



HPC Wireless Services
22 Shelter Rock Lane.
Building C
Danbury, CT, 06810
P.: 203.797.1112

June 30, 2014

VIA UPS

Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051
Attn: Melanie Bachman, Acting Executive Director

Re: American Tower Corporation and New Cingular Wireless PCS, LLC
Petition for Declaratory Ruling – Expansion of Lease Parcel and Compound
668 Jones Hill Road, West Haven, Connecticut

Dear Ms. Bachman:

Submitted herewith on behalf of American Tower Corporation and New Cingular Wireless PCS, LLC ("Petitioners") is a Petition for Declaratory Ruling that No Amendment to the Certificate of Environmental Compatibility and Public Need Is Required for Expansion of the Existing Tower Site in West Haven, Connecticut (coordinates 41°15'22.91" N, -72°58'20.68" W). Petitioners' request is made in order to accommodate additional collocation at the site by making ground equipment space available.

Notice is being provided to the underlying property owner and to property owners whose properties abut the Facility host property. Attached is a list of those properties; a map depicting the location of the properties is included in the drawings produced by Hudson Design Group and included with the Petition.

I can be reached at (860) 798-7454 or by e-mail at jgaudet@hpcwireless.com with any questions concerning this matter. Thank you for your consideration.

Respectfully yours,

A handwritten signature in black ink that reads "Jennifer Young Gaudet". The signature is written in a cursive, flowing style.

Jennifer Young Gaudet

Attachments

Boston

Atlanta

Baltimore

Chicago

Philadelphia

Raleigh

Atlanta

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

PETITION OF AMERICAN TOWER	)	PETITION NO. ____
CORPORATION AND NEW CINGULAR	)	
WIRELESS PCS, LLC FOR A DECLARATORY	)	
RULING THAT NO AMENDMENT TO THE	)	
CERTIFICATE OF ENVIRONMENTAL	)	
COMPATIBILITY AND PUBLIC NEED IS	)	
REQUIRED FOR EXPANSION OF THE EXISTING	)	
TOWER SITE IN WEST HAVEN, CONNECTICUT	)	JUNE 30, 2014

**PETITION FOR DECLARATORY RULING
EXPANSION OF LEASE PARCEL AND COMPOUND
668 JONES HILL ROAD, WEST HAVEN**

I. Introduction

American Tower Corporation ("ATC") and New Cingular Wireless PCS, LLC ("AT&T") (together the "Petitioners") hereby petition the Connecticut Siting Council ("Council"), pursuant to Sections 16-50j-38 and 16-50j-39 of the Regulations of Connecticut State Agencies ("R.C.S.A."), for a declaratory ruling that an amendment to the Certificate of Environmental Compatibility and Public Need ("Certificate") issued to Omnipoint Communications, Inc. ("Omnipoint") and subsequently transferred to ATC is not required under the provisions of Connecticut General Statutes ("C.G.S.") Section 16-50k to increase the size of the lease parcel on which the tower site is located and to expand the compound. The Petitioners propose to do so in order to allow AT&T to collocate on the existing tower.

II. Background

On May 11, 2005, in Docket No. 293, the Council issued a Certificate for a Facility at 668 Jones Hill Road, West Haven. The approved Facility consists of an approximately 150'

tower and associated compound and access way, with a 50' x 50' lease parcel on property owned by Robert E. Newkirk.

Since the Council's approval of the Facility in 2005, ATC has acquired the Facility from Omnipoint. ATC and Mr. Newkirk have memorialized a 70' x 70' lease parcel in order to ensure room for additional collocation and space surrounding the compound.

III. Proposed Modification

AT&T desires to collocate at the West Haven Facility in order to improve its service in the West Haven area, and AT&T and ATC have entered into an agreement providing for that installation. AT&T plans to install twelve panel antennas, four surge arrestors and 15 RRHs on a low-profile platform with the antenna centerline at approximately 125' on the approximately 149' tower. Associated DC, fiber and hybrid cables will be run inside the tower. There will no increase to the height of the tower. In order to accommodate the increased load resulting from the AT&T installation, the tower and foundation will be reinforced in accordance with the attached American Tower Corporation drawings dated June 16, 2014.

AT&T's associated equipment will be located in an equipment shelter, 11'5" x 16'; a generator will be installed on an 8' concrete patio adjacent to the shelter. The existing fenced compound does not have sufficient space for the proposed installation. Therefore, AT&T's equipment is to be located to the northwest of the existing fenced area; the existing fence on that side of the compound will be removed and an additional 16' x 49' compound area will be created as an extension of the existing compound. Evergreen screening is planned around the extended area.

IV. The Proposed Modification Should Be Approved.

At the time of Docket 293, the applicant Omnipoint acquired a 50' x 50' lease area and designed the compound accordingly. Since development of the Facility, the 50' x 50' lease area has sufficed. At this time, in order to accommodate additional collocation, additional ground space is required.

The environmental effects of utilizing a 70' x 70' lease parcel and expanding the compound as shown on the attached drawings by Hudson Design Group will be minimal. There are no environmental effects different from those identified and analyzed in Docket 293. Appropriate erosion and sedimentation controls will be utilized during construction.

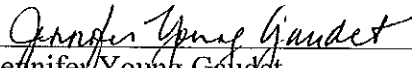
AT&T's changes to the facility will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site. As indicated on the attached report prepared by C Squared Systems, LLC, AT&T's operations at the site will result in a power density of approximately 4.30%; the combined site operations will result in a total power density of approximately 41.25%.

V. Conclusion

The proposed expansion of the ground space at the Facility will allow for use the site by AT&T, consistent with the goal of encouraging collocation on existing facilities. The environmental effects of the proposed expansion are negligible, and do not outweigh the benefit of the proposed collocation. Accordingly, the Petitioners respectfully request that the Council issue a ruling authorizing the proposed expansion of the Facility ground space without the need for an amended Certificate of Environmental Compatibility and Public Need.

Respectfully submitted,

AMERICAN TOWER CORPORATION and
NEW CINGULAR WIRELESS PCS, LLC

By 
Jennifer Young Gaudet

cc: Honorable Edward M. O'Brien, Mayor, City of West Haven
Mr. Robert E. Newkirk, underlying property owner
Blake Paynter, ATC
Michele Briggs, AT&T
Kevin Mason, AT&T

Map/Block/Lot

Location

Owner Name

Address City State Zip

13-165-0

SHINGLE HILL ESTATES LLC

116 RICHARD STREET

WEST HAVEN CT 06516

14-5-0

OUR LADY OF VICTORY CHURCH

600 JONES HILL ROAD

WEST HAVEN CT 06516

14-6-0

VALALIK HENRY

662 JONES HILL ROAD

WEST HAVEN CT 06516

14-19-0

DEMORRO RICHARD & DIANE

108 PARKER AVENUE EAST

WEST HAVEN CT 06516

14-20-0

LABONIA ANN N

110 PARKER AVENUE EAST

WEST HAVEN CT 06516

14-21-0

MADDINE GARY & TEESHA

112 PARKER AVENUE EAST

WEST HAVEN CT 06516

14-23-0

KHU ELAINE K & SLOANE MARK
659 JONES HILL ROAD
WEST HAVEN CT 06516

19-6-0

DWYER FRANCES ELLEN
40 SHINGLE HILL ROAD
WEST HAVEN CT 06516

19-8-0

LAMPTEY THERESA
150 SHINGLE HILL ROAD
WEST HAVEN CT 06516

19-9-0

MONGILLO ANDREW C & SIMPSON
160 SHINGLE HILL ROAD
WEST HAVEN CT 06516

19-10-0

BORRAS VICTOR M & LINDA M
170 SHINGLE HILL ROAD
WEST HAVEN CT 06516

19-11-0

PECO BRANDON & NICHOL
180 SHINGLE HILL ROAD
WEST HAVEN CT 06516

19-12-0

KING PHILIP T II & LAURIE A
190 SHINGLE HILL ROAD
WEST HAVEN CT 06516

19-13-0

STANLEY IVOREE & CARRIE

200 SHINGLE HILL ROAD

WEST HAVEN CT 06516

19-14-0

TERRYN TEDDY & MARY

210 SHINGLE HILL ROAD

WEST HAVEN CT 06516

19-15-0

CARONE MARY E

220 SHINGLE HILL ROAD

WEST HAVEN CT 06516

19-18-0

TUTTLE BRIAN J & DONNA M

227 SHINGLE HILL ROAD

WEST HAVEN CT 06516

19-19-0

GUARNERI CARLA & ANGELA R

215 SHINGLE HILL ROAD

WEST HAVEN CT 06516

019-0001-0-0001
TRIPP CAROLYN A
690 JONES HILL RD #28
WEST HAVEN CT 06516

019-0001-0-0004
DECHAMPS ROBERT & DAWN & SV
690 JONES HILL RD #44
WESTHAVEN CT 06516

019-0001-0-0008
DINI GEORGIANA L
690 JONES HILL RD #06
WEST HAVEN CT 06516

019-0001-0-0016
BOTELHO KATHRYN
690 JONES HILL RD #07
WEST HAVEN CT 06516

019-0001-0-0020
DECHAMPS DAWN
690 JONES HILL RD #05
WEST HAVEN CT 06516

019-0001-0-0026
MCCREADY JOHN C & DAWN E
690 JONES HILL RD #9
WEST HAVEN CT 06516

019-0001-0-0029
NEWKIRK JUDITH E
690 JONES HILL #46
WESTHAVEN CT 06516

019-0001-0-0032
CALABRITTO GERALD
690 JONES HILL RD #17
WEST HAVEN CT 06516

019-0001-0-0036
PELUSO RACHEL & SMITH FELICIA
690 JONES HILL #21
WEST HAVEN CT 06516

019-0001-0-0042
BURGESS OKEY
690 JONES HILL RD #34
WEST HAVEN CT 06516

019-0001-0-0002
ROGERS CHARLES G
690 JONES HILL RD #20
WEST HAVEN CT 06516

019-0001-0-0005
DIAS HELEN
690 JONES HILL RD #24
WEST HAVEN CT 06516

019-0001-0-0011
NEWKIRK JUDITH E
690 JONES HILL RD
WESTHAVEN CT 06516

019-0001-0-0017
NEWKIRK ROBERT R & FRANCIS & SV
690 JONES HILL RD #02
WEST HAVEN CT 06516

019-0001-0-0022
RUOTOLO WILLIAM & FRANCES
690 JONES HILL RD
WEST HAVEN CT 06516

019-0001-0-0027
PORTER JOSEPH & LOUISE
690 JONES HILL #36
WEST HAVEN CT 06516

019-0001-0-0030
TUFANO DOMINIC
690 JONES HILL RD
WEST HAVEN CT 06516

019-0001-0-0033
MANTEGNA MICHELE LEE & PAUL
690 JONES HILL RD 30
WEST HAVEN CT 06516

019-0001-0-0040
SPALTRO PAT
690 JONES HILL RD #4
WEST HAVEN CT 06516

019-0001-0-0045
LAJOIE FRANCIS
690 JONES HILL #45
WEST HAVEN CT 06516

019-0001-0-0003
SULLIVAN JACQUELINE
690 JONES HILL #11
WEST HAVEN CT 06516

019-0001-0-0006
MILLER JAY R II
690 JONES HILL RD #35
WEST HAVEN CT 06516

019-0001-0-0018
TOMPKINS PAMELA
690 JONES HILL #18
WESTHAVEN CT 06516

019-0001-0-0019
ARESCO JANET
690 JONES HILL RD #25
WEST HAVEN CT 06516

019-0001-0-0023
THOMPSON DONALD & RITA & SV
690 JONES HILL RD
WEST HAVEN CT 06516

019-0001-0-0028
FLORIO STEVEN
690 JONES HILL #29
WEST HAVEN CT 06516

019-0001-0-0031
MCCOY KIM
690 JONES HILL RD 31
WEST HAVEN CT 06516

019-0001-0-0035
BLAKESLEE LUCILLE
690 JONES HILL # 22
WEST HAVEN CT 06516

019-0001-0-0041
CONROY MARTIN
28 CEDAR ST
BRANFORD CT 06405

019-0001-0-0100
GLAZIER CHARLES A & EDNA M
690 JONES HILL RD #3
WEST HAVEN CT 06516

019-0001-0-0012
HOFSCHILD JOYCE M
690 JONES HILL RD #8
WEST HAVEN CT 06516

019-0001-0-0025
WAXMAN LARRY
690 JONES HILL RD #10
WEST HAVEN CT 06516

019-0001-0-0007
KONITSHEK MARY E
690 JONES HILL RD # 14
WEST HAVEN CT 06516

019-0001-0-0024
MALONE MELODY
690 JONES HILL RD #42
WEST HAVEN CT 06516

019-0001-0-0014
STEINMITZ KATHERINE
690 JONES HILL #12
WEST HAVEN CT 06516

019-0001-0-0009
MCCREADY LEONARD D &
690 JONES HILL RD #40
WEST HAVEN CT 06516

019-0001-0-0021
MCMANUS LISA
690 JONES HILL RD # 15
WEST HAVEN CT 06516

019-0001-0-0010
NEWKIRK ROBERT R
690 JONES HILL RD #16
WEST HAVEN CT 06516

019-0001-0-0034
NORKO KATHLEEN A
690 JONES HILL #32
WEST HAVEN CT 06516

019-0001-0-0015
SALDIBAR PAUL & ROSE MARIE
690 JONES HILL RD #43
WEST HAVEN CT 06516

019-0001-0-000A-C
AMERICAN TOWERS INC.
PO BOX 723597
ATLANTA GA 31139



HPC Wireless Services
22 Shelter Rock Lane.
Building C
Danbury, CT, 06810
P.: 203.797.1112

June 30, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

To: Owners of Property That Abuts 668 Jones Hill Road

Re: American Tower Corporation and New Cingular Wireless PCS, LLC
Petition for Declaratory Ruling – Expansion of Lease Parcel and Compound
668 Jones Hill Road, West Haven, Connecticut

American Tower Corporation ("ATC") is the owner of the tower site located on property owned by Robert E. Newkirk at 668 Jones Hill Road, West Haven. New Cingular Wireless PCS, LLC ("AT&T") seeks to install antennas and related items on the tower and to locate its electronic equipment and a generator on ground at the tower base. Together, ATC and AT&T are requesting approval from the Connecticut Siting Council to expand the tower site in order to accommodate AT&T's equipment and allow for collocation in accordance with the public policy encouraging shared use of existing towers.

You are receiving this letter because your property abuts the parcel on which the existing tower facility is located. I can be reached at 860 798-7454 with any questions you may have. You may also contact the Connecticut Siting Council at 860 827-2935.

Sincerely,


Jennifer Young Gaudet for
American Tower Corporation and
New Cingular Wireless PCS, LLC



ATC SITE NAME: WEST HAVEN & RT 162 CT
ATC SITE #: 243036

S2899
WEST HAVEN JONES HILL

668 JONES HILL ROAD

WEST HAVEN, CT 06516

SITE TYPE: CO-LOCATION ON EXISTING MONOPOLE



550 COCHITUATE ROAD
FRAMINGHAM, MA 01701



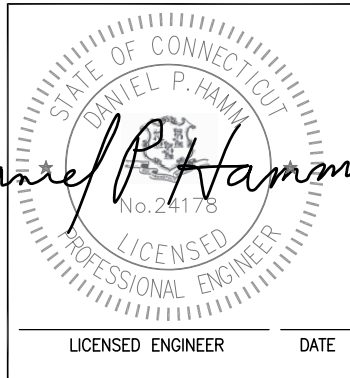
AMERICAN TOWER
CORPORATION

116 HUNTINGTON AVE. 11TH FLOOR
BOSTON, MA 02116



1600 OSGOOD STREET
BLD 20 N. SUITE 3090
N. ANDOVER, MA 01845

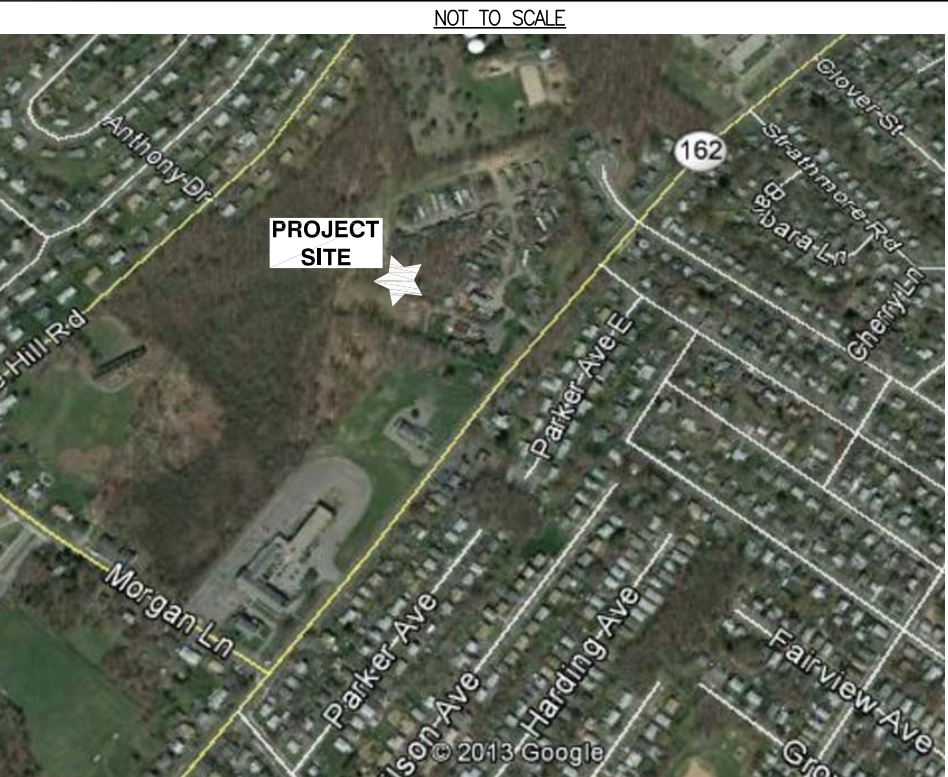
TEL: (978)-557-5553
FAX: (978)-336-5586



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VICINITY MAP



DRIVING DIRECTIONS

DIRECTIONS TO SITE:
START OUT GOING WEST ON COCHITUATE RD/RT-30 W TOWARD BURR ST. CONTINUE TO FOLLOW RT-30 W. 2.1 MI. STAY STRAIGHT TO GO ONTO RT-9 W/WORCESTER RD. 2.4 MI. MERGE ONTO I-90 W/MASSACHUSETTSTURNPIKE/MASS PIKE TOWARD SPRINGFIELD/WORCESTER (PORTIONS TOLL). 33.5 MI. MERGE ONTO I-84 W VIA EXIT 9 TOWARD US-20/HARTFORD/NEW YORK CITY (PORTIONS TOLL) (CROSSING INTO CONNECTICUT). 41.7 MI. MERGE ONTO CT-15 S VIA EXIT 57 ON THE LEFT TOWARD I-91 S/CHARTER OAK BR/N.Y. CITY.1.9 MI. MERGE ONTO I-91 S VIA EXIT 86 TOWARD NEW HAVEN/N.Y. CITY. 36.6 MI. MERGE ONTO I-95 S/GOVERNOR JOHN DAVIS LODGE TURNPIKE VIA THE EXIT ON THE LEFT TOWARD N.Y. CITY. 4.1 MI. TAKE THE CT-162/SAW MILL RD EXIT, EXIT 42. 0.2 MI. TURN RIGHT ONTO SAWMILL RD/CT-162. CONTINUE TO FOLLOW CT-162. 1.0 MI. TURN RIGHT ONTO MAIN ST/CT-162. CONTINUE TO FOLLOW CT-162. 0.8 MI. TURN SLIGHT RIGHT ONTO PLATT AVE/CT-162. CONTINUE TO FOLLOW CT-162. 0.5 MI. 668 JONES HILL RD IS ON THE RIGHT.

PROJECT DESCRIPTION

1. THIS IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT SITE AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNALS FOR THE PURPOSE OF PROVIDING PUBLIC
2. CELLULAR SERVICE.
3. THIS FACILITY WILL CONSUME NO UNRECOVERABLE ENERGY.
4. NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.
5. NO WASTE WATER WILL BE GENERATED AT THIS LOCATION.
6. NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.
7. AT&T MAINTENANCE CREW (TYPICALLY ONE PERSON) WILL MAKE AN AVERAGE OF ONE TRIP PER MONTH AT ONE HOUR PER VISIT.

DO NOT SCALE DRAWINGS

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

UNDERGROUND SERVICE ALERT

3 WORKING DAYS



BEFORE YOU DIG



CALL TOLL FREE 1-800-922-4455

APPROVALS:

ATC CM: _____

AT&T CM: _____

ATC RF: _____

AT&T RF: _____

PROJECT INFORMATION:

PROPERTY OWNER: AMERICAN TOWER CORPORATION
116 HUNTINGTON AVE.
BOSTON, MA 02116

APPLICANT: ATC FOR NEW CINGULAR
WIRELESS PCS, LLC (AT&T)
116 HUNTINGTON AVE.
BOSTON, MA 02116

SITE ADDRESS: 668 JONES HILL ROAD
WEST HAVEN, CT 06516

COUNTY: NEW HAVEN

LATITUDE: N 41°15'23.04"

LONGITUDE: W 72°58'20.49"

ZONING CLASSIFICATION: R1- RESIDENTIAL DISTRICT

ZONING JURISDICTION: CITY OF WEST HAVEN

PARCEL ID: MAP: 19 BLOCK: 1A

ARCHITECT / ENGINEER: HUDSON DESIGN GROUP LLC
1600 OSGOOD STREET
BUILDING 20 NORTH, SUITE 3090
N. ANDOVER, MA 01845

REVISIONS

REV. #	DATE	DESCRIPTION
1	06/25/14	ISSUED FOR CONSTRUCTION
A	10/15/13	ISSUED FOR REVIEW

PROJECT NO.	DESIGNED BY:	SCALE:
S2899	AT SG DPH	AS SHOWN

SITE NAME:
ATC SITE NAME: WEST
HAVEN & RT 162 CT
ATC SITE #: 243036
S2899
WEST HAVEN JONES HILL

SITE ADDRESS:
668 JONES HILL ROAD
WEST HAVEN, CT 06516

SHEET TITLE:
TITLE SHEET

SHEET NO:
T-1

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. 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.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. 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.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWS COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE 1/2" OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF PREPARING A CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR - AMERICAN TOWER
SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
OWNER - AT&T MOBILITY
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR 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.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.

15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 ($F_y = 36$ ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E ($F_y = 36$ ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.

16. CONSTRUCTION SHALL COMPLY WITH UMTS SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES."

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

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

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

20. APPLICABLE BUILDING CODES:
SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL,
STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING
JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED
CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD
SHALL GOVERN THE DESIGN.
BUILDING CODE: 2003 IBC WITH 2005 CT SUPPLEMENT & 2009 CT
AMENDMENTS
ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS
LIGHTNING CODE: REFER TO ELECTRICAL DRAWINGS

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE
REQUIREMENTS FOR STRUCTURAL CONCRETE;

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F,
STRUCTURAL STANDARDS FOR STEEL

ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG	AMERICAN WIRE GAUGE	MGB	MASTER GROUND BUS		
BCW	BARE COPPER WIRE	MIN	MINIMUM	TBD	TO BE DETERMINED
BTS	BASE TRANSCEIVER STATION	PROPOSED	NEW	TBR	TO BE REMOVED
EXISTING	EXISTING	N.T.S.	NOT TO SCALE	TBRR	TO BE REMOVED AND REPLACED
EG	EQUIPMENT GROUND	REF	REFERENCE		
EGR	EQUIPMENT GROUND RING	REQ	REQUIRED	TYP	TYPICAL



550 COCHITUATE ROAD
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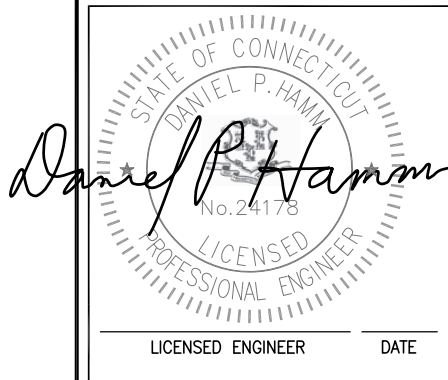


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1600 OSGOOD STREET
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TEL: (978)-557-5553
FAX: (978)-336-5586



REVISIONS

1	06/25/14	ISSUED FOR CONSTRUCTION
A	10/15/13	ISSUED FOR REVIEW
REV. #	DATE	DESCRIPTION

PROJECT NO. S2899	DESIGNED BY: AT	SCALE: AS SHOWN
	DRAWN BY: SG	
	CHECKED BY: DPH	

SITE NAME:

ATC SITE NAME: WEST
HAVEN & RT 162 CT
ATC SITE #: 243036
S2899
WEST HAVEN JONES HILL

SITE ADDRESS:

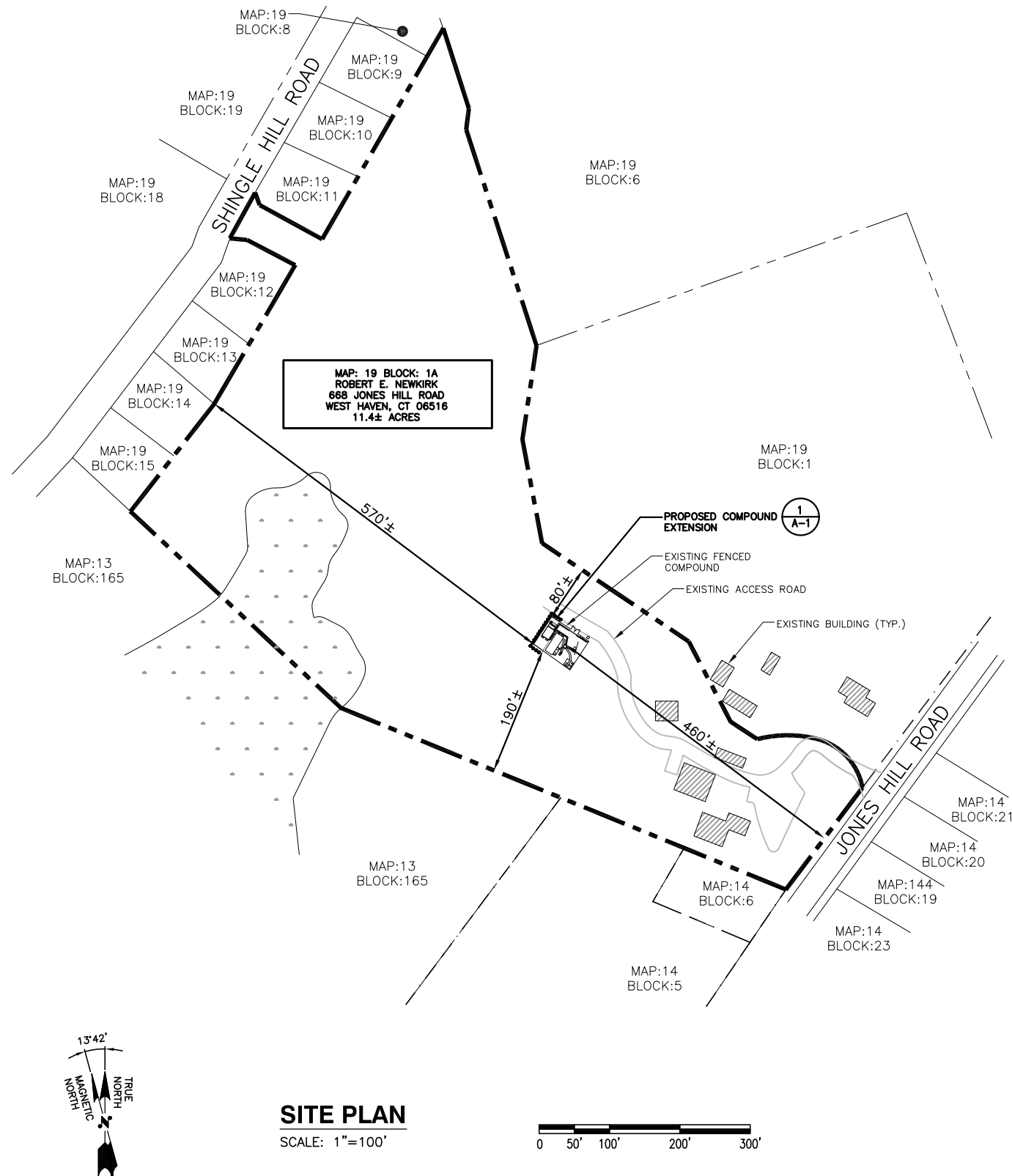
668 JONES HILL ROAD
WEST HAVEN, CT 06516

SHEET TITLE:

GENERAL NOTES

SHEET NO:

GN-1



ZONING INFORMATION		
ZONING DISTRICT: R-1 RESIDENTIAL DISTRICT		
DIMENSION REQUIREMENTS:	REQUIRED	PROPOSED
EQUIPMENT SETBACKS:		
FRONT YARD SETBACK:	35'	460'±
SIDE YARD SETBACK:	20'	80'± & 190'±
REAR YARD SETBACK:	35'	570'±

HANDICAP REQUIREMENTS

FACILITY IS UNMANNED & NOT FOR HUMAN HABITATION.
HANDICAPPED ACCESS REQUIREMENTS NOT REQUIRED.

GENERAL NOTES:

1. PROPERTY LINE INFORMATION (WHEN APPLICABLE) WAS PREPARED USING TAX MAPS, AND PLANS OF RECORD AND SHOULD NOT BE CONSTRUCTED AS A BOUNDARY SURVEY.
2. NO NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
3. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (THERE IS NO HANDICAP ACCESS REQUIRED).
4. THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
5. CONNECTION TO ELECTRICAL & TELEPHONE UTILITIES TO BE DETERMINED BY THE APPROPRIATE UTILITY COMPANY.
6. SUBCONTRACTOR TO VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEER PRIOR TO INSTALLATION. SEE ANTENNA CONFIGURATION SHEETS FOR SITE SPECIFIC DETAILS.
7. SUBCONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
8. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION.
9. THERE ARE NO TOPOGRAPHIC CHANGES BEING PROPOSED UNDER THE CURRENT APPLICATION.
10. THE MAXIMUM AREA OF DISTURBANCE IS LESS THAN 1 ACRE. THE PROJECT IMPACT AREA IS BELOW THE EXEMPTION THRESHOLD OF 43,560 SQUARE FEET IN 40 CFR PARTS 9, 122-124 AND THEREFORE IS NOT SUBJECT TO REGULATION UNDER THE EPA OR STATE-MANAGED NPDES GENERAL CONSTRUCTION PERMIT PROGRAM. THE PROJECT OWNER'S GENERAL CONTRACTOR SHALL CONDUCT ALL SITE DEVELOPMENT IN ACCORDANCE WITH THE "LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL" ISSUED BY THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION. ADDITIONALLY, THE PROJECT OWNERS GENERAL CONTRACTOR SHALL CONDUCT ALL CONSTRUCTION ACTIVITIES IN A MANNER THAT DOES NOT RESULT IN STORM WATER DISCHARGES WITH AN ADVERSE IMPACT ON ANY STORM WATER COLLECTION/CONVEYANCE SYSTEM, WETLAND, WATER BODY, OR OTHER WATER RESOURCE AREAS.

LEGEND	
-----	PROPERTY LINE-SUBJECT PARCEL
-----	PROPERTY LINE-ABUTTERS
-----	TOWN BOUNDARY LINE
	(E) SUBJECT BUILDING
XXX-XXX-XXX	ASSESSORS MAP-BLOCK-LOT NO.

NOTE:
SITE PLAN PREPARED BY HUDSON DESIGN GROUP, LLC FROM CITY OF WEST HAVEN, CT. ASSESSORS DATA AND OTHER SOURCES AND DOES NOT REPRESENT AN ACTUAL FIELD OR BOUNDARY SURVEY.



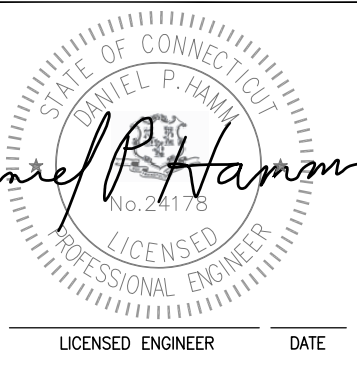
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701



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BOSTON, MA 02116



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N. ANDOVER, MA 01845
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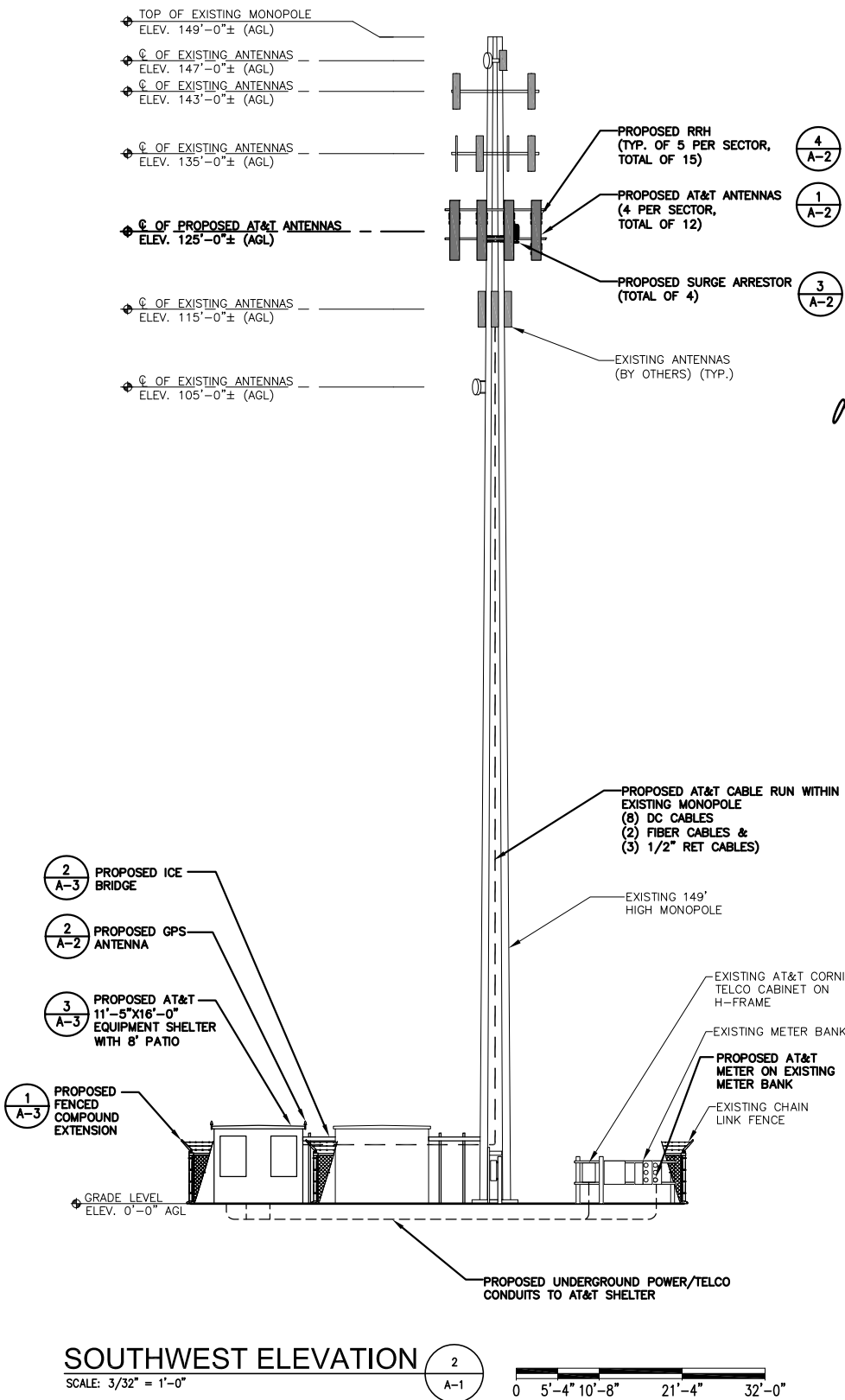
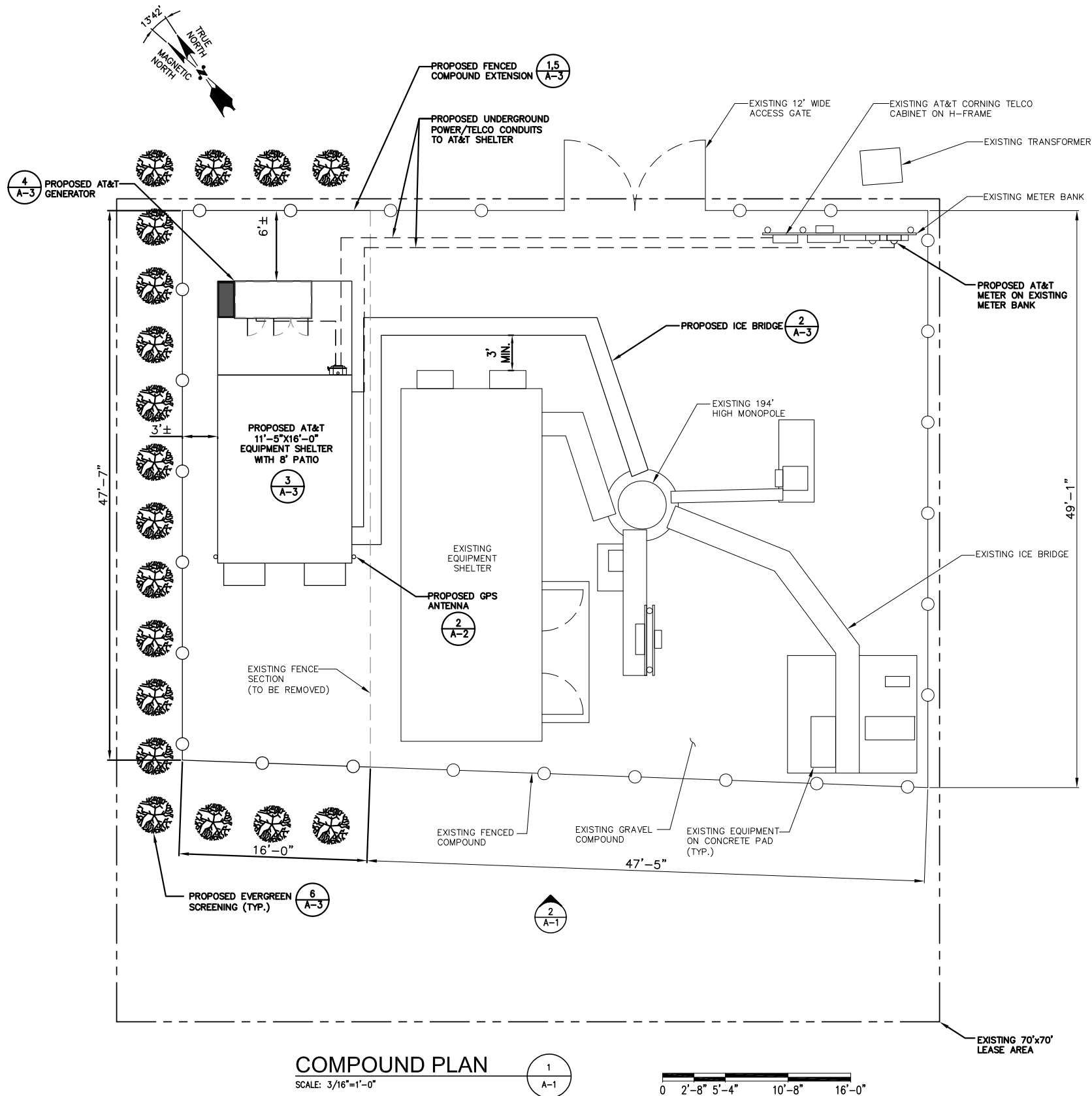
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1	06/25/14	ISSUED FOR CONSTRUCTION
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REV. #	DATE	DESCRIPTION
PROJECT NO.	DESIGNED BY: AT	SCALE:
S2899	DRAWN BY: SG	AS SHOWN
	CHECKED BY: DPH	

SITE NAME:
ATC SITE NAME: WEST HAVEN & RT 162 CT
ATC SITE #: 243036
S2899
WEST HAVEN JONES HILL

SITE ADDRESS:
668 JONES HILL ROAD
WEST HAVEN, CT 06516

SHEET TITLE:
SITE PLAN

SHEET NO:
C-1



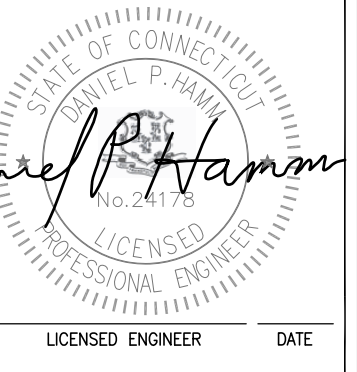
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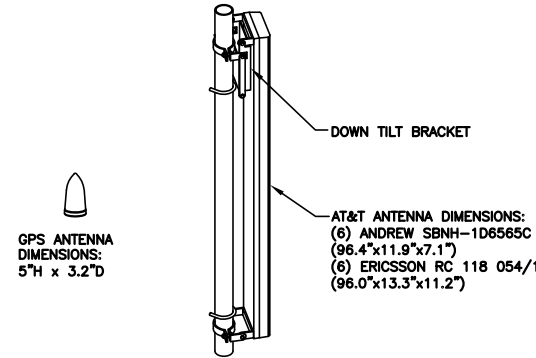
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S2899
WEST HAVEN JONES HILL

SITE ADDRESS:
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WEST HAVEN, CT 06516

SHEET TITLE:
COMPOUND PLAN
& ELEVATION

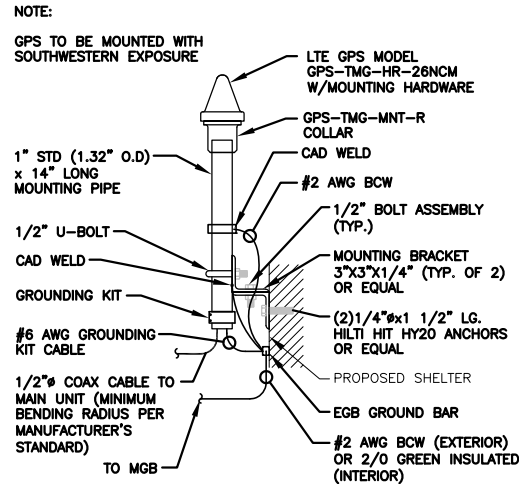
SHEET NO:
A-1



GPS AND
ANTENNA DETAIL

SCALE: N.T.S.

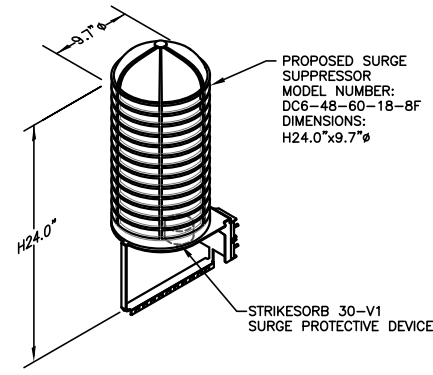
1
A-2



GPS MOUNTING DETAIL

SCALE: N.T.S.

2
A-2

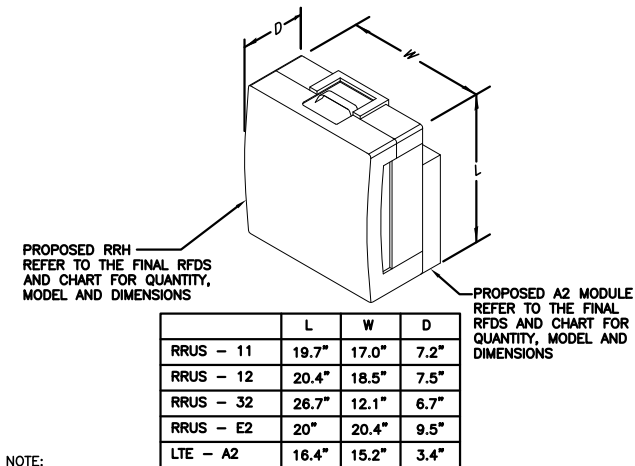


NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

DC SURGE
SUPPRESSOR DETAIL

SCALE: N.T.S.

3
A-2

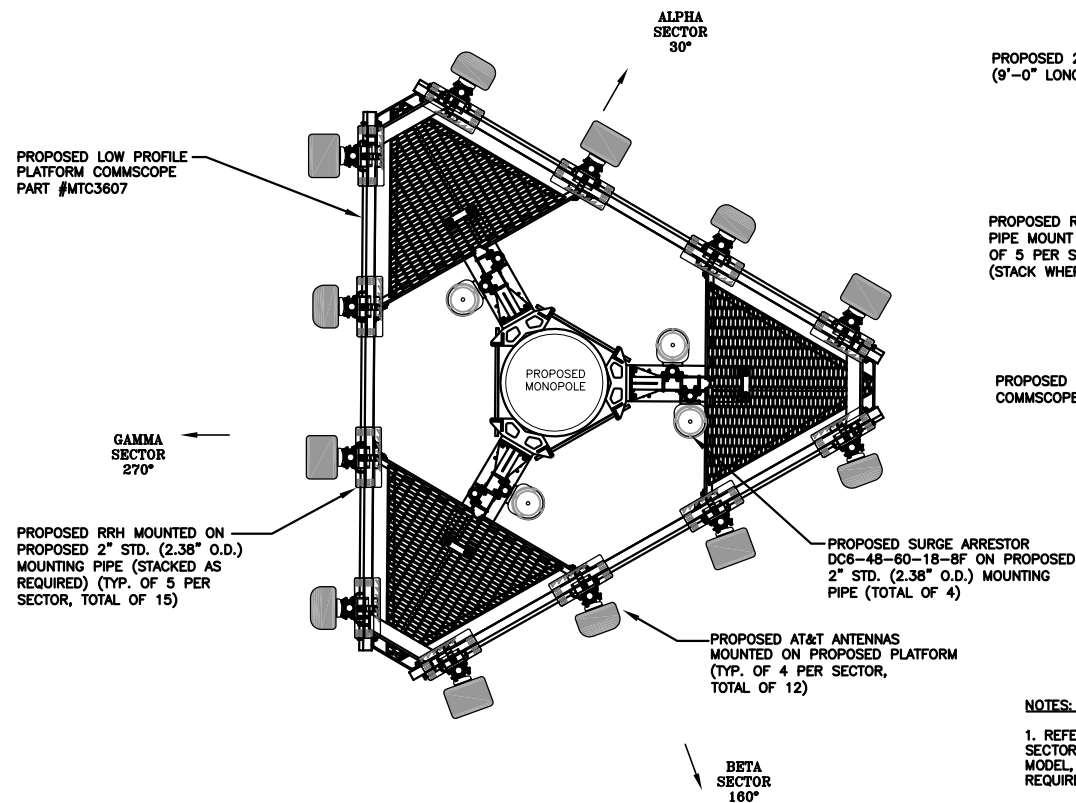


NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

RRH & A2 MODULE DETAIL

SCALE: N.T.S.

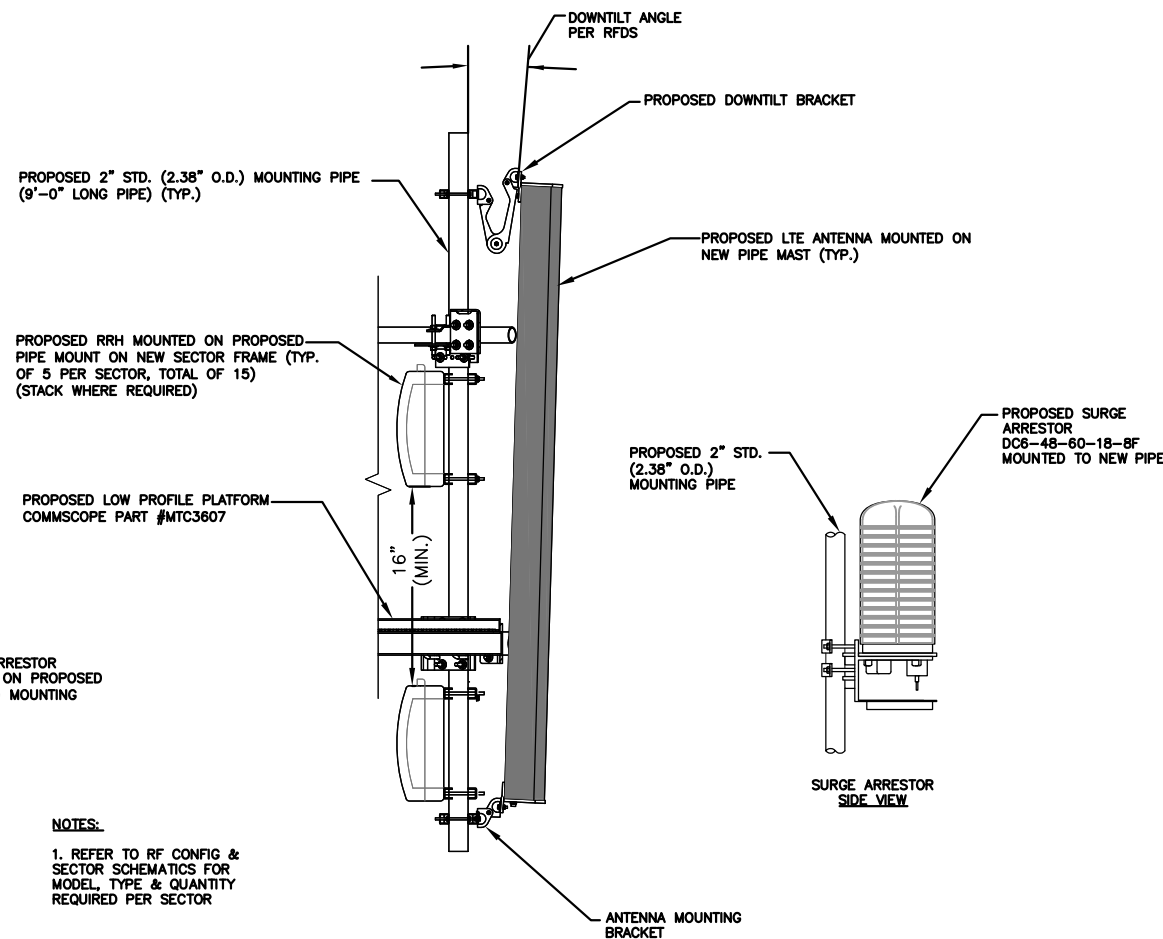
4
A-2



ANTENNA PLAN

SCALE: N.T.S.

5
A-2



NOTES:

1. REFER TO RF CONFIG & SECTOR SCHEMATICS FOR MODEL, TYPE & QUANTITY REQUIRED PER SECTOR

PROPOSED LTE ANTENNA, RRH, & SURGE
ARRESTOR MOUNTING DETAIL

SCALE: N.T.S.

