



October 18, 2023

Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Regarding: Notice of Exempt Modification
Facility Address: 405 Brushy Plain Rd., Branford, CT
Facility Coordinates (Lat.) 41.316800
(Long) -72.819700
Applicant: American Tower Corp. (ATC)

Dear Council:

American Tower Corporation, Inc. (ATC) currently maintains a 150' wireless telecommunication tower facility at the above referenced address, parcel ID BRAN-000002D9-000003-000001 in the Town of Branford. The property is owned by Edward Jaconette Jr. American Tower Corporation, Inc (ATC) now intends to, within the leased area, perform the following tower modification:

- Remove Existing Antenna, Mounts and Coax at 159.0' elevation on the tower.
- Remove Existing Antenna, Mounts and Coax at 132.0' elevation on the tower.
- Remove Existing Antenna, Mounts and Coax at 70.0' elevation on the tower.
- Install (4) plate reinforcements at the 75.0' to 80.0' elevation on the tower.
- Install (4) plate reinforcements at the 55.0' to 75.0' elevation on the tower.

This tower facility was approved by the Connecticut Siting Council. on Docket NO. 44, July 24,1984. The proposed tower reinforcement is within the existing, approved compound space on the existing tower, this modification request complies with the conditions of the original Tower Approval.

Attached is the DISH Wireless structural analysis showing the tower is nearing capacity. The post structural analysis shows that after the upgrades and equipment removal the tower will still be within capacity.

Please accept this letter, as notification pursuant to Regulations of Connecticut State Agencies @16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. @16-50j-72(b)(2). IN accordance with R.C.S.A. @16-50j-73. A copy of this letter is being sent to James Cosgrove, First Selectman for the Town of Branford, Harry Smith, Town Planner for the Town of Branford, as well as Edward Jaconette Jr., the property owner, and tower owner.

ATTACHMENT A

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. @ 16-50j-72(b)(2).

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

For the foregoing reasons, American Tower Corporation (ATC) respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. @16-50j-72(b)(2).

Best Regards,

Margie Weber

Margie Weber
Program Manager
mweber@nbcllc.com
215.416.0363

Attachments

Cc:

James Cosgrove – First Selectman, Town of Branford
Harry Smith – Town Planner, Town Branford
American Tower Corporation (ATC), tower owner
Edward Jaconette Jr., property owner



AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION FOR PERMITTING

ATC SITE#/NAME/PROJECT: 302484 / Branford CT 6 / 14538945
SITE ADDRESS: 405 Brushy Plain Road, Branford, CT 06405-2348
APN: BRAN M:D02-000 B:003 L:00001
SITE ACQUISITION VENDOR: NB+C

I, Margaret Robinson, Vice President, UST Legal for American Tower*, owner of the tower facility located at the address identified above (the “Tower Facility”), do hereby authorize NB+C, their successors and assigns, and/or their agent, (collectively, the “Licensee”) to act as American Tower’s non-exclusive agent for the sole purpose of filing and consummating any land-use, building, or electrical permit application(s) as may be required by the applicable permitting authorities for Licensee’s telecommunications’ installation on the Tower Facility.

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

Signature: _____

Margaret Robinson, Vice President, UST Legal
US Tower Division

NOTARY BLOCK

COMMONWEALTH OF MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Vice President, UST Legal of American Tower (Tower Facility owner and/or operator), personally known to me (or proved to me based on satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same.

WITNESS my hand and official seal, this 12th day of October 2023.

NOTARY SEAL



GERARD T. HEFFRON
Notary Public
Commonwealth of Massachusetts
My Commission Expires
August 9, 2024

Notary Public
My Commission Expires: August 9th, 2024

* American Tower as used herein is defined as American Tower Corporation and any of its affiliates or subsidiaries.

DOCKET NO. 44

AN APPLICATION SUBMITTED BY THE SOUTHERN : CONNECTICUT SITING
NEW ENGLAND TELEPHONE COMPANY FOR A :
CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY : COUNCIL
AND PUBLIC NEED FOR THE CONSTRUCTION,
MAINTENANCE AND OPERATION OF FACILITIES TO
PROVIDE CELLULAR SERVICE IN NEW HAVEN COUNTY : July 24, 1984

D E C I S I O N A N D O R D E R

Pursuant to the foregoing opinion, the Council hereby directs that a certificate of environmental compatibility and public need as required by section 16-50k of the General Statutes of Connecticut, revisions of 1958, revised to 1983, as amended, be issued to the Southern New England Telephone Company for the construction, operation, and maintenance of a telecommunications tower and associated equipment to provide cellular service at each of the following sites:

Jasudowich tract, Brushy Plain Road, Branford, Connecticut;
Town of Guilford tract, Tanner Marsh Road, Guilford, Connecticut;
Bridgeport Avenue, Milford, Connecticut;
Quagliaro tract, Farmdale Drive, Waterbury, Connecticut;
Pease Road, Woodbridge, Connecticut; and
Dwight Street, North Haven, Connecticut.

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

1. The towers including antennas shall be no taller than necessary to provide the proposed service and in no event shall exceed
 - a) 167' at the Branford site,
 - b) 167' at the Guilford site,
 - c) 117' at the Milford site,
 - d) 167' at the Waterbury site,
 - e) 167' at the Woodbridge site,
 - f) 167' at the North Haven site;
2. A fence not lower than eight feet shall surround each tower and its associated equipment;

3. The applicant or its successor shall notify the Council if and when directional antennas or any other equipment is added to any of these facilities;
4. The applicant or its successor shall permit, in accordance with representations made by it during the proceeding, public or private entities to share space on the facilities, for due consideration received, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing;
5. Unless necessary to comply with condition number six, below, no lights shall be installed on any of these towers;
6. The facilities shall be constructed in accordance with all applicable federal, state, and municipal laws and regulations;
7. The applicant shall submit a development and management plan (D&M) for the Branford, Milford, Woodbridge, and North Haven sites pursuant to sections 16-50j-85 through 16-50j-87 of the regulations of state agencies, except that irrelevant items in section 16-50j-86 need only be identified as such. The D&M plans shall include appropriate evergreen screening of the sites, erosion control measures, reseeding plans, and tree removal plans. The applicant shall comply with the reporting requirements of section 16-50j-87 for all sites;
8. Construction activities shall take place during daylight working hours;
9. This decision and order shall be void and the towers and associated equipment approved herein shall be dismantled and removed, or reapplication for any new use shall be made to the Connecticut

Siting Council before any such new use is made, if the towers do not provide or permanently cease to provide cellular service following completion of construction;

10. This decision and order shall be void if all construction authorized is not completed within three years of the issuance of this decision.

Pursuant to section 16-50p of the General Statutes, we hereby direct that a copy of the opinion and decision and order be served on each person listed below. A notice of the issuance shall be published in the Hartford Courant, New Haven Register, and the Waterbury Republican.

The parties to this proceeding are

The Southern New England Telephone Company (Applicant)
Room 314
227 Church Street
New Haven, Connecticut 06506

ATTENTION: Mr. Peter J. Tyrrell (its attorney)
Senior Attorney

Town of Hamden represented by:
Peter F. Villano, Mayor
Shirley Gonzales, Town Planner
Mr. Hugh Manke, Esquire
Office of the Town Attorney
Memorial Town Hall
2372 Whitney Avenue
Hamden, Connecticut 06518

Inland Wetlands Agency represented by:
Town of Woodbridge
Robert J. Klancko
Chairman
Town Hall
11 Meeting House Lane
Woodbridge, Connecticut 06525

Town Plan and Zoning
Commission
Town of Woodbridge

represented by:

Norman Fineberg
Chairman
Town Hall
11 Meeting House Lane
Woodbridge, Connecticut 06525

The Honorable Peter M. Lerner
State Representative
State of Connecticut
House of Representatives
State Capitol
Hartford, Connecticut 06115

John Menta
Felicia Tencza

represented by:

Ms. Felicia Tencza
580 Gaylord Mountain Road
Hamden, Connecticut 06518

Ms. Renee Robinson
265 Blue Trail
Hamden, Connecticut 06518

(service waived)

Irene L. Wong
Edson H. Mount
Dr. & Mrs. H.M. Fiskio
Dr. & Mrs. Alexander Gottschalk

represented by:

Dr. & Mrs. Alexander Gottschalk
230 Six Rod Highway
Hamden, Connecticut 06518

The Sleeping Giant Park Association

represented by:

Mr. Dag Pfeiffer
President
Box 14
Quinnipiac College
Hamden, Connecticut 06518

West Rock Ridge Park Association

represented by:

Mr. William L. Dohney, Jr., D.D.S.
President
220 Mountain Road
Hamden, Connecticut 06514

Sierra Club

represented by:

Ms. M. Kim Yanoshick
Executive Director
Hartford Chapter
118 Oak Street
Hartford, Connecticut 06106

Quinnipiac College

represented by:

Mr. Richard A. Terry
President
Hamden, Connecticut 06518

Guilford Conservation Commission

represented by:

Ms. Carolyn K. Evans
Chairman
Town Hall
Park Street
Guilford, Connecticut 06437

Mrs. Barbara R. Peterson
Mary & Phil Faust
Anita L. & Richard M. Sullivan

represented by:

Anita L. & Richard M. Sullivan
315 Chestnut Lane
Hamden, Connecticut 06518

Mrs. Pauline H. Hoff

represented by:

Herbert L. Emanuelson, Jr.
Emanuelson and Wynne
205 Church Street
New Haven, Connecticut 06510

Hamden League of Women Voters

represented by:

Mrs. Sherrill Zoller
605 West Woods Road
Hamden, Connecticut 06518
(service waived)

Joan Rosenberg
230 Ridewood Avenue
Hamden, Connecticut 06517

Mr. & Mrs. Richard Sykes
110 Blue Trail
Hamden, Connecticut 06518

Thomas & Claudia Sullivan, Jr.
100 Blue Trail
Hamden, Connecticut 06518

Mr. William N. Pantalone
27 Pease Road
Woodbridge, Connecticut 06525

(service waived)

INTERVENORS

Metromedia TeleCommunications
Nutmeg Telecommunications, Inc.
CSI of New Haven
CSI of Stamford
Cellular Communications, Inc.
LIN Cellular Corp.
Cellular Mobile Services
Maxcell TeleCommunications, Inc.
Mobile Cellular Telephone, Inc.
Cellular Dynamics
Connecticut Corridor Cellular
Chase/Post Cellular

represented by:

Dwight A. Johnson
Murtha, Cullina, Richter
and Pinney
101 Pearl Street
P.O. Box 3197
Hartford, Connecticut 06103-0197

C E R T I F I C A T I O N

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case or read the record thereof, and that we voted as follows:


Dated at New Britain, Connecticut, this 24th day of July, 1984.

<u>Council Members</u>	<u>Vote Cast</u>
_____) Gloria Dibble Pond Chairperson	Absent
_____) Commissioner John Downey Designee: Commissioner Peter G. Boucher	Absent
<i>Brian Emerick</i> _____) Commissioner Stanley Pac Designee: Brian Emerick	Yes Absent Abstain
<i>Owen L. Clark</i> _____) Owen L. Clark	Yes
<i>Fred J. Doosy</i> _____) Fred J. Doosy	Yes
<i>Mortimer A. Gelston</i> _____) Mortimer A. Gelston	Yes
<i>James G. Horsfall</i> _____) James G. Horsfall	Yes
_____) Janet Sitty	Absent
<i>Colin C. Tait</i> _____) Colin C. Tait Acting Chairperson	Yes

STATE OF CONNECTICUT)
 :
COUNTY OF HARTFORD) ss. New Britain, July 24, 1984

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

ATTEST:



Christopher S. Wood, Executive Director
Connecticut Siting Council



AMERICAN TOWER®
CORPORATION

Operations Structural Analysis Report

Structure : 150 ft Monopole
ATC Asset Name : Branford CT 6
ATC Asset Number : 302484
Engineering Number : 14543166_P1_01
Proposed Carrier : Operations Structural
Carrier Site Name : N/A
Carrier Site Number : N/A
Site Location : 405 Brushy Plain Rd
Branford, CT 06405-2308
41.3168° N, 72.8197° W
County : New Haven
Date : October 10, 2023
Max Usage : 99%
Analysis Result : Pass - Pending

Created By:

Robert D. Barrett, E.I.
Structural Engineer II

Robert D. Barrett



COA: PEC.0001553



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Introduction

The purpose of this report is to summarize results of a operations structural analysis performed on the 150 ft Monopole tower to reflect the current loading on the tower.

