0.003	4	94
110	105.5	110	1,225	0.003	4	95
109	104.5	111	1,208	0.003	3	95
108	103.5	111	1,191	0.003	3	96
107	102.5	112	1,173	0.003	3	96
106	101.5	112	1,156	0.003	3	97
105	100.5	113	1,139	0.003	3	97
104	99.5	113	1,123	0.003	3	98

ASSET: 302501, Plymouth CT 3
 CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
 ENG NO: 13701212_C4_05

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
103	98.5	114	1,105	0.003	3	98
102	97.5	114	1,088	0.003	3	99
101	96.5	115	1,071	0.003	3	99
100	95.5	115	1,053	0.003	3	99
99	94.5	116	1,036	0.003	3	100
98	93.5	117	1,019	0.003	3	100
97	92.5	117	1,002	0.003	3	101
96	91.5	118	984	0.003	3	101
95	90.5004	118	967	0.003	3	102
94	90.0004	0	1	0.000	0	0
93	89.5	228	1,829	0.005	5	197
92	88.5	230	1,798	0.005	5	198
91	87.5	231	1,766	0.005	5	199
90	86.5	232	1,735	0.005	5	200
89	85.5421	213	1,561	0.004	4	184
88	85.0421	12	85	0.000	0	10
87	84.5	140	999	0.003	3	120
86	83.5	141	980	0.003	3	121
85	82.5	141	961	0.003	3	122
84	81.5	142	942	0.003	3	122
83	80.5	142	923	0.002	3	123
82	79.5	143	906	0.002	3	123
81	78.5	144	888	0.002	3	124
80	77.5	145	869	0.002	2	125
79	76.5	145	850	0.002	2	125
78	75.5	146	832	0.002	2	126
77	74.5	147	814	0.002	2	126
76	73.5	147	795	0.002	2	127
75	72.5	148	777	0.002	2	127
74	71.5	149	759	0.002	2	128
73	70.5	149	741	0.002	2	128
72	69.5	150	724	0.002	2	129
71	68.5	150	706	0.002	2	130
70	67.5	151	688	0.002	2	130
69	66.5	152	671	0.002	2	131
68	65.5	152	654	0.002	2	131
67	64.5	153	637	0.002	2	132
66	63.5	154	620	0.002	2	132
65	62.5	154	603	0.002	2	133
64	61.5	155	586	0.002	2	133
63	60.5	156	569	0.002	2	134
62	59.5	156	553	0.002	2	134
61	58.5	157	537	0.002	2	135
60	57.5	157	521	0.001	1	136
59	56.5	158	505	0.001	1	136
58	55.5	159	489	0.001	1	137
57	54.5	159	473	0.001	1	137
56	53.5	160	458	0.001	1	138
55	52.5	161	443	0.001	1	138
54	51.5	161	428	0.001	1	139
53	50.5	162	413	0.001	1	139
52	49.5	163	398	0.001	1	140
51	48.5	163	384	0.001	1	141
50	47.5	310	699	0.002	2	267
49	46.5	311	673	0.002	2	268
48	45.5	313	647	0.002	2	269
47	44.5	314	622	0.002	2	270
46	43.5	315	597	0.002	2	271
45	42.6671	211	384	0.001	1	181
44	42.1671	59	105	0.000	0	51
43	41.5	178	306	0.001	1	153
42	40.5	178	292	0.001	1	153
41	39.5	179	279	0.001	1	154
40	38.5	180	266	0.001	1	155
39	37.5	190	267	0.001	1	163
38	36.5	200	266	0.001	1	172
37	35.5	200	253	0.001	1	173
36	34.5	201	239	0.001	1	173
35	33.5	202	227	0.001	1	174
34	32.97	12	13	0.000	0	10

ASSET: 302501, Plymouth CT 3
 CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
 ENG NO: 13701212_C4_05

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
33	32.47	253	267	0.001	1	218
32	31.5	270	268	0.001	1	232
31	30.5	271	252	0.001	1	233
30	29.5	271	236	0.001	1	234
29	28.5	272	221	0.001	1	234
28	27.5	273	206	0.001	1	235
27	26.5	274	192	0.000	1	235
26	25.5	274	178	0.000	1	236
25	24.5	275	165	0.000	0	237
24	23.5	276	152	0.000	0	237
23	22.5	276	140	0.000	0	238
22	21.5	277	128	0.000	0	238
21	20.5	278	117	0.000	0	239
20	19.5	278	106	0.000	0	240
19	18.5	279	96	0.000	0	240
18	17.5	280	86	0.000	0	241
17	16.5	281	76	0.000	0	242
16	15.5	281	68	0.000	0	242
15	14.5	282	59	0.000	0	243
14	13.5	283	52	0.000	0	243
13	12.5	283	44	0.000	0	244
12	11.5	284	38	0.000	0	245
11	10.5	285	31	0.000	0	245
10	9.5	285	26	0.000	0	246
9	8.5	286	21	0.000	0	246
8	7.5	287	16	0.000	0	247
7	6.5	287	12	0.000	0	248
6	5.5	288	9	0.000	0	248
5	4.5	289	6	0.000	0	249
4	3.5	290	4	0.000	0	249
3	2.5	290	2	0.000	0	250
2	1.5	291	1	0.000	0	251
1	0.5	292	0	0.000	0	251
Generic 6' Omni	180	25	810	0.002	2	22
Powerwave Allgon LGP21401	180	85	2,741	0.008	8	73
Raycap DC6-48-60-18-8F ("Squid")	180	64	2,061	0.006	6	55
Ericsson RRUS 4449 B5, B12	180	213	6,901	0.019	20	183
Ericsson RRUS 4478 B14	180	178	5,774	0.016	16	153
Ericsson RRUS 32 B2	180	159	5,152	0.014	15	137
Powerwave Allgon 7770.00	180	105	3,402	0.009	10	90
CCI HPA-65R-BUU-H6	180	153	4,957	0.014	14	132
CCI DMP65R-BU6DA	180	238	7,718	0.021	22	205
CCI OPA65R-BU6D	180	190	6,143	0.017	18	163
Generic Round Platform with Handrails	180	2,500	81,000	0.220	231	2,152
Motorola PTP 800 ODU	177	20	633	0.002	2	17
Motorola PTP 800 ODU	110	20	244	0.001	1	17
Radio Waves HPD2-4.7NS	177	27	846	0.002	2	23
RFS APXV18-206517S-C	170	79	2,289	0.006	7	68
Sinclair SC479-HF1LDF	157	34	838	0.002	2	29
Sinclair SC479-HF1LDF	143	34	695	0.002	2	29
Sinclair SC479-HF1LDF	143	34	695	0.002	2	29
Scala OGT9-840	156	18	450	0.001	1	16
Bird 432-83H-01-T	150	25	562	0.002	2	22
Stand-Off	150	200	4,500	0.012	13	172
Stand-Off	100	0	0	0.000	0	0
Antel BCD-80609	144	53	1,099	0.003	3	46
Commscope RDIDC-9181-PF-48	131	22	376	0.001	1	19
Fujitsu TA08025-B605	131	225	3,861	0.010	11	194
Fujitsu TA08025-B604	131	192	3,290	0.009	9	165
JMA Wireless MX08FRO665-21	131	194	3,321	0.009	9	167
Generic Flat Platform with Handrails	131	2,500	42,902	0.117	123	2,152
Lone Star Electronics LS-230	113	11	140	0.000	0	9
Flat Side Arm	110	150	1,815	0.005	5	129
Andrew VHLP2.6	110	48	581	0.002	2	41
Bird FSA-10-67-DIN	100	9	90	0.000	0	8
Generic Radio/ODU	88	60	465	0.001	1	52
Andrew Microwaves P6F-0-9-N7A	80	134	858	0.002	2	115
		35,010	367,556	0.999	1,050	30,142

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

1.2D + 1.0Ev + 1.0Eh Normal

Seismic

CALCULATED FORCES

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 (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-43.02	-1.05	0.00	-166.29	0.00	166.29	3,477.38	924.48	3,805	3,090.64	0.00	0.00	0.05
1.00	-42.66	-1.05	0.00	-165.24	0.00	165.24	3,470.08	920.88	3,775	3,072.04	0.00	0.00	0.05
2.00	-42.30	-1.05	0.00	-164.19	0.00	164.19	3,462.74	917.28	3,745	3,053.44	0.00	0.00	0.05
3.00	-41.94	-1.05	0.00	-163.13	0.00	163.13	3,455.35	913.68	3,716	3,034.85	0.00	-0.01	0.05
4.00	-41.58	-1.06	0.00	-162.08	0.00	162.08	3,447.91	910.07	3,687	3,016.27	0.00	-0.01	0.04
5.00	-41.22	-1.06	0.00	-161.02	0.00	161.02	3,440.42	906.47	3,658	2,997.70	0.01	-0.01	0.04
6.00	-40.87	-1.06	0.00	-159.97	0.00	159.97	3,432.88	902.87	3,629	2,979.14	0.01	-0.01	0.04
7.00	-40.51	-1.06	0.00	-158.91	0.00	158.91	3,425.29	899.27	3,600	2,960.59	0.01	-0.02	0.04
8.00	-40.16	-1.06	0.00	-157.84	0.00	157.84	3,417.65	895.66	3,571	2,942.06	0.02	-0.02	0.04
9.00	-39.80	-1.06	0.00	-156.78	0.00	156.78	3,409.97	892.06	3,542	2,923.53	0.02	-0.02	0.04
10.00	-39.45	-1.07	0.00	-155.72	0.00	155.72	3,402.23	888.46	3,514	2,905.01	0.03	-0.03	0.04
11.00	-39.10	-1.07	0.00	-154.65	0.00	154.65	3,394.45	884.86	3,485	2,886.51	0.03	-0.03	0.04
12.00	-38.75	-1.07	0.00	-153.58	0.00	153.58	3,386.61	881.25	3,457	2,868.02	0.04	-0.03	0.04
13.00	-38.40	-1.07	0.00	-152.51	0.00	152.51	3,378.73	877.65	3,429	2,849.54	0.04	-0.03	0.04
14.00	-38.05	-1.07	0.00	-151.44	0.00	151.44	3,370.80	874.05	3,401	2,831.08	0.05	-0.04	0.04
15.00	-37.70	-1.07	0.00	-150.37	0.00	150.37	3,362.82	870.45	3,373	2,812.63	0.06	-0.04	0.04
16.00	-37.35	-1.07	0.00	-149.30	0.00	149.30	3,354.79	866.84	3,345	2,794.20	0.07	-0.04	0.04
17.00	-37.01	-1.08	0.00	-148.23	0.00	148.23	3,346.72	863.24	3,317	2,775.78	0.08	-0.04	0.04
18.00	-36.66	-1.08	0.00	-147.15	0.00	147.15	3,338.59	859.64	3,290	2,757.38	0.09	-0.05	0.04
19.00	-36.31	-1.08	0.00	-146.07	0.00	146.07	3,330.41	856.04	3,262	2,738.99	0.10	-0.05	0.04
20.00	-35.97	-1.08	0.00	-145.00	0.00	145.00	3,322.19	852.43	3,235	2,720.63	0.11	-0.05	0.04
21.00	-35.63	-1.08	0.00	-143.92	0.00	143.92	3,313.92	848.83	3,208	2,702.28	0.12	-0.05	0.04
22.00	-35.28	-1.08	0.00	-142.84	0.00	142.84	3,305.59	845.23	3,180	2,683.94	0.13	-0.06	0.04
23.00	-34.94	-1.08	0.00	-141.76	0.00	141.76	3,297.22	841.63	3,153	2,665.63	0.14	-0.06	0.04
24.00	-34.60	-1.08	0.00	-140.68	0.00	140.68	3,288.80	838.02	3,126	2,647.33	0.15	-0.06	0.04
25.00	-34.26	-1.08	0.00	-139.59	0.00	139.59	3,280.33	834.42	3,100	2,629.06	0.17	-0.06	0.04
26.00	-33.92	-1.08	0.00	-138.51	0.00	138.51	3,271.82	830.82	3,073	2,610.80	0.18	-0.07	0.04
27.00	-33.59	-1.08	0.00	-137.43	0.00	137.43	3,263.25	827.21	3,046	2,592.57	0.19	-0.07	0.04
28.00	-33.25	-1.08	0.00	-136.34	0.00	136.34	3,254.63	823.61	3,020	2,574.36	0.21	-0.07	0.04
29.00	-32.91	-1.09	0.00	-135.26	0.00	135.26	3,245.97	820.01	2,993	2,556.16	0.22	-0.07	0.04
30.00	-32.58	-1.09	0.00	-134.17	0.00	134.17	3,237.25	816.41	2,967	2,537.99	0.24	-0.08	0.04
31.00	-32.24	-1.09	0.00	-133.09	0.00	133.09	3,228.49	812.80	2,941	2,519.85	0.26	-0.08	0.04
32.00	-31.93	-1.09	0.00	-132.00	0.00	132.00	3,219.68	809.20	2,915	2,501.72	0.27	-0.08	0.04
32.94	-31.91	-1.09	0.00	-130.98	0.00	130.98	3,211.35	805.82	2,891	2,484.71	0.29	-0.09	0.04
32.94	-31.91	-1.09	0.00	-130.98	0.00	130.98	3,211.35	805.82	2,891	2,484.71	0.29	-0.09	0.06
33.00	-31.66	-1.09	0.00	-130.92	0.00	130.92	3,210.82	805.60	2,889	2,483.62	0.29	-0.09	0.06
34.00	-31.41	-1.09	0.00	-129.83	0.00	129.83	3,201.91	802.00	2,863	2,465.55	0.31	-0.09	0.06
35.00	-31.17	-1.09	0.00	-128.74	0.00	128.74	3,192.95	798.39	2,838	2,447.50	0.33	-0.09	0.06
36.00	-30.92	-1.09	0.00	-127.65	0.00	127.65	3,183.94	794.79	2,812	2,429.47	0.35	-0.10	0.06
37.00	-30.68	-1.09	0.00	-126.56	0.00	126.56	3,174.88	791.19	2,787	2,411.47	0.37	-0.10	0.06
38.00	-30.46	-1.09	0.00	-125.47	0.00	125.47	3,165.78	787.59	2,761	2,393.50	0.39	-0.11	0.06
39.00	-30.24	-1.09	0.00	-124.38	0.00	124.38	3,156.62	783.98	2,736	2,375.55	0.42	-0.11	0.06
40.00	-30.02	-1.10	0.00	-123.28	0.00	123.28	3,147.42	780.38	2,711	2,357.63	0.44	-0.12	0.06
41.00	-29.80	-1.10	0.00	-122.19	0.00	122.19	3,138.17	776.78	2,686	2,339.74	0.47	-0.12	0.06
42.00	-29.72	-1.10	0.00	-121.09	0.00	121.09	3,128.87	773.18	2,661	2,321.87	0.49	-0.13	0.06
42.33	-29.46	-1.10	0.00	-120.72	0.00	120.72	3,125.75	771.97	2,653	2,315.91	0.50	-0.13	0.06
43.00	-29.07	-1.10	0.00	-119.99	0.00	119.99	3,119.52	769.57	2,637	2,304.04	0.52	-0.13	0.06
44.00	-28.68	-1.10	0.00	-118.90	0.00	118.90	3,110.12	765.97	2,612	2,286.23	0.55	-0.14	0.06
45.00	-28.30	-1.10	0.00	-117.80	0.00	117.80	3,100.67	762.37	2,588	2,268.46	0.58	-0.14	0.06
46.00	-27.91	-1.10	0.00	-116.70	0.00	116.70	3,091.17	758.77	2,563	2,250.71	0.61	-0.14	0.06
47.00	-27.53	-1.09	0.00	-115.61	0.00	115.61	3,081.63	755.16	2,539	2,233.00	0.64	-0.15	0.06
48.00	-27.32	-1.09	0.00	-114.51	0.00	114.51	2,761.07	703.00	2,400	2,033.59	0.67	-0.15	0.07
49.00	-27.12	-1.10	0.00	-113.42	0.00	113.42	2,753.28	699.69	2,377	2,018.24	0.70	-0.16	0.07
50.00	-26.92	-1.10	0.00	-112.32	0.00	112.32	2,745.45	696.39	2,355	2,002.90	0.73	-0.16	0.07
51.00	-26.72	-1.10	0.00	-111.23	0.00	111.23	2,737.56	693.09	2,333	1,987.59	0.77	-0.17	0.07
52.00	-26.52	-1.10	0.00	-110.13	0.00	110.13	2,729.63	689.78	2,310	1,972.29	0.80	-0.17	0.07
53.00	-26.32	-1.10	0.00	-109.03	0.00	109.03	2,721.65	686.48	2,288	1,957.02	0.84	-0.18	0.07
54.00	-26.13	-1.10	0.00	-107.94	0.00	107.94	2,713.61	683.18	2,266	1,941.76	0.88	-0.18	0.07
55.00	-25.93	-1.10	0.00	-106.84	0.00	106.84	2,705.53	679.88	2,245	1,926.53	0.92	-0.19	0.07
56.00	-25.73	-1.10	0.00	-105.74	0.00	105.74	2,697.40	676.57	2,223	1,911.32	0.96	-0.19	0.07
57.00	-25.54	-1.10	0.00	-104.64	0.00	104.64	2,689.22	673.27	2,201	1,896.13	1.00	-0.20	0.07
58.00	-25.34	-1.10	0.00	-103.55	0.00	103.55	2,681.00	669.97	2,180	1,880.97	1.04	-0.20	0.07
59.00	-25.15	-1.10	0.00	-102.45	0.00	102.45	2,672.72	666.66	2,158	1,865.82	1.08	-0.21	0.06
60.00	-24.96	-1.10	0.00	-101.35	0.00	101.35	2,664.40	663.36	2,137	1,850.71	1.13	-0.21	0.06
61.00	-24.76	-1.10	0.00	-100.25	0.00	100.25	2,656.02	660.06	2,116	1,835.61	1.17	-0.22	0.06
62.00	-24.57	-1.10	0.00	-99.15	0.00	99.15	2,647.60	656.76	2,095	1,820.54	1.22	-0.22	0.06

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

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 (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
63.00	-24.38	-1.10	0.00	-98.06	0.00	98.06	2,639.12	653.45	2,074	1,805.50	1.27	-0.23	0.06
64.00	-24.19	-1.10	0.00	-96.96	0.00	96.96	2,630.60	650.15	2,053	1,790.48	1.32	-0.23	0.06
65.00	-24.00	-1.10	0.00	-95.86	0.00	95.86	2,622.03	646.85	2,032	1,775.49	1.37	-0.24	0.06
66.00	-23.82	-1.10	0.00	-94.77	0.00	94.77	2,613.41	643.54	2,011	1,760.52	1.42	-0.24	0.06
67.00	-23.63	-1.10	0.00	-93.67	0.00	93.67	2,604.75	640.24	1,991	1,745.59	1.47	-0.25	0.06
68.00	-23.44	-1.09	0.00	-92.58	0.00	92.58	2,596.03	636.94	1,970	1,730.68	1.52	-0.25	0.06
69.00	-23.26	-1.09	0.00	-91.48	0.00	91.48	2,587.26	633.64	1,950	1,715.80	1.57	-0.26	0.06
70.00	-23.07	-1.09	0.00	-90.39	0.00	90.39	2,578.45	630.33	1,929	1,700.94	1.63	-0.27	0.06
71.00	-22.89	-1.09	0.00	-89.30	0.00	89.30	2,569.58	627.03	1,909	1,686.12	1.69	-0.27	0.06
72.00	-22.70	-1.09	0.00	-88.20	0.00	88.20	2,560.67	623.73	1,889	1,671.33	1.74	-0.28	0.06
73.00	-22.52	-1.09	0.00	-87.11	0.00	87.11	2,551.71	620.42	1,869	1,656.57	1.80	-0.28	0.06
74.00	-22.34	-1.09	0.00	-86.02	0.00	86.02	2,542.70	617.12	1,849	1,641.84	1.86	-0.29	0.06
75.00	-22.16	-1.09	0.00	-84.93	0.00	84.93	2,533.64	613.82	1,830	1,627.14	1.92	-0.29	0.06
76.00	-21.98	-1.09	0.00	-83.85	0.00	83.85	2,524.53	610.52	1,810	1,612.47	1.98	-0.30	0.06
77.00	-21.80	-1.09	0.00	-82.76	0.00	82.76	2,515.37	607.21	1,791	1,597.83	2.05	-0.30	0.06
78.00	-21.62	-1.08	0.00	-81.68	0.00	81.68	2,506.16	603.91	1,771	1,583.23	2.11	-0.31	0.06
79.00	-21.44	-1.08	0.00	-80.59	0.00	80.59	2,496.91	600.61	1,752	1,568.66	2.18	-0.31	0.06
80.00	-21.10	-1.08	0.00	-79.51	0.00	79.51	2,487.60	597.30	1,733	1,554.13	2.24	-0.32	0.06
81.00	-20.93	-1.08	0.00	-78.43	0.00	78.43	2,478.25	594.00	1,713	1,539.63	2.31	-0.32	0.06
82.00	-20.75	-1.07	0.00	-77.36	0.00	77.36	2,468.85	590.70	1,694	1,525.16	2.38	-0.33	0.06
83.00	-20.58	-1.07	0.00	-76.28	0.00	76.28	2,459.40	587.40	1,676	1,510.74	2.45	-0.34	0.06
84.00	-20.40	-1.07	0.00	-75.21	0.00	75.21	2,449.90	584.09	1,657	1,496.34	2.52	-0.34	0.06
85.00	-20.39	-1.07	0.00	-74.14	0.00	74.14	2,439.32	580.79	1,638	1,481.36	2.59	-0.35	0.06
85.08	-20.12	-1.07	0.00	-74.05	0.00	74.05	2,438.15	580.51	1,637	1,479.94	2.60	-0.35	0.06
86.00	-19.84	-1.06	0.00	-73.08	0.00	73.08	2,425.45	577.49	1,620	1,464.47	2.66	-0.35	0.06
87.00	-19.55	-1.06	0.00	-72.02	0.00	72.02	2,411.58	574.18	1,601	1,447.67	2.74	-0.36	0.06
88.00	-19.19	-1.05	0.00	-70.96	0.00	70.96	2,397.70	570.88	1,583	1,430.97	2.81	-0.36	0.06
89.00	-18.91	-1.04	0.00	-69.91	0.00	69.91	2,383.83	567.58	1,564	1,414.36	2.89	-0.37	0.06
90.00	-18.91	-1.04	0.00	-68.87	0.00	68.87	2,369.96	564.28	1,546	1,397.85	2.97	-0.37	0.06
90.00	-18.76	-1.04	0.00	-68.87	0.00	68.87	1,850.78	471.63	1,320	1,117.72	2.97	-0.37	0.07
91.00	-18.62	-1.04	0.00	-67.83	0.00	67.83	1,844.43	468.93	1,305	1,107.45	3.05	-0.38	0.07
92.00	-18.47	-1.04	0.00	-66.79	0.00	66.79	1,838.03	466.23	1,290	1,097.18	3.13	-0.39	0.07
93.00	-18.33	-1.04	0.00	-65.75	0.00	65.75	1,831.57	463.53	1,275	1,086.93	3.21	-0.39	0.07
94.00	-18.18	-1.03	0.00	-64.71	0.00	64.71	1,825.06	460.82	1,260	1,076.70	3.29	-0.40	0.07
95.00	-18.04	-1.03	0.00	-63.68	0.00	63.68	1,818.51	458.12	1,246	1,066.48	3.38	-0.41	0.07
96.00	-17.90	-1.03	0.00	-62.64	0.00	62.64	1,811.91	455.42	1,231	1,056.28	3.46	-0.41	0.07
97.00	-17.76	-1.03	0.00	-61.61	0.00	61.61	1,805.26	452.72	1,216	1,046.10	3.55	-0.42	0.07
98.00	-17.61	-1.03	0.00	-60.58	0.00	60.58	1,798.56	450.01	1,202	1,035.93	3.64	-0.43	0.07
99.00	-17.47	-1.02	0.00	-59.56	0.00	59.56	1,791.81	447.31	1,187	1,025.78	3.73	-0.43	0.07
100.00	-17.32	-1.02	0.00	-58.53	0.00	58.53	1,785.01	444.61	1,173	1,015.66	3.82	-0.44	0.07
101.00	-17.18	-1.02	0.00	-57.51	0.00	57.51	1,778.16	441.91	1,159	1,005.55	3.91	-0.45	0.07
102.00	-17.05	-1.02	0.00	-56.49	0.00	56.49	1,771.27	439.20	1,145	995.46	4.01	-0.45	0.07
103.00	-16.91	-1.01	0.00	-55.48	0.00	55.48	1,764.32	436.50	1,131	985.40	4.10	-0.46	0.07
104.00	-16.77	-1.01	0.00	-54.46	0.00	54.46	1,757.33	433.80	1,117	975.35	4.20	-0.46	0.07
105.00	-16.63	-1.01	0.00	-53.45	0.00	53.45	1,750.28	431.10	1,103	965.33	4.30	-0.47	0.07
106.00	-16.50	-1.01	0.00	-52.44	0.00	52.44	1,743.19	428.39	1,089	955.33	4.39	-0.48	0.06
107.00	-16.36	-1.00	0.00	-51.44	0.00	51.44	1,736.05	425.69	1,076	945.35	4.50	-0.48	0.06
108.00	-16.23	-1.00	0.00	-50.43	0.00	50.43	1,728.86	422.99	1,062	935.40	4.60	-0.49	0.06
109.00	-16.09	-1.00	0.00	-49.43	0.00	49.43	1,721.62	420.29	1,048	925.47	4.70	-0.50	0.06
110.00	-15.69	-0.98	0.00	-48.44	0.00	48.44	1,714.33	417.58	1,035	915.56	4.81	-0.50	0.06
111.00	-15.56	-0.98	0.00	-47.45	0.00	47.45	1,707.00	414.88	1,022	905.68	4.91	-0.51	0.06
112.00	-15.43	-0.98	0.00	-46.47	0.00	46.47	1,699.61	412.18	1,008	895.83	5.02	-0.52	0.06
113.00	-15.28	-0.97	0.00	-45.50	0.00	45.50	1,692.18	409.48	995	886.00	5.13	-0.52	0.06
114.00	-15.15	-0.97	0.00	-44.52	0.00	44.52	1,684.69	406.77	982	876.20	5.24	-0.53	0.06
115.00	-15.02	-0.97	0.00	-43.55	0.00	43.55	1,677.16	404.07	969	866.42	5.35	-0.54	0.06
116.00	-14.89	-0.96	0.00	-42.58	0.00	42.58	1,669.58	401.37	956	856.67	5.46	-0.54	0.06
117.00	-14.76	-0.96	0.00	-41.62	0.00	41.62	1,661.95	398.67	943	846.95	5.58	-0.55	0.06
118.00	-14.64	-0.96	0.00	-40.66	0.00	40.66	1,654.27	395.96	931	837.26	5.69	-0.56	0.06
119.00	-14.51	-0.95	0.00	-39.71	0.00	39.71	1,646.54	393.26	918	827.60	5.81	-0.56	0.06
120.00	-14.38	-0.95	0.00	-38.75	0.00	38.75	1,638.76	390.56	905	817.97	5.93	-0.57	0.06
121.00	-14.26	-0.94	0.00	-37.81	0.00	37.81	1,629.00	387.86	893	807.40	6.05	-0.57	0.06
122.00	-14.13	-0.94	0.00	-36.86	0.00	36.86	1,617.65	385.15	880	796.13	6.17	-0.58	0.06
123.00	-14.01	-0.94	0.00	-35.92	0.00	35.92	1,606.30	382.45	868	784.93	6.29	-0.59	0.05
124.00	-13.89	-0.93	0.00	-34.98	0.00	34.98	1,594.95	379.75	856	773.81	6.42	-0.59	0.05
124.99	-13.88	-0.93	0.00	-34.06	0.00	34.06	1,583.67	377.06	844	762.84	6.54	-0.60	0.05
124.99	-13.88	-0.93	0.00	-34.06	0.00	34.06	1,139.75	294.06	660	551.90	6.54	-0.60	0.07
125.00	-13.78	-0.93	0.00	-34.05	0.00	34.05	1,139.72	294.05	660	551.87	6.54	-0.60	0.07
126.00	-13.68	-0.93	0.00	-33.12	0.00	33.12	1,134.97	291.94	650	545.60	6.67	-0.61	0.07
127.00	-13.58	-0.92	0.00	-32.20	0.00	32.20	1,130.17	289.84	641	539.35	6.80	-0.62	0.07
128.00	-13.47	-0.92	0.00	-31.28	0.00	31.28	1,125.33	287.74	632	533.11	6.93	-0.62	0.07
129.00	-13.37	-0.92	0.00	-30.36	0.00	30.36	1,120.43	285.64	623	526.88	7.06	-0.63	0.07
130.00	-13.27	-0.91	0.00	-29.44	0.00	29.44	1,115.49	283.54	613	520.65	7.19	-0.64	0.07

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
131.00	-9.30	-0.71	0.00	-28.53	0.00	28.53	1,110.50	281.44	604	514.45	7.32	-0.65	0.06
132.00	-9.20	-0.71	0.00	-27.81	0.00	27.81	1,105.46	279.33	595	508.25	7.46	-0.65	0.06
133.00	-9.10	-0.70	0.00	-27.10	0.00	27.10	1,100.37	277.23	586	502.06	7.60	-0.66	0.06
134.00	-9.01	-0.70	0.00	-26.40	0.00	26.40	1,095.23	275.13	578	495.89	7.74	-0.67	0.06
135.00	-8.91	-0.70	0.00	-25.70	0.00	25.70	1,090.04	273.03	569	489.74	7.88	-0.68	0.06
136.00	-8.82	-0.69	0.00	-25.00	0.00	25.00	1,084.80	270.93	560	483.60	8.02	-0.68	0.06
137.00	-8.72	-0.69	0.00	-24.31	0.00	24.31	1,079.51	268.82	551	477.47	8.17	-0.69	0.06
138.00	-8.63	-0.68	0.00	-23.62	0.00	23.62	1,074.18	266.72	543	471.36	8.31	-0.70	0.06
139.00	-8.54	-0.68	0.00	-22.94	0.00	22.94	1,068.79	264.62	534	465.26	8.46	-0.71	0.06
140.00	-8.44	-0.68	0.00	-22.25	0.00	22.25	1,063.36	262.52	526	459.18	8.61	-0.71	0.06
141.00	-8.35	-0.67	0.00	-21.58	0.00	21.58	1,057.88	260.42	517	453.12	8.76	-0.72	0.06
142.00	-8.26	-0.67	0.00	-20.91	0.00	20.91	1,052.35	258.31	509	447.07	8.91	-0.73	0.06
143.00	-8.09	-0.66	0.00	-20.24	0.00	20.24	1,046.77	256.21	501	441.05	9.06	-0.73	0.05
144.00	-7.93	-0.65	0.00	-19.58	0.00	19.58	1,041.14	254.11	493	435.04	9.22	-0.74	0.05
145.00	-7.85	-0.65	0.00	-18.93	0.00	18.93	1,035.46	252.01	485	429.05	9.37	-0.75	0.05
146.00	-7.76	-0.64	0.00	-18.29	0.00	18.29	1,029.73	249.91	477	423.08	9.53	-0.76	0.05
147.00	-7.68	-0.64	0.00	-17.65	0.00	17.65	1,023.96	247.80	469	417.13	9.69	-0.76	0.05
148.00	-7.59	-0.63	0.00	-17.01	0.00	17.01	1,018.13	245.70	461	411.20	9.85	-0.77	0.05
149.00	-7.51	-0.63	0.00	-16.38	0.00	16.38	1,012.26	243.60	453	405.29	10.01	-0.78	0.05
150.00	-7.15	-0.60	0.00	-15.75	0.00	15.75	1,006.34	241.50	445	399.41	10.17	-0.78	0.05
151.00	-7.06	-0.60	0.00	-15.14	0.00	15.14	1,000.37	239.40	437	393.54	10.34	-0.79	0.05
152.00	-6.98	-0.60	0.00	-14.54	0.00	14.54	994.35	237.29	430	387.70	10.51	-0.80	0.05
153.00	-6.90	-0.59	0.00	-13.95	0.00	13.95	987.80	235.19	422	381.70	10.67	-0.80	0.04
154.00	-6.82	-0.59	0.00	-13.36	0.00	13.36	978.97	233.09	415	374.87	10.84	-0.81	0.04
155.00	-6.74	-0.58	0.00	-12.77	0.00	12.77	970.15	230.99	407	368.10	11.01	-0.81	0.04
156.00	-6.63	-0.57	0.00	-12.19	0.00	12.19	961.32	228.89	400	361.39	11.18	-0.82	0.04
157.00	-6.51	-0.57	0.00	-11.62	0.00	11.62	952.49	226.78	392	354.75	11.36	-0.83	0.04
158.00	-6.44	-0.56	0.00	-11.05	0.00	11.05	943.66	224.68	385	348.16	11.53	-0.83	0.04
159.00	-6.36	-0.56	0.00	-10.49	0.00	10.49	934.83	222.58	378	341.64	11.70	-0.84	0.04
160.00	-6.28	-0.55	0.00	-9.94	0.00	9.94	926.00	220.48	371	335.18	11.88	-0.84	0.04
161.00	-6.21	-0.55	0.00	-9.38	0.00	9.38	917.18	218.38	364	328.78	12.06	-0.85	0.04
162.00	-6.13	-0.54	0.00	-8.84	0.00	8.84	908.35	216.27	357	322.44	12.24	-0.85	0.03
163.00	-6.06	-0.54	0.00	-8.30	0.00	8.30	899.52	214.17	350	316.17	12.42	-0.86	0.03
164.00	-5.98	-0.53	0.00	-7.76	0.00	7.76	890.69	212.07	343	309.95	12.60	-0.86	0.03
165.00	-5.91	-0.53	0.00	-7.23	0.00	7.23	881.86	209.97	336	303.80	12.78	-0.87	0.03
166.00	-5.84	-0.52	0.00	-6.71	0.00	6.71	873.03	207.87	330	297.71	12.96	-0.87	0.03
167.00	-5.76	-0.51	0.00	-6.19	0.00	6.19	864.21	205.76	323	291.68	13.14	-0.88	0.03
168.00	-5.69	-0.51	0.00	-5.67	0.00	5.67	855.38	203.66	317	285.72	13.33	-0.88	0.03
169.00	-5.62	-0.50	0.00	-5.16	0.00	5.16	846.55	201.56	310	279.81	13.51	-0.89	0.03
170.00	-5.46	-0.49	0.00	-4.66	0.00	4.66	837.72	199.46	304	273.97	13.70	-0.89	0.02
171.00	-5.39	-0.49	0.00	-4.17	0.00	4.17	828.89	197.36	297	268.18	13.89	-0.89	0.02
172.00	-5.33	-0.48	0.00	-3.68	0.00	3.68	820.06	195.25	291	262.46	14.07	-0.90	0.02
173.00	-5.26	-0.48	0.00	-3.20	0.00	3.20	811.24	193.15	285	256.80	14.26	-0.90	0.02
174.00	-5.20	-0.47	0.00	-2.73	0.00	2.73	802.41	191.05	279	251.21	14.45	-0.90	0.02
175.00	-5.14	-0.46	0.00	-2.26	0.00	2.26	793.58	188.95	272	245.67	14.64	-0.90	0.02
176.00	-5.08	-0.46	0.00	-1.79	0.00	1.79	784.75	186.85	266	240.20	14.83	-0.90	0.01
177.00	-4.96	-0.45	0.00	-1.33	0.00	1.33	775.92	184.74	260	234.79	15.02	-0.91	0.01
178.00	-4.90	-0.44	0.00	-0.88	0.00	0.88	767.09	182.64	255	229.44	15.21	-0.91	0.01
179.00	-4.84	-0.44	0.00	-0.44	0.00	0.44	758.27	180.54	249	224.15	15.40	-0.91	0.01
180.00	0.00	-0.36	0.00	0.00	0.00	0.00	749.44	178.44	243	218.92	15.59	-0.91	0.00