6
A-2



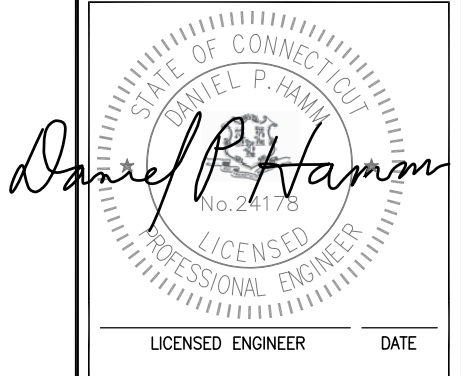
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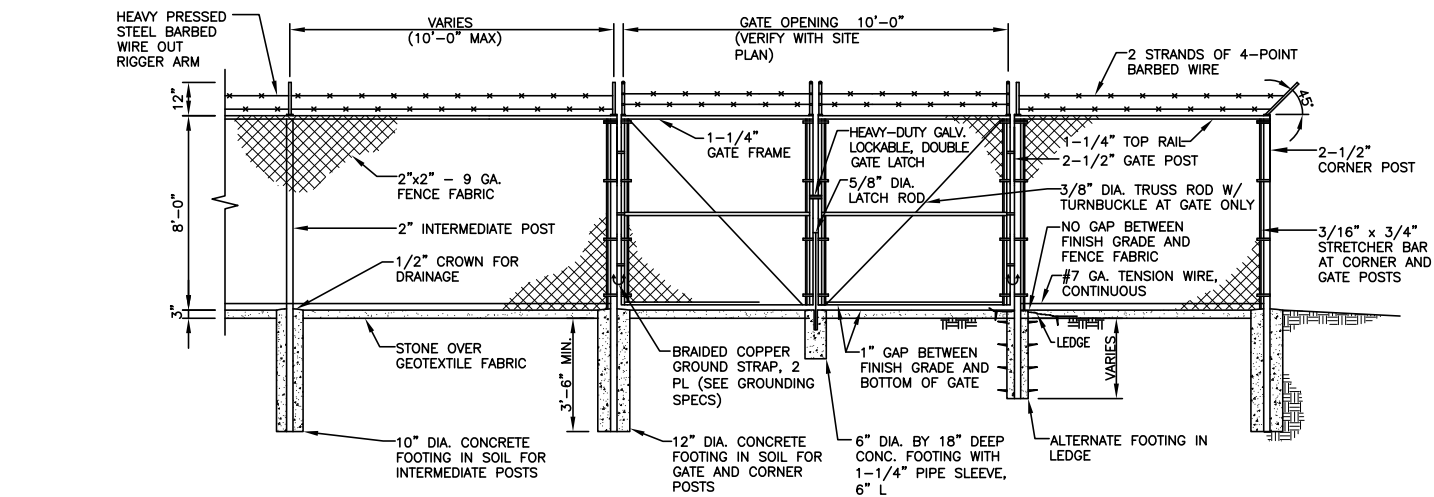
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ATC SITE #: 243036
S2899
WEST HAVEN JONES HILL

SITE ADDRESS:
668 JONES HILL ROAD
WEST HAVEN, CT 06516

SHEET TITLE:
DETAILS

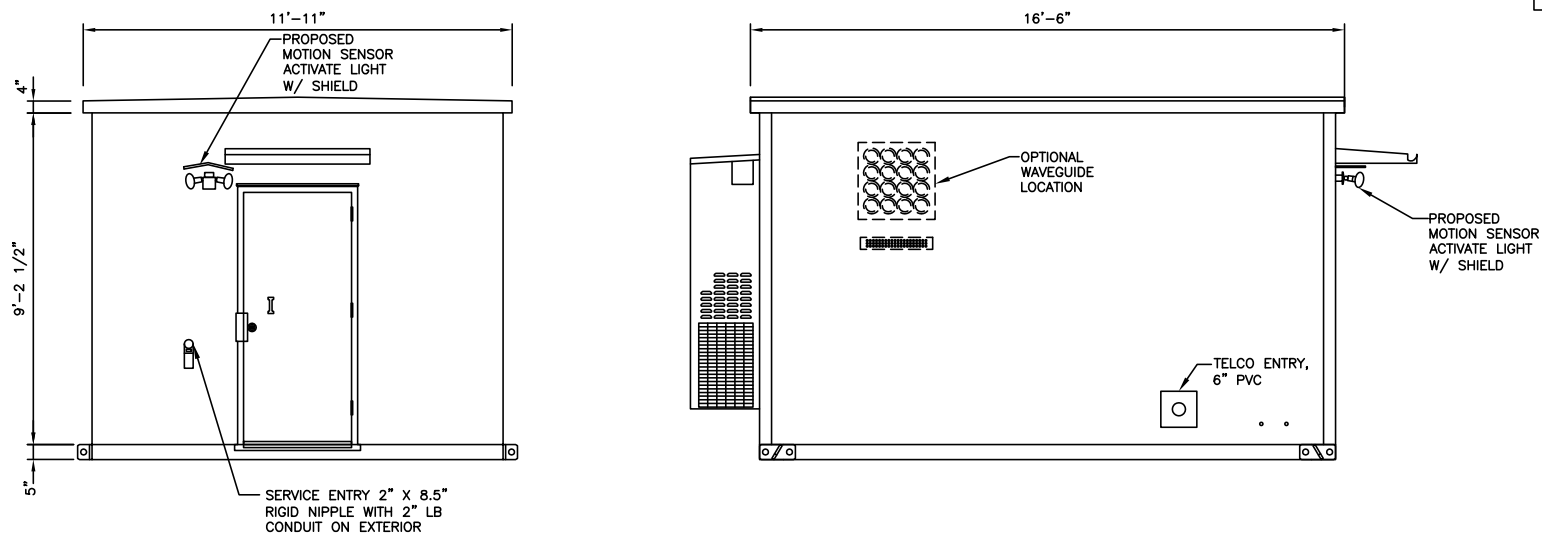
SHEET NO:
A-2



CHAIN LINK FENCE DETAIL

SCALE: N.T.S.

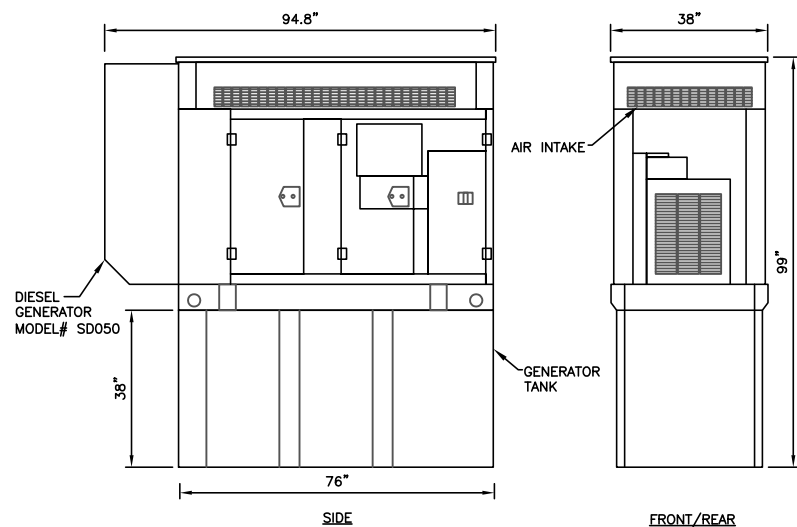
1
A-3



TYPICAL SHELTER DETAILS

SCALE: 3/8" = 1'-0"

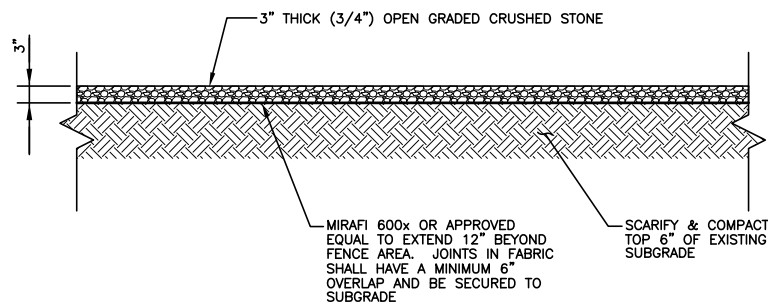
3
A-3



TYPICAL GENERATOR DETAIL

SCALE: N.T.S.

4
A-3

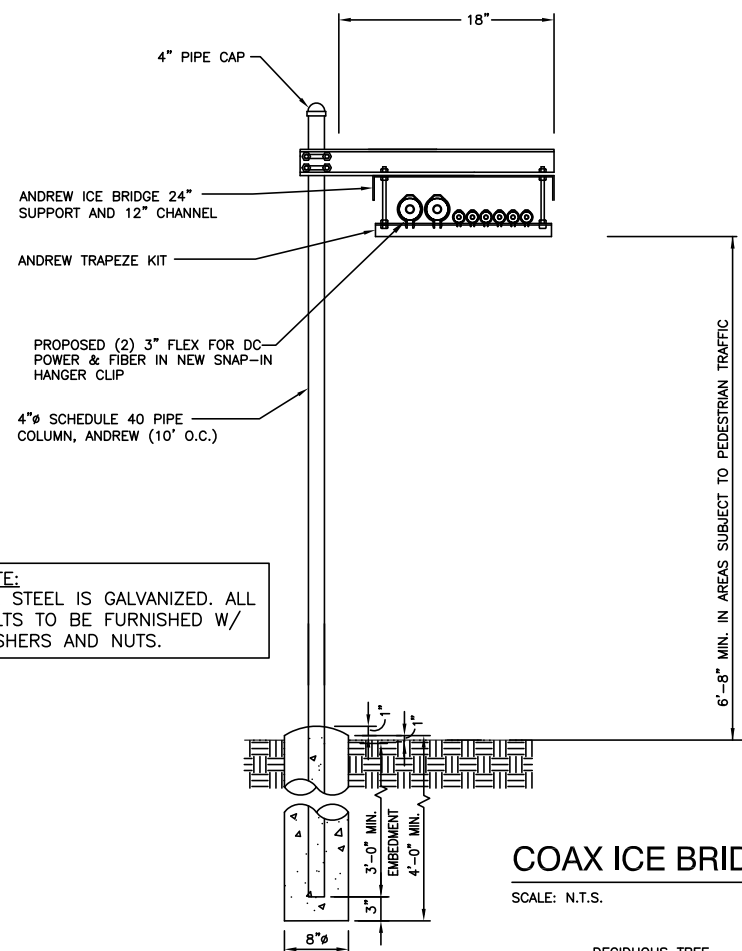


GRAVEL COMPOUND DETAIL

SCALE: N.T.S.

5
A-3

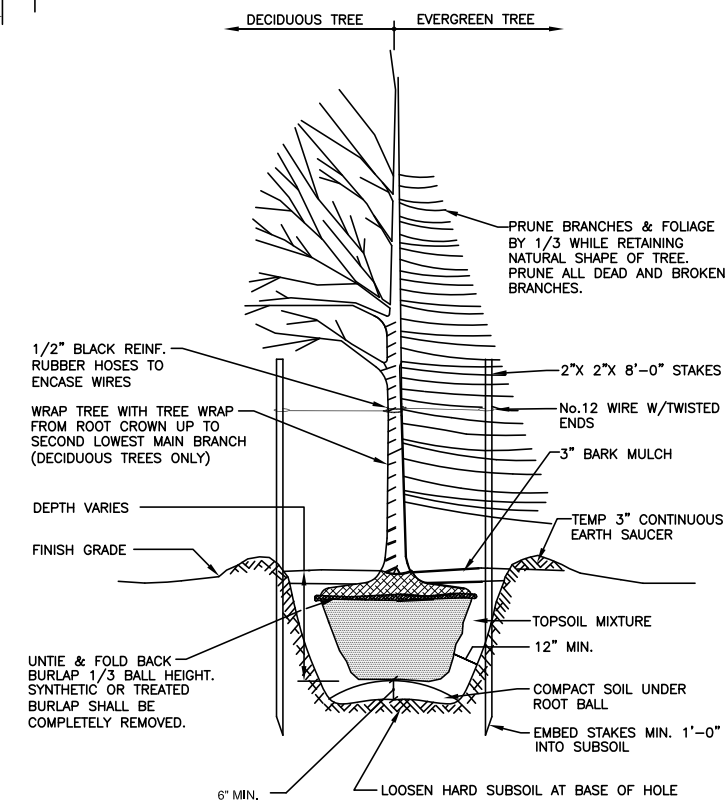
NOTE:
ALL STEEL IS GALVANIZED. ALL BOLTS TO BE FURNISHED W/ WASHERS AND NUTS.



COAX ICE BRIDGE DETAIL

SCALE: N.T.S.

2
A-3



NOTES:

- LANDSCAPE TREES SHALL BE A MINIMUM OF 6'-0" IN HEIGHT WHEN PLANTED.
- SPECIES PROPOSED THUJA OCCIDENTALIS PYRAMIDAL (PYRAMIDAL ARBORVITAE)

PLANTING DETAIL

SCALE: N.T.S.

6
A-3



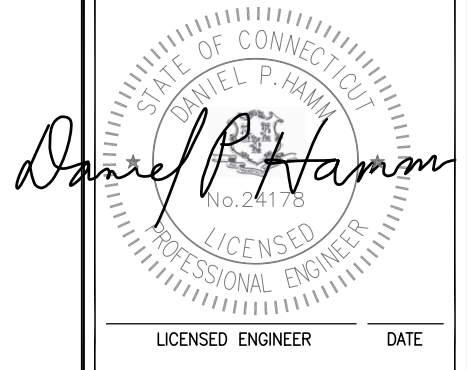
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SITE NAME:
ATC SITE NAME: WEST HAVEN & RT 162 CT
ATC SITE #: 243036
S2899
WEST HAVEN JONES HILL

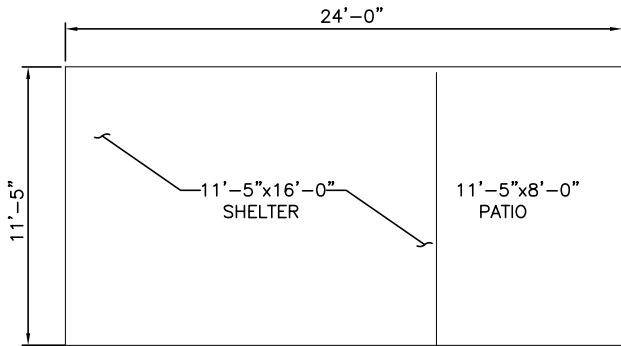
SITE ADDRESS:
668 JONES HILL ROAD
WEST HAVEN, CT 06516

SHEET TITLE:
DETAILS

SHEET NO:
A-3

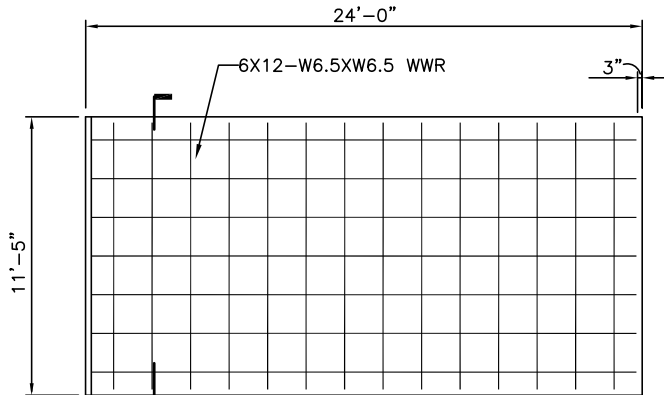
FOUNDATION NOTES & CONCRETE SPECIFICATIONS

1. FOUNDATION AREA SHALL BE EXCAVATED TO THE DEPTH AND DIMENSIONS SHOWN ON THE PLANS. EXISTING LEDGE AND ALL OTHER EXISTING UNSUITABLE MATERIAL SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE. THE SUBGRADE SHALL BE ROLLED WITH A 1-TON, VIBRATORY, WALK-BEHIND ROLLER AT A SPEED OF LESS THAN 2 FPS, 6 PASSES MINIMUM, TO PROVIDE UNYIELDING SURFACE.
2. UNDERCUT SOFT OR "WEAVING" AREAS A MINIMUM OF 12 INCHES DEEP. BACKFILL UNDERCUT AREA WITH FILL MEETING THE SPECIFICATIONS OF STRUCTURAL FILL.
3. CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)=3000 psi. CONCRETE TO BE AIR ENTRAINED, DESIRED AIR CONTENT TO BE 6% (PLUS OR MINUS 2%)
4. BAR REINFORCING TO BE ASTM A615 GRADE 60.
5. WELDED WIRE FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A185. WIRES FOR FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A82.
6. COORDINATE WITH MANUFACTURER OF PREFABRICATED SHELTER FOR LOCATION OF ATTACHMENTS TO BASE SLAB.
7. ALL REINFORCING TO HAVE 2" MINIMUM CONCRETE COVER.
8. ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO LATEST EDITION OF ACI 318 BUILDING CODE, AND IBC 2009.
9. SLAB TO BE LEVEL ±1/4".
10. SLAB FOUNDATION DESIGNED ASSUMING ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF.
11. SLAB FOUNDATION DESIGN ASSUMING MAXIMUM SOIL PLASTICITY OF 27.
12. CONTRACTOR TO VERIFY FINAL SHELTER DIMENSIONS PRIOR TO CONSTRUCTION OF FOUNDATION.
13. GRADE SHALL SLOPE AWAY FROM THE CONCRETE PAD TO ALLOW FOR PROPER WATER RUN OFF.
14. ANCHOR SHELTER TO FOUNDATION PER SHELTER MANUFACTURER'S RECOMMENDATIONS.



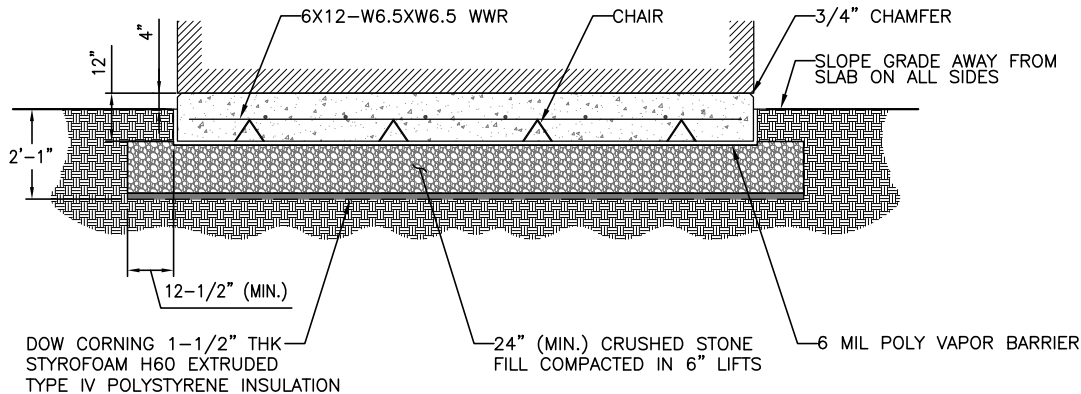
SHELTER PLAN
SCALE: NOT TO SCALE

1
S-1



SHELTER FOUNDATION PLAN
SCALE: NOT TO SCALE

2
S-1



SECTION A-A

SHELTER FOUNDATION DETAIL

SCALE: 1/2"=1'-0"

3
S-1



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LICENSED ENGINEER DATE

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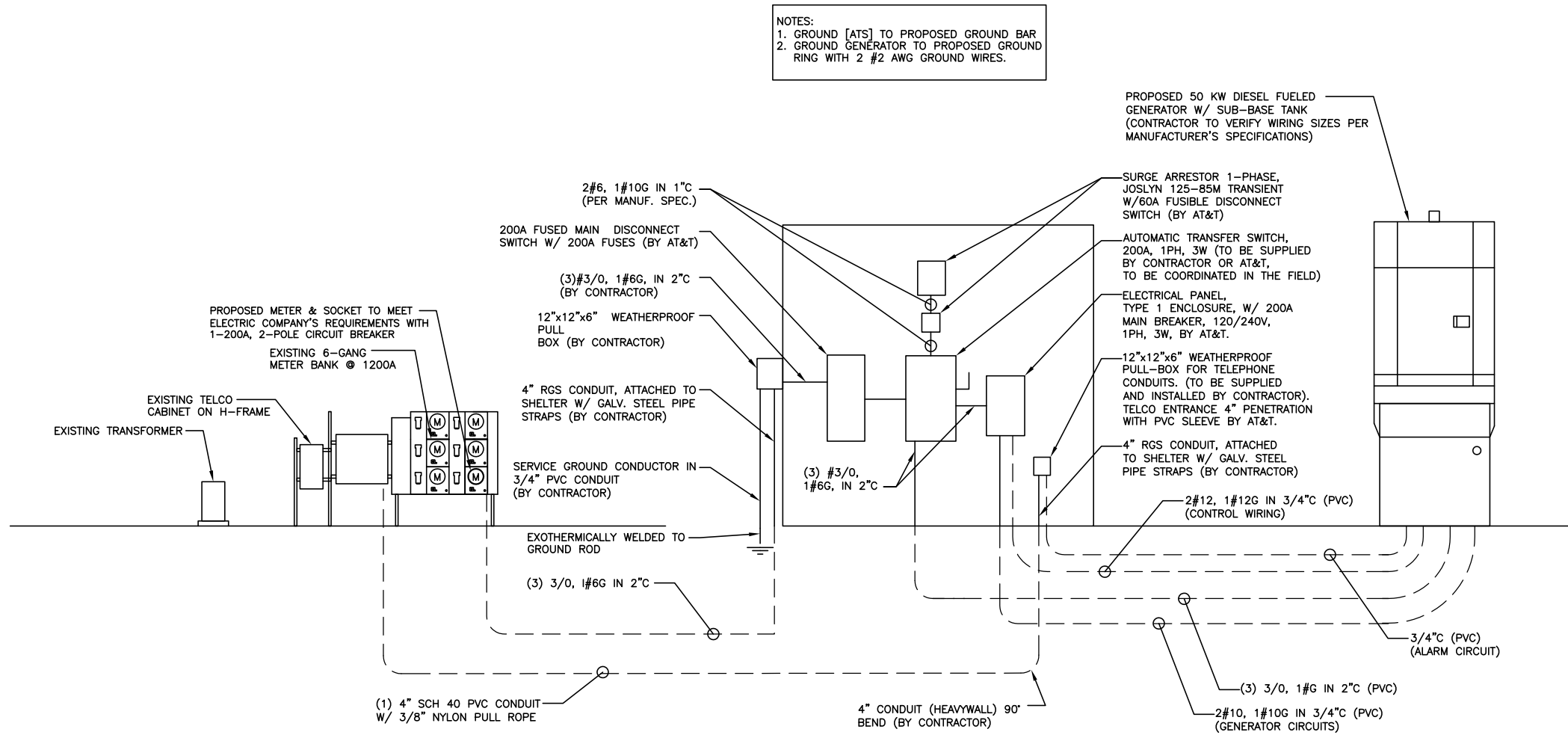
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S2899
WEST HAVEN JONES HILL

SITE ADDRESS:
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WEST HAVEN, CT 06516

SHEET TITLE:
SHELTER FOUNDATION
& DETAILS

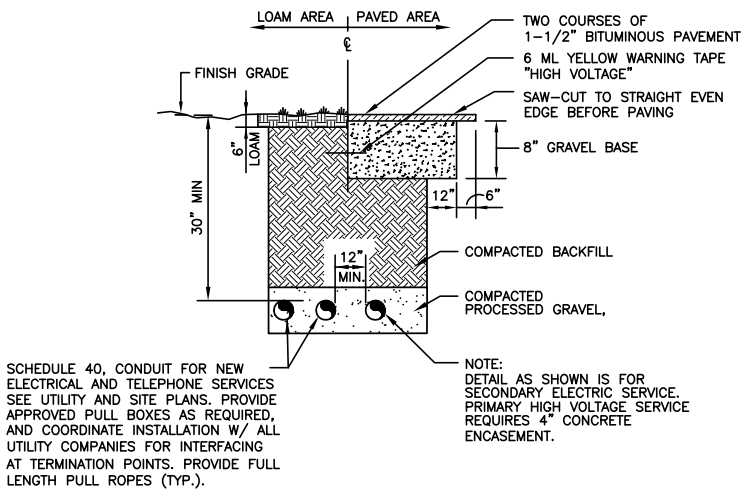
SHEET NO:
S-1



ELECTRICAL ONE LINE DIAGRAM

SCALE: N.T.S.

1
E-1



BURIED CONDUIT DETAIL

SCALE: N.T.S.

2
E-1

ELECTRICAL LEGEND

	NEW PANEL BOARD, SURFACE MOUNTED
	EXISTING PANEL BOARD, SURFACE MOUNTED
	DRY TYPE TRANSFORMER
	METER
	CIRCUIT BREAKER
	NON-FUSIBLE DISCONNECT SWITCH, MOUNTED 54" A.F.F.
	FUSIBLE DISCONNECT SWITCH, MOUNTED 54" A.F.F.
	TRANSIENT VOLTAGE SURGE SUPPRESSOR WITH BUILT-IN FUSES, SURFACE MOUNTED
	DUPLEX OUTLET, SURFACE MOUNTED, 20 AMPS, 125 VOLTS, SINGLE PHASE
	JUNCTION BOX, SURFACE MOUNTED 18" A.F.F.
	EXPOSED WIRING
	HOME RUNS, MINIMUM 2" @ 1" @ 10G IN 3/4" CONDUIT U.O.N.
	ABOVE FINISHED FLOOR
	UNLESS OTHERWISE NOTED
	WEATHERPROOF
	GROUND FAULT INTERRUPTER
	AMPERE
	VOLT
	KILOWATT - HOUR
	CONDUIT
	GALVANIZED RIGID CONDUIT
	GROUND
	GROUND
	MASTER GROUND BAR
	EQUIPMENT GROUND BAR
	GROUND COPPER WIRE, SIZE AS NOTED
	EXPOSED WIRING
	COAXIAL CABLE
	5/8" COPPER CLAD STAINLESS STEEL GROUND ROD
	EXOTHERMIC (CAD WELD) OR MECHANICAL COMPRESSION TYPE CONNECTION
	POWER PROTECTION CABINET
	OMNI-DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALL

ELECTRICAL AND GROUNDING NOTES

- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THININSULATION.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- PPC SUPPLIED BY PROJECT OWNER.
- GROUNDING SHALL COMPLY WITH NEC ART. 250.
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
- ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
- CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
- BOND ANTENNA EGB'S AND MGB TO GROUND RING.
- CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
- CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE-TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.
- ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2" OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL, MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50.



550 COCHITUATE ROAD
FRAMINGHAM, MA 01701



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1600 OSGOOD STREET
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TEL: (978)-557-5553
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LICENSED ENGINEER

DATE

REVISIONS

REV. #	DATE	DESCRIPTION
1	06/25/14	ISSUED FOR CONSTRUCTION
A	10/15/13	ISSUED FOR REVIEW

PROJECT NO.	DESIGNED BY: AT	SCALE:
S2899	DRAWN BY: SG	AS SHOWN
	CHECKED BY: DPH	

SITE NAME:

ATC SITE NAME: WEST
HAVEN & RT 162 CT
ATC SITE #: 243036
S2899
WEST HAVEN JONES HILL

SITE ADDRESS:

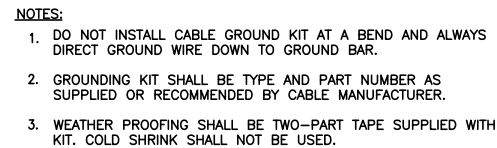
668 JONES HILL ROAD
WEST HAVEN, CT 06516

SHEET TITLE:

ELECTRICAL
ONE LINE DIAGRAM,
DETAILS, & NOTES

SHEET NO:

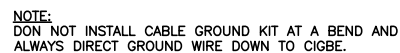
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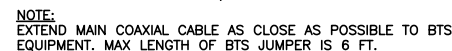


1. COPPER GROUND BAR, 1/4"x4"x24", BY NEWTON INSTRUMENT CO. OR EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION. (ACTUAL GROUND BAR SIZE WILL VARY BASED ON NUMBER OF GROUND CONNECTIONS)
2. INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4 OR EQUAL
3. 5/8" LOCKWASHERS OR EQUAL
4. WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056 OR EQUAL
5. 5/8-11x1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT. NO. 3012-1 OR EQUAL
6. INSULATORS SHALL BE ELIMINATED WHEN BONDING DIRECTLY TO TOWER/MONOPINE STRUCTURE. CONNECTION TO TOWER/MONOPINE STRUCTURE SHALL BE PER MANUFACTURERS RECOMMENDATIONS.

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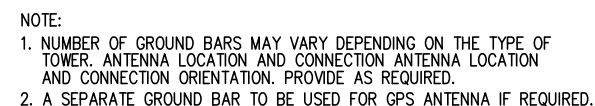
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PROJECT NO. S2899	DESIGNED BY: AT	SCALE: AS SHOWN
	DRAWN BY: SG	
	CHECKED BY: DPH	

SHEET NO:

G-1

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C O R P O R A T I O N

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CARY, NORTH CAROLINA 27518
PHONE: (919) 468-0112 / FAX: (919) 466-5040

243036 - WEST HAVEN & RT 162 CT, CONNECTICUT

149 FT SABRE MONOPOLE MODIFICATIONS

PROJECT DESCRIPTION:

THE MODIFICATIONS PRESENTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL ANALYSIS COMPLETED UNDER ENGINEERING PROJECT NUMBER 54305228 DATED 05/08/14. SATISFACTORY COMPLETION OF THE WORK INDICATED ON THESE DRAWINGS WILL RESULT IN THE STRUCTURE MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE STRUCTURAL WAS COMPLETED.

AS-BUILT SIGN-OFF		
DESCRIPTION	SIGNATURE	DATE
CONTRACTOR NAME		
CONTRACTOR REP. (PRINT NAME)		
CONTRACTOR REP. (SIGNATURE)		
REDEVELOPMENT P.M. (PRINT NAME)		
REDEVELOPMENT P.M. (SIGNATURE)		

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GENERAL

1. ALL METHODS, MATERIALS AND WORKMANSHIP SHALL FOLLOW THE DICTATES OF GOOD CONSTRUCTION PRACTICE.
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 MUST 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 MUST 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 TIA-1019-A-2011, 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 A307 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 FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.

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. 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 METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
5. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, 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-2004 (SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS.)
2. TIGHTEN FLANGE BOLTS BY AISC "TURN-OF-THE-NUT" METHOD, 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

3. 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.

4. 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.

PAINT

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

APPLICABLE CODES AND STANDARDS

1. ANSI/TIA/EIA: STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES, 222-F EDITION.
2. 2003 INTERNATIONAL BUILDING CODE WITH 2005 CONNECTICUT SUPPLEMENTS AND 2009 CONNECTICUT AMENDMENTS.
3. ACI 318: AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 318-02.
4. CRSI: CONCRETE REINFORCING STEEL INSTITUTE, MANUAL OF STANDARD PRACTICE, LATEST EDITION.
5. AISC: AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUAL OF STEEL CONSTRUCTION, LATEST EDITION.
6. 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 2003, 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 2003, SECTION 1704, UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM SUCH WORK WITHOUT THE SPECIAL INSPECTIONS.



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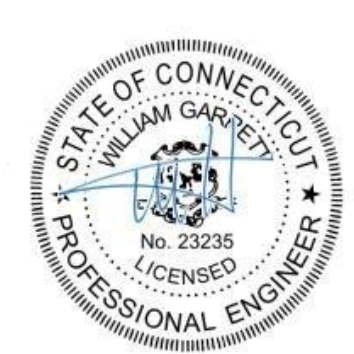
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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	PAT	06/10/14

ATC SITE NUMBER:
243036

ATC SITE NAME:
WEST HAVEN & RT 162 CT
CONNECTICUT

SITE ADDRESS:
668 JONES HILL ROAD
WEST HAVEN, CT 06516



Jun 16 2014 4:00 PM

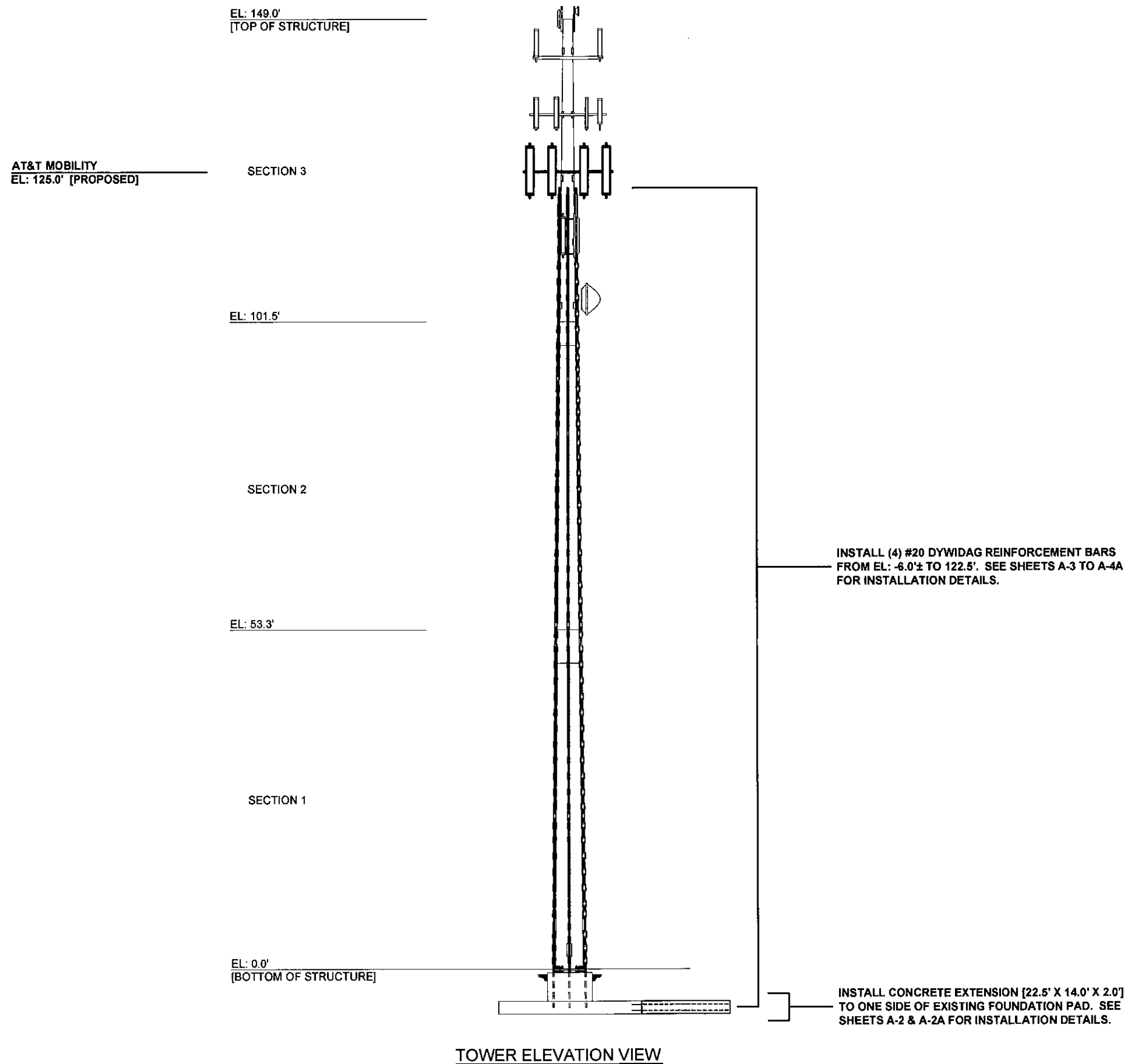
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APPROVED BY:	
DATE DRAWN:	06/10/14
ATC JOB NO:	543052310

SHEET TITLE:

IBC GENERAL NOTES

SHEET NUMBER: IGN	REV. # 0
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NOTES:

1. PROPOSED AT&T MOBILITY COAX TO BE INSTALLED INSIDE MONOPOLE.
2. CONTACT AMERICAN TOWER FIELD OPERATIONS WHEN EXISTING EQUIPMENT INTERFERES WITH INSTALLATION OF MODIFICATIONS. ONCE APPROVED, EXISTING EQUIPMENT MAY BE TEMPORARILY MOVED DURING INSTALLATION & REINSTALLED TO THE ORIGINAL HEIGHT & LOCATION BY CONTRACTOR POST COMPLETION OF MODIFICATIONS.



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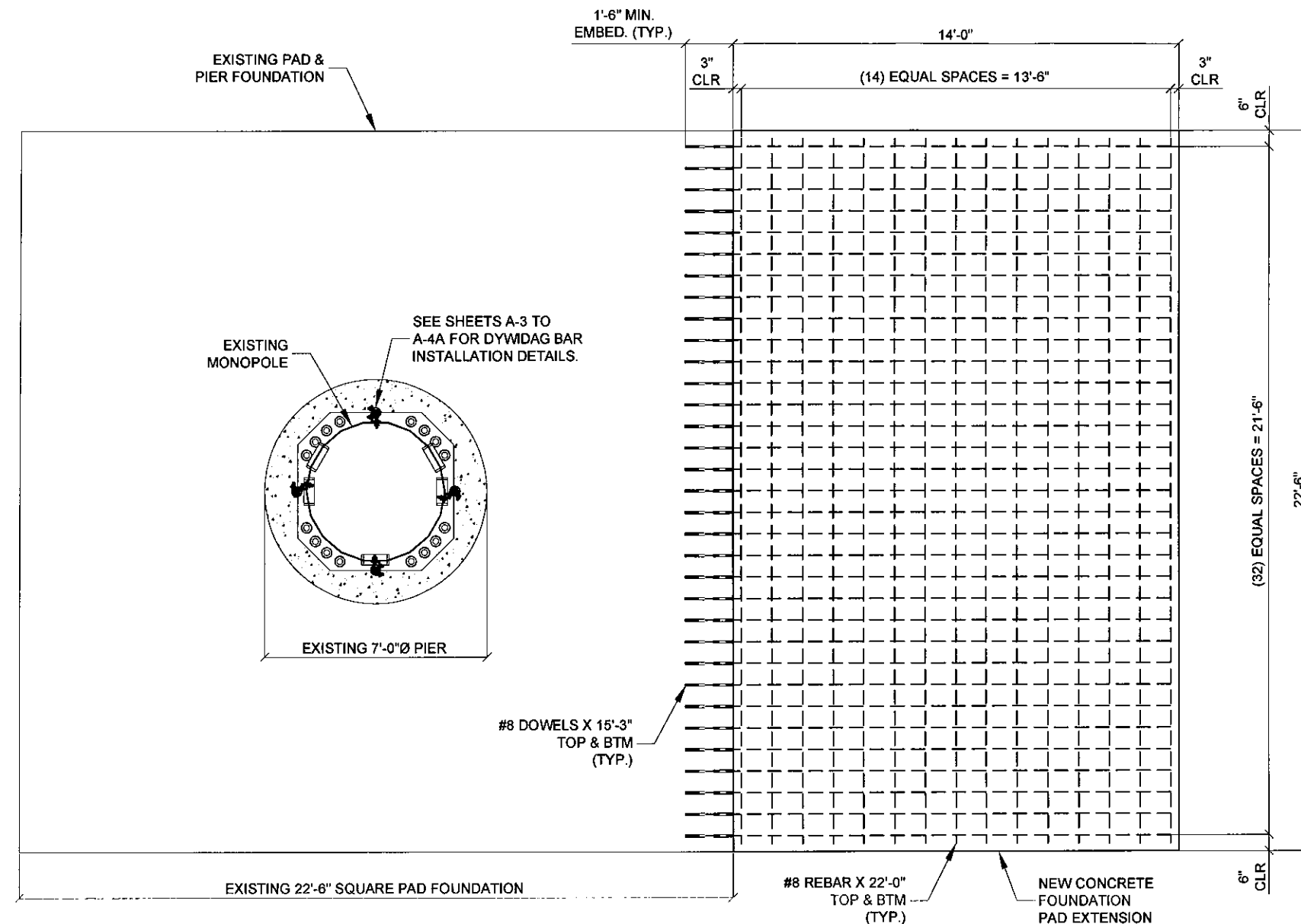
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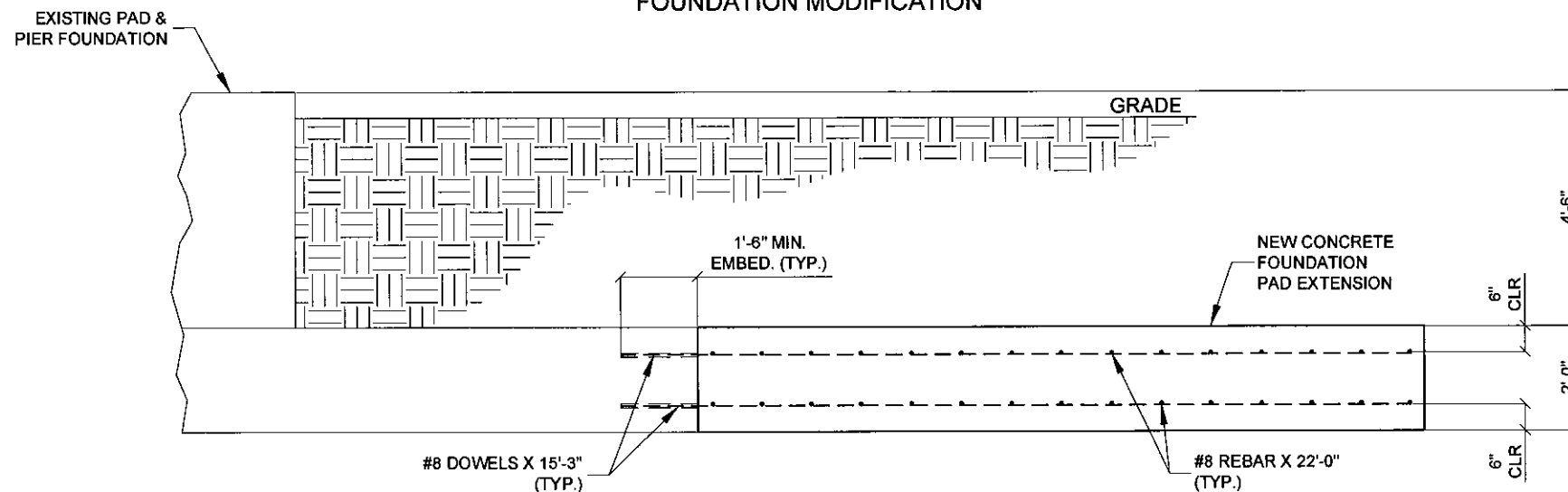
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MODIFICATION PROFILE

SHEET NUMBER:	REV. #
A-1	0



PLAN VIEW
FOUNDATION MODIFICATION



PARTIAL ELEVATION VIEW
FOUNDATION MODIFICATION

NOTES:

1. CONCRETE EXTENSION TO BE INSTALLED ON EXISTING BASE FOUNDATION. TOTAL CONCRETE REQUIRED: 23.4± CUBIC YARDS.
2. FOR REBAR LIST/FOUNDATION NOTES SEE SHEET A-2A.
3. CONCRETE COVER OVER REBAR 3" MIN. (TYP.)
4. CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS = 4500 PSI.
5. DRILLED HOLES TO BE 1 1/4"Ø. DO NOT CUT REBAR IN EXISTING FOUNDATION.
6. DRILLED HOLES SHALL BE FREE OF MOISTURE, DEBRIS AND LAITANCE.
7. GROUT #8 DOWELS INTO EXISTING FOUNDATION WITH HILTI HIT RE500 EPOXY.
8. REMOVE ALL LOOSE CONCRETE FROM EXISTING FOUNDATION PAD PRIOR TO POURING NEW CONCRETE.
10. COAT INTERFACE OF NEW AND EXISTING CONCRETE WITH SIKADUR 32, HI-MOD LPL BONDING AGENT OR APPROVED EQUIVALENT, PRIOR TO POURING NEW CONCRETE.
11. DIRECTION OF FOUNDATION EXTENSION TO BE FIELD DETERMINED. CONTRACTOR TO INSTALL ON SIDE WITH LEAST AMOUNT OF INTERFERENCES.



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SHEET TITLE:	

**FOUNDATION MODIFICATION
INSTALLATION DETAILS**

SHEET NUMBER:	REV. #
A-2	0

1. CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS (UNLESS NOTED).
2. MAXIMUM ALLOWED WATER/CEMENT RATIO = 0.45
3. REINFORCED CONCRETE CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH ACI 318.
4. MINIMUM CONCRETE COVER OVER REBAR IS 3", OR AS NOTED.
5. POUR CONCRETE PAD ON UNDISTURBED SOIL.
6. BACKFILL SHALL BE SELECTED MATERIAL, WELL COMPACTED IN LAYERS NOT EXCEEDING 12".
7. BACKFILL SHALL BE PLACED SO AS TO PREVENT THE ACCUMULATION OF WATER AROUND THE FOUNDATION.
8. EMBEDDED STRUCTURAL ANCHOR STEEL SUPPLIED BY AMERICAN TOWER.
9. REINFORCING MATERIAL SHALL BE IN ACCORDANCE WITH ASTM A615.
10. ALL REBAR TO BE GRADE 60 (UNLESS NOTED).
11. ALL REBAR (HORIZONTAL & VERTICAL) SHALL BE SECURELY WIRE TIED TO PREVENT DISPLACEMENT DURING POURING OF CONCRETE.
12. COLD CONSTRUCTION JOINTS TO BE THOROUGHLY CLEANED & WETTED PRIOR TO SECOND POUR.

ALL TOWERS

1. CONCRETE DIMENSIONS: $\pm 1"$
2. DEPTH OF FOUNDATIONS: PLUS 3" OR MINUS 0"
3. DRILLED FOUNDATIONS OUT OF PLUMB: 1°
4. REINFORCING STEEL PLACEMENT: $\pm 1/2"$ INCLUDING CONCRETE COVER
5. PROJECTIONS OF EMBEDMENTS: $\pm 1/4"$
6. VERTICAL EMBEDMENTS OUT OF PLUMB: 1°

7. FACE SPREAD DIMENSION CENTER TO CENTER OF ANCHOR BOLT CIRCLES:
 $\pm 1/8"$ PER 5'-0" OF FACE SPREAD
8. MAXIMUM DISTANCE FROM CENTERLINE OF ANCHOR BOLTS TO CENTERLINE OF FOUNDATION: 1/24th OF PIER DIAMETER UP TO A MAXIMUM OF 2"
9. MAXIMUM DIFFERENCE BETWEEN ANY TWO FOUNDATION ELEVATIONS: 2"
10. ANCHOR BOLT SPACING: $\pm 1/8"$
11. ANCHOR BOLT CIRCLE ORIENTATION: $\pm 0.5^\circ$
12. ANCHOR BOLT CIRCLE DIAMETER: $\pm 1/8"$

13. GUY RADIUS: $\pm 3\%$ OF TOWER HEIGHT
14. ANCHOR ELEVATION: 3% OF TOWER HEIGHT ABOVE OR BELOW TOWER BASE.
IF ELEVATIONS OF ANCHORS VARY BY MORE THAN 3%, ANCHOR RADIUS IS
TO BE CHANGED TO KEEP THE ANCHOR LOCATED ON THE GUY FORCE
RESULTANT. CALL AMERICAN TOWER FOR ASSISTANCE IF REQUIRED.
15. ANCHOR ALIGNMENT: (PERPENDICULAR TO GUY RADIUS): $\pm 1^\circ$
16. ANCHOR ROD SLOPE: $\pm 1^\circ$
17. ANCHOR ROD ALIGNMENT: TOWARDS TOWER CENTER POINT $\pm 0.25^\circ$
18. GUY INITIAL TENSION: $\pm 10\%$ OF VALUE SPECIFIED ON MODIFICATION PROFILE
DRAWING
19. GUY ANCHOR HEAD SIDES VERTICAL: $\pm 1^\circ$

REBAR SIZES & WEIGHTS			STANDARD HOOK DETAILS			
BAR SIZE	WEIGHT (lb/ft)	DIA. (in.)	BEND RADIUS (in.)	90° HOOK (in.)	135° HOOK (in.)	LAP (in.)
3	0.3755	0.375	1.5	5	8	12
4	0.6676	0.500	2.0	7	10	18
5	1.043	0.625	2.5	9	---	24
6	1.502	0.760	3.0	10	---	---
7	2.045	0.875	3.5	12	---	---
8	2.670	1.000	4.0	14	---	---
9	3.400	1.128	5.5	16	---	---
10	4.303	1.270	6.5	18	---	---
11	5.313	1.410	7.0	20	---	---

BENT REBAR LIST									
MARK	QTY	BAR SIZE	LENGTH (ft)	WEIGHT (lb)	TYPE	A	B	C	BENDING DIAGRAM
					BENT				
					BENT				
					BENT				
					BENT				
					BENT				
					BENT				
					BENT				
					BENT				
					BENT				
					BENT				
					RECT. STIRRUP			N/A	135° HOOKS BOTH ENDS
					RECT. STIRRUP			N/A	
					RECT. STIRRUP			N/A	
					RECT. STIRRUP			N/A	
					RECT. STIRRUP			N/A	
					SQUARE STIRRUP		N/A	N/A	135° HOOKS BOTH ENDS
					SQUARE STIRRUP		N/A	N/A	
					SQUARE STIRRUP		N/A	N/A	
					SQUARE STIRRUP		N/A	N/A	
					SQUARE STIRRUP		N/A	N/A	
					TIE		N/A	N/A	135° HOOKS BOTH ENDS
					TIE		N/A	N/A	
					TIE		N/A	N/A	
					TIE		N/A	N/A	
					TIE		N/A	N/A	

[illegible]

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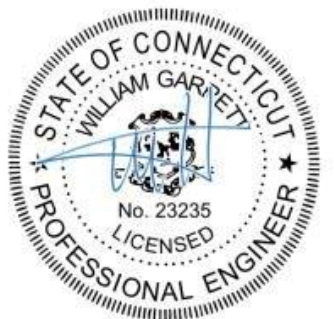
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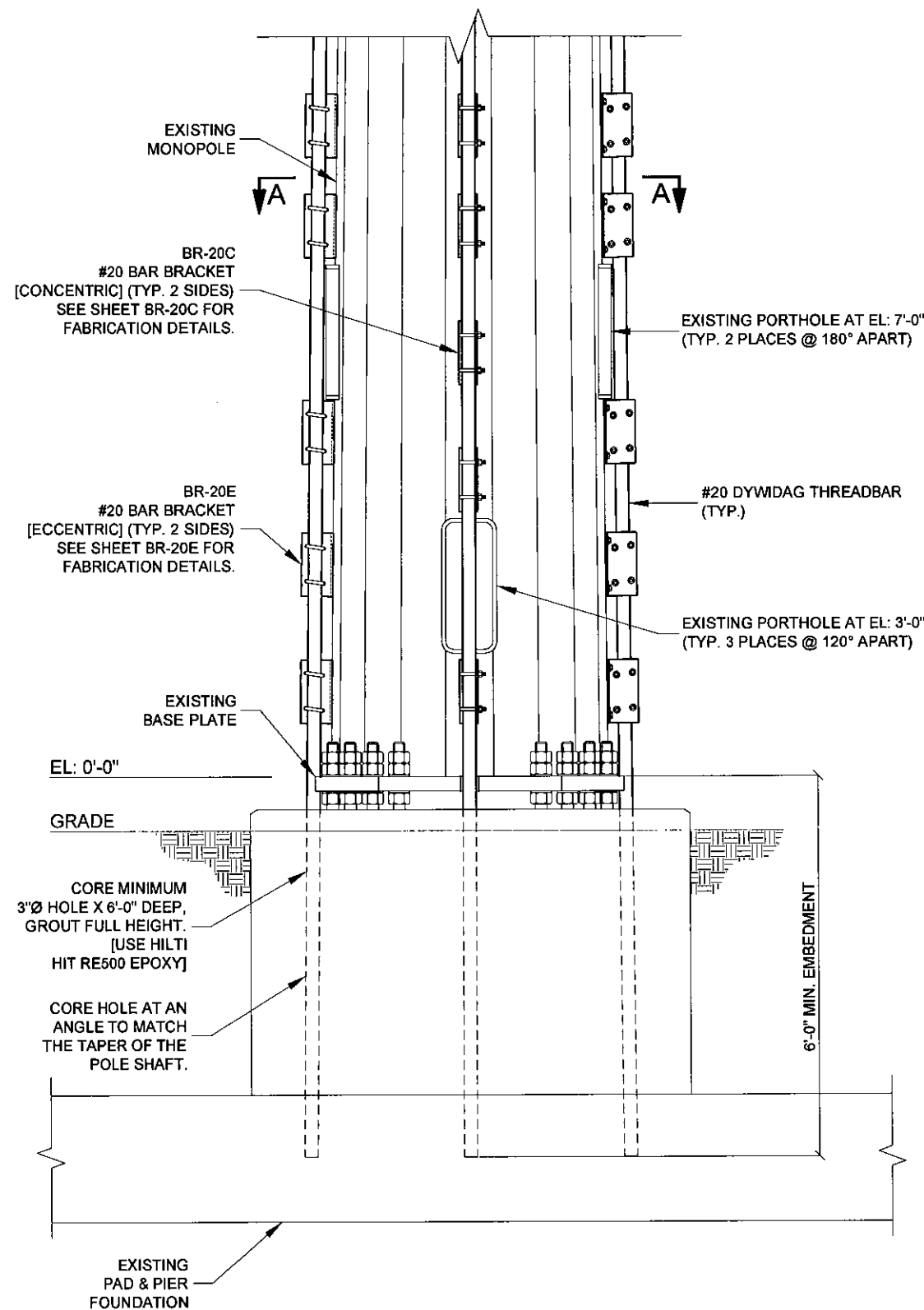
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REBAR LIST