Supporting Documents

Tower:	PJF Job # 29297-629, dated October 2, 1997 SpectraSite Drawing #CT-0020/15, dated December 13, 2000
Foundation:	Mapped by ATC Tower ID #302484, dated February 13, 2009
Geotechnical:	Clarence Welti Geotechnical Engineering ID #CT-0020, dated October 8, 1996
Modification:	SpectraSite Drawing CT-0020 M1, dated March 26, 2004 ATC Job #26487334, dated September 15, 2006 ATC Job #53055832, dated June 2, 2013 ATC Job #14532428_P5_01, dated September 6, 2023 (Pending)*

* The modifications listed in ATC Engineering #14532428_P5_01 are scheduled to be installed by December 9, 2023.

Analysis

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

Basic Wind Speed:	121 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code(s):	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Feature:	Flat
Spectral Response:	S _s = 0.20, S _i = 0.05
Site Class:	D - Stiff Soil - Default

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

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report. If the pending modifications cited in the Supporting Documents table are not completed by the forecast date above, the results of this analysis are no longer valid.

If you have any questions or require additional information, please reach out to your American Tower contact. If you do not have an American Tower contact and have an Engineering question, please contact Engineering@americantower.com. Please include the American Tower asset name, asset number, and engineering number in the subject line for any questions.

Structure Usages

Structural Component	Usage	Control	Result
Pole Shaft	92.2%	1.2D + 1.0W	Pass
Reinforcement	98.6%	0 ft to 119 ft	Pass
Upper Termination	88.7%	0 ft to 119 ft	Pass
Intermediate Connector	81.0%	0 ft to 119 ft	Pass
Lower Termination	92.1%	2 ft to 18 ft	Pass
Serviceability Usage	52.4%	1.0D + 1.0W	Pass
Upper Flange Plate @ 110.0 ft	75.1%	Stiffener	Pass
Base Plate @ 0.0 ft	91.1%	Dywidag	Pass
Pier	54.3%	Moment [Soil]	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Shear (k)
Monopole Base	3,092.6	59.3	29.4

**Reactions shown reflect the results from the Load Case with maximum Moment*

Structure base reactions were analyzed using available geotechnical and foundation information.

Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
160.0	2	11' Dipole	(3) 7/8" Coax	TOWN OF BRANFORD
154.0	2	Decibel DB408	(1) 7/8" Coax	TOWN OF BRANFORD
153.0	1	Raycap DC6-48-60-18-8F ("Squid")	(3) 0.39" (10mm) Fiber Trunk (6) 0.78" (19.7mm) 8 AWG 6 (6) 1 5/8" Coax (2) 2" conduit (1) 3" conduit	AT&T MOBILITY
	2	Raycap DC6-48-60-18-8F		
	3	CCI DMP65R-BU6EA-K		
	3	Ericsson AIR 6419 B77G		
	3	Ericsson AIR 6449 B77D/ C-Band		
	3	Ericsson RRUS 32 B30 (53 lbs)		
	3	Ericsson RRUS 4449 B5, B12		
	3	Ericsson RRUS 4478 B14		
	3	Ericsson RRUS 8843 B2, B66A		
	3	Kathrein Scala 782-10250		
	3	Kathrein Scala 80010965		
	6	Powerwave Allgon 7020.00 Dual Band RET		
	6	Powerwave Allgon LGP21401		
	1	Platform with Handrails		
150.0	1	GPS	(1) 1/2" Coax	VERIZON WIRELESS
140.0	1	PerfectVision PV-RP14M-9-96 Platform w/ Handrails	(3) 1 1/4" (1.25"- 31.8mm) Fiber (2) 1.99" (50.7mm) Hybrid	T-MOBILE
	3	Ericsson Air6449 B41		
	3	Ericsson Radio 4449 B71 B85A		
	3	Ericsson Radio 4460 B25+B66		
	3	RFS APXVAARR24_43-U-NA20		
122.0	1	SWR FMEC/1	(3) 1/2" Coax	ALMA RADIO INC.
113.0	2	RFS APL866513-12T0-00	(6) 1 1/4" Coax (2) 1 1/4" Hybriflex Cable	VERIZON WIRELESS
	2	RFS DB-T1-6Z-8AB-OZ		
	3	Alcatel-Lucent RRH 2X60-1900		
	3	Alcatel-Lucent RRH2x60 700		
	3	Ericsson RRH2x40-07-L		
	3	Nokia B66a RRH4x45 (UHIE)		
	3	T-Arm		
	3	Samsung Outdoor CBRS 20W RRH –Clip-on Antenna		
	4	RFS APL868013-12T0		
6	Commscope JAHH-65B-R3B			
103.0	2	Decibel DB408	(1) 7/8" Coax	TOWN OF BRANFORD
	1	Commscope RDIDC-9181-PF-48	(1) 1.60" (40.6mm) Hybrid	DISH WIRELESS L.L.C.
	1	Platform with Handrails		
	3	Fujitsu TA08025-B604		
	3	Fujitsu TA08025-B605		
	3	JMA Wireless MX08FRO665-21		
93.0	1	Decibel DB201-A	(1) 7/8" Coax	TOWN OF BRANFORD

(If table breaks across pages, please see previous page for data in merged cells)



Standard Conditions

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

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

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

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

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

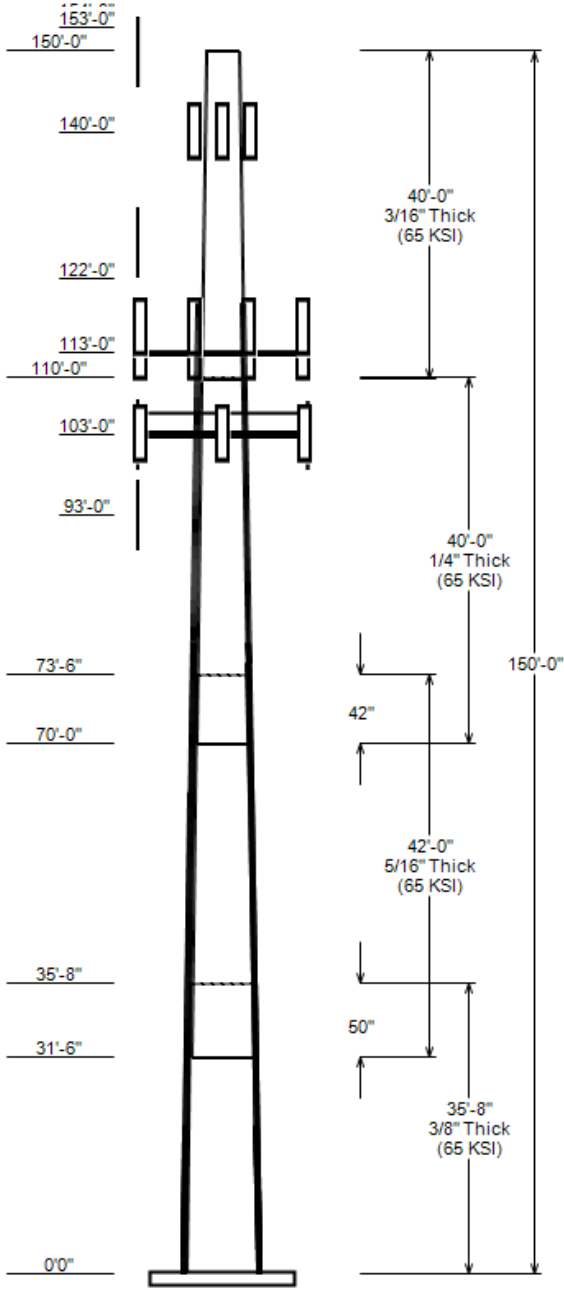
All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Services LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

ANALYSIS PARAMETERS

Nominal Wind: 118 mph	Ice Wind: 49 mph w/ 0.85" ice	Service Wind: 60 mph
Risk Category: II	Exposure: B	S _g : 0.203 S _t : 0.054
Topo Category: 1	Topo Factor: Method 1	Topo Feature:
Structure Height: 150 ft	Base Elevation: 0.00 ft	Structure Type: Taper
Base Diameter: 37.38 in	Base Rotation: 0°	Taper: 0.1570 (in/ft)

POLE SECTION PROPERTIES

Section	Length (ft)	Flat Diameter (in)		Thick (in)	Joint Type	Joint Length (in)	Pole Shape	Yield Strength (ksi)
		Top	Bottom					
1	35.667	31.79	37.38	0.375		0.000	12 Sides	65
2	42.000	26.49	33.07	0.313	Slip Joint	50.000	12 Sides	65
3	40.000	21.27	27.54	0.250	Slip Joint	42.000	12 Sides	65
4	40.000	15.00	21.27	0.188	Butt Joint	0.000	12 Sides	65



DISCRETE APPURTENANCE

Elev (ft)	Description
160.0	(2) Generic 11' Dipole
154.0	(2) Decibel DB408
153.0	(6) Powerwave Allgon 7020.00 Dual
153.0	(3) Kathrein Scala 782-10250
153.0	(6) Powerwave Allgon LGP21401
153.0	(2) Raycap DC6-48-60-18-8F
153.0	(1) Raycap DC6-48-60-18-8F ("Squid
153.0	(3) Ericsson RRUS 8843 B2, B66A
153.0	(3) Ericsson RRUS 4478 B14
153.0	(3) Ericsson RRUS 4449 B5, B12
153.0	(3) Ericsson RRUS 32 B30 (53 lbs)
153.0	(3) Ericsson AIR 6419 B77G
153.0	(3) Ericsson AIR 6449 B77D/ C-Band
153.0	(3) CCI DMP65R-BU6EA-K
153.0	(3) Kathrein Scala 80010965
153.0	(1) Generic Round Platform with Ha
150.0	(1) Generic GPS
140.0	(3) Ericsson Radio 4449 B71 B85A
140.0	(3) Ericsson Radio 4460 B25+B66
140.0	(3) Ericsson Air6449 B41
140.0	(3) RFS APXVAARR24_43-U-NA20
140.0	(1) PerfectVision PV-RP14M-9-96 Ro
122.0	(1) SWR FMEC/1
113.0	(3) Samsung Outdoor CBRS 20W RRH -
113.0	(3) Ericsson RRH2x40-07-L
113.0	(3) Alcatel-Lucent RRH 2X60-1900
113.0	(3) Alcatel-Lucent RRH2x60 700
113.0	(3) Nokia B66a RRH4x45 (UHIE)
113.0	(4) RFS APL868013-12T0
113.0	(2) RFS APL866513-12T0-00
113.0	(2) RFS DB-T1-6Z-8AB-0Z
113.0	(6) Commscope JAHH-65B-R3B
113.0	(3) Round T-Arm
103.0	(1) Commscope RDIDC-9181-PF-48
103.0	(3) Fujitsu TA08025-B604
103.0	(3) Fujitsu TA08025-B605
103.0	(2) Decibel DB408
103.0	(3) JMA Wireless MX08FRO665-21
103.0	(1) Generic Flat Platform with Han
93.0	(1) Decibel DB201-A