0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-29.89	-1.05	0.00	-160.62	0.00	160.62	3,477.38	924.48	3,805	3,090.64	0.00	0.00	0.04
1.00	-29.64	-1.05	0.00	-159.57	0.00	159.57	3,470.08	920.88	3,775	3,072.04	0.00	0.00	0.04
2.00	-29.39	-1.05	0.00	-158.52	0.00	158.52	3,462.74	917.28	3,745	3,053.44	0.00	0.00	0.04
3.00	-29.14	-1.05	0.00	-157.47	0.00	157.47	3,455.35	913.68	3,716	3,034.85	0.00	-0.01	0.04
4.00	-28.89	-1.05	0.00	-156.42	0.00	156.42	3,447.91	910.07	3,687	3,016.27	0.00	-0.01	0.04
5.00	-28.64	-1.05	0.00	-155.37	0.00	155.37	3,440.42	906.47	3,658	2,997.70	0.01	-0.01	0.04
6.00	-28.40	-1.06	0.00	-154.32	0.00	154.32	3,432.88	902.87	3,629	2,979.14	0.01	-0.01	0.04
7.00	-28.15	-1.06	0.00	-153.26	0.00	153.26	3,425.29	899.27	3,600	2,960.59	0.01	-0.02	0.04
8.00	-27.90	-1.06	0.00	-152.20	0.00	152.20	3,417.65	895.66	3,571	2,942.06	0.02	-0.02	0.04
9.00	-27.66	-1.06	0.00	-151.15	0.00	151.15	3,409.97	892.06	3,542	2,923.53	0.02	-0.02	0.04
10.00	-27.41	-1.06	0.00	-150.09	0.00	150.09	3,402.23	888.46	3,514	2,905.01	0.03	-0.02	0.04
11.00	-27.17	-1.06	0.00	-149.03	0.00	149.03	3,394.45	884.86	3,485	2,886.51	0.03	-0.03	0.04

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

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 (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
12.00	-26.92	-1.06	0.00	-147.97	0.00	147.97	3,386.61	881.25	3,457	2,868.02	0.04	-0.03	0.04
13.00	-26.68	-1.06	0.00	-146.91	0.00	146.91	3,378.73	877.65	3,429	2,849.54	0.04	-0.03	0.04
14.00	-26.44	-1.06	0.00	-145.85	0.00	145.85	3,370.80	874.05	3,401	2,831.08	0.05	-0.03	0.04
15.00	-26.20	-1.06	0.00	-144.78	0.00	144.78	3,362.82	870.45	3,373	2,812.63	0.06	-0.04	0.04
16.00	-25.95	-1.06	0.00	-143.72	0.00	143.72	3,354.79	866.84	3,345	2,794.20	0.07	-0.04	0.04
17.00	-25.71	-1.07	0.00	-142.66	0.00	142.66	3,346.72	863.24	3,317	2,775.78	0.07	-0.04	0.04
18.00	-25.47	-1.07	0.00	-141.59	0.00	141.59	3,338.59	859.64	3,290	2,757.38	0.08	-0.04	0.04
19.00	-25.23	-1.07	0.00	-140.52	0.00	140.52	3,330.41	856.04	3,262	2,738.99	0.09	-0.05	0.04
20.00	-24.99	-1.07	0.00	-139.46	0.00	139.46	3,322.19	852.43	3,235	2,720.63	0.10	-0.05	0.04
21.00	-24.76	-1.07	0.00	-138.39	0.00	138.39	3,313.92	848.83	3,208	2,702.28	0.11	-0.05	0.04
22.00	-24.52	-1.07	0.00	-137.32	0.00	137.32	3,305.59	845.23	3,180	2,683.94	0.12	-0.05	0.04
23.00	-24.28	-1.07	0.00	-136.26	0.00	136.26	3,297.22	841.63	3,153	2,665.63	0.14	-0.06	0.04
24.00	-24.04	-1.07	0.00	-135.19	0.00	135.19	3,288.80	838.02	3,126	2,647.33	0.15	-0.06	0.04
25.00	-23.81	-1.07	0.00	-134.12	0.00	134.12	3,280.33	834.42	3,100	2,629.06	0.16	-0.06	0.04
26.00	-23.57	-1.07	0.00	-133.05	0.00	133.05	3,271.82	830.82	3,073	2,610.80	0.17	-0.06	0.04
27.00	-23.34	-1.07	0.00	-131.98	0.00	131.98	3,263.25	827.21	3,046	2,592.57	0.19	-0.07	0.04
28.00	-23.10	-1.07	0.00	-130.91	0.00	130.91	3,254.63	823.61	3,020	2,574.36	0.20	-0.07	0.04
29.00	-22.87	-1.07	0.00	-129.84	0.00	129.84	3,245.97	820.01	2,993	2,556.16	0.22	-0.07	0.04
30.00	-22.64	-1.07	0.00	-128.77	0.00	128.77	3,237.25	816.41	2,967	2,537.99	0.23	-0.07	0.04
31.00	-22.40	-1.07	0.00	-127.70	0.00	127.70	3,228.49	812.80	2,941	2,519.85	0.25	-0.08	0.04
32.00	-22.19	-1.07	0.00	-126.63	0.00	126.63	3,219.68	809.20	2,915	2,501.72	0.26	-0.08	0.04
32.94	-22.17	-1.07	0.00	-125.63	0.00	125.63	3,211.35	805.82	2,891	2,484.71	0.28	-0.08	0.04
32.94	-22.17	-1.07	0.00	-125.63	0.00	125.63	3,211.35	805.82	2,891	2,484.71	0.28	-0.08	0.06
33.00	-22.00	-1.07	0.00	-125.56	0.00	125.56	3,210.82	805.60	2,889	2,483.62	0.28	-0.08	0.06
34.00	-21.83	-1.07	0.00	-124.49	0.00	124.49	3,201.91	802.00	2,863	2,465.55	0.30	-0.09	0.06
35.00	-21.66	-1.07	0.00	-123.42	0.00	123.42	3,192.95	798.39	2,838	2,447.50	0.32	-0.09	0.06
36.00	-21.48	-1.07	0.00	-122.35	0.00	122.35	3,183.94	794.79	2,812	2,429.47	0.34	-0.10	0.06
37.00	-21.32	-1.07	0.00	-121.28	0.00	121.28	3,174.88	791.19	2,787	2,411.47	0.36	-0.10	0.06
38.00	-21.16	-1.07	0.00	-120.21	0.00	120.21	3,165.78	787.59	2,761	2,393.50	0.38	-0.10	0.06
39.00	-21.01	-1.07	0.00	-119.13	0.00	119.13	3,156.62	783.98	2,736	2,375.55	0.40	-0.11	0.06
40.00	-20.86	-1.07	0.00	-118.06	0.00	118.06	3,147.42	780.38	2,711	2,357.63	0.42	-0.11	0.06
41.00	-20.70	-1.07	0.00	-116.99	0.00	116.99	3,138.17	776.78	2,686	2,339.74	0.45	-0.12	0.06
42.00	-20.65	-1.07	0.00	-115.91	0.00	115.91	3,128.87	773.18	2,661	2,321.87	0.47	-0.12	0.06
42.33	-20.47	-1.07	0.00	-115.55	0.00	115.55	3,125.75	771.97	2,653	2,315.91	0.48	-0.12	0.06
43.00	-20.20	-1.07	0.00	-114.84	0.00	114.84	3,119.52	769.57	2,637	2,304.04	0.50	-0.13	0.06
44.00	-19.93	-1.07	0.00	-113.76	0.00	113.76	3,110.12	765.97	2,612	2,286.23	0.53	-0.13	0.06
45.00	-19.66	-1.07	0.00	-112.69	0.00	112.69	3,100.67	762.37	2,588	2,268.46	0.55	-0.13	0.06
46.00	-19.39	-1.07	0.00	-111.62	0.00	111.62	3,091.17	758.77	2,563	2,250.71	0.58	-0.14	0.06
47.00	-19.13	-1.07	0.00	-110.55	0.00	110.55	3,081.63	755.16	2,539	2,233.00	0.61	-0.14	0.06
48.00	-18.99	-1.07	0.00	-109.48	0.00	109.48	2,761.07	703.00	2,400	2,033.59	0.64	-0.15	0.06
49.00	-18.85	-1.07	0.00	-108.41	0.00	108.41	2,753.28	699.69	2,377	2,018.24	0.67	-0.15	0.06
50.00	-18.71	-1.07	0.00	-107.34	0.00	107.34	2,745.45	696.39	2,355	2,002.90	0.71	-0.16	0.06
51.00	-18.57	-1.07	0.00	-106.27	0.00	106.27	2,737.56	693.09	2,333	1,987.59	0.74	-0.16	0.06
52.00	-18.43	-1.07	0.00	-105.20	0.00	105.20	2,729.63	689.78	2,310	1,972.29	0.77	-0.17	0.06
53.00	-18.29	-1.07	0.00	-104.13	0.00	104.13	2,721.65	686.48	2,288	1,957.02	0.81	-0.17	0.06
54.00	-18.15	-1.07	0.00	-103.07	0.00	103.07	2,713.61	683.18	2,266	1,941.76	0.85	-0.18	0.06
55.00	-18.02	-1.07	0.00	-102.00	0.00	102.00	2,705.53	679.88	2,245	1,926.53	0.88	-0.18	0.06
56.00	-17.88	-1.07	0.00	-100.93	0.00	100.93	2,697.40	676.57	2,223	1,911.32	0.92	-0.19	0.06
57.00	-17.74	-1.07	0.00	-99.86	0.00	99.86	2,689.22	673.27	2,201	1,896.13	0.96	-0.19	0.06
58.00	-17.61	-1.07	0.00	-98.79	0.00	98.79	2,681.00	669.97	2,180	1,880.97	1.00	-0.19	0.06
59.00	-17.47	-1.07	0.00	-97.73	0.00	97.73	2,672.72	666.66	2,158	1,865.82	1.04	-0.20	0.06
60.00	-17.34	-1.07	0.00	-96.66	0.00	96.66	2,664.40	663.36	2,137	1,850.71	1.09	-0.20	0.06
61.00	-17.21	-1.07	0.00	-95.59	0.00	95.59	2,656.02	660.06	2,116	1,835.61	1.13	-0.21	0.06
62.00	-17.07	-1.06	0.00	-94.53	0.00	94.53	2,647.60	656.76	2,095	1,820.54	1.17	-0.21	0.06
63.00	-16.94	-1.06	0.00	-93.47	0.00	93.47	2,639.12	653.45	2,074	1,805.50	1.22	-0.22	0.06
64.00	-16.81	-1.06	0.00	-92.40	0.00	92.40	2,630.60	650.15	2,053	1,790.48	1.26	-0.22	0.06
65.00	-16.68	-1.06	0.00	-91.34	0.00	91.34	2,622.03	646.85	2,032	1,775.49	1.31	-0.23	0.06
66.00	-16.55	-1.06	0.00	-90.28	0.00	90.28	2,613.41	643.54	2,011	1,760.52	1.36	-0.23	0.06
67.00	-16.42	-1.06	0.00	-89.22	0.00	89.22	2,604.75	640.24	1,991	1,745.59	1.41	-0.24	0.06
68.00	-16.29	-1.06	0.00	-88.16	0.00	88.16	2,596.03	636.94	1,970	1,730.68	1.46	-0.24	0.06
69.00	-16.16	-1.06	0.00	-87.10	0.00	87.10	2,587.26	633.64	1,950	1,715.80	1.51	-0.25	0.06
70.00	-16.03	-1.06	0.00	-86.04	0.00	86.04	2,578.45	630.33	1,929	1,700.94	1.57	-0.25	0.06
71.00	-15.90	-1.05	0.00	-84.99	0.00	84.99	2,569.58	627.03	1,909	1,686.12	1.62	-0.26	0.06
72.00	-15.78	-1.05	0.00	-83.93	0.00	83.93	2,560.67	623.73	1,889	1,671.33	1.67	-0.26	0.06
73.00	-15.65	-1.05	0.00	-82.88	0.00	82.88	2,551.71	620.42	1,869	1,656.57	1.73	-0.27	0.06
74.00	-15.52	-1.05	0.00	-81.83	0.00	81.83	2,542.70	617.12	1,849	1,641.84	1.79	-0.27	0.06
75.00	-15.40	-1.05	0.00	-80.78	0.00	80.78	2,533.64	613.82	1,830	1,627.14	1.84	-0.28	0.06
76.00	-15.27	-1.05	0.00	-79.73	0.00	79.73	2,524.53	610.52	1,810	1,612.47	1.90	-0.28	0.06
77.00	-15.15	-1.05	0.00	-78.68	0.00	78.68	2,515.37	607.21	1,791	1,597.83	1.96	-0.29	0.06
78.00	-15.02	-1.04	0.00	-77.64	0.00	77.64	2,506.16	603.91	1,771	1,583.23	2.03	-0.29	0.06
79.00	-14.90	-1.04	0.00	-76.59	0.00	76.59	2,496.91	600.61	1,752	1,568.66	2.09	-0.30	0.06
80.00	-14.66	-1.04	0.00	-75.55	0.00	75.55	2,487.60	597.30	1,733	1,554.13	2.15	-0.31	0.06

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

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 (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
81.00	-14.54	-1.03	0.00	-74.51	0.00	74.51	2,478.25	594.00	1,713	1,539.63	2.22	-0.31	0.05
82.00	-14.42	-1.03	0.00	-73.48	0.00	73.48	2,468.85	590.70	1,694	1,525.16	2.28	-0.32	0.05
83.00	-14.30	-1.03	0.00	-72.45	0.00	72.45	2,459.40	587.40	1,676	1,510.74	2.35	-0.32	0.05
84.00	-14.18	-1.03	0.00	-71.42	0.00	71.42	2,449.90	584.09	1,657	1,496.34	2.42	-0.33	0.05
85.00	-14.17	-1.03	0.00	-70.39	0.00	70.39	2,439.32	580.79	1,638	1,481.36	2.48	-0.33	0.05
85.08	-13.98	-1.02	0.00	-70.30	0.00	70.30	2,438.15	580.51	1,637	1,479.94	2.49	-0.33	0.05
86.00	-13.78	-1.02	0.00	-69.37	0.00	69.37	2,425.45	577.49	1,620	1,464.47	2.55	-0.34	0.05
87.00	-13.58	-1.01	0.00	-68.35	0.00	68.35	2,411.58	574.18	1,601	1,447.67	2.63	-0.34	0.05
88.00	-13.33	-1.01	0.00	-67.33	0.00	67.33	2,397.70	570.88	1,583	1,430.97	2.70	-0.35	0.05
89.00	-13.14	-1.00	0.00	-66.33	0.00	66.33	2,383.83	567.58	1,564	1,414.36	2.77	-0.35	0.05
90.00	-13.14	-1.00	0.00	-65.32	0.00	65.32	2,369.96	564.28	1,546	1,397.85	2.85	-0.36	0.05
90.00	-13.04	-1.00	0.00	-65.32	0.00	65.32	1,850.78	471.63	1,320	1,117.72	2.85	-0.36	0.07
91.00	-12.93	-1.00	0.00	-64.33	0.00	64.33	1,844.43	468.93	1,305	1,107.45	2.92	-0.36	0.07
92.00	-12.83	-1.00	0.00	-63.33	0.00	63.33	1,838.03	466.23	1,290	1,097.18	3.00	-0.37	0.07
93.00	-12.73	-0.99	0.00	-62.33	0.00	62.33	1,831.57	463.53	1,275	1,086.93	3.08	-0.38	0.06
94.00	-12.63	-0.99	0.00	-61.34	0.00	61.34	1,825.06	460.82	1,260	1,076.70	3.15	-0.38	0.06
95.00	-12.53	-0.99	0.00	-60.35	0.00	60.35	1,818.51	458.12	1,246	1,066.48	3.24	-0.39	0.06
96.00	-12.43	-0.99	0.00	-59.36	0.00	59.36	1,811.91	455.42	1,231	1,056.28	3.32	-0.39	0.06
97.00	-12.34	-0.98	0.00	-58.37	0.00	58.37	1,805.26	452.72	1,216	1,046.10	3.40	-0.40	0.06
98.00	-12.24	-0.98	0.00	-57.39	0.00	57.39	1,798.56	450.01	1,202	1,035.93	3.48	-0.41	0.06
99.00	-12.14	-0.98	0.00	-56.41	0.00	56.41	1,791.81	447.31	1,187	1,025.78	3.57	-0.41	0.06
100.00	-12.04	-0.98	0.00	-55.43	0.00	55.43	1,785.01	444.61	1,173	1,015.66	3.66	-0.42	0.06
101.00	-11.94	-0.97	0.00	-54.45	0.00	54.45	1,778.16	441.91	1,159	1,005.55	3.75	-0.42	0.06
102.00	-11.84	-0.97	0.00	-53.48	0.00	53.48	1,771.27	439.20	1,145	995.46	3.84	-0.43	0.06
103.00	-11.75	-0.97	0.00	-52.51	0.00	52.51	1,764.32	436.50	1,131	985.40	3.93	-0.44	0.06
104.00	-11.65	-0.96	0.00	-51.54	0.00	51.54	1,757.33	433.80	1,117	975.35	4.02	-0.44	0.06
105.00	-11.56	-0.96	0.00	-50.58	0.00	50.58	1,750.28	431.10	1,103	965.33	4.11	-0.45	0.06
106.00	-11.46	-0.96	0.00	-49.62	0.00	49.62	1,743.19	428.39	1,089	955.33	4.21	-0.46	0.06
107.00	-11.37	-0.96	0.00	-48.66	0.00	48.66	1,736.05	425.69	1,076	945.35	4.30	-0.46	0.06
108.00	-11.27	-0.95	0.00	-47.70	0.00	47.70	1,728.86	422.99	1,062	935.40	4.40	-0.47	0.06
109.00	-11.18	-0.95	0.00	-46.75	0.00	46.75	1,721.62	420.29	1,048	925.47	4.50	-0.47	0.06
110.00	-10.90	-0.94	0.00	-45.80	0.00	45.80	1,714.33	417.58	1,035	915.56	4.60	-0.48	0.06
111.00	-10.81	-0.93	0.00	-44.87	0.00	44.87	1,707.00	414.88	1,022	905.68	4.70	-0.49	0.06
112.00	-10.72	-0.93	0.00	-43.93	0.00	43.93	1,699.61	412.18	1,008	895.83	4.80	-0.49	0.06
113.00	-10.62	-0.93	0.00	-43.00	0.00	43.00	1,692.18	409.48	995	886.00	4.91	-0.50	0.06
114.00	-10.53	-0.92	0.00	-42.08	0.00	42.08	1,684.69	406.77	982	876.20	5.01	-0.50	0.05
115.00	-10.44	-0.92	0.00	-41.16	0.00	41.16	1,677.16	404.07	969	866.42	5.12	-0.51	0.05
116.00	-10.35	-0.91	0.00	-40.24	0.00	40.24	1,669.58	401.37	956	856.67	5.23	-0.52	0.05
117.00	-10.26	-0.91	0.00	-39.32	0.00	39.32	1,661.95	398.67	943	846.95	5.33	-0.52	0.05
118.00	-10.17	-0.91	0.00	-38.41	0.00	38.41	1,654.27	395.96	931	837.26	5.44	-0.53	0.05
119.00	-10.08	-0.90	0.00	-37.51	0.00	37.51	1,646.54	393.26	918	827.60	5.56	-0.54	0.05
120.00	-9.99	-0.90	0.00	-36.60	0.00	36.60	1,638.76	390.56	905	817.97	5.67	-0.54	0.05
121.00	-9.91	-0.90	0.00	-35.70	0.00	35.70	1,629.00	387.86	893	807.40	5.78	-0.55	0.05
122.00	-9.82	-0.89	0.00	-34.81	0.00	34.81	1,617.65	385.15	880	796.13	5.90	-0.55	0.05
123.00	-9.73	-0.89	0.00	-33.92	0.00	33.92	1,606.30	382.45	868	784.93	6.01	-0.56	0.05
124.00	-9.65	-0.88	0.00	-33.03	0.00	33.03	1,594.95	379.75	856	773.81	6.13	-0.57	0.05
124.99	-9.65	-0.88	0.00	-32.15	0.00	32.15	1,583.67	377.06	844	762.84	6.25	-0.57	0.05
124.99	-9.65	-0.88	0.00	-32.15	0.00	32.15	1,139.75	294.06	660	551.90	6.25	-0.57	0.07
125.00	-9.57	-0.88	0.00	-32.15	0.00	32.15	1,139.72	294.05	660	551.87	6.25	-0.57	0.07
126.00	-9.50	-0.88	0.00	-31.27	0.00	31.27	1,134.97	291.94	650	545.60	6.37	-0.58	0.07
127.00	-9.43	-0.87	0.00	-30.39	0.00	30.39	1,130.17	289.84	641	539.35	6.49	-0.59	0.07
128.00	-9.36	-0.87	0.00	-29.52	0.00	29.52	1,125.33	287.74	632	533.11	6.62	-0.59	0.06
129.00	-9.29	-0.87	0.00	-28.65	0.00	28.65	1,120.43	285.64	623	526.88	6.74	-0.60	0.06
130.00	-9.22	-0.86	0.00	-27.79	0.00	27.79	1,115.49	283.54	613	520.65	6.87	-0.61	0.06
131.00	-6.46	-0.68	0.00	-26.92	0.00	26.92	1,110.50	281.44	604	514.45	7.00	-0.61	0.06
132.00	-6.39	-0.67	0.00	-26.25	0.00	26.25	1,105.46	279.33	595	508.25	7.13	-0.62	0.06
133.00	-6.32	-0.67	0.00	-25.58	0.00	25.58	1,100.37	277.23	586	502.06	7.26	-0.63	0.06
134.00	-6.26	-0.66	0.00	-24.91	0.00	24.91	1,095.23	275.13	578	495.89	7.39	-0.64	0.06
135.00	-6.19	-0.66	0.00	-24.24	0.00	24.24	1,090.04	273.03	569	489.74	7.52	-0.64	0.06
136.00	-6.13	-0.66	0.00	-23.58	0.00	23.58	1,084.80	270.93	560	483.60	7.66	-0.65	0.05
137.00	-6.06	-0.65	0.00	-22.93	0.00	22.93	1,079.51	268.82	551	477.47	7.80	-0.66	0.05
138.00	-5.99	-0.65	0.00	-22.27	0.00	22.27	1,074.18	266.72	543	471.36	7.94	-0.66	0.05
139.00	-5.93	-0.64	0.00	-21.63	0.00	21.63	1,068.79	264.62	534	465.26	8.08	-0.67	0.05
140.00	-5.87	-0.64	0.00	-20.98	0.00	20.98	1,063.36	262.52	526	459.18	8.22	-0.68	0.05
141.00	-5.80	-0.64	0.00	-20.34	0.00	20.34	1,057.88	260.42	517	453.12	8.36	-0.68	0.05
142.00	-5.74	-0.63	0.00	-19.71	0.00	19.71	1,052.35	258.31	509	447.07	8.50	-0.69	0.05
143.00	-5.62	-0.62	0.00	-19.07	0.00	19.07	1,046.77	256.21	501	441.05	8.65	-0.70	0.05
144.00	-5.51	-0.61	0.00	-18.45	0.00	18.45	1,041.14	254.11	493	435.04	8.80	-0.71	0.05
145.00	-5.45	-0.61	0.00	-17.84	0.00	17.84	1,035.46	252.01	485	429.05	8.94	-0.71	0.05
146.00	-5.39	-0.61	0.00	-17.23	0.00	17.23	1,029.73	249.91	477	423.08	9.09	-0.72	0.05
147.00	-5.33	-0.60	0.00	-16.62	0.00	16.62	1,023.96	247.80	469	417.13	9.25	-0.72	0.05
148.00	-5.27	-0.60	0.00	-16.02	0.00	16.02	1,018.13	245.70	461	411.20	9.40	-0.73	0.04

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212_C4_05

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 (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
149.00	-5.22	-0.59	0.00	-15.42	0.00	15.42	1,012.26	243.60	453	405.29	9.55	-0.74	0.04
150.00	-4.96	-0.57	0.00	-14.83	0.00	14.83	1,006.34	241.50	445	399.41	9.71	-0.74	0.04
151.00	-4.91	-0.57	0.00	-14.26	0.00	14.26	1,000.37	239.40	437	393.54	9.86	-0.75	0.04
152.00	-4.85	-0.56	0.00	-13.70	0.00	13.70	994.35	237.29	430	387.70	10.02	-0.76	0.04
153.00	-4.79	-0.56	0.00	-13.13	0.00	13.13	987.80	235.19	422	381.70	10.18	-0.76	0.04
154.00	-4.74	-0.55	0.00	-12.58	0.00	12.58	978.97	233.09	415	374.87	10.34	-0.77	0.04
155.00	-4.68	-0.55	0.00	-12.02	0.00	12.02	970.15	230.99	407	368.10	10.50	-0.77	0.04
156.00	-4.61	-0.54	0.00	-11.48	0.00	11.48	961.32	228.89	400	361.39	10.66	-0.78	0.04
157.00	-4.53	-0.53	0.00	-10.94	0.00	10.94	952.49	226.78	392	354.75	10.83	-0.79	0.04
158.00	-4.47	-0.53	0.00	-10.40	0.00	10.40	943.66	224.68	385	348.16	10.99	-0.79	0.04
159.00	-4.42	-0.52	0.00	-9.87	0.00	9.87	934.83	222.58	378	341.64	11.16	-0.80	0.03
160.00	-4.36	-0.52	0.00	-9.35	0.00	9.35	926.00	220.48	371	335.18	11.33	-0.80	0.03
161.00	-4.31	-0.51	0.00	-8.83	0.00	8.83	917.18	218.38	364	328.78	11.49	-0.81	0.03
162.00	-4.26	-0.51	0.00	-8.32	0.00	8.32	908.35	216.27	357	322.44	11.66	-0.81	0.03
163.00	-4.21	-0.50	0.00	-7.81	0.00	7.81	899.52	214.17	350	316.17	11.83	-0.82	0.03
164.00	-4.16	-0.50	0.00	-7.30	0.00	7.30	890.69	212.07	343	309.95	12.01	-0.82	0.03
165.00	-4.11	-0.49	0.00	-6.80	0.00	6.80	881.86	209.97	336	303.80	12.18	-0.82	0.03
166.00	-4.05	-0.49	0.00	-6.31	0.00	6.31	873.03	207.87	330	297.71	12.35	-0.83	0.03
167.00	-4.00	-0.48	0.00	-5.82	0.00	5.82	864.21	205.76	323	291.68	12.53	-0.83	0.03
168.00	-3.95	-0.48	0.00	-5.33	0.00	5.33	855.38	203.66	317	285.72	12.70	-0.84	0.02
169.00	-3.90	-0.47	0.00	-4.85	0.00	4.85	846.55	201.56	310	279.81	12.88	-0.84	0.02
170.00	-3.79	-0.46	0.00	-4.38	0.00	4.38	837.72	199.46	304	273.97	13.05	-0.84	0.02
171.00	-3.75	-0.46	0.00	-3.92	0.00	3.92	828.89	197.36	297	268.18	13.23	-0.85	0.02
172.00	-3.70	-0.45	0.00	-3.46	0.00	3.46	820.06	195.25	291	262.46	13.41	-0.85	0.02
173.00	-3.66	-0.45	0.00	-3.01	0.00	3.01	811.24	193.15	285	256.80	13.59	-0.85	0.02
174.00	-3.61	-0.44	0.00	-2.56	0.00	2.56	802.41	191.05	279	251.21	13.76	-0.85	0.02
175.00	-3.57	-0.44	0.00	-2.12	0.00	2.12	793.58	188.95	272	245.67	13.94	-0.86	0.01
176.00	-3.53	-0.43	0.00	-1.68	0.00	1.68	784.75	186.85	266	240.20	14.12	-0.86	0.01
177.00	-3.44	-0.42	0.00	-1.25	0.00	1.25	775.92	184.74	260	234.79	14.30	-0.86	0.01
178.00	-3.40	-0.42	0.00	-0.83	0.00	0.83	767.09	182.64	255	229.44	14.48	-0.86	0.01
179.00	-3.36	-0.41	0.00	-0.41	0.00	0.41	758.27	180.54	249	224.15	14.66	-0.86	0.01
180.00	0.00	-0.36	0.00	0.00	0.00	0.00	749.44	178.44	243	218.92	14.84	-0.86	0.00

ASSET: 302501, Plymouth CT 3
 CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
 ENG NO: 13701212_C4_05

ANALYSIS SUMMARY

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W Normal	27.99	0.00	42.00	0.00	0.00	3213.95	48.00	0.98
0.9D + 1.0W Normal	27.98	0.00	31.50	0.00	0.00	3141.58	48.00	0.94
1.2D + 1.0Di + 1.0Wi Normal	5.57	0.00	56.36	0.00	0.00	711.80	90.00	0.24
1.2D + 1.0Ev + 1.0Eh Normal	1.10	0.00	43.02	0.00	0.00	166.29	124.99	0.07
0.9D - 1.0Ev + 1.0Eh Normal	1.07	0.00	29.89	0.00	0.00	160.62	124.99	0.07
1.0D + 1.0W Service Normal	7.05	0.00	35.01	0.00	0.00	801.66	48.00	0.25

ADDITIONAL STEEL SUMMARY

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors				Max member		
			VQ/I	Shear Applied (kips)	Shear (phiVn) (kips)	Ratio	Pu (kip)	PhiPn (kip)	Ratio
0.00	32.94	SOL #20 All Thread Bar	206.2	6.2	16.8	0.3679	254.3	330.5	0.7695

Elev From (ft)	Elev To (ft)	Member	Upper Termination Connectors					Lower Termination Connectors				
			MQ/I	phiVn (kips)	Num Reqd	Num Actual	Ratio	MQ/I (kips)	phiVn (kip)	Num Reqd	Num Actual	Ratio
0.00	32.94	SOL #20 All Thread Bar	230.7461	25.27	10	12	0.7609	0	25.27	0	0	0.0000

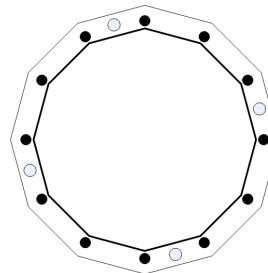
ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212

BASE PLATE ANALYSIS @ 0 FT

PLATE PARAMETERS (ID# 18413)

Diameter: 52.84 in
Shape: 12
Thickness: 2.5 in
Grade: A871-60
Yield Strength: 60 ksi
Tensile Strength: 75 ksi
Rod Detail Type: d
Clear Distance: 3 in
Base Weld Size: 0.125 in
Orientation Offset: - °
Analysis Type: Elastic
Neutral Axis: 272 °



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 18878]	Radial	12	2.25	48.42	A615-75	75	100	-	-

DYWIDAG BAR PARAMETERS

Quantity	Bar Size	Bar Diameter (in)	Fy (ksi)	Fu (ksi)	Bracket Type	Bracket Offset (in)	Circle (in)	Offset (°)
4 [ID# 1347]	#20	2.5	80	100	Angle	2.19	50.88	15

ANCHOR ROD GEOMETRY AND APPLIED LOADS --- ORIGINAL (12) 2.25"Ø [ID 18878]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)	Shear Load (k)
1	0.524	20.97	12.10	20.217	1328.296	164.54	1.74
2	1.047	12.10	20.97	12.134	478.996	99.67	3.15
3	1.571	0.00	24.21	0.799	2.913	8.71	3.72
4	2.094	-12.10	20.97	-10.750	376.131	-83.98	3.28
5	2.618	-20.97	12.10	-19.418	1225.432	-153.54	1.97
6	3.142	-24.21	0.00	-22.884	1701.514	-181.35	0.13
7	3.665	-20.97	-12.10	-20.217	1328.296	-159.95	1.74
8	4.189	-12.10	-20.97	-12.134	478.996	-95.08	3.15
9	4.712	0.00	-24.21	-0.799	2.913	-4.12	3.72
10	5.236	12.10	-20.97	10.750	376.131	88.56	3.28
11	5.760	20.97	-12.10	19.418	1225.432	158.13	1.97
12	6.283	24.21	0.00	22.884	1701.514	185.94	0.13