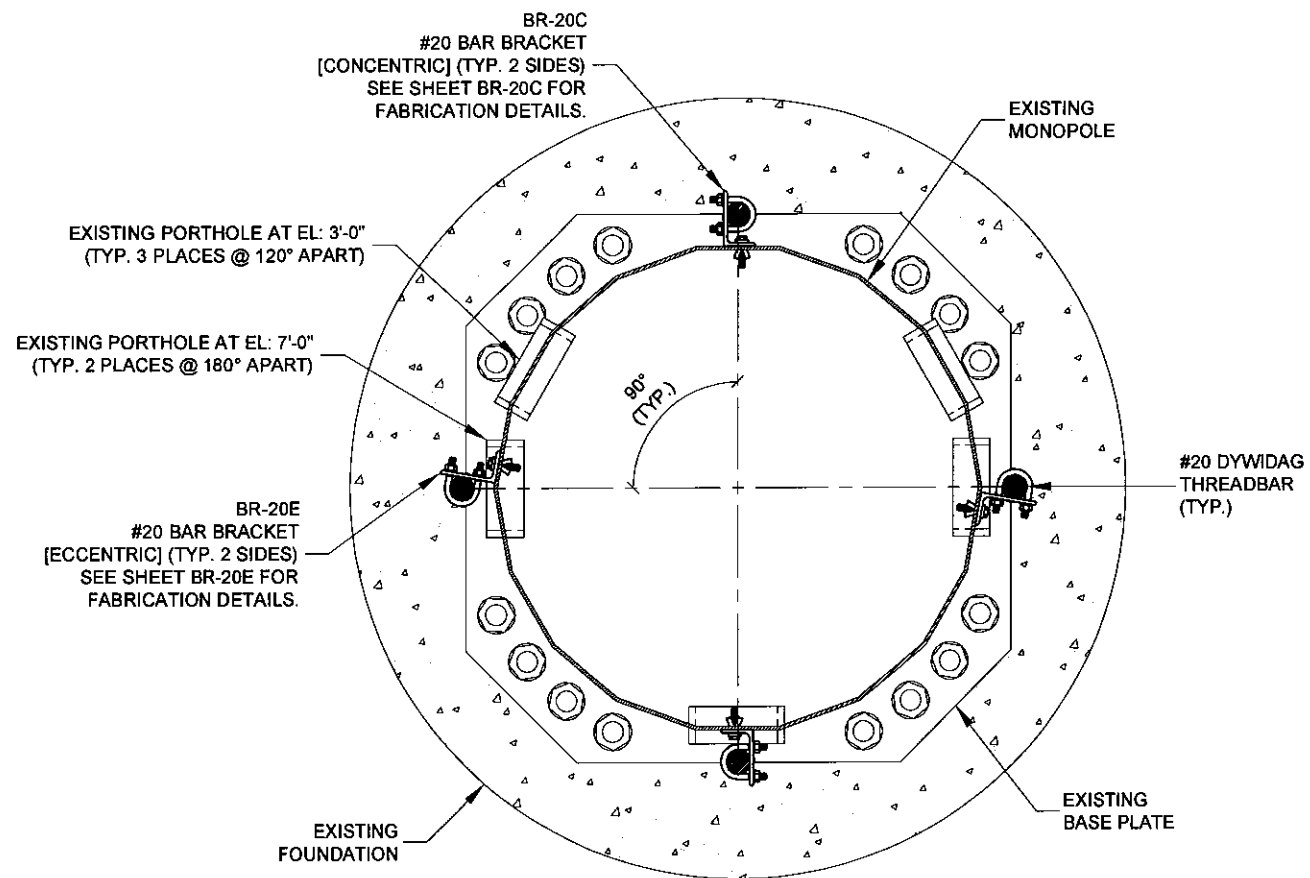
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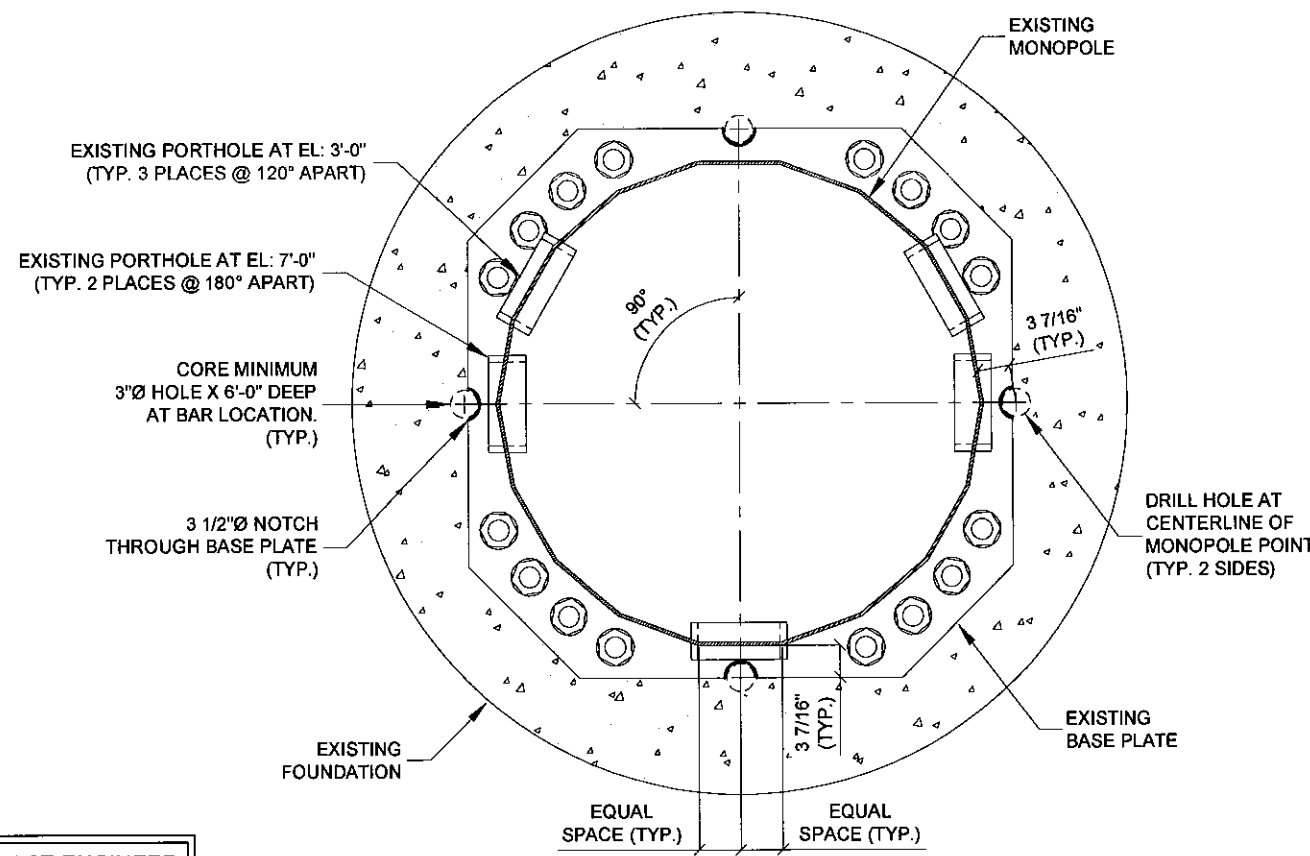


ELEVATION VIEW
FOUNDATION DETAIL

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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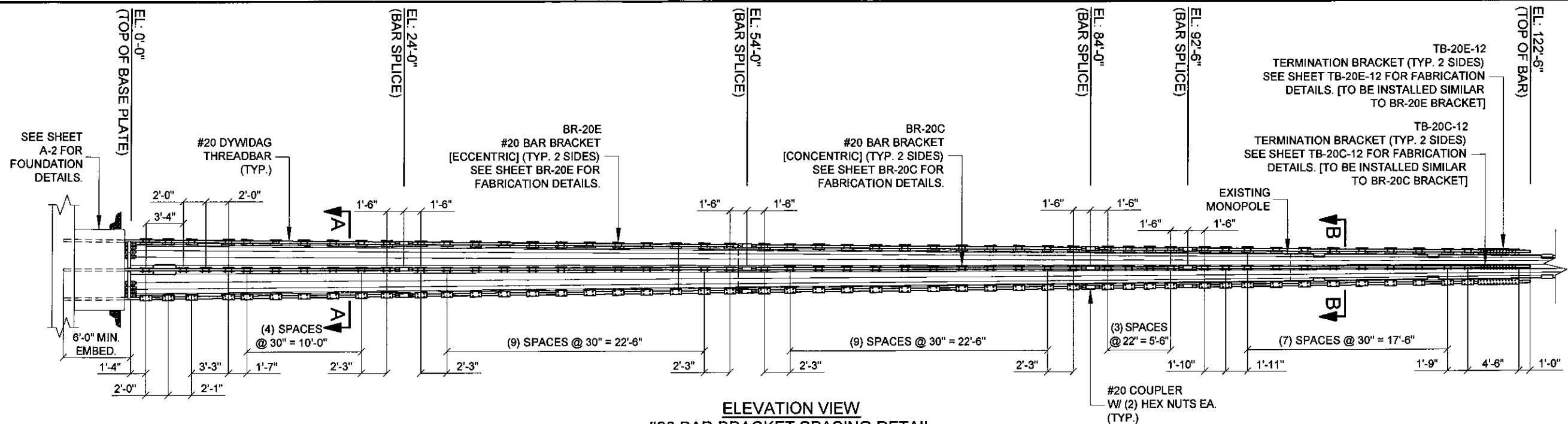
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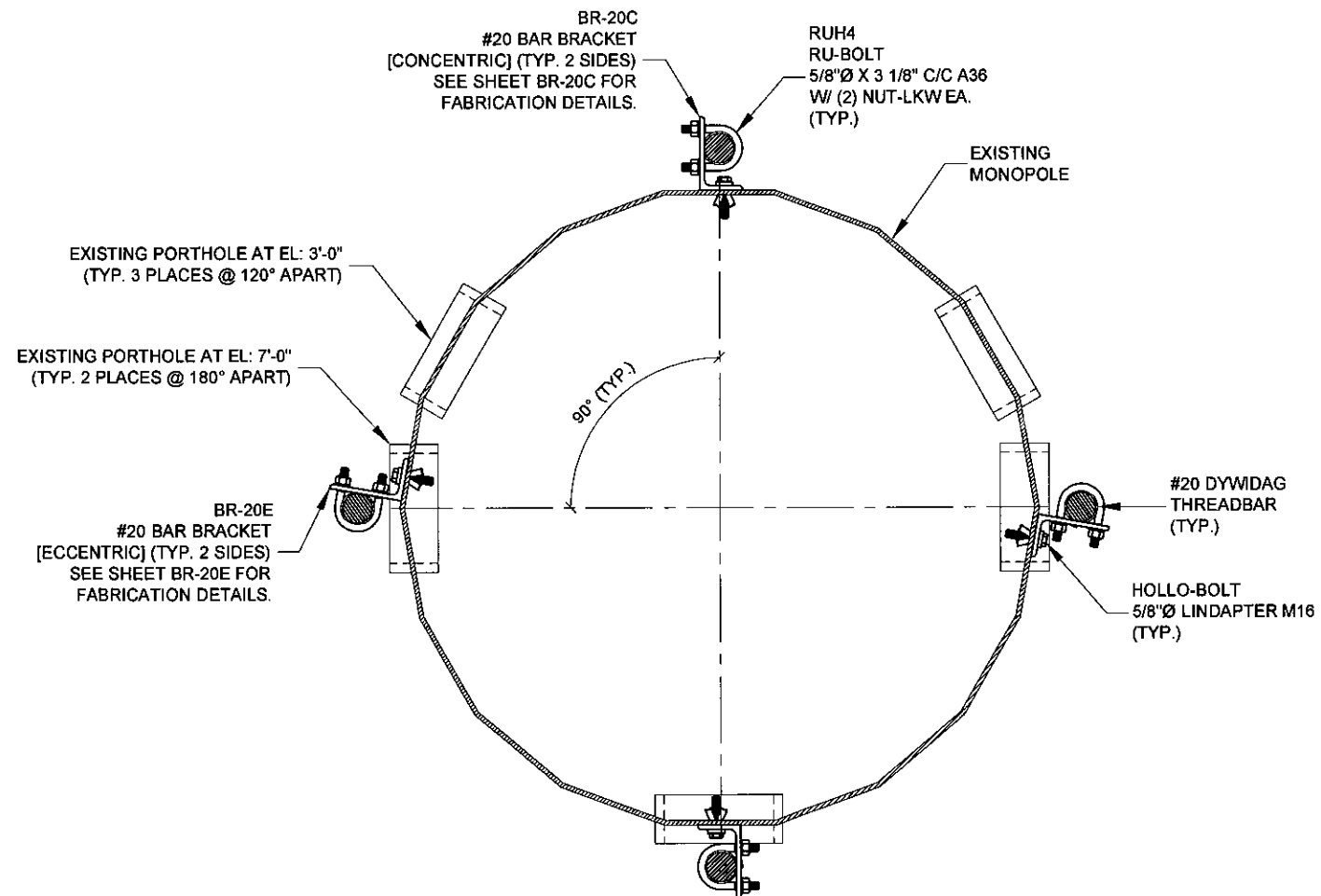
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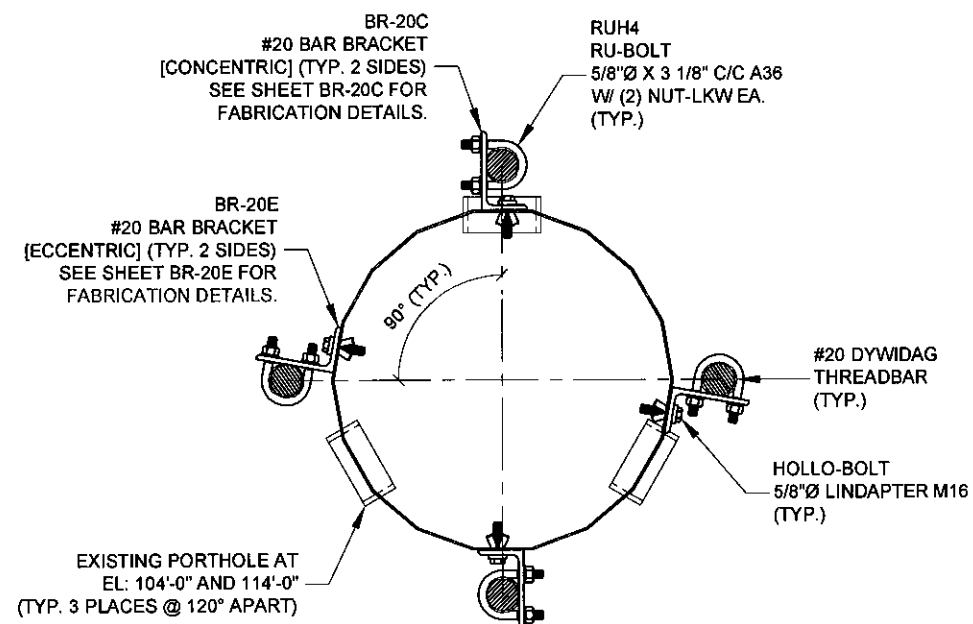
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ELEVATION VIEW
#20 BAR BRACKET SPACING DETAIL



SECTION "A-A"
TYPICAL DETAIL



SECTION "B-B"
TYPICAL DETAIL

- NOTES:
1. REPLACE ANY EXISTING STEP BOLTS THAT INTERFERE WITH NEW REINFORCING BARS. THE NEW STEP SHALL BE ATTACHED TO THE REINFORCING BARS IN THE SAME APPROXIMATE LOCATION. SEE SHEET #20SB FOR INSTALLATION DETAILS.
 2. PLACE A BRACKET (BR-20C OR BR-20E) DIRECTLY ABOVE AND BELOW ANY EXISTING PORTHOLE AS REQUIRED.
 3. SEE SHEET A-4A FOR #20 BAR BRACKET INSTALLATION DETAILS.



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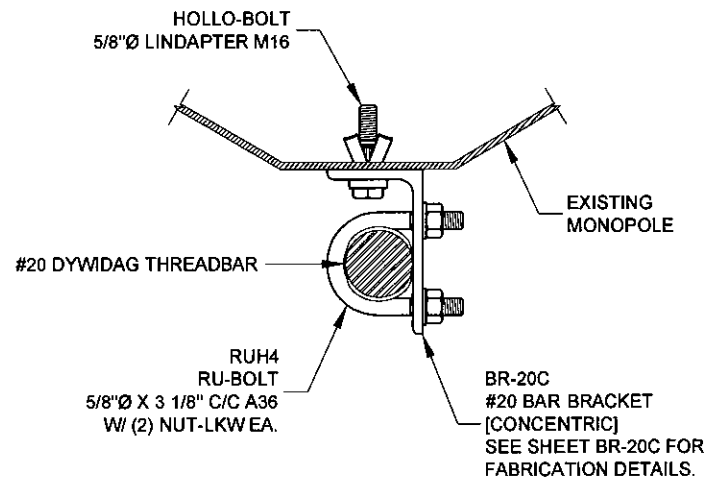
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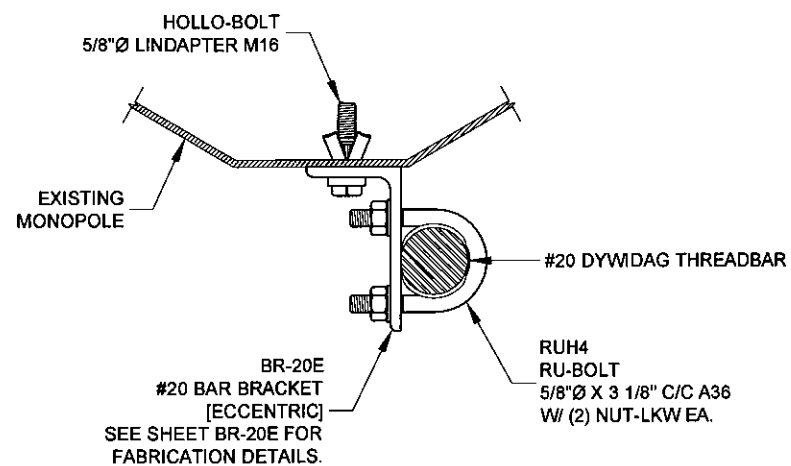
REINFORCEMENT
INSTALLATION DETAILS

SHEET NUMBER:	REV. #
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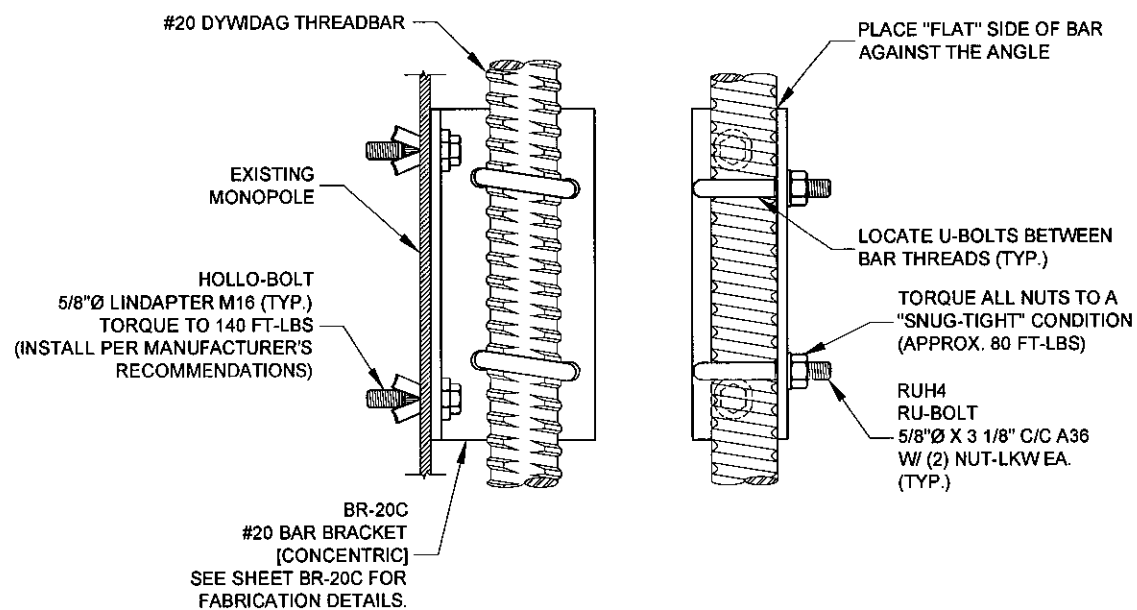
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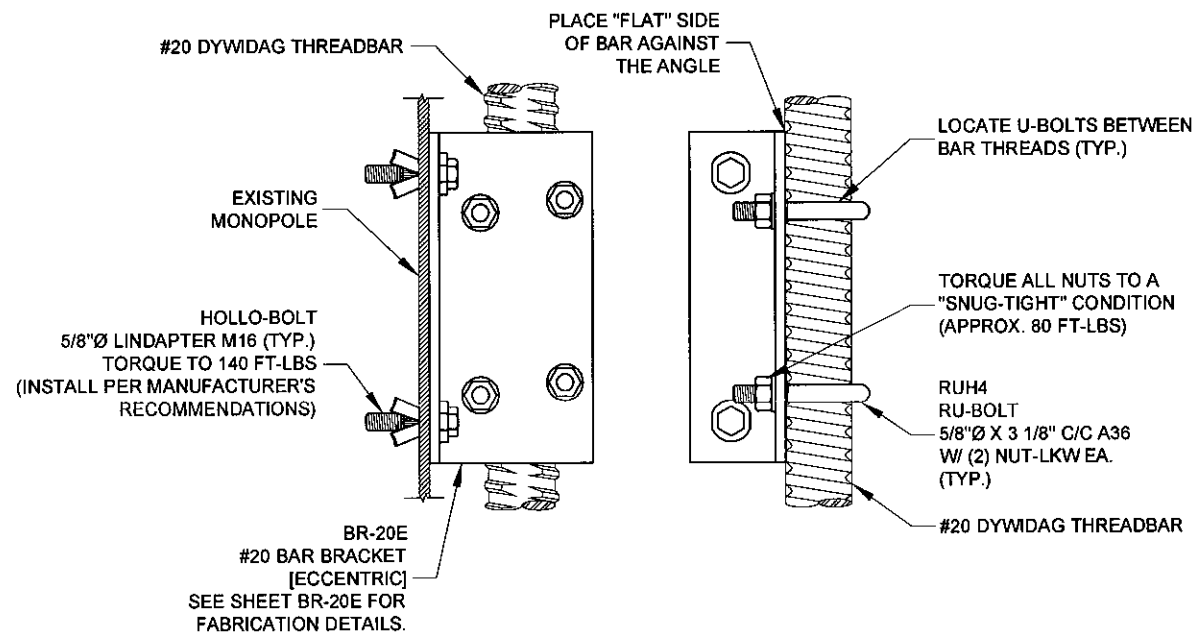
PLAN VIEW
#20 BAR BRACKET ORIENTATION
[CONCENTRIC]



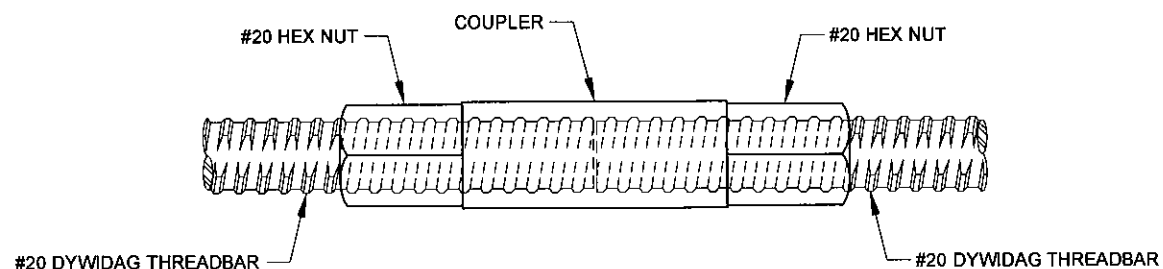
PLAN VIEW
#20 BAR BRACKET ORIENTATION
[ECCENTRIC]



ELEVATION VIEW
#20 BAR BRACKET ORIENTATION
[CONCENTRIC]



ELEVATION VIEW
#20 BAR BRACKET ORIENTATION
[ECCENTRIC]



COUPLER DETAIL
TYPICAL DETAIL



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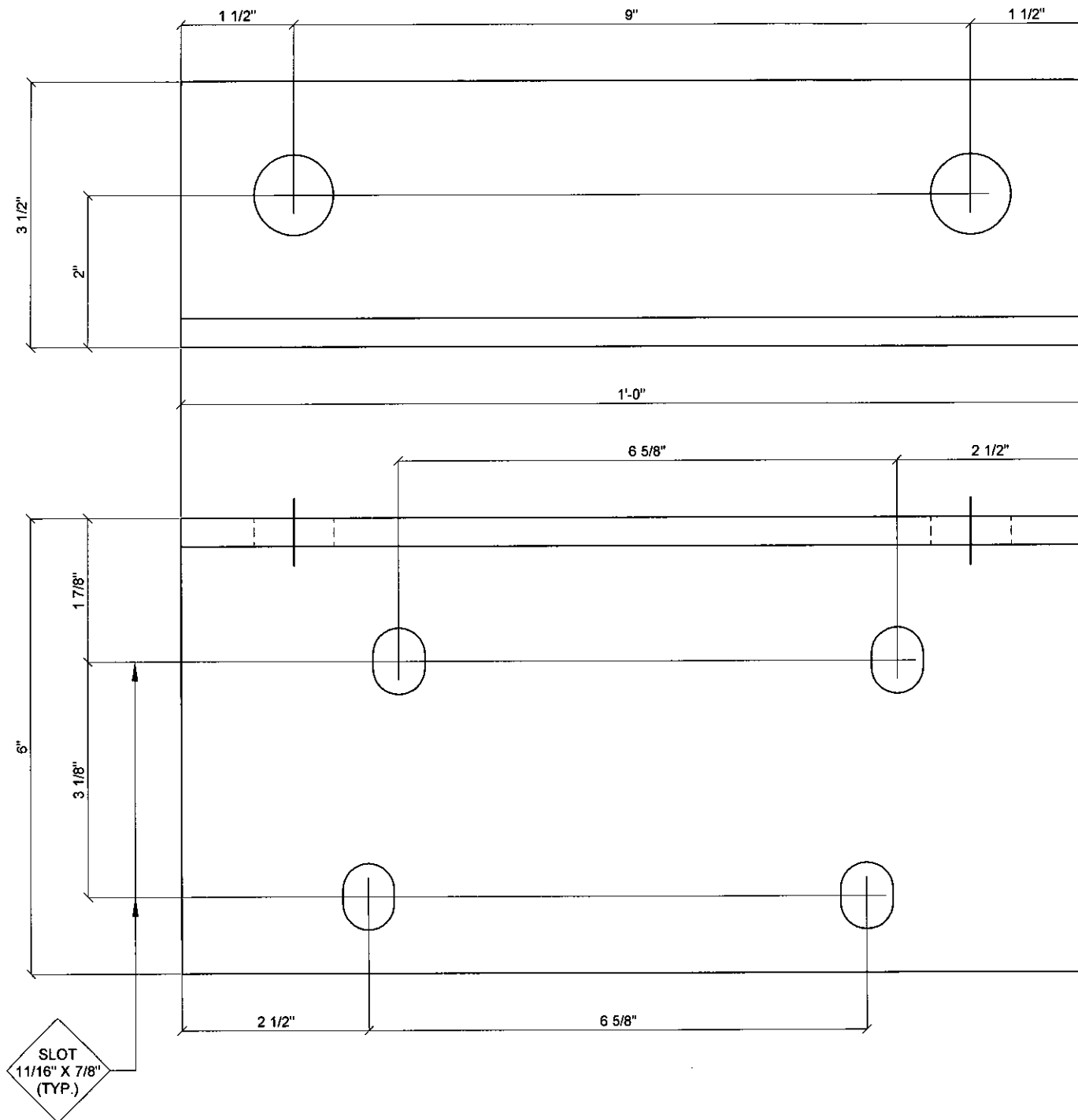
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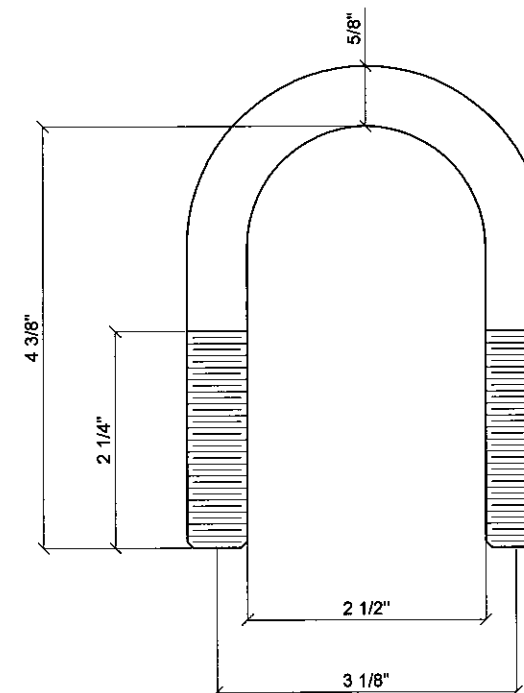
REINFORCEMENT
INSTALLATION DETAILS
(CONT'D)

SHEET NUMBER:	REV. #
A-4A	0

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BR-20C
#20 BAR BRACKET
[CONCENTRIC]



RUH4
RU-BOLT 5/8"Ø X 3 1/8" C/C

BR-20C	L 6" X 3 1/2" X 3/8"	1'-0"		11.7#	12.3#
PART NO.	DESCRIPTION	LENGTH	NOTES	BLK WT	GALV WT
MATERIAL: A36		FINISH: GALVANIZED	HOLES: 1 1/16"Ø U.N.O.		



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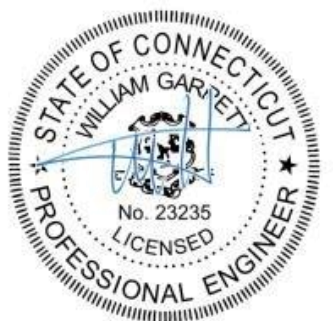
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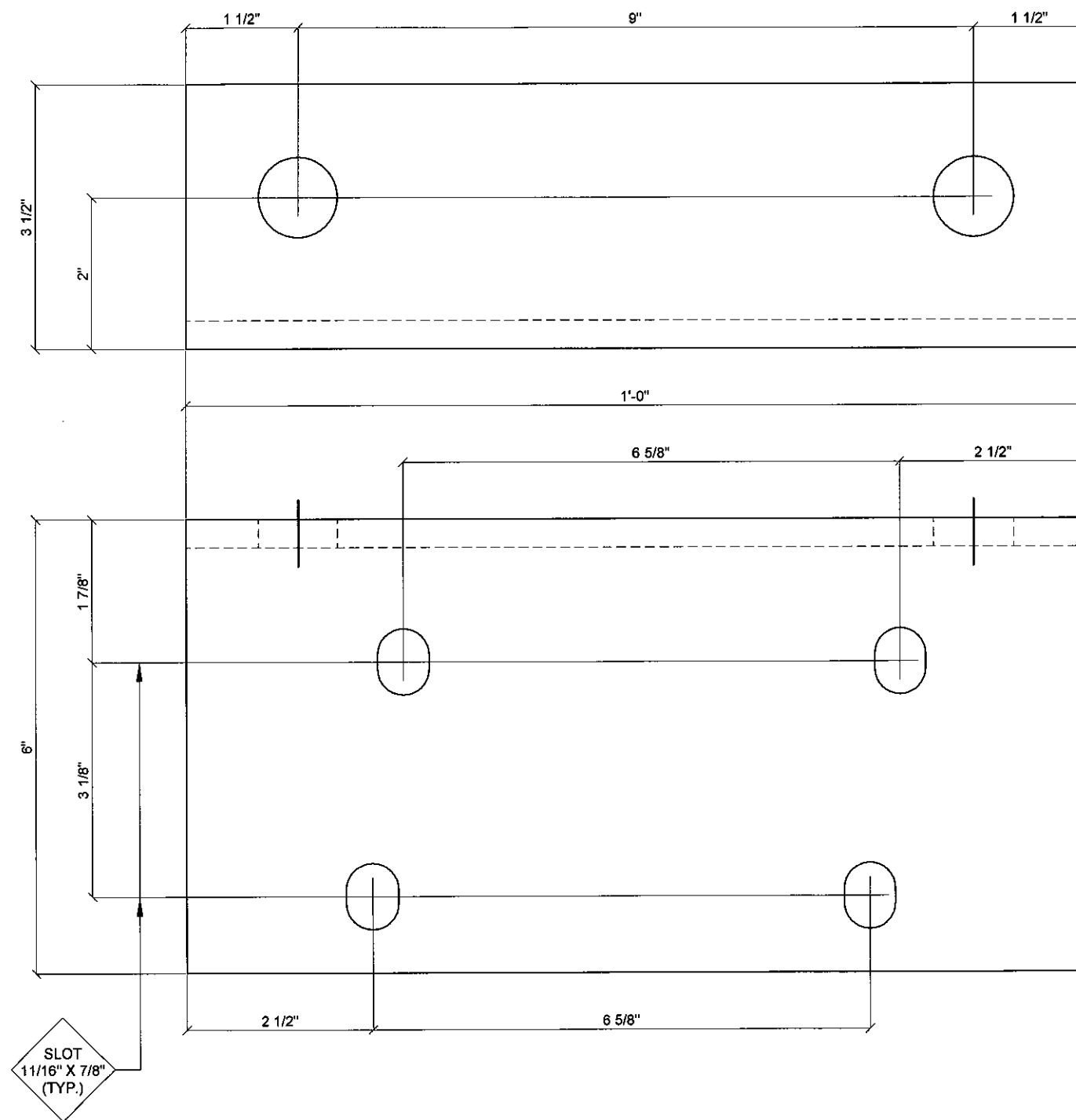
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#20 BAR BRACKET
[CONCENTRIC]

SHEET NUMBER:	REV. #
BR-20C	0

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BR-20E
#20 BAR BRACKET
[ECCENTRIC]

BR-20E	L 6" X 3 1/2" X 3/8"	1'-0"		11.7#	12.3#
PART NO.	DESCRIPTION	LENGTH	NOTES	BLK WT	GALV WT
MATERIAL: A36		FINISH: GALVANIZED	HOLES: 1 1/16"Ø U.N.O.		



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#20 BAR BRACKET
[ECCENTRIC]

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BR-20E	0



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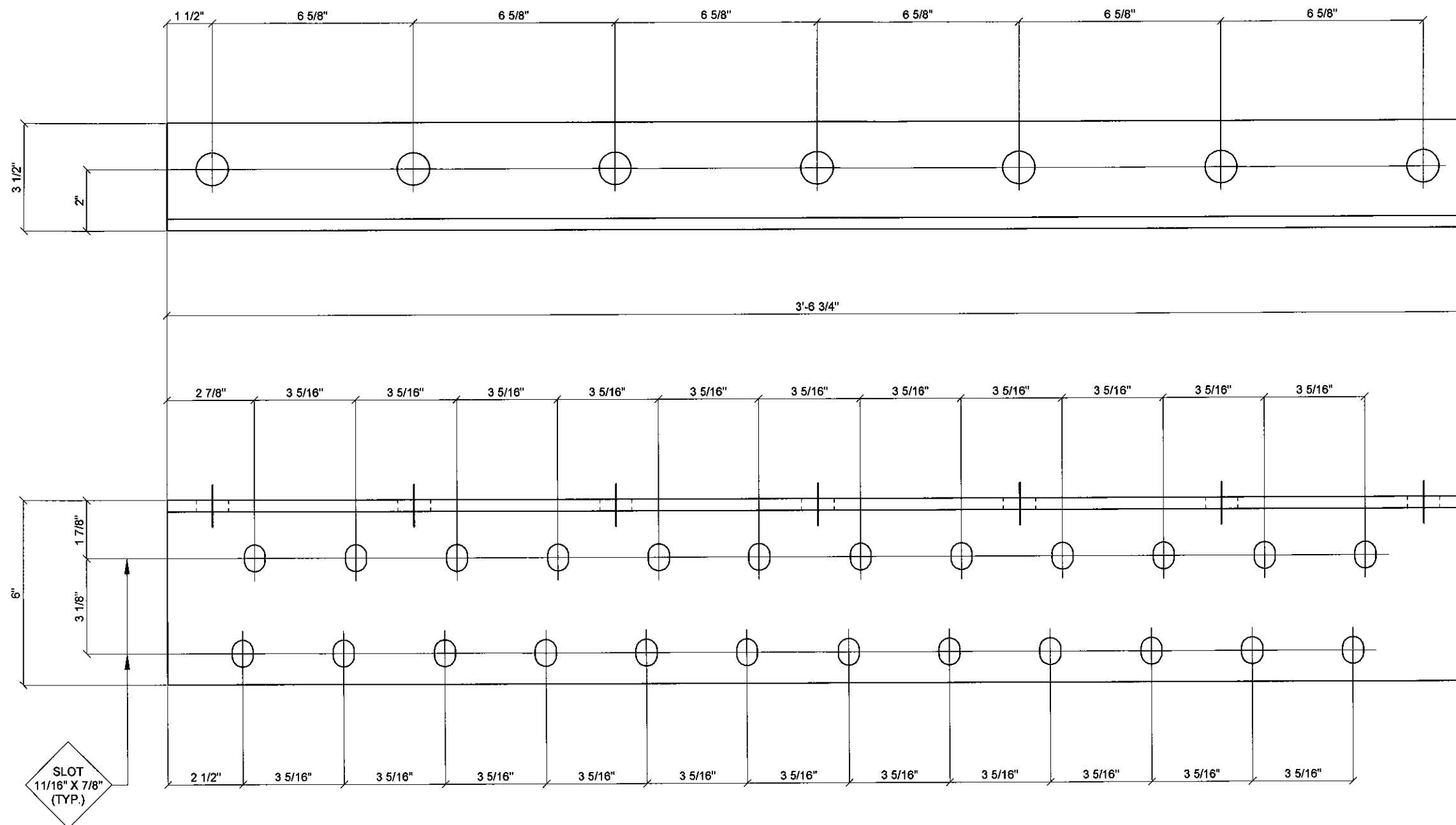


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#20 BAR
TERMINATION BRACKET
[CONCENTRIC 12 U-BOLT]

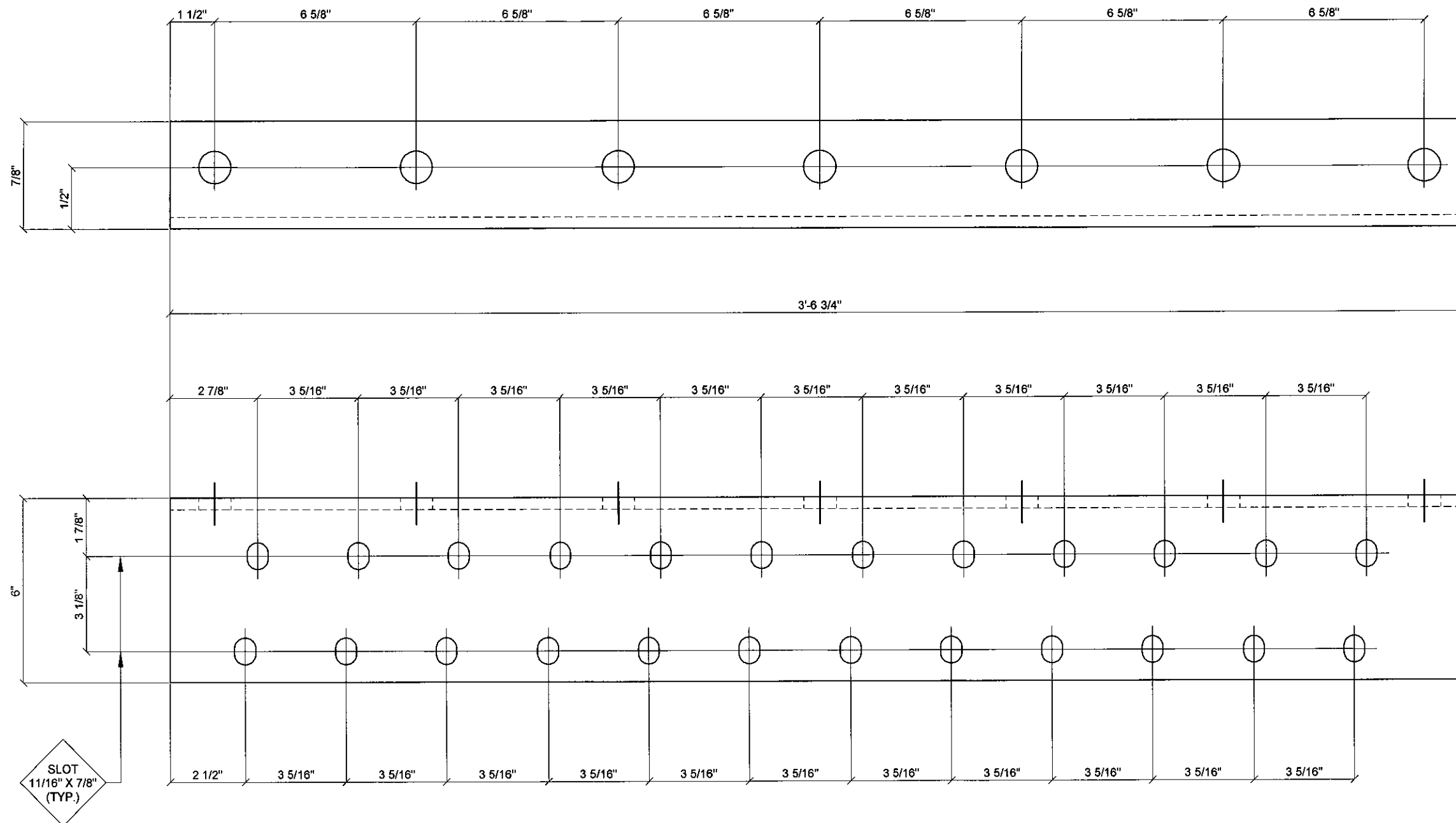
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TB-20C-12	0



TB-20C-12
#20 BAR TERMINATION BRACKET
[CONCENTRIC 12 U-BOLT]

TB-20C-12	L 6" X 3 1/2" X 3/8"	3'-6 3/4"		41.7#	43.8#
PART NO.	DESCRIPTION	LENGTH	NOTES	BLK WT	GALV WT
MATERIAL: A36	FINISH: GALVANIZED	HOLES: 1 1/16"Ø U.N.O.			

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TB-20E-12
#20 BAR TERMINATION BRACKET
[ECCENTRIC 12 U-BOLT]

TB-20E-12	L 6" X 3 1/2" X 3/8"	3'-6 3/4"		41.7#	43.8#
PART NO.	DESCRIPTION	LENGTH	NOTES	BLK WT	GALV WT
MATERIAL: A36		FINISH: GALVANIZED	HOLES: 1 1/16"Ø U.N.O.		



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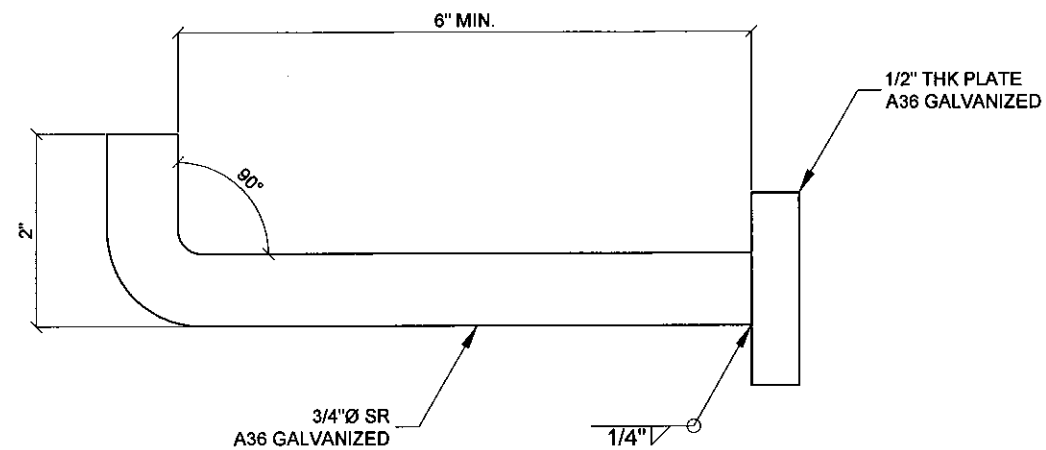
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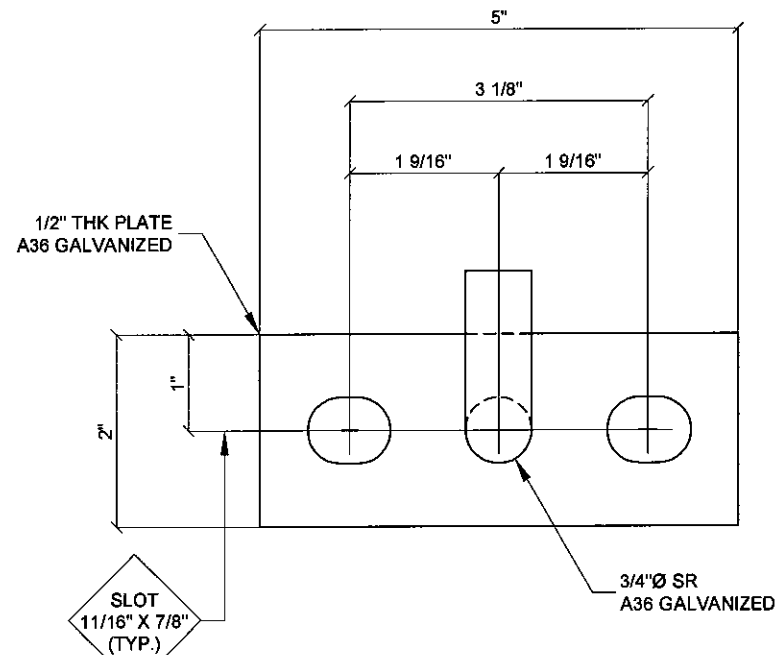
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TERMINATION BRACKET
[ECCENTRIC 12 U-BOLT]

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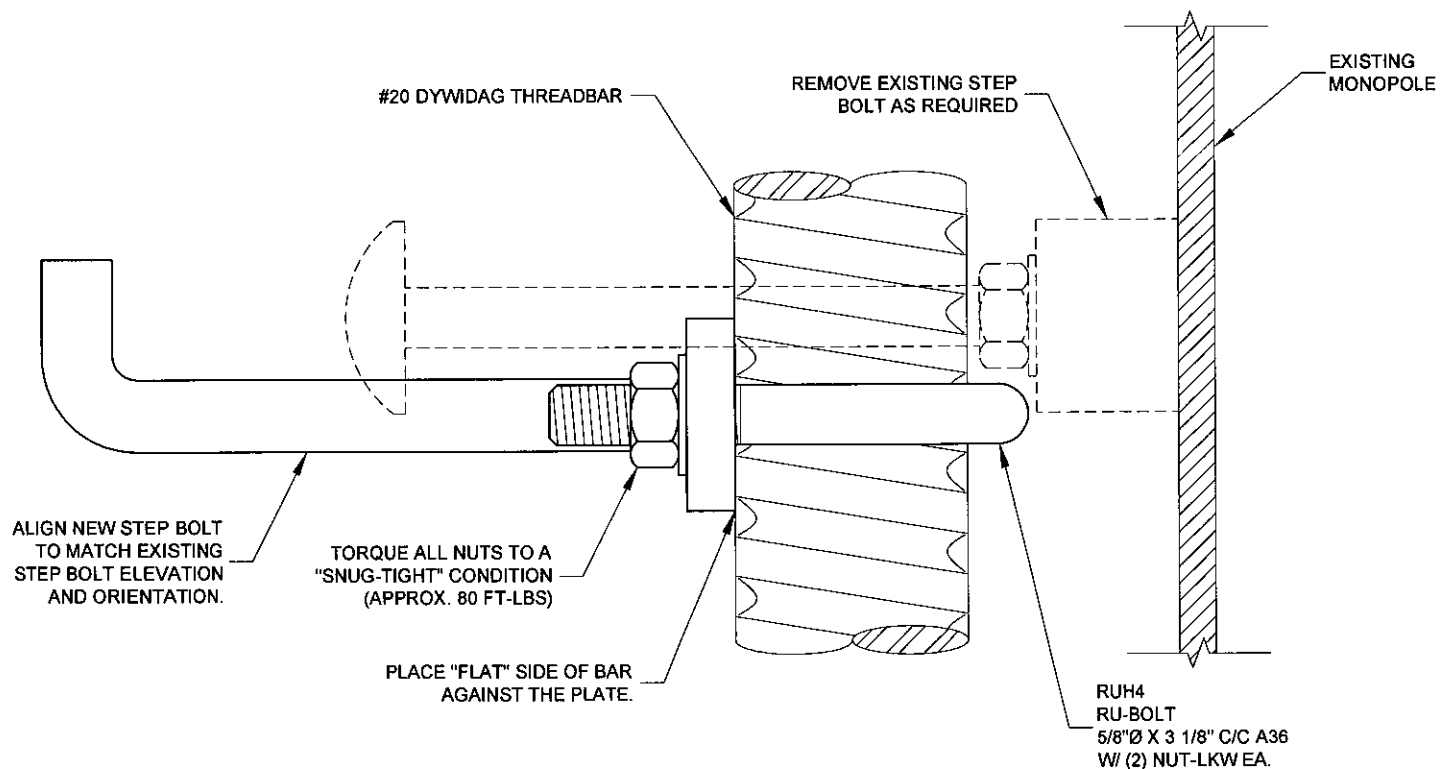
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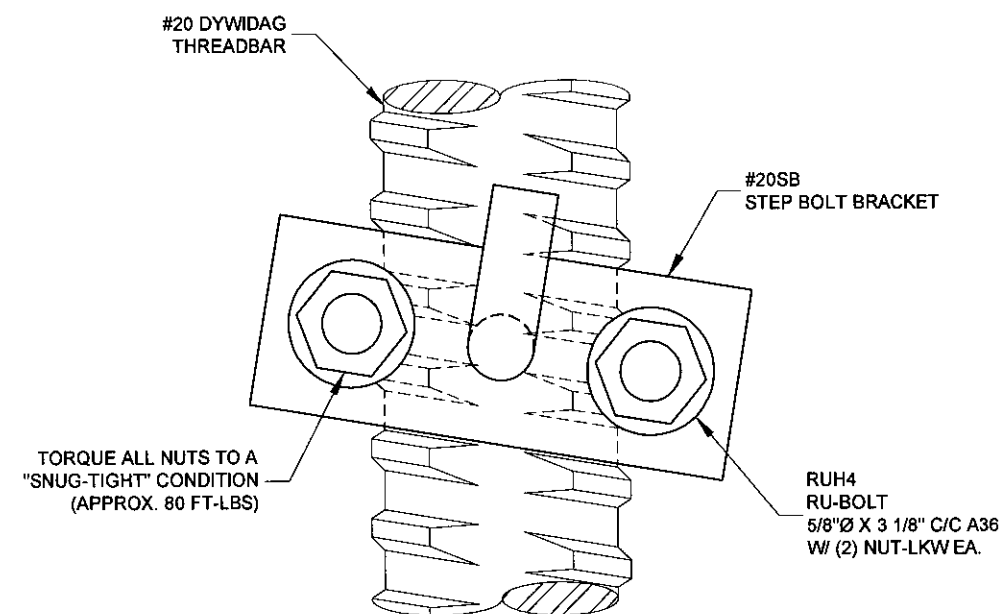
#20SB
SIDE VIEW



#20SB
FRONT VIEW



#20SB INSTALLATION DETAILS
SIDE VIEW



#20SB INSTALLATION DETAILS
FRONT VIEW



AMERICAN TOWER®
ATC TOWER SERVICES, INC.
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
FAX: (919) 466-5040

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	PAT	06/10/14
1			
2			
3			
4			

ATC SITE NUMBER:

243036

ATC SITE NAME:

WEST HAVEN & RT 162 CT

CONNECTICUT

SITE ADDRESS:

668 JONES HILL ROAD
WEST HAVEN, CT 06516



Jun 16 2014 4:00 PM

DRAWN BY:	PAT
APPROVED BY:	
DATE DRAWN:	06/10/14
ATC JOB NO:	543052310
SHEET TITLE:	

#20 STEP BOLT BRACKET
FABRICATION AND
INSTALLATION DETAILS

SHEET NUMBER:	REV. #
#20SB	0



Structural Analysis Report

Structure : 149 ft Monopole
ATC Site Name : West Haven & Rt 162 CT, CT
ATC Site Number : 243036
Engineering Number : 54305228
Proposed Carrier : AT&T Mobility
Carrier Site Name : West Have Jones Hill Rd
Carrier Site Number : S2899/FA#10578274
Site Location : 668 Jones Hill Road
West Haven, CT 06516-6311
41.256403,-72.972361
County : New Haven
Date : May 8, 2014
Max Usage : 124%
Result : Fail

Christopher Clark Poe, E.I.
Structural Engineer I



May 9 2014 3:23 PM



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Supporting Documents	1
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Calculations	Attached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 149 ft monopole to reflect the change in loading by AT&T Mobility.

Supporting Documents

Tower Drawings	Sabre Drawing #06-08204-PE, dated August 19, 2005
Foundation Drawing	Sabre Drawing #06-10095-F1, dated October 12, 2005
Geotechnical Report	EBI Project #61051509, dated July 12, 2005

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/EIA-222.

Basic Wind Speed:	90 mph (Fastest Mile)
Basic Wind Speed w/ Ice:	78 mph (Fastest Mile)w/ 1/2" radial ice concurrent
Code:	ANSI/TIA/EIA-222-F / 2003 IBC , Sec. 1609.1.1, Exception (5) & Sec. 3108.4 w/ 2005 CT Supplement & 2009 CT Amendment

Conclusion

Based on the analysis results, the structure does not meet the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report after the modifications listed below are completed:

- Reinforce shaft from 0-110 ft.
- Reinforce foundation.

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

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
149.0	151.0	3	DragonWave Horizon Compact	Collar	(6) 5/16" Coax (3) 1/2" Coax (1) 2" Conduit	Clearwire
		1	DragonWave A-ANT-23G-1-C			
		3	NextNet BTS-2500			
		2	DragonWave A-ANT-11G-2C			
		3	Argus LLPX310R			
143.0	143.0	3	Andrew ETW200VS12UB	Low Profile Platform	(15) 1 5/8" Coax	T-Mobile
		3	Andrew ETW190VS12UB			
		6	RFS APX16PV-16PVL-A			
134.0	134.0	6	RFS FD9R6004/2C-3L	Low Profile Platform	(12) 1 5/8" Coax (1) 1 5/8" Fiber	Verizon Wireless
		3	Antel BXA BXA-171063-12BF-EDIN-X			
		3	Antel BXA 185085/12CF			
		1	RFS DB-T1-6Z-8AB-OZ			
		3	Andrew DB854DG65ESX			
		3	Antel BXA-70063/6CF			
	132.0	3	Alcatel-Lucent RRH2x40AWS			
115.0	115.0	3	RFS APXV18-206517S-C	Flush	(6) 1 5/8" Coax	Metro PCS
105.0	105.0	1	Proxim 5054-R-LR	Stand-Off	(2) 1/4" Coax (1) 2" Conduit	Computer Hospital
		1	Pacific Wireless HDDA5W-32-xx			

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
No loading considered as to be removed						

Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
125.0	125.0	6	14" x 9" TTA	Low Profile Platform	(3) 3/8" Coax (12) 1 5/8" Coax (8) 0.76" 8 AWG 6 (2) 0.53" Hybrid Cable	AT&T Mobility
		4	Raycap DC6-48-60-18-8F			
		6	Ericsson RRUS A2			
		3	Ericsson RRUS-11 1900MHz			
		6	Ericsson RRUS-11 800MHz			
		3	Ericsson RRUS-12 1900MHz			
		3	Ericsson RRUS-12 800MHz			
		3	Ericsson RRUS E2 B29			
		3	Ericsson RRUS-32			
		12	CCI HPA-65R-BUU-H8			

¹Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	98%	Pass
Shaft	124%	Fail
Base Plate	116%	Fail

Foundations

Reaction Component	Analysis Reactions
Moment (Kips-Ft)	3,333.4
Axial (Kips)	39.5
Shear (Kips)	30.1

The structure foundation was found to be inadequate through analysis based on geotechnical and foundation information. Modification or reinforcement of the foundation will be required.