LINEAR APPURTENANCE

Elev To (ft)	Description
160.0	(3) 7/8" Coax
154.0	(1) 7/8" Coax
153.0	(1) 3" conduit
153.0	(2) 2" conduit
153.0	(6) 1 5/8" Coax
153.0	(6) 0.78" (19.7mm) 8 AWG 6
153.0	(3) 0.39" (10mm) Fiber Trunk
150.0	(1) 1/2" Coax
143.0	(1) #18 w/ Angle Bracket
143.0	(1) #18 w/ Angle Bracket
143.0	(1) #18 w/ Angle Bracket
140.0	(1) 1.99" (50.7mm) Hybrid
140.0	(1) 1.99" (50.7mm) Hybrid
140.0	(3) 1 1/4" (1.25"- 31.8mm) Fiber
133.0	(1) #18 w/ Angle Bracket
133.0	(1) #18 w/ Angle Bracket
133.0	(1) #18 w/ Angle Bracket
123.2	(1) W5 Brackets for #18
123.2	(1) W5 Brackets for #18
123.2	(1) W5 Brackets for #18
123.2	(1) #18 w/ W Bracket
123.2	(1) #18 w/ W Bracket
123.2	(1) #18 w/ W Bracket
122.0	(3) 1/2" Coax
113.0	(2) 1 1/4" Hybriflex Cable
113.0	(6) 1 1/4" Coax
103.0	(1) 7/8" Coax
103.0	(1) 1.60" (40.6mm) Hybrid
93.0	(1) 7/8" Coax
80.0	(1) 1.25" Thick Flat Plate
80.0	(1) 1.25" Thick Flat Plate
80.0	(1) 1.25" Thick Flat Plate
65.5	(1) #18 w/ Angle Brackets
65.5	(1) #18 w/ Angle Brackets
65.5	(1) #18 w/ Angle Brackets
65.5	(1) #18 w/ Angle Brackets
20.0	(1) 1" Thick Flat Plate
20.0	(1) 1" Thick Flat Plate
20.0	(1) 1" Thick Flat Plate

GLOBAL BASE REACTIONS

Load Case	Moment (kip-ft)	Axial (kip)	Shear (kip)
1.2D + 1.0W	3092.61	59.32	29.39
0.9D + 1.0W	3032.30	44.49	29.37
1.2D + 1.0Di + 1.0Wi	768.89	75.47	6.78
1.2D + 1.0Ev + 1.0Eh	192.93	60.68	1.49
0.9D + 1.0Ev + 1.0Eh	187.94	41.81	1.49
1.0D + 1.0W	710.25	49.46	6.82

ANALYSIS PARAMETERS

Location:	New Haven County,CT	Height:	150 ft
Type and Shape:	Taper, 12 Sides	Base Diameter:	37.38 in
Manufacturer:	ITT Meyer	Top Diameter:	15.00 in
K_d (non-service):	0.95	Taper:	0.1570 in/ft
K_e:	0.99	Rotation:	0.000°

ICE & WIND PARAMETERS

Risk Category:	II	Design Wind Speed:	118 mph
Exposure Category:	B	Design Wind Speed w/ Ice:	49 mph
Topo Factor Procedure:	Method 1	Design Ice Thickness:	0.85 in
Topographic Category:	1	Service Wind Speed:	60 mph
Crest Height:	0 ft	HMSL:	240.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	3.06
T_L (sec):	6	P:	1
S_s:	0.203	S₁:	0.054
F_a:	1.600	F_v:	2.400
S_{ds}:	0.217	S_{d1}:	0.086
		C_s:	0.030
		C_s Max:	0.030
		C_s Min:	0.030

LOAD CASES

1.2D + 1.0W	117.94 mph Wind with No Ice
0.9D + 1.0W	117.94 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	48.73 mph Wind with 0.85" Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

SHAFT SECTION PROPERTIES

Section	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Joint Len (in)	Weight (lb)	Bottom						Top						
							Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-12	35.67	0.3750	65		0.00	5,014	37.38	0.003	44.68	7,810.1	24.03	99.68	31.79	35.67	37.93	4,778.9	20.04	84.78	0.1567
2-12	42.00	0.3130	65	Slip	50.00	4,244	33.07	31.500	33.01	4,521.6	25.63	105.65	26.49	73.50	26.38	2,307.1	20.00	84.63	0.1567
3-12	40.00	0.2500	65	Slip	42.00	2,646	27.54	70.000	21.97	2,087.6	26.83	110.15	21.27	110.00	16.92	954.2	20.12	85.08	0.1567
4-12	40.00	0.1880	65	Butt	0.00	1,479	21.27	110.000	12.76	723.9	27.63	113.13	15.00	150.00	8.97	251.1	18.70	79.79	0.1567
Total Shaft Weight						13,383													

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice			Ice		
					Weight (lb)	EPAA (sf)	Orientation Factor	Weight (lb)	EPAA (sf)	Orientation Factor
160.00	Generic 11' Dipole	2	0.75	0.000	40.00	3.580	1.00	110.33	8.410	1.00
154.00	Decibel DB408	2	1.00	0.000	17.00	2.900	1.00	87.32	8.129	1.00
153.00	CCI DMP65R-BU6EA-K	3	0.75	0.000	103.80	12.709	0.65	261.70	14.290	0.65
153.00	Ericsson AIR 6449 B77D/ C-Band	3	0.75	0.000	81.60	4.028	0.70	147.63	4.806	0.70
153.00	Ericsson AIR 6419 B77G	3	0.75	0.000	66.10	3.797	0.65	121.10	4.544	0.65
153.00	Ericsson RRUS 32 B30 (53 lbs)	3	0.75	0.000	53.00	2.743	0.67	94.69	3.406	0.67
153.00	Kathrein Scala 80010965	3	0.75	0.000	97.60	13.814	0.62	248.73	15.543	0.62
153.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	3418.18	41.057	1.00
153.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	107.54	2.498	0.50
153.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.90	1.842	0.50	91.24	2.350	0.50
153.00	Ericsson RRUS 8843 B2, B66A	3	0.75	0.000	72.00	1.639	0.50	106.75	2.118	0.50
153.00	Raycap DC6-48-60-18-8F ("Squid	1	0.75	0.000	18.90	1.470	1.00	53.88	1.866	1.00
153.00	Raycap DC6-48-60-18-8F	2	0.75	0.000	20.00	1.260	1.00	49.85	1.633	1.00
153.00	Powerwave Allgon LGP21401	6	0.75	0.000	14.10	1.104	0.50	28.24	1.509	0.50
153.00	Kathrein Scala 782-10250	3	0.75	0.000	6.40	0.449	0.50	13.63	0.727	0.50
153.00	Powerwave Allgon 7020.00 Dual	6	0.75	0.000	2.20	0.339	0.50	7.99	0.571	0.50
150.00	Generic GPS	1	1.00	0.000	10.00	0.900	1.00	26.59	1.263	1.00
140.00	Ericsson Radio 4460 B25+B66	3	0.75	0.000	109.00	2.564	0.50	158.76	3.157	0.50
140.00	Ericsson Radio 4449 B71 B85A	3	0.75	0.000	75.00	1.650	0.50	108.85	2.128	0.50
140.00	Ericsson Air6449 B41	3	0.75	0.000	104.00	5.682	0.63	180.71	6.576	0.63
140.00	PerfectVision PV-RP14M-9-96 Ro	1	1.00	0.000	2972.00	36.600	1.00	4137.48	50.953	1.00
140.00	RFS APXVAARR24_43-U-NA20	3	0.75	0.000	127.90	20.243	0.63	348.89	22.331	0.63
122.00	SWR FMEC/1	1	1.00	1.000	15.00	2.500	1.00	60.51	4.707	1.00
113.00	Round T-Arm	3	0.75	0.000	250.00	9.700	0.67	365.21	14.245	0.67
113.00	Samsung Outdoor CBRS 20W RRH -	3	0.80	0.000	4.40	0.892	0.50	14.32	1.244	0.50
113.00	Ericsson RRH2x40-07-L	3	0.80	0.000	60.00	1.811	0.50	93.36	2.324	0.50
113.00	Alcatel-Lucent RRH 2X60-1900	3	0.80	2.000	39.60	1.876	0.50	69.86	2.393	0.50
113.00	Alcatel-Lucent RRH2x60 700	3	0.80	2.000	56.70	2.150	0.67	94.22	2.702	0.67
113.00	Nokia B66a RRH4x45 (UHIE)	3	0.80	2.000	56.80	2.537	0.67	95.43	3.155	0.67
113.00	RFS APL868013-12T0	4	0.80	2.000	6.30	3.615	0.50	54.87	4.645	0.50
113.00	Commscope JAHH-65B-R3B	6	0.80	2.000	60.60	9.113	0.69	172.12	10.642	0.69
113.00	RFS DB-T1-6Z-8AB-0Z	2	0.80	2.000	44.00	4.800	0.72	113.38	5.583	0.72
113.00	RFS APL866513-12T0-00	2	0.80	2.000	15.70	4.050	0.82	75.77	5.075	0.82
103.00	Decibel DB408	2	1.00	0.000	17.00	2.900	1.00	84.74	7.937	1.00
103.00	JMA Wireless MX08FRO665-21	3	0.75	0.000	64.50	12.489	0.64	204.86	14.024	0.64
103.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	3470.10	53.852	1.00
103.00	Fujitsu TA08025-B604	3	0.75	0.000	63.90	1.962	0.50	95.75	2.464	0.50
103.00	Commscope RDIDC-9181-PF-48	1	0.75	0.000	21.90	1.867	1.00	52.98	2.359	1.00
103.00	Fujitsu TA08025-B605	3	0.75	0.000	75.00	1.962	0.50	109.21	2.464	0.50
93.00	Decibel DB201-A	1	1.00	0.000	25.00	3.130	1.00	78.65	8.818	1.00
Totals	Row Count: 40	108			13,951.40			23,208.05		

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg): 0.00

Elev From (ft)	Elev To (ft)	Qty	Description	Diameter (in)	Weight (lb/ft)	Flat	Max/Row	Distance Between Rows(in)	Distance Between Cols(in)	Azimuth (deg)	Distance From Face (in)	Exposed To Wind	Carrier
0.00	160.00	3	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	TOWN OF BRANFORD
0.00	154.00	1	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	TOWN OF BRANFORD