DYWIDAG BAR GEOMETRY AND APPLIED LOADS --- (4) #20 [ID 1347]						
Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)
1	1.833	-6.58	24.57	-5.723	162.678	-55.10
2	3.403	-24.57	-6.58	-24.788	3018.061	-250.72
3	4.974	6.58	-24.57	5.723	162.678	62.34
4	0.262	24.57	6.58	24.788	3018.061	257.96

REACTION DISTRIBUTION					
Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	44"Ø x 0.375" (12 Sides)	2105.9	42.00	27.99	0.655
Bolt Group	Original (12) 2.25"Ø	2105.9	-	27.99	0.655
Dywidag Group	(4) #20	1108.1	-	-	0.345
TOTALS		3213.95	42	27.99	

COMPONENT PROPERTIES						
Component	ID	Gross Area (in²)	Net Area (in²)	Individual Inertia (in⁴)	Moment of Inertia (in⁴)	Threads/in
Pole	44"Ø x 0.375" (12 Sides)	50.8094	-	-	12089.57	-
Bolt Group	Original (12) 2.25"Ø	3.9761	3.2477	0.8393	10226.57	4.5
Dywidag Group	(4) #20	4.9087	4.9087	1.9175	6361.48	-

EXTERNAL BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES			PLATE PROPERTIES		
Flat-to-Flat Diameter:	44.12	in	Neutral Axis:	272	°
Point-to-Point Diameter:	45.68	in	Bend Line Lower Limit:	5.860	rad
Flat Width:	11.823	in	Bend Line Upper Limit:	0.423	rad
Flat Radians:	0.524	rad			

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in ³)	Applied Moment Mu (k-in)	Moment Capacity ϕMn (k-in)	Ratio
Flat	27.153	0.00	42.426	152.7	2291.0	0.067
Corner	24.443	0.00	38.193	8.0	2062.4	0.004
Circumferential	30.140	0.00	47.093	10.5	2543.0	0.004

ELASTIC ANCHOR ROD ANALYSIS							
Class	Group Quantity	Rod Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity ϕPn (k)	Ratio	Interaction
Original	12	2.25	185.9	0.1	243.6	0.763	0.764

DYWIDAG BAR ANALYSIS					
Group Quantity	Bar Size	Bar Circle (in)	Applied Axial Load Pu (k)	Compressive Capacity ϕPn (k)	Ratio
4	#20	50.88	258.0	368.2	0.701

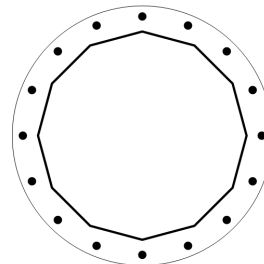
ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212

LOWER FLANGE PLATE ANALYSIS @ 124.9941 FT

PLATE PARAMETERS (ID# 18416)

Diameter: 30.78 in
Shape: Round
Thickness: 1.25 in
Grade: A572-60
Yield Strength: 60 ksi
Tensile Strength: 75 ksi
Pole Weld Size: 0.125 in
Orientation Offset: - °
Analysis Type: Plastic
Neutral Axis: 56 °



FLANGE BOLT PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 18881]	Radial	16	1	28.28	A490	130	150	-	-

FLANGE BOLT GEOMETRY AND APPLIED LOADS --- ORIGINAL (16) 1"Ø [ID 18881]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)	Shear Load (k)
1	0.393	13.06	5.41	-7.459	33.735	-39.29	1.16
2	0.785	10.00	10.00	-2.579	4.057	-39.29	1.37
3	1.178	5.41	13.06	2.694	4.427	42.10	1.37
4	1.571	0.00	14.14	7.557	34.627	42.10	1.16
5	1.963	-5.41	13.06	11.270	76.966	42.10	0.77
6	2.356	-10.00	10.00	13.267	106.643	42.10	0.27
7	2.749	-13.06	5.41	13.244	106.274	42.10	0.28
8	3.142	-14.14	0.00	11.204	76.074	42.10	0.78
9	3.534	-13.06	-5.41	7.459	33.735	42.10	1.16
10	3.927	-10.00	-10.00	2.579	4.057	42.10	1.37
11	4.320	-5.41	-13.06	-2.694	4.427	-39.29	1.37
12	4.712	0.00	-14.14	-7.557	34.627	-39.29	1.16
13	5.105	5.41	-13.06	-11.270	76.966	-39.29	0.77
14	5.498	10.00	-10.00	-13.267	106.643	-39.29	0.27
15	5.890	13.06	-5.41	-13.244	106.274	-39.29	0.28
16	6.283	14.14	0.00	-11.204	76.074	-39.29	0.78

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	24.0009"Ø x 0.2813" (12 Sides)	469.8	11.22	14.32	1.000
Bolt Group	Original (16) 1"Ø	469.8	-	14.32	1.000
TOTALS		469.83	11.22	14.32	

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212

COMPONENT PROPERTIES

Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	24.0009"Ø x 0.2813" (12 Sides)	20.7231	-	-	1457.95	-
Bolt Group	Original (16) 1"Ø	0.7854	0.6057	0.0292	885.61	8.0

EXTERNAL LOWER FLANGE PLATE BEND LINE ANALYSIS @ 124.9941 FT

POLE PROPERTIES

Flat-to-Flat Diameter: 24.13 in
Point-to-Point Diameter: 24.98 in
Flat Width: 6.465 in
Flat Radians: 0.524 rad

PLATE PROPERTIES

Neutral Axis: 56 °
Bend Line Lower Limit: 2.144 rad
Bend Line Upper Limit: 2.961 rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in ³)	Applied Moment Mu (k-in)	Moment Capacity φMn (k-in)	Ratio
Flat	17.586	0.00	6.869	123.6	371.0	0.333
Corner	16.355	0.00	6.389	79.5	345.0	0.230
Circumferential	18.375	0.00	7.178	106.4	387.6	0.274

PLASTIC FLANGE BOLT ANALYSIS

Class	Group Quantity	Bolt Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity φPn (k)	Ratio
Original	16	1	42.1	1.4	68.1	0.618

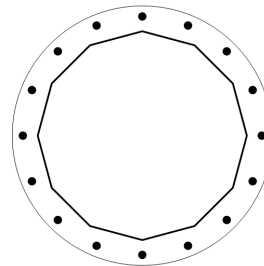
ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212

UPPER FLANGE PLATE ANALYSIS @ 124.9941 FT

PLATE PARAMETERS (ID# 18417)

Diameter: 30.78 in
Shape: Round
Thickness: 1.25 in
Grade: A572-60
Yield Strength: 60 ksi
Tensile Strength: 75 ksi
Pole Weld Size: 0.125 in
Orientation Offset: - °
Analysis Type: Plastic
Neutral Axis: 56 °



FLANGE BOLT PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 18882]	Radial	16	1	28.28	A490	130	150	-	-

FLANGE BOLT GEOMETRY AND APPLIED LOADS --- ORIGINAL (16) 1"Ø [ID 18882]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)	Shear Load (k)
1	0.393	13.06	5.41	-7.459	33.735	-39.29	1.16
2	0.785	10.00	10.00	-2.579	4.057	-39.29	1.37
3	1.178	5.41	13.06	2.694	4.427	42.10	1.37
4	1.571	0.00	14.14	7.557	34.627	42.10	1.16
5	1.963	-5.41	13.06	11.270	76.966	42.10	0.77
6	2.356	-10.00	10.00	13.267	106.643	42.10	0.27
7	2.749	-13.06	5.41	13.244	106.274	42.10	0.28
8	3.142	-14.14	0.00	11.204	76.074	42.10	0.78
9	3.534	-13.06	-5.41	7.459	33.735	42.10	1.16
10	3.927	-10.00	-10.00	2.579	4.057	42.10	1.37
11	4.320	-5.41	-13.06	-2.694	4.427	-39.29	1.37
12	4.712	0.00	-14.14	-7.557	34.627	-39.29	1.16
13	5.105	5.41	-13.06	-11.270	76.966	-39.29	0.77
14	5.498	10.00	-10.00	-13.267	106.643	-39.29	0.27
15	5.890	13.06	-5.41	-13.244	106.274	-39.29	0.28
16	6.283	14.14	0.00	-11.204	76.074	-39.29	0.78

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	24.0009"Ø x 0.2188" (12 Sides)	469.8	11.22	14.32	1.000
Bolt Group	Original (16) 1"Ø	469.8	-	14.32	1.000
TOTALS		469.83	11.22	14.32	

ASSET: 302501, Plymouth CT 3
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13701212

COMPONENT PROPERTIES

Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	24.0009"Ø x 0.2188" (12 Sides)	16.1613	-	-	1142.84	-
Bolt Group	Original (16) 1"Ø	0.7854	0.6057	0.0292	885.61	8.0

EXTERNAL UPPER FLANGE PLATE BEND LINE ANALYSIS @ 124.9941 FT

POLE PROPERTIES

Flat-to-Flat Diameter: 24.13 in
Point-to-Point Diameter: 24.98 in
Flat Width: 6.465 in
Flat Radians: 0.524 rad

PLATE PROPERTIES

Neutral Axis: 56 °
Bend Line Lower Limit: 2.144 rad
Bend Line Upper Limit: 2.961 rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in ³)	Applied Moment Mu (k-in)	Moment Capacity φMn (k-in)	Ratio
Flat	17.586	0.00	6.869	123.6	371.0	0.333
Corner	16.355	0.00	6.389	79.5	345.0	0.230
Circumferential	18.375	0.00	7.178	106.4	387.6	0.274

PLASTIC FLANGE BOLT ANALYSIS

Class	Group Quantity	Bolt Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity φPn (k)	Ratio
Original	16	1	42.1	1.4	68.1	0.618

Site Name: Plymouth CT 3, CT
Site Number: 302501
Tower Type: MP
Design Loads (Factored) - Analysis per TIA-222-H Standards

Monolithic Mat & Pier Foundation Analysis

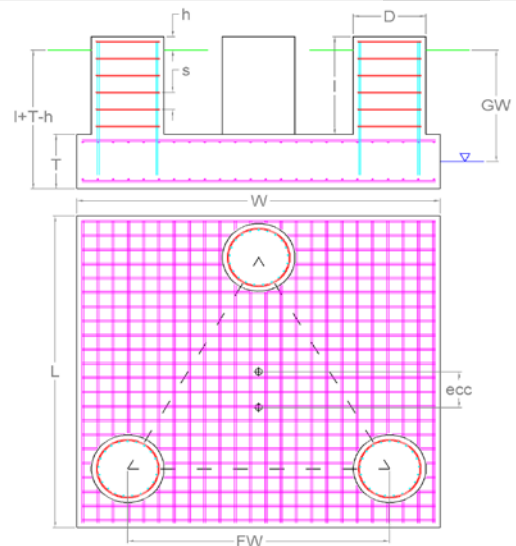
Foundation Analysis Parameters		
Design / Analysis / Mapping:	Analysis	-
Compression/Leg:	42.0	k
Uplift/Leg:	0.0	k
Global Shear:	28.0	k
Global Moment:	3,214.0	k-ft
Global Axial:	42.0	k
Depth to Base of Foundation (l + t - h):	8	ft
Diameter of Pier (d):	6	ft
Length of Pier (l):	5.5	ft
Height of Pier above Ground (h):	0.5	ft
Width of Pad (W):	20	ft
Length of Pad (L):	20	ft
Thickness of Pad (t):	3	ft
Tower Leg Center to Center:	0	ft
Number of Tower Legs:	1	-
Tower Center from Mat Center:	0	ft
Depth Below Ground Surface to Water Table:	99	ft
Unit Weight of Concrete:	150	pcf
Unit Weight of Soil Above Water Table:	135	pcf
Unit Weight of Water:	62.4	pcf
Unit Weight of Soil Below Water Table:	72.6	pcf
Friction Angle of Uplift:	15	°
Coefficient of Shear Friction:	0.35	-
Ultimate Compressive Bearing Pressure (Gross):	15,000	psf
Ultimate Passive Pressure on Pad Face:	878	psf
$f_{\text{Soil and Concrete Weight}}$:	1.2	-
f_{Soil} :	0.75	-
Pier Shape:	Round	

Foundation Steel Parameters		
Shear/Leg (Compression):	28.0	k
Shear/Leg (Uplift):	28.0	k
Concrete Strength (f'_c):	3,000	psi
Pad Tension Steel Depth:	31.75	in
Dead Load Factor:	0.9	-
f_{Shear} :	0.75	-
$f_{\text{Flexure / Tension}}$:	0.9	-
$f_{\text{Compression}}$:	0.65	-
b:	0.85	-
Bottom Pad Rebar Size #:	10	-
# of Bottom Pad Rebar:	39	-
Pad Bottom Steel Area:	49.53	in ²
Pad Steel F_y :	60,000	psi
Top Pad Rebar Size #:	5	-
# of Top Pad Rebar:	39	-
Pad Top Steel Area:	12.09	in ²
Pier Rebar Size #:	11	-
Pier Steel Area (Single Bar):	1.56	in ²
# of Pier Rebar:	42	-
Pier Steel F_y :	60,000	psi
Pier Cage Diameter:	63.6	in
Rebar Strain Limit:	0.008	-
Steel Elastic Modulus:	29,000	ksi
Tie Rebar Size #:	4	-
Tie Steel Area (Single Bar):	0.20	in ²
Tie Spacing:	12	in
Tie Steel F_y :	60,000	psi
Clear Cover:	3	in

Overturning Moment Usage		
Design OTM:	3451.9	k-ft
OTM Resistance:	4822.1	k-ft
Design OTM / OTM Resistance:	71.6%	Pass

Soil Bearing Pressure Usage		
Net Bearing Pressure:	4054	psf
Factored Nominal Bearing Pressure:	11250	psf
Factored Nominal (Net) Bearing Pressure:	36.0%	Pass
Load Direction Controlling Design Bearing Pressure:	Diagonal to Pad Edge	

Sliding Factor of Safety		
Ultimate Friction Resistance:	171.2	k
Ultimate Passive Pressure Resistance:	52.7	k
Total Factored Sliding Resistance:	167.9	k
Sliding Design / Sliding Resistance:	16.7%	Pass



Pad Strength Capacity			
Factored One Way Shear (V_u):	214.7	k	ACI 318-14 25.5.5.1
One Way Shear Capacity (fV_c):	531.9	k	
V_u / fV_c :	40%	Pass	
Load Direction Controlling Shear Capacity:	Diagonal to Pad Edge		
Lower Steel Pad Factored Moment (M_u):	1565.1	k-ft	ACI 318-14 22.3.1.1
Lower Steel Pad Moment Capacity (fM_n):	6616.6	k-ft	
M_u / fM_n :	24%	Pass	
Load Direction Controlling Flexural Capacity:	Parallel to Pad Edge		
Upper Steel Pad Factored Moment (M_u):	551.3	k-ft	
Upper Steel Pad Moment Capacity (fM_n):	1700.0	k-ft	
M_u / fM_n :	32%	Pass	
Lower Pad Flexural Reinforcement Ratio:	0.0065		
Upper Pad Flexural Reinforcement Ratio:	0.0016		OK - ACI 318-14 7.6.1.1 & 8.6.1.1
Pad Shrinkage Reinforcement Ratio:	0.0081		OK - ACI 318-14 24.4.3.2
Lower Pad Reinforcement Spacing:	6.1	in	OK - ACI 318-14 7.7.2.3, 8.7.2.2, & 24.4.3.3
Upper Pad Reinforcement Spacing:	6.1	in	OK - ACI 318-14 7.7.2.3, 8.7.2.2, & 24.4.3.3
Ultimate Punching Shear Stress, v_u :	47.00	psi	ACI 318-14 R8.4.4.2.3
Nominal Punching Shear Capacity ($f_c v_c$):	164.3	psi	ACI 318-14 22.6.5.2
$v_u / f_c v_c$:	29%	Pass	
Pier Moment Pad Flexure Transfer Ratio, γ_f :	0.60		TIA-222-H 9.4.2
Moment Transfer Effective Flexural Width, B_{eff} :	15.00	ft	TIA-222-H 9.4.2
Neutral Axis Depth:	5.03	ft	
Moment Transfer Flexural Capacity ($fM_{sc,f}$):	61550.37	k-in	
$\gamma_f M_{sc} / fM_{sc,f}$:	0%	Pass	

Pier Strength Capacity			
Factored Moment in Pier (M_u):	3367.9	k-ft	
Pier Moment Capacity (fM_n):	9172.3	k-ft	
M_u / fM_n :	37%	Pass	
Factored Shear in Pier (V_u):	28.0	k	ACI 318-14 22.5.1.1
Pier Shear Capacity (fV_n):	422.6	k	
V_u / fV_c :	7%	Pass	
Pier Shear Reinforcement Ratio:	0.0005		OK - No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	0.0	k	
Pier Tension Capacity (fT_n):	3538.1	k	
T_u / fT_n :	0%	Pass	
Factored Compression in Pier (P_u):	42.0	k	ACI 318-14 22.4.2.1
Pier Compression Capacity (fP_n):	5360.6	k	
P_u / fP_n :	1%	Pass	
Pier Compression Reinforcement Ratio:	0.016		OK - TIA-222-H 9.4.1
Minimum Depth to Develop Vertical Rebar:	63	in	ACI 318-14 25.4.2.3
Minimum Hook Development Length:	31	in	ACI 318-14 25.4.3.1
Minimum Mat Thickness / Edge Distance from Pier:	34.0	in	
Minimum Foundation Depth:	8.35	ft	
$M_u / f_B M_n + T_u / f_T T_n$:	37%	Pass	

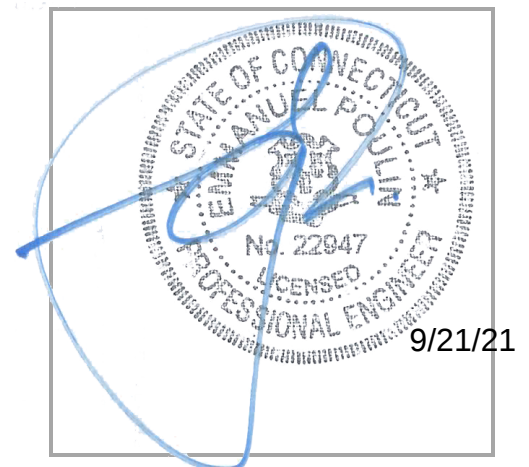
INFINIGY8

MOUNT ANALYSIS REPORT

September 21, 2021

Dish Wireless Site Name	BOHVN00143A
Dish Wireless Site Number	BOHVN00143A
Infinigy Job Number	1197-F0001-B
Client	NSS/DISH
Carrier	Dish Wireless
Site Location	297 North Street Plymouth, CT 06782 Litchfield County 41.693083 N NAD83 73.053700 W NAD83
Mount Type	8.0 ft Platform
Mount Elevation	130.0 ft AGL
Structural Usage Ratio	35.9%
Overall Result	Pass
Notes:	Tower information was not provided so Option 1 Mount was considered for the mount analysis and the DISH rad height was assumed to be the tower height.

The enclosed mount structural analysis has been performed in accordance with the 2018 Connecticut State Building Code (2015 IBC) based on an ultimate 3-second gust wind speed of 116 mph. The evaluation criteria and applicable codes are presented in the next section of this report.



CONTENTS

1. Introduction
2. Design/Analysis Parameters
3. Proposed Loading Configuration
4. Supporting Documentation
5. Results
6. Recommendations
7. Assumptions
8. Liability Waiver and Limitations
9. Calculations

1. INTRODUCTION

Infinigy performed a structural analysis on the Dish Wireless proposed telecommunication equipment supporting Platform mounted to the existing structure located at the aforementioned address. All referenced supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The mount was analyzed using Risa-3D version 17.0.4 analysis software.

2. DESIGN/ANALYSIS PARAMETERS

Wind Speed	116 mph (3-Second Gust)
Wind Speed w/ ice	50 mph (3-Second Gust) w/ 1.0" ice
Code / Standard	TIA-222-H
Adopted Code	2018 Connecticut State Building Code (2015 IBC)
Risk Category	II
Exposure Category	B
Topographic Category	5
Calculated Crest Height	442 ft
Seismic Spectral Response	$S_s = 0.183 \text{ g}$ / $S_1 = 0.054 \text{ g}$
Live Load Wind Speed	60 mph
Man Live Load at Mid/End Points	250 lbs
Man Live Load at Mount Pipes	500 lbs

3. PROPOSED LOADING CONFIGURATION - 130.0 ft. AGL Platform

Antenna Centerline (ft)	Qty.	Appurtenance Manufacturers	Appurtenance Models
130.0	3	JMA WIRELESS	MX08FRO665-21
	3	FUJITSU	TA08025-B605
	3	FUJITSU	TA08025-B604
	1	RAYCAP	RDIDC-9181-PF-48

4. SUPPORTING DOCUMENTATION

Proposed Loading	Dish Wireless Asset ID CT-ATC-T-302501 Rev 1, Site #BOHVN00143A, dated July 9, 2021
Mount Manufacturer Drawings	Commscope Document # MC-PK8-DSH, dated March 08, 2021

5. RESULTS

Components	Capacity	Pass/Fail
Mount Pipes	24.1%	Pass
Horizontals	14.6%	Pass
Standoffs	35.2%	Pass
Handrails	29.1%	Pass
Connections	35.9%	Pass
MOUNT RATING =	35.9%	Pass

Notes:

1. See additional documentation in Appendix for calculations supporting the capacity consumed and detailed mount connection calculations.

6. RECOMMENDATIONS

Infinigy recommends installing Dish Wireless's proposed equipment loading configuration on the mount at 130.0 ft. The installation shall be performed in accordance with the construction documents issued for this site.

Alisha Khadka
Project Engineer II | **INFINIGY**

7. ASSUMPTIONS

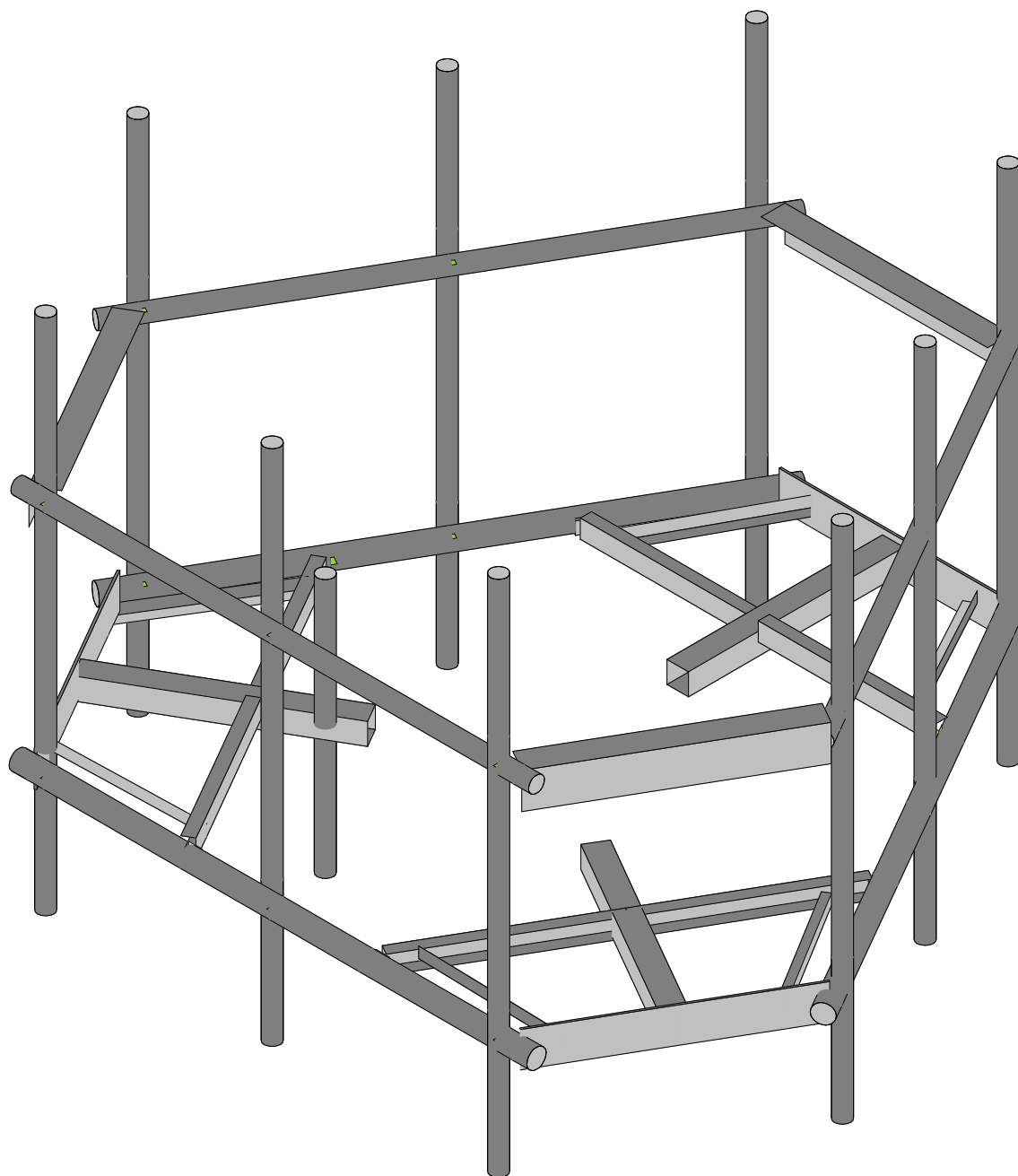
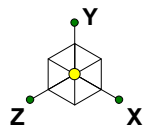
The antenna mounting system was properly fabricated, installed and maintained in accordance with its original design and manufacturer's specifications.	
The configuration of antennas, mounts, and other appurtenances are as specified in the proposed loading configuration table.	
All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.	
The analysis will require revisions if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.	
Steel grades have been assumed as follows, unless noted otherwise:	
Channel, Solid Round, Plate, Built-up Angle	ASTM A1011 36 KSI
Structural Angle	ASTM A529 Gr. 50
HSS (Rectangular)	ASTM A500-B GR 46
HSS (Circular)	ASTM A500-B GR 42
Pipe	ASTM A500 Gr C
Connection Bolts	ASTM A325
U-Bolts	ASTM A307
All bolted connections are pretensioned in accordance with Table 8.2 of the RCSC 2014 Standard	

8. LIABILITY WAIVER AND LIMITATIONS

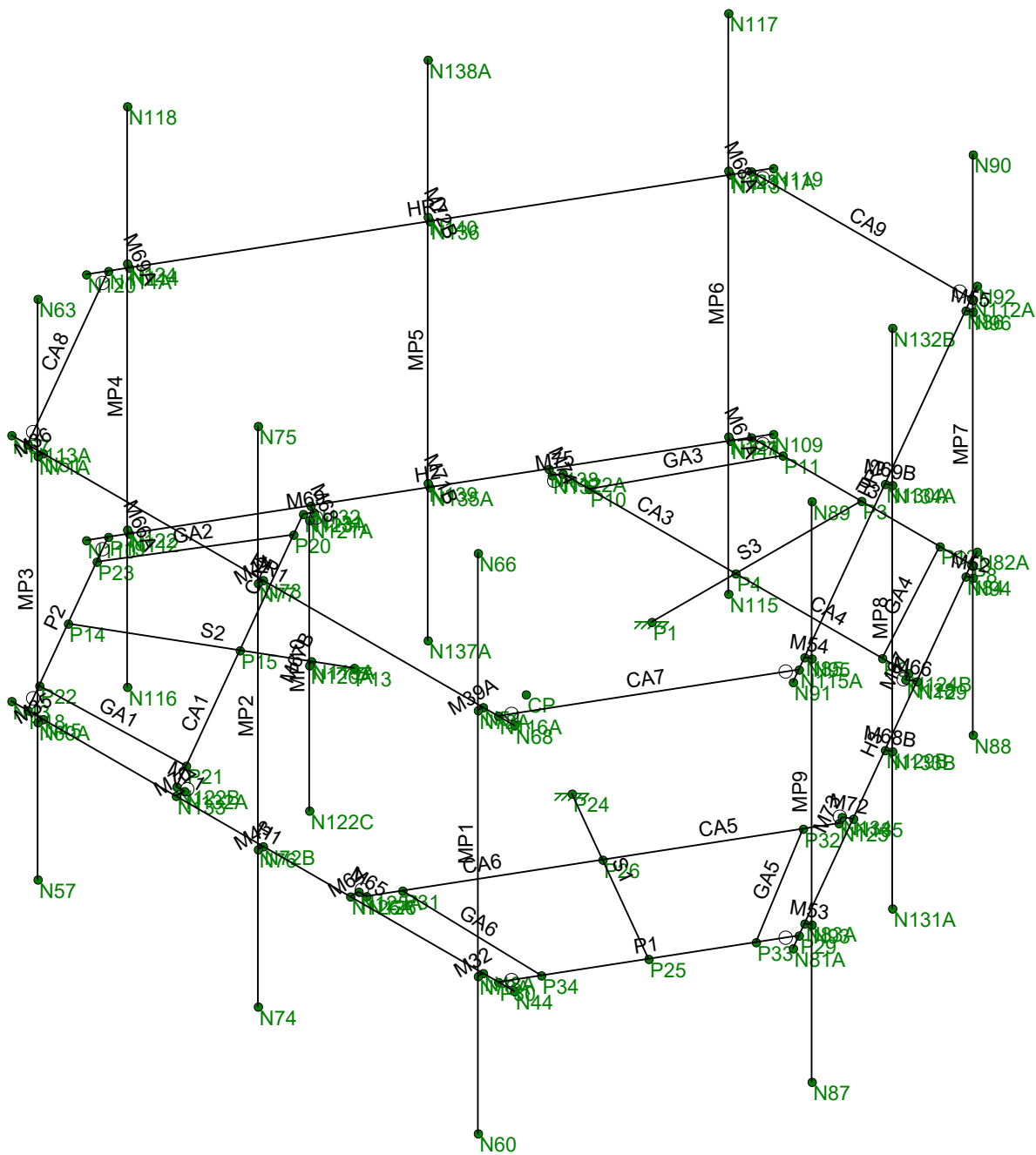
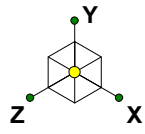
Our structural calculations are completed assuming all information provided to Infinigy is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition as erected and all members and connections to be free of corrosion and/or structural defects. The structure owner and/or contractor shall verify the structure's condition prior to installation of any proposed equipment. If actual conditions differ from those described in this report, Infinigy should be notified immediately to assess the impact on the results of this report.

Our evaluation is completed using industry standard methods and procedures. The structural results, conclusions and recommendations contained in this report are proprietary and should not be used by others as their own. Infinigy is not responsible for decisions made by others that are or are not based on the stated assumptions and conclusions in this report.

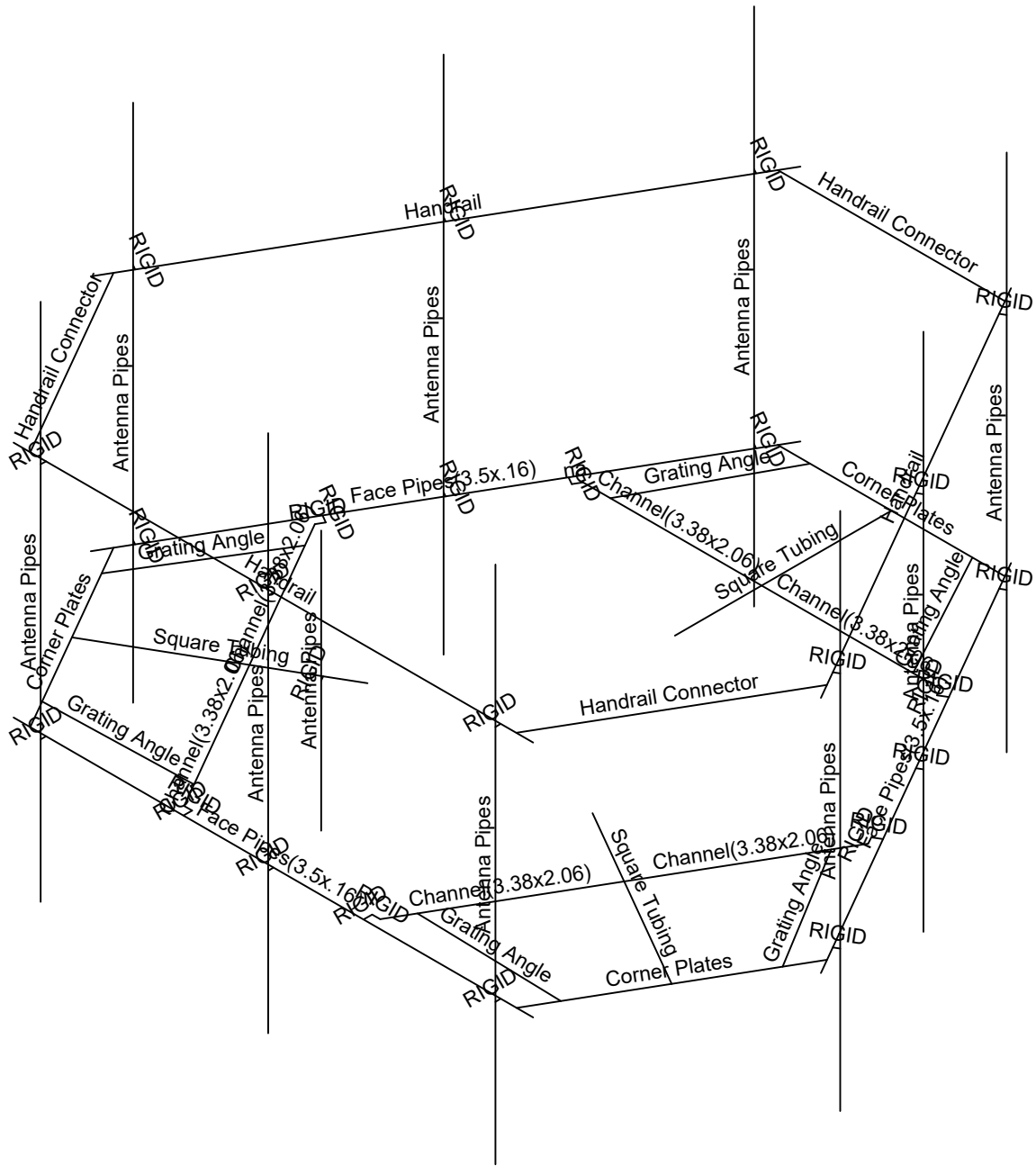
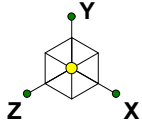
This report is an evaluation of the mount structure only and does not determine the adequacy of the supporting structure, other carrier mounts or cable mounting attachments. The analysis of these elements is outside the scope of this analysis, are assumed to be adequate for the purpose of this report and to have been installed per their manufacturer requirements. This document is not for construction purposes.