Foundation and anchorage were reviewed with a factor of safety of 2.0 considered.

Deflection and Sway*

Antenna Elevation (ft)	Deflection (ft)	Sway (Rotation) (°)
125.0	2.400	2.410

*Deflection and Sway was evaluated considering a design wind speed of 50 mph (Fastest Mile) per ANSI/TIA/EIA-222-F.



Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

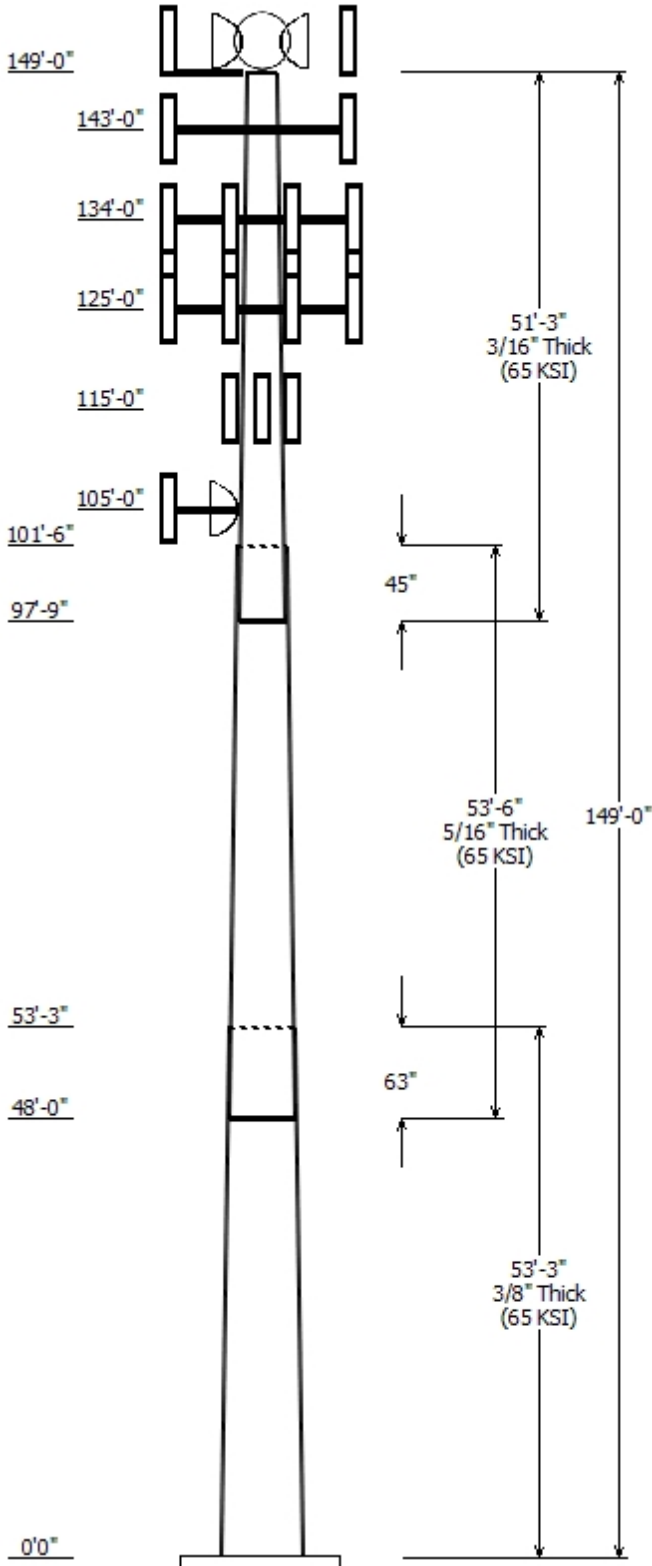
- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Tower Services, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

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Job Information

Pole : 243036 Code: TIA/EIA-222 Rev F
 Description : Tower Model Verified: 12/13/2012
 Client : AT&T Mobility
 Location : West Haven & Rt 162 CT, CT
 Shape : 18 Sides
 Height : 149.00 (ft)
 Base Elev (ft): 0.00
 Taper: 0.23496(in/ft)

Sections Properties

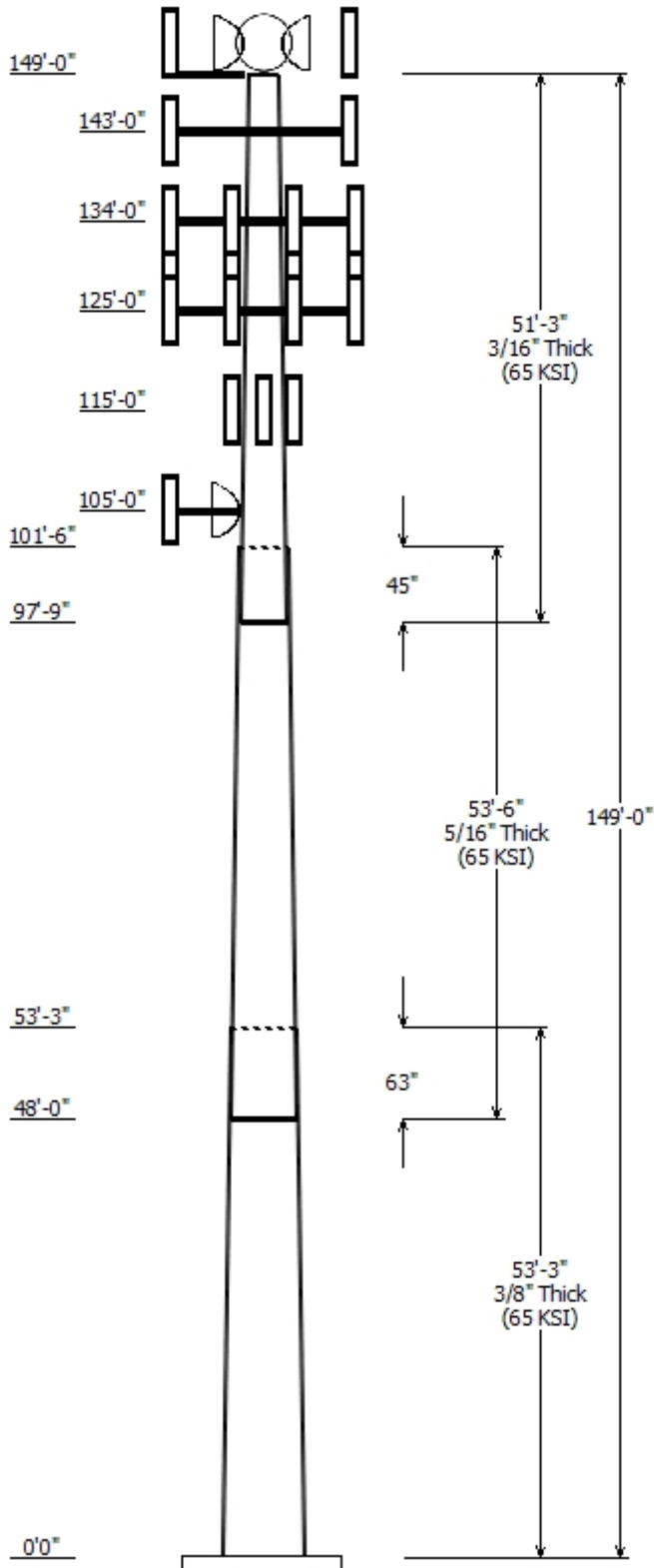
Shaft Section	Length (ft)	Diameter (in)				Joint Type	Overlap		Steel Grade (ksi)
		Across Flats		Thick (in)	Length (in)		Taper (in/ft)		
		Top	Bottom						
1	53.250	39.49	52.01	0.375		0.000	0.234965	65	
2	53.500	28.78	41.35	0.313	Slip Joint	63.000	0.234965	65	
3	51.250	18.00	30.04	0.188	Slip Joint	45.000	0.234965	65	

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
149.000	151.000	1	DragonWave A-ANT-23G-1-C
149.000	151.000	3	DragonWave Horizon Compact
149.000	151.000	3	Argus LLPX310R
149.000	151.000	3	NextNet BTS-2500
149.000	151.000	2	DragonWave A-ANT-11G-2C
149.000	149.000	1	Clearwire Mount
143.000	143.000	3	Andrew ETW200VS12UB
143.000	143.000	3	Andrew ETW190VS12UB
143.000	143.000	6	RFS APX16PV-16PVL-A
143.000	143.000	1	Flat Low Profile Platform
134.000	134.000	3	Antel BXA-70063/6CF
134.000	134.000	1	RFS DB-T1-6Z-8AB-0Z
134.000	134.000	3	Antel BXA BXA-171063-12BF-
134.000	132.000	3	Alcatel-Lucent RRH2x40AWS
134.000	134.000	3	Antel BXA 185085/12CF
134.000	134.000	6	RFS FD9R6004/2C-3L
134.000	134.000	1	Round Low Profile Platform
134.000	134.000	3	Andrew DB854DG65ESX
125.000	125.000	12	CCI HPA-65R-BUU-H8
125.000	125.000	3	Ericsson RRUS-32
125.000	125.000	3	Ericsson RRUS E2 B29
125.000	125.000	3	Ericsson RRUS-12 1900 MHz
125.000	125.000	3	Ericsson RRUS-12 800 MHz
125.000	125.000	3	Ericsson RRUS-11 1900 MHz
125.000	125.000	6	Ericsson RRUS-11 800 MHz
125.000	125.000	6	Ericsson RRUS A2
125.000	125.000	1	Flat Low Profile Platform
125.000	125.000	6	14" x 9" TTA
125.000	125.000	4	Raycap DC6-48-60-18-8F
115.000	115.000	3	RFS APXV18-206517S-C
105.000	105.000	1	Proxim 5054-R-LR
105.000	105.000	1	Pacific Wireless HDDA5W-32-xx
105.000	105.000	1	Stand-Off

Linear Appurtenance

Elev (ft)		Description	Exposed To Wind
From	To		
4.000	105.0	1/4" Coax	No
4.000	105.0	2" Conduit	No
4.000	115.0	1 5/8" Coax	No
4.000	125.0	0.53" Hybrid Cable	No
4.000	125.0	0.76" 8 AWG 6	No



4.000	125.0	1 5/8" Coax	No
4.000	125.0	3/8" Coax	No
4.000	134.0	1 5/8" Coax	No
4.000	134.0	1 5/8" Fiber	No
4.000	143.0	1 5/8" Coax	No
4.000	149.0	1/2" Coax	No
4.000	149.0	2" Conduit	No
4.000	149.0	5/16" Coax	No

Load Cases

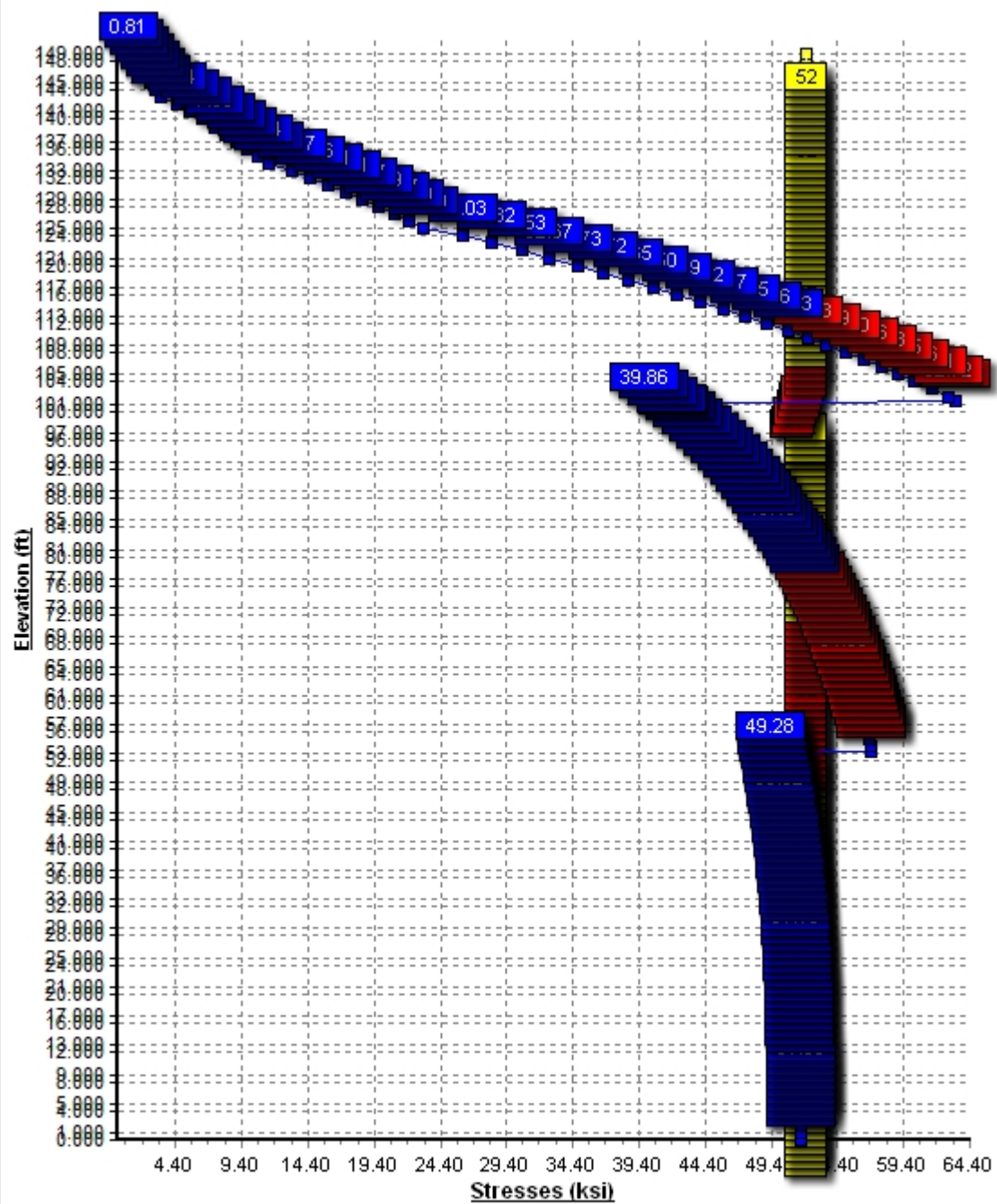
No Ice	90.00 mph Wind with No Ice
Ice	77.94 mph Wind with Ice
Twist/Sway	50.00 mph Wind with No Ice

Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
No Ice	3333.43	30.15	33.51
Ice	2803.74	24.71	39.54
Twist/Sway	1031.24	9.30	33.52

Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
Twist/Sway	105.00	19.558	1.948
Twist/Sway	149.00	41.434	2.562
Twist/Sway	149.00	41.434	2.562

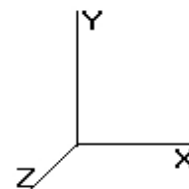


Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Shaft Section Properties

Shaft Section Properties							Bottom							Top						
Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip			Weight (lb)	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper (in/ft)
				Joint Type	Joint Len (in)	Weight (lb)														
1-18	53.250	0.3750	65		0.00	9,787	52.01	0.00	61.46	20701.4	23.04	138.69	39.49	53.25	46.56	9004.6	17.16	105.33	0.234965	
2-18	53.500	0.3125	65	Slip	63.00	6,276	41.35	48.00	40.71	8664.4	21.92	132.34	28.78	101.50	28.24	2892.7	14.83	92.11	0.234965	
3-18	51.250	0.1875	65	Slip	45.00	2,473	30.04	97.75	17.77	2000.6	26.84	160.22	18.00	149.00	10.60	424.9	15.52	96.00	0.234965	
Shaft Weight						18,536														

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Weight (lb)	No Ice EPAa (sf)	Orientation Factor	Weight (lb)	Ice EPAa (sf)	Orientation Factor	Distance From Face (ft)	Vert Ecc (ft)
149.00	Argus LLPX310R	3	28.60	4.830	0.62	54.50	5.360	0.62	0.000	2.000
149.00	Clearwire Mount	1	500.00	8.500	1.00	50.00	10.500	1.00	0.000	0.000
149.00	DragonWave A-ANT-11G-2C	2	27.00	4.690	0.90	55.10	5.050	0.90	0.000	2.000
149.00	DragonWave A-ANT-23G-1-C	1	15.00	1.610	0.90	25.10	1.830	0.90	0.000	2.000
149.00	DragonWave Horizon	3	10.60	0.430	0.33	17.00	0.580	0.33	0.000	2.000
149.00	NextNet BTS-2500	3	35.00	2.120	0.33	48.30	2.430	0.33	0.000	2.000
143.00	Andrew ETW190VS12UB	3	11.00	0.760	0.33	16.30	0.760	0.33	0.000	0.000
143.00	Andrew ETW200VS12UB	3	11.00	0.470	0.33	14.52	0.620	0.33	0.000	0.000
143.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1,700.00	31.600	1.00	0.000	0.000
143.00	RFS APX16PV-16PVL-A	6	39.60	6.650	0.59	70.65	7.298	0.59	0.000	0.000
134.00	Alcatel-Lucent RRH2x40AWS	3	44.00	2.520	0.50	61.40	2.870	0.50	0.000	-2.000
134.00	Andrew DB854DG65ESX	3	18.50	5.830	0.63	52.21	6.497	0.63	0.000	0.000
134.00	Antel BXA 185085/12CF	3	13.00	4.790	0.72	40.46	5.470	0.72	0.000	0.000
134.00	Antel BXA BXA-171063-12BF-	3	15.00	4.730	0.72	42.40	5.450	0.72	0.000	0.000
134.00	Antel BXA-70063/6CF	3	17.00	7.730	0.64	58.00	8.540	0.64	0.000	0.000
134.00	RFS DB-T1-6Z-8AB-0Z	1	44.00	5.600	0.67	144.50	6.080	0.67	0.000	0.000
134.00	RFS FD9R6004/2C-3L	6	3.10	0.370	0.33	5.40	0.500	0.33	0.000	0.000
134.00	Round Low Profile Platform	1	1500.00	21.700	0.90	1,700.00	27.200	0.90	0.000	0.000
125.00	14" x 9" TTA	6	10.00	1.230	0.33	18.00	1.460	0.33	0.000	0.000
125.00	CCI HPA-65R-BUU-H8	12	68.00	13.290	0.66	141.77	14.350	0.66	0.000	0.000
125.00	Ericsson RRUS A2	6	15.00	1.870	0.33	25.40	2.150	0.33	0.000	0.000
125.00	Ericsson RRUS E2 B29	3	60.00	3.670	0.50	66.50	4.070	0.50	0.000	0.000
125.00	Ericsson RRUS-11 1900 MHz	3	44.00	2.940	0.50	63.30	3.290	0.50	0.000	0.000
125.00	Ericsson RRUS-11 800 MHz	6	54.00	2.940	0.50	75.64	3.290	0.50	0.000	0.000
125.00	Ericsson RRUS-12 1900 MHz	3	60.00	3.150	0.50	81.20	3.510	0.50	0.000	0.000
125.00	Ericsson RRUS-12 800 MHz	3	60.00	3.150	0.50	81.20	3.510	0.50	0.000	0.000
125.00	Ericsson RRUS-32	3	77.00	3.870	0.50	104.90	4.300	0.50	0.000	0.000
125.00	Flat Low Profile Platform	1	1500.00	26.100	0.90	1,700.00	31.600	0.90	0.000	0.000
125.00	Raycap DC6-48-60-18-8F	4	31.80	1.470	0.67	49.50	1.670	0.67	0.000	0.000
115.00	RFS APXV18-206517S-C	3	26.40	5.160	0.68	53.13	5.850	0.68	0.000	0.000
105.00	Pacific Wireless HDDA5W-32-	1	22.00	12.090	1.00	57.70	12.760	1.00	0.000	0.000
105.00	Proxim 5054-R-LR	1	6.00	1.540	0.50	10.00	2.000	0.50	0.000	0.000
105.00	Stand-Off	1	50.00	1.000	1.00	100.00	3.000	1.00	0.000	0.000
Totals		105	8457.70			11,233.22			Number of Loadings : 33	

Linear Appurtenance Properties

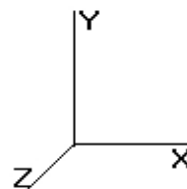
Elev From (ft)	Elev To (ft)	Description	No Ice Weight (lb/ft)	No Ice CaAa (sf/ft)	Ice Weight (lb/ft)	Ice CaAa (sf/ft)	Exposed To Wind
4.00	149.00	(3) 1/2" Coax	0.45	0.00	0.00	0.00	N
4.00	149.00	(1) 2" Conduit	3.65	0.00	0.00	0.00	N
4.00	149.00	(6) 5/16" Coax	0.27	0.00	0.00	0.00	N

Pole : 243036
Location : West Haven & Rt 162 CT, CT
Height : 149.0 (ft)
Base Dia : 52.01 (in)
Top Dia : 18.00 (in)
Shape : 18 Sides
Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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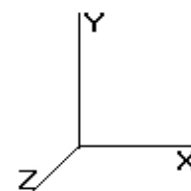
4.00	143.00	(15) 1 5/8" Coax	12.30	0.00	0.00	0.00	N
4.00	134.00	(12) 1 5/8" Coax	9.84	0.00	0.00	0.00	N
4.00	134.00	(1) 1 5/8" Fiber	1.61	0.00	0.00	0.00	N
4.00	125.00	(2) 0.53" Hybrid Cable	0.28	0.00	0.00	0.00	N
4.00	125.00	(8) 0.76" 8 AWG 6	4.24	0.00	0.00	0.00	N
4.00	125.00	(12) 1 5/8" Coax	9.84	0.17	0.00	0.25	N
4.00	125.00	(3) 3/8" Coax	0.24	0.00	0.00	0.00	N
4.00	115.00	(6) 1 5/8" Coax	4.92	0.00	0.00	0.00	N
4.00	105.00	(2) 1/4" Coax	0.12	0.00	0.00	0.00	N
4.00	105.00	(1) 2" Conduit	3.65	0.00	0.00	0.00	N
Total Weight			6,525.34 (lb)		0.00 (lb)		

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
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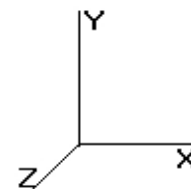
Segment Properties (Max Len : 1 ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)
0.00		0.3750	52.010	61.456	20,701.4	23.04	138.69	65	52	0.0
1.00		0.3750	51.775	61.176	20,420.1	22.93	138.07	65	52	208.6
2.00		0.3750	51.540	60.897	20,141.4	22.82	137.44	65	52	207.7
3.00		0.3750	51.305	60.617	19,865.1	22.71	136.81	65	52	206.7
4.00		0.3750	51.070	60.337	19,591.5	22.60	136.19	65	52	205.8
5.00		0.3750	50.835	60.058	19,320.3	22.49	135.56	65	52	204.8
6.00		0.3750	50.600	59.778	19,051.7	22.38	134.93	65	52	203.9
7.00		0.3750	50.365	59.498	18,785.5	22.27	134.31	65	52	202.9
8.00		0.3750	50.130	59.219	18,521.9	22.16	133.68	65	52	202.0
9.00		0.3750	49.895	58.939	18,260.7	22.05	133.05	65	52	201.0
10.00		0.3750	49.660	58.659	18,002.0	21.94	132.43	65	52	200.1
11.00		0.3750	49.425	58.380	17,745.8	21.83	131.80	65	52	199.1
12.00		0.3750	49.190	58.100	17,492.0	21.72	131.17	65	52	198.2
13.00		0.3750	48.955	57.820	17,240.6	21.61	130.55	65	52	197.2
14.00		0.3750	48.720	57.541	16,991.6	21.50	129.92	65	52	196.3
15.00		0.3750	48.485	57.261	16,745.1	21.39	129.29	65	52	195.3
16.00		0.3750	48.250	56.981	16,501.0	21.28	128.67	65	52	194.4
17.00		0.3750	48.015	56.702	16,259.2	21.17	128.04	65	52	193.4
18.00		0.3750	47.780	56.422	16,019.8	21.06	127.41	65	52	192.5
19.00		0.3750	47.545	56.143	15,782.8	20.95	126.79	65	52	191.5
20.00		0.3750	47.310	55.863	15,548.1	20.83	126.16	65	52	190.6
21.00		0.3750	47.075	55.583	15,315.8	20.72	125.53	65	52	189.6
22.00		0.3750	46.840	55.304	15,085.7	20.61	124.91	65	52	188.7
23.00		0.3750	46.606	55.024	14,858.0	20.50	124.28	65	52	187.7
24.00		0.3750	46.371	54.744	14,632.6	20.39	123.65	65	52	186.8
25.00		0.3750	46.136	54.465	14,409.5	20.28	123.03	65	52	185.8
26.00		0.3750	45.901	54.185	14,188.7	20.17	122.40	65	52	184.9
27.00		0.3750	45.666	53.905	13,970.1	20.06	121.78	65	52	183.9
28.00		0.3750	45.431	53.626	13,753.8	19.95	121.15	65	52	183.0
29.00		0.3750	45.196	53.346	13,539.8	19.84	120.52	65	52	182.0
30.00		0.3750	44.961	53.066	13,328.0	19.73	119.90	65	52	181.0
31.00		0.3750	44.726	52.787	13,118.4	19.62	119.27	65	52	180.1
32.00		0.3750	44.491	52.507	12,911.0	19.51	118.64	65	52	179.1
33.00		0.3750	44.256	52.227	12,705.8	19.40	118.02	65	52	178.2
34.00		0.3750	44.021	51.948	12,502.8	19.29	117.39	65	52	177.2
35.00		0.3750	43.786	51.668	12,301.9	19.18	116.76	65	52	176.3
36.00		0.3750	43.551	51.388	12,103.2	19.07	116.14	65	52	175.3
37.00		0.3750	43.316	51.109	11,906.7	18.96	115.51	65	52	174.4
38.00		0.3750	43.081	50.829	11,712.3	18.85	114.88	65	52	173.4
39.00		0.3750	42.846	50.549	11,520.1	18.74	114.26	65	52	172.5
40.00		0.3750	42.611	50.270	11,329.9	18.63	113.63	65	52	171.5
41.00		0.3750	42.376	49.990	11,141.9	18.51	113.00	65	52	170.6
42.00		0.3750	42.141	49.710	10,955.9	18.40	112.38	65	52	169.6
43.00		0.3750	41.906	49.431	10,772.1	18.29	111.75	65	52	168.7
44.00		0.3750	41.671	49.151	10,590.3	18.18	111.12	65	52	167.7
45.00		0.3750	41.436	48.871	10,410.5	18.07	110.50	65	52	166.8
46.00		0.3750	41.201	48.592	10,232.8	17.96	109.87	65	52	165.8
47.00		0.3750	40.966	48.312	10,057.2	17.85	109.24	65	52	164.9
48.00	Bot - Section 2	0.3750	40.731	48.032	9,883.5	17.74	108.62	65	52	163.9
49.00		0.3750	40.496	47.753	9,711.9	17.63	107.99	65	52	301.1
50.00		0.3750	40.261	47.473	9,542.3	17.52	107.36	65	52	299.4
51.00		0.3750	40.026	47.193	9,374.6	17.41	106.74	65	52	297.6
52.00		0.3750	39.792	46.914	9,209.0	17.30	106.11	65	52	295.9
53.00		0.3750	39.557	46.634	9,045.2	17.19	105.48	65	52	294.1
53.25	Top - Section 1	0.3125	40.123	39.485	7,906.4	21.23	128.39	65	52	73.3
54.00		0.3125	39.947	39.311	7,801.9	21.13	127.83	65	52	100.5
55.00		0.3125	39.712	39.078	7,664.0	21.00	127.08	65	52	133.4
56.00		0.3125	39.477	38.845	7,527.7	20.86	126.33	65	52	132.6

Pole : 243036
Location : West Haven & Rt 162 CT, CT
Height : 149.0 (ft)
Base Dia : 52.01 (in)
Top Dia : 18.00 (in)
Shape : 18 Sides
Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)
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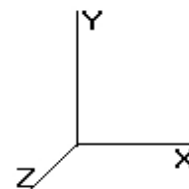
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57.00		0.3125	39.242	38.611	7,393.0	20.73	125.57	65	52	131.8
58.00		0.3125	39.007	38.378	7,259.9	20.60	124.82	65	52	131.0
59.00		0.3125	38.772	38.145	7,128.5	20.47	124.07	65	52	130.2
60.00		0.3125	38.537	37.912	6,998.6	20.33	123.32	65	52	129.4
61.00		0.3125	38.302	37.679	6,870.4	20.20	122.57	65	52	128.6
62.00		0.3125	38.067	37.446	6,743.7	20.07	121.81	65	52	127.8
63.00		0.3125	37.832	37.213	6,618.5	19.94	121.06	65	52	127.0
64.00		0.3125	37.597	36.980	6,495.0	19.80	120.31	65	52	126.2
65.00		0.3125	37.362	36.747	6,372.9	19.67	119.56	65	52	125.4
66.00		0.3125	37.127	36.514	6,252.5	19.54	118.81	65	52	124.6
67.00		0.3125	36.892	36.281	6,133.5	19.41	118.05	65	52	123.9
68.00		0.3125	36.657	36.048	6,016.1	19.27	117.30	65	52	123.1
69.00		0.3125	36.422	35.815	5,900.1	19.14	116.55	65	52	122.3
70.00		0.3125	36.187	35.582	5,785.7	19.01	115.80	65	52	121.5
71.00		0.3125	35.952	35.349	5,672.8	18.88	115.05	65	52	120.7
72.00		0.3125	35.717	35.116	5,561.3	18.74	114.30	65	52	119.9
73.00		0.3125	35.482	34.883	5,451.3	18.61	113.54	65	52	119.1
74.00		0.3125	35.247	34.650	5,342.8	18.48	112.79	65	52	118.3
75.00		0.3125	35.012	34.417	5,235.7	18.34	112.04	65	52	117.5
76.00		0.3125	34.777	34.184	5,130.1	18.21	111.29	65	52	116.7
77.00		0.3125	34.542	33.951	5,025.9	18.08	110.54	65	52	115.9
78.00		0.3125	34.307	33.717	4,923.1	17.95	109.78	65	52	115.1
79.00		0.3125	34.072	33.484	4,821.7	17.81	109.03	65	52	114.3
80.00		0.3125	33.837	33.251	4,721.7	17.68	108.28	65	52	113.5
81.00		0.3125	33.603	33.018	4,623.1	17.55	107.53	65	52	112.8
82.00		0.3125	33.368	32.785	4,525.9	17.42	106.78	65	52	112.0
83.00		0.3125	33.133	32.552	4,430.1	17.28	106.02	65	52	111.2
84.00		0.3125	32.898	32.319	4,335.6	17.15	105.27	65	52	110.4
85.00		0.3125	32.663	32.086	4,242.5	17.02	104.52	65	52	109.6
86.00		0.3125	32.428	31.853	4,150.7	16.89	103.77	65	52	108.8
87.00		0.3125	32.193	31.620	4,060.3	16.75	103.02	65	52	108.0
88.00		0.3125	31.958	31.387	3,971.2	16.62	102.26	65	52	107.2
89.00		0.3125	31.723	31.154	3,883.4	16.49	101.51	65	52	106.4
90.00		0.3125	31.488	30.921	3,796.9	16.36	100.76	65	52	105.6
91.00		0.3125	31.253	30.688	3,711.7	16.22	100.01	65	52	104.8
92.00		0.3125	31.018	30.455	3,627.8	16.09	99.26	65	52	104.0
93.00		0.3125	30.783	30.222	3,545.1	15.96	98.51	65	52	103.2
94.00		0.3125	30.548	29.989	3,463.7	15.83	97.75	65	52	102.4
95.00		0.3125	30.313	29.756	3,383.6	15.69	97.00	65	52	101.6
96.00		0.3125	30.078	29.523	3,304.7	15.56	96.25	65	52	100.9
97.00		0.3125	29.843	29.290	3,227.1	15.43	95.50	65	52	100.1
97.75	Bot - Section 3	0.3125	29.667	29.115	3,169.7	15.33	94.93	65	52	74.5
98.00		0.3125	29.608	29.057	3,150.7	15.30	94.75	65	52	39.8
99.00		0.3125	29.373	28.823	3,075.5	15.16	93.99	65	52	158.6
100.0		0.3125	29.138	28.590	3,001.5	15.03	93.24	65	52	157.3
101.0		0.3125	28.903	28.357	2,928.7	14.90	92.49	65	52	156.0
101.5	Top - Section 2	0.1875	29.161	17.242	1,828.7	26.01	155.52	65	51	77.5
102.0		0.1875	29.043	17.172	1,806.5	25.90	154.90	65	51	29.3
103.0		0.1875	28.808	17.032	1,762.8	25.68	153.64	65	51	58.2
104.0		0.1875	28.573	16.893	1,719.7	25.46	152.39	65	51	57.7
105.0		0.1875	28.338	16.753	1,677.3	25.24	151.14	65	52	57.2
106.0		0.1875	28.103	16.613	1,635.7	25.02	149.88	65	52	56.8
107.0		0.1875	27.868	16.473	1,594.7	24.80	148.63	65	52	56.3
108.0		0.1875	27.633	16.333	1,554.5	24.58	147.38	65	52	55.8
109.0		0.1875	27.399	16.193	1,514.9	24.36	146.13	65	52	55.3
110.0		0.1875	27.164	16.054	1,476.0	24.13	144.87	65	52	54.9
111.0		0.1875	26.929	15.914	1,437.7	23.91	143.62	65	52	54.4
112.0		0.1875	26.694	15.774	1,400.2	23.69	142.37	65	52	53.9
113.0		0.1875	26.459	15.634	1,363.3	23.47	141.11	65	52	53.4
114.0		0.1875	26.224	15.494	1,327.0	23.25	139.86	65	52	53.0
115.0		0.1875	25.989	15.354	1,291.4	23.03	138.61	65	52	52.5
116.0		0.1875	25.754	15.215	1,256.5	22.81	137.35	65	52	52.0
117.0		0.1875	25.519	15.075	1,222.1	22.59	136.10	65	52	51.5
118.0		0.1875	25.284	14.935	1,188.4	22.37	134.85	65	52	51.1

Pole : 243036
Location : West Haven & Rt 162 CT, CT
Height : 149.0 (ft)
Base Dia : 52.01 (in)
Top Dia : 18.00 (in)
Shape : 18 Sides
Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)
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119.0	0.1875	25.049	14.795	1,155.4	22.15	133.59	65	52	50.6
120.0	0.1875	24.814	14.655	1,122.9	21.92	132.34	65	52	50.1
121.0	0.1875	24.579	14.515	1,091.1	21.70	131.09	65	52	49.6
122.0	0.1875	24.344	14.376	1,059.9	21.48	129.83	65	52	49.2
123.0	0.1875	24.109	14.236	1,029.2	21.26	128.58	65	52	48.7
124.0	0.1875	23.874	14.096	999.2	21.04	127.33	65	52	48.2
125.0	0.1875	23.639	13.956	969.8	20.82	126.08	65	52	47.7
126.0	0.1875	23.404	13.816	940.9	20.60	124.82	65	52	47.3
127.0	0.1875	23.169	13.676	912.6	20.38	123.57	65	52	46.8
128.0	0.1875	22.934	13.537	884.9	20.16	122.32	65	52	46.3
129.0	0.1875	22.699	13.397	857.8	19.94	121.06	65	52	45.8
130.0	0.1875	22.464	13.257	831.2	19.71	119.81	65	52	45.3
131.0	0.1875	22.229	13.117	805.2	19.49	118.56	65	52	44.9
132.0	0.1875	21.994	12.977	779.7	19.27	117.30	65	52	44.4
133.0	0.1875	21.759	12.837	754.8	19.05	116.05	65	52	43.9
134.0	0.1875	21.524	12.698	730.4	18.83	114.80	65	52	43.4
135.0	0.1875	21.289	12.558	706.5	18.61	113.54	65	52	43.0
136.0	0.1875	21.054	12.418	683.2	18.39	112.29	65	52	42.5
137.0	0.1875	20.819	12.278	660.3	18.17	111.04	65	52	42.0
138.0	0.1875	20.585	12.138	638.0	17.95	109.78	65	52	41.5
139.0	0.1875	20.350	11.999	616.2	17.73	108.53	65	52	41.1
140.0	0.1875	20.115	11.859	594.9	17.51	107.28	65	52	40.6
141.0	0.1875	19.880	11.719	574.1	17.28	106.02	65	52	40.1
142.0	0.1875	19.645	11.579	553.8	17.06	104.77	65	52	39.6
143.0	0.1875	19.410	11.439	534.0	16.84	103.52	65	52	39.2
144.0	0.1875	19.175	11.299	514.7	16.62	102.27	65	52	38.7
145.0	0.1875	18.940	11.160	495.8	16.40	101.01	65	52	38.2
146.0	0.1875	18.705	11.020	477.4	16.18	99.76	65	52	37.7
147.0	0.1875	18.470	10.880	459.5	15.96	98.51	65	52	37.3
148.0	0.1875	18.235	10.740	442.0	15.74	97.25	65	52	36.8
149.0	0.1875	18.000	10.600	424.9	15.52	96.00	65	52	36.3

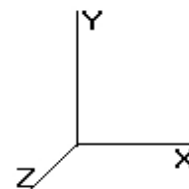
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Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
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Base Elev : 0.000 (ft)

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Load Case: No Ice	90.00 mph Wind with No Ice	33 Iterations
Gust Response Factor : 1.69		
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

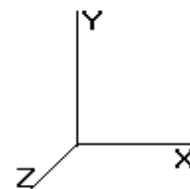
Shaft Segment Forces

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 20.736	35.04 390.07	0.650		0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00		0.00	1.00 20.736	35.04 388.31	0.650		0.000	1.00	4.324	2.81	98.5	0.0	208.6
2.00		0.00	1.00 20.736	35.04 386.54	0.650		0.000	1.00	4.305	2.80	98.1	0.0	207.7
3.00		0.00	1.00 20.736	35.04 384.78	0.650		0.000	1.00	4.285	2.79	97.6	0.0	206.7
4.00		0.00	1.00 20.736	35.04 383.02	0.650		0.000	1.00	4.266	2.77	97.2	0.0	205.8
5.00		0.00	1.00 20.736	35.04 381.26	0.650		0.000	1.00	4.246	2.76	96.7	0.0	204.8
6.00		0.00	1.00 20.736	35.04 379.49	0.650		0.000	1.00	4.226	2.75	96.3	0.0	203.9
7.00		0.00	1.00 20.736	35.04 377.73	0.650		0.000	1.00	4.207	2.73	95.8	0.0	202.9
8.00		0.00	1.00 20.736	35.04 375.97	0.650		0.000	1.00	4.187	2.72	95.4	0.0	202.0
9.00		0.00	1.00 20.736	35.04 374.21	0.650		0.000	1.00	4.168	2.71	94.9	0.0	201.0
10.00		0.00	1.00 20.736	35.04 372.45	0.650		0.000	1.00	4.148	2.70	94.5	0.0	200.1
11.00		0.00	1.00 20.736	35.04 370.68	0.650		0.000	1.00	4.129	2.68	94.0	0.0	199.1
12.00		0.00	1.00 20.736	35.04 368.92	0.650		0.000	1.00	4.109	2.67	93.6	0.0	198.2
13.00		0.00	1.00 20.736	35.04 367.16	0.650		0.000	1.00	4.089	2.66	93.2	0.0	197.2
14.00		0.00	1.00 20.736	35.04 365.40	0.650		0.000	1.00	4.070	2.65	92.7	0.0	196.3
15.00		0.00	1.00 20.736	35.04 363.63	0.650		0.000	1.00	4.050	2.63	92.3	0.0	195.3
16.00		0.00	1.00 20.736	35.04 361.87	0.650		0.000	1.00	4.031	2.62	91.8	0.0	194.4
17.00		0.00	1.00 20.736	35.04 360.11	0.650		0.000	1.00	4.011	2.61	91.4	0.0	193.4
18.00		0.00	1.00 20.736	35.04 358.35	0.650		0.000	1.00	3.991	2.59	90.9	0.0	192.5
19.00		0.00	1.00 20.736	35.04 356.59	0.650		0.000	1.00	3.972	2.58	90.5	0.0	191.5
20.00		0.00	1.00 20.736	35.04 354.82	0.650		0.000	1.00	3.952	2.57	90.0	0.0	190.6
21.00		0.00	1.00 20.736	35.04 353.06	0.650		0.000	1.00	3.933	2.56	89.6	0.0	189.6
22.00		0.00	1.00 20.736	35.04 351.30	0.650		0.000	1.00	3.913	2.54	89.1	0.0	188.7
23.00		0.00	1.00 20.736	35.04 349.54	0.650		0.000	1.00	3.894	2.53	88.7	0.0	187.7
24.00		0.00	1.00 20.736	35.04 347.77	0.650		0.000	1.00	3.874	2.52	88.2	0.0	186.8
25.00		0.00	1.00 20.736	35.04 346.01	0.650		0.000	1.00	3.854	2.51	87.8	0.0	185.8
26.00		0.00	1.00 20.736	35.04 344.25	0.650		0.000	1.00	3.835	2.49	87.4	0.0	184.9
27.00		0.00	1.00 20.736	35.04 342.49	0.650		0.000	1.00	3.815	2.48	86.9	0.0	183.9
28.00		0.00	1.00 20.736	35.04 340.73	0.650		0.000	1.00	3.796	2.47	86.5	0.0	183.0
29.00		0.00	1.00 20.736	35.04 338.96	0.650		0.000	1.00	3.776	2.45	86.0	0.0	182.0
30.00		0.00	1.00 20.736	35.04 337.20	0.650		0.000	1.00	3.757	2.44	85.6	0.0	181.0
31.00		0.00	1.00 20.736	35.04 335.44	0.650		0.000	1.00	3.737	2.43	85.1	0.0	180.1
32.00		0.00	1.00 20.736	35.04 333.68	0.650		0.000	1.00	3.717	2.42	84.7	0.0	179.1
33.00		0.00	1.00 20.736	35.04 331.91	0.650		0.000	1.00	3.698	2.40	84.2	0.0	178.2
34.00		0.00	1.00 20.914	35.34 331.56	0.650		0.000	1.00	3.678	2.39	84.5	0.0	177.2
35.00		0.00	1.01 21.088	35.63 331.16	0.650		0.000	1.00	3.659	2.38	84.8	0.0	176.3
36.00		0.00	1.02 21.258	35.92 330.71	0.650		0.000	1.00	3.639	2.37	85.0	0.0	175.3
37.00		0.00	1.03 21.425	36.20 330.22	0.650		0.000	1.00	3.619	2.35	85.2	0.0	174.4
38.00		0.00	1.04 21.589	36.48 329.68	0.650		0.000	1.00	3.600	2.34	85.4	0.0	173.4
39.00		0.00	1.04 21.750	36.75 329.10	0.650		0.000	1.00	3.580	2.33	85.5	0.0	172.5
40.00		0.00	1.05 21.908	37.02 328.48	0.650		0.000	1.00	3.561	2.31	85.7	0.0	171.5
41.00		0.00	1.06 22.063	37.28 327.83	0.650		0.000	1.00	3.541	2.30	85.8	0.0	170.6
42.00		0.00	1.07 22.215	37.54 327.13	0.650		0.000	1.00	3.522	2.29	85.9	0.0	169.6
43.00		0.00	1.07 22.365	37.79 326.40	0.650		0.000	1.00	3.502	2.28	86.0	0.0	168.7
44.00		0.00	1.08 22.512	38.04 325.64	0.650		0.000	1.00	3.482	2.26	86.1	0.0	167.7
45.00		0.00	1.09 22.657	38.29 324.85	0.650		0.000	1.00	3.463	2.25	86.2	0.0	166.8
46.00		0.00	1.10 22.800	38.53 324.02	0.650		0.000	1.00	3.443	2.24	86.2	0.0	165.8
47.00		0.00	1.10 22.941	38.77 323.16	0.650		0.000	1.00	3.424	2.23	86.3	0.0	164.9
48.00	Bot - Section 2	0.00	1.11 23.079	39.00 322.28	0.650		0.000	1.00	3.404	2.21	86.3	0.0	163.9
49.00		0.00	1.12 23.215	39.23 321.36	0.650		0.000	1.00	3.437	2.23	87.6	0.0	301.1
50.00		0.00	1.12 23.350	39.46 320.42	0.650		0.000	1.00	3.417	2.22	87.6	0.0	299.4

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

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Load Case: No Ice 90.00 mph Wind with No Ice 33 Iterations

Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

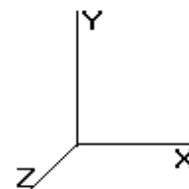
51.00		0.00	1.13	23.482	39.68	319.46	0.650	0.000	1.00	3.397	2.21	87.6	0.0	297.6
52.00		0.00	1.13	23.613	39.90	318.46	0.650	0.000	1.00	3.378	2.20	87.6	0.0	295.9
53.00		0.00	1.14	23.742	40.12	317.44	0.650	0.000	1.00	3.358	2.18	87.6	0.0	294.1
53.25	Top - Section 1	0.00	1.14	23.774	40.17	317.19	0.650	0.000	0.25	0.837	0.54	21.8	0.0	73.3
54.00		0.00	1.15	23.869	40.33	321.43	0.650	0.000	0.75	2.502	1.63	65.6	0.0	100.5
55.00		0.00	1.15	23.994	40.55	320.38	0.650	0.000	1.00	3.319	2.16	87.5	0.0	133.4
56.00		0.00	1.16	24.118	40.76	319.31	0.650	0.000	1.00	3.300	2.14	87.4	0.0	132.6
57.00		0.00	1.16	24.241	40.96	318.21	0.650	0.000	1.00	3.280	2.13	87.3	0.0	131.8
58.00		0.00	1.17	24.361	41.17	317.09	0.650	0.000	1.00	3.260	2.12	87.2	0.0	131.0
59.00		0.00	1.18	24.481	41.37	315.95	0.650	0.000	1.00	3.241	2.11	87.2	0.0	130.2
60.00		0.00	1.18	24.598	41.57	314.79	0.650	0.000	1.00	3.221	2.09	87.0	0.0	129.4
61.00		0.00	1.19	24.715	41.76	313.61	0.650	0.000	1.00	3.202	2.08	86.9	0.0	128.6
62.00		0.00	1.19	24.830	41.96	312.41	0.650	0.000	1.00	3.182	2.07	86.8	0.0	127.8
63.00		0.00	1.20	24.944	42.15	311.19	0.650	0.000	1.00	3.162	2.06	86.7	0.0	127.0
64.00		0.00	1.20	25.056	42.34	309.96	0.650	0.000	1.00	3.143	2.04	86.5	0.0	126.2
65.00		0.00	1.21	25.167	42.53	308.70	0.650	0.000	1.00	3.123	2.03	86.3	0.0	125.4
66.00		0.00	1.21	25.277	42.71	307.43	0.650	0.000	1.00	3.104	2.02	86.2	0.0	124.6
67.00		0.00	1.22	25.386	42.90	306.14	0.650	0.000	1.00	3.084	2.00	86.0	0.0	123.9
68.00		0.00	1.22	25.494	43.08	304.84	0.650	0.000	1.00	3.065	1.99	85.8	0.0	123.1
69.00		0.00	1.23	25.601	43.26	303.52	0.650	0.000	1.00	3.045	1.98	85.6	0.0	122.3
70.00		0.00	1.24	25.706	43.44	302.18	0.650	0.000	1.00	3.025	1.97	85.4	0.0	121.5
71.00		0.00	1.24	25.810	43.62	300.83	0.650	0.000	1.00	3.006	1.95	85.2	0.0	120.7
72.00		0.00	1.25	25.914	43.79	299.46	0.650	0.000	1.00	2.986	1.94	85.0	0.0	119.9
73.00		0.00	1.25	26.016	43.96	298.07	0.650	0.000	1.00	2.967	1.93	84.8	0.0	119.1
74.00		0.00	1.26	26.117	44.13	296.68	0.650	0.000	1.00	2.947	1.92	84.6	0.0	118.3
75.00		0.00	1.26	26.218	44.30	295.26	0.650	0.000	1.00	2.927	1.90	84.3	0.0	117.5
76.00		0.00	1.26	26.317	44.47	293.84	0.650	0.000	1.00	2.908	1.89	84.1	0.0	116.7
77.00		0.00	1.27	26.416	44.64	292.40	0.650	0.000	1.00	2.888	1.88	83.8	0.0	115.9
78.00		0.00	1.27	26.513	44.80	290.95	0.650	0.000	1.00	2.869	1.86	83.6	0.0	115.1
79.00		0.00	1.28	26.610	44.97	289.48	0.650	0.000	1.00	2.849	1.85	83.3	0.0	114.3
80.00		0.00	1.28	26.706	45.13	288.00	0.650	0.000	1.00	2.830	1.84	83.0	0.0	113.5
81.00		0.00	1.29	26.801	45.29	286.51	0.650	0.000	1.00	2.810	1.83	82.7	0.0	112.8
82.00		0.00	1.29	26.895	45.45	285.00	0.650	0.000	1.00	2.790	1.81	82.4	0.0	112.0
83.00		0.00	1.30	26.988	45.61	283.49	0.650	0.000	1.00	2.771	1.80	82.1	0.0	111.2
84.00		0.00	1.30	27.081	45.76	281.96	0.650	0.000	1.00	2.751	1.79	81.8	0.0	110.4
85.00		0.00	1.31	27.172	45.92	280.42	0.650	0.000	1.00	2.732	1.78	81.5	0.0	109.6
86.00		0.00	1.31	27.263	46.07	278.87	0.650	0.000	1.00	2.712	1.76	81.2	0.0	108.8
87.00		0.00	1.31	27.353	46.22	277.30	0.650	0.000	1.00	2.693	1.75	80.9	0.0	108.0
88.00		0.00	1.32	27.443	46.37	275.73	0.650	0.000	1.00	2.673	1.74	80.6	0.0	107.2
89.00		0.00	1.32	27.532	46.52	274.14	0.650	0.000	1.00	2.653	1.72	80.2	0.0	106.4
90.00		0.00	1.33	27.620	46.67	272.55	0.650	0.000	1.00	2.634	1.71	79.9	0.0	105.6
91.00		0.00	1.33	27.707	46.82	270.94	0.650	0.000	1.00	2.614	1.70	79.6	0.0	104.8
92.00		0.00	1.34	27.794	46.97	269.33	0.650	0.000	1.00	2.595	1.69	79.2	0.0	104.0
93.00		0.00	1.34	27.880	47.11	267.70	0.650	0.000	1.00	2.575	1.67	78.9	0.0	103.2
94.00		0.00	1.34	27.965	47.26	266.06	0.650	0.000	1.00	2.555	1.66	78.5	0.0	102.4
95.00		0.00	1.35	28.050	47.40	264.41	0.650	0.000	1.00	2.536	1.65	78.1	0.0	101.6
96.00		0.00	1.35	28.134	47.54	262.76	0.650	0.000	1.00	2.516	1.64	77.8	0.0	100.9
97.00		0.00	1.36	28.217	47.68	261.09	0.650	0.000	1.00	2.497	1.62	77.4	0.0	100.1
97.75	Bot - Section 3	0.00	1.36	28.279	47.79	259.83	0.650	0.000	0.75	1.860	1.21	57.8	0.0	74.5
98.00		0.00	1.36	28.300	47.82	259.41	0.650	0.000	0.25	0.625	0.41	19.4	0.0	39.8
99.00		0.00	1.36	28.382	47.96	257.73	0.650	0.000	1.00	2.489	1.62	77.6	0.0	158.6
100.0		0.00	1.37	28.464	48.10	256.04	0.650	0.000	1.00	2.469	1.60	77.2	0.0	157.3
101.0		0.00	1.37	28.545	48.24	254.33	0.650	0.000	1.00	2.450	1.59	76.8	0.0	156.0
101.5	Top - Section 2	0.00	1.37	28.585	48.30	253.48	0.650	0.000	0.50	1.217	0.79	38.2	0.0	77.5
102.0		0.00	1.38	28.625	48.37	255.92	0.650	0.000	0.50	1.213	0.79	38.1	0.0	29.3
103.0		0.00	1.38	28.705	48.51	254.21	0.650	0.000	1.00	2.410	1.57	76.0	0.0	58.2
104.0		0.00	1.38	28.785	48.64	252.48	0.650	0.000	1.00	2.391	1.55	75.6	0.0	57.7

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: No Ice 90.00 mph Wind with No Ice 33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