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg): 0.00

Elev From (ft)	Elev To (ft)	Qty	Description	Diameter (in)	Weight (lb/ft)	Flat	Max/Row	Distance Between Rows(in)	Distance Between Cols(in)	Azimuth (deg)	Distance From Face (in)	Exposed To Wind	Carrier
0.00	153.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	6	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	3	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	2	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	1	3" conduit	3.5	7.58	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	150.00	1	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	VERIZON WIRELESS
128.00	143.00	1	#18 w/ Angle Bracket	4.55	7.88	N	1	0	0	0	0	Y	
128.00	143.00	1	#18 w/ Angle Bracket	4.55	7.88	N	1	0	0	120	0	Y	
128.00	143.00	1	#18 w/ Angle Bracket	4.55	7.88	N	1	0	0	240	0	Y	
0.00	140.00	3	1 1/4" (1.25"- 31.8mm	1.25	1.05	N	2	1	1	80	1	Y	T-MOBILE
0.00	140.00	1	1.99" (50.7mm) Hybrid	1.99	1.9	N	1	1	1	90	1	Y	T-MOBILE
0.00	140.00	1	1.99" (50.7mm) Hybrid	1.99	1.9	N	1	1	1	90	1	Y	T-MOBILE
115.50	133.00	1	#18 w/ Angle Bracket	4.55	7.88	N	1	0	0	335	0	Y	
115.50	133.00	1	#18 w/ Angle Bracket	4.55	7.88	N	1	0	0	210	0	Y	
115.50	133.00	1	#18 w/ Angle Bracket	4.55	7.88	N	1	0	0	90	0	Y	
0.00	123.20	1	W5 Brackets for #18	1.55	5.7	Y	1	0	0	45	1.8	Y	
0.00	123.20	1	W5 Brackets for #18	1.55	5.7	Y	1	0	0	135	1.8	Y	
0.00	123.20	1	#18 w/ W Bracket	2.25	0	N	1	0	0	315	5.15	Y	
0.00	123.20	1	W5 Brackets for #18	1.55	5.7	Y	1	0	0	225	1.8	Y	
0.00	123.20	1	#18 w/ W Bracket	2.25	0	N	1	0	0	45	5.15	Y	
0.00	123.20	1	#18 w/ W Bracket	2.25	0	N	1	0	0	225	5.15	Y	
0.00	123.20	1	#18 w/ W Bracket	2.25	0	N	1	0	0	135	5.15	Y	
0.00	123.20	1	W5 Brackets for #18	1.55	5.7	Y	1	0	0	315	1.8	Y	
0.00	122.00	3	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	ALMA RADIO INC.
0.00	113.00	6	1 1/4" Coax	1.55	0.63	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	113.00	2	1 1/4" Hybriflex Cabl	1.54	1	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	103.00	1	1.60" (40.6mm) Hybrid	1.6	2.34	N	1	1	1	90	1	Y	DISH WIRELESS L.L.C.
0.00	103.00	1	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	TOWN OF BRANFORD
0.00	93.00	1	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	TOWN OF BRANFORD
55.00	80.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	105	0	Y	
55.00	80.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	15	0	Y	
55.00	80.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	195	0	Y	
55.00	80.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	285	0	Y	
0.00	65.50	1	#18 w/ Angle Bracket	3.75	4.68	N	1	0	0	180	0	Y	
0.00	65.50	1	#18 w/ Angle Brackets	3.75	4.68	N	1	0	0	0	0	Y	
0.00	65.50	1	#18 w/ Angle Bracket	3.75	4.68	N	1	0	0	270	0	Y	
0.00	65.50	1	#18 w/ Angle Bracket	3.75	4.68	N	1	0	0	90	0	Y	
0.00	20.00	1	1" Thick Flat Plate	1	0	Y	1	0	0	15	0	Y	
0.00	20.00	1	1" Thick Flat Plate	1	0	Y	1	0	0	105	0	Y	
0.00	20.00	1	1" Thick Flat Plate	1	0	Y	1	0	0	285	0	Y	
0.00	20.00	1	1" Thick Flat Plate	1	0	Y	1	0	0	195	0	Y	

ADDITIONAL STEEL

Intermediate Connectors

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Bracket Type	Spacing (in)	Length (in)	Connectors	Continuation?
0.00	119.00	3	SOL #18 All Thread Bar	75	5.15	6" T Bracket	30.00	3.50	5/8" A36 U-Bolt	N
0.00	59.00	4	SOL #18 All Thread Bar	75	2.22	6" Angle Bracket	30.00	3.50	5/8" A36 U-Bolt	N
2.00	18.00	2	PL PL 4" x 1"	50	0.00	5/8" Hollo Bolt	12.00	3.00	5/8" Hollo Bolt	N
2.00	18.00	2	PL PL 5" x 1"	50	0.00	5/8" Hollo Bolt	12.00	3.00	5/8" Hollo Bolt	N
58.00	75.00	4	PL PL 7 x 1.25	65	0.00	AJAX M20 Class 8.8	24.00	3.00	AJAX M20 Class 8.8	N
75.00	77.25	4	PL PL 6.5 x 1.25	63	0.00	AJAX M20 Class 8.8	24.00	3.00	AJAX M20 Class 8.8	Y

SEGMENT PROPERTIES

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)	Additional Reinforcing		
												Area (in ²)	Ix (in ⁴)	Weight (lb)
0.00		0.3750	37.380	44.684	7,810.10	24.03	99.68	78.5	403.6	0.0	0.0	28.000	7,813.80	0.0

SEGMENT PROPERTIES

Seg Top Elev (ft)	Description <i>(Max Length: 5 ft)</i>	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)	Additional Reinforcing		
												Area (in ²)	Ix (in ⁴)	Weight (lb)
2.00	Reinf Bottom Reinf Bottom	0.3750	37.067	44.305	7,613.30	23.81	98.84	78.8	396.8	0.0	302.8	28.000	7,708.70	190.4
5.00		0.3750	36.597	43.737	7,324.40	23.47	97.59	79.1	386.6	0.0	449.4	46.000	10,749.30	469.3
10.00		0.3750	35.813	42.791	6,859.30	22.91	95.50	79.7	370.0	0.0	736.1	46.000	10,361.20	782.2
15.00		0.3750	35.030	41.845	6,414.30	22.35	93.41	80.3	353.7	0.0	720.0	46.000	9,980.40	782.2
18.00	Reinf. Top Reinf. Top	0.3750	34.559	41.278	6,156.80	22.01	92.16	80.7	344.2	0.0	424.3	46.000	9,755.40	469.3
20.00		0.3750	34.246	40.899	5,989.00	21.79	91.32	80.9	337.8	0.0	279.6	28.000	6,795.20	190.4
25.00		0.3750	33.463	39.953	5,583.00	21.23	89.23	81.6	322.3	0.0	687.8	28.000	6,551.80	476.0
30.00		0.3750	32.679	39.007	5,195.70	20.67	87.14	81.9	307.1	0.0	671.7	28.000	6,312.80	476.0
31.50	Bot - Section 2	0.3750	32.444	38.723	5,083.10	20.50	86.52	81.9	302.7	0.0	198.4	28.000	6,242.00	142.8
35.00		0.3750	31.896	38.061	4,826.70	20.11	85.05	81.9	292.3	0.0	847.1	28.000	6,265.30	333.2
35.67	Top - Section 1	0.3130	32.417	32.356	4,256.60	25.07	103.57	77.4	253.7	0.0	159.7	28.000	6,233.90	63.5
40.00		0.3130	31.738	31.672	3,992.20	24.49	101.40	78	243.0	0.0	472.1	28.000	6,031.70	412.5
45.00		0.3130	30.955	30.882	3,701.00	23.82	98.90	78.7	231.0	0.0	532.1	28.000	5,802.60	476.0
50.00		0.3130	30.171	30.093	3,424.30	23.15	96.39	79.5	219.3	0.0	518.7	28.000	5,577.90	476.0
55.00		0.3130	29.388	29.303	3,161.70	22.48	93.89	80.2	207.8	0.0	505.3	28.000	5,357.80	476.0
58.00	Reinf Bottom	0.3130	28.917	28.829	3,010.80	22.08	92.39	80.6	201.1	0.0	296.7	44.000	7,849.10	448.8
59.00	Reinf. Top	0.3130	28.761	28.671	2,961.60	21.94	91.89	80.8	198.9	0.0	97.8	63.000	9,222.30	323.0
60.00		0.3130	28.604	28.513	2,912.90	21.81	91.39	80.9	196.7	0.0	97.3	47.000	6,540.40	159.8
65.00		0.3130	27.821	27.724	2,677.60	21.14	88.88	81.7	185.9	0.0	478.4	47.000	6,242.20	799.0
70.00	Bot - Section 3	0.3130	27.037	26.934	2,455.20	20.47	86.38	81.9	175.4	0.0	465.0	47.000	5,951.20	799.0
73.50	Top - Section 2	0.2500	26.989	21.525	1,964.20	26.25	107.95	76.1	140.6	0.0	576.5	47.000	5,933.40	559.3
75.00	Reinf. Top Reinf Bottom	0.2500	26.754	21.335	1,912.90	25.99	107.01	76.4	138.1	0.0	109.4	47.000	5,847.70	239.7
77.25	Reinf. Top	0.2500	26.401	21.051	1,837.60	25.62	105.60	76.8	134.5	0.0	162.3	44.520	5,468.90	340.6
80.00		0.2500	25.970	20.705	1,748.20	25.16	103.88	77.3	130.0	0.0	195.4	12.000	2,251.20	112.2
85.00		0.2500	25.187	20.074	1,593.30	24.32	100.75	78.2	122.2	0.0	346.9	12.000	2,161.10	204.0
90.00		0.2500	24.403	19.443	1,447.80	23.48	97.61	79.1	114.6	0.0	336.2	12.000	2,072.90	204.0
93.00		0.2500	23.933	19.065	1,364.90	22.97	95.73	79.7	110.2	0.0	196.6	12.000	2,020.90	122.4
95.00		0.2500	23.620	18.812	1,311.40	22.64	94.48	80	107.3	0.0	128.9	12.000	1,986.60	81.6
100.00		0.2500	22.836	18.182	1,183.90	21.80	91.34	80.9	100.2	0.0	314.7	12.000	1,902.00	204.0
103.00		0.2500	22.366	17.803	1,111.50	21.29	89.46	81.5	96.0	0.0	183.7	12.000	1,852.20	122.4
105.00		0.2500	22.053	17.551	1,064.90	20.96	88.21	81.9	93.3	0.0	120.3	12.000	1,819.30	81.6
110.00	Top - Section 3	0.2500	21.269	16.920	954.20	20.12	85.08	81.9	86.7	0.0	293.2	12.000	1,738.50	204.0
110.00	Bot - Section 4	0.1880	21.269	12.762	723.90	27.63	113.13	74.6	65.8	0.0		12.000	1,738.50	
113.00		0.1880	20.799	12.477	676.50	26.96	110.63	75.3	62.8	0.0	128.8	12.000	1,690.80	122.4
115.00		0.1880	20.486	12.287	646.10	26.52	108.97	75.8	60.9	0.0	84.3	12.000	1,659.50	81.6
119.00	Reinf. Top	0.1880	19.859	11.908	588.10	25.62	105.63	76.8	57.2	0.0	164.7	12.000	1,597.60	163.2
120.00		0.1880	19.702	11.813	574.20	25.40	104.80	77	56.3	0.0	40.4			
122.00		0.1880	19.389	11.623	546.90	24.95	103.13	77.5	54.5	0.0	79.7			
125.00		0.1880	18.919	11.339	507.70	24.28	100.63	78.2	51.8	0.0	117.2			
130.00		0.1880	18.135	10.864	446.70	23.17	96.46	79.4	47.6	0.0	188.9			
135.00		0.1880	17.352	10.390	390.70	22.05	92.30	80.7	43.5	0.0	180.8			
140.00		0.1880	16.568	9.916	339.60	20.93	88.13	81.9	39.6	0.0	172.7			
145.00		0.1880	15.785	9.441	293.10	19.82	83.96	81.9	35.9	0.0	164.7			
150.00		0.1880	15.001	8.967	251.10	18.70	79.79	81.9	32.3	0.0	156.6			
Totals:											13,383.2	11,588.4		

CALCULATED FORCES

Load Case: 1.2D + 1.0W		117.94 mph Wind with No Ice										25 Iterations	
Gust Response Factor: 1.10													
Dead load Factor: 1.20													
Wind Load Factor: 1.00													
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-59.32	-29.39	0.00	-3,092.6	0.00	3,092.61	3,157.17	784.20	2,737.77	2,376.61	0	0	0.663
2.00	-58.46	-29.23	0.00	-3,033.8	0.00	3,033.83	3,140.17	777.55	2,691.61	2,343.59	0.02	-0.11	0.656
5.00	-56.97	-28.97	0.00	-2,946.1	0.00	2,946.13	3,114.35	767.59	2,623.11	2,294.24	0.15	-0.28	0.531
10.00	-54.54	-28.57	0.00	-2,801.3	0.00	2,801.31	3,070.50	750.99	2,510.89	2,212.51	0.56	-0.5	0.514
15.00	-52.16	-28.21	0.00	-2,658.5	0.00	2,658.48	3,025.61	734.39	2,401.13	2,131.46	1.21	-0.73	0.498
18.00	-50.74	-27.98	0.00	-2,573.9	0.00	2,573.86	2,998.18	724.42	2,336.45	2,083.18	1.72	-0.87	0.488
18.00	-50.74	-27.98	0.00	-2,573.9	0.00	2,573.86	2,998.18	724.42	2,336.45	2,083.18	1.72	-0.87	0.594