Infinigy Engineering	BOHVN00143A	Rendered
AK		Sept 20, 2021 at 2:56 PM
1197-F0001-B		BOHVN00143A_loaded.r3d



Infinigy Engineering	BOHVN00143A	Wireframe
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1197-F0001-B		BOHVN00143A_loaded.r3d



Infinigy Engineering

AK

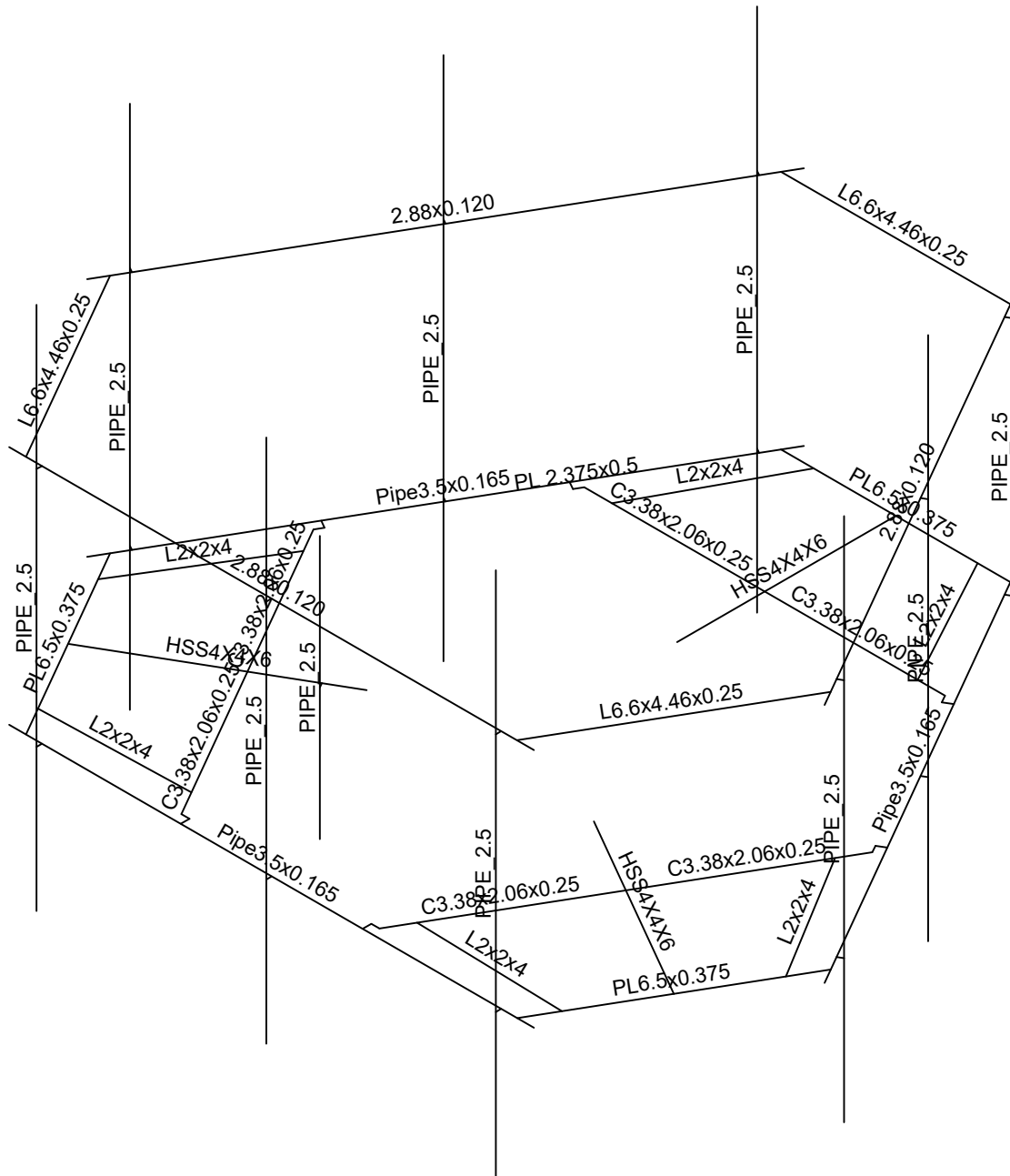
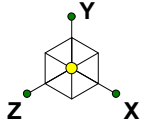
1197-F0001-B

BOHVN00143A

Section Sets

Sept 20, 2021 at 2:58 PM

BOHVN00143A_loaded.r3d



Infinigy Engineering

AK

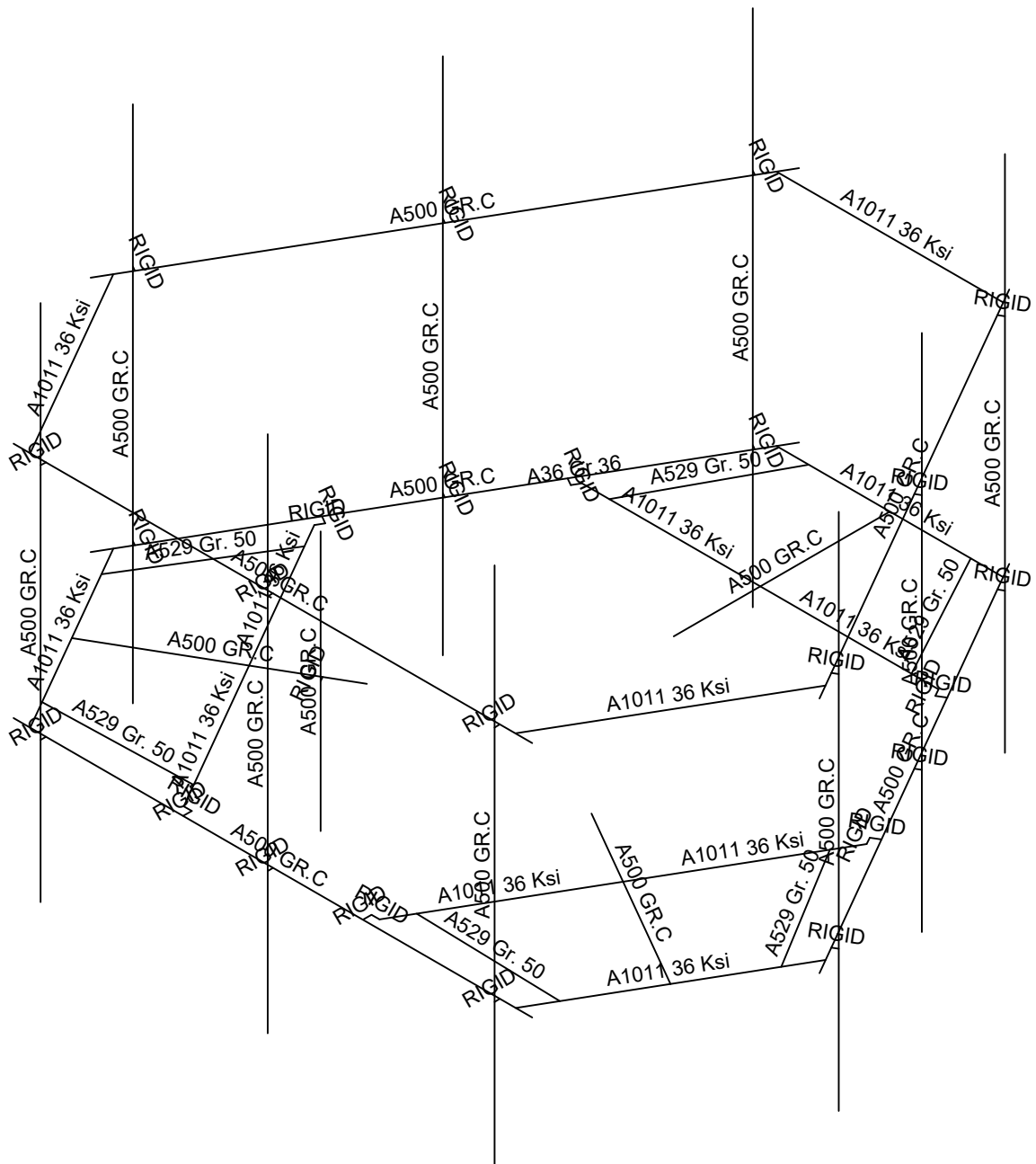
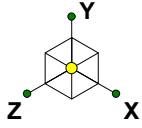
1197-F0001-B

BOHVN00143A

Member Shapes

Sept 20, 2021 at 2:58 PM

BOHVN00143A_loaded.r3d



Infinigy Engineering

AK

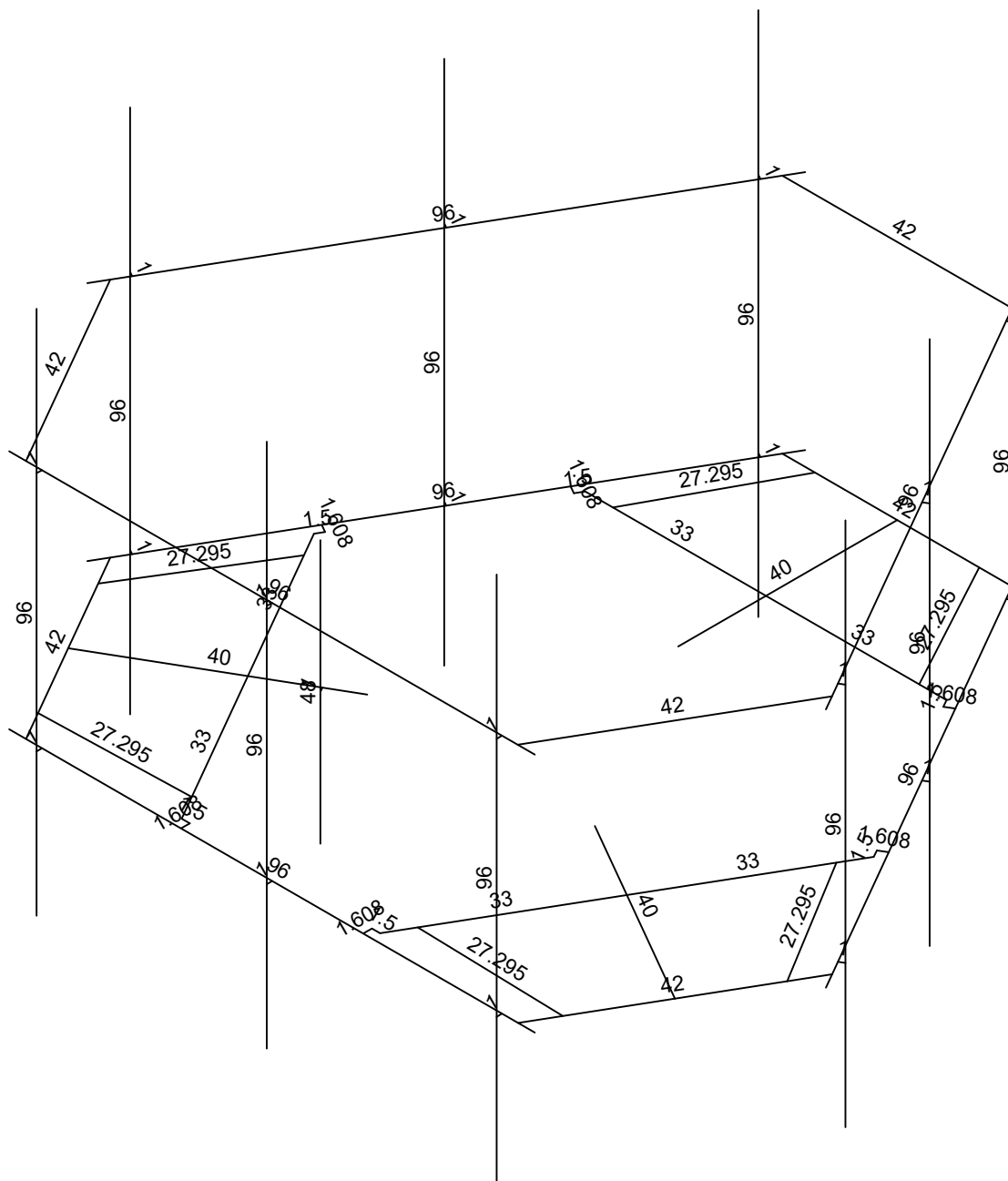
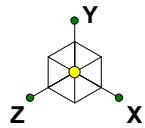
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BOHVN00143A

Material Sets

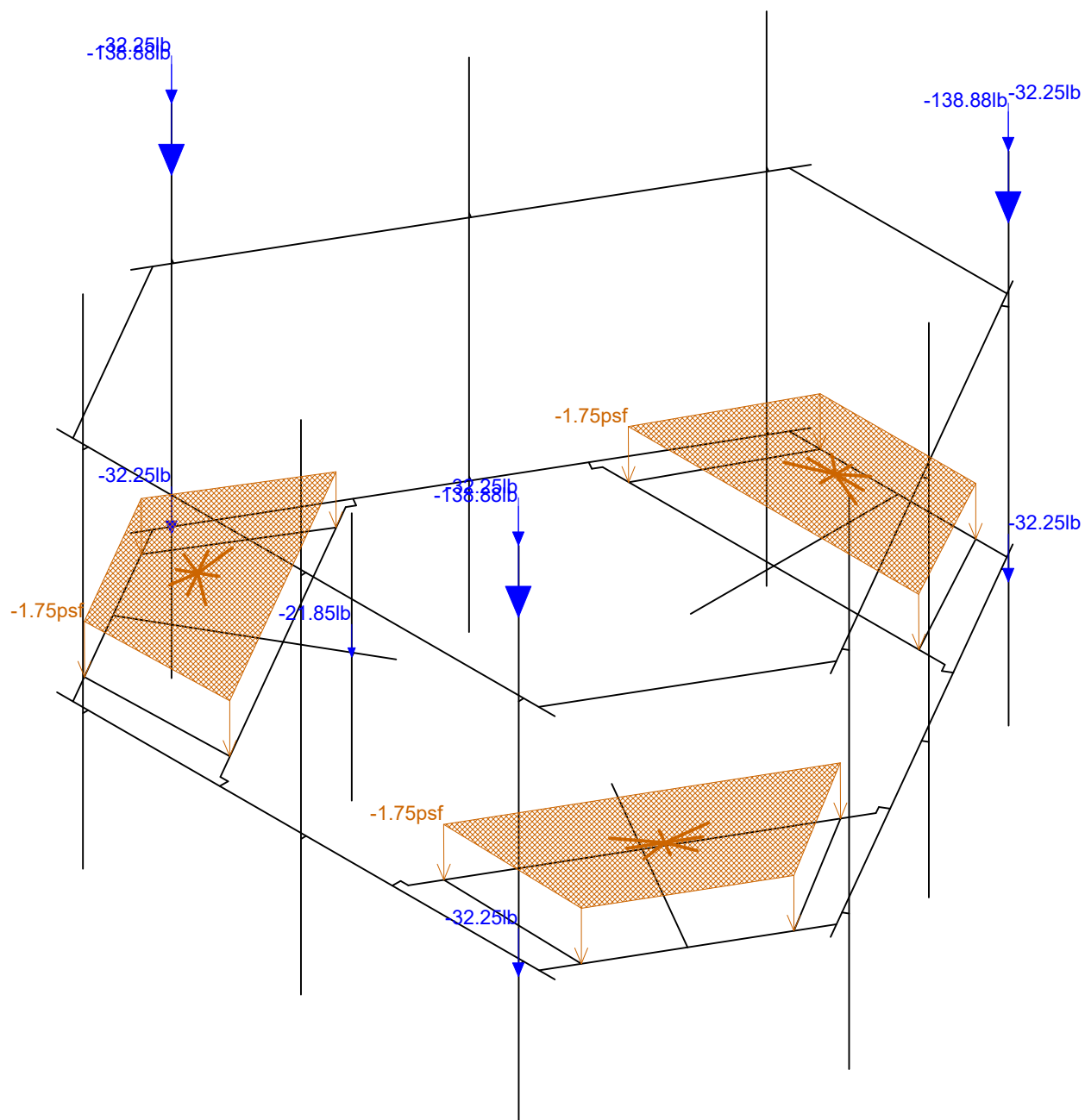
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BOHVN00143A_loaded.r3d

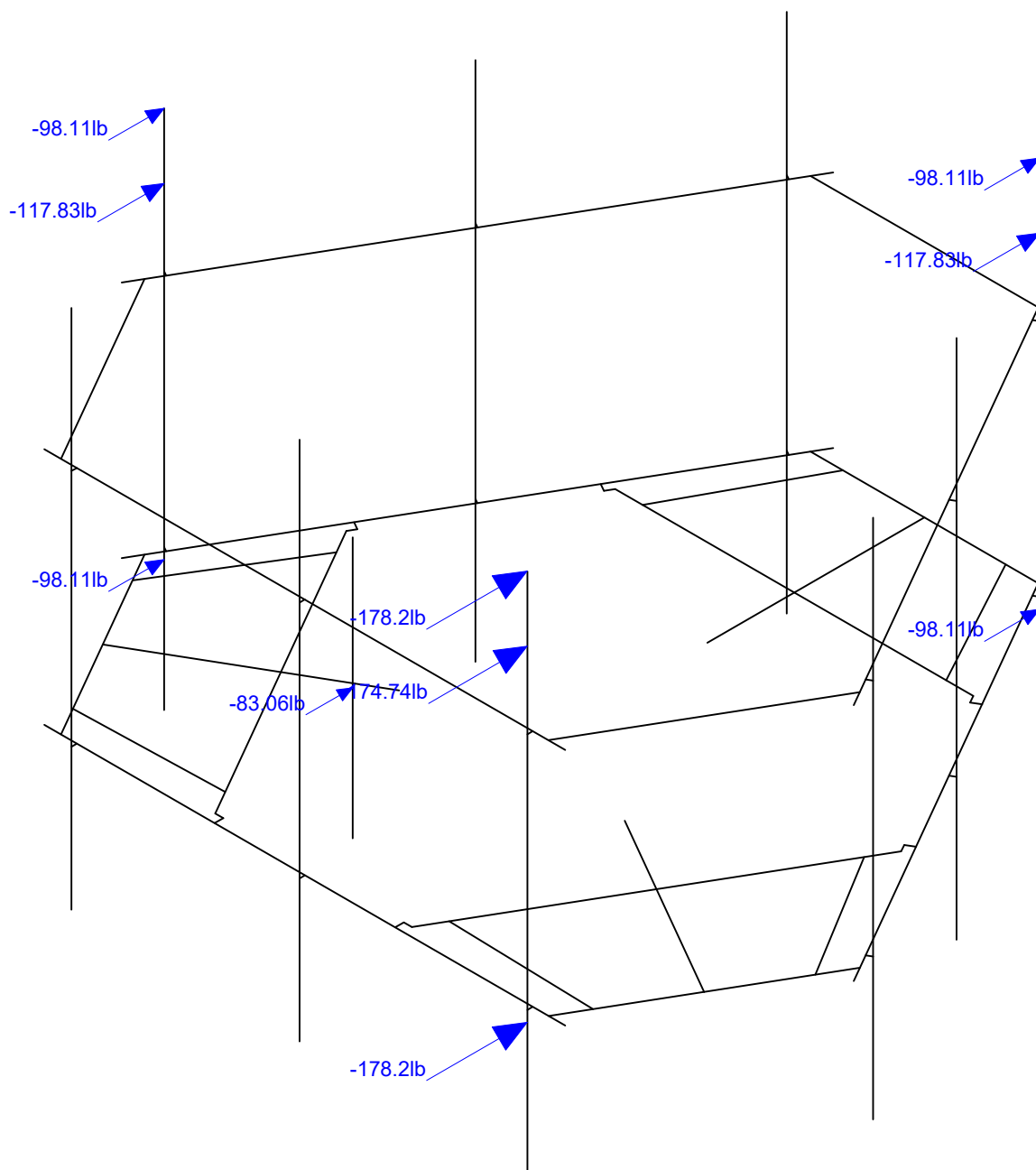
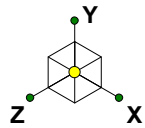


Member Length (in) Displayed

Infinigy Engineering	BOHVN00143A	Member Lengths
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1197-F0001-B		BOHVN00143A_loaded.r3d

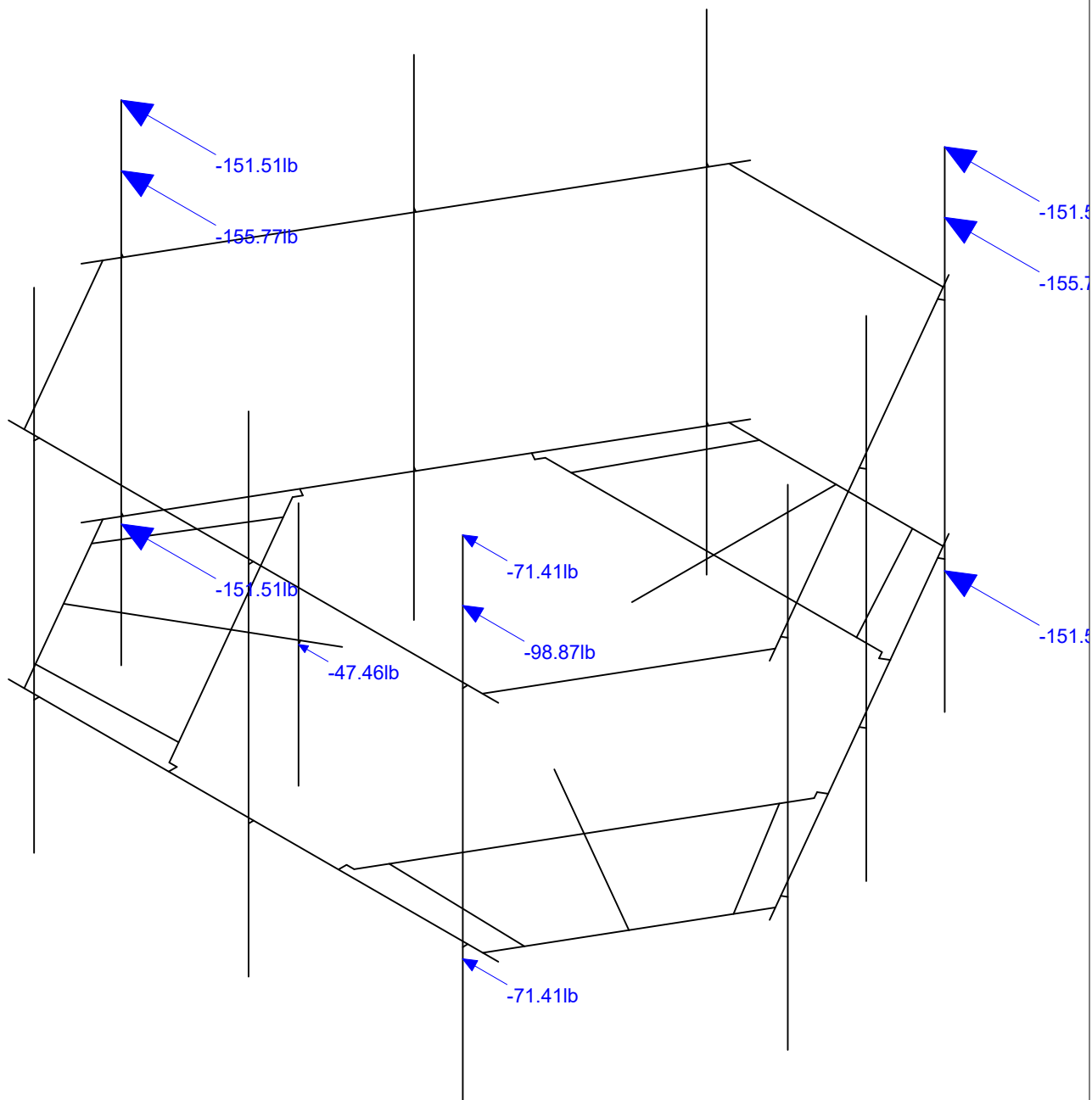
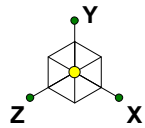


Infinigy Engineering	BOHVN00143A	Self Weight
AK		Sept 20, 2021 at 3:00 PM
1197-F0001-B		BOHVN00143A_loaded.r3d



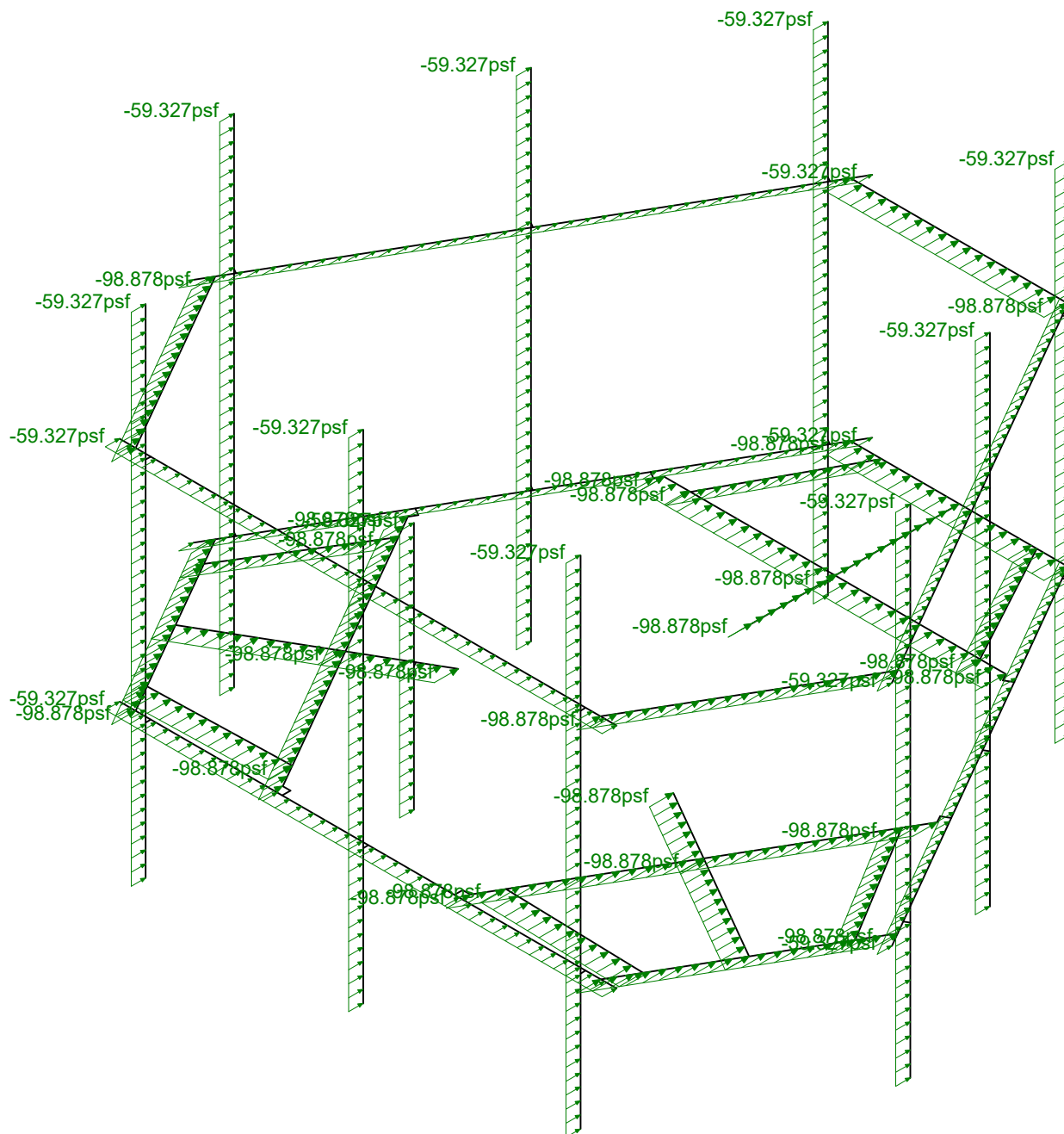
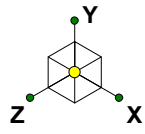
Loads: BLC 2, Wind Load AZI 0

Infinigy Engineering	BOHVN00143A	Wind Load 0
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1197-F0001-B		BOHVN00143A_loaded.r3d



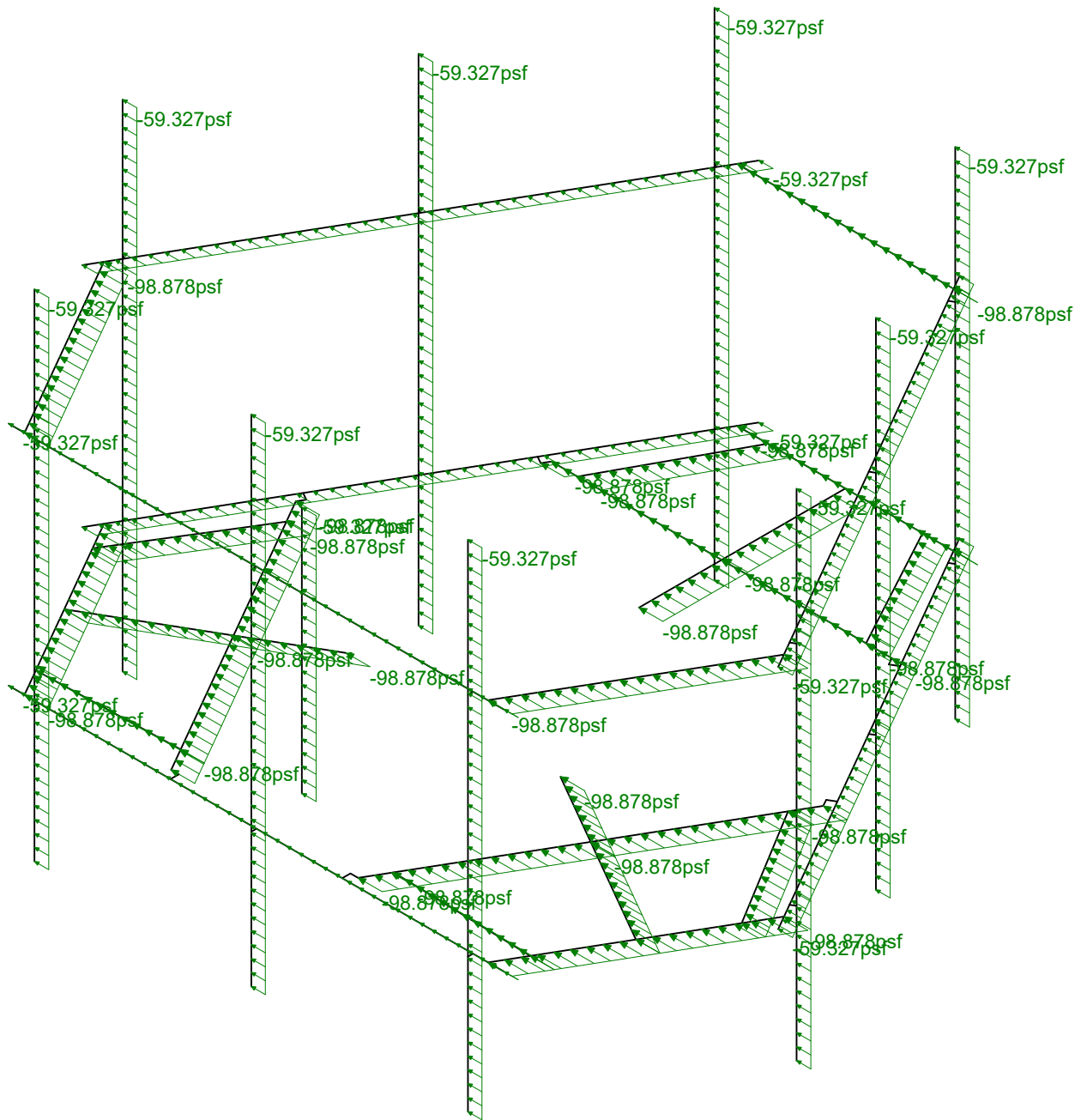
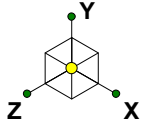
Loads: BLC 5, Wind Load AZI 90

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1197-F0001-B		BOHVN00143A_loaded.r3d