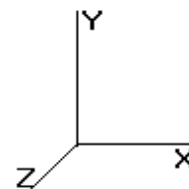
105.0	Appertunance(s)	0.00	1.39	28.863	48.77	250.75	0.650	0.000	1.00	2.371	1.54	75.2	0.0	57.2
106.0		0.00	1.39	28.942	48.91	249.01	0.650	0.000	1.00	2.352	1.53	74.8	0.0	56.8
107.0		0.00	1.39	29.019	49.04	247.26	0.650	0.000	1.00	2.332	1.52	74.3	0.0	56.3
108.0		0.00	1.40	29.097	49.17	245.50	0.650	0.000	1.00	2.313	1.50	73.9	0.0	55.8
109.0		0.00	1.40	29.173	49.30	243.73	0.650	0.000	1.00	2.293	1.49	73.5	0.0	55.3
110.0		0.00	1.41	29.250	49.43	241.96	0.650	0.000	1.00	2.273	1.48	73.0	0.0	54.9
111.0		0.00	1.41	29.325	49.56	240.17	0.650	0.000	1.00	2.254	1.46	72.6	0.0	54.4
112.0		0.00	1.41	29.401	49.68	238.38	0.650	0.000	1.00	2.234	1.45	72.2	0.0	53.9
113.0		0.00	1.42	29.475	49.81	236.58	0.650	0.000	1.00	2.215	1.44	71.7	0.0	53.4
114.0		0.00	1.42	29.550	49.93	234.78	0.650	0.000	1.00	2.195	1.43	71.3	0.0	53.0
115.0	Appertunance(s)	0.00	1.42	29.623	50.06	232.97	0.650	0.000	1.00	2.176	1.41	70.8	0.0	52.5
116.0		0.00	1.43	29.697	50.18	231.15	0.650	0.000	1.00	2.156	1.40	70.3	0.0	52.0
117.0		0.00	1.43	29.770	50.31	229.32	0.650	0.000	1.00	2.136	1.39	69.9	0.0	51.5
118.0		0.00	1.43	29.842	50.43	227.48	0.650	0.000	1.00	2.117	1.38	69.4	0.0	51.1
119.0		0.00	1.44	29.914	50.55	225.64	0.650	0.000	1.00	2.097	1.36	68.9	0.0	50.6
120.0		0.00	1.44	29.986	50.67	223.79	0.650	0.000	1.00	2.078	1.35	68.4	0.0	50.1
121.0		0.00	1.45	30.057	50.79	221.93	0.650	0.000	1.00	2.058	1.34	68.0	0.0	49.6
122.0		0.00	1.45	30.128	50.91	220.07	0.650	0.000	1.00	2.038	1.32	67.5	0.0	49.2
123.0		0.00	1.45	30.198	51.03	218.20	0.650	0.000	1.00	2.019	1.31	67.0	0.0	48.7
124.0		0.00	1.46	30.268	51.15	216.33	0.650	0.000	1.00	1.999	1.30	66.5	0.0	48.2
125.0	Appertunance(s)	0.00	1.46	30.338	51.27	214.44	0.650	0.000	1.00	1.980	1.29	66.0	0.0	47.7
126.0		0.00	1.46	30.407	51.38	212.55	0.650	0.000	1.00	1.960	1.27	65.5	0.0	47.3
127.0		0.00	1.47	30.475	51.50	210.66	0.650	0.000	1.00	1.941	1.26	65.0	0.0	46.8
128.0		0.00	1.47	30.544	51.61	208.75	0.650	0.000	1.00	1.921	1.25	64.5	0.0	46.3
129.0		0.00	1.47	30.612	51.73	206.84	0.650	0.000	1.00	1.901	1.24	63.9	0.0	45.8
130.0		0.00	1.48	30.679	51.84	204.93	0.650	0.000	1.00	1.882	1.22	63.4	0.0	45.3
131.0		0.00	1.48	30.747	51.96	203.01	0.650	0.000	1.00	1.862	1.21	62.9	0.0	44.9
132.0		0.00	1.48	30.814	52.07	201.08	0.650	0.000	1.00	1.843	1.20	62.4	0.0	44.4
133.0		0.00	1.48	30.880	52.18	199.15	0.650	0.000	1.00	1.823	1.18	61.8	0.0	43.9
134.0	Appertunance(s)	0.00	1.49	30.946	52.29	197.21	0.650	0.000	1.00	1.803	1.17	61.3	0.0	43.4
135.0		0.00	1.49	31.012	52.41	195.26	0.650	0.000	1.00	1.784	1.16	60.8	0.0	43.0
136.0		0.00	1.49	31.078	52.52	193.31	0.650	0.000	1.00	1.764	1.15	60.2	0.0	42.5
137.0		0.00	1.50	31.143	52.63	191.35	0.650	0.000	1.00	1.745	1.13	59.7	0.0	42.0
138.0		0.00	1.50	31.207	52.74	189.39	0.650	0.000	1.00	1.725	1.12	59.1	0.0	41.5
139.0		0.00	1.50	31.272	52.84	187.42	0.650	0.000	1.00	1.706	1.11	58.6	0.0	41.1
140.0		0.00	1.51	31.336	52.95	185.45	0.650	0.000	1.00	1.686	1.10	58.0	0.0	40.6
141.0		0.00	1.51	31.400	53.06	183.47	0.650	0.000	1.00	1.666	1.08	57.5	0.0	40.1
142.0		0.00	1.51	31.463	53.17	181.48	0.650	0.000	1.00	1.647	1.07	56.9	0.0	39.6
143.0	Appertunance(s)	0.00	1.52	31.526	53.28	179.49	0.650	0.000	1.00	1.627	1.06	56.4	0.0	39.2
144.0		0.00	1.52	31.589	53.38	177.50	0.650	0.000	1.00	1.608	1.04	55.8	0.0	38.7
145.0		0.00	1.52	31.652	53.49	175.49	0.650	0.000	1.00	1.588	1.03	55.2	0.0	38.2
146.0		0.00	1.52	31.714	53.59	173.49	0.650	0.000	1.00	1.569	1.02	54.6	0.0	37.7
147.0		0.00	1.53	31.776	53.70	171.47	0.650	0.000	1.00	1.549	1.01	54.1	0.0	37.3
148.0		0.00	1.53	31.837	53.80	169.46	0.650	0.000	1.00	1.529	0.99	53.5	0.0	36.8
149.0	Appertunance(s)	0.00	1.53	31.899	53.90	167.43	0.650	0.000	1.00	1.510	0.98	52.9	0.0	36.3
Totals:									149.00			11,862.0	0.0	18,536.1

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: No Ice

90.00 mph Wind with No Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

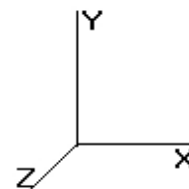
Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAA (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
105.0	Stand-Off	1	28.863	48.779	1.00	1.00	0.000	0.000	48.78	0.00	0.00	50.00
105.0	Pacific Wireless HDD	1	28.863	48.779	1.00	12.09	0.000	0.000	589.74	0.00	0.00	22.00
105.0	Proxim 5054-R-LR	1	28.863	48.779	0.50	0.77	0.000	0.000	37.56	0.00	0.00	6.00
115.0	RFS APXV18-206517S-	3	29.623	50.064	0.68	10.53	0.000	0.000	526.99	0.00	0.00	79.20
125.0	Raycap DC6-48-60-18-	4	30.338	51.271	0.67	3.94	0.000	0.000	201.99	0.00	0.00	127.20
125.0	14" x 9" TTA	6	30.338	51.271	0.33	2.44	0.000	0.000	124.86	0.00	0.00	60.00
125.0	Flat Low Profile Pla	1	30.338	51.271	0.90	23.49	0.000	0.000	1,204.34	0.00	0.00	1,500.00
125.0	Ericsson RRUS A2	6	30.338	51.271	0.33	3.70	0.000	0.000	189.83	0.00	0.00	90.00
125.0	Ericsson RRUS-11 800	6	30.338	51.271	0.50	8.82	0.000	0.000	452.21	0.00	0.00	324.00
125.0	Ericsson RRUS-11 190	3	30.338	51.271	0.50	4.41	0.000	0.000	226.10	0.00	0.00	132.00
125.0	Ericsson RRUS-12 800	3	30.338	51.271	0.50	4.73	0.000	0.000	242.25	0.00	0.00	180.00
125.0	Ericsson RRUS-12 190	3	30.338	51.271	0.50	4.73	0.000	0.000	242.25	0.00	0.00	180.00
125.0	Ericsson RRUS E2 B29	3	30.338	51.271	0.50	5.51	0.000	0.000	282.24	0.00	0.00	180.00
125.0	Ericsson RRUS-32	3	30.338	51.271	0.50	5.80	0.000	0.000	297.63	0.00	0.00	231.00
125.0	CCI HPA-65R-BUU-H8	12	30.338	51.271	0.66	105.26	0.000	0.000	5,396.57	0.00	0.00	816.00
134.0	RFS FD9R6004/2C-3L	6	30.946	52.299	0.33	0.73	0.000	0.000	38.31	0.00	0.00	18.60
134.0	Antel BXA 185085/12C	3	30.946	52.299	0.72	10.35	0.000	0.000	541.11	0.00	0.00	39.00
134.0	Alcatel-Lucent RRH2x	3	30.814	52.075	0.50	3.78	0.000	-2.000	196.84	0.00	-393.69	132.00
134.0	Antel BXA BXA-171063	3	30.946	52.299	0.72	10.22	0.000	0.000	534.33	0.00	0.00	45.00
134.0	RFS DB-T1-6Z-8AB-0Z	1	30.946	52.299	0.67	3.75	0.000	0.000	196.23	0.00	0.00	44.00
134.0	Antel BXA-70063/6CF	3	30.946	52.299	0.64	14.84	0.000	0.000	776.20	0.00	0.00	51.00
134.0	Andrew	3	30.946	52.299	0.63	11.02	0.000	0.000	576.27	0.00	0.00	55.50
134.0	Round Low Profile PI	1	30.946	52.299	0.90	19.53	0.000	0.000	1,021.40	0.00	0.00	1,500.00
143.0	Flat Low Profile Pla	1	31.526	53.280	1.00	26.10	0.000	0.000	1,390.60	0.00	0.00	1,500.00
143.0	RFS APX16PV-16PVL-	6	31.526	53.280	0.59	23.54	0.000	0.000	1,254.25	0.00	0.00	237.60
143.0	Andrew	3	31.526	53.280	0.33	0.75	0.000	0.000	40.09	0.00	0.00	33.00
143.0	Andrew	3	31.526	53.280	0.33	0.47	0.000	0.000	24.79	0.00	0.00	33.00
149.0	Clearwire Mount	1	31.899	53.909	1.00	8.50	0.000	0.000	458.23	0.00	0.00	500.00
149.0	DragonWave A-ANT-	2	32.021	54.115	0.90	8.44	0.000	2.000	456.84	0.00	913.67	54.00
149.0	NextNet BTS-2500	3	32.021	54.115	0.33	2.10	0.000	2.000	113.58	0.00	227.15	105.00
149.0	Argus LLPX310R	3	32.021	54.115	0.62	8.98	0.000	2.000	486.16	0.00	972.31	85.80
149.0	DragonWave Horizon	3	32.021	54.115	0.33	0.43	0.000	2.000	23.04	0.00	46.07	31.80
149.0	DragonWave A-ANT-	1	32.021	54.115	0.90	1.45	0.000	2.000	78.41	0.00	156.82	15.00
									18,270.02			

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
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 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: No Ice 90.00 mph Wind with No Ice 33 Iterations

Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

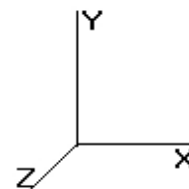
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
1.00	98.50	208.65	0.00	0.00
2.00	98.06	207.69	0.00	0.00
3.00	97.61	206.74	0.00	0.00
4.00	97.16	205.79	0.00	0.00
5.00	96.72	256.25	0.00	0.00
6.00	96.27	255.30	0.00	0.00
7.00	95.83	254.35	0.00	0.00
8.00	95.38	253.39	0.00	0.00
9.00	94.93	252.44	0.00	0.00
10.00	94.49	251.49	0.00	0.00
11.00	94.04	250.54	0.00	0.00
12.00	93.60	249.59	0.00	0.00
13.00	93.15	248.64	0.00	0.00
14.00	92.70	247.68	0.00	0.00
15.00	92.26	246.73	0.00	0.00
16.00	91.81	245.78	0.00	0.00
17.00	91.37	244.83	0.00	0.00
18.00	90.92	243.88	0.00	0.00
19.00	90.47	242.93	0.00	0.00
20.00	90.03	241.97	0.00	0.00
21.00	89.58	241.02	0.00	0.00
22.00	89.14	240.07	0.00	0.00
23.00	88.69	239.12	0.00	0.00
24.00	88.24	238.17	0.00	0.00
25.00	87.80	237.22	0.00	0.00
26.00	87.35	236.26	0.00	0.00
27.00	86.91	235.31	0.00	0.00
28.00	86.46	234.36	0.00	0.00
29.00	86.01	233.41	0.00	0.00
30.00	85.57	232.46	0.00	0.00
31.00	85.12	231.51	0.00	0.00
32.00	84.68	230.56	0.00	0.00
33.00	84.23	229.60	0.00	0.00
34.00	84.50	228.65	0.00	0.00
35.00	84.75	227.70	0.00	0.00
36.00	84.98	226.75	0.00	0.00
37.00	85.19	225.80	0.00	0.00
38.00	85.37	224.85	0.00	0.00
39.00	85.54	223.89	0.00	0.00
40.00	85.69	222.94	0.00	0.00
41.00	85.82	221.99	0.00	0.00
42.00	85.94	221.04	0.00	0.00
43.00	86.04	220.09	0.00	0.00
44.00	86.12	219.14	0.00	0.00
45.00	86.19	218.18	0.00	0.00
46.00	86.24	217.23	0.00	0.00
47.00	86.28	216.28	0.00	0.00
48.00	86.30	215.33	0.00	0.00
49.00	87.64	352.50	0.00	0.00

Pole : 243036
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Height : 149.0 (ft)
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Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)
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Load Case: No Ice 90.00 mph Wind with No Ice 33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

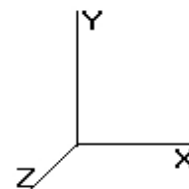
50.00	87.65	350.76	0.00	0.00
51.00	87.64	349.02	0.00	0.00
52.00	87.62	347.27	0.00	0.00
53.00	87.58	345.53	0.00	0.00
53.25	21.85	86.11	0.00	0.00
54.00	65.61	139.10	0.00	0.00
55.00	87.48	184.78	0.00	0.00
56.00	87.42	183.99	0.00	0.00
57.00	87.34	183.19	0.00	0.00
58.00	87.25	182.40	0.00	0.00
59.00	87.15	181.61	0.00	0.00
60.00	87.04	180.81	0.00	0.00
61.00	86.92	180.02	0.00	0.00
62.00	86.79	179.23	0.00	0.00
63.00	86.65	178.43	0.00	0.00
64.00	86.51	177.64	0.00	0.00
65.00	86.35	176.85	0.00	0.00
66.00	86.18	176.06	0.00	0.00
67.00	86.01	175.26	0.00	0.00
68.00	85.82	174.47	0.00	0.00
69.00	85.63	173.68	0.00	0.00
70.00	85.43	172.88	0.00	0.00
71.00	85.22	172.09	0.00	0.00
72.00	85.01	171.30	0.00	0.00
73.00	84.78	170.50	0.00	0.00
74.00	84.55	169.71	0.00	0.00
75.00	84.31	168.92	0.00	0.00
76.00	84.07	168.13	0.00	0.00
77.00	83.81	167.33	0.00	0.00
78.00	83.55	166.54	0.00	0.00
79.00	83.28	165.75	0.00	0.00
80.00	83.01	164.95	0.00	0.00
81.00	82.73	164.16	0.00	0.00
82.00	82.44	163.37	0.00	0.00
83.00	82.15	162.57	0.00	0.00
84.00	81.84	161.78	0.00	0.00
85.00	81.54	160.99	0.00	0.00
86.00	81.22	160.20	0.00	0.00
87.00	80.90	159.40	0.00	0.00
88.00	80.58	158.61	0.00	0.00
89.00	80.25	157.82	0.00	0.00
90.00	79.91	157.02	0.00	0.00
91.00	79.57	156.23	0.00	0.00
92.00	79.22	155.44	0.00	0.00
93.00	78.86	154.64	0.00	0.00
94.00	78.50	153.85	0.00	0.00
95.00	78.14	153.06	0.00	0.00
96.00	77.77	152.27	0.00	0.00
97.00	77.39	151.47	0.00	0.00
97.75	57.77	113.08	0.00	0.00
98.00	19.44	52.69	0.00	0.00
99.00	77.60	209.98	0.00	0.00
100.0	77.21	208.72	0.00	0.00
101.0	76.81	207.45	0.00	0.00
101.5	38.23	103.25	0.00	0.00
102.0	38.13	54.98	0.00	0.00
103.0	76.01	109.61	0.00	0.00

Pole : 243036
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Load Case: No Ice 90.00 mph Wind with No Ice 33 Iterations

Gust Response Factor : 1.69

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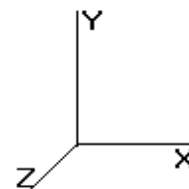
104.0	75.60	109.13	0.00	0.00
105.0	751.26	186.65	0.00	0.00
106.0	74.77	104.41	0.00	0.00
107.0	74.34	103.93	0.00	0.00
108.0	73.92	103.46	0.00	0.00
109.0	73.48	102.98	0.00	0.00
110.0	73.05	102.50	0.00	0.00
111.0	72.60	102.03	0.00	0.00
112.0	72.16	101.55	0.00	0.00
113.0	71.71	101.08	0.00	0.00
114.0	71.25	100.60	0.00	0.00
115.0	597.78	179.33	0.00	0.00
116.0	70.33	94.73	0.00	0.00
117.0	69.86	94.25	0.00	0.00
118.0	69.39	93.78	0.00	0.00
119.0	68.92	93.30	0.00	0.00
120.0	68.44	92.83	0.00	0.00
121.0	67.95	92.35	0.00	0.00
122.0	67.46	91.87	0.00	0.00
123.0	66.97	91.40	0.00	0.00
124.0	66.48	90.92	0.00	0.00
125.0	8,926.26	3,910.65	0.00	0.00
126.0	65.47	75.37	0.00	0.00
127.0	64.96	74.90	0.00	0.00
128.0	64.45	74.42	0.00	0.00
129.0	63.94	73.94	0.00	0.00
130.0	63.42	73.47	0.00	0.00
131.0	62.90	72.99	0.00	0.00
132.0	62.37	72.52	0.00	0.00
133.0	61.84	72.04	0.00	0.00
134.0	3,942.00	1,956.67	0.00	-393.69
135.0	60.77	59.64	0.00	0.00
136.0	60.23	59.16	0.00	0.00
137.0	59.69	58.69	0.00	0.00
138.0	59.14	58.21	0.00	0.00
139.0	58.59	57.74	0.00	0.00
140.0	58.04	57.26	0.00	0.00
141.0	57.48	56.78	0.00	0.00
142.0	56.92	56.31	0.00	0.00
143.0	2,766.09	1,859.43	0.00	0.00
144.0	55.79	43.06	0.00	0.00
145.0	55.22	42.58	0.00	0.00
146.0	54.64	42.11	0.00	0.00
147.0	54.07	41.63	0.00	0.00
148.0	53.49	41.15	0.00	0.00
149.0	1,669.15	832.28	0.00	2,316.03
Totals:	30,131.99	33,519.13	0.00	1,922.35

Pole : 243036
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Load Case: No Ice

90.00 mph Wind with No Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

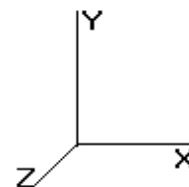
Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-30.145	-33.506	0.000	0.000	0.000	-3,333.433	0.000	0.000	0.000	0.000
1.00	-30.073	-33.273	0.000	0.000	0.000	-3,303.288	-0.005	0.000	0.005	-0.046
2.00	-30.002	-33.042	0.000	0.000	0.000	-3,273.215	-0.020	0.000	0.020	-0.091
3.00	-29.930	-32.811	0.000	0.000	0.000	-3,243.214	-0.044	0.000	0.044	-0.137
4.00	-29.859	-32.582	0.000	0.000	0.000	-3,213.285	-0.078	0.000	0.078	-0.184
5.00	-29.787	-32.301	0.000	0.000	0.000	-3,183.427	-0.122	0.000	0.122	-0.230
6.00	-29.716	-32.022	0.000	0.000	0.000	-3,153.640	-0.176	0.000	0.176	-0.277
7.00	-29.645	-31.744	0.000	0.000	0.000	-3,123.925	-0.239	0.000	0.239	-0.324
8.00	-29.574	-31.467	0.000	0.000	0.000	-3,094.280	-0.312	0.000	0.312	-0.371
9.00	-29.503	-31.191	0.000	0.000	0.000	-3,064.707	-0.395	0.000	0.395	-0.418
10.00	-29.432	-30.916	0.000	0.000	0.000	-3,035.205	-0.488	0.000	0.488	-0.466
11.00	-29.362	-30.641	0.000	0.000	0.000	-3,005.773	-0.591	0.000	0.591	-0.513
12.00	-29.291	-30.368	0.000	0.000	0.000	-2,976.412	-0.704	0.000	0.704	-0.561
13.00	-29.221	-30.096	0.000	0.000	0.000	-2,947.121	-0.827	0.000	0.827	-0.609
14.00	-29.151	-29.825	0.000	0.000	0.000	-2,917.901	-0.960	0.000	0.960	-0.658
15.00	-29.081	-29.554	0.000	0.000	0.000	-2,888.751	-1.103	0.000	1.103	-0.706
16.00	-29.011	-29.285	0.000	0.000	0.000	-2,859.670	-1.257	0.000	1.257	-0.755
17.00	-28.941	-29.016	0.000	0.000	0.000	-2,830.660	-1.421	0.000	1.421	-0.804
18.00	-28.871	-28.749	0.000	0.000	0.000	-2,801.720	-1.595	0.000	1.595	-0.854
19.00	-28.802	-28.483	0.000	0.000	0.000	-2,772.849	-1.779	0.000	1.779	-0.903
20.00	-28.732	-28.217	0.000	0.000	0.000	-2,744.048	-1.974	0.000	1.974	-0.953
21.00	-28.663	-27.953	0.000	0.000	0.000	-2,715.316	-2.179	0.000	2.179	-1.003
22.00	-28.594	-27.689	0.000	0.000	0.000	-2,686.653	-2.395	0.000	2.395	-1.053
23.00	-28.525	-27.427	0.000	0.000	0.000	-2,658.060	-2.621	0.000	2.621	-1.103
24.00	-28.456	-27.165	0.000	0.000	0.000	-2,629.535	-2.858	0.000	2.858	-1.154
25.00	-28.387	-26.904	0.000	0.000	0.000	-2,601.079	-3.105	0.000	3.105	-1.205
26.00	-28.319	-26.645	0.000	0.000	0.000	-2,572.693	-3.363	0.000	3.363	-1.256
27.00	-28.250	-26.386	0.000	0.000	0.000	-2,544.374	-3.632	0.000	3.632	-1.307
28.00	-28.182	-26.129	0.000	0.000	0.000	-2,516.124	-3.912	0.000	3.912	-1.359
29.00	-28.114	-25.872	0.000	0.000	0.000	-2,487.943	-4.202	0.000	4.202	-1.410
30.00	-28.046	-25.616	0.000	0.000	0.000	-2,459.829	-4.503	0.000	4.503	-1.462
31.00	-27.978	-25.361	0.000	0.000	0.000	-2,431.784	-4.815	0.000	4.815	-1.515
32.00	-27.910	-25.108	0.000	0.000	0.000	-2,403.807	-5.139	0.000	5.139	-1.567
33.00	-27.842	-24.855	0.000	0.000	0.000	-2,375.897	-5.473	0.000	5.473	-1.620
34.00	-27.774	-24.603	0.000	0.000	0.000	-2,348.055	-5.818	0.000	5.818	-1.673
35.00	-27.705	-24.352	0.000	0.000	0.000	-2,320.282	-6.174	0.000	6.174	-1.726
36.00	-27.636	-24.102	0.000	0.000	0.000	-2,292.577	-6.542	0.000	6.542	-1.779
37.00	-27.566	-23.853	0.000	0.000	0.000	-2,264.941	-6.920	0.000	6.920	-1.833
38.00	-27.496	-23.606	0.000	0.000	0.000	-2,237.376	-7.310	0.000	7.310	-1.886
39.00	-27.425	-23.359	0.000	0.000	0.000	-2,209.881	-7.711	0.000	7.711	-1.940
40.00	-27.353	-23.113	0.000	0.000	0.000	-2,182.456	-8.124	0.000	8.124	-1.995
41.00	-27.282	-22.868	0.000	0.000	0.000	-2,155.104	-8.547	0.000	8.547	-2.049
42.00	-27.209	-22.624	0.000	0.000	0.000	-2,127.823	-8.983	0.000	8.983	-2.104
43.00	-27.137	-22.382	0.000	0.000	0.000	-2,100.614	-9.429	0.000	9.429	-2.159
44.00	-27.064	-22.140	0.000	0.000	0.000	-2,073.477	-9.888	0.000	9.888	-2.214
45.00	-26.990	-21.899	0.000	0.000	0.000	-2,046.415	-10.358	0.000	10.358	-2.269
46.00	-26.916	-21.659	0.000	0.000	0.000	-2,019.425	-10.839	0.000	10.839	-2.325
47.00	-26.842	-21.421	0.000	0.000	0.000	-1,992.509	-11.332	0.000	11.332	-2.381
48.00	-26.768	-21.183	0.000	0.000	0.000	-1,965.668	-11.837	0.000	11.837	-2.437
49.00	-26.685	-20.808	0.000	0.000	0.000	-1,938.900	-12.353	0.000	12.353	-2.493
50.00	-26.602	-20.436	0.000	0.000	0.000	-1,912.216	-12.882	0.000	12.882	-2.549

Pole : 243036
Location : West Haven & Rt 162 CT, CT
Height : 149.0 (ft)
Base Dia : 52.01 (in)
Top Dia : 18.00 (in)
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Load Case: No Ice 90.00 mph Wind with No Ice 33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

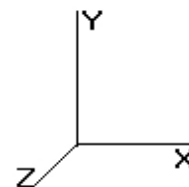
51.00	-26.519	-20.065	0.000	0.000	0.000	-1,885.613	-13.422	0.000	13.422	-2.606
52.00	-26.435	-19.696	0.000	0.000	0.000	-1,859.095	-13.974	0.000	13.974	-2.663
53.00	-26.343	-19.338	0.000	0.000	0.000	-1,832.660	-14.538	0.000	14.538	-2.720
53.25	-26.327	-19.240	0.000	0.000	0.000	-1,826.074	-14.680	0.000	14.680	-2.734
54.00	-26.273	-19.079	0.000	0.000	0.000	-1,806.329	-15.113	0.000	15.113	-2.777
55.00	-26.198	-18.869	0.000	0.000	0.000	-1,780.056	-15.702	0.000	15.702	-2.842
56.00	-26.123	-18.660	0.000	0.000	0.000	-1,753.859	-16.305	0.000	16.305	-2.908
57.00	-26.048	-18.451	0.000	0.000	0.000	-1,727.736	-16.921	0.000	16.921	-2.974
58.00	-25.972	-18.244	0.000	0.000	0.000	-1,701.688	-17.551	0.000	17.551	-3.040
59.00	-25.896	-18.037	0.000	0.000	0.000	-1,675.717	-18.195	0.000	18.195	-3.106
60.00	-25.820	-17.831	0.000	0.000	0.000	-1,649.821	-18.852	0.000	18.852	-3.172
61.00	-25.744	-17.627	0.000	0.000	0.000	-1,624.001	-19.524	0.000	19.524	-3.239
62.00	-25.667	-17.423	0.000	0.000	0.000	-1,598.258	-20.210	0.000	20.210	-3.306
63.00	-25.591	-17.220	0.000	0.000	0.000	-1,572.591	-20.909	0.000	20.909	-3.372
64.00	-25.514	-17.018	0.000	0.000	0.000	-1,547.001	-21.623	0.000	21.623	-3.440
65.00	-25.436	-16.816	0.000	0.000	0.000	-1,521.488	-22.350	0.000	22.350	-3.507
66.00	-25.359	-16.616	0.000	0.000	0.000	-1,496.052	-23.092	0.000	23.092	-3.574
67.00	-25.282	-16.417	0.000	0.000	0.000	-1,470.693	-23.847	0.000	23.847	-3.642
68.00	-25.204	-16.219	0.000	0.000	0.000	-1,445.412	-24.617	0.000	24.617	-3.709
69.00	-25.126	-16.021	0.000	0.000	0.000	-1,420.208	-25.401	0.000	25.401	-3.777
70.00	-25.048	-15.825	0.000	0.000	0.000	-1,395.082	-26.199	0.000	26.199	-3.845
71.00	-24.970	-15.629	0.000	0.000	0.000	-1,370.035	-27.012	0.000	27.012	-3.913
72.00	-24.892	-15.434	0.000	0.000	0.000	-1,345.065	-27.838	0.000	27.838	-3.981
73.00	-24.814	-15.241	0.000	0.000	0.000	-1,320.174	-28.679	0.000	28.679	-4.049
74.00	-24.735	-15.048	0.000	0.000	0.000	-1,295.360	-29.534	0.000	29.534	-4.117
75.00	-24.657	-14.856	0.000	0.000	0.000	-1,270.626	-30.404	0.000	30.404	-4.186
76.00	-24.578	-14.665	0.000	0.000	0.000	-1,245.970	-31.287	0.000	31.287	-4.254
77.00	-24.499	-14.476	0.000	0.000	0.000	-1,221.392	-32.185	0.000	32.185	-4.322
78.00	-24.420	-14.287	0.000	0.000	0.000	-1,196.893	-33.097	0.000	33.097	-4.391
79.00	-24.341	-14.099	0.000	0.000	0.000	-1,172.474	-34.024	0.000	34.024	-4.459
80.00	-24.262	-13.912	0.000	0.000	0.000	-1,148.133	-34.964	0.000	34.964	-4.528
81.00	-24.183	-13.726	0.000	0.000	0.000	-1,123.871	-35.920	0.000	35.920	-4.596
82.00	-24.104	-13.541	0.000	0.000	0.000	-1,099.688	-36.889	0.000	36.889	-4.665
83.00	-24.025	-13.357	0.000	0.000	0.000	-1,075.585	-37.873	0.000	37.873	-4.733
84.00	-23.945	-13.174	0.000	0.000	0.000	-1,051.561	-38.870	0.000	38.870	-4.801
85.00	-23.866	-12.992	0.000	0.000	0.000	-1,027.616	-39.883	0.000	39.883	-4.870
86.00	-23.787	-12.811	0.000	0.000	0.000	-1,003.750	-40.909	0.000	40.909	-4.938
87.00	-23.707	-12.631	0.000	0.000	0.000	-979.964	-41.950	0.000	41.950	-5.006
88.00	-23.628	-12.453	0.000	0.000	0.000	-956.257	-43.004	0.000	43.004	-5.074
89.00	-23.548	-12.275	0.000	0.000	0.000	-932.630	-44.073	0.000	44.073	-5.141
90.00	-23.469	-12.098	0.000	0.000	0.000	-909.082	-45.156	0.000	45.156	-5.209
91.00	-23.389	-11.922	0.000	0.000	0.000	-885.613	-46.253	0.000	46.253	-5.276
92.00	-23.310	-11.748	0.000	0.000	0.000	-862.225	-47.364	0.000	47.364	-5.343
93.00	-23.230	-11.574	0.000	0.000	0.000	-838.915	-48.489	0.000	48.489	-5.410
94.00	-23.151	-11.402	0.000	0.000	0.000	-815.685	-49.628	0.000	49.628	-5.476
95.00	-23.071	-11.230	0.000	0.000	0.000	-792.535	-50.781	0.000	50.781	-5.542
96.00	-22.992	-11.060	0.000	0.000	0.000	-769.464	-51.947	0.000	51.947	-5.608
97.00	-22.910	-10.894	0.000	0.000	0.000	-746.473	-53.127	0.000	53.127	-5.673
97.75	-22.848	-10.774	0.000	0.000	0.000	-729.291	-54.021	0.000	54.021	-5.722
98.00	-22.831	-10.708	0.000	0.000	0.000	-723.579	-54.321	0.000	54.321	-5.738
99.00	-22.744	-10.481	0.000	0.000	0.000	-700.748	-55.528	0.000	55.528	-5.802
100.0	-22.658	-10.256	0.000	0.000	0.000	-678.004	-56.749	0.000	56.749	-5.866
101.0	-22.568	-10.039	0.000	0.000	0.000	-655.347	-57.982	0.000	57.982	-5.929
101.5	-22.525	-9.928	0.000	0.000	0.000	-644.063	-58.604	0.000	58.604	-5.961
102.0	-22.493	-9.851	0.000	0.000	0.000	-632.801	-59.229	0.000	59.229	-5.992
103.0	-22.422	-9.712	0.000	0.000	0.000	-610.308	-60.493	0.000	60.493	-6.090
104.0	-22.351	-9.574	0.000	0.000	0.000	-587.887	-61.777	0.000	61.777	-6.187

Pole : 243036
Location : West Haven & Rt 162 CT, CT
Height : 149.0 (ft)
Base Dia : 52.01 (in)
Top Dia : 18.00 (in)
Shape : 18 Sides
Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: No Ice

90.00 mph Wind with No Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

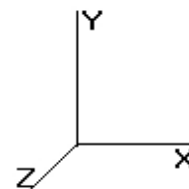
105.0	-21.600	-9.435	0.000	0.000	0.000	-565.536	-63.082	0.000	63.082	-6.282
106.0	-21.529	-9.304	0.000	0.000	0.000	-543.936	-64.406	0.000	64.406	-6.376
107.0	-21.459	-9.175	0.000	0.000	0.000	-522.407	-65.749	0.000	65.749	-6.469
108.0	-21.388	-9.047	0.000	0.000	0.000	-500.949	-67.112	0.000	67.112	-6.560
109.0	-21.317	-8.920	0.000	0.000	0.000	-479.562	-68.493	0.000	68.493	-6.650
110.0	-21.246	-8.794	0.000	0.000	0.000	-458.246	-69.893	0.000	69.893	-6.738
111.0	-21.174	-8.670	0.000	0.000	0.000	-437.000	-71.311	0.000	71.311	-6.824
112.0	-21.103	-8.547	0.000	0.000	0.000	-415.826	-72.747	0.000	72.747	-6.909
113.0	-21.032	-8.425	0.000	0.000	0.000	-394.724	-74.200	0.000	74.200	-6.991
114.0	-20.960	-8.305	0.000	0.000	0.000	-373.692	-75.670	0.000	75.670	-7.071
115.0	-20.356	-8.174	0.000	0.000	0.000	-352.732	-77.157	0.000	77.157	-7.149
116.0	-20.285	-8.063	0.000	0.000	0.000	-332.377	-78.659	0.000	78.659	-7.225
117.0	-20.213	-7.953	0.000	0.000	0.000	-312.093	-80.177	0.000	80.177	-7.298
118.0	-20.142	-7.844	0.000	0.000	0.000	-291.880	-81.710	0.000	81.710	-7.368
119.0	-20.071	-7.738	0.000	0.000	0.000	-271.738	-83.257	0.000	83.257	-7.435
120.0	-19.999	-7.633	0.000	0.000	0.000	-251.668	-84.818	0.000	84.818	-7.500
121.0	-19.927	-7.529	0.000	0.000	0.000	-231.669	-86.392	0.000	86.392	-7.561
122.0	-19.856	-7.428	0.000	0.000	0.000	-211.742	-87.978	0.000	87.978	-7.619
123.0	-19.784	-7.328	0.000	0.000	0.000	-191.887	-89.576	0.000	89.576	-7.673
124.0	-19.712	-7.230	0.000	0.000	0.000	-172.103	-91.184	0.000	91.184	-7.723
125.0	-10.343	-4.552	0.000	0.000	0.000	-152.392	-92.803	0.000	92.803	-7.770
126.0	-10.271	-4.478	0.000	0.000	0.000	-142.049	-94.430	0.000	94.430	-7.813
127.0	-10.200	-4.406	0.000	0.000	0.000	-131.778	-96.066	0.000	96.066	-7.854
128.0	-10.129	-4.334	0.000	0.000	0.000	-121.578	-97.711	0.000	97.711	-7.894
129.0	-10.058	-4.263	0.000	0.000	0.000	-111.449	-99.364	0.000	99.364	-7.931
130.0	-9.988	-4.193	0.000	0.000	0.000	-101.392	-101.024	0.000	101.024	-7.966
131.0	-9.917	-4.124	0.000	0.000	0.000	-91.404	-102.691	0.000	102.691	-7.999
132.0	-9.848	-4.056	0.000	0.000	0.000	-81.487	-104.365	0.000	104.365	-8.030
133.0	-9.778	-3.989	0.000	0.000	0.000	-71.639	-106.045	0.000	106.045	-8.058
134.0	-5.601	-2.603	0.000	0.000	0.000	-61.861	-107.730	0.000	107.730	-8.083
135.0	-5.534	-2.550	0.000	0.000	0.000	-56.260	-109.420	0.000	109.420	-8.106
136.0	-5.467	-2.498	0.000	0.000	0.000	-50.726	-111.115	0.000	111.115	-8.128
137.0	-5.400	-2.447	0.000	0.000	0.000	-45.259	-112.814	0.000	112.814	-8.148
138.0	-5.334	-2.396	0.000	0.000	0.000	-39.859	-114.517	0.000	114.517	-8.166
139.0	-5.269	-2.346	0.000	0.000	0.000	-34.525	-116.223	0.000	116.223	-8.182
140.0	-5.204	-2.296	0.000	0.000	0.000	-29.256	-117.933	0.000	117.933	-8.197
141.0	-5.139	-2.247	0.000	0.000	0.000	-24.053	-119.646	0.000	119.646	-8.210
142.0	-5.075	-2.199	0.000	0.000	0.000	-18.914	-121.361	0.000	121.361	-8.221
143.0	-2.072	-0.754	0.000	0.000	0.000	-13.838	-123.078	0.000	123.078	-8.229
144.0	-2.010	-0.719	0.000	0.000	0.000	-11.767	-124.796	0.000	124.796	-8.236
145.0	-1.950	-0.685	0.000	0.000	0.000	-9.757	-126.516	0.000	126.516	-8.242
146.0	-1.890	-0.651	0.000	0.000	0.000	-7.807	-128.237	0.000	128.237	-8.247
147.0	-1.830	-0.617	0.000	0.000	0.000	-5.917	-129.959	0.000	129.959	-8.251
148.0	-1.771	-0.584	0.000	0.000	0.000	-4.087	-131.681	0.000	131.681	-8.254
149.0	-1.669	0.000	0.000	0.000	0.000	-2.316	-133.404	0.000	133.404	-8.256

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Page: 16

Load Case: No Ice

90.00 mph Wind with No Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Stresses

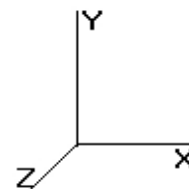
Seg Elev (ft)	Applied Stresses			Allowable				Stress Ratio		
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)		Stress (Fb) (ksi)	
0.00	0.55	0.99	0.00	0.00	0.00	51.02	51.60	52.0	0.0	0.993
1.00	0.54	0.99	0.00	0.00	0.00	51.03	51.60	52.0	0.0	0.993
2.00	0.54	0.99	0.00	0.00	0.00	51.03	51.60	52.0	0.0	0.993
3.00	0.54	1.00	0.00	0.00	0.00	51.03	51.60	52.0	0.0	0.993
4.00	0.54	1.00	0.00	0.00	0.00	51.03	51.60	52.0	0.0	0.993
5.00	0.54	1.00	0.00	0.00	0.00	51.03	51.60	52.0	0.0	0.993
6.00	0.54	1.00	0.00	0.00	0.00	51.03	51.60	52.0	0.0	0.993
7.00	0.53	1.00	0.00	0.00	0.00	51.03	51.59	52.0	0.0	0.992
8.00	0.53	1.01	0.00	0.00	0.00	51.02	51.58	52.0	0.0	0.992
9.00	0.53	1.01	0.00	0.00	0.00	51.02	51.58	52.0	0.0	0.992
10.00	0.53	1.01	0.00	0.00	0.00	51.01	51.57	52.0	0.0	0.992
11.00	0.52	1.01	0.00	0.00	0.00	51.00	51.56	52.0	0.0	0.992
12.00	0.52	1.02	0.00	0.00	0.00	51.00	51.55	52.0	0.0	0.992
13.00	0.52	1.02	0.00	0.00	0.00	50.99	51.54	52.0	0.0	0.991
14.00	0.52	1.02	0.00	0.00	0.00	50.97	51.52	52.0	0.0	0.991
15.00	0.52	1.02	0.00	0.00	0.00	50.96	51.51	52.0	0.0	0.991
16.00	0.51	1.03	0.00	0.00	0.00	50.95	51.49	52.0	0.0	0.991
17.00	0.51	1.03	0.00	0.00	0.00	50.93	51.47	52.0	0.0	0.990
18.00	0.51	1.03	0.00	0.00	0.00	50.91	51.45	52.0	0.0	0.990
19.00	0.51	1.03	0.00	0.00	0.00	50.89	51.43	52.0	0.0	0.989
20.00	0.51	1.04	0.00	0.00	0.00	50.87	51.41	52.0	0.0	0.989
21.00	0.50	1.04	0.00	0.00	0.00	50.85	51.38	52.0	0.0	0.989
22.00	0.50	1.04	0.00	0.00	0.00	50.82	51.36	52.0	0.0	0.988
23.00	0.50	1.04	0.00	0.00	0.00	50.80	51.33	52.0	0.0	0.987
24.00	0.50	1.05	0.00	0.00	0.00	50.77	51.30	52.0	0.0	0.987
25.00	0.49	1.05	0.00	0.00	0.00	50.74	51.26	52.0	0.0	0.986
26.00	0.49	1.05	0.00	0.00	0.00	50.71	51.23	52.0	0.0	0.986
27.00	0.49	1.06	0.00	0.00	0.00	50.67	51.19	52.0	0.0	0.985
28.00	0.49	1.06	0.00	0.00	0.00	50.64	51.16	52.0	0.0	0.984
29.00	0.48	1.06	0.00	0.00	0.00	50.60	51.12	52.0	0.0	0.983
30.00	0.48	1.07	0.00	0.00	0.00	50.56	51.07	52.0	0.0	0.983
31.00	0.48	1.07	0.00	0.00	0.00	50.51	51.03	52.0	0.0	0.982
32.00	0.48	1.07	0.00	0.00	0.00	50.47	50.98	52.0	0.0	0.981
33.00	0.48	1.07	0.00	0.00	0.00	50.42	50.93	52.0	0.0	0.980
34.00	0.47	1.08	0.00	0.00	0.00	50.37	50.88	52.0	0.0	0.979
35.00	0.47	1.08	0.00	0.00	0.00	50.32	50.82	52.0	0.0	0.978
36.00	0.47	1.08	0.00	0.00	0.00	50.26	50.76	52.0	0.0	0.977
37.00	0.47	1.09	0.00	0.00	0.00	50.20	50.70	52.0	0.0	0.975
38.00	0.46	1.09	0.00	0.00	0.00	50.14	50.64	52.0	0.0	0.974
39.00	0.46	1.09	0.00	0.00	0.00	50.08	50.57	52.0	0.0	0.973
40.00	0.46	1.10	0.00	0.00	0.00	50.01	50.50	52.0	0.0	0.972
41.00	0.46	1.10	0.00	0.00	0.00	49.94	50.43	52.0	0.0	0.970
42.00	0.46	1.10	0.00	0.00	0.00	49.86	50.36	52.0	0.0	0.969
43.00	0.45	1.11	0.00	0.00	0.00	49.79	50.28	52.0	0.0	0.967
44.00	0.45	1.11	0.00	0.00	0.00	49.71	50.20	52.0	0.0	0.966
45.00	0.45	1.11	0.00	0.00	0.00	49.63	50.11	52.0	0.0	0.964
46.00	0.45	1.12	0.00	0.00	0.00	49.54	50.02	52.0	0.0	0.962
47.00	0.44	1.12	0.00	0.00	0.00	49.45	49.93	52.0	0.0	0.961
48.00	0.44	1.12	0.00	0.00	0.00	49.35	49.83	52.0	0.0	0.959
49.00	0.44	1.13	0.00	0.00	0.00	49.26	49.73	52.0	0.0	0.957
50.00	0.43	1.13	0.00	0.00	0.00	49.16	49.62	52.0	0.0	0.955

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: No Ice 90.00 mph Wind with No Ice 33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

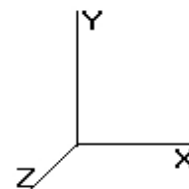
51.00	0.43	1.13	0.00	0.00	0.00	49.05	49.51	52.0	0.0	0.953
52.00	0.42	1.14	0.00	0.00	0.00	48.94	49.40	52.0	0.0	0.950
53.00	0.41	1.14	0.00	0.00	0.00	48.83	49.28	52.0	0.0	0.948
53.25	0.49	1.34	0.00	0.00	0.00	56.46	56.99	52.0	0.0	1.096
54.00	0.49	1.35	0.00	0.00	0.00	56.35	56.88	52.0	0.0	1.094
55.00	0.48	1.35	0.00	0.00	0.00	56.19	56.73	52.0	0.0	1.091
56.00	0.48	1.36	0.00	0.00	0.00	56.04	56.57	52.0	0.0	1.088
57.00	0.48	1.36	0.00	0.00	0.00	55.87	56.40	52.0	0.0	1.085
58.00	0.48	1.36	0.00	0.00	0.00	55.70	56.23	52.0	0.0	1.082
59.00	0.47	1.37	0.00	0.00	0.00	55.53	56.05	52.0	0.0	1.078
60.00	0.47	1.37	0.00	0.00	0.00	55.35	55.87	52.0	0.0	1.075
61.00	0.47	1.38	0.00	0.00	0.00	55.16	55.68	52.0	0.0	1.071
62.00	0.47	1.38	0.00	0.00	0.00	54.97	55.48	52.0	0.0	1.067
63.00	0.46	1.39	0.00	0.00	0.00	54.77	55.28	52.0	0.0	1.063
64.00	0.46	1.39	0.00	0.00	0.00	54.56	55.07	52.0	0.0	1.059
65.00	0.46	1.40	0.00	0.00	0.00	54.34	54.86	52.0	0.0	1.055
66.00	0.46	1.40	0.00	0.00	0.00	54.12	54.63	52.0	0.0	1.051
67.00	0.45	1.40	0.00	0.00	0.00	53.89	54.40	52.0	0.0	1.047
68.00	0.45	1.41	0.00	0.00	0.00	53.66	54.16	52.0	0.0	1.042
69.00	0.45	1.41	0.00	0.00	0.00	53.41	53.92	52.0	0.0	1.037
70.00	0.44	1.42	0.00	0.00	0.00	53.16	53.66	52.0	0.0	1.032
71.00	0.44	1.42	0.00	0.00	0.00	52.90	53.40	52.0	0.0	1.027
72.00	0.44	1.43	0.00	0.00	0.00	52.63	53.13	52.0	0.0	1.022
73.00	0.44	1.43	0.00	0.00	0.00	52.35	52.85	52.0	0.0	1.017
74.00	0.43	1.44	0.00	0.00	0.00	52.07	52.56	52.0	0.0	1.011
75.00	0.43	1.44	0.00	0.00	0.00	51.77	52.26	52.0	0.0	1.005
76.00	0.43	1.45	0.00	0.00	0.00	51.46	51.95	52.0	0.0	0.999
77.00	0.43	1.45	0.00	0.00	0.00	51.14	51.63	52.0	0.0	0.993
78.00	0.42	1.46	0.00	0.00	0.00	50.82	51.30	52.0	0.0	0.987
79.00	0.42	1.47	0.00	0.00	0.00	50.48	50.96	52.0	0.0	0.980
80.00	0.42	1.47	0.00	0.00	0.00	50.13	50.61	52.0	0.0	0.974
81.00	0.42	1.48	0.00	0.00	0.00	49.77	50.25	52.0	0.0	0.967
82.00	0.41	1.48	0.00	0.00	0.00	49.40	49.87	52.0	0.0	0.959
83.00	0.41	1.49	0.00	0.00	0.00	49.01	49.49	52.0	0.0	0.952
84.00	0.41	1.49	0.00	0.00	0.00	48.61	49.09	52.0	0.0	0.944
85.00	0.40	1.50	0.00	0.00	0.00	48.20	48.68	52.0	0.0	0.936
86.00	0.40	1.51	0.00	0.00	0.00	47.78	48.25	52.0	0.0	0.928
87.00	0.40	1.51	0.00	0.00	0.00	47.34	47.81	52.0	0.0	0.920
88.00	0.40	1.52	0.00	0.00	0.00	46.88	47.35	52.0	0.0	0.911
89.00	0.39	1.52	0.00	0.00	0.00	46.42	46.88	52.0	0.0	0.902
90.00	0.39	1.53	0.00	0.00	0.00	45.93	46.40	52.0	0.0	0.893
91.00	0.39	1.54	0.00	0.00	0.00	45.43	45.90	52.0	0.0	0.883
92.00	0.39	1.54	0.00	0.00	0.00	44.92	45.38	52.0	0.0	0.873
93.00	0.38	1.55	0.00	0.00	0.00	44.38	44.84	52.0	0.0	0.863
94.00	0.38	1.56	0.00	0.00	0.00	43.83	44.29	52.0	0.0	0.852
95.00	0.38	1.56	0.00	0.00	0.00	43.26	43.72	52.0	0.0	0.841
96.00	0.37	1.57	0.00	0.00	0.00	42.67	43.13	52.0	0.0	0.830
97.00	0.37	1.58	0.00	0.00	0.00	42.06	42.52	52.0	0.0	0.818
97.75	0.37	1.58	0.00	0.00	0.00	41.59	42.05	52.0	0.0	0.809
98.00	0.37	1.58	0.00	0.00	0.00	41.43	41.89	52.0	0.0	0.806
99.00	0.36	1.59	0.00	0.00	0.00	40.78	41.23	52.0	0.0	0.793
100.00	0.36	1.60	0.00	0.00	0.00	40.10	40.55	52.0	0.0	0.780
101.00	0.35	1.60	0.00	0.00	0.00	39.40	39.86	52.0	0.0	0.767
101.50	0.58	2.63	0.00	0.00	0.00	62.57	63.31	51.0	0.0	1.242
102.00	0.57	2.64	0.00	0.00	0.00	61.98	62.72	51.1	0.0	1.229
103.00	0.57	2.65	0.00	0.00	0.00	60.77	61.51	51.2	0.0	1.200
104.00	0.57	2.67	0.00	0.00	0.00	59.51	60.26	51.4	0.0	1.172

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: No Ice 90.00 mph Wind with No Ice 33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

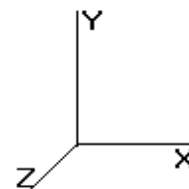
105.00	0.56	2.60	0.00	0.00	0.00	58.21	58.95	51.6	0.0	1.142
106.00	0.56	2.61	0.00	0.00	0.00	56.94	57.68	51.8	0.0	1.113
107.00	0.56	2.63	0.00	0.00	0.00	55.62	56.36	52.0	0.0	1.084
108.00	0.55	2.64	0.00	0.00	0.00	54.26	55.00	52.0	0.0	1.058
109.00	0.55	2.65	0.00	0.00	0.00	52.84	53.59	52.0	0.0	1.031
110.00	0.55	2.67	0.00	0.00	0.00	51.38	52.13	52.0	0.0	1.003
111.00	0.54	2.68	0.00	0.00	0.00	49.87	50.63	52.0	0.0	0.974
112.00	0.54	2.70	0.00	0.00	0.00	48.30	49.06	52.0	0.0	0.944
113.00	0.54	2.71	0.00	0.00	0.00	46.67	47.45	52.0	0.0	0.913
114.00	0.54	2.73	0.00	0.00	0.00	44.99	45.77	52.0	0.0	0.881
115.00	0.53	2.67	0.00	0.00	0.00	43.25	44.02	52.0	0.0	0.847
116.00	0.53	2.69	0.00	0.00	0.00	41.51	42.29	52.0	0.0	0.814
117.00	0.53	2.70	0.00	0.00	0.00	39.70	40.50	52.0	0.0	0.779
118.00	0.53	2.72	0.00	0.00	0.00	37.83	38.65	52.0	0.0	0.743
119.00	0.52	2.73	0.00	0.00	0.00	35.89	36.72	52.0	0.0	0.706
120.00	0.52	2.75	0.00	0.00	0.00	33.88	34.73	52.0	0.0	0.668
121.00	0.52	2.77	0.00	0.00	0.00	31.80	32.67	52.0	0.0	0.628
122.00	0.52	2.78	0.00	0.00	0.00	29.63	30.53	52.0	0.0	0.587
123.00	0.51	2.80	0.00	0.00	0.00	27.39	28.32	52.0	0.0	0.545
124.00	0.51	2.82	0.00	0.00	0.00	25.05	26.03	52.0	0.0	0.501
125.00	0.33	1.49	0.00	0.00	0.00	22.63	23.10	52.0	0.0	0.444
126.00	0.32	1.50	0.00	0.00	0.00	21.53	22.00	52.0	0.0	0.423
127.00	0.32	1.50	0.00	0.00	0.00	20.38	20.87	52.0	0.0	0.401
128.00	0.32	1.51	0.00	0.00	0.00	19.20	19.69	52.0	0.0	0.379
129.00	0.32	1.51	0.00	0.00	0.00	17.97	18.47	52.0	0.0	0.355
130.00	0.32	1.52	0.00	0.00	0.00	16.70	17.21	52.0	0.0	0.331
131.00	0.31	1.52	0.00	0.00	0.00	15.37	15.91	52.0	0.0	0.306
132.00	0.31	1.53	0.00	0.00	0.00	14.00	14.56	52.0	0.0	0.280
133.00	0.31	1.54	0.00	0.00	0.00	12.58	13.17	52.0	0.0	0.253
134.00	0.21	0.89	0.00	0.00	0.00	11.11	11.42	52.0	0.0	0.220
135.00	0.20	0.89	0.00	0.00	0.00	10.33	10.64	52.0	0.0	0.205
136.00	0.20	0.89	0.00	0.00	0.00	9.52	9.85	52.0	0.0	0.189
137.00	0.20	0.89	0.00	0.00	0.00	8.69	9.02	52.0	0.0	0.174
138.00	0.20	0.89	0.00	0.00	0.00	7.83	8.18	52.0	0.0	0.157
139.00	0.20	0.88	0.00	0.00	0.00	6.95	7.30	52.0	0.0	0.141
140.00	0.19	0.88	0.00	0.00	0.00	6.03	6.41	52.0	0.0	0.123
141.00	0.19	0.88	0.00	0.00	0.00	5.07	5.48	52.0	0.0	0.105
142.00	0.19	0.88	0.00	0.00	0.00	4.09	4.54	52.0	0.0	0.087
143.00	0.07	0.36	0.00	0.00	0.00	3.06	3.19	52.0	0.0	0.061
144.00	0.06	0.36	0.00	0.00	0.00	2.67	2.80	52.0	0.0	0.054
145.00	0.06	0.35	0.00	0.00	0.00	2.27	2.41	52.0	0.0	0.046
146.00	0.06	0.35	0.00	0.00	0.00	1.86	2.01	52.0	0.0	0.039
147.00	0.06	0.34	0.00	0.00	0.00	1.45	1.62	52.0	0.0	0.031
148.00	0.05	0.33	0.00	0.00	0.00	1.03	1.23	52.0	0.0	0.024
149.00	0.00	0.32	0.00	0.00	0.00	0.60	0.81	52.0	0.0	0.016