CALCULATED FORCES

20.00	-49.89	-27.76	0.00	-2,517.9	0.00	2,517.90	2,979.68	717.78	2,293.82	2,051.14	2.1	-0.96	0.587
25.00	-47.88	-27.38	0.00	-2,379.1	0.00	2,379.10	2,932.71	701.18	2,188.97	1,971.59	3.25	-1.23	0.566
30.00	-45.94	-27.06	0.00	-2,242.2	0.00	2,242.21	2,875.21	684.57	2,086.57	1,886.65	4.68	-1.5	0.547
31.50	-45.32	-26.89	0.00	-2,201.6	0.00	2,201.62	2,854.29	679.59	2,056.33	1,859.14	5.17	-1.58	0.542
35.00	-43.51	-26.64	0.00	-2,107.5	0.00	2,107.50	2,805.48	667.97	1,986.62	1,795.73	6.4	-1.77	0.521
35.67	-43.13	-26.49	0.00	-2,089.7	0.00	2,089.74	2,253.08	567.85	1,719.88	1,471.98	6.65	-1.81	0.588
40.00	-41.54	-26.07	0.00	-1,975.0	0.00	1,974.97	2,223.50	555.84	1,647.92	1,421.63	8.4	-2.04	0.565
45.00	-39.74	-25.58	0.00	-1,844.6	0.00	1,844.64	2,188.39	541.99	1,566.79	1,363.96	10.67	-2.31	0.538
50.00	-37.96	-25.07	0.00	-1,716.7	0.00	1,716.72	2,152.25	528.13	1,487.72	1,306.78	13.23	-2.57	0.511
55.00	-36.23	-24.59	0.00	-1,591.4	0.00	1,591.35	2,115.06	514.27	1,410.69	1,250.16	16.07	-2.83	0.483
58.00	-35.01	-24.30	0.00	-1,517.6	0.00	1,517.59	2,092.25	505.95	1,365.46	1,216.46	17.9	-2.99	0.355
59.00	-34.40	-24.16	0.00	-1,493.3	0.00	1,493.30	2,084.57	503.18	1,350.55	1,205.28	18.53	-3.03	0.309
59.00	-34.40	-24.16	0.00	-1,493.3	0.00	1,493.30	2,084.57	503.18	1,350.55	1,205.28	18.53	-3.03	0.392
60.00	-33.96	-23.90	0.00	-1,469.1	0.00	1,469.13	2,076.84	500.41	1,335.71	1,194.13	19.17	-3.06	0.388
65.00	-31.88	-23.28	0.00	-1,349.6	0.00	1,349.64	2,037.58	486.55	1,262.78	1,138.75	22.49	-3.28	0.364
70.00	-29.94	-22.67	0.00	-1,233.2	0.00	1,233.23	1,985.31	472.69	1,191.90	1,077.58	26.03	-3.48	0.342
73.50	-28.29	-22.32	0.00	-1,153.9	0.00	1,153.89	1,474.00	377.76	952.88	802.36	28.64	-3.62	0.367
75.00	-27.74	-22.11	0.00	-1,120.4	0.00	1,120.41	1,466.32	374.43	936.20	791.10	29.79	-3.68	0.358
75.00	-27.74	-22.11	0.00	-1,120.4	0.00	1,120.41	1,466.32	374.43	936.20	791.10	29.79	-3.68	0.371
77.25	-26.95	-21.82	0.00	-1,070.7	0.00	1,070.66	1,454.62	369.45	911.47	774.25	31.55	-3.77	0.357
77.25	-26.95	-21.82	0.00	-1,070.7	0.00	1,070.66	1,454.62	369.45	911.47	774.25	31.55	-3.77	0.629
80.00	-26.31	-21.47	0.00	-1,010.7	0.00	1,010.67	1,440.03	363.37	881.69	753.74	33.75	-3.88	0.601
85.00	-25.18	-21.05	0.00	-903.3	0.00	903.32	1,412.71	352.30	828.81	716.70	38	-4.22	0.550
90.00	-24.09	-20.70	0.00	-798.1	0.00	798.07	1,384.35	341.23	777.56	680.02	42.6	-4.55	0.497
93.00	-23.42	-20.36	0.00	-736.0	0.00	735.97	1,366.84	334.59	747.60	658.22	45.51	-4.73	0.465
95.00	-22.98	-20.08	0.00	-695.2	0.00	695.25	1,354.95	330.16	727.95	643.77	47.52	-4.85	0.443
100.00	-21.94	-19.69	0.00	-594.8	0.00	594.85	1,324.51	319.09	679.97	607.99	52.75	-5.13	0.389
103.00	-17.78	-16.46	0.00	-535.8	0.00	535.77	1,305.75	312.45	651.97	586.76	56.02	-5.29	0.353
105.00	-17.38	-16.14	0.00	-502.9	0.00	502.86	1,293.03	308.02	633.63	572.72	58.26	-5.39	0.335
110.00	-16.41	-15.71	0.00	-422.2	0.00	422.18	1,247.19	296.95	588.93	532.34	64.02	-5.62	0.292
110.00	-16.41	-15.71	0.00	-422.2	0.00	422.18	856.53	223.97	445.40	367.75	64.02	-5.62	0.352
113.00	-13.89	-12.41	0.00	-370.8	0.00	370.75	845.64	218.97	425.76	354.91	67.58	-5.74	0.310
115.00	-13.57	-12.10	0.00	-345.9	0.00	345.93	838.16	215.64	412.92	346.37	70	-5.83	0.291
119.00	-12.82	-11.77	0.00	-297.5	0.00	297.51	822.72	208.98	387.82	329.40	74.95	-5.99	0.254
119.00	-12.82	-11.77	0.00	-297.5	0.00	297.51	822.72	208.98	387.82	329.40	74.95	-5.99	0.922
120.00	-12.66	-11.64	0.00	-285.7	0.00	285.74	818.76	207.32	381.66	325.17	76.2	-6.02	0.897
122.00	-12.34	-11.32	0.00	-262.4	0.00	262.37	810.71	203.99	369.51	316.76	78.78	-6.3	0.847
125.00	-11.91	-11.04	0.00	-228.4	0.00	228.40	798.31	198.99	351.64	304.20	82.85	-6.68	0.769
130.00	-11.27	-10.56	0.00	-173.2	0.00	173.23	776.83	190.67	322.85	283.51	90.14	-7.24	0.629
135.00	-10.63	-10.07	0.00	-120.4	0.00	120.40	754.30	182.35	295.28	263.15	97.97	-7.71	0.475
140.00	-5.55	-5.75	0.00	-70.1	0.00	70.06	730.89	174.02	268.95	243.21	106.22	-8.06	0.297
145.00	-5.16	-5.30	0.00	-41.3	0.00	41.32	695.93	165.70	243.85	220.38	114.76	-8.29	0.196
150.00	0.00	-4.50	0.00	-14.8	0.00	14.80	660.97	157.37	219.97	198.67	123.49	-8.43	0.075

CALCULATED FORCES

Load Case: 0.9D + 1.0W

117.94 mph Wind with No Ice (Reduced DL)