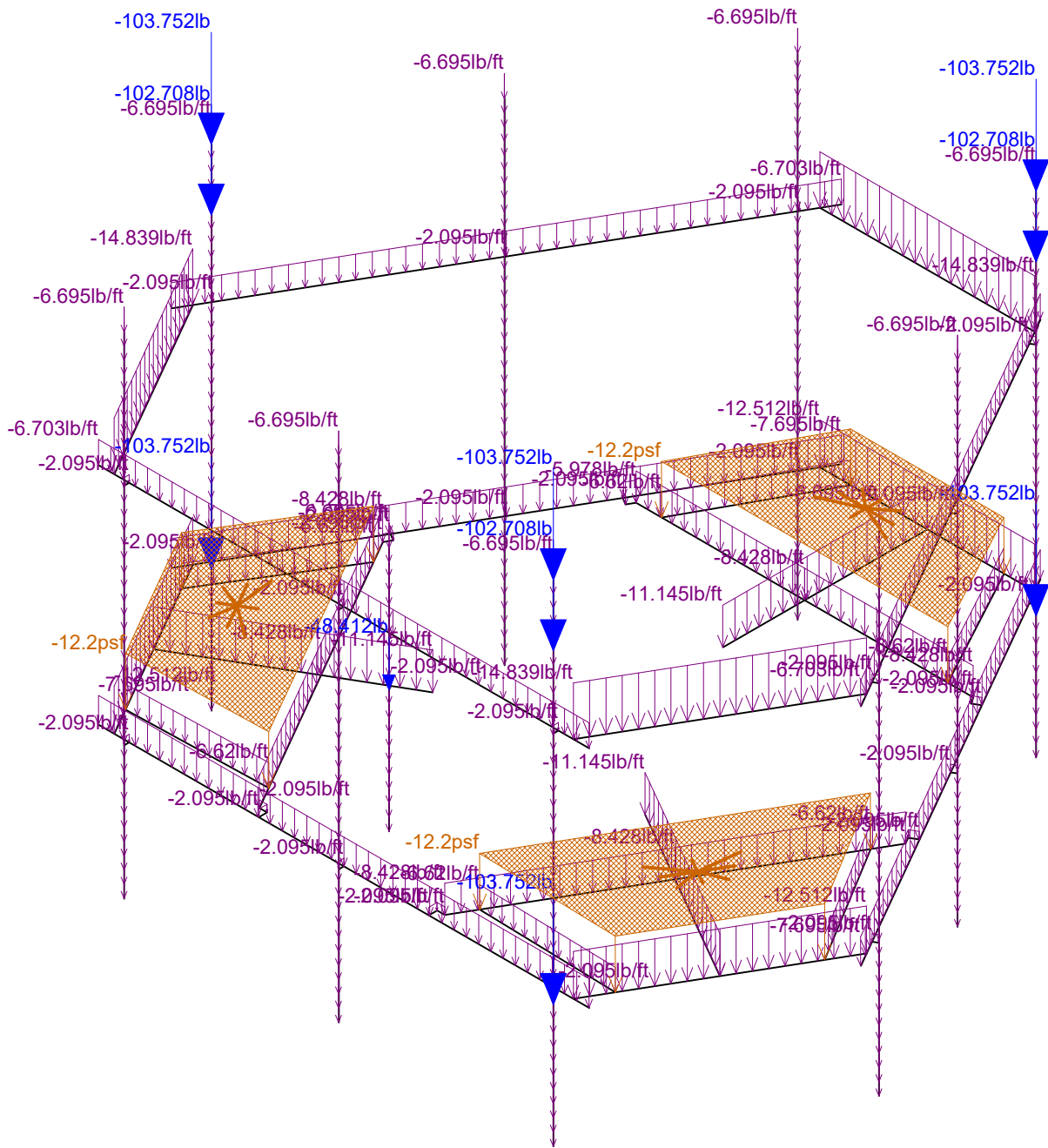
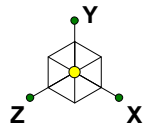
Loads: BLC 14, Distr. Wind Load Z

Infinigy Engineering	BOHVN00143A	Distr. Wind Load 0
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1197-F0001-B		BOHVN00143A_loaded.r3d



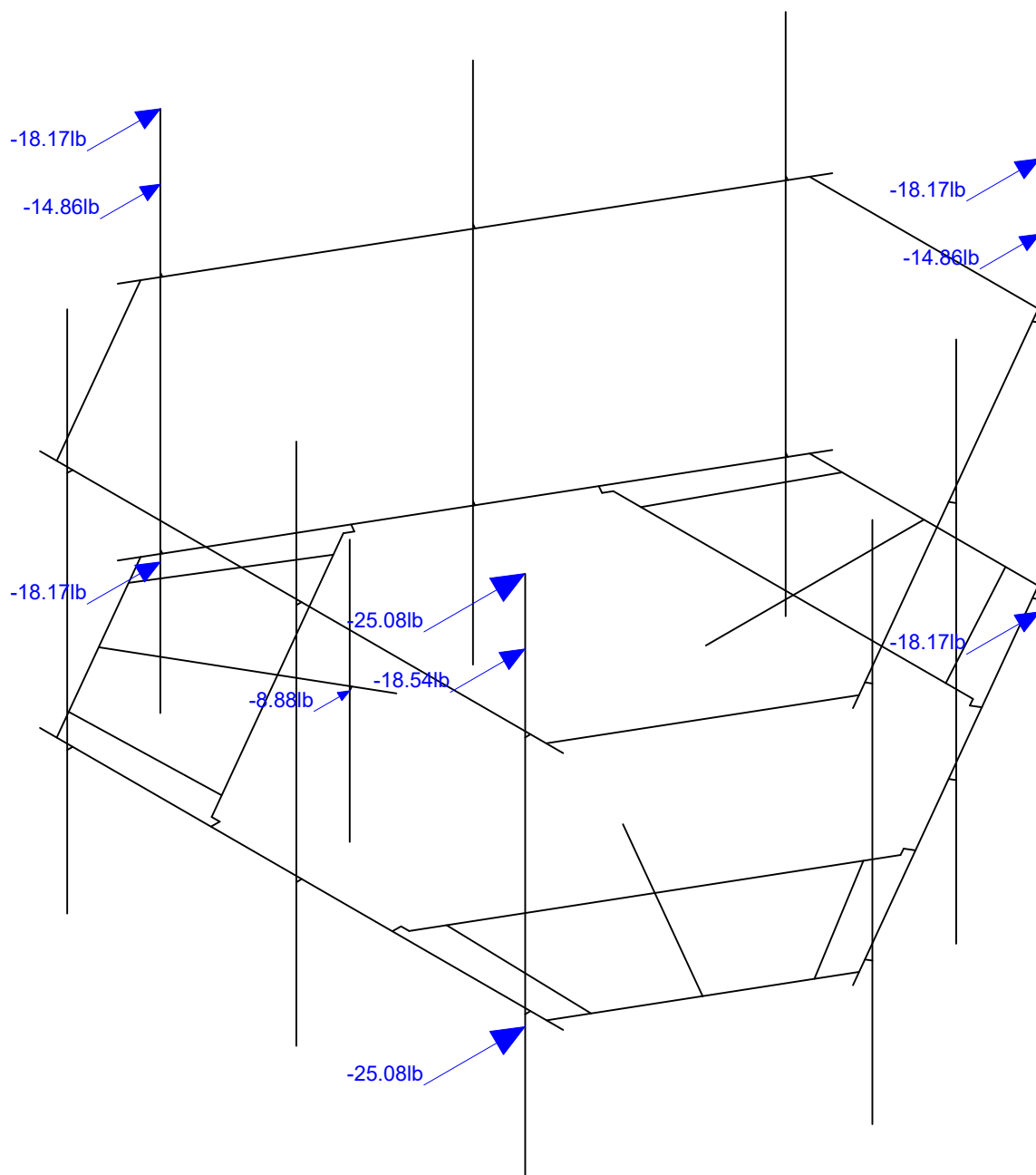
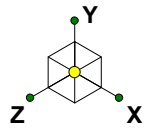
Loads: BLC 15, Distr. Wind Load X

Infinigy Engineering	BOHVN00143A	Distr. Wind Load 90
AK		Sept 20, 2021 at 3:01 PM
1197-F0001-B		BOHVN00143A_loaded.r3d



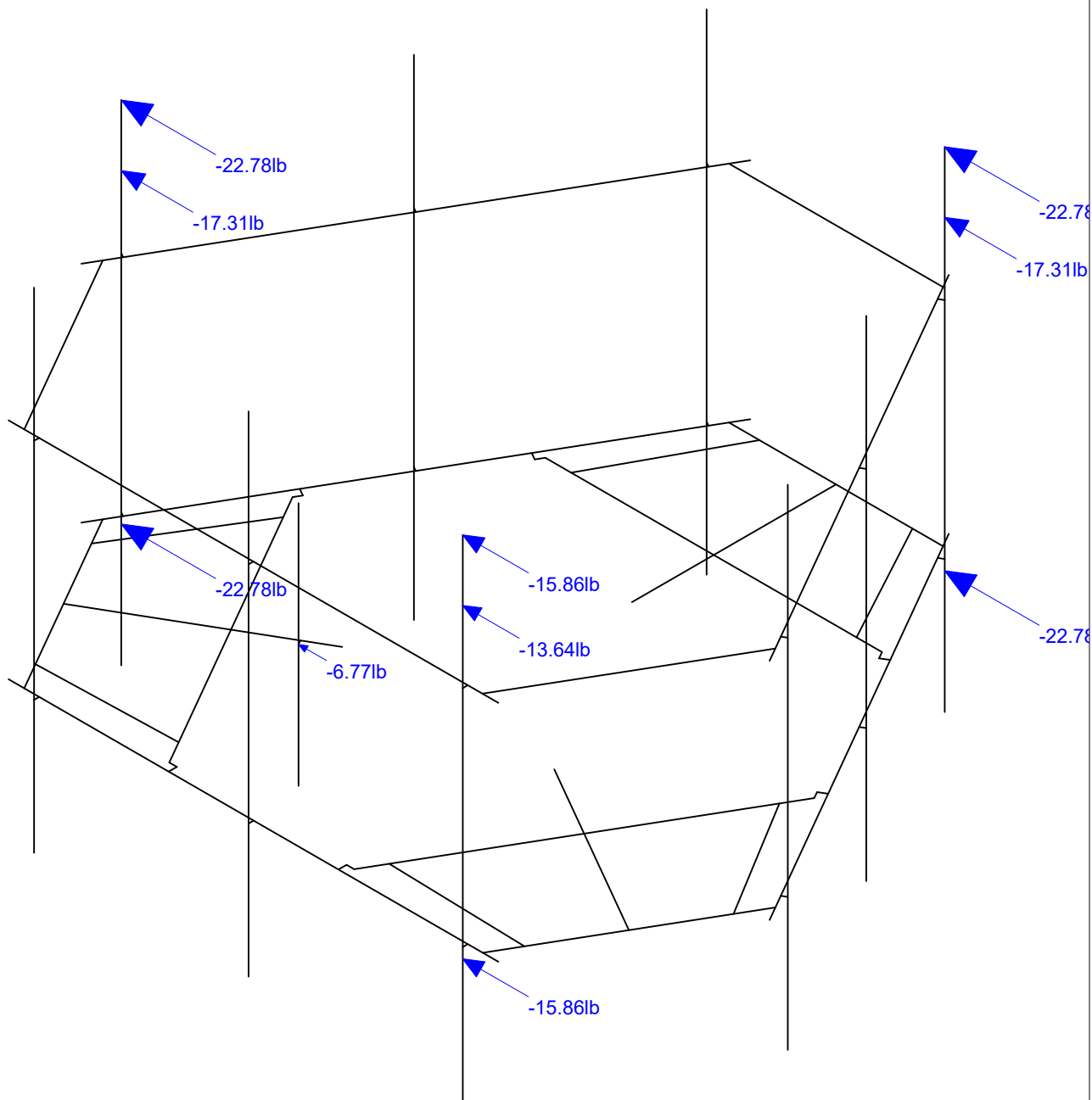
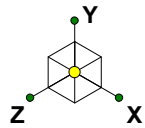
Loads: BLC 16, Ice Weight

Infinigy Engineering	BOHVN00143A	Ice Weight
AK		Sept 21, 2021 at 11:18 AM
1197-F0001-B		BOHVN00143A_loaded.r3d



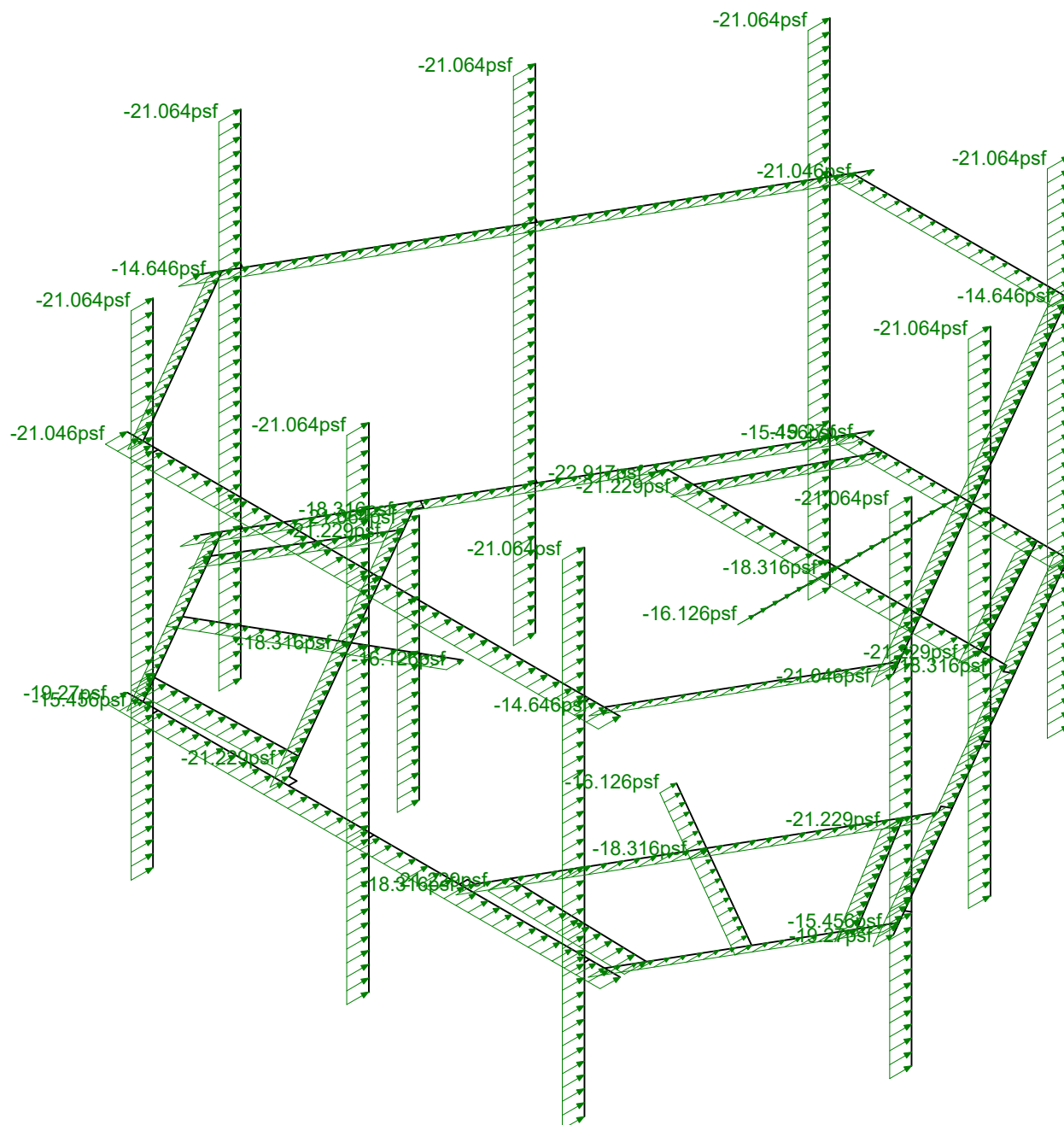
Loads: BLC 17, Ice Wind Load AZI 0

Infinigy Engineering	BOHVN00143A	Ice + Wind Load 0
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1197-F0001-B		BOHVN00143A_loaded.r3d

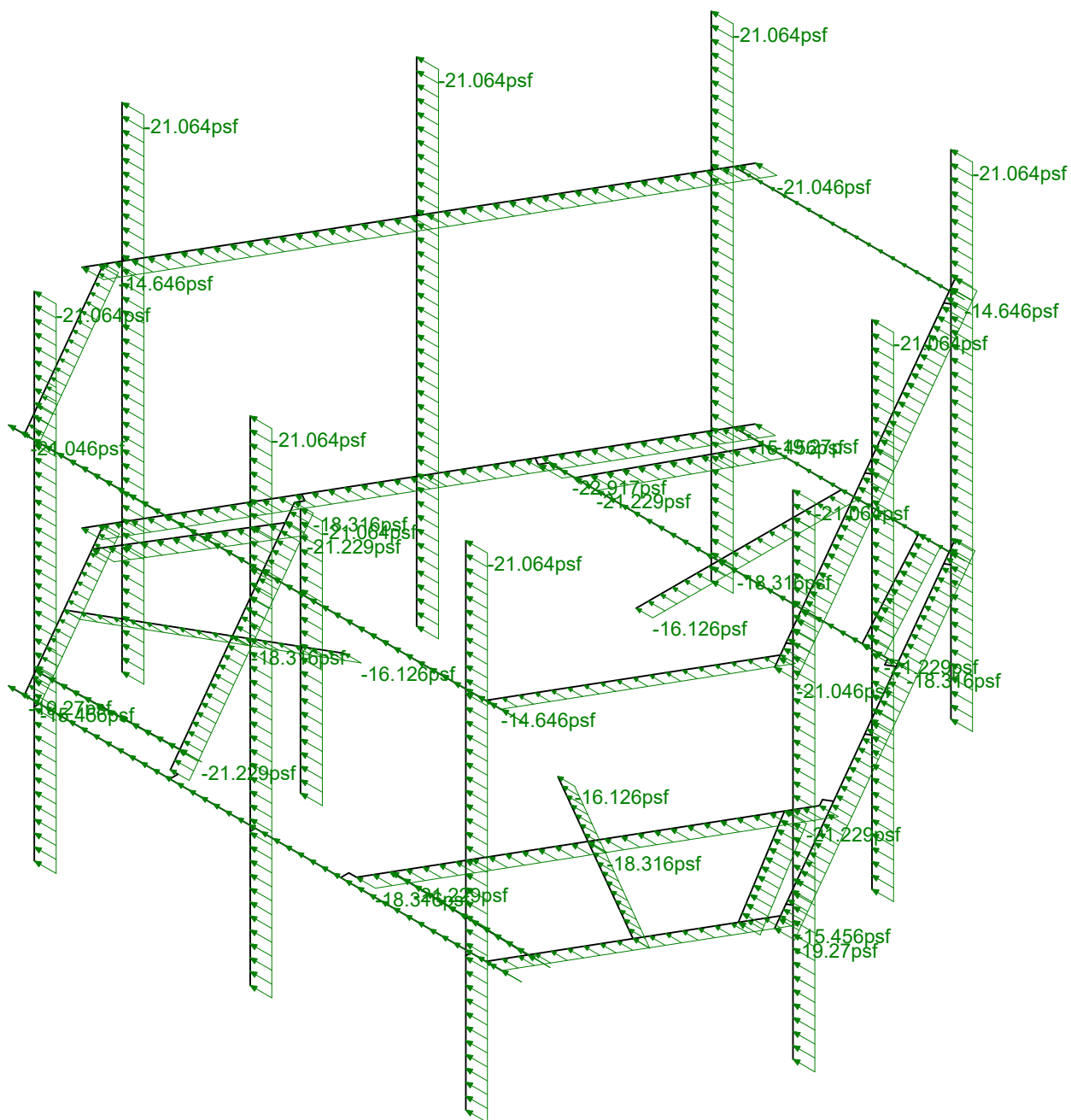


Loads: BLC 20, Ice Wind Load AZI 90

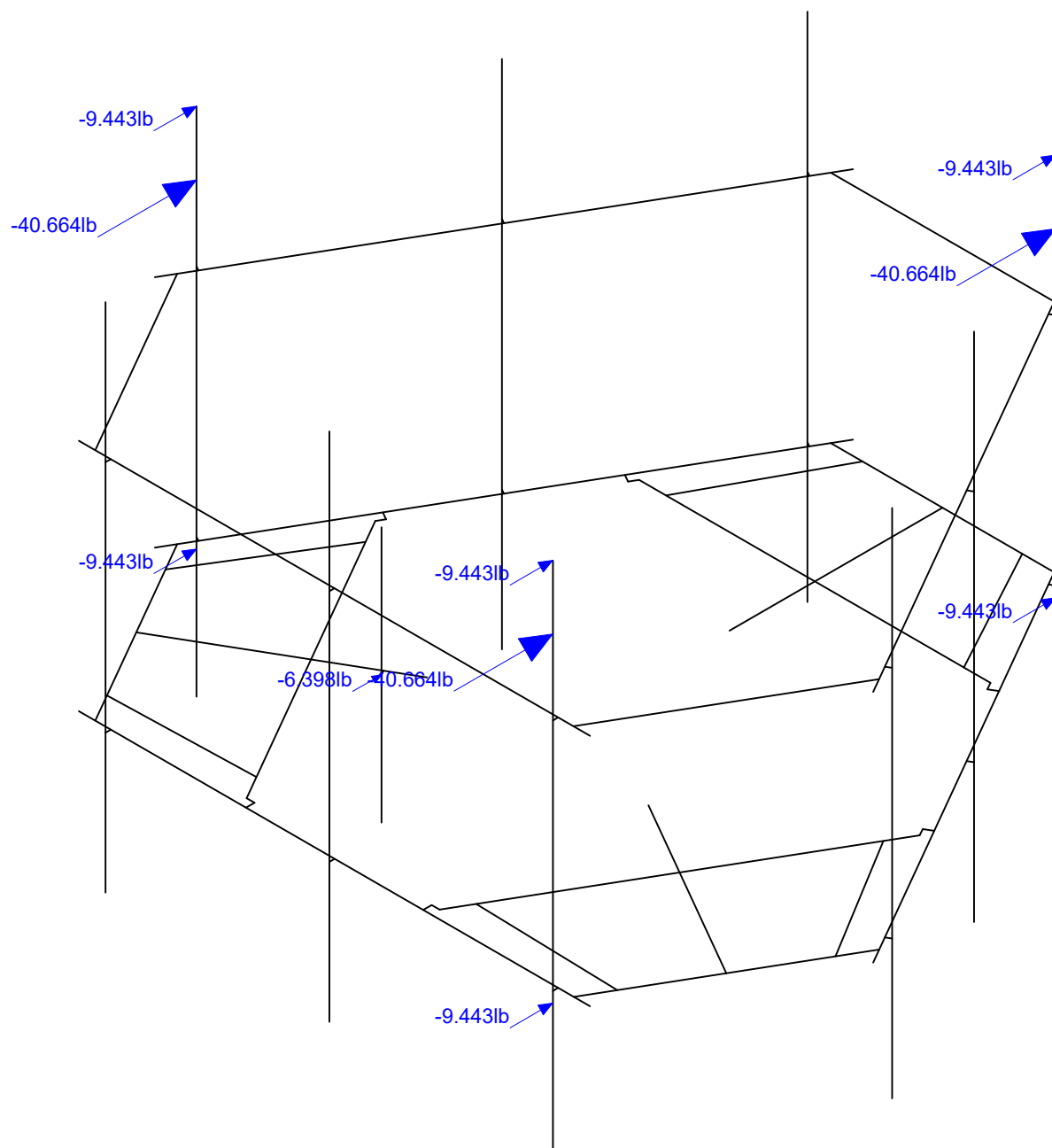
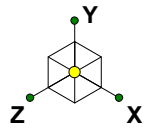
Infinigy Engineering	BOHVN00143A	Ice + Wind Load 90
AK		Sept 20, 2021 at 3:02 PM
1197-F0001-B		BOHVN00143A_loaded.r3d



Infinigy Engineering	BOHVN00143A	Distr. Ice + Wind Load 0
AK		Sept 20, 2021 at 3:02 PM
1197-F0001-B		BOHVN00143A_loaded.r3d

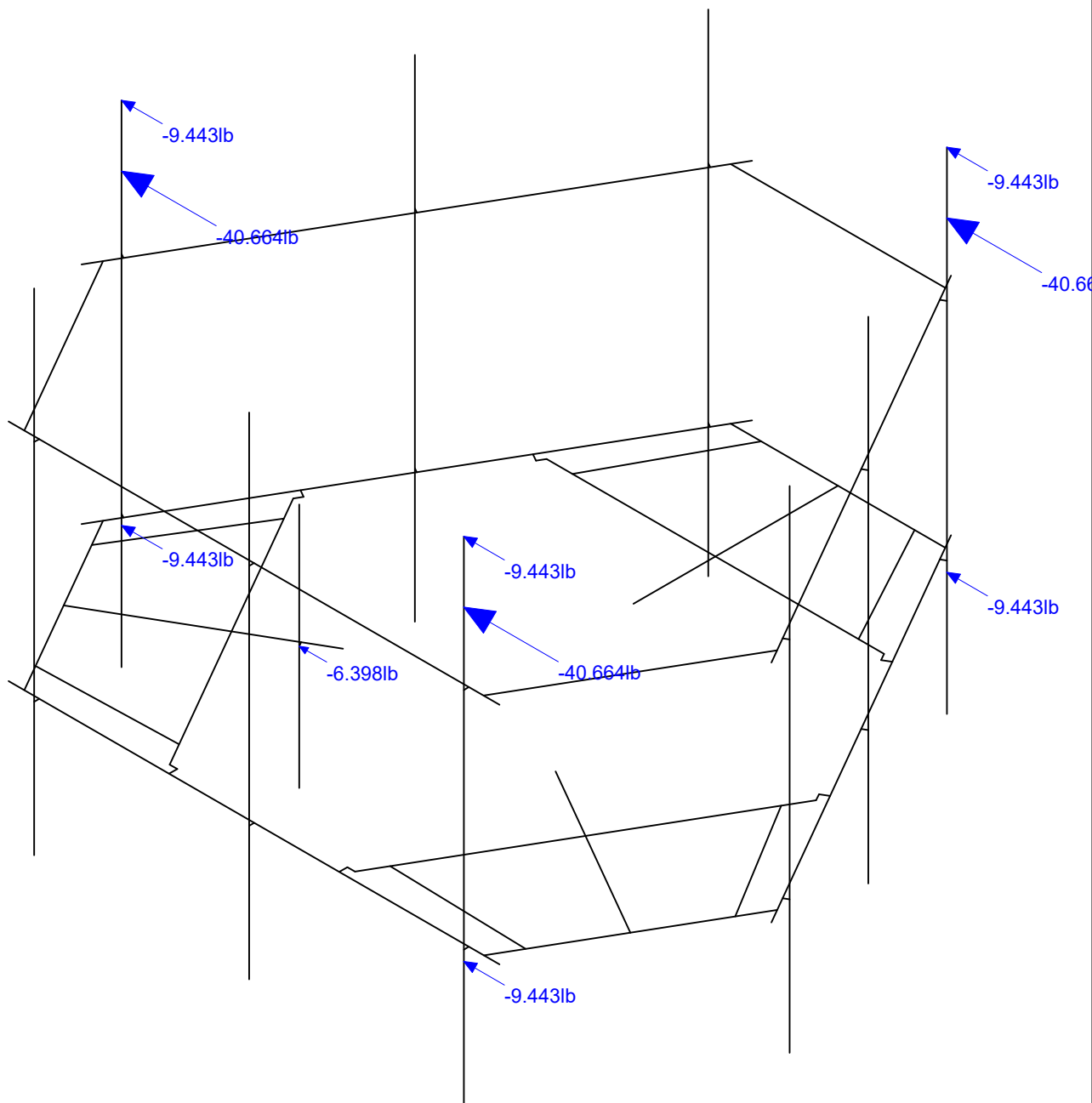
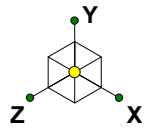


BOHVN00143A_loaded.r3d



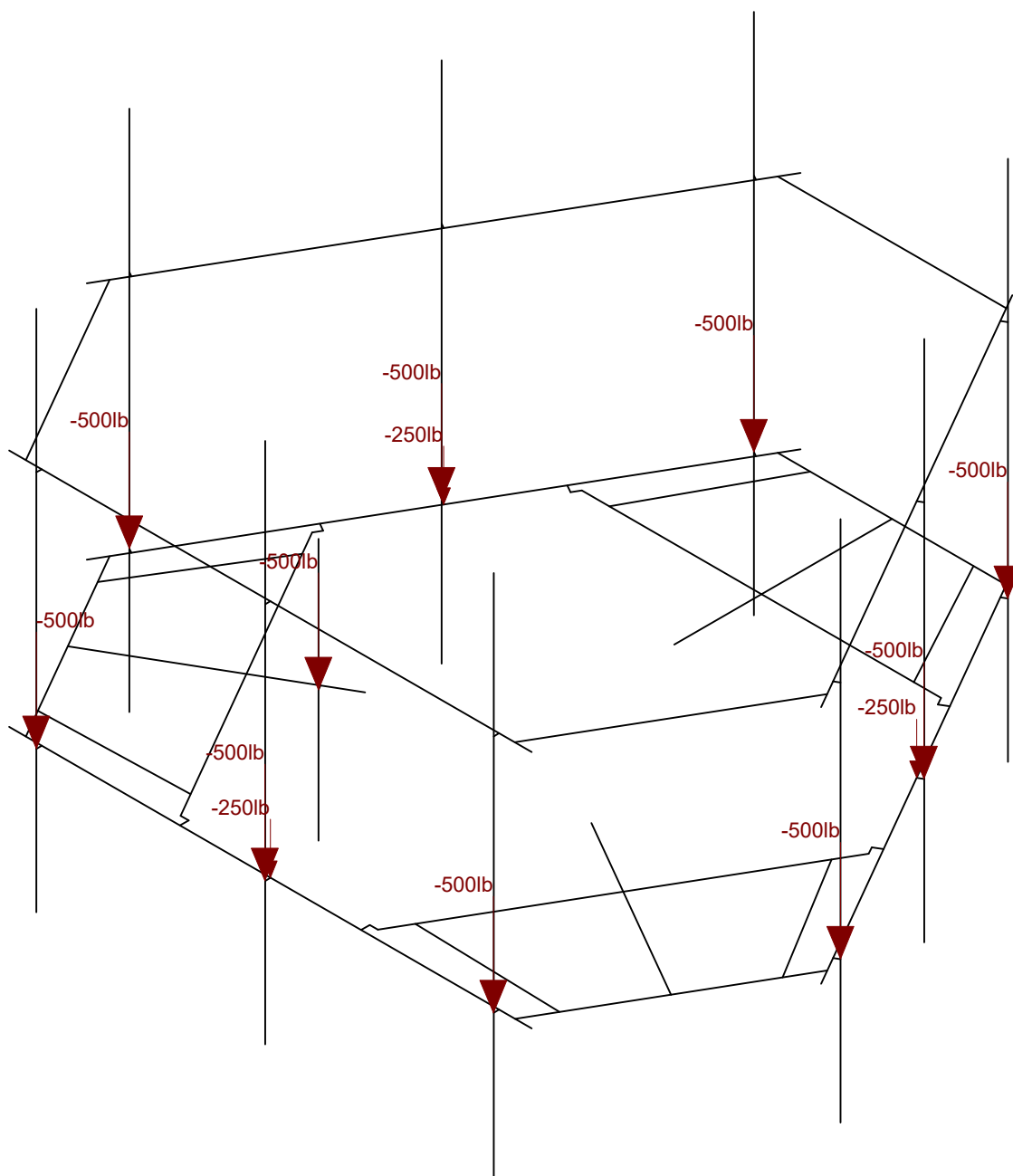
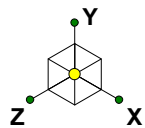
Loads: BLC 31, Seismic Load Z

Infinigy Engineering	BOHVN00143A	Seismic Load 0
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1197-F0001-B		BOHVN00143A_loaded.r3d



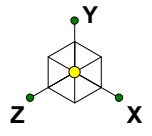
Loads: BLC 32, Seismic Load X

Infinigy Engineering	BOHVN00143A	Seismic Load 90
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1197-F0001-B		BOHVN00143A_loaded.r3d



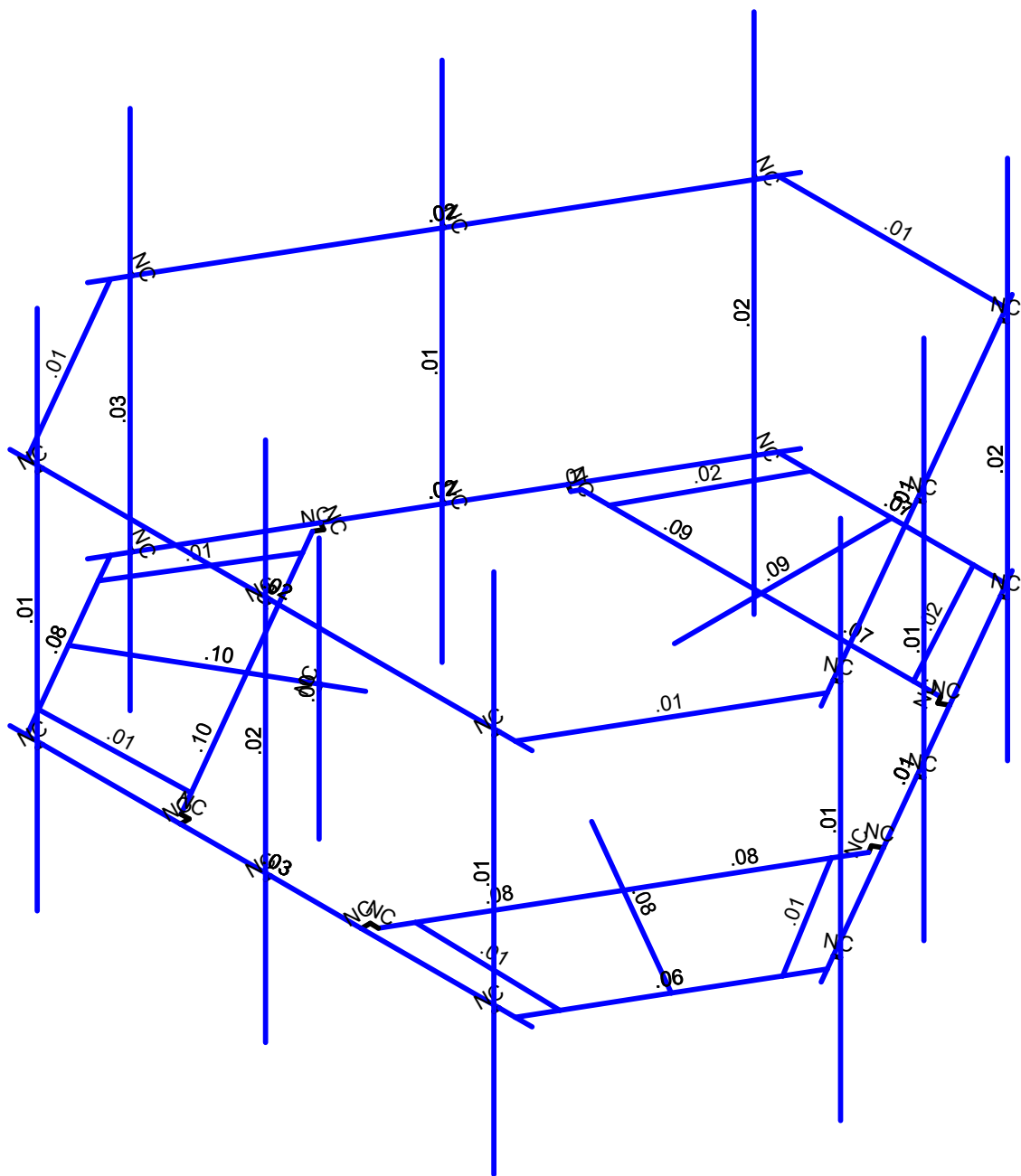
Loads: LL - Live Load

Infinigy Engineering	BOHVN00143A	Non-concurrent Live Loads
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1197-F0001-B		BOHVN00143A_loaded.r3d