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
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Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

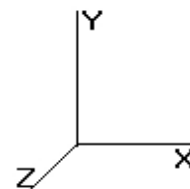
Shaft Segment Forces

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 15.551	26.28 337.80	0.650		0.500	0.00	0.000	0.00	0.0	0.0	0.0
1.00		0.00	1.00 15.551	26.28 336.27	0.650		0.500	1.00	4.408	2.86	75.3	32.3	240.9
2.00		0.00	1.00 15.551	26.28 334.75	0.650		0.500	1.00	4.388	2.85	75.0	32.1	239.8
3.00		0.00	1.00 15.551	26.28 333.22	0.650		0.500	1.00	4.369	2.84	74.6	32.0	238.7
4.00		0.00	1.00 15.551	26.28 331.69	0.650		0.500	1.00	4.349	2.83	74.3	31.8	237.6
5.00		0.00	1.00 15.551	26.28 330.17	0.650		0.500	1.00	4.329	2.81	74.0	31.7	236.5
6.00		0.00	1.00 15.551	26.28 328.64	0.650		0.500	1.00	4.310	2.80	73.6	31.5	235.4
7.00		0.00	1.00 15.551	26.28 327.12	0.650		0.500	1.00	4.290	2.79	73.3	31.4	234.3
8.00		0.00	1.00 15.551	26.28 325.59	0.650		0.500	1.00	4.271	2.78	73.0	31.2	233.2
9.00		0.00	1.00 15.551	26.28 324.06	0.650		0.500	1.00	4.251	2.76	72.6	31.1	232.1
10.00		0.00	1.00 15.551	26.28 322.54	0.650		0.500	1.00	4.231	2.75	72.3	31.0	231.0
11.00		0.00	1.00 15.551	26.28 321.01	0.650		0.500	1.00	4.212	2.74	72.0	30.8	229.9
12.00		0.00	1.00 15.551	26.28 319.49	0.650		0.500	1.00	4.192	2.72	71.6	30.7	228.8
13.00		0.00	1.00 15.551	26.28 317.96	0.650		0.500	1.00	4.173	2.71	71.3	30.5	227.7
14.00		0.00	1.00 15.551	26.28 316.43	0.650		0.500	1.00	4.153	2.70	70.9	30.4	226.7
15.00		0.00	1.00 15.551	26.28 314.91	0.650		0.500	1.00	4.134	2.69	70.6	30.2	225.6
16.00		0.00	1.00 15.551	26.28 313.38	0.650		0.500	1.00	4.114	2.67	70.3	30.1	224.5
17.00		0.00	1.00 15.551	26.28 311.85	0.650		0.500	1.00	4.094	2.66	69.9	29.9	223.4
18.00		0.00	1.00 15.551	26.28 310.33	0.650		0.500	1.00	4.075	2.65	69.6	29.8	222.3
19.00		0.00	1.00 15.551	26.28 308.80	0.650		0.500	1.00	4.055	2.64	69.3	29.7	221.2
20.00		0.00	1.00 15.551	26.28 307.28	0.650		0.500	1.00	4.036	2.62	68.9	29.5	220.1
21.00		0.00	1.00 15.551	26.28 305.75	0.650		0.500	1.00	4.016	2.61	68.6	29.4	219.0
22.00		0.00	1.00 15.551	26.28 304.22	0.650		0.500	1.00	3.996	2.60	68.3	29.2	217.9
23.00		0.00	1.00 15.551	26.28 302.70	0.650		0.500	1.00	3.977	2.58	67.9	29.1	216.8
24.00		0.00	1.00 15.551	26.28 301.17	0.650		0.500	1.00	3.957	2.57	67.6	28.9	215.7
25.00		0.00	1.00 15.551	26.28 299.65	0.650		0.500	1.00	3.938	2.56	67.3	28.8	214.6
26.00		0.00	1.00 15.551	26.28 298.12	0.650		0.500	1.00	3.918	2.55	66.9	28.6	213.5
27.00		0.00	1.00 15.551	26.28 296.59	0.650		0.500	1.00	3.899	2.53	66.6	28.5	212.4
28.00		0.00	1.00 15.551	26.28 295.07	0.650		0.500	1.00	3.879	2.52	66.3	28.3	211.3
29.00		0.00	1.00 15.551	26.28 293.54	0.650		0.500	1.00	3.859	2.51	65.9	28.2	210.2
30.00		0.00	1.00 15.551	26.28 292.02	0.650		0.500	1.00	3.840	2.50	65.6	28.1	209.1
31.00		0.00	1.00 15.551	26.28 290.49	0.650		0.500	1.00	3.820	2.48	65.3	27.9	208.0
32.00		0.00	1.00 15.551	26.28 288.96	0.650		0.500	1.00	3.801	2.47	64.9	27.8	206.9
33.00		0.00	1.00 15.551	26.28 287.44	0.650		0.500	1.00	3.781	2.46	64.6	27.6	205.8
34.00		0.00	1.00 15.684	26.50 287.13	0.650		0.500	1.00	3.762	2.44	64.8	27.5	204.7
35.00		0.00	1.01 15.815	26.72 286.79	0.650		0.500	1.00	3.742	2.43	65.0	27.3	203.6
36.00		0.00	1.02 15.943	26.94 286.40	0.650		0.500	1.00	3.722	2.42	65.2	27.2	202.5
37.00		0.00	1.03 16.068	27.15 285.97	0.650		0.500	1.00	3.703	2.41	65.4	27.0	201.4
38.00		0.00	1.04 16.191	27.36 285.50	0.650		0.500	1.00	3.683	2.39	65.5	26.9	200.3
39.00		0.00	1.04 16.311	27.56 285.00	0.650		0.500	1.00	3.664	2.38	65.6	26.8	199.2
40.00		0.00	1.05 16.430	27.76 284.47	0.650		0.500	1.00	3.644	2.37	65.8	26.6	198.1
41.00		0.00	1.06 16.546	27.96 283.90	0.650		0.500	1.00	3.624	2.36	65.9	26.5	197.0
42.00		0.00	1.07 16.660	28.15 283.30	0.650		0.500	1.00	3.605	2.34	66.0	26.3	195.9
43.00		0.00	1.07 16.773	28.34 282.67	0.650		0.500	1.00	3.585	2.33	66.1	26.2	194.8
44.00		0.00	1.08 16.883	28.53 282.01	0.650		0.500	1.00	3.566	2.32	66.1	26.0	193.8
45.00		0.00	1.09 16.992	28.71 281.32	0.650		0.500	1.00	3.546	2.30	66.2	25.9	192.7
46.00		0.00	1.10 17.099	28.89 280.60	0.650		0.500	1.00	3.527	2.29	66.2	25.7	191.6
47.00		0.00	1.10 17.204	29.07 279.86	0.650		0.500	1.00	3.507	2.28	66.3	25.6	190.5
48.00	Bot - Section 2	0.00	1.11 17.308	29.25 279.09	0.650		0.500	1.00	3.487	2.27	66.3	25.4	189.4
49.00		0.00	1.12 17.411	29.42 278.30	0.650		0.500	1.00	3.520	2.29	67.3	25.7	326.8
50.00		0.00	1.12 17.511	29.59 277.49	0.650		0.500	1.00	3.500	2.28	67.3	25.5	324.9

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

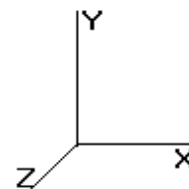
51.00		0.00	1.13	17.611	29.76	276.65	0.650	0.500	1.00	3.481	2.26	67.3	25.4	323.0
52.00		0.00	1.13	17.709	29.92	275.79	0.650	0.500	1.00	3.461	2.25	67.3	25.3	321.1
53.00		0.00	1.14	17.805	30.09	274.91	0.650	0.500	1.00	3.442	2.24	67.3	25.1	319.2
53.25	Top - Section 1	0.00	1.14	17.829	30.13	274.68	0.650	0.500	0.25	0.857	0.56	16.8	6.3	79.5
54.00		0.00	1.15	17.901	30.25	278.36	0.650	0.500	0.75	2.565	1.67	50.4	18.7	119.3
55.00		0.00	1.15	17.995	30.41	277.45	0.650	0.500	1.00	3.402	2.21	67.3	24.8	158.2
56.00		0.00	1.16	18.088	30.56	276.52	0.650	0.500	1.00	3.383	2.20	67.2	24.7	157.2
57.00		0.00	1.16	18.179	30.72	275.57	0.650	0.500	1.00	3.363	2.19	67.2	24.5	156.3
58.00		0.00	1.17	18.270	30.87	274.60	0.650	0.500	1.00	3.344	2.17	67.1	24.4	155.4
59.00		0.00	1.18	18.359	31.02	273.61	0.650	0.500	1.00	3.324	2.16	67.0	24.2	154.4
60.00		0.00	1.18	18.448	31.17	272.61	0.650	0.500	1.00	3.305	2.15	67.0	24.1	153.5
61.00		0.00	1.19	18.535	31.32	271.59	0.650	0.500	1.00	3.285	2.14	66.9	23.9	152.6
62.00		0.00	1.19	18.621	31.47	270.55	0.650	0.500	1.00	3.265	2.12	66.8	23.8	151.6
63.00		0.00	1.20	18.707	31.61	269.49	0.650	0.500	1.00	3.246	2.11	66.7	23.7	150.7
64.00		0.00	1.20	18.791	31.75	268.42	0.650	0.500	1.00	3.226	2.10	66.6	23.5	149.7
65.00		0.00	1.21	18.874	31.89	267.34	0.650	0.500	1.00	3.207	2.08	66.5	23.4	148.8
66.00		0.00	1.21	18.957	32.03	266.24	0.650	0.500	1.00	3.187	2.07	66.4	23.2	147.9
67.00		0.00	1.22	19.039	32.17	265.12	0.650	0.500	1.00	3.167	2.06	66.2	23.1	146.9
68.00		0.00	1.22	19.119	32.31	263.99	0.650	0.500	1.00	3.148	2.05	66.1	22.9	146.0
69.00		0.00	1.23	19.199	32.44	262.84	0.650	0.500	1.00	3.128	2.03	66.0	22.8	145.1
70.00		0.00	1.24	19.278	32.58	261.69	0.650	0.500	1.00	3.109	2.02	65.8	22.6	144.1
71.00		0.00	1.24	19.357	32.71	260.51	0.650	0.500	1.00	3.089	2.01	65.7	22.5	143.2
72.00		0.00	1.25	19.434	32.84	259.33	0.650	0.500	1.00	3.070	2.00	65.5	22.4	142.2
73.00		0.00	1.25	19.511	32.97	258.13	0.650	0.500	1.00	3.050	1.98	65.4	22.2	141.3
74.00		0.00	1.26	19.587	33.10	256.92	0.650	0.500	1.00	3.030	1.97	65.2	22.1	140.4
75.00		0.00	1.26	19.662	33.22	255.70	0.650	0.500	1.00	3.011	1.96	65.0	21.9	139.4
76.00		0.00	1.26	19.737	33.35	254.46	0.650	0.500	1.00	2.991	1.94	64.9	21.8	138.5
77.00		0.00	1.27	19.811	33.48	253.22	0.650	0.500	1.00	2.972	1.93	64.7	21.6	137.5
78.00		0.00	1.27	19.884	33.60	251.96	0.650	0.500	1.00	2.952	1.92	64.5	21.5	136.6
79.00		0.00	1.28	19.956	33.72	250.69	0.650	0.500	1.00	2.932	1.91	64.3	21.3	135.7
80.00		0.00	1.28	20.028	33.84	249.41	0.650	0.500	1.00	2.913	1.89	64.1	21.2	134.7
81.00		0.00	1.29	20.099	33.96	248.12	0.650	0.500	1.00	2.893	1.88	63.9	21.0	133.8
82.00		0.00	1.29	20.170	34.08	246.81	0.650	0.500	1.00	2.874	1.87	63.7	20.9	132.9
83.00		0.00	1.30	20.240	34.20	245.50	0.650	0.500	1.00	2.854	1.86	63.5	20.8	131.9
84.00		0.00	1.30	20.309	34.32	244.18	0.650	0.500	1.00	2.835	1.84	63.2	20.6	131.0
85.00		0.00	1.31	20.378	34.43	242.84	0.650	0.500	1.00	2.815	1.83	63.0	20.5	130.0
86.00		0.00	1.31	20.446	34.55	241.50	0.650	0.500	1.00	2.795	1.82	62.8	20.3	129.1
87.00		0.00	1.31	20.514	34.66	240.14	0.650	0.500	1.00	2.776	1.80	62.6	20.2	128.2
88.00		0.00	1.32	20.581	34.78	238.78	0.650	0.500	1.00	2.756	1.79	62.3	20.0	127.2
89.00		0.00	1.32	20.648	34.89	237.41	0.650	0.500	1.00	2.737	1.78	62.1	19.9	126.3
90.00		0.00	1.33	20.714	35.00	236.03	0.650	0.500	1.00	2.717	1.77	61.8	19.7	125.4
91.00		0.00	1.33	20.779	35.11	234.64	0.650	0.500	1.00	2.698	1.75	61.6	19.6	124.4
92.00		0.00	1.34	20.844	35.22	233.24	0.650	0.500	1.00	2.678	1.74	61.3	19.5	123.5
93.00		0.00	1.34	20.909	35.33	231.83	0.650	0.500	1.00	2.658	1.73	61.1	19.3	122.5
94.00		0.00	1.34	20.973	35.44	230.41	0.650	0.500	1.00	2.639	1.72	60.8	19.2	121.6
95.00		0.00	1.35	21.036	35.55	228.98	0.650	0.500	1.00	2.619	1.70	60.5	19.0	120.7
96.00		0.00	1.35	21.099	35.65	227.55	0.650	0.500	1.00	2.600	1.69	60.3	18.9	119.7
97.00		0.00	1.36	21.162	35.76	226.10	0.650	0.500	1.00	2.580	1.68	60.0	18.7	118.8
97.75	Bot - Section 3	0.00	1.36	21.208	35.84	225.02	0.650	0.500	0.75	1.922	1.25	44.8	14.0	88.5
98.00		0.00	1.36	21.224	35.86	224.65	0.650	0.500	0.25	0.646	0.42	15.1	4.7	44.5
99.00		0.00	1.36	21.285	35.97	223.19	0.650	0.500	1.00	2.572	1.67	60.1	18.7	177.2
100.0		0.00	1.37	21.347	36.07	221.73	0.650	0.500	1.00	2.553	1.66	59.9	18.5	175.8
101.0		0.00	1.37	21.407	36.17	220.25	0.650	0.500	1.00	2.533	1.65	59.6	18.4	174.4
101.5	Top - Section 2	0.00	1.37	21.438	36.23	219.51	0.650	0.500	0.50	1.259	0.82	29.7	9.2	86.7
102.0		0.00	1.38	21.468	36.28	221.63	0.650	0.500	0.50	1.254	0.82	29.6	9.1	86.4
103.0		0.00	1.38	21.528	36.38	220.14	0.650	0.500	1.00	2.494	1.62	59.0	18.1	76.3
104.0		0.00	1.38	21.587	36.48	218.65	0.650	0.500	1.00	2.474	1.61	58.7	17.9	75.7

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

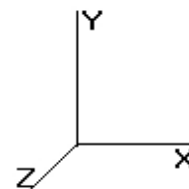
105.0	Appertunance(s)	0.00	1.39	21.646	36.58	217.15	0.650	0.500	1.00	2.455	1.60	58.4	17.8	75.0
106.0		0.00	1.39	21.705	36.68	215.64	0.650	0.500	1.00	2.435	1.58	58.1	17.7	74.4
107.0		0.00	1.39	21.763	36.78	214.12	0.650	0.500	1.00	2.415	1.57	57.7	17.5	73.8
108.0		0.00	1.40	21.821	36.87	212.60	0.650	0.500	1.00	2.396	1.56	57.4	17.4	73.2
109.0		0.00	1.40	21.879	36.97	211.07	0.650	0.500	1.00	2.376	1.54	57.1	17.2	72.6
110.0		0.00	1.41	21.936	37.07	209.53	0.650	0.500	1.00	2.357	1.53	56.8	17.1	71.9
111.0		0.00	1.41	21.993	37.16	207.99	0.650	0.500	1.00	2.337	1.52	56.5	16.9	71.3
112.0		0.00	1.41	22.049	37.26	206.44	0.650	0.500	1.00	2.318	1.51	56.1	16.8	70.7
113.0		0.00	1.42	22.105	37.35	204.88	0.650	0.500	1.00	2.298	1.49	55.8	16.6	70.1
114.0		0.00	1.42	22.161	37.45	203.32	0.650	0.500	1.00	2.278	1.48	55.5	16.5	69.5
115.0	Appertunance(s)	0.00	1.42	22.216	37.54	201.75	0.650	0.500	1.00	2.259	1.47	55.1	16.3	68.8
116.0		0.00	1.43	22.271	37.63	200.17	0.650	0.500	1.00	2.239	1.46	54.8	16.2	68.2
117.0		0.00	1.43	22.326	37.73	198.59	0.650	0.500	1.00	2.220	1.44	54.4	16.1	67.6
118.0		0.00	1.43	22.380	37.82	197.00	0.650	0.500	1.00	2.200	1.43	54.1	15.9	67.0
119.0		0.00	1.44	22.434	37.91	195.40	0.650	0.500	1.00	2.181	1.42	53.7	15.8	66.3
120.0		0.00	1.44	22.488	38.00	193.80	0.650	0.500	1.00	2.161	1.40	53.4	15.6	65.7
121.0		0.00	1.45	22.541	38.09	192.19	0.650	0.500	1.00	2.141	1.39	53.0	15.5	65.1
122.0		0.00	1.45	22.594	38.18	190.58	0.650	0.500	1.00	2.122	1.38	52.7	15.3	64.5
123.0		0.00	1.45	22.647	38.27	188.96	0.650	0.500	1.00	2.102	1.37	52.3	15.2	63.9
124.0		0.00	1.46	22.700	38.36	187.34	0.650	0.500	1.00	2.083	1.35	51.9	15.0	63.2
125.0	Appertunance(s)	0.00	1.46	22.752	38.45	185.71	0.650	0.500	1.00	2.063	1.34	51.6	14.9	62.6
126.0		0.00	1.46	22.804	38.53	184.07	0.650	0.500	1.00	2.043	1.33	51.2	14.8	62.0
127.0		0.00	1.47	22.855	38.62	182.43	0.650	0.500	1.00	2.024	1.32	50.8	14.6	61.4
128.0		0.00	1.47	22.907	38.71	180.78	0.650	0.500	1.00	2.004	1.30	50.4	14.5	60.8
129.0		0.00	1.47	22.958	38.79	179.13	0.650	0.500	1.00	1.985	1.29	50.1	14.3	60.1
130.0		0.00	1.48	23.008	38.88	177.47	0.650	0.500	1.00	1.965	1.28	49.7	14.2	59.5
131.0		0.00	1.48	23.059	38.96	175.80	0.650	0.500	1.00	1.946	1.26	49.3	14.0	58.9
132.0		0.00	1.48	23.109	39.05	174.14	0.650	0.500	1.00	1.926	1.25	48.9	13.9	58.3
133.0		0.00	1.48	23.159	39.13	172.46	0.650	0.500	1.00	1.906	1.24	48.5	13.7	57.7
134.0	Appertunance(s)	0.00	1.49	23.208	39.22	170.78	0.650	0.500	1.00	1.887	1.23	48.1	13.6	57.0
135.0		0.00	1.49	23.258	39.30	169.10	0.650	0.500	1.00	1.867	1.21	47.7	13.4	56.4
136.0		0.00	1.49	23.307	39.38	167.41	0.650	0.500	1.00	1.848	1.20	47.3	13.3	55.8
137.0		0.00	1.50	23.356	39.47	165.71	0.650	0.500	1.00	1.828	1.19	46.9	13.2	55.2
138.0		0.00	1.50	23.404	39.55	164.01	0.650	0.500	1.00	1.808	1.18	46.5	13.0	54.6
139.0		0.00	1.50	23.453	39.63	162.31	0.650	0.500	1.00	1.789	1.16	46.1	12.9	53.9
140.0		0.00	1.51	23.501	39.71	160.60	0.650	0.500	1.00	1.769	1.15	45.7	12.7	53.3
141.0		0.00	1.51	23.548	39.79	158.88	0.650	0.500	1.00	1.750	1.14	45.3	12.6	52.7
142.0		0.00	1.51	23.596	39.87	157.16	0.650	0.500	1.00	1.730	1.12	44.8	12.4	52.1
143.0	Appertunance(s)	0.00	1.52	23.643	39.95	155.44	0.650	0.500	1.00	1.711	1.11	44.4	12.3	51.5
144.0		0.00	1.52	23.691	40.03	153.71	0.650	0.500	1.00	1.691	1.10	44.0	12.1	50.8
145.0		0.00	1.52	23.737	40.11	151.98	0.650	0.500	1.00	1.671	1.09	43.6	12.0	50.2
146.0		0.00	1.52	23.784	40.19	150.24	0.650	0.500	1.00	1.652	1.07	43.2	11.9	49.6
147.0		0.00	1.53	23.831	40.27	148.50	0.650	0.500	1.00	1.632	1.06	42.7	11.7	49.0
148.0		0.00	1.53	23.877	40.35	146.75	0.650	0.500	1.00	1.613	1.05	42.3	11.6	48.3
149.0	Appertunance(s)	0.00	1.53	23.923	40.42	145.00	0.650	0.500	1.00	1.593	1.04	41.9	11.4	47.7
Totals:									149.00			9,160.6	3,259.0	21,795.0

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

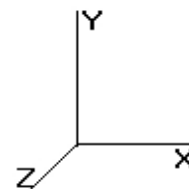
Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAA (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)	
105.0	Stand-Off	1	21.646	36.582	1.00	3.00	0.000	0.000	109.75	0.00	0.00	100.00	
105.0	Pacific Wireless HDD	1	21.646	36.582	1.00	12.76	0.000	0.000	466.79	0.00	0.00	57.70	
105.0	Proxim 5054-R-LR	1	21.646	36.582	0.50	1.00	0.000	0.000	36.58	0.00	0.00	10.00	
115.0	RFS APXV18-206517S-	3	22.216	37.545	0.68	11.93	0.000	0.000	448.07	0.00	0.00	159.39	
125.0	Raycap DC6-48-60-18-	4	22.752	38.451	0.67	4.48	0.000	0.000	172.09	0.00	0.00	198.00	
125.0	14" x 9" TTA	6	22.752	38.451	0.33	2.89	0.000	0.000	111.15	0.00	0.00	108.00	
125.0	Flat Low Profile Pla	1	22.752	38.451	0.90	28.44	0.000	0.000	1,093.54	0.00	0.00	1,700.00	
125.0	Ericsson RRUS A2	6	22.752	38.451	0.33	4.26	0.000	0.000	163.68	0.00	0.00	152.40	
125.0	Ericsson RRUS-11 800	6	22.752	38.451	0.50	9.87	0.000	0.000	379.51	0.00	0.00	453.84	
125.0	Ericsson RRUS-11 190	3	22.752	38.451	0.50	4.93	0.000	0.000	189.75	0.00	0.00	189.90	
125.0	Ericsson RRUS-12 800	3	22.752	38.451	0.50	5.26	0.000	0.000	202.44	0.00	0.00	243.60	
125.0	Ericsson RRUS-12 190	3	22.752	38.451	0.50	5.26	0.000	0.000	202.44	0.00	0.00	243.60	
125.0	Ericsson RRUS E2 B29	3	22.752	38.451	0.50	6.11	0.000	0.000	234.74	0.00	0.00	199.50	
125.0	Ericsson RRUS-32	3	22.752	38.451	0.50	6.45	0.000	0.000	248.01	0.00	0.00	314.70	
125.0	CCI HPA-65R-BUU-H8	12	22.752	38.451	0.66	113.65	0.000	0.000	4,369.99	0.00	0.00	1,701.24	
134.0	RFS FD9R6004/2C-3L	6	23.208	39.222	0.33	0.99	0.000	0.000	38.83	0.00	0.00	32.40	
134.0	Antel BXA 185085/12C	3	23.208	39.222	0.72	11.82	0.000	0.000	463.42	0.00	0.00	121.38	
134.0	Alcatel-Lucent RRH2x	3	23.109	39.054	0.50	4.30	0.000	-2.000	168.13	0.00	-336.25	184.20	
134.0	Antel BXA BXA-171063	3	23.208	39.222	0.72	11.77	0.000	0.000	461.72	0.00	0.00	127.20	
134.0	RFS DB-T1-6Z-8AB-0Z	1	23.208	39.222	0.67	4.07	0.000	0.000	159.78	0.00	0.00	144.50	
134.0	Antel BXA-70063/6CF	3	23.208	39.222	0.64	16.40	0.000	0.000	643.11	0.00	0.00	174.00	
134.0	Andrew	3	23.208	39.222	0.63	12.28	0.000	0.000	481.62	0.00	0.00	156.64	
134.0	Round Low Profile PI	1	23.208	39.222	0.90	24.48	0.000	0.000	960.15	0.00	0.00	1,700.00	
143.0	Flat Low Profile Pla	1	23.643	39.957	1.00	31.60	0.000	0.000	1,262.65	0.00	0.00	1,700.00	
143.0	RFS APX16PV-16PVL-	6	23.643	39.957	0.59	25.83	0.000	0.000	1,032.29	0.00	0.00	423.88	
143.0	Andrew	3	23.643	39.957	0.33	0.75	0.000	0.000	30.06	0.00	0.00	48.90	
143.0	Andrew	3	23.643	39.957	0.33	0.61	0.000	0.000	24.53	0.00	0.00	43.56	
149.0	Clearwire Mount	1	23.923	40.429	1.00	10.50	0.000	0.000	424.51	0.00	0.00	50.00	
149.0	DragonWave A-ANT-	2	24.014	40.584	0.90	9.09	0.000	2.000	368.91	0.00	737.81	110.20	
149.0	NextNet BTS-2500	3	24.014	40.584	0.33	2.41	0.000	2.000	97.63	0.00	195.26	144.90	
149.0	Argus LLPX310R	3	24.014	40.584	0.62	9.97	0.000	2.000	404.60	0.00	809.21	163.50	
149.0	DragonWave Horizon	3	24.014	40.584	0.33	0.57	0.000	2.000	23.30	0.00	46.60	51.00	
149.0	DragonWave A-ANT-	1	24.014	40.584	0.90	1.65	0.000	2.000	66.84	0.00	133.68	25.10	
									15,540.61				11,233.22

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Applied Segment Forces Summary

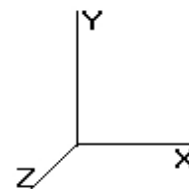
Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
1.00	75.30	240.91	0.00	0.00
2.00	74.96	239.81	0.00	0.00
3.00	74.63	238.71	0.00	0.00
4.00	74.29	237.62	0.00	0.00
5.00	73.96	287.93	0.00	0.00
6.00	73.62	286.83	0.00	0.00
7.00	73.29	285.74	0.00	0.00
8.00	72.95	284.64	0.00	0.00
9.00	72.62	283.54	0.00	0.00
10.00	72.29	282.45	0.00	0.00
11.00	71.95	281.35	0.00	0.00
12.00	71.62	280.25	0.00	0.00
13.00	71.28	279.16	0.00	0.00
14.00	70.95	278.06	0.00	0.00
15.00	70.61	276.96	0.00	0.00
16.00	70.28	275.87	0.00	0.00
17.00	69.94	274.77	0.00	0.00
18.00	69.61	273.67	0.00	0.00
19.00	69.28	272.58	0.00	0.00
20.00	68.94	271.48	0.00	0.00
21.00	68.61	270.38	0.00	0.00
22.00	68.27	269.29	0.00	0.00
23.00	67.94	268.19	0.00	0.00
24.00	67.60	267.09	0.00	0.00
25.00	67.27	266.00	0.00	0.00
26.00	66.93	264.90	0.00	0.00
27.00	66.60	263.80	0.00	0.00
28.00	66.26	262.71	0.00	0.00
29.00	65.93	261.61	0.00	0.00
30.00	65.60	260.51	0.00	0.00
31.00	65.26	259.42	0.00	0.00
32.00	64.93	258.32	0.00	0.00
33.00	64.59	257.22	0.00	0.00
34.00	64.81	256.13	0.00	0.00
35.00	65.01	255.03	0.00	0.00
36.00	65.19	253.93	0.00	0.00
37.00	65.36	252.84	0.00	0.00
38.00	65.51	251.74	0.00	0.00
39.00	65.64	250.64	0.00	0.00
40.00	65.77	249.55	0.00	0.00
41.00	65.88	248.45	0.00	0.00
42.00	65.97	247.35	0.00	0.00
43.00	66.06	246.26	0.00	0.00
44.00	66.13	245.16	0.00	0.00
45.00	66.19	244.07	0.00	0.00
46.00	66.24	242.97	0.00	0.00
47.00	66.28	241.87	0.00	0.00
48.00	66.31	240.78	0.00	0.00
49.00	67.32	378.19	0.00	0.00

Pole : 243036
Location : West Haven & Rt 162 CT, CT
Height : 149.0 (ft)
Base Dia : 52.01 (in)
Top Dia : 18.00 (in)
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Taper : 0.234965 (in/ft)

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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

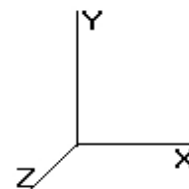
50.00	67.33	376.30	0.00	0.00
51.00	67.34	374.41	0.00	0.00
52.00	67.33	372.52	0.00	0.00
53.00	67.31	370.63	0.00	0.00
53.25	16.79	92.38	0.00	0.00
54.00	50.43	157.83	0.00	0.00
55.00	67.26	209.60	0.00	0.00
56.00	67.21	208.66	0.00	0.00
57.00	67.16	207.72	0.00	0.00
58.00	67.11	206.78	0.00	0.00
59.00	67.04	205.84	0.00	0.00
60.00	66.97	204.91	0.00	0.00
61.00	66.88	203.97	0.00	0.00
62.00	66.79	203.03	0.00	0.00
63.00	66.70	202.09	0.00	0.00
64.00	66.60	201.15	0.00	0.00
65.00	66.48	200.22	0.00	0.00
66.00	66.37	199.28	0.00	0.00
67.00	66.24	198.34	0.00	0.00
68.00	66.11	197.40	0.00	0.00
69.00	65.98	196.46	0.00	0.00
70.00	65.83	195.52	0.00	0.00
71.00	65.69	194.59	0.00	0.00
72.00	65.53	193.65	0.00	0.00
73.00	65.37	192.71	0.00	0.00
74.00	65.20	191.77	0.00	0.00
75.00	65.03	190.83	0.00	0.00
76.00	64.85	189.90	0.00	0.00
77.00	64.67	188.96	0.00	0.00
78.00	64.48	188.02	0.00	0.00
79.00	64.29	187.08	0.00	0.00
80.00	64.09	186.14	0.00	0.00
81.00	63.88	185.21	0.00	0.00
82.00	63.67	184.27	0.00	0.00
83.00	63.46	183.33	0.00	0.00
84.00	63.24	182.39	0.00	0.00
85.00	63.01	181.45	0.00	0.00
86.00	62.79	180.52	0.00	0.00
87.00	62.55	179.58	0.00	0.00
88.00	62.31	178.64	0.00	0.00
89.00	62.07	177.70	0.00	0.00
90.00	61.82	176.76	0.00	0.00
91.00	61.57	175.83	0.00	0.00
92.00	61.32	174.89	0.00	0.00
93.00	61.06	173.95	0.00	0.00
94.00	60.79	173.01	0.00	0.00
95.00	60.52	172.07	0.00	0.00
96.00	60.25	171.14	0.00	0.00
97.00	59.98	170.20	0.00	0.00
97.75	44.78	127.05	0.00	0.00
98.00	15.06	57.40	0.00	0.00
99.00	60.14	228.65	0.00	0.00
100.0	59.86	227.24	0.00	0.00
101.0	59.57	225.82	0.00	0.00
101.5	29.65	112.40	0.00	0.00
102.0	29.58	64.10	0.00	0.00
103.0	58.97	127.69	0.00	0.00

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

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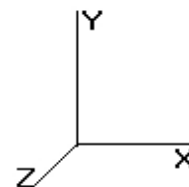
104.0	58.67	127.07	0.00	0.00
105.0	671.48	294.15	0.00	0.00
106.0	58.06	122.06	0.00	0.00
107.0	57.75	121.44	0.00	0.00
108.0	57.43	120.82	0.00	0.00
109.0	57.11	120.20	0.00	0.00
110.0	56.79	119.58	0.00	0.00
111.0	56.46	118.96	0.00	0.00
112.0	56.13	118.34	0.00	0.00
113.0	55.80	117.71	0.00	0.00
114.0	55.47	117.09	0.00	0.00
115.0	503.19	275.86	0.00	0.00
116.0	54.78	110.93	0.00	0.00
117.0	54.44	110.31	0.00	0.00
118.0	54.09	109.69	0.00	0.00
119.0	53.74	109.07	0.00	0.00
120.0	53.38	108.45	0.00	0.00
121.0	53.02	107.83	0.00	0.00
122.0	52.66	107.21	0.00	0.00
123.0	52.30	106.59	0.00	0.00
124.0	51.93	105.97	0.00	0.00
125.0	7,418.91	5,610.12	0.00	0.00
126.0	51.19	90.12	0.00	0.00
127.0	50.81	89.50	0.00	0.00
128.0	50.43	88.88	0.00	0.00
129.0	50.05	88.26	0.00	0.00
130.0	49.67	87.64	0.00	0.00
131.0	49.28	87.02	0.00	0.00
132.0	48.89	86.40	0.00	0.00
133.0	48.50	85.78	0.00	0.00
134.0	3,424.86	2,725.47	0.00	-336.25
135.0	47.71	73.09	0.00	0.00
136.0	47.30	72.47	0.00	0.00
137.0	46.90	71.84	0.00	0.00
138.0	46.50	71.22	0.00	0.00
139.0	46.09	70.60	0.00	0.00
140.0	45.68	69.98	0.00	0.00
141.0	45.26	69.36	0.00	0.00
142.0	44.85	68.74	0.00	0.00
143.0	2,393.97	2,284.46	0.00	0.00
144.0	44.01	55.20	0.00	0.00
145.0	43.58	54.58	0.00	0.00
146.0	43.16	53.96	0.00	0.00
147.0	42.73	53.34	0.00	0.00
148.0	42.30	52.72	0.00	0.00
149.0	1,427.65	596.79	0.00	1,922.56
Totals:	24,701.18	39,553.61	0.00	1,586.31

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

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Calculated Shaft Forces and Deflections

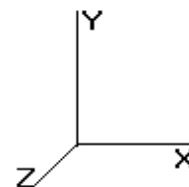
Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-24.714	-39.545	0.000	0.000	0.000	-2,803.738	0.000	0.000	0.000	0.000
1.00	-24.665	-39.287	0.000	0.000	0.000	-2,779.024	-0.004	0.000	0.004	-0.038
2.00	-24.617	-39.031	0.000	0.000	0.000	-2,754.359	-0.017	0.000	0.017	-0.077
3.00	-24.568	-38.776	0.000	0.000	0.000	-2,729.743	-0.037	0.000	0.037	-0.116
4.00	-24.519	-38.521	0.000	0.000	0.000	-2,705.175	-0.066	0.000	0.066	-0.155
5.00	-24.471	-38.217	0.000	0.000	0.000	-2,680.657	-0.103	0.000	0.103	-0.194
6.00	-24.422	-37.914	0.000	0.000	0.000	-2,656.187	-0.148	0.000	0.148	-0.233
7.00	-24.373	-37.611	0.000	0.000	0.000	-2,631.765	-0.201	0.000	0.201	-0.272
8.00	-24.325	-37.310	0.000	0.000	0.000	-2,607.392	-0.263	0.000	0.263	-0.312
9.00	-24.276	-37.010	0.000	0.000	0.000	-2,583.068	-0.332	0.000	0.332	-0.352
10.00	-24.228	-36.711	0.000	0.000	0.000	-2,558.792	-0.411	0.000	0.411	-0.392
11.00	-24.180	-36.413	0.000	0.000	0.000	-2,534.565	-0.497	0.000	0.497	-0.432
12.00	-24.131	-36.117	0.000	0.000	0.000	-2,510.385	-0.592	0.000	0.592	-0.473
13.00	-24.083	-35.821	0.000	0.000	0.000	-2,486.255	-0.696	0.000	0.696	-0.513
14.00	-24.035	-35.527	0.000	0.000	0.000	-2,462.172	-0.808	0.000	0.808	-0.554
15.00	-23.987	-35.233	0.000	0.000	0.000	-2,438.137	-0.929	0.000	0.929	-0.595
16.00	-23.939	-34.941	0.000	0.000	0.000	-2,414.151	-1.058	0.000	1.058	-0.636
17.00	-23.891	-34.649	0.000	0.000	0.000	-2,390.213	-1.196	0.000	1.196	-0.678
18.00	-23.843	-34.359	0.000	0.000	0.000	-2,366.322	-1.343	0.000	1.343	-0.719
19.00	-23.795	-34.070	0.000	0.000	0.000	-2,342.480	-1.498	0.000	1.498	-0.761
20.00	-23.747	-33.782	0.000	0.000	0.000	-2,318.685	-1.663	0.000	1.663	-0.803
21.00	-23.700	-33.495	0.000	0.000	0.000	-2,294.938	-1.836	0.000	1.836	-0.846
22.00	-23.652	-33.210	0.000	0.000	0.000	-2,271.239	-2.017	0.000	2.017	-0.888
23.00	-23.604	-32.925	0.000	0.000	0.000	-2,247.588	-2.208	0.000	2.208	-0.931
24.00	-23.557	-32.641	0.000	0.000	0.000	-2,223.984	-2.408	0.000	2.408	-0.973
25.00	-23.509	-32.359	0.000	0.000	0.000	-2,200.428	-2.617	0.000	2.617	-1.016
26.00	-23.462	-32.078	0.000	0.000	0.000	-2,176.919	-2.834	0.000	2.834	-1.060
27.00	-23.414	-31.797	0.000	0.000	0.000	-2,153.458	-3.061	0.000	3.061	-1.103
28.00	-23.367	-31.518	0.000	0.000	0.000	-2,130.044	-3.297	0.000	3.297	-1.147
29.00	-23.320	-31.240	0.000	0.000	0.000	-2,106.678	-3.542	0.000	3.542	-1.190
30.00	-23.272	-30.963	0.000	0.000	0.000	-2,083.359	-3.796	0.000	3.796	-1.234
31.00	-23.225	-30.687	0.000	0.000	0.000	-2,060.087	-4.060	0.000	4.060	-1.279
32.00	-23.178	-30.412	0.000	0.000	0.000	-2,036.862	-4.333	0.000	4.333	-1.323
33.00	-23.131	-30.139	0.000	0.000	0.000	-2,013.685	-4.615	0.000	4.615	-1.368
34.00	-23.083	-29.866	0.000	0.000	0.000	-1,990.554	-4.906	0.000	4.906	-1.413
35.00	-23.035	-29.595	0.000	0.000	0.000	-1,967.472	-5.207	0.000	5.207	-1.458
36.00	-22.987	-29.324	0.000	0.000	0.000	-1,944.437	-5.518	0.000	5.518	-1.503
37.00	-22.938	-29.055	0.000	0.000	0.000	-1,921.450	-5.837	0.000	5.837	-1.548
38.00	-22.888	-28.787	0.000	0.000	0.000	-1,898.513	-6.167	0.000	6.167	-1.594
39.00	-22.839	-28.520	0.000	0.000	0.000	-1,875.625	-6.506	0.000	6.506	-1.640
40.00	-22.788	-28.254	0.000	0.000	0.000	-1,852.787	-6.854	0.000	6.854	-1.686
41.00	-22.738	-27.989	0.000	0.000	0.000	-1,829.999	-7.213	0.000	7.213	-1.732
42.00	-22.687	-27.726	0.000	0.000	0.000	-1,807.262	-7.581	0.000	7.581	-1.778
43.00	-22.635	-27.463	0.000	0.000	0.000	-1,784.575	-7.958	0.000	7.958	-1.825
44.00	-22.584	-27.202	0.000	0.000	0.000	-1,761.940	-8.346	0.000	8.346	-1.872
45.00	-22.532	-26.942	0.000	0.000	0.000	-1,739.357	-8.743	0.000	8.743	-1.919
46.00	-22.479	-26.683	0.000	0.000	0.000	-1,716.826	-9.150	0.000	9.150	-1.966
47.00	-22.427	-26.424	0.000	0.000	0.000	-1,694.347	-9.567	0.000	9.567	-2.014
48.00	-22.373	-26.168	0.000	0.000	0.000	-1,671.921	-9.994	0.000	9.994	-2.061
49.00	-22.314	-25.773	0.000	0.000	0.000	-1,649.548	-10.431	0.000	10.431	-2.109
50.00	-22.254	-25.381	0.000	0.000	0.000	-1,627.235	-10.878	0.000	10.878	-2.157

Pole : 243036
Location : West Haven & Rt 162 CT, CT
Height : 149.0 (ft)
Base Dia : 52.01 (in)
Top Dia : 18.00 (in)
Shape : 18 Sides
Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

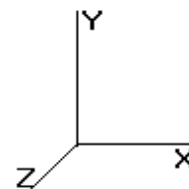
51.00	-22.194	-24.991	0.000	0.000	0.000	-1,604.981	-11.335	0.000	11.335	-2.205
52.00	-22.133	-24.603	0.000	0.000	0.000	-1,582.788	-11.802	0.000	11.802	-2.254
53.00	-22.063	-24.223	0.000	0.000	0.000	-1,560.656	-12.280	0.000	12.280	-2.302
53.25	-22.053	-24.122	0.000	0.000	0.000	-1,555.140	-12.401	0.000	12.401	-2.314
54.00	-22.016	-23.949	0.000	0.000	0.000	-1,538.601	-12.767	0.000	12.767	-2.351
55.00	-21.963	-23.721	0.000	0.000	0.000	-1,516.585	-13.266	0.000	13.266	-2.407
56.00	-21.910	-23.494	0.000	0.000	0.000	-1,494.623	-13.776	0.000	13.776	-2.463
57.00	-21.857	-23.268	0.000	0.000	0.000	-1,472.713	-14.298	0.000	14.298	-2.519
58.00	-21.803	-23.043	0.000	0.000	0.000	-1,450.857	-14.832	0.000	14.832	-2.575
59.00	-21.749	-22.819	0.000	0.000	0.000	-1,429.054	-15.377	0.000	15.377	-2.631
60.00	-21.695	-22.596	0.000	0.000	0.000	-1,407.305	-15.935	0.000	15.935	-2.688
61.00	-21.641	-22.374	0.000	0.000	0.000	-1,385.611	-16.504	0.000	16.504	-2.745
62.00	-21.587	-22.153	0.000	0.000	0.000	-1,363.970	-17.085	0.000	17.085	-2.802
63.00	-21.532	-21.933	0.000	0.000	0.000	-1,342.384	-17.678	0.000	17.678	-2.859
64.00	-21.477	-21.714	0.000	0.000	0.000	-1,320.853	-18.283	0.000	18.283	-2.916
65.00	-21.422	-21.496	0.000	0.000	0.000	-1,299.376	-18.900	0.000	18.900	-2.973
66.00	-21.367	-21.279	0.000	0.000	0.000	-1,277.955	-19.529	0.000	19.529	-3.031
67.00	-21.311	-21.063	0.000	0.000	0.000	-1,256.589	-20.170	0.000	20.170	-3.089
68.00	-21.255	-20.848	0.000	0.000	0.000	-1,235.278	-20.823	0.000	20.823	-3.146
69.00	-21.199	-20.634	0.000	0.000	0.000	-1,214.023	-21.488	0.000	21.488	-3.204
70.00	-21.143	-20.421	0.000	0.000	0.000	-1,192.824	-22.165	0.000	22.165	-3.262
71.00	-21.087	-20.209	0.000	0.000	0.000	-1,171.681	-22.855	0.000	22.855	-3.320
72.00	-21.031	-19.998	0.000	0.000	0.000	-1,150.595	-23.556	0.000	23.556	-3.379
73.00	-20.974	-19.788	0.000	0.000	0.000	-1,129.564	-24.270	0.000	24.270	-3.437
74.00	-20.918	-19.579	0.000	0.000	0.000	-1,108.591	-24.996	0.000	24.996	-3.495
75.00	-20.861	-19.372	0.000	0.000	0.000	-1,087.673	-25.734	0.000	25.734	-3.554
76.00	-20.804	-19.165	0.000	0.000	0.000	-1,066.813	-26.485	0.000	26.485	-3.612
77.00	-20.747	-18.959	0.000	0.000	0.000	-1,046.010	-27.248	0.000	27.248	-3.671
78.00	-20.689	-18.755	0.000	0.000	0.000	-1,025.264	-28.023	0.000	28.023	-3.730
79.00	-20.632	-18.551	0.000	0.000	0.000	-1,004.575	-28.810	0.000	28.810	-3.788
80.00	-20.574	-18.348	0.000	0.000	0.000	-983.943	-29.609	0.000	29.609	-3.847
81.00	-20.517	-18.147	0.000	0.000	0.000	-963.369	-30.421	0.000	30.421	-3.906
82.00	-20.459	-17.947	0.000	0.000	0.000	-942.853	-31.245	0.000	31.245	-3.964
83.00	-20.401	-17.747	0.000	0.000	0.000	-922.395	-32.081	0.000	32.081	-4.023
84.00	-20.343	-17.549	0.000	0.000	0.000	-901.994	-32.930	0.000	32.930	-4.081
85.00	-20.285	-17.352	0.000	0.000	0.000	-881.651	-33.791	0.000	33.791	-4.140
86.00	-20.227	-17.156	0.000	0.000	0.000	-861.367	-34.664	0.000	34.664	-4.198
87.00	-20.168	-16.961	0.000	0.000	0.000	-841.141	-35.549	0.000	35.549	-4.257
88.00	-20.110	-16.767	0.000	0.000	0.000	-820.973	-36.446	0.000	36.446	-4.315
89.00	-20.051	-16.574	0.000	0.000	0.000	-800.864	-37.355	0.000	37.355	-4.373
90.00	-19.993	-16.382	0.000	0.000	0.000	-780.813	-38.277	0.000	38.277	-4.431
91.00	-19.934	-16.192	0.000	0.000	0.000	-760.821	-39.211	0.000	39.211	-4.489
92.00	-19.875	-16.002	0.000	0.000	0.000	-740.887	-40.157	0.000	40.157	-4.546
93.00	-19.816	-15.814	0.000	0.000	0.000	-721.013	-41.114	0.000	41.114	-4.604
94.00	-19.757	-15.627	0.000	0.000	0.000	-701.197	-42.084	0.000	42.084	-4.661
95.00	-19.698	-15.441	0.000	0.000	0.000	-681.440	-43.065	0.000	43.065	-4.718
96.00	-19.639	-15.256	0.000	0.000	0.000	-661.743	-44.059	0.000	44.059	-4.774
97.00	-19.578	-15.075	0.000	0.000	0.000	-642.104	-45.064	0.000	45.064	-4.830
97.75	-19.530	-14.942	0.000	0.000	0.000	-627.421	-45.825	0.000	45.825	-4.872
98.00	-19.519	-14.875	0.000	0.000	0.000	-622.539	-46.081	0.000	46.081	-4.886
99.00	-19.453	-14.633	0.000	0.000	0.000	-603.021	-47.109	0.000	47.109	-4.941
100.0	-19.388	-14.394	0.000	0.000	0.000	-583.568	-48.149	0.000	48.149	-4.996
101.0	-19.319	-14.160	0.000	0.000	0.000	-564.181	-49.201	0.000	49.201	-5.051
101.5	-19.286	-14.042	0.000	0.000	0.000	-554.521	-49.730	0.000	49.730	-5.078
102.0	-19.265	-13.961	0.000	0.000	0.000	-544.879	-50.263	0.000	50.263	-5.105
103.0	-19.215	-13.811	0.000	0.000	0.000	-525.615	-51.341	0.000	51.341	-5.189
104.0	-19.165	-13.662	0.000	0.000	0.000	-506.400	-52.436	0.000	52.436	-5.273

Pole : 243036
Location : West Haven & Rt 162 CT, CT
Height : 149.0 (ft)
Base Dia : 52.01 (in)
Top Dia : 18.00 (in)
Shape : 18 Sides
Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

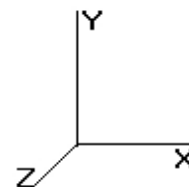
105.0	-18.488	-13.405	0.000	0.000	0.000	-487.236	-53.548	0.000	53.548	-5.355
106.0	-18.437	-13.263	0.000	0.000	0.000	-468.749	-54.677	0.000	54.677	-5.436
107.0	-18.386	-13.123	0.000	0.000	0.000	-450.313	-55.823	0.000	55.823	-5.516
108.0	-18.335	-12.983	0.000	0.000	0.000	-431.927	-56.986	0.000	56.986	-5.594
109.0	-18.284	-12.844	0.000	0.000	0.000	-413.592	-58.165	0.000	58.165	-5.672
110.0	-18.232	-12.707	0.000	0.000	0.000	-395.309	-59.359	0.000	59.359	-5.748
111.0	-18.180	-12.571	0.000	0.000	0.000	-377.078	-60.570	0.000	60.570	-5.822
112.0	-18.128	-12.436	0.000	0.000	0.000	-358.898	-61.796	0.000	61.796	-5.895
113.0	-18.075	-12.303	0.000	0.000	0.000	-340.771	-63.037	0.000	63.037	-5.966
114.0	-18.022	-12.171	0.000	0.000	0.000	-322.697	-64.292	0.000	64.292	-6.035
115.0	-17.506	-11.930	0.000	0.000	0.000	-304.675	-65.562	0.000	65.562	-6.103
116.0	-17.453	-11.806	0.000	0.000	0.000	-287.169	-66.845	0.000	66.845	-6.168
117.0	-17.400	-11.683	0.000	0.000	0.000	-269.716	-68.142	0.000	68.142	-6.231
118.0	-17.346	-11.562	0.000	0.000	0.000	-252.316	-69.452	0.000	69.452	-6.292
119.0	-17.292	-11.442	0.000	0.000	0.000	-234.971	-70.774	0.000	70.774	-6.350
120.0	-17.238	-11.324	0.000	0.000	0.000	-217.679	-72.108	0.000	72.108	-6.406
121.0	-17.183	-11.207	0.000	0.000	0.000	-200.441	-73.453	0.000	73.453	-6.459
122.0	-17.128	-11.092	0.000	0.000	0.000	-183.259	-74.809	0.000	74.809	-6.509
123.0	-17.073	-10.979	0.000	0.000	0.000	-166.131	-76.175	0.000	76.175	-6.556
124.0	-17.017	-10.867	0.000	0.000	0.000	-149.058	-77.551	0.000	77.551	-6.599
125.0	-9.004	-6.145	0.000	0.000	0.000	-132.042	-78.935	0.000	78.935	-6.639
126.0	-8.947	-6.055	0.000	0.000	0.000	-123.038	-80.327	0.000	80.327	-6.677
127.0	-8.890	-5.967	0.000	0.000	0.000	-114.091	-81.727	0.000	81.727	-6.712
128.0	-8.833	-5.879	0.000	0.000	0.000	-105.201	-83.133	0.000	83.133	-6.747
129.0	-8.776	-5.793	0.000	0.000	0.000	-96.369	-84.547	0.000	84.547	-6.779
130.0	-8.719	-5.707	0.000	0.000	0.000	-87.593	-85.967	0.000	85.967	-6.809
131.0	-8.663	-5.622	0.000	0.000	0.000	-78.874	-87.393	0.000	87.393	-6.838
132.0	-8.606	-5.539	0.000	0.000	0.000	-70.212	-88.826	0.000	88.826	-6.864
133.0	-8.550	-5.456	0.000	0.000	0.000	-61.606	-90.263	0.000	90.263	-6.888
134.0	-4.823	-3.160	0.000	0.000	0.000	-53.056	-91.705	0.000	91.705	-6.910
135.0	-4.768	-3.092	0.000	0.000	0.000	-48.233	-93.151	0.000	93.151	-6.930
136.0	-4.714	-3.024	0.000	0.000	0.000	-43.464	-94.601	0.000	94.601	-6.948
137.0	-4.659	-2.957	0.000	0.000	0.000	-38.751	-96.055	0.000	96.055	-6.965
138.0	-4.605	-2.891	0.000	0.000	0.000	-34.092	-97.512	0.000	97.512	-6.981
139.0	-4.551	-2.825	0.000	0.000	0.000	-29.487	-98.972	0.000	98.972	-6.995
140.0	-4.498	-2.760	0.000	0.000	0.000	-24.935	-100.435	0.000	100.435	-7.008
141.0	-4.445	-2.696	0.000	0.000	0.000	-20.437	-101.901	0.000	101.901	-7.019
142.0	-4.393	-2.633	0.000	0.000	0.000	-15.992	-103.368	0.000	103.368	-7.028
143.0	-1.737	-0.659	0.000	0.000	0.000	-11.599	-104.838	0.000	104.838	-7.035
144.0	-1.687	-0.609	0.000	0.000	0.000	-9.862	-106.308	0.000	106.308	-7.040
145.0	-1.637	-0.560	0.000	0.000	0.000	-8.176	-107.779	0.000	107.779	-7.045
146.0	-1.587	-0.512	0.000	0.000	0.000	-6.539	-109.252	0.000	109.252	-7.050
147.0	-1.539	-0.464	0.000	0.000	0.000	-4.951	-110.725	0.000	110.725	-7.053
148.0	-1.490	-0.417	0.000	0.000	0.000	-3.413	-112.199	0.000	112.199	-7.056
149.0	-1.428	0.000	0.000	0.000	0.000	-1.923	-113.673	0.000	113.673	-7.057