25 Iterations

Gust Response Factor: 1.10
 Dead load Factor: 0.90
 Wind Load Factor: 1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-44.49	-29.37	0.00	-3,032.3	0.00	3,032.30	3,157.17	784.20	2,737.77	2,376.61	0	0	0.648
2.00	-43.82	-29.18	0.00	-2,973.6	0.00	2,973.56	3,140.17	777.55	2,691.61	2,343.59	0.02	-0.11	0.640
5.00	-42.68	-28.86	0.00	-2,886.0	0.00	2,886.01	3,114.35	767.59	2,623.11	2,294.24	0.15	-0.27	0.518
10.00	-40.83	-28.41	0.00	-2,741.7	0.00	2,741.71	3,070.50	750.99	2,510.89	2,212.51	0.55	-0.49	0.501
15.00	-39.03	-28.01	0.00	-2,599.7	0.00	2,599.67	3,025.61	734.39	2,401.13	2,131.46	1.19	-0.71	0.485
18.00	-37.95	-27.77	0.00	-2,515.6	0.00	2,515.64	2,998.18	724.42	2,336.45	2,083.18	1.68	-0.85	0.475
18.00	-37.95	-27.77	0.00	-2,515.6	0.00	2,515.64	2,998.18	724.42	2,336.45	2,083.18	1.68	-0.85	0.579
20.00	-37.30	-27.50	0.00	-2,460.1	0.00	2,460.11	2,979.68	717.78	2,293.82	2,051.14	2.06	-0.94	0.571
25.00	-35.77	-27.07	0.00	-2,322.6	0.00	2,322.59	2,932.71	701.18	2,188.97	1,971.59	3.18	-1.2	0.551
30.00	-34.29	-26.73	0.00	-2,187.2	0.00	2,187.24	2,875.21	684.57	2,086.57	1,886.65	4.58	-1.47	0.532
31.50	-33.82	-26.53	0.00	-2,147.2	0.00	2,147.15	2,854.29	679.59	2,056.33	1,859.14	5.06	-1.55	0.527
35.00	-32.46	-26.27	0.00	-2,054.3	0.00	2,054.29	2,805.48	667.97	1,986.62	1,795.73	6.26	-1.73	0.506
35.67	-32.15	-26.09	0.00	-2,036.8	0.00	2,036.78	2,253.08	567.85	1,719.88	1,471.98	6.51	-1.77	0.571
40.00	-30.95	-25.64	0.00	-1,923.7	0.00	1,923.72	2,223.50	555.84	1,647.92	1,421.63	8.21	-1.99	0.548
45.00	-29.58	-25.12	0.00	-1,795.5	0.00	1,795.53	2,188.39	541.99	1,566.79	1,363.96	10.44	-2.25	0.522
50.00	-28.22	-24.58	0.00	-1,669.9	0.00	1,669.94	2,152.25	528.13	1,487.72	1,306.78	12.94	-2.51	0.495
55.00	-26.91	-24.08	0.00	-1,547.0	0.00	1,547.03	2,115.06	514.27	1,410.69	1,250.16	15.71	-2.77	0.468
58.00	-25.99	-23.79	0.00	-1,474.8	0.00	1,474.80	2,092.25	505.95	1,365.46	1,216.46	17.49	-2.92	0.343
59.00	-25.53	-23.65	0.00	-1,451.0	0.00	1,451.01	2,084.57	503.18	1,350.55	1,205.28	18.11	-2.96	0.299
59.00	-25.53	-23.65	0.00	-1,451.0	0.00	1,451.01	2,084.57	503.18	1,350.55	1,205.28	18.11	-2.96	0.380
60.00	-25.19	-23.38	0.00	-1,427.4	0.00	1,427.36	2,076.84	500.41	1,335.71	1,194.13	18.73	-2.99	0.375
65.00	-23.63	-22.76	0.00	-1,310.5	0.00	1,310.47	2,037.58	486.55	1,262.78	1,138.75	21.97	-3.2	0.352
70.00	-22.17	-22.15	0.00	-1,196.7	0.00	1,196.68	1,985.31	472.69	1,191.90	1,077.58	25.43	-3.4	0.331
73.50	-20.92	-21.82	0.00	-1,119.2	0.00	1,119.17	1,474.00	377.76	952.88	802.36	27.97	-3.53	0.355
75.00	-20.51	-21.60	0.00	-1,086.4	0.00	1,086.44	1,466.32	374.43	936.20	791.10	29.09	-3.59	0.346
75.00	-20.51	-21.60	0.00	-1,086.4	0.00	1,086.44	1,466.32	374.43	936.20	791.10	29.09	-3.59	0.358
77.25	-19.91	-21.31	0.00	-1,037.8	0.00	1,037.83	1,454.62	369.45	911.47	774.25	30.8	-3.68	0.345
77.25	-19.91	-21.31	0.00	-1,037.8	0.00	1,037.83	1,454.62	369.45	911.47	774.25	30.8	-3.68	0.607
80.00	-19.42	-20.94	0.00	-979.2	0.00	979.24	1,440.03	363.37	881.69	753.74	32.95	-3.79	0.580
85.00	-18.56	-20.50	0.00	-874.5	0.00	874.53	1,412.71	352.30	828.81	716.70	37.09	-4.12	0.529
90.00	-17.73	-20.14	0.00	-772.0	0.00	772.01	1,384.35	341.23	777.56	680.02	41.57	-4.43	0.478
93.00	-17.23	-19.80	0.00	-711.6	0.00	711.59	1,366.84	334.59	747.60	658.22	44.41	-4.61	0.447
95.00	-16.89	-19.50	0.00	-672.0	0.00	671.99	1,354.95	330.16	727.95	643.77	46.36	-4.72	0.426
100.00	-16.10	-19.12	0.00	-574.5	0.00	574.47	1,324.51	319.09	679.97	607.99	51.45	-4.99	0.373
103.00	-13.04	-15.97	0.00	-517.1	0.00	517.13	1,305.75	312.45	651.97	586.76	54.63	-5.14	0.339
105.00	-12.73	-15.65	0.00	-485.2	0.00	485.18	1,293.03	308.02	633.63	572.72	56.8	-5.24	0.321
110.00	-12.00	-15.23	0.00	-406.9	0.00	406.92	1,247.19	296.95	588.93	532.34	62.4	-5.46	0.279
110.00	-12.00	-15.23	0.00	-406.9	0.00	406.92	856.53	223.97	445.40	367.75	62.4	-5.46	0.337
113.00	-10.18	-12.00	0.00	-356.9	0.00	356.93	845.64	218.97	425.76	354.91	65.87	-5.58	0.297
115.00	-9.94	-11.70	0.00	-332.9	0.00	332.93	838.16	215.64	412.92	346.37	68.22	-5.66	0.278
119.00	-9.38	-11.38	0.00	-286.1	0.00	286.14	822.72	208.98	387.82	329.40	73.03	-5.82	0.242
119.00	-9.38	-11.38	0.00	-286.1	0.00	286.14	822.72	208.98	387.82	329.40	73.03	-5.82	0.883
120.00	-9.26	-11.24	0.00	-274.8	0.00	274.76	818.76	207.32	381.66	325.17	74.25	-5.85	0.859
122.00	-9.01	-10.91	0.00	-252.2	0.00	252.19	810.71	203.99	369.51	316.76	76.75	-6.11	0.810
125.00	-8.68	-10.60	0.00	-219.5	0.00	219.46	798.31	198.99	351.64	304.20	80.71	-6.48	0.735
130.00	-8.20	-10.12	0.00	-166.4	0.00	166.44	776.83	190.67	322.85	283.51	87.78	-7.02	0.600
135.00	-7.72	-9.63	0.00	-115.8	0.00	115.83	754.30	182.35	295.28	263.15	95.37	-7.47	0.453
140.00	-4.01	-5.51	0.00	-67.7	0.00	67.69	730.89	174.02	268.95	243.21	103.36	-7.81	0.285
145.00	-3.73	-5.07	0.00	-40.2	0.00	40.17	695.93	165.70	243.85	220.38	111.64	-8.03	0.189
150.00	0.00	-4.50	0.00	-14.8	0.00	14.80	660.97	157.37	219.97	198.67	120.11	-8.17	0.075

CALCULATED FORCES

Load Case: 1.2D + 1.0Di + 1.0Wi													48.73 mph Wind with 0.85" Radial Ice		24 Iterations
Gust Response Factor:		1.10	Ice Dead Load Factor			1.00							Ice Importance Factor		1.00
Dead Load Factor:		1.20													
Wind Load Factor:		1.00													
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio		
0.00	-75.47	-6.78	0.00	-768.9	0.00	768.89	3,157.17	784.20	2,737.77	2,376.61	0	0	0.176		
2.00	-74.56	-6.77	0.00	-755.3	0.00	755.34	3,140.17	777.55	2,691.61	2,343.59	0.01	-0.03	0.175		
5.00	-72.96	-6.75	0.00	-735.0	0.00	735.03	3,114.35	767.59	2,623.11	2,294.24	0.04	-0.07	0.141		
10.00	-70.28	-6.71	0.00	-701.3	0.00	701.26	3,070.50	750.99	2,510.89	2,212.51	0.14	-0.13	0.137		
15.00	-67.61	-6.67	0.00	-667.7	0.00	667.69	3,025.61	734.39	2,401.13	2,131.46	0.3	-0.18	0.133		
18.00	-66.01	-6.64	0.00	-647.7	0.00	647.67	2,998.18	724.42	2,336.45	2,083.18	0.43	-0.22	0.131		
18.00	-66.01	-6.64	0.00	-647.7	0.00	647.67	2,998.18	724.42	2,336.45	2,083.18	0.43	-0.22	0.160		
20.00	-65.09	-6.63	0.00	-634.4	0.00	634.38	2,979.68	717.78	2,293.82	2,051.14	0.52	-0.24	0.158		
25.00	-62.82	-6.59	0.00	-601.2	0.00	601.25	2,932.71	701.18	2,188.97	1,971.59	0.81	-0.31	0.153		
30.00	-60.57	-6.54	0.00	-568.3	0.00	568.32	2,875.21	684.57	2,086.57	1,886.65	1.17	-0.38	0.148		
31.50	-59.90	-6.53	0.00	-558.5	0.00	558.51	2,854.29	679.59	2,056.33	1,859.14	1.29	-0.4	0.147		
35.00	-57.86	-6.49	0.00	-535.7	0.00	535.67	2,805.48	667.97	1,986.62	1,795.73	1.6	-0.45	0.142		
35.67	-57.48	-6.47	0.00	-531.4	0.00	531.35	2,253.08	567.85	1,719.88	1,471.98	1.67	-0.45	0.160		
40.00	-55.65	-6.41	0.00	-503.3	0.00	503.31	2,223.50	555.84	1,647.92	1,421.63	2.11	-0.51	0.154		
45.00	-53.55	-6.34	0.00	-471.2	0.00	471.24	2,188.39	541.99	1,566.79	1,363.96	2.68	-0.58	0.148		
50.00	-51.47	-6.26	0.00	-439.5	0.00	439.52	2,152.25	528.13	1,487.72	1,306.78	3.33	-0.65	0.140		
55.00	-49.41	-6.17	0.00	-408.2	0.00	408.20	2,115.06	514.27	1,410.69	1,250.16	4.04	-0.72	0.133		
58.00	-47.98	-6.11	0.00	-389.7	0.00	389.68	2,092.25	505.95	1,365.46	1,216.46	4.51	-0.76	0.098		
59.00	-47.30	-6.09	0.00	-383.6	0.00	383.57	2,084.57	503.18	1,350.55	1,205.28	4.67	-0.77	0.085		
59.00	-47.30	-6.09	0.00	-383.6	0.00	383.57	2,084.57	503.18	1,350.55	1,205.28	4.67	-0.77	0.107		
60.00	-46.81	-6.04	0.00	-377.5	0.00	377.48	2,076.84	500.41	1,335.71	1,194.13	4.83	-0.78	0.106		
65.00	-44.41	-5.92	0.00	-347.3	0.00	347.27	2,037.58	486.55	1,262.78	1,138.75	5.67	-0.83	0.100		
70.00	-42.18	-5.79	0.00	-317.7	0.00	317.69	1,985.31	472.69	1,191.90	1,077.58	6.57	-0.88	0.094		
73.50	-40.32	-5.71	0.00	-297.4	0.00	297.42	1,474.00	377.76	952.88	802.36	7.23	-0.92	0.101		
75.00	-39.69	-5.67	0.00	-288.8	0.00	288.85	1,466.32	374.43	936.20	791.10	7.52	-0.94	0.099		
75.00	-39.69	-5.67	0.00	-288.8	0.00	288.85	1,466.32	374.43	936.20	791.10	7.52	-0.94	0.102		
77.25	-38.77	-5.60	0.00	-276.1	0.00	276.11	1,454.62	369.45	911.47	774.25	7.97	-0.96	0.098		
77.25	-38.77	-5.60	0.00	-276.1	0.00	276.11	1,454.62	369.45	911.47	774.25	7.97	-0.96	0.176		
80.00	-38.01	-5.54	0.00	-260.7	0.00	260.69	1,440.03	363.37	881.69	753.74	8.53	-0.99	0.168		
85.00	-36.66	-5.44	0.00	-233.0	0.00	233.00	1,412.71	352.30	828.81	716.70	9.61	-1.08	0.154		
90.00	-35.33	-5.34	0.00	-205.8	0.00	205.81	1,384.35	341.23	777.56	680.02	10.78	-1.16	0.140		
93.00	-34.47	-5.22	0.00	-189.8	0.00	189.81	1,366.84	334.59	747.60	658.22	11.53	-1.21	0.132		
95.00	-33.95	-5.16	0.00	-179.4	0.00	179.38	1,354.95	330.16	727.95	643.77	12.04	-1.24	0.126		
100.00	-32.66	-5.04	0.00	-153.6	0.00	153.59	1,324.51	319.09	679.97	607.99	13.38	-1.31	0.112		
103.00	-26.81	-4.24	0.00	-138.5	0.00	138.46	1,305.75	312.45	651.97	586.76	14.21	-1.35	0.101		
105.00	-26.31	-4.17	0.00	-130.0	0.00	129.99	1,293.03	308.02	633.63	572.72	14.78	-1.38	0.096		
110.00	-25.07	-4.04	0.00	-109.1	0.00	109.14	1,247.19	296.95	588.93	532.34	16.26	-1.43	0.085		
110.00	-25.07	-4.04	0.00	-109.1	0.00	109.14	856.53	223.97	445.40	367.75	16.26	-1.43	0.103		
113.00	-20.69	-3.26	0.00	-96.1	0.00	96.13	845.64	218.97	425.76	354.91	17.17	-1.47	0.090		
115.00	-20.25	-3.19	0.00	-89.6	0.00	89.62	838.16	215.64	412.92	346.37	17.79	-1.49	0.085		
119.00	-19.25	-3.05	0.00	-76.9	0.00	76.86	822.72	208.98	387.82	329.40	19.05	-1.53	0.075		
119.00	-19.25	-3.05	0.00	-76.9	0.00	76.86	822.72	208.98	387.82	329.40	19.05	-1.53	0.257		
120.00	-19.05	-3.02	0.00	-73.8	0.00	73.81	818.76	207.32	381.66	325.17	19.37	-1.54	0.250		
122.00	-18.58	-2.92	0.00	-67.8	0.00	67.75	810.71	203.99	369.51	316.76	20.03	-1.61	0.237		
125.00	-18.06	-2.84	0.00	-59.0	0.00	58.99	798.31	198.99	351.64	304.20	21.08	-1.71	0.217		
130.00	-17.22	-2.71	0.00	-44.8	0.00	44.80	776.83	190.67	322.85	283.51	22.95	-1.85	0.180		
135.00	-16.36	-2.56	0.00	-31.2	0.00	31.24	754.30	182.35	295.28	263.15	24.96	-1.98	0.141		
140.00	-8.87	-1.51	0.00	-18.4	0.00	18.43	730.89	174.02	268.95	243.21	27.08	-2.07	0.088		
145.00	-8.30	-1.40	0.00	-10.9	0.00	10.89	695.93	165.70	243.85	220.38	29.28	-2.13	0.061		
150.00	0.00	-1.09	0.00	-3.9	0.00	3.89	660.97	157.37	219.97	198.67	31.53	-2.16	0.020		