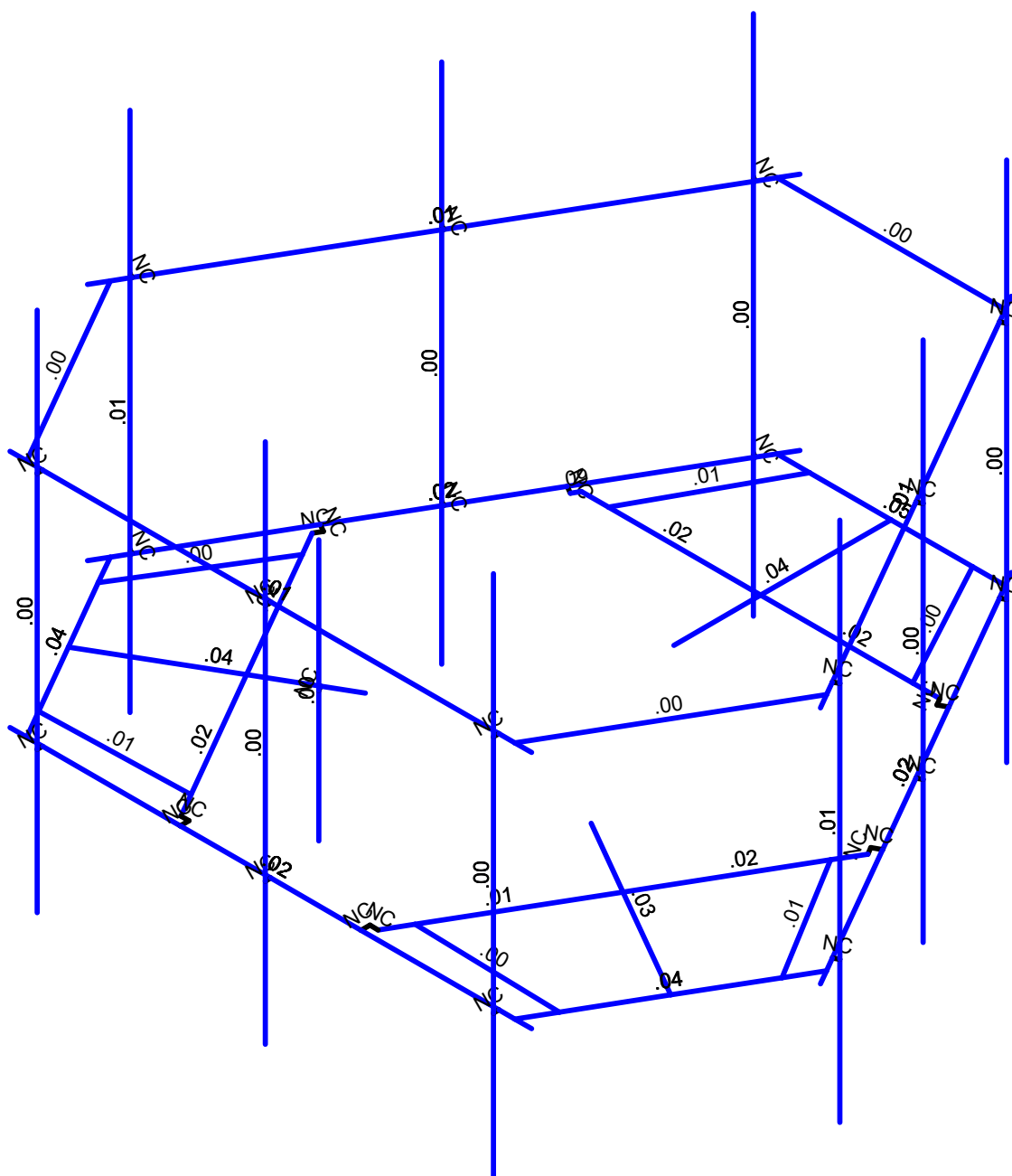
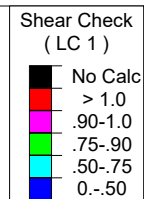
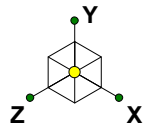
Code Check
(LC 1)

No Calc
> 1.0
.90-1.0
.75-.90
.50-.75
0-.50



Member Code Checks Displayed
Results for LC 1, 1.4DL

Infinigy Engineering	BOHVN00143A	Bending Check
AK		Sept 20, 2021 at 3:04 PM
1197-F0001-B		BOHVN00143A_loaded.r3d



Member Shear Checks Displayed
Results for LC 1, 1.4DL

Infinigy Engineering	BOHVN00143A	Shear Check
AK		Sept 20, 2021 at 3:04 PM
1197-F0001-B		BOHVN00143A_loaded.r3d

Program Inputs

PROJECT INFORMATION		
Client:	ATC	
Carrier:	Dish Wireless	
Engineer:	Alisha Khadka	

SITE INFORMATION		
Risk Category:	II	
Exposure Category:	B	
Topo Factor Procedure:	Method 2	
Site Class:	D - Stiff Soil (Assumed)	
Ground Elevation:	808.38	ft *Rev H

MOUNT INFORMATION		
Mount Type:	Platform	
Num Sectors:	3	
Centerline AGL:	130.00	ft
Tower Height AGL:	130.00	ft

TOPOGRAPHIC DATA		
Topo Feature:	Hill	
Slope Distance:	2812.0	ft
Crest Distance:	0.0	ft
Crest Height:	442.0	ft

FACTORS		
Directionality Fact. (K_d):	0.950	
Ground Ele. Factor (K_e):	0.971	*Rev H Only
Rooftop Speed-Up (K_s):	1.000	*Rev H Only
Topographic Factor (K_{zt}):	1.460	
Gust Effect Factor (G_h):	1.000	

CODE STANDARDS		
Building Code:	2015 IBC	
TIA Standard:	TIA-222-H	
ASCE Standard:	ASCE 7-16	

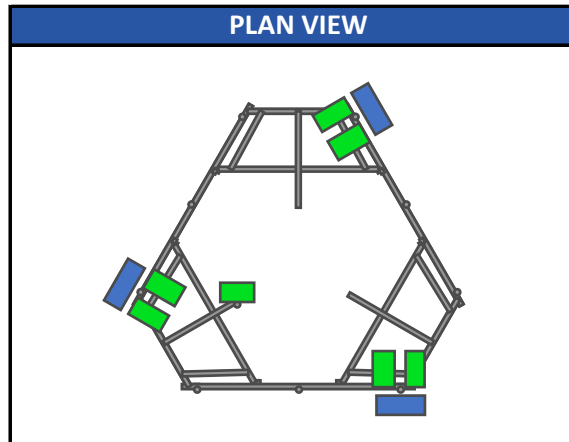
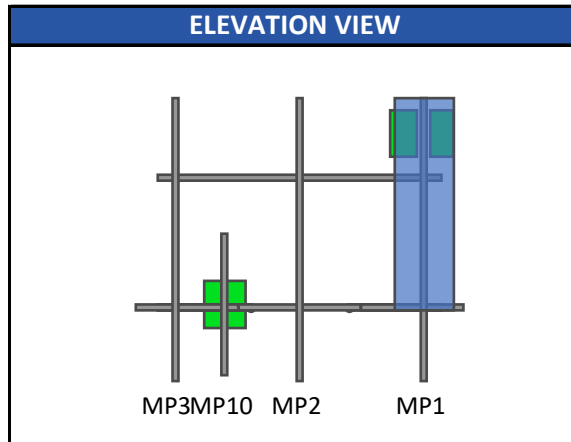
WIND AND ICE DATA		
Ultimate Wind (V_{ult}):	116	mph
Design Wind (V):	N/A	mph
Ice Wind (V_{ice}):	50	mph
Base Ice Thickness (t_i):	1	in
Flat Pressure:	98.878	psf
Round Pressure:	59.327	psf
Ice Wind Pressure:	11.022	psf

SEISMIC DATA		
Short-Period Accel. (S_s):	0.183	g
1-Second Accel. (S_1):	0.054	g
Short-Period Design (S_{DS}):	0.195	
1-Second Design (S_{D1}):	0.086	
Short-Period Coeff. (F_a):	1.600	
1-Second Coeff. (F_v):	2.400	
Amplification Factor (A_s):	3.000	
Response Mod. Coeff. (R):	2.000	



Infinigy Load Calculator V2.1.7

Program Inputs



Infinigy Load Calculator V2.1.7

APPURTENANCE INFORMATION												
Appurtenance Name	Elevation	Qty.	K_a	q_z (psf)	EPA_N (ft ²)	EPA_T (ft ²)	Wind F_z (lbs)	Wind F_x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (α sector)	
JMA WIRELESS MX08FRO665-21	130.0	3	0.90	49.44	8.01	3.21	356.41	142.83	64.50	18.89	MP1	
FUJITSU TA08025-B605	130.0	3	0.90	49.44	1.96	1.19	87.37	52.91	74.95	21.95	MP1	
FUJITSU TA08025-B604	130.0	3	0.90	49.44	1.96	1.03	87.37	45.96	63.93	18.72	MP1	
RAYCAP RDIDC-9181-PF-48	130.0	1	0.90	49.44	1.87	1.07	83.06	47.46	21.85	6.40	MP10	

ASCE 7 Hazards Report

Address:

No Address at This
Location

Standard:

ASCE/SEI 7-16

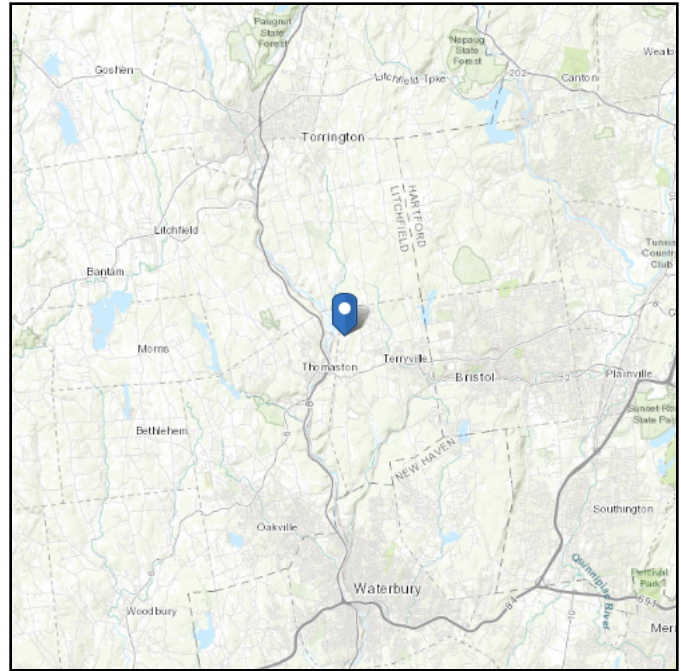
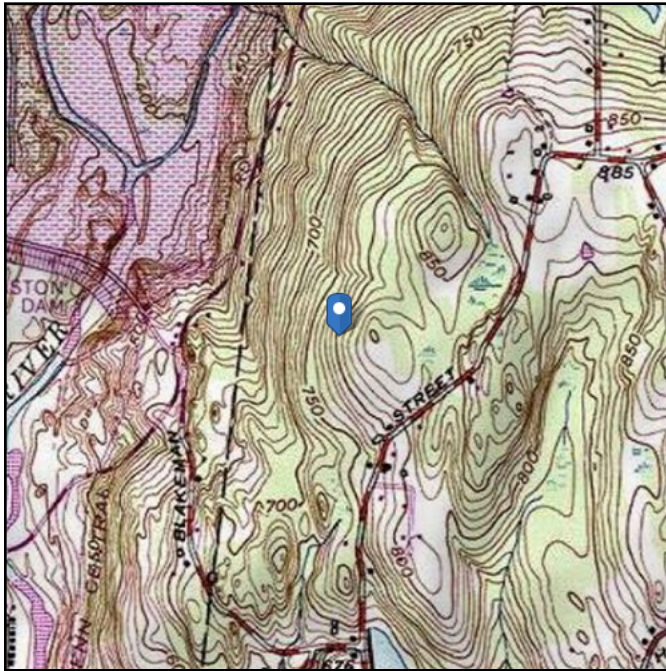
Risk Category: II**Soil Class:**

D - Stiff Soil

Elevation: 808.38 ft (NAVD 88)

Latitude: 41.693083

Longitude: -73.0537



Wind

Results:

Wind Speed:	116 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	89 Vmph
100-year MRI	96 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:

Mon Sep 20 2021

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

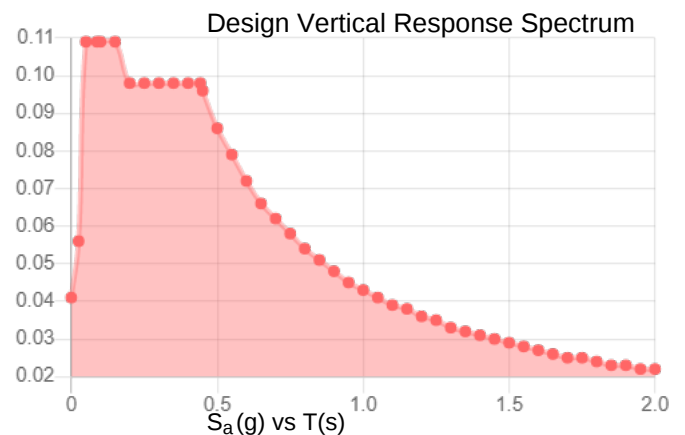
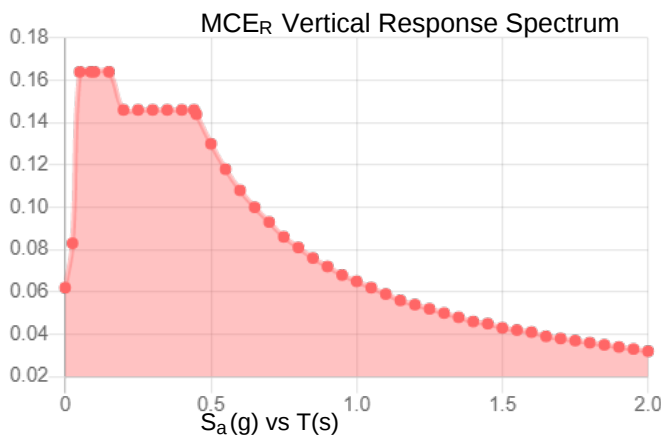
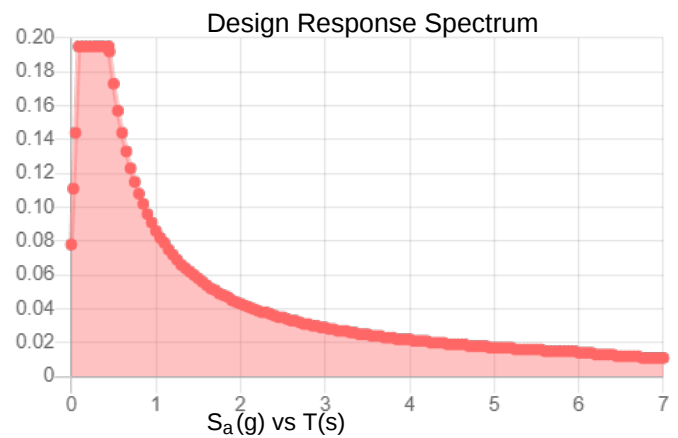
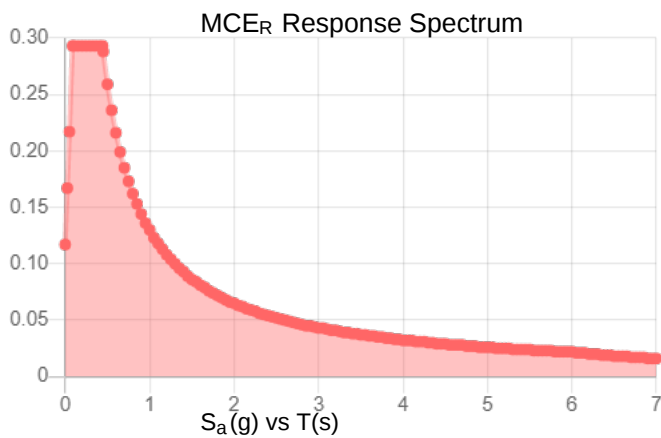
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Stiff Soil

Results:

S_S :	0.183	S_{D1} :	0.086
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.099
F_v :	2.4	PGA _M :	0.158
S_{MS} :	0.293	F_{PGA} :	1.6
S_{M1} :	0.13	I_e :	1
S_{DS} :	0.195	C_v :	0.7

Seismic Design Category B



Data Accessed:

Mon Sep 20 2021

Date Source:

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

Ice

Results:

Ice Thickness: 1.00 in.
Concurrent Temperature: 15 F
Gust Speed: 50 mph

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

Date Accessed: Mon Sep 20 2021

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

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

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Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	S3	P1	P3			Square Tubing	Beam	None	A500 GR.C	Typical
2	GA4	P9	P12		270	Grating Angle	Beam	None	A529 Gr. 50	Typical
3	GA3	P10	P11			Grating Angle	Beam	None	A529 Gr. 50	Typical
4	P3	P7	P8			Corner Plates	Beam	None	A1011 36 ...	Typical
5	S2	P13	P14			Square Tubing	Beam	None	A500 GR.C	Typical
6	GA2	P20	P23		270	Grating Angle	Beam	None	A529 Gr. 50	Typical
7	GA1	P21	P22			Grating Angle	Beam	None	A529 Gr. 50	Typical
8	P2	P18	P19			Corner Plates	Beam	None	A1011 36 ...	Typical
9	S1	P24	P25			Square Tubing	Beam	None	A500 GR.C	Typical
10	GA6	P31	P34		270	Grating Angle	Beam	None	A529 Gr. 50	Typical
11	GA5	P32	P33			Grating Angle	Beam	None	A529 Gr. 50	Typical
12	P1	P29	P30			Corner Plates	Beam	None	A1011 36 ...	Typical
13	H1	N43	N44			Face Pipes(3...	Beam	None	A500 GR.C	Typical
14	MP1	N66	N60			Antenna Pipes	Beam	None	A500 GR.C	Typical
15	MP3	N63	N57			Antenna Pipes	Beam	None	A500 GR.C	Typical
16	HR1	N67	N68			Handrail	Beam	None	A500 GR.C	Typical
17	CA8	N114A	N113A		180	Handrail Conn...	Beam	None	A1011 36 ...	Typical
18	CA9	N112A	N111A		180	Handrail Conn...	Beam	None	A1011 36 ...	Typical
19	CA7	N116A	N115A		180	Handrail Conn...	Beam	None	A1011 36 ...	Typical
20	M32	N48A	N70A			RIGID	None	None	RIGID	Typical
21	M35	N45	N69A			RIGID	None	None	RIGID	Typical
22	M36	N51	N71A			RIGID	None	None	RIGID	Typical
23	M39A	N54	N72A			RIGID	None	None	RIGID	Typical
24	CA3	P4	N122A			Channel(3.38x...	Beam	None	A1011 36 ...	Typical
25	CA4	N124B	P4			Channel(3.38x...	Beam	None	A1011 36 ...	Typical
26	CA1	P15	N122B			Channel(3.38x...	Beam	None	A1011 36 ...	Typical
27	CA2	N123A	P15			Channel(3.38x...	Beam	None	A1011 36 ...	Typical
28	CA5	P26	N125			Channel(3.38x...	Beam	None	A1011 36 ...	Typical
29	CA6	N126	P26			Channel(3.38x...	Beam	None	A1011 36 ...	Typical
30	M64	N126A	N125A			RIGID	None	None	RIGID	Typical
31	M65	N126	N125A			RIGID	None	None	RIGID	Typical
32	M66	N129	N128			RIGID	None	None	RIGID	Typical
33	M67	N124B	N128			RIGID	None	None	RIGID	Typical
34	M68	N132	N131			RIGID	None	None	RIGID	Typical
35	M69	N123A	N131			RIGID	None	None	RIGID	Typical
36	M70	N133	N132A			RIGID	None	None	RIGID	Typical
37	M71	N122B	N132A			RIGID	None	None	RIGID	Typical
38	M72	N135	N134			RIGID	None	None	RIGID	Typical
39	M73	N125	N134			RIGID	None	None	RIGID	Typical
40	M74	N138	N137			RIGID	None	None	RIGID	Typical
41	M75	N122A	N137			PL 2.375x0.5	None	None	A36 Gr.36	Typical
42	MP2	N75	N74			Antenna Pipes	Beam	None	A500 GR.C	Typical
43	M43	N72B	N76			RIGID	None	None	RIGID	Typical
44	M44	N73	N77			RIGID	None	None	RIGID	Typical
45	H3	N81A	N82A			Face Pipes(3...	Beam	None	A500 GR.C	Typical
46	MP7	N90	N88			Antenna Pipes	Beam	None	A500 GR.C	Typical
47	MP9	N89	N87			Antenna Pipes	Beam	None	A500 GR.C	Typical
48	HR3	N91	N92			Handrail	Beam	None	A500 GR.C	Typical
49	M52	N84	N94			RIGID	None	None	RIGID	Typical
50	M53	N83A	N93			RIGID	None	None	RIGID	Typical
51	M54	N85	N95			RIGID	None	None	RIGID	Typical
52	M55	N86	N96			RIGID	None	None	RIGID	Typical
53	H2	N109	N110			Face Pipes(3...	Beam	None	A500 GR.C	Typical
54	MP4	N118	N116			Antenna Pipes	Beam	None	A500 GR.C	Typical
55	MP6	N117	N115			Antenna Pipes	Beam	None	A500 GR.C	Typical
56	HR2	N119	N120			Handrail	Beam	None	A500 GR.C	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
57	M66A	N112	N122			RIGID	None	None	RIGID	Typical
58	M67A	N111	N121			RIGID	None	None	RIGID	Typical
59	M68A	N113	N123			RIGID	None	None	RIGID	Typical
60	M69A	N114	N124			RIGID	None	None	RIGID	Typical
61	MP8	N132B	N131A			Antenna Pipes	Beam	None	A500 GR.C	Typical
62	M68B	N129B	N133B			RIGID	None	None	RIGID	Typical
63	M69B	N130A	N134A			RIGID	None	None	RIGID	Typical
64	MP5	N138A	N137A			Antenna Pipes	Beam	None	A500 GR.C	Typical
65	M71B	N135A	N139			RIGID	None	None	RIGID	Typical
66	M72B	N136	N140			RIGID	None	None	RIGID	Typical
67	M67B	N119A	N120A			RIGID	None	None	RIGID	Typical
68	MP10	N121A	N122C			Antenna Pipes	Beam	None	A500 GR.C	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
1	S3	Square Tubi...	40			Lbyy						Lateral
2	GA4	Grating Angle	27.295			Lbyy						Lateral
3	GA3	Grating Angle	27.295			Lbyy						Lateral
4	P3	Corner Plates	42			Lbyy						Lateral
5	S2	Square Tubi...	40			Lbyy						Lateral
6	GA2	Grating Angle	27.295			Lbyy						Lateral
7	GA1	Grating Angle	27.295			Lbyy						Lateral
8	P2	Corner Plates	42			Lbyy						Lateral
9	S1	Square Tubi...	40			Lbyy						Lateral
10	GA6	Grating Angle	27.295			Lbyy						Lateral
11	GA5	Grating Angle	27.295			Lbyy						Lateral
12	P1	Corner Plates	42			Lbyy						Lateral
13	H1	Face Pipes(...	96			Lbyy						Lateral
14	MP1	Antenna Pip...	96			Lbyy						Lateral
15	MP3	Antenna Pip...	96			Lbyy						Lateral
16	HR1	Handrail	96			Lbyy						Lateral
17	CA8	Handrail Co...	42			Lbyy						Lateral
18	CA9	Handrail Co...	42			Lbyy						Lateral
19	CA7	Handrail Co...	42			Lbyy						Lateral
20	CA3	Channel(3.3...	33			Lbyy						Lateral
21	CA4	Channel(3.3...	33			Lbyy						Lateral
22	CA1	Channel(3.3...	33			Lbyy						Lateral
23	CA2	Channel(3.3...	33			Lbyy						Lateral
24	CA5	Channel(3.3...	33			Lbyy						Lateral
25	CA6	Channel(3.3...	33			Lbyy						Lateral
26	M75	PL 2.375x0.5	1.5			Lbyy						Lateral
27	MP2	Antenna Pip...	96			Lbyy						Lateral
28	H3	Face Pipes(...	96			Lbyy						Lateral
29	MP7	Antenna Pip...	96			Lbyy						Lateral
30	MP9	Antenna Pip...	96			Lbyy						Lateral
31	HR3	Handrail	96			Lbyy						Lateral
32	H2	Face Pipes(...	96			Lbyy						Lateral
33	MP4	Antenna Pip...	96			Lbyy						Lateral
34	MP6	Antenna Pip...	96			Lbyy						Lateral
35	HR2	Handrail	96			Lbyy						Lateral
36	MP8	Antenna Pip...	96			Lbyy						Lateral
37	MP5	Antenna Pip...	96			Lbyy						Lateral
38	MP10	Antenna Pip...	48			Lbyy						Lateral

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	S3						Yes				None
2	GA4						Yes				None
3	GA3						Yes				None
4	P3	BenPIN	BenPIN				Yes	Default			None
5	S2						Yes				None
6	GA2						Yes				None
7	GA1						Yes				None
8	P2	BenPIN	BenPIN				Yes	Default			None
9	S1						Yes	Default			None
10	GA6						Yes				None
11	GA5						Yes				None
12	P1	BenPIN	BenPIN				Yes	Default			None
13	H1						Yes	Default			None
14	MP1						Yes	Default	+y+3		None
15	MP3						Yes		+y+3		None
16	HR1						Yes				None
17	CA8	OOOOOX	OOOOOX				Yes				None
18	CA9	OOOOOX	OOOOOX				Yes				None
19	CA7	OOOOOX	OOOOOX				Yes	Default			None
20	M32						Yes	** NA **			None
21	M35						Yes	** NA **			None
22	M36						Yes	** NA **			None
23	M39A						Yes	** NA **			None
24	CA3						Yes	Default			None
25	CA4						Yes	Default			None
26	CA1						Yes	Default			None
27	CA2						Yes	Default			None
28	CA5						Yes	Default			None
29	CA6						Yes	Default			None
30	M64	BenPIN					Yes	** NA **			None
31	M65						Yes	** NA **			None
32	M66	BenPIN					Yes	** NA **			None
33	M67						Yes	** NA **			None
34	M68	BenPIN					Yes	** NA **			None
35	M69						Yes	** NA **			None
36	M70	BenPIN					Yes	** NA **			None
37	M71						Yes	** NA **			None
38	M72	BenPIN					Yes	** NA **			None
39	M73						Yes	** NA **			None
40	M74	BenPIN					Yes	** NA **			None
41	M75						Yes	** NA **			None
42	MP2						Yes		+y+3		None
43	M43						Yes	** NA **			None
44	M44						Yes	** NA **			None
45	H3						Yes				None
46	MP7						Yes		+y+3		None
47	MP9						Yes		+y+3		None
48	HR3						Yes				None
49	M52						Yes	** NA **			None
50	M53						Yes	** NA **			None
51	M54						Yes	** NA **			None
52	M55						Yes	** NA **			None
53	H2						Yes				None
54	MP4						Yes		+y+3		None
55	MP6						Yes		+y+3		None
56	HR2						Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat..	Analysis ...	Inactive	Seismic...
57	M66A						Yes	** NA **			None
58	M67A						Yes	** NA **			None
59	M68A						Yes	** NA **			None
60	M69A						Yes	** NA **			None
61	MP8						Yes		+y+3		None
62	M68B						Yes	** NA **			None
63	M69B						Yes	** NA **			None
64	MP5						Yes		+y+3		None
65	M71B						Yes	** NA **			None
66	M72B						Yes	** NA **			None
67	M67B						Yes	** NA **			None
68	MP10						Yes	Default			None

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[LB]
1	General				
2	RIGID		30	36.1	0
3	Total General		30	36.1	0
4					
5	Hot Rolled Steel				
6	A1011 36 Ksi	C3.38x2.06x0.25	6	198	98.255
7	A1011 36 Ksi	PL6.5x0.375	3	126	87.09
8	A1011 36 Ksi	L6.6x4.46x0.25	3	126	96.558
9	A36 Gr.36	PL 2.375x0.5	1	1.5	.505
10	A500 GR.C	2.88x0.120	3	288	84.974
11	A500 GR.C	HSS4X4X6	3	120	162.653
12	A500 GR.C	Pipe3.5x0.165	3	288	141.202
13	A500 GR.C	PIPE 2.5	10	912	416.364
14	A529 Gr. 50	L2x2x4	6	163.8	43.838
15	Total HR Steel		38	2223.3	1131.439

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Corner Plates	PL6.5x0.375	Beam	None	A1011 36 Ksi	Typical	2.438	.029	8.582	.11
2	6"x0.37" Plate	Plate 6x.37	Beam	None	A1011 36 Ksi	Typical	2.22	.025	6.66	.097
3	Grating Angle	L2x2x4	Beam	None	A529 Gr. 50	Typical	.944	.346	.346	.021
4	Face Pipes(3.5x.16)	Pipe3.5x0.1...	Beam	None	A500 GR.C	Typical	1.729	2.409	2.409	4.819
5	Antenna Pipes	PIPE 2.5	Beam	None	A500 GR.C	Typical	1.61	1.45	1.45	2.89
6	Channel(3.38x2.06)	C3.38x2.06...	Beam	None	A1011 36 Ksi	Typical	1.75	.715	3.026	.034
7	Square Tubing	HSS4X4X6	Beam	None	A500 GR.C	Typical	4.78	10.3	10.3	17.5
8	Handrail Connector	L6.6x4.46x...	Beam	None	A1011 36 Ksi	Typical	2.703	4.759	12.473	.055
9	Handrail	2.88x0.120	Beam	None	A500 GR.C	Typical	1.04	.993	.993	1.985

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
1	Self Weight	DL		-1			13		3	
2	Wind Load AZI 0	WLZ					26			
3	Wind Load AZI 30	None					26			
4	Wind Load AZI 60	None					26			
5	Wind Load AZI 90	WLX					26			
6	Wind Load AZI 120	None					26			
7	Wind Load AZI 150	None					26			

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
8	Wind Load AZI 180	None					26			
9	Wind Load AZI 210	None					26			
10	Wind Load AZI 240	None					26			
11	Wind Load AZI 270	None					26			
12	Wind Load AZI 300	None					26			
13	Wind Load AZI 330	None					26			
14	Distr. Wind Load Z	WLZ						68		
15	Distr. Wind Load X	WLX						68		
16	Ice Weight	OL1					13	68	3	
17	Ice Wind Load AZI 0	OL2					26			
18	Ice Wind Load AZI 30	None					26			
19	Ice Wind Load AZI 60	None					26			
20	Ice Wind Load AZI 90	OL3					26			
21	Ice Wind Load AZI 120	None					26			
22	Ice Wind Load AZI 150	None					26			
23	Ice Wind Load AZI 180	None					26			
24	Ice Wind Load AZI 210	None					26			
25	Ice Wind Load AZI 240	None					26			
26	Ice Wind Load AZI 270	None					26			
27	Ice Wind Load AZI 300	None					26			
28	Ice Wind Load AZI 330	None					26			
29	Distr. Ice Wind Load Z	OL2						68		
30	Distr. Ice Wind Load X	OL3						68		
31	Seismic Load Z	ELZ			-0.293		13			
32	Seismic Load X	ELX	-0.293				13			
33	Service Live Loads	LL				3				
34	Maintenance Load 1	LL				1				
35	Maintenance Load 2	LL				1				
36	Maintenance Load 3	LL				1				
37	Maintenance Load 4	LL				1				
38	Maintenance Load 5	LL				1				
39	Maintenance Load 6	LL				1				
40	Maintenance Load 7	LL				1				
41	Maintenance Load 8	LL				1				
42	Maintenance Load 9	LL				1				
43	Maintenance Load 10	LL				1				
44	BLC 1 Transient Area Loads	None						9		
45	BLC 16 Transient Area Loads	None						9		