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Stresses

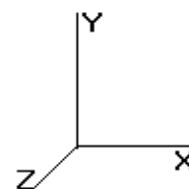
Seg Elev (ft)	Applied Stresses			Allowable				Stress Ratio		
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)		Stress (Fb) (ksi)	
0.00	0.64	0.81	0.00	0.00	0.00	42.92	43.58	52.0	0.0	0.838
1.00	0.64	0.81	0.00	0.00	0.00	42.93	43.59	52.0	0.0	0.839
2.00	0.64	0.81	0.00	0.00	0.00	42.94	43.60	52.0	0.0	0.839
3.00	0.64	0.82	0.00	0.00	0.00	42.95	43.62	52.0	0.0	0.839
4.00	0.64	0.82	0.00	0.00	0.00	42.96	43.62	52.0	0.0	0.839
5.00	0.64	0.82	0.00	0.00	0.00	42.97	43.63	52.0	0.0	0.839
6.00	0.63	0.82	0.00	0.00	0.00	42.98	43.64	52.0	0.0	0.840
7.00	0.63	0.83	0.00	0.00	0.00	42.99	43.64	52.0	0.0	0.840
8.00	0.63	0.83	0.00	0.00	0.00	43.00	43.65	52.0	0.0	0.840
9.00	0.63	0.83	0.00	0.00	0.00	43.00	43.65	52.0	0.0	0.840
10.00	0.63	0.83	0.00	0.00	0.00	43.01	43.65	52.0	0.0	0.840
11.00	0.62	0.83	0.00	0.00	0.00	43.01	43.66	52.0	0.0	0.840
12.00	0.62	0.84	0.00	0.00	0.00	43.01	43.66	52.0	0.0	0.840
13.00	0.62	0.84	0.00	0.00	0.00	43.01	43.66	52.0	0.0	0.840
14.00	0.62	0.84	0.00	0.00	0.00	43.01	43.65	52.0	0.0	0.840
15.00	0.62	0.84	0.00	0.00	0.00	43.01	43.65	52.0	0.0	0.840
16.00	0.61	0.85	0.00	0.00	0.00	43.01	43.65	52.0	0.0	0.840
17.00	0.61	0.85	0.00	0.00	0.00	43.00	43.64	52.0	0.0	0.840
18.00	0.61	0.85	0.00	0.00	0.00	43.00	43.63	52.0	0.0	0.839
19.00	0.61	0.85	0.00	0.00	0.00	42.99	43.63	52.0	0.0	0.839
20.00	0.60	0.86	0.00	0.00	0.00	42.99	43.62	52.0	0.0	0.839
21.00	0.60	0.86	0.00	0.00	0.00	42.98	43.60	52.0	0.0	0.839
22.00	0.60	0.86	0.00	0.00	0.00	42.97	43.59	52.0	0.0	0.839
23.00	0.60	0.86	0.00	0.00	0.00	42.95	43.58	52.0	0.0	0.838
24.00	0.60	0.87	0.00	0.00	0.00	42.94	43.56	52.0	0.0	0.838
25.00	0.59	0.87	0.00	0.00	0.00	42.92	43.54	52.0	0.0	0.838
26.00	0.59	0.87	0.00	0.00	0.00	42.91	43.52	52.0	0.0	0.837
27.00	0.59	0.88	0.00	0.00	0.00	42.89	43.50	52.0	0.0	0.837
28.00	0.59	0.88	0.00	0.00	0.00	42.87	43.48	52.0	0.0	0.836
29.00	0.59	0.88	0.00	0.00	0.00	42.84	43.46	52.0	0.0	0.836
30.00	0.58	0.88	0.00	0.00	0.00	42.82	43.43	52.0	0.0	0.835
31.00	0.58	0.89	0.00	0.00	0.00	42.79	43.40	52.0	0.0	0.835
32.00	0.58	0.89	0.00	0.00	0.00	42.76	43.37	52.0	0.0	0.834
33.00	0.58	0.89	0.00	0.00	0.00	42.73	43.34	52.0	0.0	0.834
34.00	0.57	0.90	0.00	0.00	0.00	42.70	43.30	52.0	0.0	0.833
35.00	0.57	0.90	0.00	0.00	0.00	42.66	43.27	52.0	0.0	0.832
36.00	0.57	0.90	0.00	0.00	0.00	42.63	43.23	52.0	0.0	0.832
37.00	0.57	0.90	0.00	0.00	0.00	42.59	43.18	52.0	0.0	0.831
38.00	0.57	0.91	0.00	0.00	0.00	42.55	43.14	52.0	0.0	0.830
39.00	0.56	0.91	0.00	0.00	0.00	42.50	43.09	52.0	0.0	0.829
40.00	0.56	0.91	0.00	0.00	0.00	42.45	43.05	52.0	0.0	0.828
41.00	0.56	0.92	0.00	0.00	0.00	42.40	42.99	52.0	0.0	0.827
42.00	0.56	0.92	0.00	0.00	0.00	42.35	42.94	52.0	0.0	0.826
43.00	0.56	0.92	0.00	0.00	0.00	42.30	42.88	52.0	0.0	0.825
44.00	0.55	0.93	0.00	0.00	0.00	42.24	42.82	52.0	0.0	0.824
45.00	0.55	0.93	0.00	0.00	0.00	42.18	42.76	52.0	0.0	0.823
46.00	0.55	0.93	0.00	0.00	0.00	42.12	42.70	52.0	0.0	0.821
47.00	0.55	0.94	0.00	0.00	0.00	42.05	42.63	52.0	0.0	0.820
48.00	0.54	0.94	0.00	0.00	0.00	41.98	42.55	52.0	0.0	0.819
49.00	0.54	0.94	0.00	0.00	0.00	41.91	42.48	52.0	0.0	0.817
50.00	0.53	0.94	0.00	0.00	0.00	41.83	42.40	52.0	0.0	0.816

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

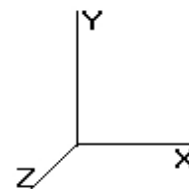
51.00	0.53	0.95	0.00	0.00	0.00	41.75	42.31	52.0	0.0	0.814
52.00	0.52	0.95	0.00	0.00	0.00	41.67	42.22	52.0	0.0	0.812
53.00	0.52	0.95	0.00	0.00	0.00	41.58	42.13	52.0	0.0	0.811
53.25	0.61	1.13	0.00	0.00	0.00	48.08	48.73	52.0	0.0	0.937
54.00	0.61	1.13	0.00	0.00	0.00	48.00	48.64	52.0	0.0	0.936
55.00	0.61	1.13	0.00	0.00	0.00	47.88	48.52	52.0	0.0	0.934
56.00	0.60	1.14	0.00	0.00	0.00	47.75	48.40	52.0	0.0	0.931
57.00	0.60	1.14	0.00	0.00	0.00	47.63	48.27	52.0	0.0	0.929
58.00	0.60	1.14	0.00	0.00	0.00	47.49	48.13	52.0	0.0	0.926
59.00	0.60	1.15	0.00	0.00	0.00	47.36	47.99	52.0	0.0	0.923
60.00	0.60	1.15	0.00	0.00	0.00	47.21	47.85	52.0	0.0	0.921
61.00	0.59	1.16	0.00	0.00	0.00	47.06	47.70	52.0	0.0	0.918
62.00	0.59	1.16	0.00	0.00	0.00	46.91	47.54	52.0	0.0	0.915
63.00	0.59	1.17	0.00	0.00	0.00	46.75	47.38	52.0	0.0	0.912
64.00	0.59	1.17	0.00	0.00	0.00	46.58	47.21	52.0	0.0	0.908
65.00	0.58	1.17	0.00	0.00	0.00	46.41	47.04	52.0	0.0	0.905
66.00	0.58	1.18	0.00	0.00	0.00	46.23	46.86	52.0	0.0	0.902
67.00	0.58	1.18	0.00	0.00	0.00	46.05	46.67	52.0	0.0	0.898
68.00	0.58	1.19	0.00	0.00	0.00	45.86	46.48	52.0	0.0	0.894
69.00	0.58	1.19	0.00	0.00	0.00	45.66	46.28	52.0	0.0	0.890
70.00	0.57	1.20	0.00	0.00	0.00	45.45	46.07	52.0	0.0	0.886
71.00	0.57	1.20	0.00	0.00	0.00	45.24	45.86	52.0	0.0	0.882
72.00	0.57	1.21	0.00	0.00	0.00	45.02	45.64	52.0	0.0	0.878
73.00	0.57	1.21	0.00	0.00	0.00	44.79	45.41	52.0	0.0	0.874
74.00	0.57	1.22	0.00	0.00	0.00	44.56	45.17	52.0	0.0	0.869
75.00	0.56	1.22	0.00	0.00	0.00	44.31	44.93	52.0	0.0	0.864
76.00	0.56	1.23	0.00	0.00	0.00	44.06	44.67	52.0	0.0	0.859
77.00	0.56	1.23	0.00	0.00	0.00	43.80	44.41	52.0	0.0	0.854
78.00	0.56	1.24	0.00	0.00	0.00	43.53	44.14	52.0	0.0	0.849
79.00	0.55	1.24	0.00	0.00	0.00	43.25	43.86	52.0	0.0	0.844
80.00	0.55	1.25	0.00	0.00	0.00	42.96	43.57	52.0	0.0	0.838
81.00	0.55	1.25	0.00	0.00	0.00	42.66	43.26	52.0	0.0	0.832
82.00	0.55	1.26	0.00	0.00	0.00	42.35	42.95	52.0	0.0	0.826
83.00	0.55	1.26	0.00	0.00	0.00	42.03	42.63	52.0	0.0	0.820
84.00	0.54	1.27	0.00	0.00	0.00	41.70	42.30	52.0	0.0	0.814
85.00	0.54	1.27	0.00	0.00	0.00	41.35	41.95	52.0	0.0	0.807
86.00	0.54	1.28	0.00	0.00	0.00	41.00	41.60	52.0	0.0	0.800
87.00	0.54	1.29	0.00	0.00	0.00	40.63	41.23	52.0	0.0	0.793
88.00	0.53	1.29	0.00	0.00	0.00	40.25	40.85	52.0	0.0	0.786
89.00	0.53	1.30	0.00	0.00	0.00	39.86	40.45	52.0	0.0	0.778
90.00	0.53	1.30	0.00	0.00	0.00	39.45	40.04	52.0	0.0	0.770
91.00	0.53	1.31	0.00	0.00	0.00	39.03	39.62	52.0	0.0	0.762
92.00	0.53	1.32	0.00	0.00	0.00	38.59	39.19	52.0	0.0	0.754
93.00	0.52	1.32	0.00	0.00	0.00	38.14	38.73	52.0	0.0	0.745
94.00	0.52	1.33	0.00	0.00	0.00	37.68	38.27	52.0	0.0	0.736
95.00	0.52	1.33	0.00	0.00	0.00	37.19	37.78	52.0	0.0	0.727
96.00	0.52	1.34	0.00	0.00	0.00	36.69	37.28	52.0	0.0	0.717
97.00	0.51	1.35	0.00	0.00	0.00	36.18	36.77	52.0	0.0	0.707
97.75	0.51	1.35	0.00	0.00	0.00	35.78	36.37	52.0	0.0	0.700
98.00	0.51	1.35	0.00	0.00	0.00	35.64	36.23	52.0	0.0	0.697
99.00	0.51	1.36	0.00	0.00	0.00	35.09	35.67	52.0	0.0	0.686
100.00	0.50	1.37	0.00	0.00	0.00	34.52	35.10	52.0	0.0	0.675
101.00	0.50	1.37	0.00	0.00	0.00	33.92	34.50	52.0	0.0	0.664
101.50	0.81	2.25	0.00	0.00	0.00	53.87	54.83	51.0	0.0	1.076
102.00	0.81	2.26	0.00	0.00	0.00	53.37	54.32	51.1	0.0	1.064
103.00	0.81	2.27	0.00	0.00	0.00	52.34	53.29	51.2	0.0	1.040
104.00	0.81	2.29	0.00	0.00	0.00	51.26	52.22	51.4	0.0	1.015

Pole : 243036
Location : West Haven & Rt 162 CT, CT
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Load Case: Ice

77.94 mph Wind with Ice

33 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

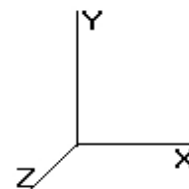
105.00	0.80	2.22	0.00	0.00	0.00	50.15	51.10	51.6	0.0	0.990
106.00	0.80	2.24	0.00	0.00	0.00	49.07	50.02	51.8	0.0	0.966
107.00	0.80	2.25	0.00	0.00	0.00	47.94	48.90	52.0	0.0	0.941
108.00	0.79	2.26	0.00	0.00	0.00	46.78	47.74	52.0	0.0	0.918
109.00	0.79	2.28	0.00	0.00	0.00	45.57	46.53	52.0	0.0	0.895
110.00	0.79	2.29	0.00	0.00	0.00	44.32	45.29	52.0	0.0	0.871
111.00	0.79	2.30	0.00	0.00	0.00	43.03	44.00	52.0	0.0	0.846
112.00	0.79	2.32	0.00	0.00	0.00	41.69	42.66	52.0	0.0	0.821
113.00	0.79	2.33	0.00	0.00	0.00	40.29	41.28	52.0	0.0	0.794
114.00	0.79	2.34	0.00	0.00	0.00	38.85	39.84	52.0	0.0	0.767
115.00	0.78	2.30	0.00	0.00	0.00	37.36	38.34	52.0	0.0	0.738
116.00	0.78	2.31	0.00	0.00	0.00	35.86	36.86	52.0	0.0	0.709
117.00	0.78	2.33	0.00	0.00	0.00	34.31	35.32	52.0	0.0	0.679
118.00	0.77	2.34	0.00	0.00	0.00	32.70	33.72	52.0	0.0	0.649
119.00	0.77	2.36	0.00	0.00	0.00	31.04	32.07	52.0	0.0	0.617
120.00	0.77	2.37	0.00	0.00	0.00	29.31	30.36	52.0	0.0	0.584
121.00	0.77	2.39	0.00	0.00	0.00	27.51	28.58	52.0	0.0	0.550
122.00	0.77	2.40	0.00	0.00	0.00	25.65	26.74	52.0	0.0	0.514
123.00	0.77	2.42	0.00	0.00	0.00	23.71	24.84	52.0	0.0	0.478
124.00	0.77	2.43	0.00	0.00	0.00	21.70	22.86	52.0	0.0	0.440
125.00	0.44	1.30	0.00	0.00	0.00	19.61	20.18	52.0	0.0	0.388
126.00	0.44	1.31	0.00	0.00	0.00	18.65	19.22	52.0	0.0	0.370
127.00	0.44	1.31	0.00	0.00	0.00	17.65	18.23	52.0	0.0	0.351
128.00	0.43	1.32	0.00	0.00	0.00	16.61	17.20	52.0	0.0	0.331
129.00	0.43	1.32	0.00	0.00	0.00	15.54	16.13	52.0	0.0	0.310
130.00	0.43	1.33	0.00	0.00	0.00	14.42	15.03	52.0	0.0	0.289
131.00	0.43	1.33	0.00	0.00	0.00	13.27	13.89	52.0	0.0	0.267
132.00	0.43	1.34	0.00	0.00	0.00	12.07	12.71	52.0	0.0	0.244
133.00	0.43	1.34	0.00	0.00	0.00	10.82	11.48	52.0	0.0	0.221
134.00	0.25	0.77	0.00	0.00	0.00	9.53	9.86	52.0	0.0	0.190
135.00	0.25	0.77	0.00	0.00	0.00	8.86	9.20	52.0	0.0	0.177
136.00	0.24	0.76	0.00	0.00	0.00	8.16	8.51	52.0	0.0	0.164
137.00	0.24	0.76	0.00	0.00	0.00	7.44	7.80	52.0	0.0	0.150
138.00	0.24	0.76	0.00	0.00	0.00	6.70	7.06	52.0	0.0	0.136
139.00	0.24	0.76	0.00	0.00	0.00	5.93	6.31	52.0	0.0	0.121
140.00	0.23	0.76	0.00	0.00	0.00	5.14	5.53	52.0	0.0	0.106
141.00	0.23	0.76	0.00	0.00	0.00	4.31	4.73	52.0	0.0	0.091
142.00	0.23	0.76	0.00	0.00	0.00	3.46	3.91	52.0	0.0	0.075
143.00	0.06	0.31	0.00	0.00	0.00	2.57	2.68	52.0	0.0	0.052
144.00	0.05	0.30	0.00	0.00	0.00	2.24	2.35	52.0	0.0	0.045
145.00	0.05	0.30	0.00	0.00	0.00	1.90	2.02	52.0	0.0	0.039
146.00	0.05	0.29	0.00	0.00	0.00	1.56	1.68	52.0	0.0	0.032
147.00	0.04	0.29	0.00	0.00	0.00	1.21	1.35	52.0	0.0	0.026
148.00	0.04	0.28	0.00	0.00	0.00	0.86	1.02	52.0	0.0	0.020
149.00	0.00	0.27	0.00	0.00	0.00	0.50	0.68	52.0	0.0	0.013

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
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Load Case: Twist/Sway

50.00 mph Wind with No Ice

31 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Shaft Segment Forces

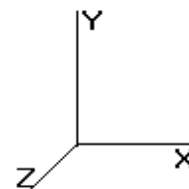
Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	6.400	10.81	216.70	0.650	0.000	0.00	0.000	0.00	0.0	0.0
1.00		0.00	1.00	6.400	10.81	215.72	0.650	0.000	1.00	4.324	2.81	30.4	208.6
2.00		0.00	1.00	6.400	10.81	214.74	0.650	0.000	1.00	4.305	2.80	30.3	207.7
3.00		0.00	1.00	6.400	10.81	213.77	0.650	0.000	1.00	4.285	2.79	30.1	206.7
4.00		0.00	1.00	6.400	10.81	212.79	0.650	0.000	1.00	4.266	2.77	30.0	205.8
5.00		0.00	1.00	6.400	10.81	211.81	0.650	0.000	1.00	4.246	2.76	29.9	204.8
6.00		0.00	1.00	6.400	10.81	210.83	0.650	0.000	1.00	4.226	2.75	29.7	203.9
7.00		0.00	1.00	6.400	10.81	209.85	0.650	0.000	1.00	4.207	2.73	29.6	202.9
8.00		0.00	1.00	6.400	10.81	208.87	0.650	0.000	1.00	4.187	2.72	29.4	202.0
9.00		0.00	1.00	6.400	10.81	207.89	0.650	0.000	1.00	4.168	2.71	29.3	201.0
10.00		0.00	1.00	6.400	10.81	206.91	0.650	0.000	1.00	4.148	2.70	29.2	200.1
11.00		0.00	1.00	6.400	10.81	205.93	0.650	0.000	1.00	4.129	2.68	29.0	199.1
12.00		0.00	1.00	6.400	10.81	204.95	0.650	0.000	1.00	4.109	2.67	28.9	198.2
13.00		0.00	1.00	6.400	10.81	203.98	0.650	0.000	1.00	4.089	2.66	28.8	197.2
14.00		0.00	1.00	6.400	10.81	203.00	0.650	0.000	1.00	4.070	2.65	28.6	196.3
15.00		0.00	1.00	6.400	10.81	202.02	0.650	0.000	1.00	4.050	2.63	28.5	195.3
16.00		0.00	1.00	6.400	10.81	201.04	0.650	0.000	1.00	4.031	2.62	28.3	194.4
17.00		0.00	1.00	6.400	10.81	200.06	0.650	0.000	1.00	4.011	2.61	28.2	193.4
18.00		0.00	1.00	6.400	10.81	199.08	0.650	0.000	1.00	3.991	2.59	28.1	192.5
19.00		0.00	1.00	6.400	10.81	198.10	0.650	0.000	1.00	3.972	2.58	27.9	191.5
20.00		0.00	1.00	6.400	10.81	197.12	0.650	0.000	1.00	3.952	2.57	27.8	190.6
21.00		0.00	1.00	6.400	10.81	196.14	0.650	0.000	1.00	3.933	2.56	27.6	189.6
22.00		0.00	1.00	6.400	10.81	195.16	0.650	0.000	1.00	3.913	2.54	27.5	188.7
23.00		0.00	1.00	6.400	10.81	194.19	0.650	0.000	1.00	3.894	2.53	27.4	187.7
24.00		0.00	1.00	6.400	10.81	193.21	0.650	0.000	1.00	3.874	2.52	27.2	186.8
25.00		0.00	1.00	6.400	10.81	192.23	0.650	0.000	1.00	3.854	2.51	27.1	185.8
26.00		0.00	1.00	6.400	10.81	191.25	0.650	0.000	1.00	3.835	2.49	27.0	184.9
27.00		0.00	1.00	6.400	10.81	190.27	0.650	0.000	1.00	3.815	2.48	26.8	183.9
28.00		0.00	1.00	6.400	10.81	189.29	0.650	0.000	1.00	3.796	2.47	26.7	183.0
29.00		0.00	1.00	6.400	10.81	188.31	0.650	0.000	1.00	3.776	2.45	26.5	182.0
30.00		0.00	1.00	6.400	10.81	187.33	0.650	0.000	1.00	3.757	2.44	26.4	181.0
31.00		0.00	1.00	6.400	10.81	186.35	0.650	0.000	1.00	3.737	2.43	26.3	180.1
32.00		0.00	1.00	6.400	10.81	185.37	0.650	0.000	1.00	3.717	2.42	26.1	179.1
33.00		0.00	1.00	6.400	10.81	184.39	0.650	0.000	1.00	3.698	2.40	26.0	178.2
34.00		0.00	1.00	6.455	10.90	184.20	0.650	0.000	1.00	3.678	2.39	26.1	177.2
35.00		0.00	1.01	6.509	10.99	183.98	0.650	0.000	1.00	3.659	2.38	26.2	176.3
36.00		0.00	1.02	6.561	11.08	183.73	0.650	0.000	1.00	3.639	2.37	26.2	175.3
37.00		0.00	1.03	6.613	11.17	183.45	0.650	0.000	1.00	3.619	2.35	26.3	174.4
38.00		0.00	1.04	6.663	11.26	183.15	0.650	0.000	1.00	3.600	2.34	26.3	173.4
39.00		0.00	1.04	6.713	11.34	182.83	0.650	0.000	1.00	3.580	2.33	26.4	172.5
40.00		0.00	1.05	6.762	11.42	182.49	0.650	0.000	1.00	3.561	2.31	26.4	171.5
41.00		0.00	1.06	6.809	11.50	182.12	0.650	0.000	1.00	3.541	2.30	26.5	170.6
42.00		0.00	1.07	6.857	11.58	181.74	0.650	0.000	1.00	3.522	2.29	26.5	169.6
43.00		0.00	1.07	6.903	11.66	181.33	0.650	0.000	1.00	3.502	2.28	26.6	168.7
44.00		0.00	1.08	6.948	11.74	180.91	0.650	0.000	1.00	3.482	2.26	26.6	167.7
45.00		0.00	1.09	6.993	11.81	180.47	0.650	0.000	1.00	3.463	2.25	26.6	166.8
46.00		0.00	1.10	7.037	11.89	180.01	0.650	0.000	1.00	3.443	2.24	26.6	165.8
47.00		0.00	1.10	7.080	11.96	179.53	0.650	0.000	1.00	3.424	2.23	26.6	164.9
48.00	Bot - Section 2	0.00	1.11	7.123	12.03	179.04	0.650	0.000	1.00	3.404	2.21	26.6	163.9
49.00		0.00	1.12	7.165	12.10	178.53	0.650	0.000	1.00	3.437	2.23	27.0	301.1
50.00		0.00	1.12	7.207	12.17	178.01	0.650	0.000	1.00	3.417	2.22	27.1	299.4

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Twist/Sway 50.00 mph Wind with No Ice 31 Iterations

Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

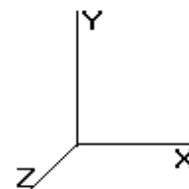
51.00		0.00	1.13	7.248	12.24	177.47	0.650	0.000	1.00	3.397	2.21	27.0	0.0	297.6
52.00		0.00	1.13	7.288	12.31	176.92	0.650	0.000	1.00	3.378	2.20	27.0	0.0	295.9
53.00		0.00	1.14	7.328	12.38	176.36	0.650	0.000	1.00	3.358	2.18	27.0	0.0	294.1
53.25	Top - Section 1	0.00	1.14	7.338	12.40	176.21	0.650	0.000	0.25	0.837	0.54	6.7	0.0	73.3
54.00		0.00	1.15	7.367	12.45	178.57	0.650	0.000	0.75	2.502	1.63	20.2	0.0	100.5
55.00		0.00	1.15	7.406	12.51	177.99	0.650	0.000	1.00	3.319	2.16	27.0	0.0	133.4
56.00		0.00	1.16	7.444	12.58	177.39	0.650	0.000	1.00	3.300	2.14	27.0	0.0	132.6
57.00		0.00	1.16	7.482	12.64	176.78	0.650	0.000	1.00	3.280	2.13	27.0	0.0	131.8
58.00		0.00	1.17	7.519	12.70	176.16	0.650	0.000	1.00	3.260	2.12	26.9	0.0	131.0
59.00		0.00	1.18	7.556	12.76	175.53	0.650	0.000	1.00	3.241	2.11	26.9	0.0	130.2
60.00		0.00	1.18	7.592	12.83	174.88	0.650	0.000	1.00	3.221	2.09	26.9	0.0	129.4
61.00		0.00	1.19	7.628	12.89	174.23	0.650	0.000	1.00	3.202	2.08	26.8	0.0	128.6
62.00		0.00	1.19	7.664	12.95	173.56	0.650	0.000	1.00	3.182	2.07	26.8	0.0	127.8
63.00		0.00	1.20	7.699	13.01	172.88	0.650	0.000	1.00	3.162	2.06	26.7	0.0	127.0
64.00		0.00	1.20	7.733	13.06	172.20	0.650	0.000	1.00	3.143	2.04	26.7	0.0	126.2
65.00		0.00	1.21	7.768	13.12	171.50	0.650	0.000	1.00	3.123	2.03	26.7	0.0	125.4
66.00		0.00	1.21	7.802	13.18	170.79	0.650	0.000	1.00	3.104	2.02	26.6	0.0	124.6
67.00		0.00	1.22	7.835	13.24	170.08	0.650	0.000	1.00	3.084	2.00	26.5	0.0	123.9
68.00		0.00	1.22	7.869	13.29	169.35	0.650	0.000	1.00	3.065	1.99	26.5	0.0	123.1
69.00		0.00	1.23	7.901	13.35	168.62	0.650	0.000	1.00	3.045	1.98	26.4	0.0	122.3
70.00		0.00	1.24	7.934	13.40	167.88	0.650	0.000	1.00	3.025	1.97	26.4	0.0	121.5
71.00		0.00	1.24	7.966	13.46	167.12	0.650	0.000	1.00	3.006	1.95	26.3	0.0	120.7
72.00		0.00	1.25	7.998	13.51	166.36	0.650	0.000	1.00	2.986	1.94	26.2	0.0	119.9
73.00		0.00	1.25	8.030	13.57	165.59	0.650	0.000	1.00	2.967	1.93	26.2	0.0	119.1
74.00		0.00	1.26	8.061	13.62	164.82	0.650	0.000	1.00	2.947	1.92	26.1	0.0	118.3
75.00		0.00	1.26	8.092	13.67	164.03	0.650	0.000	1.00	2.927	1.90	26.0	0.0	117.5
76.00		0.00	1.26	8.123	13.72	163.24	0.650	0.000	1.00	2.908	1.89	25.9	0.0	116.7
77.00		0.00	1.27	8.153	13.77	162.44	0.650	0.000	1.00	2.888	1.88	25.9	0.0	115.9
78.00		0.00	1.27	8.183	13.82	161.63	0.650	0.000	1.00	2.869	1.86	25.8	0.0	115.1
79.00		0.00	1.28	8.213	13.88	160.82	0.650	0.000	1.00	2.849	1.85	25.7	0.0	114.3
80.00		0.00	1.28	8.242	13.93	160.00	0.650	0.000	1.00	2.830	1.84	25.6	0.0	113.5
81.00		0.00	1.29	8.272	13.97	159.17	0.650	0.000	1.00	2.810	1.83	25.5	0.0	112.8
82.00		0.00	1.29	8.301	14.02	158.33	0.650	0.000	1.00	2.790	1.81	25.4	0.0	112.0
83.00		0.00	1.30	8.330	14.07	157.49	0.650	0.000	1.00	2.771	1.80	25.4	0.0	111.2
84.00		0.00	1.30	8.358	14.12	156.64	0.650	0.000	1.00	2.751	1.79	25.3	0.0	110.4
85.00		0.00	1.31	8.387	14.17	155.79	0.650	0.000	1.00	2.732	1.78	25.2	0.0	109.6
86.00		0.00	1.31	8.415	14.22	154.92	0.650	0.000	1.00	2.712	1.76	25.1	0.0	108.8
87.00		0.00	1.31	8.442	14.26	154.06	0.650	0.000	1.00	2.693	1.75	25.0	0.0	108.0
88.00		0.00	1.32	8.470	14.31	153.18	0.650	0.000	1.00	2.673	1.74	24.9	0.0	107.2
89.00		0.00	1.32	8.497	14.36	152.30	0.650	0.000	1.00	2.653	1.72	24.8	0.0	106.4
90.00		0.00	1.33	8.525	14.40	151.41	0.650	0.000	1.00	2.634	1.71	24.7	0.0	105.6
91.00		0.00	1.33	8.552	14.45	150.52	0.650	0.000	1.00	2.614	1.70	24.6	0.0	104.8
92.00		0.00	1.34	8.578	14.49	149.62	0.650	0.000	1.00	2.595	1.69	24.4	0.0	104.0
93.00		0.00	1.34	8.605	14.54	148.72	0.650	0.000	1.00	2.575	1.67	24.3	0.0	103.2
94.00		0.00	1.34	8.631	14.58	147.81	0.650	0.000	1.00	2.555	1.66	24.2	0.0	102.4
95.00		0.00	1.35	8.657	14.63	146.89	0.650	0.000	1.00	2.536	1.65	24.1	0.0	101.6
96.00		0.00	1.35	8.683	14.67	145.97	0.650	0.000	1.00	2.516	1.64	24.0	0.0	100.9
97.00		0.00	1.36	8.709	14.71	145.05	0.650	0.000	1.00	2.497	1.62	23.9	0.0	100.1
97.75	Bot - Section 3	0.00	1.36	8.728	14.75	144.35	0.650	0.000	0.75	1.860	1.21	17.8	0.0	74.5
98.00		0.00	1.36	8.735	14.76	144.12	0.650	0.000	0.25	0.625	0.41	6.0	0.0	39.8
99.00		0.00	1.36	8.760	14.80	143.18	0.650	0.000	1.00	2.489	1.62	23.9	0.0	158.6
100.0		0.00	1.37	8.785	14.84	142.24	0.650	0.000	1.00	2.469	1.60	23.8	0.0	157.3
101.0		0.00	1.37	8.810	14.88	141.29	0.650	0.000	1.00	2.450	1.59	23.7	0.0	156.0
101.5	Top - Section 2	0.00	1.37	8.823	14.91	140.82	0.650	0.000	0.50	1.217	0.79	11.8	0.0	77.5
102.0		0.00	1.38	8.835	14.93	142.18	0.650	0.000	0.50	1.213	0.79	11.8	0.0	29.3
103.0		0.00	1.38	8.860	14.97	141.22	0.650	0.000	1.00	2.410	1.57	23.5	0.0	58.2
104.0		0.00	1.38	8.884	15.01	140.27	0.650	0.000	1.00	2.391	1.55	23.3	0.0	57.7

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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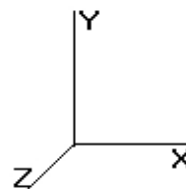
Load Case: Twist/Sway 50.00 mph Wind with No Ice 31 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

105.0	Appertunance(s)	0.00	1.39	8.908	15.05	139.30	0.650	0.000	1.00	2.371	1.54	23.2	0.0	57.2
106.0		0.00	1.39	8.933	15.09	138.34	0.650	0.000	1.00	2.352	1.53	23.1	0.0	56.8
107.0		0.00	1.39	8.957	15.13	137.36	0.650	0.000	1.00	2.332	1.52	22.9	0.0	56.3
108.0		0.00	1.40	8.980	15.17	136.39	0.650	0.000	1.00	2.313	1.50	22.8	0.0	55.8
109.0		0.00	1.40	9.004	15.21	135.40	0.650	0.000	1.00	2.293	1.49	22.7	0.0	55.3
110.0		0.00	1.41	9.028	15.25	134.42	0.650	0.000	1.00	2.273	1.48	22.5	0.0	54.9
111.0		0.00	1.41	9.051	15.29	133.43	0.650	0.000	1.00	2.254	1.46	22.4	0.0	54.4
112.0		0.00	1.41	9.074	15.33	132.43	0.650	0.000	1.00	2.234	1.45	22.3	0.0	53.9
113.0		0.00	1.42	9.097	15.37	131.43	0.650	0.000	1.00	2.215	1.44	22.1	0.0	53.4
114.0		0.00	1.42	9.120	15.41	130.43	0.650	0.000	1.00	2.195	1.43	22.0	0.0	53.0
115.0	Appertunance(s)	0.00	1.42	9.143	15.45	129.42	0.650	0.000	1.00	2.176	1.41	21.9	0.0	52.5
116.0		0.00	1.43	9.166	15.49	128.41	0.650	0.000	1.00	2.156	1.40	21.7	0.0	52.0
117.0		0.00	1.43	9.188	15.52	127.40	0.650	0.000	1.00	2.136	1.39	21.6	0.0	51.5
118.0		0.00	1.43	9.211	15.56	126.38	0.650	0.000	1.00	2.117	1.38	21.4	0.0	51.1
119.0		0.00	1.44	9.233	15.60	125.35	0.650	0.000	1.00	2.097	1.36	21.3	0.0	50.6
120.0		0.00	1.44	9.255	15.64	124.33	0.650	0.000	1.00	2.078	1.35	21.1	0.0	50.1
121.0		0.00	1.45	9.277	15.67	123.30	0.650	0.000	1.00	2.058	1.34	21.0	0.0	49.6
122.0		0.00	1.45	9.299	15.71	122.26	0.650	0.000	1.00	2.038	1.32	20.8	0.0	49.2
123.0		0.00	1.45	9.320	15.75	121.22	0.650	0.000	1.00	2.019	1.31	20.7	0.0	48.7
124.0		0.00	1.46	9.342	15.78	120.18	0.650	0.000	1.00	1.999	1.30	20.5	0.0	48.2
125.0	Appertunance(s)	0.00	1.46	9.363	15.82	119.13	0.650	0.000	1.00	1.980	1.29	20.4	0.0	47.7
126.0		0.00	1.46	9.385	15.86	118.08	0.650	0.000	1.00	1.960	1.27	20.2	0.0	47.3
127.0		0.00	1.47	9.406	15.89	117.03	0.650	0.000	1.00	1.941	1.26	20.1	0.0	46.8
128.0		0.00	1.47	9.427	15.93	115.97	0.650	0.000	1.00	1.921	1.25	19.9	0.0	46.3
129.0		0.00	1.47	9.448	15.96	114.91	0.650	0.000	1.00	1.901	1.24	19.7	0.0	45.8
130.0		0.00	1.48	9.469	16.00	113.85	0.650	0.000	1.00	1.882	1.22	19.6	0.0	45.3
131.0		0.00	1.48	9.490	16.03	112.78	0.650	0.000	1.00	1.862	1.21	19.4	0.0	44.9
132.0		0.00	1.48	9.510	16.07	111.71	0.650	0.000	1.00	1.843	1.20	19.3	0.0	44.4
133.0		0.00	1.48	9.531	16.10	110.64	0.650	0.000	1.00	1.823	1.18	19.1	0.0	43.9
134.0	Appertunance(s)	0.00	1.49	9.551	16.14	109.56	0.650	0.000	1.00	1.803	1.17	18.9	0.0	43.4
135.0		0.00	1.49	9.572	16.17	108.48	0.650	0.000	1.00	1.784	1.16	18.8	0.0	43.0
136.0		0.00	1.49	9.592	16.21	107.39	0.650	0.000	1.00	1.764	1.15	18.6	0.0	42.5
137.0		0.00	1.50	9.612	16.24	106.31	0.650	0.000	1.00	1.745	1.13	18.4	0.0	42.0
138.0		0.00	1.50	9.632	16.27	105.21	0.650	0.000	1.00	1.725	1.12	18.3	0.0	41.5
139.0		0.00	1.50	9.652	16.31	104.12	0.650	0.000	1.00	1.706	1.11	18.1	0.0	41.1
140.0		0.00	1.51	9.672	16.34	103.02	0.650	0.000	1.00	1.686	1.10	17.9	0.0	40.6
141.0		0.00	1.51	9.691	16.37	101.92	0.650	0.000	1.00	1.666	1.08	17.7	0.0	40.1
142.0		0.00	1.51	9.711	16.41	100.82	0.650	0.000	1.00	1.647	1.07	17.6	0.0	39.6
143.0	Appertunance(s)	0.00	1.52	9.730	16.44	99.720	0.650	0.000	1.00	1.627	1.06	17.4	0.0	39.2
144.0		0.00	1.52	9.750	16.47	98.611	0.650	0.000	1.00	1.608	1.04	17.2	0.0	38.7
145.0		0.00	1.52	9.769	16.51	97.499	0.650	0.000	1.00	1.588	1.03	17.0	0.0	38.2
146.0		0.00	1.52	9.788	16.54	96.384	0.650	0.000	1.00	1.569	1.02	16.9	0.0	37.7
147.0		0.00	1.53	9.807	16.57	95.266	0.650	0.000	1.00	1.549	1.01	16.7	0.0	37.3
148.0		0.00	1.53	9.826	16.60	94.145	0.650	0.000	1.00	1.529	0.99	16.5	0.0	36.8
149.0	Appertunance(s)	0.00	1.53	9.845	16.63	93.022	0.650	0.000	1.00	1.510	0.98	16.3	0.0	36.3
Totals:									149.00			3,661.1	0.0	18,536.1



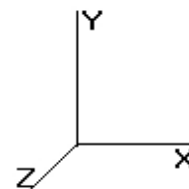
Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAA (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
105.0	Stand-Off	1	8.908	15.055	1.00	1.00	0.000	0.000	15.06	0.00	0.00	50.00
105.0	Pacific Wireless HDD	1	8.908	15.055	1.00	12.09	0.000	0.000	182.02	0.00	0.00	22.00
105.0	Proxim 5054-R-LR	1	8.908	15.055	0.50	0.77	0.000	0.000	11.59	0.00	0.00	6.00
115.0	RFS APXV18-206517S-	3	9.143	15.452	0.68	10.53	0.000	0.000	162.65	0.00	0.00	79.20
125.0	Raycap DC6-48-60-18-	4	9.363	15.824	0.67	3.94	0.000	0.000	62.34	0.00	0.00	127.20
125.0	14" x 9" TTA	6	9.363	15.824	0.33	2.44	0.000	0.000	38.54	0.00	0.00	60.00
125.0	Flat Low Profile Pla	1	9.363	15.824	0.90	23.49	0.000	0.000	371.71	0.00	0.00	1,500.00
125.0	Ericsson RRUS A2	6	9.363	15.824	0.33	3.70	0.000	0.000	58.59	0.00	0.00	90.00
125.0	Ericsson RRUS-11 800	6	9.363	15.824	0.50	8.82	0.000	0.000	139.57	0.00	0.00	324.00
125.0	Ericsson RRUS-11 190	3	9.363	15.824	0.50	4.41	0.000	0.000	69.78	0.00	0.00	132.00
125.0	Ericsson RRUS-12 800	3	9.363	15.824	0.50	4.73	0.000	0.000	74.77	0.00	0.00	180.00
125.0	Ericsson RRUS-12 190	3	9.363	15.824	0.50	4.73	0.000	0.000	74.77	0.00	0.00	180.00
125.0	Ericsson RRUS E2 B29	3	9.363	15.824	0.50	5.51	0.000	0.000	87.11	0.00	0.00	180.00
125.0	Ericsson RRUS-32	3	9.363	15.824	0.50	5.80	0.000	0.000	91.86	0.00	0.00	231.00
125.0	CCI HPA-65R-BUU-H8	12	9.363	15.824	0.66	105.26	0.000	0.000	1,665.61	0.00	0.00	816.00
134.0	RFS FD9R6004/2C-3L	6	9.551	16.142	0.33	0.73	0.000	0.000	11.83	0.00	0.00	18.60
134.0	Antel BXA 185085/12C	3	9.551	16.142	0.72	10.35	0.000	0.000	167.01	0.00	0.00	39.00
134.0	Alcatel-Lucent RRH2x	3	9.510	16.073	0.50	3.78	0.000	-2.000	60.75	0.00	-121.51	132.00
134.0	Antel BXA BXA-171063	3	9.551	16.142	0.72	10.22	0.000	0.000	164.92	0.00	0.00	45.00
134.0	RFS DB-T1-6Z-8AB-OZ	1	9.551	16.142	0.67	3.75	0.000	0.000	60.56	0.00	0.00	44.00
134.0	Antel BXA-70063/6CF	3	9.551	16.142	0.64	14.84	0.000	0.000	239.57	0.00	0.00	51.00
134.0	Andrew	3	9.551	16.142	0.63	11.02	0.000	0.000	177.86	0.00	0.00	55.50
134.0	Round Low Profile PI	1	9.551	16.142	0.90	19.53	0.000	0.000	315.25	0.00	0.00	1,500.00
143.0	Flat Low Profile Pla	1	9.730	16.444	1.00	26.10	0.000	0.000	429.20	0.00	0.00	1,500.00
143.0	RFS APX16PV-16PVL-	6	9.730	16.444	0.59	23.54	0.000	0.000	387.12	0.00	0.00	237.60
143.0	Andrew	3	9.730	16.444	0.33	0.75	0.000	0.000	12.37	0.00	0.00	33.00
143.0	Andrew	3	9.730	16.444	0.33	0.47	0.000	0.000	7.65	0.00	0.00	33.00
149.0	Clearwire Mount	1	9.845	16.639	1.00	8.50	0.000	0.000	141.43	0.00	0.00	500.00
149.0	DragonWave A-ANT-	2	9.883	16.702	0.90	8.44	0.000	2.000	141.00	0.00	282.00	54.00
149.0	NextNet BTS-2500	3	9.883	16.702	0.33	2.10	0.000	2.000	35.05	0.00	70.11	105.00
149.0	Argus LLPX310R	3	9.883	16.702	0.62	8.98	0.000	2.000	150.05	0.00	300.10	85.80
149.0	DragonWave Horizon	3	9.883	16.702	0.33	0.43	0.000	2.000	7.11	0.00	14.22	31.80
149.0	DragonWave A-ANT-	1	9.883	16.702	0.90	1.45	0.000	2.000	24.20	0.00	48.40	15.00
									5,638.89			8,457.70

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Twist/Sway

50.00 mph Wind with No Ice

31 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Applied Segment Forces Summary

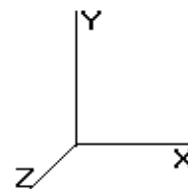
Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
1.00	30.40	208.65	0.00	0.00
2.00	30.26	207.69	0.00	0.00
3.00	30.13	206.74	0.00	0.00
4.00	29.99	205.79	0.00	0.00
5.00	29.85	256.25	0.00	0.00
6.00	29.71	255.30	0.00	0.00
7.00	29.58	254.35	0.00	0.00
8.00	29.44	253.39	0.00	0.00
9.00	29.30	252.44	0.00	0.00
10.00	29.16	251.49	0.00	0.00
11.00	29.03	250.54	0.00	0.00
12.00	28.89	249.59	0.00	0.00
13.00	28.75	248.64	0.00	0.00
14.00	28.61	247.68	0.00	0.00
15.00	28.47	246.73	0.00	0.00
16.00	28.34	245.78	0.00	0.00
17.00	28.20	244.83	0.00	0.00
18.00	28.06	243.88	0.00	0.00
19.00	27.92	242.93	0.00	0.00
20.00	27.79	241.97	0.00	0.00
21.00	27.65	241.02	0.00	0.00
22.00	27.51	240.07	0.00	0.00
23.00	27.37	239.12	0.00	0.00
24.00	27.24	238.17	0.00	0.00
25.00	27.10	237.22	0.00	0.00
26.00	26.96	236.26	0.00	0.00
27.00	26.82	235.31	0.00	0.00
28.00	26.69	234.36	0.00	0.00
29.00	26.55	233.41	0.00	0.00
30.00	26.41	232.46	0.00	0.00
31.00	26.27	231.51	0.00	0.00
32.00	26.13	230.56	0.00	0.00
33.00	26.00	229.60	0.00	0.00
34.00	26.08	228.65	0.00	0.00
35.00	26.16	227.70	0.00	0.00
36.00	26.23	226.75	0.00	0.00
37.00	26.29	225.80	0.00	0.00
38.00	26.35	224.85	0.00	0.00
39.00	26.40	223.89	0.00	0.00
40.00	26.45	222.94	0.00	0.00
41.00	26.49	221.99	0.00	0.00
42.00	26.52	221.04	0.00	0.00
43.00	26.55	220.09	0.00	0.00
44.00	26.58	219.14	0.00	0.00
45.00	26.60	218.18	0.00	0.00
46.00	26.62	217.23	0.00	0.00
47.00	26.63	216.28	0.00	0.00
48.00	26.64	215.33	0.00	0.00
49.00	27.05	352.50	0.00	0.00

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Twist/Sway

50.00 mph Wind with No Ice

31 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

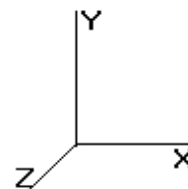
50.00	27.05	350.76	0.00	0.00
51.00	27.05	349.02	0.00	0.00
52.00	27.04	347.27	0.00	0.00
53.00	27.03	345.53	0.00	0.00
53.25	6.74	86.11	0.00	0.00
54.00	20.25	139.10	0.00	0.00
55.00	27.00	184.78	0.00	0.00
56.00	26.98	183.99	0.00	0.00
57.00	26.96	183.19	0.00	0.00
58.00	26.93	182.40	0.00	0.00
59.00	26.90	181.61	0.00	0.00
60.00	26.86	180.81	0.00	0.00
61.00	26.83	180.02	0.00	0.00
62.00	26.79	179.23	0.00	0.00
63.00	26.74	178.43	0.00	0.00
64.00	26.70	177.64	0.00	0.00
65.00	26.65	176.85	0.00	0.00
66.00	26.60	176.06	0.00	0.00
67.00	26.55	175.26	0.00	0.00
68.00	26.49	174.47	0.00	0.00
69.00	26.43	173.68	0.00	0.00
70.00	26.37	172.88	0.00	0.00
71.00	26.30	172.09	0.00	0.00
72.00	26.24	171.30	0.00	0.00
73.00	26.17	170.50	0.00	0.00
74.00	26.10	169.71	0.00	0.00
75.00	26.02	168.92	0.00	0.00
76.00	25.95	168.13	0.00	0.00
77.00	25.87	167.33	0.00	0.00
78.00	25.79	166.54	0.00	0.00
79.00	25.70	165.75	0.00	0.00
80.00	25.62	164.95	0.00	0.00
81.00	25.53	164.16	0.00	0.00
82.00	25.44	163.37	0.00	0.00
83.00	25.35	162.57	0.00	0.00
84.00	25.26	161.78	0.00	0.00
85.00	25.17	160.99	0.00	0.00
86.00	25.07	160.20	0.00	0.00
87.00	24.97	159.40	0.00	0.00
88.00	24.87	158.61	0.00	0.00
89.00	24.77	157.82	0.00	0.00
90.00	24.66	157.02	0.00	0.00
91.00	24.56	156.23	0.00	0.00
92.00	24.45	155.44	0.00	0.00
93.00	24.34	154.64	0.00	0.00
94.00	24.23	153.85	0.00	0.00
95.00	24.12	153.06	0.00	0.00
96.00	24.00	152.27	0.00	0.00
97.00	23.89	151.47	0.00	0.00
97.75	17.83	113.08	0.00	0.00
98.00	6.00	52.69	0.00	0.00
99.00	23.95	209.98	0.00	0.00
100.0	23.83	208.72	0.00	0.00
101.0	23.71	207.45	0.00	0.00
101.5	11.80	103.25	0.00	0.00
102.0	11.77	54.98	0.00	0.00
103.0	23.46	109.61	0.00	0.00

Pole : 243036
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 Shape : 18 Sides
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Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Twist/Sway 50.00 mph Wind with No Ice 31 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

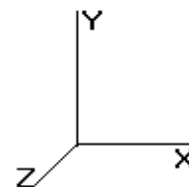
104.0	23.33	109.13	0.00	0.00
105.0	231.87	186.65	0.00	0.00
106.0	23.08	104.41	0.00	0.00
107.0	22.95	103.93	0.00	0.00
108.0	22.81	103.46	0.00	0.00
109.0	22.68	102.98	0.00	0.00
110.0	22.55	102.50	0.00	0.00
111.0	22.41	102.03	0.00	0.00
112.0	22.27	101.55	0.00	0.00
113.0	22.13	101.08	0.00	0.00
114.0	21.99	100.60	0.00	0.00
115.0	184.50	179.33	0.00	0.00
116.0	21.71	94.73	0.00	0.00
117.0	21.56	94.25	0.00	0.00
118.0	21.42	93.78	0.00	0.00
119.0	21.27	93.30	0.00	0.00
120.0	21.12	92.83	0.00	0.00
121.0	20.97	92.35	0.00	0.00
122.0	20.82	91.87	0.00	0.00
123.0	20.67	91.40	0.00	0.00
124.0	20.52	90.92	0.00	0.00
125.0	2,755.02	3,910.65	0.00	0.00
126.0	20.21	75.37	0.00	0.00
127.0	20.05	74.90	0.00	0.00
128.0	19.89	74.42	0.00	0.00
129.0	19.73	73.94	0.00	0.00
130.0	19.57	73.47	0.00	0.00
131.0	19.41	72.99	0.00	0.00
132.0	19.25	72.52	0.00	0.00
133.0	19.09	72.04	0.00	0.00
134.0	1,216.67	1,956.67	0.00	-121.51
135.0	18.76	59.64	0.00	0.00
136.0	18.59	59.16	0.00	0.00
137.0	18.42	58.69	0.00	0.00
138.0	18.25	58.21	0.00	0.00
139.0	18.08	57.74	0.00	0.00
140.0	17.91	57.26	0.00	0.00
141.0	17.74	56.78	0.00	0.00
142.0	17.57	56.31	0.00	0.00
143.0	853.73	1,859.43	0.00	0.00
144.0	17.22	43.06	0.00	0.00
145.0	17.04	42.58	0.00	0.00
146.0	16.87	42.11	0.00	0.00
147.0	16.69	41.63	0.00	0.00
148.0	16.51	41.15	0.00	0.00
149.0	515.17	832.28	0.00	714.83
Totals:	9,300.00	33,519.13	0.00	593.32

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
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Load Case: Twist/Sway