CALCULATED FORCES

Load Case: 1.0D + 1.0W													60 mph Wind with No Ice		24 Iterations	
Gust Response Factor:		1.10														
Dead load Factor:		1.00														
Wind Load Factor:		1.00														
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio			
0.00	-49.46	-6.82	0.00	-710.2	0.00	710.25	3,157.17	784.20	2,737.77	2,376.61	0	0	0.159			
2.00	-48.80	-6.78	0.00	-696.6	0.00	696.62	3,140.17	777.55	2,691.61	2,343.59	0.01	-0.03	0.157			
5.00	-47.63	-6.71	0.00	-676.3	0.00	676.29	3,114.35	767.59	2,623.11	2,294.24	0.03	-0.06	0.127			
10.00	-45.69	-6.61	0.00	-642.8	0.00	642.77	3,070.50	750.99	2,510.89	2,212.51	0.13	-0.12	0.123			
15.00	-43.77	-6.52	0.00	-609.7	0.00	609.74	3,025.61	734.39	2,401.13	2,131.46	0.28	-0.17	0.119			
18.00	-42.62	-6.46	0.00	-590.2	0.00	590.19	2,998.18	724.42	2,336.45	2,083.18	0.39	-0.2	0.116			
18.00	-42.62	-6.46	0.00	-590.2	0.00	590.19	2,998.18	724.42	2,336.45	2,083.18	0.39	-0.2	0.142			
20.00	-41.98	-6.40	0.00	-577.3	0.00	577.27	2,979.68	717.78	2,293.82	2,051.14	0.48	-0.22	0.140			
25.00	-40.40	-6.31	0.00	-545.2	0.00	545.24	2,932.71	701.18	2,188.97	1,971.59	0.75	-0.28	0.135			
30.00	-38.84	-6.23	0.00	-513.7	0.00	513.70	2,875.21	684.57	2,086.57	1,886.65	1.07	-0.34	0.131			
31.50	-38.37	-6.19	0.00	-504.4	0.00	504.35	2,854.29	679.59	2,056.33	1,859.14	1.19	-0.36	0.130			
35.00	-36.90	-6.13	0.00	-482.7	0.00	482.69	2,805.48	667.97	1,986.62	1,795.73	1.47	-0.41	0.125			
35.67	-36.61	-6.09	0.00	-478.6	0.00	478.61	2,253.08	567.85	1,719.88	1,471.98	1.53	-0.41	0.141			
40.00	-35.37	-5.99	0.00	-452.2	0.00	452.22	2,223.50	555.84	1,647.92	1,421.63	1.93	-0.47	0.135			
45.00	-33.94	-5.87	0.00	-422.3	0.00	422.27	2,188.39	541.99	1,566.79	1,363.96	2.45	-0.53	0.129			
50.00	-32.53	-5.75	0.00	-392.9	0.00	392.91	2,152.25	528.13	1,487.72	1,306.78	3.04	-0.59	0.122			
55.00	-31.13	-5.64	0.00	-364.2	0.00	364.15	2,115.06	514.27	1,410.69	1,250.16	3.69	-0.65	0.116			
58.00	-30.13	-5.57	0.00	-347.2	0.00	347.24	2,092.25	505.95	1,365.46	1,216.46	4.11	-0.69	0.085			
59.00	-29.63	-5.54	0.00	-341.7	0.00	341.67	2,084.57	503.18	1,350.55	1,205.28	4.25	-0.69	0.073			
59.00	-29.63	-5.54	0.00	-341.7	0.00	341.67	2,084.57	503.18	1,350.55	1,205.28	4.25	-0.69	0.093			
60.00	-29.29	-5.48	0.00	-336.1	0.00	336.13	2,076.84	500.41	1,335.71	1,194.13	4.4	-0.7	0.092			
65.00	-27.60	-5.33	0.00	-308.8	0.00	308.75	2,037.58	486.55	1,262.78	1,138.75	5.16	-0.75	0.087			
70.00	-26.00	-5.19	0.00	-282.1	0.00	282.08	1,985.31	472.69	1,191.90	1,077.58	5.97	-0.8	0.081			
73.50	-24.64	-5.12	0.00	-263.9	0.00	263.90	1,474.00	377.76	952.88	802.36	6.57	-0.83	0.087			
75.00	-24.19	-5.07	0.00	-256.2	0.00	256.23	1,466.32	374.43	936.20	791.10	6.83	-0.84	0.085			
75.00	-24.19	-5.07	0.00	-256.2	0.00	256.23	1,466.32	374.43	936.20	791.10	6.83	-0.84	0.088			
77.25	-23.55	-5.00	0.00	-244.8	0.00	244.83	1,454.62	369.45	911.47	774.25	7.23	-0.86	0.085			
77.25	-23.55	-5.00	0.00	-244.8	0.00	244.83	1,454.62	369.45	911.47	774.25	7.23	-0.86	0.151			
80.00	-23.06	-4.92	0.00	-231.1	0.00	231.08	1,440.03	363.37	881.69	753.74	7.74	-0.89	0.144			
85.00	-22.18	-4.82	0.00	-206.5	0.00	206.50	1,412.71	352.30	828.81	716.70	8.71	-0.97	0.132			
90.00	-21.32	-4.74	0.00	-182.4	0.00	182.41	1,384.35	341.23	777.56	680.02	9.77	-1.04	0.120			
93.00	-20.78	-4.66	0.00	-168.2	0.00	168.20	1,366.84	334.59	747.60	658.22	10.44	-1.08	0.113			
95.00	-20.44	-4.59	0.00	-158.9	0.00	158.88	1,354.95	330.16	727.95	643.77	10.9	-1.11	0.108			
100.00	-19.61	-4.50	0.00	-135.9	0.00	135.92	1,324.51	319.09	679.97	607.99	12.09	-1.17	0.095			
103.00	-15.96	-3.77	0.00	-122.4	0.00	122.41	1,305.75	312.45	651.97	586.76	12.84	-1.21	0.086			
105.00	-15.63	-3.69	0.00	-114.9	0.00	114.88	1,293.03	308.02	633.63	572.72	13.36	-1.23	0.081			
110.00	-14.83	-3.60	0.00	-96.4	0.00	96.42	1,247.19	296.95	588.93	532.34	14.68	-1.29	0.071			
110.00	-14.83	-3.60	0.00	-96.4	0.00	96.42	856.53	223.97	445.40	367.75	14.68	-1.29	0.086			
113.00	-12.50	-2.84	0.00	-84.6	0.00	84.64	845.64	218.97	425.76	354.91	15.49	-1.31	0.076			
115.00	-12.22	-2.77	0.00	-79.0	0.00	78.96	838.16	215.64	412.92	346.37	16.05	-1.33	0.071			
119.00	-11.59	-2.69	0.00	-67.9	0.00	67.89	822.72	208.98	387.82	329.40	17.18	-1.37	0.063			
119.00	-11.59	-2.69	0.00	-67.9	0.00	67.89	822.72	208.98	387.82	329.40	17.18	-1.37	0.220			
120.00	-11.47	-2.66	0.00	-65.2	0.00	65.20	818.76	207.32	381.66	325.17	17.47	-1.38	0.215			
122.00	-11.22	-2.59	0.00	-59.8	0.00	59.85	810.71	203.99	369.51	316.76	18.06	-1.44	0.203			
125.00	-10.91	-2.52	0.00	-52.1	0.00	52.09	798.31	198.99	351.64	304.20	19	-1.53	0.185			
130.00	-10.39	-2.41	0.00	-39.5	0.00	39.49	776.83	190.67	322.85	283.51	20.67	-1.66	0.153			
135.00	-9.86	-2.29	0.00	-27.4	0.00	27.45	754.30	182.35	295.28	263.15	22.46	-1.76	0.118			
140.00	-5.22	-1.31	0.00	-16.0	0.00	16.00	730.89	174.02	268.95	243.21	24.35	-1.84	0.073			
145.00	-4.86	-1.20	0.00	-9.4	0.00	9.45	695.93	165.70	243.85	220.38	26.31	-1.9	0.050			
150.00	0.00	-1.04	0.00	-3.4	0.00	3.43	660.97	157.37	219.97	198.67	28.32	-1.93	0.017			

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

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

Spectral Response Acceleration for Short Period (S_S):	0.203
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.054
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.000
Site Coefficient F_a :	1.600
Site Coefficient F_v :	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{DS}):	0.217
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.086
Seismic Response Coefficient (C_S):	0.030
Upper Limit C_S :	0.030
Lower Limit C_S :	0.030
Period based on Rayleigh Method (sec):	3.060
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	2.000
Total Unfactored Dead Load:	49.460 k
Seismic Base Shear (E):	1.480 k

SEISMIC FORCES

Segment	Seismic	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
43		147.5	282	6,126	0.015	22	350
42		142.5	361	7,321	0.018	26	448
41		137.5	451	8,520	0.021	31	560
40		132.5	530	9,298	0.023	34	658
39		127.5	514	8,357	0.020	30	639
38		123.5	311	4,748	0.012	17	387
37		121	237	3,476	0.008	13	295
36		119.5	119	1,702	0.004	6	148
35		117	631	8,643	0.021	31	785
34		114	276	3,590	0.009	13	343
33		111.5	434	5,397	0.013	20	540
32		107.5	802	9,269	0.023	33	997
31		104	324	3,503	0.008	13	403
30		101.5	497	5,120	0.012	19	618
29		97.5	837	7,956	0.019	29	1,041
28		94	338	2,985	0.007	11	420
27		91.5	511	4,277	0.010	15	635
26		87.5	860	6,585	0.016	24	1,069
25		82.5	871	5,927	0.014	21	1,083
24		78.625	483	2,989	0.007	11	601
23		76.125	647	3,748	0.009	14	804
22		74.25	445	2,453	0.006	9	553
21		71.75	1,360	7,000	0.017	25	1,690
20		67.5	1,593	7,259	0.018	26	1,981
19		62.5	1,691	6,605	0.016	24	2,102
18		59.5	340	1,203	0.003	4	422
17		58.5	504	1,723	0.004	6	626
16		56.5	994	3,172	0.008	11	1,235
15		52.5	1,395	3,844	0.009	14	1,734
14		47.5	1,408	3,177	0.008	11	1,751
13		42.5	1,422	2,568	0.006	9	1,767
12		37.8334	1,243	1,779	0.004	6	1,545
11		35.3334	278	347	0.001	1	346
10		33.25	1,470	1,625	0.004	6	1,827
9		30.75	465	440	0.001	2	578
8		27.5	1,561	1,181	0.003	4	1,941
7		22.5	1,577	798	0.002	3	1,961
6		19	635	229	0.001	1	790