Load Combinations

	Description	S...	PDe...	SRSS	BLC	Factor	BLC Fac...	BLC Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4DL	Y...	Y		1	1.4														
2	1.2DL + 1WL AZI 0	Y...	Y		1	1.2	2	1	14	1	15									
3	1.2DL + 1WL AZI 30	Y...	Y		1	1.2	3	1	14	0.866	15	0.5								
4	1.2DL + 1WL AZI 60	Y...	Y		1	1.2	4	1	14	0.5	15	0.866								
5	1.2DL + 1WL AZI 90	Y...	Y		1	1.2	5	1	14		15	1								
6	1.2DL + 1WL AZI 120	Y...	Y		1	1.2	6	1	14	-0.5	15	0.866								
7	1.2DL + 1WL AZI 150	Y...	Y		1	1.2	7	1	14	-0.866	15	0.5								
8	1.2DL + 1WL AZI 180	Y...	Y		1	1.2	8	1	14	-1	15									
9	1.2DL + 1WL AZI 210	Y...	Y		1	1.2	9	1	14	-0.866	15	-0.5								
10	1.2DL + 1WL AZI 240	Y...	Y		1	1.2	10	1	14	-0.5	15	-0.866								
11	1.2DL + 1WL AZI 270	Y...	Y		1	1.2	11	1	14		15	-1								
12	1.2DL + 1WL AZI 300	Y...	Y		1	1.2	12	1	14	0.5	15	-0.866								
13	1.2DL + 1WL AZI 330	Y...	Y		1	1.2	13	1	14	0.866	15	-0.5								
14	0.9DL + 1WL AZI 0	Y...	Y		1	0.9	2	1	14	1	15									

[illegible]

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	P24	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	P13	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	P1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	P24	max	1090.295	6	1801.9...	10	1660.876	13	1203.412	16	2103.08	19	3966.9...	10
2		min	-1072.022	24	-664.205	16	-1652.982	19	-3219.979	84	-2119.48	13	-2052.08	16
3	P13	max	1381.195	4	2078.1...	31	1809.583	15	1103.075	24	2365.2...	15	1898.5...	24
4		min	-1380.446	22	-552.12	24	-1816.158	9	-2846.368	92	-2410....	9	-4922.84	6
5	P1	max	1715.592	17	1886.5...	2	884.861	2	5220.687	2	1945.7...	11	1591.1...	115
6		min	-1734.867	11	-660.243	20	-892.708	8	-2383.918	20	-1893....	17	-869.548	157
7	Totals:	max	3997.331	5	4866.1...	33	4230.541	14						
8		min	-3997.329	23	1550.6...	51	-4230.544	8						

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	Y	-32.25	0
2	MP1	Y	-32.25	72
3	MP1	Y	-74.95	12
4	MP1	Y	-63.93	12
5	MP10	Y	-21.85	24
6	MP4	Y	-32.25	0
7	MP4	Y	-32.25	72
8	MP4	Y	-74.95	12
9	MP4	Y	-63.93	12
10	MP7	Y	-32.25	0
11	MP7	Y	-32.25	72
12	MP7	Y	-74.95	12
13	MP7	Y	-63.93	12

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	0
2	MP1	Z	-178.2	0
3	MP1	X	0	72
4	MP1	Z	-178.2	72
5	MP1	X	0	12
6	MP1	Z	-87.37	12
7	MP1	X	0	12

Member Point Loads (BLC 2 : Wind Load AZI 0) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
8	MP1	Z	-87.37	12
9	MP10	X	0	24
10	MP10	Z	-83.06	24
11	MP4	X	0	0
12	MP4	Z	-98.11	0
13	MP4	X	0	72
14	MP4	Z	-98.11	72
15	MP4	X	0	12
16	MP4	Z	-61.52	12
17	MP4	X	0	12
18	MP4	Z	-56.31	12
19	MP7	X	0	0
20	MP7	Z	-98.11	0
21	MP7	X	0	72
22	MP7	Z	-98.11	72
23	MP7	X	0	12
24	MP7	Z	-61.52	12
25	MP7	X	0	12
26	MP7	Z	-56.31	12

Member Point Loads (BLC 3 : Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-75.75	0
2	MP1	Z	-131.21	0
3	MP1	X	-75.75	72
4	MP1	Z	-131.21	72
5	MP1	X	-39.38	12
6	MP1	Z	-68.2	12
7	MP1	X	-38.51	12
8	MP1	Z	-66.7	12
9	MP10	X	-37.08	24
10	MP10	Z	-64.22	24
11	MP4	X	-75.75	0
12	MP4	Z	-131.21	0
13	MP4	X	-75.75	72
14	MP4	Z	-131.21	72
15	MP4	X	-39.38	12
16	MP4	Z	-68.2	12
17	MP4	X	-38.51	12
18	MP4	Z	-66.7	12
19	MP7	X	-35.71	0
20	MP7	Z	-61.85	0
21	MP7	X	-35.71	72
22	MP7	Z	-61.85	72
23	MP7	X	-26.46	12
24	MP7	Z	-45.82	12
25	MP7	X	-22.98	12
26	MP7	Z	-39.8	12

Member Point Loads (BLC 4 : Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-84.97	0
2	MP1	Z	-49.06	0
3	MP1	X	-84.97	72
4	MP1	Z	-49.06	72
5	MP1	X	-53.28	12

Member Point Loads (BLC 4 : Wind Load AZI 60) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
6	MP1	Z	-30.76	12
7	MP1	X	-48.77	12
8	MP1	Z	-28.16	12
9	MP10	X	-48.81	24
10	MP10	Z	-28.18	24
11	MP4	X	-154.33	0
12	MP4	Z	-89.1	0
13	MP4	X	-154.33	72
14	MP4	Z	-89.1	72
15	MP4	X	-75.66	12
16	MP4	Z	-43.68	12
17	MP4	X	-75.66	12
18	MP4	Z	-43.68	12
19	MP7	X	-84.97	0
20	MP7	Z	-49.06	0
21	MP7	X	-84.97	72
22	MP7	Z	-49.06	72
23	MP7	X	-53.28	12
24	MP7	Z	-30.76	12
25	MP7	X	-48.77	12
26	MP7	Z	-28.16	12

Member Point Loads (BLC 5 : Wind Load AZI 90)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	-71.41	0
2	MP1	Z	0	0
3	MP1	X	-71.41	72
4	MP1	Z	0	72
5	MP1	X	-52.91	12
6	MP1	Z	0	12
7	MP1	X	-45.96	12
8	MP1	Z	0	12
9	MP10	X	-47.46	24
10	MP10	Z	0	24
11	MP4	X	-151.51	0
12	MP4	Z	0	0
13	MP4	X	-151.51	72
14	MP4	Z	0	72
15	MP4	X	-78.75	12
16	MP4	Z	0	12
17	MP4	X	-77.02	12
18	MP4	Z	0	12
19	MP7	X	-151.51	0
20	MP7	Z	0	0
21	MP7	X	-151.51	72
22	MP7	Z	0	72
23	MP7	X	-78.75	12
24	MP7	Z	0	12
25	MP7	X	-77.02	12
26	MP7	Z	0	12

Member Point Loads (BLC 6 : Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	-84.97	0
2	MP1	Z	49.06	0
3	MP1	X	-84.97	72

Member Point Loads (BLC 6 : Wind Load AZI 120) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
4	MP1	Z	49.06	72
5	MP1	X	-53.28	12
6	MP1	Z	30.76	12
7	MP1	X	-48.77	12
8	MP1	Z	28.16	12
9	MP10	X	-48.81	24
10	MP10	Z	28.18	24
11	MP4	X	-84.97	0
12	MP4	Z	49.06	0
13	MP4	X	-84.97	72
14	MP4	Z	49.06	72
15	MP4	X	-53.28	12
16	MP4	Z	30.76	12
17	MP4	X	-48.77	12
18	MP4	Z	28.16	12
19	MP7	X	-154.33	0
20	MP7	Z	89.1	0
21	MP7	X	-154.33	72
22	MP7	Z	89.1	72
23	MP7	X	-75.66	12
24	MP7	Z	43.68	12
25	MP7	X	-75.66	12
26	MP7	Z	43.68	12

Member Point Loads (BLC 7 : Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-75.75	0
2	MP1	Z	131.21	0
3	MP1	X	-75.75	72
4	MP1	Z	131.21	72
5	MP1	X	-39.38	12
6	MP1	Z	68.2	12
7	MP1	X	-38.51	12
8	MP1	Z	66.7	12
9	MP10	X	-37.08	24
10	MP10	Z	64.22	24
11	MP4	X	-35.71	0
12	MP4	Z	61.85	0
13	MP4	X	-35.71	72
14	MP4	Z	61.85	72
15	MP4	X	-26.46	12
16	MP4	Z	45.82	12
17	MP4	X	-22.98	12
18	MP4	Z	39.8	12
19	MP7	X	-75.75	0
20	MP7	Z	131.21	0
21	MP7	X	-75.75	72
22	MP7	Z	131.21	72
23	MP7	X	-39.38	12
24	MP7	Z	68.2	12
25	MP7	X	-38.51	12
26	MP7	Z	66.7	12

Member Point Loads (BLC 8 : Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	0

Member Point Loads (BLC 8 : Wind Load AZI 180) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
2	MP1	Z	178.2	0
3	MP1	X	0	72
4	MP1	Z	178.2	72
5	MP1	X	0	12
6	MP1	Z	87.37	12
7	MP1	X	0	12
8	MP1	Z	87.37	12
9	MP10	X	0	24
10	MP10	Z	83.06	24
11	MP4	X	0	0
12	MP4	Z	98.11	0
13	MP4	X	0	72
14	MP4	Z	98.11	72
15	MP4	X	0	12
16	MP4	Z	61.52	12
17	MP4	X	0	12
18	MP4	Z	56.31	12
19	MP7	X	0	0
20	MP7	Z	98.11	0
21	MP7	X	0	72
22	MP7	Z	98.11	72
23	MP7	X	0	12
24	MP7	Z	61.52	12
25	MP7	X	0	12
26	MP7	Z	56.31	12

Member Point Loads (BLC 9 : Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	75.75	0
2	MP1	Z	131.21	0
3	MP1	X	75.75	72
4	MP1	Z	131.21	72
5	MP1	X	39.38	12
6	MP1	Z	68.2	12
7	MP1	X	38.51	12
8	MP1	Z	66.7	12
9	MP10	X	37.08	24
10	MP10	Z	64.22	24
11	MP4	X	75.75	0
12	MP4	Z	131.21	0
13	MP4	X	75.75	72
14	MP4	Z	131.21	72
15	MP4	X	39.38	12
16	MP4	Z	68.2	12
17	MP4	X	38.51	12
18	MP4	Z	66.7	12
19	MP7	X	35.71	0
20	MP7	Z	61.85	0
21	MP7	X	35.71	72
22	MP7	Z	61.85	72
23	MP7	X	26.46	12
24	MP7	Z	45.82	12
25	MP7	X	22.98	12
26	MP7	Z	39.8	12

Member Point Loads (BLC 10 : Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	84.97	0
2	MP1	Z	49.06	0
3	MP1	X	84.97	72
4	MP1	Z	49.06	72
5	MP1	X	53.28	12
6	MP1	Z	30.76	12
7	MP1	X	48.77	12
8	MP1	Z	28.16	12
9	MP10	X	48.81	24
10	MP10	Z	28.18	24
11	MP4	X	154.33	0
12	MP4	Z	89.1	0
13	MP4	X	154.33	72
14	MP4	Z	89.1	72
15	MP4	X	75.66	12
16	MP4	Z	43.68	12
17	MP4	X	75.66	12
18	MP4	Z	43.68	12
19	MP7	X	84.97	0
20	MP7	Z	49.06	0
21	MP7	X	84.97	72
22	MP7	Z	49.06	72
23	MP7	X	53.28	12
24	MP7	Z	30.76	12
25	MP7	X	48.77	12
26	MP7	Z	28.16	12

Member Point Loads (BLC 11 : Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	71.41	0
2	MP1	Z	0	0
3	MP1	X	71.41	72
4	MP1	Z	0	72
5	MP1	X	52.91	12
6	MP1	Z	0	12
7	MP1	X	45.96	12
8	MP1	Z	0	12
9	MP10	X	47.46	24
10	MP10	Z	0	24
11	MP4	X	151.51	0
12	MP4	Z	0	0
13	MP4	X	151.51	72
14	MP4	Z	0	72
15	MP4	X	78.75	12
16	MP4	Z	0	12
17	MP4	X	77.02	12
18	MP4	Z	0	12
19	MP7	X	151.51	0
20	MP7	Z	0	0
21	MP7	X	151.51	72
22	MP7	Z	0	72
23	MP7	X	78.75	12
24	MP7	Z	0	12
25	MP7	X	77.02	12
26	MP7	Z	0	12

Member Point Loads (BLC 12 : Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	84.97	0
2	MP1	Z	-49.06	0
3	MP1	X	84.97	72
4	MP1	Z	-49.06	72
5	MP1	X	53.28	12
6	MP1	Z	-30.76	12
7	MP1	X	48.77	12
8	MP1	Z	-28.16	12
9	MP10	X	48.81	24
10	MP10	Z	-28.18	24
11	MP4	X	84.97	0
12	MP4	Z	-49.06	0
13	MP4	X	84.97	72
14	MP4	Z	-49.06	72
15	MP4	X	53.28	12
16	MP4	Z	-30.76	12
17	MP4	X	48.77	12
18	MP4	Z	-28.16	12
19	MP7	X	154.33	0
20	MP7	Z	-89.1	0
21	MP7	X	154.33	72
22	MP7	Z	-89.1	72
23	MP7	X	75.66	12
24	MP7	Z	-43.68	12
25	MP7	X	75.66	12
26	MP7	Z	-43.68	12

Member Point Loads (BLC 13 : Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	75.75	0
2	MP1	Z	-131.21	0
3	MP1	X	75.75	72
4	MP1	Z	-131.21	72
5	MP1	X	39.38	12
6	MP1	Z	-68.2	12
7	MP1	X	38.51	12
8	MP1	Z	-66.7	12
9	MP10	X	37.08	24
10	MP10	Z	-64.22	24
11	MP4	X	35.71	0
12	MP4	Z	-61.85	0
13	MP4	X	35.71	72
14	MP4	Z	-61.85	72
15	MP4	X	26.46	12
16	MP4	Z	-45.82	12
17	MP4	X	22.98	12
18	MP4	Z	-39.8	12
19	MP7	X	75.75	0
20	MP7	Z	-131.21	0
21	MP7	X	75.75	72
22	MP7	Z	-131.21	72
23	MP7	X	39.38	12
24	MP7	Z	-68.2	12
25	MP7	X	38.51	12
26	MP7	Z	-66.7	12

Member Point Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	Y	-103.752	0
2	MP1	Y	-103.752	72
3	MP1	Y	-53.037	12
4	MP1	Y	-49.671	12
5	MP10	Y	-48.412	24
6	MP4	Y	-103.752	0
7	MP4	Y	-103.752	72
8	MP4	Y	-53.037	12
9	MP4	Y	-49.671	12
10	MP7	Y	-103.752	0
11	MP7	Y	-103.752	72
12	MP7	Y	-53.037	12
13	MP7	Y	-49.671	12

Member Point Loads (BLC 17 : Ice Wind Load AZI 0)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	0	0
2	MP1	Z	-25.08	0
3	MP1	X	0	72
4	MP1	Z	-25.08	72
5	MP1	X	0	12
6	MP1	Z	-9.27	12
7	MP1	X	0	12
8	MP1	Z	-9.27	12
9	MP10	X	0	24
10	MP10	Z	-8.88	24
11	MP4	X	0	0
12	MP4	Z	-18.17	0
13	MP4	X	0	72
14	MP4	Z	-18.17	72
15	MP4	X	0	12
16	MP4	Z	-7.57	12
17	MP4	X	0	12
18	MP4	Z	-7.29	12
19	MP7	X	0	0
20	MP7	Z	-18.17	0
21	MP7	X	0	72
22	MP7	Z	-18.17	72
23	MP7	X	0	12
24	MP7	Z	-7.57	12
25	MP7	X	0	12
26	MP7	Z	-7.29	12

Member Point Loads (BLC 18 : Ice Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	-11.39	0
2	MP1	Z	-19.73	0
3	MP1	X	-11.39	72
4	MP1	Z	-19.73	72
5	MP1	X	-4.35	12
6	MP1	Z	-7.54	12
7	MP1	X	-4.3	12
8	MP1	Z	-7.46	12
9	MP10	X	-4.18	24
10	MP10	Z	-7.23	24
11	MP4	X	-11.39	0

Member Point Loads (BLC 18 : Ice Wind Load AZI 30) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
12	MP4	Z	-19.73	0
13	MP4	X	-11.39	72
14	MP4	Z	-19.73	72
15	MP4	X	-4.35	12
16	MP4	Z	-7.54	12
17	MP4	X	-4.3	12
18	MP4	Z	-7.46	12
19	MP7	X	-7.93	0
20	MP7	Z	-13.73	0
21	MP7	X	-7.93	72
22	MP7	Z	-13.73	72
23	MP7	X	-3.51	12
24	MP7	Z	-6.07	12
25	MP7	X	-3.32	12
26	MP7	Z	-5.74	12

Member Point Loads (BLC 19 : Ice Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-15.73	0
2	MP1	Z	-9.08	0
3	MP1	X	-15.73	72
4	MP1	Z	-9.08	72
5	MP1	X	-6.56	12
6	MP1	Z	-3.79	12
7	MP1	X	-6.31	12
8	MP1	Z	-3.65	12
9	MP10	X	-6.32	24
10	MP10	Z	-3.65	24
11	MP4	X	-21.72	0
12	MP4	Z	-12.54	0
13	MP4	X	-21.72	72
14	MP4	Z	-12.54	72
15	MP4	X	-8.03	12
16	MP4	Z	-4.63	12
17	MP4	X	-8.03	12
18	MP4	Z	-4.63	12
19	MP7	X	-15.73	0
20	MP7	Z	-9.08	0
21	MP7	X	-15.73	72
22	MP7	Z	-9.08	72
23	MP7	X	-6.56	12
24	MP7	Z	-3.79	12
25	MP7	X	-6.31	12
26	MP7	Z	-3.65	12

Member Point Loads (BLC 20 : Ice Wind Load AZI 90)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-15.86	0
2	MP1	Z	0	0
3	MP1	X	-15.86	72
4	MP1	Z	0	72
5	MP1	X	-7.01	12
6	MP1	Z	0	12
7	MP1	X	-6.63	12
8	MP1	Z	0	12
9	MP10	X	-6.77	24

Member Point Loads (BLC 20 : Ice Wind Load AZI 90) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
10	MP10	Z	0	24
11	MP4	X	-22.78	0
12	MP4	Z	0	0
13	MP4	X	-22.78	72
14	MP4	Z	0	72
15	MP4	X	-8.7	12
16	MP4	Z	0	12
17	MP4	X	-8.61	12
18	MP4	Z	0	12
19	MP7	X	-22.78	0
20	MP7	Z	0	0
21	MP7	X	-22.78	72
22	MP7	Z	0	72
23	MP7	X	-8.7	12
24	MP7	Z	0	12
25	MP7	X	-8.61	12
26	MP7	Z	0	12

Member Point Loads (BLC 21 : Ice Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	-15.73	0
2	MP1	Z	9.08	0
3	MP1	X	-15.73	72
4	MP1	Z	9.08	72
5	MP1	X	-6.56	12
6	MP1	Z	3.79	12
7	MP1	X	-6.31	12
8	MP1	Z	3.65	12
9	MP10	X	-6.32	24
10	MP10	Z	3.65	24
11	MP4	X	-15.73	0
12	MP4	Z	9.08	0
13	MP4	X	-15.73	72
14	MP4	Z	9.08	72
15	MP4	X	-6.56	12
16	MP4	Z	3.79	12
17	MP4	X	-6.31	12
18	MP4	Z	3.65	12
19	MP7	X	-21.72	0
20	MP7	Z	12.54	0
21	MP7	X	-21.72	72
22	MP7	Z	12.54	72
23	MP7	X	-8.03	12
24	MP7	Z	4.63	12
25	MP7	X	-8.03	12
26	MP7	Z	4.63	12

Member Point Loads (BLC 22 : Ice Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	-11.39	0
2	MP1	Z	19.73	0
3	MP1	X	-11.39	72
4	MP1	Z	19.73	72
5	MP1	X	-4.35	12
6	MP1	Z	7.54	12
7	MP1	X	-4.3	12

Member Point Loads (BLC 22 : Ice Wind Load AZI 150) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
8	MP1	Z	7.46	12
9	MP10	X	-4.18	24
10	MP10	Z	7.23	24
11	MP4	X	-7.93	0
12	MP4	Z	13.73	0
13	MP4	X	-7.93	72
14	MP4	Z	13.73	72
15	MP4	X	-3.51	12
16	MP4	Z	6.07	12
17	MP4	X	-3.32	12
18	MP4	Z	5.74	12
19	MP7	X	-11.39	0
20	MP7	Z	19.73	0
21	MP7	X	-11.39	72
22	MP7	Z	19.73	72
23	MP7	X	-4.35	12
24	MP7	Z	7.54	12
25	MP7	X	-4.3	12
26	MP7	Z	7.46	12

Member Point Loads (BLC 23 : Ice Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	0	0
2	MP1	Z	25.08	0
3	MP1	X	0	72
4	MP1	Z	25.08	72
5	MP1	X	0	12
6	MP1	Z	9.27	12
7	MP1	X	0	12
8	MP1	Z	9.27	12
9	MP10	X	0	24
10	MP10	Z	8.88	24
11	MP4	X	0	0
12	MP4	Z	18.17	0
13	MP4	X	0	72
14	MP4	Z	18.17	72
15	MP4	X	0	12
16	MP4	Z	7.57	12
17	MP4	X	0	12
18	MP4	Z	7.29	12
19	MP7	X	0	0
20	MP7	Z	18.17	0
21	MP7	X	0	72
22	MP7	Z	18.17	72
23	MP7	X	0	12
24	MP7	Z	7.57	12
25	MP7	X	0	12
26	MP7	Z	7.29	12

Member Point Loads (BLC 24 : Ice Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	11.39	0
2	MP1	Z	19.73	0
3	MP1	X	11.39	72
4	MP1	Z	19.73	72
5	MP1	X	4.35	12

Member Point Loads (BLC 24 : Ice Wind Load AZI 210) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
6	MP1	Z	7.54	12
7	MP1	X	4.3	12
8	MP1	Z	7.46	12
9	MP10	X	4.18	24
10	MP10	Z	7.23	24
11	MP4	X	11.39	0
12	MP4	Z	19.73	0
13	MP4	X	11.39	72
14	MP4	Z	19.73	72
15	MP4	X	4.35	12
16	MP4	Z	7.54	12
17	MP4	X	4.3	12
18	MP4	Z	7.46	12
19	MP7	X	7.93	0
20	MP7	Z	13.73	0
21	MP7	X	7.93	72
22	MP7	Z	13.73	72
23	MP7	X	3.51	12
24	MP7	Z	6.07	12
25	MP7	X	3.32	12
26	MP7	Z	5.74	12

Member Point Loads (BLC 25 : Ice Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	15.73	0
2	MP1	Z	9.08	0
3	MP1	X	15.73	72
4	MP1	Z	9.08	72
5	MP1	X	6.56	12
6	MP1	Z	3.79	12
7	MP1	X	6.31	12
8	MP1	Z	3.65	12
9	MP10	X	6.32	24
10	MP10	Z	3.65	24
11	MP4	X	21.72	0
12	MP4	Z	12.54	0
13	MP4	X	21.72	72
14	MP4	Z	12.54	72
15	MP4	X	8.03	12
16	MP4	Z	4.63	12
17	MP4	X	8.03	12
18	MP4	Z	4.63	12
19	MP7	X	15.73	0
20	MP7	Z	9.08	0
21	MP7	X	15.73	72
22	MP7	Z	9.08	72
23	MP7	X	6.56	12
24	MP7	Z	3.79	12
25	MP7	X	6.31	12
26	MP7	Z	3.65	12

Member Point Loads (BLC 26 : Ice Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	15.86	0
2	MP1	Z	0	0
3	MP1	X	15.86	72

Member Point Loads (BLC 26 : Ice Wind Load AZI 270) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
4	MP1	Z	0	72
5	MP1	X	7.01	12
6	MP1	Z	0	12
7	MP1	X	6.63	12
8	MP1	Z	0	12
9	MP10	X	6.77	24
10	MP10	Z	0	24
11	MP4	X	22.78	0
12	MP4	Z	0	0
13	MP4	X	22.78	72
14	MP4	Z	0	72
15	MP4	X	8.7	12
16	MP4	Z	0	12
17	MP4	X	8.61	12
18	MP4	Z	0	12
19	MP7	X	22.78	0
20	MP7	Z	0	0
21	MP7	X	22.78	72
22	MP7	Z	0	72
23	MP7	X	8.7	12
24	MP7	Z	0	12
25	MP7	X	8.61	12
26	MP7	Z	0	12

Member Point Loads (BLC 27 : Ice Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	15.73	0
2	MP1	Z	-9.08	0
3	MP1	X	15.73	72
4	MP1	Z	-9.08	72
5	MP1	X	6.56	12
6	MP1	Z	-3.79	12
7	MP1	X	6.31	12
8	MP1	Z	-3.65	12
9	MP10	X	6.32	24
10	MP10	Z	-3.65	24
11	MP4	X	15.73	0
12	MP4	Z	-9.08	0
13	MP4	X	15.73	72
14	MP4	Z	-9.08	72
15	MP4	X	6.56	12
16	MP4	Z	-3.79	12
17	MP4	X	6.31	12
18	MP4	Z	-3.65	12
19	MP7	X	21.72	0
20	MP7	Z	-12.54	0
21	MP7	X	21.72	72
22	MP7	Z	-12.54	72
23	MP7	X	8.03	12
24	MP7	Z	-4.63	12
25	MP7	X	8.03	12
26	MP7	Z	-4.63	12

Member Point Loads (BLC 28 : Ice Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	11.39	0

Member Point Loads (BLC 28 : Ice Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
2	MP1	Z	-19.73	0
3	MP1	X	11.39	72
4	MP1	Z	-19.73	72
5	MP1	X	4.35	12
6	MP1	Z	-7.54	12
7	MP1	X	4.3	12
8	MP1	Z	-7.46	12
9	MP10	X	4.18	24
10	MP10	Z	-7.23	24
11	MP4	X	7.93	0
12	MP4	Z	-13.73	0
13	MP4	X	7.93	72
14	MP4	Z	-13.73	72
15	MP4	X	3.51	12
16	MP4	Z	-6.07	12
17	MP4	X	3.32	12
18	MP4	Z	-5.74	12
19	MP7	X	11.39	0
20	MP7	Z	-19.73	0
21	MP7	X	11.39	72
22	MP7	Z	-19.73	72
23	MP7	X	4.35	12
24	MP7	Z	-7.54	12
25	MP7	X	4.3	12
26	MP7	Z	-7.46	12

Member Point Loads (BLC 31 : Seismic Load Z)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	Z	-9.443	0
2	MP1	Z	-9.443	72
3	MP1	Z	-21.945	12
4	MP1	Z	-18.719	12
5	MP10	Z	-6.398	24
6	MP4	Z	-9.443	0
7	MP4	Z	-9.443	72
8	MP4	Z	-21.945	12
9	MP4	Z	-18.719	12
10	MP7	Z	-9.443	0
11	MP7	Z	-9.443	72
12	MP7	Z	-21.945	12
13	MP7	Z	-18.719	12

Member Point Loads (BLC 32 : Seismic Load X)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	-9.443	0
2	MP1	X	-9.443	72
3	MP1	X	-21.945	12
4	MP1	X	-18.719	12
5	MP10	X	-6.398	24
6	MP4	X	-9.443	0
7	MP4	X	-9.443	72
8	MP4	X	-21.945	12
9	MP4	X	-18.719	12
10	MP7	X	-9.443	0
11	MP7	X	-9.443	72
12	MP7	X	-21.945	12

Member Point Loads (BLC 32 : Seismic Load X) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
13	MP7	X	-18.719	12

Joint Loads and Enforced Displacements (BLC 33 : Service Live Loads)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...]
1	N72B	L	Y	-250
2	N135A	L	Y	-250
3	N129B	L	Y	-250

Joint Loads and Enforced Displacements (BLC 34 : Maintenance Load 1)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...]
1	N70A	L	Y	-500

Joint Loads and Enforced Displacements (BLC 35 : Maintenance Load 2)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...]
1	N69A	L	Y	-500

Joint Loads and Enforced Displacements (BLC 36 : Maintenance Load 3)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...]
1	N76	L	Y	-500

Joint Loads and Enforced Displacements (BLC 37 : Maintenance Load 4)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...]
1	N94	L	Y	-500

Joint Loads and Enforced Displacements (BLC 38 : Maintenance Load 5)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...]
1	N93	L	Y	-500

Joint Loads and Enforced Displacements (BLC 39 : Maintenance Load 6)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...]
1	N122	L	Y	-500

Joint Loads and Enforced Displacements (BLC 40 : Maintenance Load 7)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...]
1	N121	L	Y	-500

Joint Loads and Enforced Displacements (BLC 41 : Maintenance Load 8)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...]
1	N133B	L	Y	-500

Joint Loads and Enforced Displacements (BLC 42 : Maintenance Load 9)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...]
1	N139	L	Y	-500

Joint Loads and Enforced Displacements (BLC 43 : Maintenance Load 10)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...]
1	N120A	L	Y	-500

Member Distributed Loads (BLC 14 : Distr. Wind Load Z)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
1	S3	SZ	-98.878	-98.878	0	%100
2	GA4	SZ	-98.878	-98.878	0	%100
3	GA3	SZ	-98.878	-98.878	0	%100
4	P3	SZ	-98.878	-98.878	0	%100
5	S2	SZ	-98.878	-98.878	0	%100
6	GA2	SZ	-98.878	-98.878	0	%100
7	GA1	SZ	-98.878	-98.878	0	%100
8	P2	SZ	-98.878	-98.878	0	%100
9	S1	SZ	-98.878	-98.878	0	%100
10	GA6	SZ	-98.878	-98.878	0	%100
11	GA5	SZ	-98.878	-98.878	0	%100
12	P1	SZ	-98.878	-98.878	0	%100
13	H1	SZ	-59.327	-59.327	0	%100
14	MP1	SZ	-59.327	-59.327	0	%100
15	MP3	SZ	-59.327	-59.327	0	%100
16	HR1	SZ	-59.327	-59.327	0	%100
17	CA8	SZ	-98.878	-98.878	0	%100
18	CA9	SZ	-98.878	-98.878	0	%100
19	CA7	SZ	-98.878	-98.878	0	%100
20	M32	SZ	0	0	0	%100
21	M35	SZ	0	0	0	%100
22	M36	SZ	0	0	0	%100
23	M39A	SZ	0	0	0	%100
24	CA3	SZ	-98.878	-98.878	0	%100
25	CA4	SZ	-98.878	-98.878	0	%100
26	CA1	SZ	-98.878	-98.878	0	%100
27	CA2	SZ	-98.878	-98.878	0	%100
28	CA5	SZ	-98.878	-98.878	0	%100
29	CA6	SZ	-98.878	-98.878	0	%100
30	M64	SZ	0	0	0	%100
31	M65	SZ	0	0	0	%100
32	M66	SZ	0	0	0	%100
33	M67	SZ	0	0	0	%100
34	M68	SZ	0	0	0	%100
35	M69	SZ	0	0	0	%100
36	M70	SZ	0	0	0	%100
37	M71	SZ	0	0	0	%100
38	M72	SZ	0	0	0	%100
39	M73	SZ	0	0	0	%100
40	M74	SZ	0	0	0	%100
41	M75	SZ	-98.878	-98.878	0	%100
42	MP2	SZ	-59.327	-59.327	0	%100
43	M43	SZ	0	0	0	%100
44	M44	SZ	0	0	0	%100
45	H3	SZ	-59.327	-59.327	0	%100
46	MP7	SZ	-59.327	-59.327	0	%100
47	MP9	SZ	-59.327	-59.327	0	%100
48	HR3	SZ	-59.327	-59.327	0	%100
49	M52	SZ	0	0	0	%100
50	M53	SZ	0	0	0	%100
51	M54	SZ	0	0	0	%100
52	M55	SZ	0	0	0	%100
53	H2	SZ	-59.327	-59.327	0	%100
54	MP4	SZ	-59.327	-59.327	0	%100
55	MP6	SZ	-59.327	-59.327	0	%100
56	HR2	SZ	-59.327	-59.327	0	%100

Member Distributed Loads (BLC 14 : Distr. Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
57	M66A	SZ	0	0	0	%100
58	M67A	SZ	0	0	0	%100
59	M68A	SZ	0	0	0	%100
60	M69A	SZ	0	0	0	%100
61	MP8	SZ	-59.327	-59.327	0	%100
62	M68B	SZ	0	0	0	%100
63	M69B	SZ	0	0	0	%100
64	MP5	SZ	-59.327	-59.327	0	%100
65	M71B	SZ	0	0	0	%100
66	M72B	SZ	0	0	0	%100
67	M67B	SZ	0	0	0	%100
68	MP10	SZ	-59.327	-59.327	0	%100

Member Distributed Loads (BLC 15 : Distr. Wind Load X)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
1	S3	SX	-98.878	-98.878	0	%100
2	GA4	SX	-98.878	-98.878	0	%100
3	GA3	SX	-98.878	-98.878	0	%100
4	P3	SX	-98.878	-98.878	0	%100
5	S2	SX	-98.878	-98.878	0	%100
6	GA2	SX	-98.878	-98.878	0	%100
7	GA1	SX	-98.878	-98.878	0	%100
8	P2	SX	-98.878	-98.878	0	%100
9	S1	SX	-98.878	-98.878	0	%100
10	GA6	SX	-98.878	-98.878	0	%100
11	GA5	SX	-98.878	-98.878	0	%100
12	P1	SX	-98.878	-98.878	0	%100
13	H1	SX	-59.327	-59.327	0	%100
14	MP1	SX	-59.327	-59.327	0	%100
15	MP3	SX	-59.327	-59.327	0	%100
16	HR1	SX	-59.327	-59.327	0	%100
17	CA8	SX	-98.878	-98.878	0	%100
18	CA9	SX	-98.878	-98.878	0	%100
19	CA7	SX	-98.878	-98.878	0	%100
20	M32	SX	0	0	0	%100
21	M35	SX	0	0	0	%100
22	M36	SX	0	0	0	%100
23	M39A	SX	0	0	0	%100
24	CA3	SX	-98.878	-98.878	0	%100
25	CA4	SX	-98.878	-98.878	0	%100
26	CA1	SX	-98.878	-98.878	0	%100
27	CA2	SX	-98.878	-98.878	0	%100
28	CA5	SX	-98.878	-98.878	0	%100
29	CA6	SX	-98.878	-98.878	0	%100
30	M64	SX	0	0	0	%100
31	M65	SX	0	0	0	%100
32	M66	SX	0	0	0	%100
33	M67	SX	0	0	0	%100
34	M68	SX	0	0	0	%100
35	M69	SX	0	0	0	%100
36	M70	SX	0	0	0	%100
37	M71	SX	0	0	0	%100
38	M72	SX	0	0	0	%100
39	M73	SX	0	0	0	%100
40	M74	SX	0	0	0	%100
41	M75	SX	-98.878	-98.878	0	%100