50.00 mph Wind with No Ice

31 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

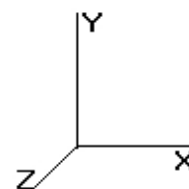
Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-9.302	-33.518	0.000	0.000	0.000	-1,031.241	0.000	0.000	0.000	0.000
1.00	-9.280	-33.307	0.000	0.000	0.000	-1,021.939	-0.002	0.000	0.002	-0.014
2.00	-9.258	-33.097	0.000	0.000	0.000	-1,012.659	-0.006	0.000	0.006	-0.028
3.00	-9.236	-32.888	0.000	0.000	0.000	-1,003.402	-0.014	0.000	0.014	-0.043
4.00	-9.214	-32.680	0.000	0.000	0.000	-994.166	-0.024	0.000	0.024	-0.057
5.00	-9.192	-32.421	0.000	0.000	0.000	-984.952	-0.038	0.000	0.038	-0.071
6.00	-9.170	-32.164	0.000	0.000	0.000	-975.760	-0.054	0.000	0.054	-0.086
7.00	-9.148	-31.907	0.000	0.000	0.000	-966.591	-0.074	0.000	0.074	-0.100
8.00	-9.126	-31.651	0.000	0.000	0.000	-957.443	-0.097	0.000	0.097	-0.115
9.00	-9.104	-31.397	0.000	0.000	0.000	-948.317	-0.122	0.000	0.122	-0.129
10.00	-9.083	-31.143	0.000	0.000	0.000	-939.213	-0.151	0.000	0.151	-0.144
11.00	-9.061	-30.890	0.000	0.000	0.000	-930.130	-0.183	0.000	0.183	-0.159
12.00	-9.039	-30.638	0.000	0.000	0.000	-921.069	-0.218	0.000	0.218	-0.174
13.00	-9.018	-30.387	0.000	0.000	0.000	-912.030	-0.256	0.000	0.256	-0.189
14.00	-8.996	-30.137	0.000	0.000	0.000	-903.013	-0.297	0.000	0.297	-0.204
15.00	-8.975	-29.889	0.000	0.000	0.000	-894.017	-0.341	0.000	0.341	-0.219
16.00	-8.953	-29.640	0.000	0.000	0.000	-885.042	-0.389	0.000	0.389	-0.234
17.00	-8.932	-29.393	0.000	0.000	0.000	-876.089	-0.440	0.000	0.440	-0.249
18.00	-8.910	-29.147	0.000	0.000	0.000	-867.158	-0.493	0.000	0.493	-0.264
19.00	-8.889	-28.902	0.000	0.000	0.000	-858.248	-0.550	0.000	0.550	-0.279
20.00	-8.868	-28.658	0.000	0.000	0.000	-849.359	-0.611	0.000	0.611	-0.295
21.00	-8.846	-28.415	0.000	0.000	0.000	-840.491	-0.674	0.000	0.674	-0.310
22.00	-8.825	-28.172	0.000	0.000	0.000	-831.645	-0.741	0.000	0.741	-0.326
23.00	-8.804	-27.931	0.000	0.000	0.000	-822.820	-0.811	0.000	0.811	-0.341
24.00	-8.783	-27.691	0.000	0.000	0.000	-814.016	-0.884	0.000	0.884	-0.357
25.00	-8.762	-27.451	0.000	0.000	0.000	-805.233	-0.961	0.000	0.961	-0.373
26.00	-8.741	-27.213	0.000	0.000	0.000	-796.471	-1.041	0.000	1.041	-0.389
27.00	-8.720	-26.975	0.000	0.000	0.000	-787.731	-1.124	0.000	1.124	-0.405
28.00	-8.699	-26.738	0.000	0.000	0.000	-779.011	-1.210	0.000	1.210	-0.420
29.00	-8.678	-26.503	0.000	0.000	0.000	-770.312	-1.300	0.000	1.300	-0.437
30.00	-8.657	-26.268	0.000	0.000	0.000	-761.634	-1.394	0.000	1.394	-0.453
31.00	-8.637	-26.034	0.000	0.000	0.000	-752.976	-1.490	0.000	1.490	-0.469
32.00	-8.616	-25.802	0.000	0.000	0.000	-744.340	-1.590	0.000	1.590	-0.485
33.00	-8.595	-25.570	0.000	0.000	0.000	-735.724	-1.694	0.000	1.694	-0.501
34.00	-8.574	-25.339	0.000	0.000	0.000	-727.129	-1.800	0.000	1.800	-0.518
35.00	-8.553	-25.109	0.000	0.000	0.000	-718.555	-1.911	0.000	1.911	-0.534
36.00	-8.532	-24.880	0.000	0.000	0.000	-710.002	-2.025	0.000	2.025	-0.551
37.00	-8.511	-24.652	0.000	0.000	0.000	-701.470	-2.142	0.000	2.142	-0.567
38.00	-8.489	-24.425	0.000	0.000	0.000	-692.959	-2.262	0.000	2.262	-0.584
39.00	-8.468	-24.199	0.000	0.000	0.000	-684.470	-2.387	0.000	2.387	-0.601
40.00	-8.446	-23.974	0.000	0.000	0.000	-676.002	-2.514	0.000	2.514	-0.617
41.00	-8.424	-23.750	0.000	0.000	0.000	-667.556	-2.646	0.000	2.646	-0.634
42.00	-8.402	-23.526	0.000	0.000	0.000	-659.132	-2.780	0.000	2.780	-0.651
43.00	-8.380	-23.304	0.000	0.000	0.000	-650.731	-2.919	0.000	2.919	-0.668
44.00	-8.358	-23.083	0.000	0.000	0.000	-642.351	-3.060	0.000	3.060	-0.685
45.00	-8.335	-22.863	0.000	0.000	0.000	-633.993	-3.206	0.000	3.206	-0.702
46.00	-8.313	-22.643	0.000	0.000	0.000	-625.658	-3.355	0.000	3.355	-0.720
47.00	-8.290	-22.425	0.000	0.000	0.000	-617.346	-3.508	0.000	3.508	-0.737
48.00	-8.267	-22.207	0.000	0.000	0.000	-609.056	-3.664	0.000	3.664	-0.754
49.00	-8.242	-21.853	0.000	0.000	0.000	-600.788	-3.824	0.000	3.824	-0.772
50.00	-8.217	-21.500	0.000	0.000	0.000	-592.546	-3.988	0.000	3.988	-0.789

Pole : 243036
Location : West Haven & Rt 162 CT, CT
Height : 149.0 (ft)
Base Dia : 52.01 (in)
Top Dia : 18.00 (in)
Shape : 18 Sides
Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Twist/Sway

50.00 mph Wind with No Ice

31 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

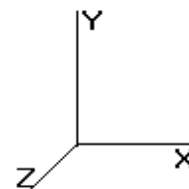
51.00	-8.192	-21.149	0.000	0.000	0.000	-584.329	-4.155	0.000	4.155	-0.807
52.00	-8.166	-20.799	0.000	0.000	0.000	-576.138	-4.326	0.000	4.326	-0.824
53.00	-8.138	-20.453	0.000	0.000	0.000	-567.972	-4.500	0.000	4.500	-0.842
53.25	-8.133	-20.365	0.000	0.000	0.000	-565.937	-4.545	0.000	4.545	-0.846
54.00	-8.117	-20.224	0.000	0.000	0.000	-559.838	-4.679	0.000	4.679	-0.860
55.00	-8.094	-20.037	0.000	0.000	0.000	-551.721	-4.861	0.000	4.861	-0.880
56.00	-8.071	-19.851	0.000	0.000	0.000	-543.627	-5.048	0.000	5.048	-0.900
57.00	-8.049	-19.665	0.000	0.000	0.000	-535.556	-5.239	0.000	5.239	-0.921
58.00	-8.026	-19.480	0.000	0.000	0.000	-527.508	-5.434	0.000	5.434	-0.941
59.00	-8.003	-19.296	0.000	0.000	0.000	-519.482	-5.633	0.000	5.633	-0.962
60.00	-7.980	-19.113	0.000	0.000	0.000	-511.480	-5.837	0.000	5.837	-0.982
61.00	-7.956	-18.931	0.000	0.000	0.000	-503.500	-6.045	0.000	6.045	-1.003
62.00	-7.933	-18.749	0.000	0.000	0.000	-495.544	-6.258	0.000	6.258	-1.024
63.00	-7.910	-18.568	0.000	0.000	0.000	-487.611	-6.474	0.000	6.474	-1.044
64.00	-7.887	-18.388	0.000	0.000	0.000	-479.701	-6.695	0.000	6.695	-1.065
65.00	-7.863	-18.209	0.000	0.000	0.000	-471.815	-6.921	0.000	6.921	-1.086
66.00	-7.840	-18.031	0.000	0.000	0.000	-463.951	-7.151	0.000	7.151	-1.107
67.00	-7.817	-17.853	0.000	0.000	0.000	-456.111	-7.385	0.000	7.385	-1.128
68.00	-7.793	-17.676	0.000	0.000	0.000	-448.295	-7.623	0.000	7.623	-1.149
69.00	-7.770	-17.500	0.000	0.000	0.000	-440.502	-7.866	0.000	7.866	-1.170
70.00	-7.746	-17.325	0.000	0.000	0.000	-432.732	-8.114	0.000	8.114	-1.191
71.00	-7.723	-17.151	0.000	0.000	0.000	-424.986	-8.366	0.000	8.366	-1.212
72.00	-7.699	-16.977	0.000	0.000	0.000	-417.264	-8.622	0.000	8.622	-1.233
73.00	-7.675	-16.805	0.000	0.000	0.000	-409.565	-8.882	0.000	8.882	-1.254
74.00	-7.652	-16.633	0.000	0.000	0.000	-401.890	-9.147	0.000	9.147	-1.275
75.00	-7.628	-16.462	0.000	0.000	0.000	-394.239	-9.417	0.000	9.417	-1.297
76.00	-7.604	-16.291	0.000	0.000	0.000	-386.611	-9.691	0.000	9.691	-1.318
77.00	-7.580	-16.122	0.000	0.000	0.000	-379.007	-9.969	0.000	9.969	-1.339
78.00	-7.557	-15.953	0.000	0.000	0.000	-371.427	-10.252	0.000	10.252	-1.360
79.00	-7.533	-15.785	0.000	0.000	0.000	-363.870	-10.539	0.000	10.539	-1.382
80.00	-7.509	-15.618	0.000	0.000	0.000	-356.338	-10.831	0.000	10.831	-1.403
81.00	-7.485	-15.452	0.000	0.000	0.000	-348.829	-11.127	0.000	11.127	-1.424
82.00	-7.461	-15.286	0.000	0.000	0.000	-341.344	-11.428	0.000	11.428	-1.445
83.00	-7.437	-15.122	0.000	0.000	0.000	-333.883	-11.733	0.000	11.733	-1.467
84.00	-7.414	-14.958	0.000	0.000	0.000	-326.445	-12.043	0.000	12.043	-1.488
85.00	-7.390	-14.795	0.000	0.000	0.000	-319.032	-12.357	0.000	12.357	-1.509
86.00	-7.366	-14.633	0.000	0.000	0.000	-311.642	-12.675	0.000	12.675	-1.530
87.00	-7.342	-14.471	0.000	0.000	0.000	-304.277	-12.998	0.000	12.998	-1.551
88.00	-7.318	-14.311	0.000	0.000	0.000	-296.935	-13.325	0.000	13.325	-1.572
89.00	-7.294	-14.151	0.000	0.000	0.000	-289.617	-13.657	0.000	13.657	-1.593
90.00	-7.270	-13.992	0.000	0.000	0.000	-282.323	-13.993	0.000	13.993	-1.614
91.00	-7.246	-13.834	0.000	0.000	0.000	-275.053	-14.333	0.000	14.333	-1.635
92.00	-7.222	-13.677	0.000	0.000	0.000	-267.807	-14.678	0.000	14.678	-1.656
93.00	-7.198	-13.520	0.000	0.000	0.000	-260.585	-15.027	0.000	15.027	-1.677
94.00	-7.174	-13.365	0.000	0.000	0.000	-253.387	-15.381	0.000	15.381	-1.697
95.00	-7.150	-13.210	0.000	0.000	0.000	-246.213	-15.738	0.000	15.738	-1.718
96.00	-7.127	-13.056	0.000	0.000	0.000	-239.062	-16.100	0.000	16.100	-1.738
97.00	-7.102	-12.903	0.000	0.000	0.000	-231.936	-16.467	0.000	16.467	-1.758
97.75	-7.083	-12.789	0.000	0.000	0.000	-226.610	-16.744	0.000	16.744	-1.774
98.00	-7.078	-12.735	0.000	0.000	0.000	-224.839	-16.837	0.000	16.837	-1.779
99.00	-7.052	-12.524	0.000	0.000	0.000	-217.761	-17.212	0.000	17.212	-1.799
100.0	-7.026	-12.313	0.000	0.000	0.000	-210.709	-17.591	0.000	17.591	-1.818
101.0	-6.999	-12.105	0.000	0.000	0.000	-203.683	-17.974	0.000	17.974	-1.838
101.5	-6.986	-12.001	0.000	0.000	0.000	-200.184	-18.167	0.000	18.167	-1.848
102.0	-6.977	-11.944	0.000	0.000	0.000	-196.691	-18.361	0.000	18.361	-1.858
103.0	-6.956	-11.831	0.000	0.000	0.000	-189.715	-18.754	0.000	18.754	-1.888
104.0	-6.935	-11.720	0.000	0.000	0.000	-182.759	-19.152	0.000	19.152	-1.918

Pole : 243036
Location : West Haven & Rt 162 CT, CT
Height : 149.0 (ft)
Base Dia : 52.01 (in)
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Load Case: Twist/Sway

50.00 mph Wind with No Ice

31 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

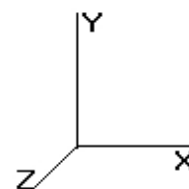
105.0	-6.703	-11.537	0.000	0.000	0.000	-175.825	-19.558	0.000	19.558	-1.948
106.0	-6.682	-11.430	0.000	0.000	0.000	-169.122	-19.969	0.000	19.969	-1.977
107.0	-6.661	-11.324	0.000	0.000	0.000	-162.440	-20.386	0.000	20.386	-2.006
108.0	-6.640	-11.218	0.000	0.000	0.000	-155.779	-20.810	0.000	20.810	-2.034
109.0	-6.619	-11.113	0.000	0.000	0.000	-149.139	-21.239	0.000	21.239	-2.062
110.0	-6.598	-11.008	0.000	0.000	0.000	-142.520	-21.674	0.000	21.674	-2.090
111.0	-6.577	-10.904	0.000	0.000	0.000	-135.922	-22.115	0.000	22.115	-2.116
112.0	-6.556	-10.800	0.000	0.000	0.000	-129.345	-22.561	0.000	22.561	-2.143
113.0	-6.535	-10.697	0.000	0.000	0.000	-122.790	-23.012	0.000	23.012	-2.168
114.0	-6.514	-10.595	0.000	0.000	0.000	-116.255	-23.469	0.000	23.469	-2.193
115.0	-6.327	-10.420	0.000	0.000	0.000	-109.741	-23.932	0.000	23.932	-2.217
116.0	-6.306	-10.324	0.000	0.000	0.000	-103.415	-24.399	0.000	24.399	-2.241
117.0	-6.284	-10.228	0.000	0.000	0.000	-97.110	-24.871	0.000	24.871	-2.264
118.0	-6.263	-10.133	0.000	0.000	0.000	-90.825	-25.347	0.000	25.347	-2.285
119.0	-6.242	-10.038	0.000	0.000	0.000	-84.563	-25.828	0.000	25.828	-2.306
120.0	-6.220	-9.944	0.000	0.000	0.000	-78.321	-26.314	0.000	26.314	-2.327
121.0	-6.199	-9.851	0.000	0.000	0.000	-72.101	-26.803	0.000	26.803	-2.346
122.0	-6.177	-9.758	0.000	0.000	0.000	-65.903	-27.297	0.000	27.297	-2.364
123.0	-6.155	-9.666	0.000	0.000	0.000	-59.726	-27.794	0.000	27.794	-2.380
124.0	-6.134	-9.574	0.000	0.000	0.000	-53.570	-28.294	0.000	28.294	-2.396
125.0	-3.218	-5.782	0.000	0.000	0.000	-47.437	-28.798	0.000	28.798	-2.410
126.0	-3.196	-5.706	0.000	0.000	0.000	-44.219	-29.304	0.000	29.304	-2.424
127.0	-3.174	-5.632	0.000	0.000	0.000	-41.022	-29.813	0.000	29.813	-2.437
128.0	-3.153	-5.558	0.000	0.000	0.000	-37.848	-30.325	0.000	30.325	-2.449
129.0	-3.131	-5.484	0.000	0.000	0.000	-34.696	-30.839	0.000	30.839	-2.461
130.0	-3.109	-5.411	0.000	0.000	0.000	-31.565	-31.355	0.000	31.355	-2.472
131.0	-3.087	-5.338	0.000	0.000	0.000	-28.456	-31.874	0.000	31.874	-2.482
132.0	-3.066	-5.266	0.000	0.000	0.000	-25.369	-32.395	0.000	32.395	-2.492
133.0	-3.045	-5.195	0.000	0.000	0.000	-22.303	-32.918	0.000	32.918	-2.500
134.0	-1.744	-3.293	0.000	0.000	0.000	-19.258	-33.442	0.000	33.442	-2.508
135.0	-1.723	-3.234	0.000	0.000	0.000	-17.514	-33.968	0.000	33.968	-2.515
136.0	-1.702	-3.175	0.000	0.000	0.000	-15.791	-34.496	0.000	34.496	-2.522
137.0	-1.682	-3.117	0.000	0.000	0.000	-14.089	-35.025	0.000	35.025	-2.528
138.0	-1.661	-3.060	0.000	0.000	0.000	-12.408	-35.555	0.000	35.555	-2.534
139.0	-1.641	-3.003	0.000	0.000	0.000	-10.746	-36.086	0.000	36.086	-2.539
140.0	-1.621	-2.946	0.000	0.000	0.000	-9.106	-36.618	0.000	36.618	-2.544
141.0	-1.601	-2.890	0.000	0.000	0.000	-7.485	-37.151	0.000	37.151	-2.548
142.0	-1.581	-2.835	0.000	0.000	0.000	-5.884	-37.685	0.000	37.685	-2.551
143.0	-0.645	-1.015	0.000	0.000	0.000	-4.304	-38.220	0.000	38.220	-2.554
144.0	-0.626	-0.973	0.000	0.000	0.000	-3.659	-38.754	0.000	38.754	-2.556
145.0	-0.607	-0.931	0.000	0.000	0.000	-3.032	-39.290	0.000	39.290	-2.557
146.0	-0.589	-0.890	0.000	0.000	0.000	-2.425	-39.825	0.000	39.825	-2.559
147.0	-0.570	-0.849	0.000	0.000	0.000	-1.837	-40.361	0.000	40.361	-2.560
148.0	-0.552	-0.808	0.000	0.000	0.000	-1.267	-40.898	0.000	40.898	-2.561
149.0	-0.515	0.000	0.000	0.000	0.000	-0.715	-41.434	0.000	41.434	-2.562

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Twist/Sway

50.00 mph Wind with No Ice

31 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Stresses

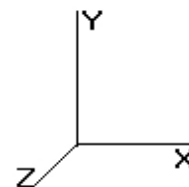
Seg Elev (ft)	Applied Stresses			Applied Stresses			Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)				
0.00	0.55	0.31	0.00	0.00	0.00	15.78	16.34	52.0	0.0	0.314
1.00	0.54	0.31	0.00	0.00	0.00	15.79	16.34	52.0	0.0	0.314
2.00	0.54	0.31	0.00	0.00	0.00	15.79	16.34	52.0	0.0	0.314
3.00	0.54	0.31	0.00	0.00	0.00	15.79	16.34	52.0	0.0	0.314
4.00	0.54	0.31	0.00	0.00	0.00	15.79	16.34	52.0	0.0	0.314
5.00	0.54	0.31	0.00	0.00	0.00	15.79	16.34	52.0	0.0	0.314
6.00	0.54	0.31	0.00	0.00	0.00	15.79	16.34	52.0	0.0	0.314
7.00	0.54	0.31	0.00	0.00	0.00	15.79	16.33	52.0	0.0	0.314
8.00	0.53	0.31	0.00	0.00	0.00	15.79	16.33	52.0	0.0	0.314
9.00	0.53	0.31	0.00	0.00	0.00	15.79	16.33	52.0	0.0	0.314
10.00	0.53	0.31	0.00	0.00	0.00	15.79	16.33	52.0	0.0	0.314
11.00	0.53	0.31	0.00	0.00	0.00	15.78	16.32	52.0	0.0	0.314
12.00	0.53	0.31	0.00	0.00	0.00	15.78	16.32	52.0	0.0	0.314
13.00	0.53	0.31	0.00	0.00	0.00	15.78	16.31	52.0	0.0	0.314
14.00	0.52	0.32	0.00	0.00	0.00	15.77	16.31	52.0	0.0	0.314
15.00	0.52	0.32	0.00	0.00	0.00	15.77	16.30	52.0	0.0	0.314
16.00	0.52	0.32	0.00	0.00	0.00	15.77	16.30	52.0	0.0	0.314
17.00	0.52	0.32	0.00	0.00	0.00	15.76	16.29	52.0	0.0	0.313
18.00	0.52	0.32	0.00	0.00	0.00	15.76	16.28	52.0	0.0	0.313
19.00	0.51	0.32	0.00	0.00	0.00	15.75	16.28	52.0	0.0	0.313
20.00	0.51	0.32	0.00	0.00	0.00	15.75	16.27	52.0	0.0	0.313
21.00	0.51	0.32	0.00	0.00	0.00	15.74	16.26	52.0	0.0	0.313
22.00	0.51	0.32	0.00	0.00	0.00	15.73	16.25	52.0	0.0	0.313
23.00	0.51	0.32	0.00	0.00	0.00	15.72	16.24	52.0	0.0	0.312
24.00	0.51	0.32	0.00	0.00	0.00	15.72	16.23	52.0	0.0	0.312
25.00	0.50	0.32	0.00	0.00	0.00	15.71	16.22	52.0	0.0	0.312
26.00	0.50	0.33	0.00	0.00	0.00	15.70	16.21	52.0	0.0	0.312
27.00	0.50	0.33	0.00	0.00	0.00	15.69	16.20	52.0	0.0	0.312
28.00	0.50	0.33	0.00	0.00	0.00	15.68	16.19	52.0	0.0	0.311
29.00	0.50	0.33	0.00	0.00	0.00	15.67	16.17	52.0	0.0	0.311
30.00	0.50	0.33	0.00	0.00	0.00	15.65	16.16	52.0	0.0	0.311
31.00	0.49	0.33	0.00	0.00	0.00	15.64	16.14	52.0	0.0	0.311
32.00	0.49	0.33	0.00	0.00	0.00	15.63	16.13	52.0	0.0	0.310
33.00	0.49	0.33	0.00	0.00	0.00	15.61	16.11	52.0	0.0	0.310
34.00	0.49	0.33	0.00	0.00	0.00	15.60	16.10	52.0	0.0	0.310
35.00	0.49	0.33	0.00	0.00	0.00	15.58	16.08	52.0	0.0	0.309
36.00	0.48	0.33	0.00	0.00	0.00	15.57	16.06	52.0	0.0	0.309
37.00	0.48	0.34	0.00	0.00	0.00	15.55	16.04	52.0	0.0	0.309
38.00	0.48	0.34	0.00	0.00	0.00	15.53	16.02	52.0	0.0	0.308
39.00	0.48	0.34	0.00	0.00	0.00	15.51	16.00	52.0	0.0	0.308
40.00	0.48	0.34	0.00	0.00	0.00	15.49	15.98	52.0	0.0	0.307
41.00	0.48	0.34	0.00	0.00	0.00	15.47	15.95	52.0	0.0	0.307
42.00	0.47	0.34	0.00	0.00	0.00	15.45	15.93	52.0	0.0	0.306
43.00	0.47	0.34	0.00	0.00	0.00	15.42	15.91	52.0	0.0	0.306
44.00	0.47	0.34	0.00	0.00	0.00	15.40	15.88	52.0	0.0	0.306
45.00	0.47	0.34	0.00	0.00	0.00	15.37	15.85	52.0	0.0	0.305
46.00	0.47	0.34	0.00	0.00	0.00	15.35	15.83	52.0	0.0	0.304
47.00	0.46	0.35	0.00	0.00	0.00	15.32	15.80	52.0	0.0	0.304
48.00	0.46	0.35	0.00	0.00	0.00	15.29	15.77	52.0	0.0	0.303
49.00	0.46	0.35	0.00	0.00	0.00	15.26	15.73	52.0	0.0	0.303
50.00	0.45	0.35	0.00	0.00	0.00	15.23	15.70	52.0	0.0	0.302

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
 Base Dia : 52.01 (in)
 Top Dia : 18.00 (in)
 Shape : 18 Sides
 Taper : 0.234965 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

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Load Case: Twist/Sway 50.00 mph Wind with No Ice 31 Iterations

Gust Response Factor : 1.69

Dead Load Factor : 1.00

Wind Load Factor : 1.00

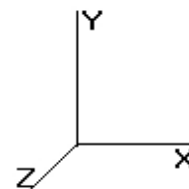
51.00	0.45	0.35	0.00	0.00	0.00	15.20	15.66	52.0	0.0	0.301
52.00	0.44	0.35	0.00	0.00	0.00	15.17	15.62	52.0	0.0	0.301
53.00	0.44	0.35	0.00	0.00	0.00	15.13	15.58	52.0	0.0	0.300
53.25	0.52	0.42	0.00	0.00	0.00	17.50	18.03	52.0	0.0	0.347
54.00	0.51	0.42	0.00	0.00	0.00	17.46	17.99	52.0	0.0	0.346
55.00	0.51	0.42	0.00	0.00	0.00	17.42	17.94	52.0	0.0	0.345
56.00	0.51	0.42	0.00	0.00	0.00	17.37	17.89	52.0	0.0	0.344
57.00	0.51	0.42	0.00	0.00	0.00	17.32	17.84	52.0	0.0	0.343
58.00	0.51	0.42	0.00	0.00	0.00	17.27	17.79	52.0	0.0	0.342
59.00	0.51	0.42	0.00	0.00	0.00	17.21	17.74	52.0	0.0	0.341
60.00	0.50	0.42	0.00	0.00	0.00	17.16	17.68	52.0	0.0	0.340
61.00	0.50	0.43	0.00	0.00	0.00	17.10	17.62	52.0	0.0	0.339
62.00	0.50	0.43	0.00	0.00	0.00	17.04	17.56	52.0	0.0	0.338
63.00	0.50	0.43	0.00	0.00	0.00	16.98	17.50	52.0	0.0	0.337
64.00	0.50	0.43	0.00	0.00	0.00	16.92	17.43	52.0	0.0	0.335
65.00	0.50	0.43	0.00	0.00	0.00	16.85	17.36	52.0	0.0	0.334
66.00	0.49	0.43	0.00	0.00	0.00	16.78	17.29	52.0	0.0	0.333
67.00	0.49	0.43	0.00	0.00	0.00	16.71	17.22	52.0	0.0	0.331
68.00	0.49	0.44	0.00	0.00	0.00	16.64	17.15	52.0	0.0	0.330
69.00	0.49	0.44	0.00	0.00	0.00	16.57	17.07	52.0	0.0	0.328
70.00	0.49	0.44	0.00	0.00	0.00	16.49	16.99	52.0	0.0	0.327
71.00	0.49	0.44	0.00	0.00	0.00	16.41	16.91	52.0	0.0	0.325
72.00	0.48	0.44	0.00	0.00	0.00	16.33	16.83	52.0	0.0	0.324
73.00	0.48	0.44	0.00	0.00	0.00	16.24	16.74	52.0	0.0	0.322
74.00	0.48	0.45	0.00	0.00	0.00	16.15	16.65	52.0	0.0	0.320
75.00	0.48	0.45	0.00	0.00	0.00	16.06	16.56	52.0	0.0	0.319
76.00	0.48	0.45	0.00	0.00	0.00	15.97	16.46	52.0	0.0	0.317
77.00	0.47	0.45	0.00	0.00	0.00	15.87	16.36	52.0	0.0	0.315
78.00	0.47	0.45	0.00	0.00	0.00	15.77	16.26	52.0	0.0	0.313
79.00	0.47	0.45	0.00	0.00	0.00	15.67	16.16	52.0	0.0	0.311
80.00	0.47	0.46	0.00	0.00	0.00	15.56	16.05	52.0	0.0	0.309
81.00	0.47	0.46	0.00	0.00	0.00	15.45	15.93	52.0	0.0	0.307
82.00	0.47	0.46	0.00	0.00	0.00	15.33	15.82	52.0	0.0	0.304
83.00	0.46	0.46	0.00	0.00	0.00	15.21	15.70	52.0	0.0	0.302
84.00	0.46	0.46	0.00	0.00	0.00	15.09	15.57	52.0	0.0	0.300
85.00	0.46	0.46	0.00	0.00	0.00	14.96	15.45	52.0	0.0	0.297
86.00	0.46	0.47	0.00	0.00	0.00	14.83	15.31	52.0	0.0	0.295
87.00	0.46	0.47	0.00	0.00	0.00	14.70	15.18	52.0	0.0	0.292
88.00	0.46	0.47	0.00	0.00	0.00	14.56	15.04	52.0	0.0	0.289
89.00	0.45	0.47	0.00	0.00	0.00	14.41	14.89	52.0	0.0	0.286
90.00	0.45	0.47	0.00	0.00	0.00	14.26	14.74	52.0	0.0	0.284
91.00	0.45	0.48	0.00	0.00	0.00	14.11	14.58	52.0	0.0	0.281
92.00	0.45	0.48	0.00	0.00	0.00	13.95	14.42	52.0	0.0	0.277
93.00	0.45	0.48	0.00	0.00	0.00	13.79	14.26	52.0	0.0	0.274
94.00	0.45	0.48	0.00	0.00	0.00	13.62	14.09	52.0	0.0	0.271
95.00	0.44	0.48	0.00	0.00	0.00	13.44	13.91	52.0	0.0	0.268
96.00	0.44	0.49	0.00	0.00	0.00	13.26	13.72	52.0	0.0	0.264
97.00	0.44	0.49	0.00	0.00	0.00	13.07	13.53	52.0	0.0	0.260
97.75	0.44	0.49	0.00	0.00	0.00	12.92	13.39	52.0	0.0	0.258
98.00	0.44	0.49	0.00	0.00	0.00	12.87	13.34	52.0	0.0	0.257
99.00	0.43	0.49	0.00	0.00	0.00	12.67	13.13	52.0	0.0	0.253
100.00	0.43	0.50	0.00	0.00	0.00	12.46	12.92	52.0	0.0	0.249
101.00	0.43	0.50	0.00	0.00	0.00	12.25	12.70	52.0	0.0	0.244
101.50	0.70	0.82	0.00	0.00	0.00	19.45	20.19	51.0	0.0	0.396
102.00	0.70	0.82	0.00	0.00	0.00	19.27	20.01	51.1	0.0	0.392
103.00	0.69	0.82	0.00	0.00	0.00	18.89	19.64	51.2	0.0	0.383
104.00	0.69	0.83	0.00	0.00	0.00	18.50	19.25	51.4	0.0	0.374

Pole : 243036
 Location : West Haven & Rt 162 CT, CT
 Height : 149.0 (ft)
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Code: TIA/EIA-222 Rev F

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Load Case: Twist/Sway 50.00 mph Wind with No Ice 31 Iterations

Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

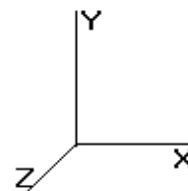
105.00	0.69	0.81	0.00	0.00	0.00	18.10	18.84	51.6	0.0	0.365
106.00	0.69	0.81	0.00	0.00	0.00	17.70	18.45	51.8	0.0	0.356
107.00	0.69	0.81	0.00	0.00	0.00	17.29	18.04	52.0	0.0	0.347
108.00	0.69	0.82	0.00	0.00	0.00	16.87	17.62	52.0	0.0	0.339
109.00	0.69	0.82	0.00	0.00	0.00	16.43	17.18	52.0	0.0	0.330
110.00	0.69	0.83	0.00	0.00	0.00	15.98	16.73	52.0	0.0	0.322
111.00	0.69	0.83	0.00	0.00	0.00	15.51	16.26	52.0	0.0	0.313
112.00	0.68	0.84	0.00	0.00	0.00	15.02	15.78	52.0	0.0	0.303
113.00	0.68	0.84	0.00	0.00	0.00	14.52	15.27	52.0	0.0	0.294
114.00	0.68	0.85	0.00	0.00	0.00	14.00	14.75	52.0	0.0	0.284
115.00	0.68	0.83	0.00	0.00	0.00	13.46	14.21	52.0	0.0	0.273
116.00	0.68	0.84	0.00	0.00	0.00	12.91	13.67	52.0	0.0	0.263
117.00	0.68	0.84	0.00	0.00	0.00	12.35	13.11	52.0	0.0	0.252
118.00	0.68	0.85	0.00	0.00	0.00	11.77	12.54	52.0	0.0	0.241
119.00	0.68	0.85	0.00	0.00	0.00	11.17	11.94	52.0	0.0	0.230
120.00	0.68	0.86	0.00	0.00	0.00	10.54	11.32	52.0	0.0	0.218
121.00	0.68	0.86	0.00	0.00	0.00	9.90	10.68	52.0	0.0	0.205
122.00	0.68	0.87	0.00	0.00	0.00	9.22	10.01	52.0	0.0	0.193
123.00	0.68	0.87	0.00	0.00	0.00	8.52	9.33	52.0	0.0	0.179
124.00	0.68	0.88	0.00	0.00	0.00	7.80	8.61	52.0	0.0	0.166
125.00	0.41	0.46	0.00	0.00	0.00	7.05	7.50	52.0	0.0	0.144
126.00	0.41	0.47	0.00	0.00	0.00	6.70	7.16	52.0	0.0	0.138
127.00	0.41	0.47	0.00	0.00	0.00	6.35	6.81	52.0	0.0	0.131
128.00	0.41	0.47	0.00	0.00	0.00	5.98	6.44	52.0	0.0	0.124
129.00	0.41	0.47	0.00	0.00	0.00	5.59	6.06	52.0	0.0	0.117
130.00	0.41	0.47	0.00	0.00	0.00	5.20	5.67	52.0	0.0	0.109
131.00	0.41	0.47	0.00	0.00	0.00	4.79	5.26	52.0	0.0	0.101
132.00	0.41	0.48	0.00	0.00	0.00	4.36	4.84	52.0	0.0	0.093
133.00	0.40	0.48	0.00	0.00	0.00	3.92	4.40	52.0	0.0	0.085
134.00	0.26	0.28	0.00	0.00	0.00	3.46	3.75	52.0	0.0	0.072
135.00	0.26	0.28	0.00	0.00	0.00	3.22	3.51	52.0	0.0	0.067
136.00	0.26	0.28	0.00	0.00	0.00	2.97	3.26	52.0	0.0	0.063
137.00	0.25	0.28	0.00	0.00	0.00	2.71	3.00	52.0	0.0	0.058
138.00	0.25	0.28	0.00	0.00	0.00	2.44	2.73	52.0	0.0	0.053
139.00	0.25	0.28	0.00	0.00	0.00	2.16	2.46	52.0	0.0	0.047
140.00	0.25	0.28	0.00	0.00	0.00	1.88	2.18	52.0	0.0	0.042
141.00	0.25	0.28	0.00	0.00	0.00	1.58	1.89	52.0	0.0	0.036
142.00	0.24	0.28	0.00	0.00	0.00	1.27	1.59	52.0	0.0	0.031
143.00	0.09	0.11	0.00	0.00	0.00	0.95	1.06	52.0	0.0	0.020
144.00	0.09	0.11	0.00	0.00	0.00	0.83	0.94	52.0	0.0	0.018
145.00	0.08	0.11	0.00	0.00	0.00	0.71	0.81	52.0	0.0	0.016
146.00	0.08	0.11	0.00	0.00	0.00	0.58	0.69	52.0	0.0	0.013
147.00	0.08	0.11	0.00	0.00	0.00	0.45	0.56	52.0	0.0	0.011
148.00	0.08	0.10	0.00	0.00	0.00	0.32	0.43	52.0	0.0	0.008
149.00	0.00	0.10	0.00	0.00	0.00	0.18	0.25	52.0	0.0	0.005

Pole : 243036
Location : West Haven & Rt 162 CT, CT
Height : 149.0 (ft)
Base Dia : 52.01 (in)
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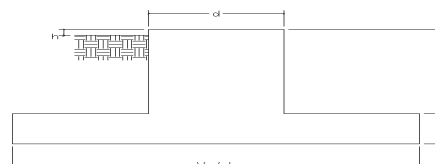
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Analysis Summary

Load Case	Reactions						Combined Stress (ksi)	Max Stresses		
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)		Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	30.1	0.00	33.51	0.00	0.00	3333.43	63.31	51.0	101.50	1.242
Ice	24.7	0.00	39.54	0.00	0.00	2803.74	54.83	51.0	101.50	1.076
Twist/Sway	9.3	0.00	33.52	0.00	0.00	1031.24	20.19	51.0	101.50	0.396

Site Name: West Haven & RT 162 CT, CT
 Site Number: 243036
 Engineering Number: 54305228
 Engineer: C. Poe
 Date: 05/08/14
 Tower Type: MP

Program Last Updated: 11/15/2012



Design Loads (Unfactored)

Design / Analysis / Mapping:	Analysis
Compression/Leg:	33.5 k
Uplift/Leg:	0.0 k
Total Shear:	30.1 k
Moment:	3333.4 k-ft
Tower + Appurtenance Weight:	33.5 k
Depth to Base of Foundation:	5.50 ft
Diameter of Pier (d):	7.00 ft
Height of Pier above Ground (h):	1.00
Width of Pad (W):	22.50 ft
Length of Pad (L):	22.50 ft
Thickness of Pad (t):	2.00 ft
Tower Leg Center to Center:	0.00 ft
Number of Tower Legs:	1.0 (1 if MP or GT)
Tower Center from Mat Center:	0.00 ft
Depth Below Ground Surface to Water Table:	11.00 ft
Unit Weight of Concrete:	150.0 pcf
Unit Weight of Soil Above Water Table:	125.0 pcf
Unit Weight of Water:	62.4 pcf
Unit Weight of Soil Below Water Table:	67.5 pcf
Friction Angle of Uplift:	15.00 Degrees
Ultimate Coefficient of Shear Friction:	0.35
Allowable Compressive Bearing Pressure:	5000.0 psf
Ultimate Passive Pressure on Pad Face:	1000.0 psf
Allowable Capacity Increase:	1.00

Concrete Strength (f'_c):	4000 psi
Pad Tension Steel Depth:	20.00 in
Wind Load Factor:	1.3
ϕ_{Shear} :	0.75
$\phi_{\text{Flexure / Tension}}$:	0.90
$\phi_{\text{Compression}}$:	0.65
β :	0.85
Bottom Pad Rebar Size #:	8
# of Bottom Pad Rebar:	38
Pad Bottom Steel Area:	30.02 in ²
Pad Steel F_y :	60000 psi
Top Pad Rebar Size #:	8
# of Top Pad Rebar:	38
Pad Top Steel Area:	30.02 in ²
Pier Rebar Size #:	8
Pier Steel Area (Single Bar):	0.79 in ²
# of Pier Rebar:	36
Pier Steel F_y :	60000 psi
Pier Cage Diameter:	76.0 in
Rebar Strain Limit:	0.008
Steel Elastic Modulus:	29000 ksi
Tie Rebar Size #:	4
Tie Steel Area (Single Bar):	0.20 in ²
Tie Spacing:	12 in
Tie Steel F_y :	60000 psi

Overturning Factor of Safety

Design OTM:	3529.1 k-ft
OTM Resistance:	4987.3 k-ft
OTM Resistance / Design OTM Factor of Safety:	1.41 Result: NG

Soil Bearing Pressure Usage:

Net Bearing Pressure:	5076 psf
Allowable Bearing Pressure:	5000 psf
Net Bearing Pressure/Allowable Bearing Pressure:	1.02 Result: Acceptable
Load Direction Controlling Design Bearing Pressure:	Diagonal to Pad Edge

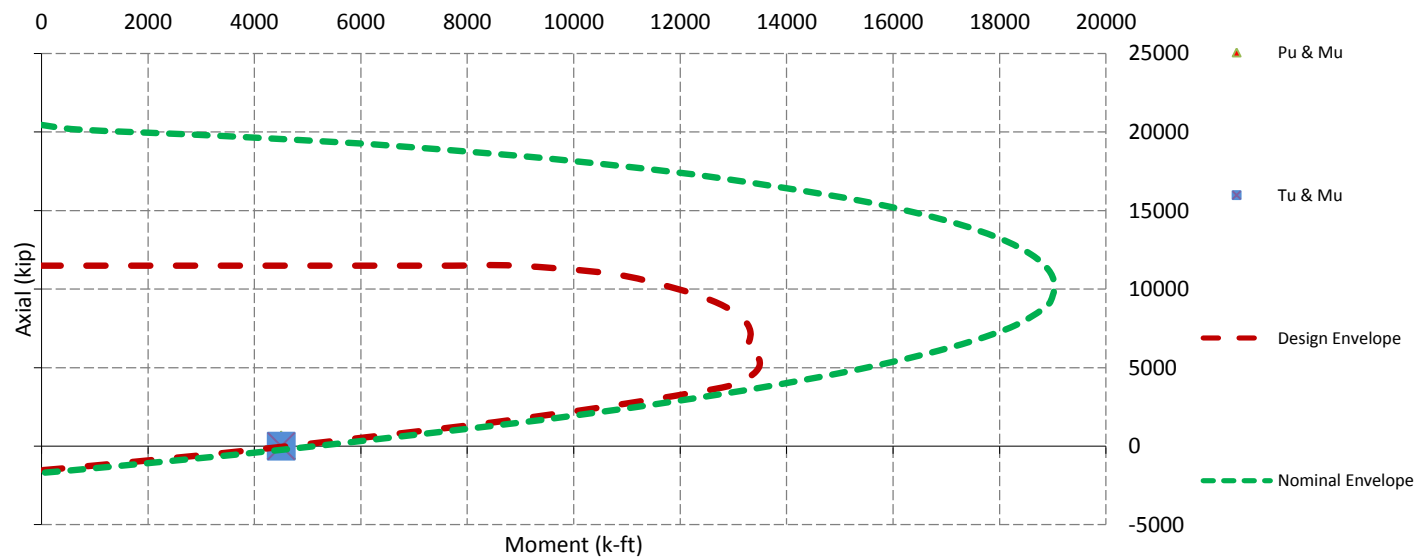
Sliding Factor of Safety

Total Ultimate Sliding Resistance:	190.6 k
Sliding Resistance/Sliding Design Factor of Safety:	6.33 Result: OK

One Way Shear, Flexural Capacity, and Punching Shear

Factored One Way Shear (V_u):	376.4 k
One Way Shear Capacity (ϕV_c):	512.3 k - ACI11.3.1.1
$V_u / \phi V_c$:	0.73 Result: OK
Load Direction Controlling Shear Capacity:	Parallel to Pad Edge
Lower Pad Steel Factored Moment (M_u):	2163.8 k-ft
Lower Steel Pad Moment Capacity (ϕM_n):	2589.1 k-ft - ACI10.3
$M_u / \phi M_n$:	0.84 Result: OK
Load Direction Controlling Flexural Capacity:	Parallel to Pad Edge
Upper Steel Pad Factored Moment (M_u):	679.1 k-ft
Upper Steel Pad Moment Capacity (ϕM_n):	2589.1 k-ft
$M_u / \phi M_n$:	0.26 Result: OK
Lower Pad Flexural Reinforcement Ratio:	0.0056 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Upper Pad Flexural Reinforcement Ratio:	0.0056 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Lower Pad Reinforcement Spacing:	7 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Upper Pad Reinforcement Spacing:	7 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Factored Punching Shear (V_u):	2.5 k
Nominal Punching Shear Capacity ($\phi_c V_n$):	1239.8 k - ACI11.12.2.1
$V_u / \phi V_c$:	0.00 Result: OK
Factored Moment in Pier (M_u):	4509.5 k-ft
Pier Moment Capacity (ϕM_n):	4756.5 k-ft
$M_u / \phi M_n$:	0.95 Result: OK
Factored Shear in Pier (V_u):	39.1 k
Pier Shear Capacity (ϕV_n):	527.3 k
$V_u / \phi V_c$:	0.07 Result: OK
Pier Shear Reinforcement Ratio:	0.0004 No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	0.0 k
Pier Tension Capacity (ϕT_n):	1535.8 k
$T_u / \phi T_n$:	0.00 Result: OK
Factored Compression in Pier (P_u):	43.6 k
Pier Compression Capacity (ϕP_n):	9747.6 k - ACI10.3.6.2
$P_u / \phi P_n$:	0.00 Result: OK
Pier Compression Reinforcement Ratio:	0.005 OK - Reinforcement Ratio Met - ACI10.9.1 & 10.8.4
$M_u / \phi M_n + T_u / \phi T_n$:	0.95 Result: OK

Nominal and Design Moment Capacity and Factored Design Loads



Base/Flange Plate	Plate Type	Baseplate
	Pole Diameter	52.01 in
	Pole Thickness	0.375 in
	Plate Length	59 in
	Plate Thickness	2.75 in
	Plate Fy	60 ksi
	Weld Length	0.3125 in
	Allowable	1097.49 k-in
	Applied	1276.03 k-in
Stiffeners	#	0

Bolts	#	16
	Bolt Circle	59 in
	(R)adial / (S)quare	S
	Bolt Gap	6 in
	Diameter	2.25 in
	Hole Diameter	2.625 in
	Type	A615-75
	Fy	75 ksi
	Fu	100 ksi
	Allowable	174.95 k
	Applied	170.59 k
Reinforcement	#	0
Extra Bolts	#	0

Code Rev.	F
A.S.I.	1.00
Moment	3333.4 k-ft
Axial	33.5 k

Date	5/8/2014
Engineer	CCP
Site #	243036
Carrier	AT&T

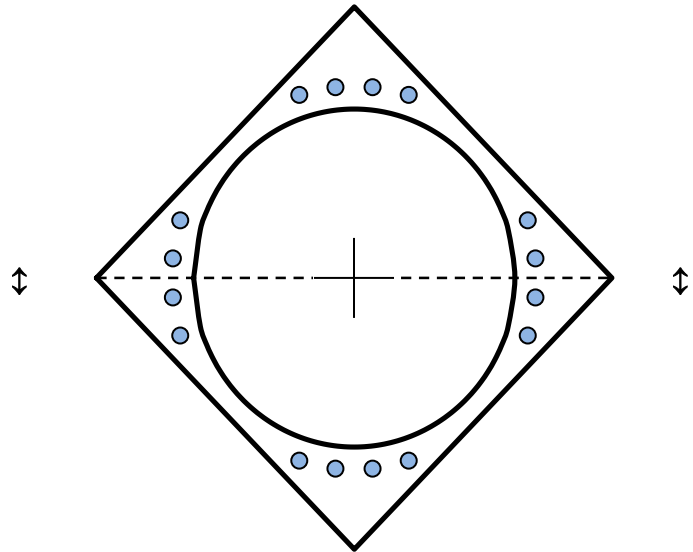


Plate Stress Ratio:

1.16 (Fail)

Bolt Stress Ratio:

0.98 (Pass)

Daniel L. Goulet
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June 27, 2014

Connecticut Siting Council

Subject: New Cingular Wireless PCS, LLC ("AT&T") – S2899 – 668 Jones Hill Road West Haven, CT

Dear Connecticut Siting Council:

C Squared Systems has been retained by New Cingular Wireless PCS, LLC ("AT&T") to investigate RF Power Density levels for the AT&T antenna arrays, to be installed on the proposed monopole tower, to be located at 668 Jones Hill Road West Haven, CT.

Calculations were done in accordance with FCC OET Bulletin 65. These worst-case calculations assume that all transmitters are simultaneously operating at full power and that there is 0 dB of cable loss. The calculation point is 6 feet above ground level to model the RF power density at the head of a person standing at the base of the tower.

Due to the directional nature of the proposed AT&T antennas, the majority of the RF power is focused out towards the horizon. As a result, there will be less RF power directed below the antennas relative to the horizon, and consequently lower power density levels around the base of the tower. Please refer to the Attachments for the vertical patterns of the proposed AT&T antennas. The calculated results for AT&T in Table 1 include a nominal 10 dB off-beam pattern loss to account for the lower relative gain directly below the antennas.

Location	Carrier	Vertical Distance to Antenna (Ft.)	Operating Frequency (MHz)	Number of Trans.	Effective Radiated Power (ERP) Per Transmitter (Watts)	Power Density (mw/cm ²)	Limit	%MPE
Ground Level	T-Mobile	150	1935	8	240	0.0307	1.0000	3.07%
	Clearwire antennas	120	2496	2	153	0.0076	1.0000	0.76%
	Clearwire microwave dishes	120	11000	1	211	0.0053	1.0000	0.53%
	Clearwire microwave dishes	120	11000	1	211	0.0053	1.0000	0.53%
	MetroPCS CDMA	115	2135	3	727	0.0593	1.0000	5.93%
	MetroPCS LTE	115	2130	1	1200	0.0326	1.0000	3.26%
	Computer Hospital	125	5000	1	100	0.0023	1.0000	0.23%
	Computer Hospital	125	5250	1	500	0.0115	1.0000	1.15%
	Computer Hospital	125	5250	1	20	0.0005	1.0000	0.05%
	Verizon cellular	134	869	9	293	0.0528	0.5793	9.11%
	Verizon PCS	134	1970	7	378	0.0530	1.0000	5.30%
	Verizon LTE	134	698	1	820	0.0164	0.4653	3.53%
	Verizon AWS	134	2145	1	1750	0.0350	1.0000	3.50%
	AT&T UMTS	125	880	1	1028	0.0026	0.5867	0.45%
	AT&T UMTS	125	1900	1	1265	0.0032	1.0000	0.32%
	AT&T LTE	125	710	2	1254	0.0064	0.4733	1.35%
	AT&T LTE	125	880	1	1542	0.0039	0.5867	0.67%
	AT&T LTE	125	1900	2	1897	0.0096	1.0000	0.96%
	AT&T LTE	125	2300	1	2179	0.0055	1.0000	0.55%
Total								41.25%

Table 1: Carrier Information

Summary: Under worst-case assumptions, the cumulative RF Power Density levels for the site will not exceed **41.25%**¹ of the FCC MPE limit for General Public/Uncontrolled Environments.

Attachments:

Sincerely,



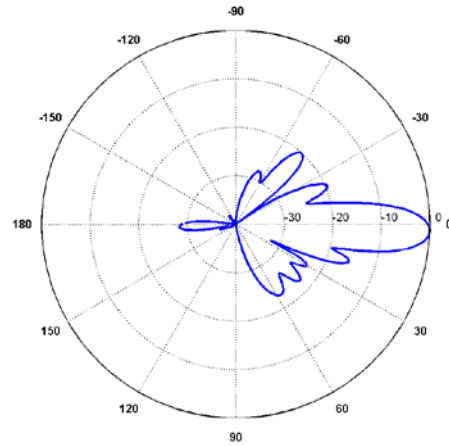
Daniel L. Goulet
C Squared Systems, LLC

¹ The total %MPE is a summation of each unrounded contribution. Therefore, summing each rounded value may not reflect the total value listed in the table. The power density information for carriers other than AT&T was taken from the CSC database dated March 11, 2014.

Attachment: AT&T's Antenna Data Sheets and Electrical Patterns

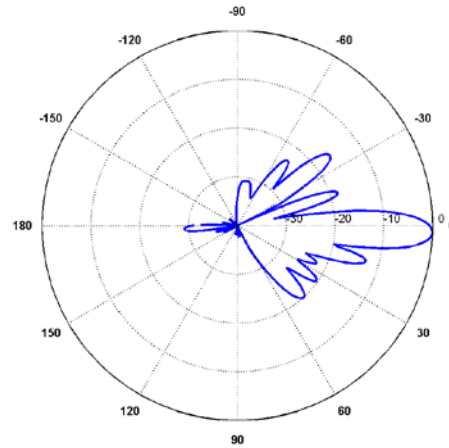
750 MHz

Manufacturer: CCI Products
Model #: HPA-65R-BUU-H8
Frequency Band: 698-806 MHz
Gain: 13.2 dBd
Vertical Beamwidth: 10.1°
Horizontal Beamwidth: 65°
Polarization: Dual Pol $\pm 45^\circ$
Size L x W x D: 92.4" x 14.8" x 7.4"



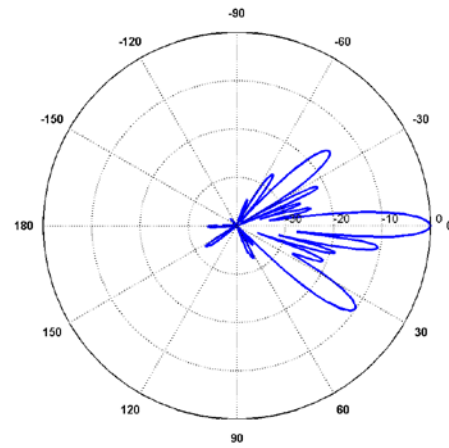
850 MHz

Manufacturer: CCI Products
Model #: HPA-65R-BUU-H8
Frequency Band: 824-894 MHz
Gain: 14.1 dBd
Vertical Beamwidth: 8.4°
Horizontal Beamwidth: 61°
Polarization: Dual Pol $\pm 45^\circ$
Size L x W x D: 92.4" x 14.8" x 7.4"



1900 MHz

Manufacturer: CCI Products
Model #: HPA-65R-BUU-H8
Frequency Band: 1850-1990 MHz
Gain: 15.0 dBd
Vertical Beamwidth: 5.6°
Horizontal Beamwidth: 62°
Polarization: Dual Pol $\pm 45^\circ$
Size L x W x D: 92.4" x 14.8" x 7.4"



2300 MHz

Manufacturer: CCI Products
Model #: HPA-65R-BUU-H8
Frequency Band: 2305-2360 MHz
Gain: 15.6 dBd
Vertical Beamwidth: 4.5°
Horizontal Beamwidth: 60°
Polarization: Dual Pol $\pm 45^\circ$
Size L x W x D: 92.4" x 14.8" x 7.4"