Member Distributed Loads (BLC 15 : Distr. Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in, %]	End Location[in, %]
42	MP2	SX	-59.327	-59.327	0	%100
43	M43	SX	0	0	0	%100
44	M44	SX	0	0	0	%100
45	H3	SX	-59.327	-59.327	0	%100
46	MP7	SX	-59.327	-59.327	0	%100
47	MP9	SX	-59.327	-59.327	0	%100
48	HR3	SX	-59.327	-59.327	0	%100
49	M52	SX	0	0	0	%100
50	M53	SX	0	0	0	%100
51	M54	SX	0	0	0	%100
52	M55	SX	0	0	0	%100
53	H2	SX	-59.327	-59.327	0	%100
54	MP4	SX	-59.327	-59.327	0	%100
55	MP6	SX	-59.327	-59.327	0	%100
56	HR2	SX	-59.327	-59.327	0	%100
57	M66A	SX	0	0	0	%100
58	M67A	SX	0	0	0	%100
59	M68A	SX	0	0	0	%100
60	M69A	SX	0	0	0	%100
61	MP8	SX	-59.327	-59.327	0	%100
62	M68B	SX	0	0	0	%100
63	M69B	SX	0	0	0	%100
64	MP5	SX	-59.327	-59.327	0	%100
65	M71B	SX	0	0	0	%100
66	M72B	SX	0	0	0	%100
67	M67B	SX	0	0	0	%100
68	MP10	SX	-59.327	-59.327	0	%100

Member Distributed Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in, %]	End Location[in, %]
1	S3	Y	-11.145	-11.145	0	%100
2	GA4	Y	-6.62	-6.62	0	%100
3	GA3	Y	-6.62	-6.62	0	%100
4	P3	Y	-12.512	-12.512	0	%100
5	S2	Y	-11.145	-11.145	0	%100
6	GA2	Y	-6.62	-6.62	0	%100
7	GA1	Y	-6.62	-6.62	0	%100
8	P2	Y	-12.512	-12.512	0	%100
9	S1	Y	-11.145	-11.145	0	%100
10	GA6	Y	-6.62	-6.62	0	%100
11	GA5	Y	-6.62	-6.62	0	%100
12	P1	Y	-12.512	-12.512	0	%100
13	H1	Y	-7.695	-7.695	0	%100
14	MP1	Y	-6.695	-6.695	0	%100
15	MP3	Y	-6.695	-6.695	0	%100
16	HR1	Y	-6.703	-6.703	0	%100
17	CA8	Y	-14.839	-14.839	0	%100
18	CA9	Y	-14.839	-14.839	0	%100
19	CA7	Y	-14.839	-14.839	0	%100
20	M32	Y	-2.095	-2.095	0	%100
21	M35	Y	-2.095	-2.095	0	%100
22	M36	Y	-2.095	-2.095	0	%100
23	M39A	Y	-2.095	-2.095	0	%100
24	CA3	Y	-8.428	-8.428	0	%100
25	CA4	Y	-8.428	-8.428	0	%100
26	CA1	Y	-8.428	-8.428	0	%100

Member Distributed Loads (BLC 16 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
27	CA2	Y	-8.428	-8.428	0	%100
28	CA5	Y	-8.428	-8.428	0	%100
29	CA6	Y	-8.428	-8.428	0	%100
30	M64	Y	-2.095	-2.095	0	%100
31	M65	Y	-2.095	-2.095	0	%100
32	M66	Y	-2.095	-2.095	0	%100
33	M67	Y	-2.095	-2.095	0	%100
34	M68	Y	-2.095	-2.095	0	%100
35	M69	Y	-2.095	-2.095	0	%100
36	M70	Y	-2.095	-2.095	0	%100
37	M71	Y	-2.095	-2.095	0	%100
38	M72	Y	-2.095	-2.095	0	%100
39	M73	Y	-2.095	-2.095	0	%100
40	M74	Y	-2.095	-2.095	0	%100
41	M75	Y	-5.978	-5.978	0	%100
42	MP2	Y	-6.695	-6.695	0	%100
43	M43	Y	-2.095	-2.095	0	%100
44	M44	Y	-2.095	-2.095	0	%100
45	H3	Y	-7.695	-7.695	0	%100
46	MP7	Y	-6.695	-6.695	0	%100
47	MP9	Y	-6.695	-6.695	0	%100
48	HR3	Y	-6.703	-6.703	0	%100
49	M52	Y	-2.095	-2.095	0	%100
50	M53	Y	-2.095	-2.095	0	%100
51	M54	Y	-2.095	-2.095	0	%100
52	M55	Y	-2.095	-2.095	0	%100
53	H2	Y	-7.695	-7.695	0	%100
54	MP4	Y	-6.695	-6.695	0	%100
55	MP6	Y	-6.695	-6.695	0	%100
56	HR2	Y	-6.703	-6.703	0	%100
57	M66A	Y	-2.095	-2.095	0	%100
58	M67A	Y	-2.095	-2.095	0	%100
59	M68A	Y	-2.095	-2.095	0	%100
60	M69A	Y	-2.095	-2.095	0	%100
61	MP8	Y	-6.695	-6.695	0	%100
62	M68B	Y	-2.095	-2.095	0	%100
63	M69B	Y	-2.095	-2.095	0	%100
64	MP5	Y	-6.695	-6.695	0	%100
65	M71B	Y	-2.095	-2.095	0	%100
66	M72B	Y	-2.095	-2.095	0	%100
67	M67B	Y	-2.095	-2.095	0	%100
68	MP10	Y	-6.695	-6.695	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
1	S3	SZ	-16.126	-16.126	0	%100
2	GA4	SZ	-21.229	-21.229	0	%100
3	GA3	SZ	-21.229	-21.229	0	%100
4	P3	SZ	-15.456	-15.456	0	%100
5	S2	SZ	-16.126	-16.126	0	%100
6	GA2	SZ	-21.229	-21.229	0	%100
7	GA1	SZ	-21.229	-21.229	0	%100
8	P2	SZ	-15.456	-15.456	0	%100
9	S1	SZ	-16.126	-16.126	0	%100
10	GA6	SZ	-21.229	-21.229	0	%100
11	GA5	SZ	-21.229	-21.229	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
12	P1	SZ	-15.456	-15.456	0	%100
13	H1	SZ	-19.27	-19.27	0	%100
14	MP1	SZ	-21.064	-21.064	0	%100
15	MP3	SZ	-21.064	-21.064	0	%100
16	HR1	SZ	-21.046	-21.046	0	%100
17	CA8	SZ	-14.646	-14.646	0	%100
18	CA9	SZ	-14.646	-14.646	0	%100
19	CA7	SZ	-14.646	-14.646	0	%100
20	M32	SZ	0	0	0	%100
21	M35	SZ	0	0	0	%100
22	M36	SZ	0	0	0	%100
23	M39A	SZ	0	0	0	%100
24	CA3	SZ	-18.316	-18.316	0	%100
25	CA4	SZ	-18.316	-18.316	0	%100
26	CA1	SZ	-18.316	-18.316	0	%100
27	CA2	SZ	-18.316	-18.316	0	%100
28	CA5	SZ	-18.316	-18.316	0	%100
29	CA6	SZ	-18.316	-18.316	0	%100
30	M64	SZ	0	0	0	%100
31	M65	SZ	0	0	0	%100
32	M66	SZ	0	0	0	%100
33	M67	SZ	0	0	0	%100
34	M68	SZ	0	0	0	%100
35	M69	SZ	0	0	0	%100
36	M70	SZ	0	0	0	%100
37	M71	SZ	0	0	0	%100
38	M72	SZ	0	0	0	%100
39	M73	SZ	0	0	0	%100
40	M74	SZ	0	0	0	%100
41	M75	SZ	-22.917	-22.917	0	%100
42	MP2	SZ	-21.064	-21.064	0	%100
43	M43	SZ	0	0	0	%100
44	M44	SZ	0	0	0	%100
45	H3	SZ	-19.27	-19.27	0	%100
46	MP7	SZ	-21.064	-21.064	0	%100
47	MP9	SZ	-21.064	-21.064	0	%100
48	HR3	SZ	-21.046	-21.046	0	%100
49	M52	SZ	0	0	0	%100
50	M53	SZ	0	0	0	%100
51	M54	SZ	0	0	0	%100
52	M55	SZ	0	0	0	%100
53	H2	SZ	-19.27	-19.27	0	%100
54	MP4	SZ	-21.064	-21.064	0	%100
55	MP6	SZ	-21.064	-21.064	0	%100
56	HR2	SZ	-21.046	-21.046	0	%100
57	M66A	SZ	0	0	0	%100
58	M67A	SZ	0	0	0	%100
59	M68A	SZ	0	0	0	%100
60	M69A	SZ	0	0	0	%100
61	MP8	SZ	-21.064	-21.064	0	%100
62	M68B	SZ	0	0	0	%100
63	M69B	SZ	0	0	0	%100
64	MP5	SZ	-21.064	-21.064	0	%100
65	M71B	SZ	0	0	0	%100
66	M72B	SZ	0	0	0	%100
67	M67B	SZ	0	0	0	%100
68	MP10	SZ	-21.064	-21.064	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
1	S3	SX	-16.126	-16.126	0	%100
2	GA4	SX	-21.229	-21.229	0	%100
3	GA3	SX	-21.229	-21.229	0	%100
4	P3	SX	-15.456	-15.456	0	%100
5	S2	SX	-16.126	-16.126	0	%100
6	GA2	SX	-21.229	-21.229	0	%100
7	GA1	SX	-21.229	-21.229	0	%100
8	P2	SX	-15.456	-15.456	0	%100
9	S1	SX	-16.126	-16.126	0	%100
10	GA6	SX	-21.229	-21.229	0	%100
11	GA5	SX	-21.229	-21.229	0	%100
12	P1	SX	-15.456	-15.456	0	%100
13	H1	SX	-19.27	-19.27	0	%100
14	MP1	SX	-21.064	-21.064	0	%100
15	MP3	SX	-21.064	-21.064	0	%100
16	HR1	SX	-21.046	-21.046	0	%100
17	CA8	SX	-14.646	-14.646	0	%100
18	CA9	SX	-14.646	-14.646	0	%100
19	CA7	SX	-14.646	-14.646	0	%100
20	M32	SX	0	0	0	%100
21	M35	SX	0	0	0	%100
22	M36	SX	0	0	0	%100
23	M39A	SX	0	0	0	%100
24	CA3	SX	-18.316	-18.316	0	%100
25	CA4	SX	-18.316	-18.316	0	%100
26	CA1	SX	-18.316	-18.316	0	%100
27	CA2	SX	-18.316	-18.316	0	%100
28	CA5	SX	-18.316	-18.316	0	%100
29	CA6	SX	-18.316	-18.316	0	%100
30	M64	SX	0	0	0	%100
31	M65	SX	0	0	0	%100
32	M66	SX	0	0	0	%100
33	M67	SX	0	0	0	%100
34	M68	SX	0	0	0	%100
35	M69	SX	0	0	0	%100
36	M70	SX	0	0	0	%100
37	M71	SX	0	0	0	%100
38	M72	SX	0	0	0	%100
39	M73	SX	0	0	0	%100
40	M74	SX	0	0	0	%100
41	M75	SX	-22.917	-22.917	0	%100
42	MP2	SX	-21.064	-21.064	0	%100
43	M43	SX	0	0	0	%100
44	M44	SX	0	0	0	%100
45	H3	SX	-19.27	-19.27	0	%100
46	MP7	SX	-21.064	-21.064	0	%100
47	MP9	SX	-21.064	-21.064	0	%100
48	HR3	SX	-21.046	-21.046	0	%100
49	M52	SX	0	0	0	%100
50	M53	SX	0	0	0	%100
51	M54	SX	0	0	0	%100
52	M55	SX	0	0	0	%100
53	H2	SX	-19.27	-19.27	0	%100
54	MP4	SX	-21.064	-21.064	0	%100
55	MP6	SX	-21.064	-21.064	0	%100
56	HR2	SX	-21.046	-21.046	0	%100
57	M66A	SX	0	0	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[in.%]	End Location[in.%]
58	M67A	SX	0	0	0	%100
59	M68A	SX	0	0	0	%100
60	M69A	SX	0	0	0	%100
61	MP8	SX	-21.064	-21.064	0	%100
62	M68B	SX	0	0	0	%100
63	M69B	SX	0	0	0	%100
64	MP5	SX	-21.064	-21.064	0	%100
65	M71B	SX	0	0	0	%100
66	M72B	SX	0	0	0	%100
67	M67B	SX	0	0	0	%100
68	MP10	SX	-21.064	-21.064	0	%100

Member Distributed Loads (BLC 44 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[in.%]	End Location[in.%]
1	S2	Y	-3.185	-3.185	16.404	40
2	GA2	Y	-1.605	-1.605	3.828	27.295
3	GA1	Y	-1.605	-1.605	3.828	27.295
4	S3	Y	-3.185	-3.185	16.404	40
5	GA4	Y	-1.605	-1.605	3.828	27.295
6	GA3	Y	-1.605	-1.605	3.828	27.295
7	S1	Y	-3.185	-3.185	16.404	40
8	GA6	Y	-1.605	-1.605	3.828	27.295
9	GA5	Y	-1.605	-1.605	3.828	27.295

Member Distributed Loads (BLC 45 : BLC 16 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[in.%]	End Location[in.%]
1	S2	Y	-20.022	-20.022	16.404	40
2	GA2	Y	-10.09	-10.09	3.828	27.295
3	GA1	Y	-10.09	-10.09	3.828	27.295
4	S3	Y	-20.022	-20.022	16.404	40
5	GA4	Y	-10.09	-10.09	3.828	27.295
6	GA3	Y	-10.09	-10.09	3.828	27.295
7	S1	Y	-20.022	-20.022	16.404	40
8	GA6	Y	-10.09	-10.09	3.828	27.295
9	GA5	Y	-10.09	-10.09	3.828	27.295

Member Area Loads (BLC 1 : Self Weight)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	P22	P21	P20	P23	Y	Two Way	-1.75
2	P10	P11	P12	P9	Y	Two Way	-1.75
3	P31	P34	P33	P32	Y	Two Way	-1.75

Member Area Loads (BLC 16 : Ice Weight)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	P22	P21	P20	P23	Y	Two Way	-11
2	P10	P11	P12	P9	Y	Two Way	-11
3	P31	P34	P33	P32	Y	Two Way	-11

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

	Memb...	Shape	Code Check	Loc[in]	LC	Shear C...Loc[in]	Dir	LC	phi*Pnc...	phi*Pnt...	phi*Mn y-y	phi*Mn z-z	Cb	Eqn
1	P3	PL6.5x0.375	.352	21	2	.158	36.312 y	5	3658.14	78975	616.993	7921.901	1.4...	H1-...
2	P2	PL6.5x0.375	.344	21	6	.151	36.312 y	10	3658.14	78975	616.993	7915.636	1.4...	H1-...

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

	Memb...	Shape	Code Check	Loc[in]	LC	Shear C...	Loc[in]	Dir	LC	phi*Pnc...	phi*Pnt...	phi*Mn y-y	phi*Mn z-z	Cb	Eqn
3	P1	PL6.5x0.375	.324	21	10	.161	36.312	y	2	3658.14	78975	616.993	7929.983	1.4	H1-...
4	CA4	C3.38x2.06x0....	.321	33	2	.034	4.813	z	8	47760....	56700	2202.821	5751.945	1.6	H1-...
5	CA5	C3.38x2.06x0....	.314	0	10	.036	28.187	y	28	47760....	56700	2202.821	5751.945	1.6	H1-...
6	CA3	C3.38x2.06x0....	.306	0	2	.037	28.188	y	32	47760....	56700	2202.821	5751.945	1.6	H1-...
7	CA8	L6.6x4.46x0.25	.305	41.562	22	.042	42	z	4	51170....	87561	2464.809	7125.374	1.1	H2-1
8	CA1	C3.38x2.06x0....	.304	0	6	.038	28.188	y	36	47760....	56700	2202.821	5751.945	1.6	H1-...
9	CA2	C3.38x2.06x0....	.303	33	6	.034	4.813	z	12	47760....	56700	2202.821	5751.945	1.6	H1-...
10	CA6	C3.38x2.06x0....	.298	33	10	.034	4.813	y	10	47760....	56700	2202.821	5751.945	1.6	H1-...
11	M75	PL 2.375x0.5	.298	1.5	12	.187	0	y	173	38256....	38475	400.783	1903.711	2.2	H1-...
12	CA7	L6.6x4.46x0.25	.292	41.562	3	.039	42	z	8	51170....	87561	2464.809	7125.374	1.1	H2-1
13	HR2	2.88x0.120	.291	90	3	.145	92		4	22491....	43076....	3155.674	3155.674	1.6	H1-...
14	HR3	2.88x0.120	.289	6	2	.135	92		6	22491....	43076....	3155.674	3155.674	1.8	H1-...
15	HR1	2.88x0.120	.279	6	4	.126	6		4	22491....	43076....	3155.674	3155.674	1.9	H1-...
16	S2	HSS4X4X6	.270	0	5	.112	0	y	142	188250....	197892	22045.5	22045.5	1.7	H1-...
17	CA9	L6.6x4.46x0.25	.267	41.562	6	.037	42	z	12	51170....	87561	2464.809	7125.374	1.1	H2-1
18	S3	HSS4X4X6	.263	0	13	.112	0	y	114	188250....	197892	22045.5	22045.5	1.8	H1-...
19	S1	HSS4X4X6	.243	0	9	.108	0	y	86	188250....	197892	22045.5	22045.5	1.8	H1-...
20	MP2	PIPE 2.5	.241	70	5	.086	70		5	33487....	66654	4726.5	4726.5	4.4	H1-...
21	MP5	PIPE 2.5	.238	70	7	.074	70		7	33487....	66654	4726.5	4726.5	4.6	H1-...
22	GA4	L2x2x4	.224	0	2	.016	27.295	y	9	29527....	42480	959.63	2190.068	2.2	H2-1
23	GA5	L2x2x4	.214	0	9	.019	27.295	z	2	29527....	42480	959.63	2190.068	2.1	H2-1
24	MP8	PIPE 2.5	.213	70	9	.091	70		3	33487....	66654	4726.5	4726.5	4.1	H1-...
25	GA2	L2x2x4	.207	0	12	.017	0	y	12	29527....	42480	959.63	2190.068	2.3	H2-1
26	GA1	L2x2x4	.192	0	6	.017	27.295	z	10	29527....	42480	959.63	2190.068	2.2	H2-1
27	GA6	L2x2x4	.191	0	4	.016	0	y	4	29527....	42480	959.63	2190.068	2.3	H2-1
28	GA3	L2x2x4	.191	0	7	.019	27.295	z	6	29527....	42480	959.63	2190.068	2.1	H2-1
29	MP9	PIPE 2.5	.188	70	2	.086	70		7	33487....	66654	4726.5	4726.5	3.2	H1-...
30	MP6	PIPE 2.5	.172	70	7	.093	70		6	33487....	66654	4726.5	4726.5	4.5	H1-...
31	MP1	PIPE 2.5	.169	70	11	.105	26		8	33487....	66654	4726.5	4726.5	2.6	H1-...
32	MP3	PIPE 2.5	.168	70	5	.095	70		3	33487....	66654	4726.5	4726.5	4.3	H1-...
33	MP4	PIPE 2.5	.162	70	7	.095	26		4	33487....	66654	4726.5	4726.5	1.8	H1-...
34	MP7	PIPE 2.5	.159	70	9	.085	26		6	33487....	66654	4726.5	4726.5	3.41	H1-...
35	H3	Pipe3.5x0.165	.146	31	2	.088	90		2	45873....	71580.6	6337.65	6337.65	1.9	H1-...
36	H1	Pipe3.5x0.165	.140	31	10	.080	48		4	45873....	71580.6	6337.65	6337.65	2.0	H1-...
37	H2	Pipe3.5x0.165	.139	31	6	.065	48		12	45873....	71580.6	6337.65	6337.65	1.7	H1-...
38	MP10	PIPE 2.5	.006	24	6	.001	24		6	56116....	66654	4726.5	4726.5	1.5	H1-...

Bolt Calculation Tool, V1.5.1

PROJECT DATA	
Site Name:	BOHVN00143A
Site Number:	BOHVN00143A
Connection Description:	Platform to Monopole

MAXIMUM BOLT LOADS		
Bolt Tension:	7301.04	lbs
Bolt Shear:	3886.11	lbs

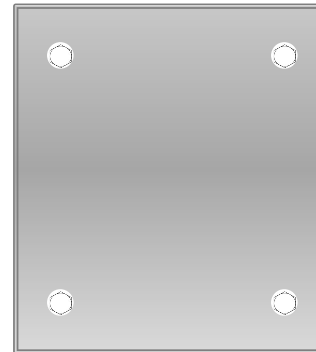
WORST CASE BOLT LOADS ¹		
Bolt Tension:	7301.04	lbs
Bolt Shear:	503.42	lbs

BOLT PROPERTIES		
Bolt Type:	Bolt	-
Bolt Diameter:	0.625	in
Bolt Grade:	A325	-
# of Bolts:	4	-
Threads Excluded?	No	-

¹ Worst case bolt loads correspond to Load combination #5 on member S2 in RISA-3D, which causes the maximum demand on the bolts.

Member Information	
I nodes of S3, S2, S1	

BOLT CHECK		
Tensile Strength	20340.15	
Shear Strength	13805.83	
Max Tensile Usage	35.9%	
Max Shear Usage	28.1%	
Interaction Check (Worst Case)	0.13	≤1.05
Result	Pass	



POWER DENSITY STUDY



EBI Consulting

environmental | engineering | due diligence

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

Dish Wireless Existing Facility

Site ID: BOHVN00143A

BOHVN00143A
297 North Street
Plymouth, Connecticut 06782

April 18, 2022

EBI Project Number: 6222004009

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	8.49%

April 18, 2022

Dish Wireless

Emissions Analysis for Site: BOHVN00143A - BOHVN00143A

EBI Consulting was directed to analyze the proposed Dish Wireless facility located at **297 North Street** in **Plymouth, Connecticut** for the purpose of determining whether the emissions from the Proposed Dish Wireless Antenna Installation located on this property are within specified federal limits.

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

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

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately $400 \mu\text{W}/\text{cm}^2$ and $467 \mu\text{W}/\text{cm}^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.



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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed Dish Wireless Wireless antenna facility located at 297 North Street in Plymouth, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since Dish Wireless is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 4 n71 channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 4 n70 channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 3) 4 n66 channels (AWS Band - 2190 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 5) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative



estimate as gain reductions for these particular antennas are typically much higher in this direction.

- 6) The antennas used in this modeling are the JMA MX08FRO665-21 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector A, the JMA MX08FRO665-21 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector B, the JMA MX08FRO665-21 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, 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.
- 7) The antenna mounting height centerline of the proposed antennas is 130 feet above ground level (AGL).
- 8) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 9) All calculations were done with respect to uncontrolled / general population threshold limits.



Dish Wireless Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	I	Antenna #:	I	Antenna #:	I
Make / Model:	JMA MX08FRO665-21	Make / Model:	JMA MX08FRO665-21	Make / Model:	JMA MX08FRO665-21
Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz	Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz	Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz
Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd	Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd	Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd
Height (AGL):	130 feet	Height (AGL):	130 feet	Height (AGL):	130 feet
Channel Count:	12	Channel Count:	12	Channel Count:	12
Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts
ERP (W):	5,236.31	ERP (W):	5,236.31	ERP (W):	5,236.31
Antenna AI MPE %:	1.54%	Antenna BI MPE %:	1.54%	Antenna CI MPE %:	1.54%

Site Composite MPE %	
Carrier	MPE %
Dish Wireless (Max at Sector A):	1.54%
Voicestream	0.13%
Sprint	0%
Verizon	6.82%
Site Total MPE % :	8.49%

Dish Wireless MPE % Per Sector	
Dish Wireless Sector A Total:	1.54%
Dish Wireless Sector B Total:	1.54%
Dish Wireless Sector C Total:	1.54%
Site Total MPE % :	8.49%

Dish Wireless Maximum MPE Power Values (Sector A)

Dish Wireless Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
Dish Wireless 600 MHz n71	4	223.68	130.0	2.09	600 MHz n71	400	0.52%
Dish Wireless 1900 MHz n70	4	542.70	130.0	5.08	1900 MHz n70	1000	0.51%
Dish Wireless 2190 MHz n66	4	542.70	130.0	5.08	2190 MHz n66	1000	0.51%
Total:							1.54%

• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.



Summary

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

The anticipated maximum composite contributions from the Dish Wireless 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 Wireless Sector	Power Density Value (%)
Sector A:	1.54%
Sector B:	1.54%
Sector C:	1.54%
Dish Wireless Maximum MPE % (Sector A):	1.54%
Site Total:	8.49%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **8.49%** 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.

UNDERLYING PROPERTY INFORMATION

Town of Plymouth



Town of Plymouth, CT

Property Listing Report

Map Block Lot

017-014-014C

Building #

Unique Identifier

00074400

Property Information

Property Location	295 NORTH ST
Mailing Address	297 NORTH ST PLYMOUTH CT 06782
Land Use	Commercial Vacant Land
Zoning Code	R-40
Neighborhood	101

Owner	BART FRANCIS A ETAL
Co-Owner	
Book / Page	0163/1120
Land Class	Vacant Land
Census Tract	4253
Acreage	35.93

Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	0	0
Outbuildings	17500	12250
Land	206700	9660
Total	224200	21910

Utility Information

Electric	No
Gas	No
Sewer	No
Public Water	No
Well	Yes



Primary Construction Details

Year Built	
Building Desc.	
Building Style	
Stories	
Exterior Walls	
Exterior Walls 2	
Interior Walls	
Interior Walls 2	
Interior Floors 1	
Interior Floors 2	

Heating Fuel	
Heating Type	
AC Type	
Bedrooms	
Full Bathrooms	
Half Bathrooms	
Extra Fixtures	
Total Rooms	
Bath Style	
Kitchen Style	
Occupancy	

Building Use	
Building Condition	
Frame Type	
Fireplaces	
Bsmt Gar	
Fin Bsmt Area	
Fin Bsmt Quality	
Building Grade	
Roof Style	
Roof Cover	

Report Created On

4/26/2022

Town of Plymouth, CT

Property Listing Report

Map Block Lot

017-014-014C

Building #

Unique Identifier

00074400

Detached Outbuildings

Type	Description	Area (sq ft)	Condition	Year Built
Shed	Frame	300	Average	1983
Shed	Frame	260	Average	2000
Barn	Dairy Barn	1728	Average	1983
Shed	Frame	200	Average	2000

Attached Extra Features

Type	Description	Area (sq ft)	Condition	Year Built

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
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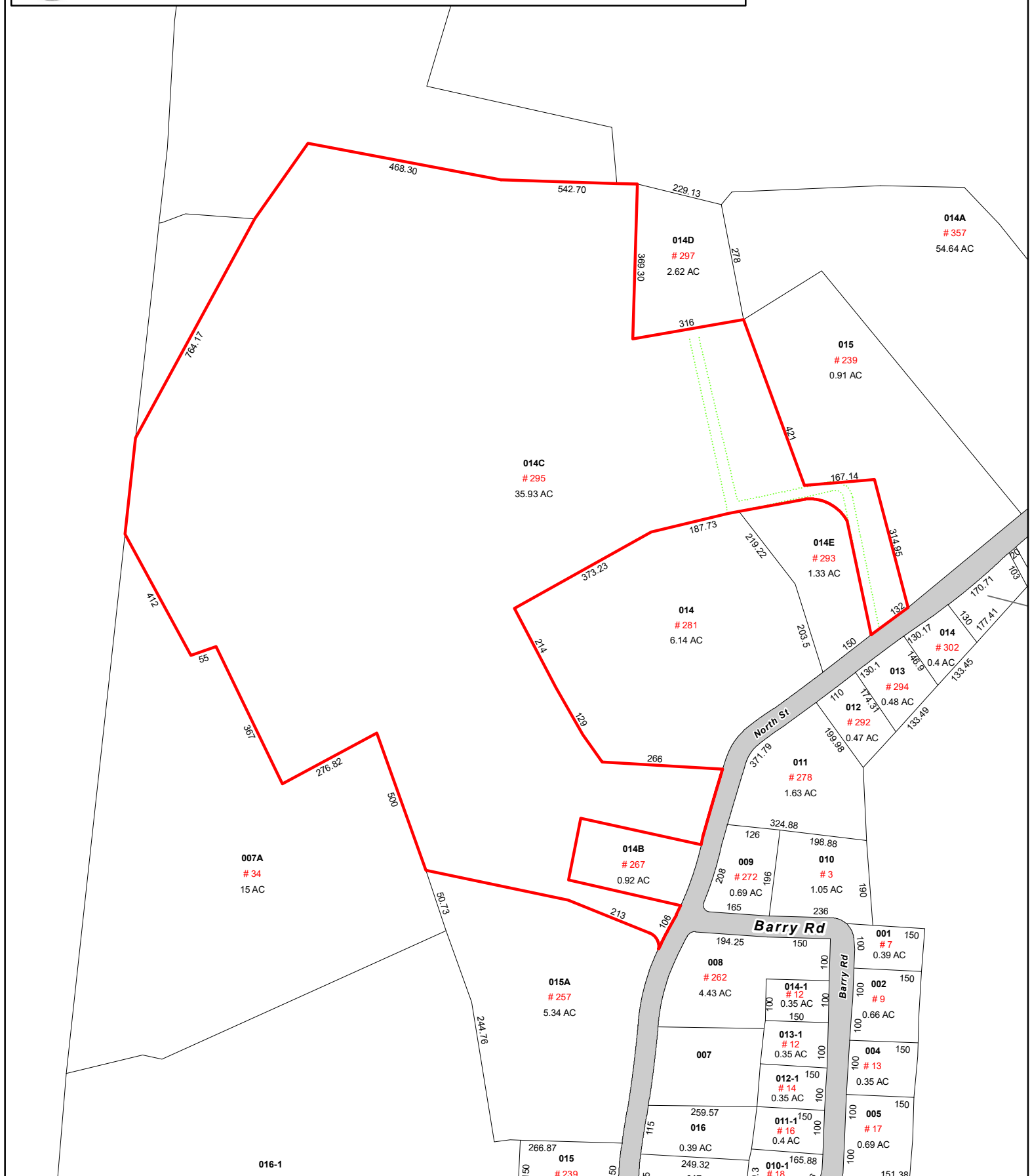


Town of Plymouth, Connecticut. Assessment Parcel Map

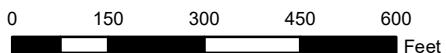
GIS Link 017-014-014C

Address: 295 NORTH ST

013A
395
1.34 AC



1 inch = 300 feet



Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Plymouth and its mapping contractors assume no legal responsibility for the information contained herein.

Map Produced: October 2020

NOTIFICATIONS



July 13, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 777327156412

Delivery Information:

Status:	Delivered	Delivered To:	Residence
Signed for by:	Signature not required	Delivery Location:	297 NORTH ST
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday; Residential Delivery		PLYMOUTH, CT, 06782
		Delivery date:	Jul 11, 2022 13:44

Shipping Information:

Tracking number:	777327156412	Ship Date:	Jul 7, 2022
		Weight:	2.0 LB/0.91 KG

Recipient:
Bart Francis,
C/O Ray Lagosz
297 North Street
PLYMOUTH, CT, US, 06782

Shipper:
Margie Weber,
1777 Sentry Parkway W
VEVA 17, Suite 400
BLUE BELL, PA, US, 19422

Reference	100814
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Thank you for choosing FedEx



July 13, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 777327097821

Delivery Information:			
Status:	Delivered	Delivered To:	Receptionist/Front Desk
Signed for by:	S.URBANSKI	Delivery Location:	80 MAIN ST
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday		TERRYVILLE, CT, 06786
		Delivery date:	Jul 11, 2022 10:57
Shipping Information:			
Tracking number:	777327097821	Ship Date:	Jul 7, 2022
		Weight:	2.0 LB/0.91 KG
Recipient:	Shipper:		
Joseph T. Kilduff - Mayor,	Margie Weber,		
80 Main Street	1777 Sentry Parkway W		
TERRYVILLE, CT, US, 06786	VEVA 17, Suite 400		
	BLUE BELL, PA, US, 19422		
Reference	100814		



Thank you for choosing FedEx



July 13, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 777327128103

Delivery Information:			
Status:	Delivered	Delivered To:	Receptionist/Front Desk
Signed for by:	S.URBANSKI	Delivery Location:	80 MAIN ST
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday		TERRYVILLE, CT, 06786
		Delivery date:	Jul 11, 2022 10:57
Shipping Information:			
Tracking number:	777327128103	Ship Date:	Jul 7, 2022
		Weight:	2.0 LB/0.91 KG
Recipient:	Shipper:		
Clarence B. Atkinson,	Margie Weber,		
Building Official	1777 Sentry Parkway W		
80 Main Street	VEVA 17, Suite 400		
TERRYVILLE, CT, US, 06786	BLUE BELL, PA, US, 19422		
Reference	100814		



Thank you for choosing FedEx