SEISMIC FORCES

1.2D + 1.0Ev + 1.0Eh	Seismic	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
Segment							
5		16.5	1,142	311	0.001	1	1,419
4		12.5	1,916	299	0.001	1	2,382
3		7.5	1,932	109	0.000	0	2,402
2		3.5	1,167	14	0.000	0	1,451
1		1	659	1	0.000	0	819
Generic 11' Dipole		150	80	1,800	0.004	7	99
Decibel DB408		150	34	765	0.002	3	42
Decibel DB408		103	34	361	0.001	1	42
Powerwave Allgon 7020.00 Dual Band RET		150	13	297	0.001	1	16
Kathrein Scala 782-10250		150	19	432	0.001	2	24
Powerwave Allgon LGP21401		150	85	1,904	0.005	7	105
Raycap DC6-48-60-18-8F		150	40	900	0.002	3	50
Raycap DC6-48-60-18-8F ("Squid")		150	19	425	0.001	2	23
Ericsson RRUS 8843 B2, B66A		150	216	4,860	0.012	18	269
Ericsson RRUS 4478 B14		150	180	4,043	0.010	15	223
Ericsson RRUS 4449 B5, B12		150	213	4,792	0.012	17	265
Ericsson RRUS 32 B30 (53 lbs)		150	159	3,578	0.009	13	198
Ericsson AIR 6419 B77G		150	198	4,462	0.011	16	247
Ericsson AIR 6449 B77D/ C-Band		150	245	5,508	0.013	20	304
CCI DMP65R-BU6EA-K		150	311	7,006	0.017	25	387
Kathrein Scala 80010965		150	293	6,588	0.016	24	364
Generic Round Platform with Handrails		150	2,500	56,250	0.137	203	3,108
Generic GPS		150	10	225	0.000	1	12
Ericsson Radio 4449 B71 B85A		140	225	4,410	0.011	16	280
Ericsson Radio 4460 B25+B66		140	327	6,409	0.016	23	407
Ericsson Air6449 B41		140	312	6,115	0.015	22	388
RFS APXVAARR24_43-U-NA20		140	384	7,521	0.018	27	477
PerfectVision PV-RP14M-9-96 Round Platform w/ Handrails		140	2,972	58,251	0.142	210	3,695
SWR FMEC/1		122	15	223	0.000	1	19
Samsung Outdoor CBRS 20W RRH –Clip-on Antenna		113	13	169	0.000	1	16
Ericsson RRH2x40-07-L		113	180	2,298	0.006	8	224
Alcatel-Lucent RRH 2X60-1900		113	119	1,517	0.004	5	148
Alcatel-Lucent RRH2x60 700		113	170	2,172	0.005	8	211
Nokia B66a RRH4x45 (UHIE)		113	170	2,176	0.005	8	212
RFS APL868013-12T0		113	25	322	0.001	1	31
RFS APL866513-12T0-00		113	31	401	0.001	1	39
RFS DB-T1-6Z-8AB-0Z		113	88	1,124	0.003	4	109
Commscope JAHH-65B-R3B		113	364	4,643	0.011	17	452
Round T-Arm		113	750	9,577	0.023	35	932
Commscope RDIDC-9181-PF-48		103	22	232	0.001	1	27
Fujitsu TA08025-B604		103	192	2,034	0.005	7	238
Fujitsu TA08025-B605		103	225	2,387	0.006	9	280
JMA Wireless MX08FRO665-21		103	194	2,053	0.005	7	241
Generic Flat Platform with Handrails		103	2,500	26,522	0.065	96	3,108
Decibel DB201-A		93	25	216	0.000	1	31
Totals:			49,462	410,640	1.000	1,484	61,496

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
Segment							
43		147.5	282	6,126	0.015	22	241
42		142.5	361	7,321	0.018	26	309
41		137.5	451	8,520	0.021	31	386
40		132.5	530	9,298	0.023	34	454
39		127.5	514	8,357	0.020	30	440
38		123.5	311	4,748	0.012	17	267
37		121	237	3,476	0.008	13	203
36		119.5	119	1,702	0.004	6	102
35		117	631	8,643	0.021	31	541

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
34	114	276	3,590	0.009	13	237
33	111.5	434	5,397	0.013	20	372
32	107.5	802	9,269	0.023	33	687
31	104	324	3,503	0.008	13	277
30	101.5	497	5,120	0.012	19	426
29	97.5	837	7,956	0.019	29	717
28	94	338	2,985	0.007	11	289
27	91.5	511	4,277	0.010	15	438
26	87.5	860	6,585	0.016	24	737
25	82.5	871	5,927	0.014	21	746
24	78.625	483	2,989	0.007	11	414
23	76.125	647	3,748	0.009	14	554
22	74.25	445	2,453	0.006	9	381
21	71.75	1,360	7,000	0.017	25	1,165
20	67.5	1,593	7,259	0.018	26	1,365
19	62.5	1,691	6,605	0.016	24	1,449
18	59.5	340	1,203	0.003	4	291
17	58.5	504	1,723	0.004	6	431
16	56.5	994	3,172	0.008	11	851
15	52.5	1,395	3,844	0.009	14	1,195
14	47.5	1,408	3,177	0.008	11	1,206
13	42.5	1,422	2,568	0.006	9	1,218
12	37.8334	1,243	1,779	0.004	6	1,065
11	35.3334	278	347	0.001	1	238
10	33.25	1,470	1,625	0.004	6	1,259
9	30.75	465	440	0.001	2	399
8	27.5	1,561	1,181	0.003	4	1,337
7	22.5	1,577	798	0.002	3	1,351
6	19	635	229	0.001	1	544
5	16.5	1,142	311	0.001	1	978
4	12.5	1,916	299	0.001	1	1,641
3	7.5	1,932	109	0.000	0	1,655
2	3.5	1,167	14	0.000	0	1,000
1	1	659	1	0.000	0	564
Generic 11' Dipole	150	80	1,800	0.004	7	69
Decibel DB408	150	34	765	0.002	3	29
Decibel DB408	103	34	361	0.001	1	29
Powerwave Allgon 7020.00 Dual Band RET	150	13	297	0.001	1	11
Kathrein Scala 782-10250	150	19	432	0.001	2	16
Powerwave Allgon LGP21401	150	85	1,904	0.005	7	72
Raycap DC6-48-60-18-8F	150	40	900	0.002	3	34
Raycap DC6-48-60-18-8F ("Squid")	150	19	425	0.001	2	16
Ericsson RRUS 8843 B2, B66A	150	216	4,860	0.012	18	185
Ericsson RRUS 4478 B14	150	180	4,043	0.010	15	154
Ericsson RRUS 4449 B5, B12	150	213	4,792	0.012	17	182
Ericsson RRUS 32 B30 (53 lbs)	150	159	3,578	0.009	13	136
Ericsson AIR 6419 B77G	150	198	4,462	0.011	16	170
Ericsson AIR 6449 B77D/ C-Band	150	245	5,508	0.013	20	210
CCI DMP65R-BU6EA-K	150	311	7,006	0.017	25	267
Kathrein Scala 80010965	150	293	6,588	0.016	24	251
Generic Round Platform with Handrails	150	2,500	56,250	0.137	203	2,142
Generic GPS	150	10	225	0.000	1	9
Ericsson Radio 4449 B71 B85A	140	225	4,410	0.011	16	193
Ericsson Radio 4460 B25+B66	140	327	6,409	0.016	23	280
Ericsson Air6449 B41	140	312	6,115	0.015	22	267
RFS APXVAARR24_43-U-NA20	140	384	7,521	0.018	27	329
PerfectVision PV-RR14M-9-96 Round Platform w/ Handrails	140	2,972	58,251	0.142	210	2,546
SWR FMEC/1	122	15	223	0.000	1	13
Samsung Outdoor CBRS 20W RRH –Clip-on Antenna	113	13	169	0.000	1	11
Ericsson RRH2x40-07-L	113	180	2,298	0.006	8	154

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
Alcatel-Lucent RRH 2X60-1900	113	119	1,517	0.004	5	102
Alcatel-Lucent RRH2x60 700	113	170	2,172	0.005	8	146
Nokia B66a RRH4x45 (UHIE)	113	170	2,176	0.005	8	146
RFS APL868013-12T0	113	25	322	0.001	1	22
RFS APL866513-12T0-00	113	31	401	0.001	1	27
RFS DB-T1-6Z-8AB-0Z	113	88	1,124	0.003	4	75
Commscope JAHH-65B-R3B	113	364	4,643	0.011	17	311
Round T-Arm	113	750	9,577	0.023	35	643
Commscope RDIDC-9181-PF-48	103	22	232	0.001	1	19
Fujitsu TA08025-B604	103	192	2,034	0.005	7	164
Fujitsu TA08025-B605	103	225	2,387	0.006	9	193
JMA Wireless MX08FRO665-21	103	194	2,053	0.005	7	166
Generic Flat Platform with Handrails	103	2,500	26,522	0.065	96	2,142
Decibel DB201-A	93	25	216	0.000	1	21
Totals:		49,462	410,640	1.000	1,484	42,373

1.2D + 1.0Ev + 1.0Eh

Seismic

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-60.68	-1.49	0.00	-192.93	0.00	192.93	3,157.17	784.20	2,738	2,376.61	0.00	0.00	0.05
2.00	-59.23	-1.50	0.00	-189.96	0.00	189.96	3,140.17	777.55	2,692	2,343.59	0.00	-0.01	0.05
5.00	-56.82	-1.51	0.00	-185.47	0.00	185.47	3,114.35	767.59	2,623	2,294.24	0.01	-0.02	0.04
10.00	-54.44	-1.52	0.00	-177.93	0.00	177.93	3,070.50	750.99	2,511	2,212.51	0.04	-0.03	0.04
15.00	-53.02	-1.53	0.00	-170.34	0.00	170.34	3,025.61	734.39	2,401	2,131.46	0.08	-0.05	0.04
18.00	-52.23	-1.53	0.00	-165.76	0.00	165.76	2,998.18	724.42	2,336	2,083.18	0.11	-0.05	0.04
18.00	-52.23	-1.53	0.00	-165.76	0.00	165.76	2,998.18	724.42	2,336	2,083.18	0.11	-0.05	0.05
20.00	-50.27	-1.54	0.00	-162.69	0.00	162.69	2,979.68	717.78	2,294	2,051.14	0.13	-0.06	0.05
25.00	-48.33	-1.55	0.00	-155.00	0.00	155.00	2,932.71	701.18	2,189	1,971.59	0.21	-0.08	0.05
30.00	-47.75	-1.55	0.00	-147.27	0.00	147.27	2,875.21	684.57	2,087	1,886.65	0.30	-0.10	0.05
31.50	-45.92	-1.55	0.00	-144.94	0.00	144.94	2,854.29	679.59	2,056	1,859.14	0.33	-0.10	0.04
35.00	-45.58	-1.56	0.00	-139.51	0.00	139.51	2,805.48	667.97	1,987	1,795.73	0.41	-0.11	0.04
35.67	-44.03	-1.55	0.00	-138.47	0.00	138.47	2,253.08	567.85	1,720	1,471.98	0.42	-0.12	0.05
40.00	-42.26	-1.55	0.00	-131.74	0.00	131.74	2,223.50	555.84	1,648	1,421.63	0.54	-0.13	0.05
45.00	-40.51	-1.55	0.00	-123.98	0.00	123.98	2,188.39	541.99	1,567	1,363.96	0.68	-0.15	0.05
50.00	-38.78	-1.54	0.00	-116.24	0.00	116.24	2,152.25	528.13	1,488	1,306.78	0.85	-0.17	0.04
55.00	-37.54	-1.54	0.00	-108.52	0.00	108.52	2,115.06	514.27	1,411	1,250.16	1.04	-0.19	0.04
58.00	-36.92	-1.53	0.00	-103.91	0.00	103.91	2,092.25	505.95	1,365	1,216.46	1.16	-0.20	0.03
59.00	-36.49	-1.53	0.00	-102.38	0.00	102.38	2,084.57	503.18	1,351	1,205.28	1.20	-0.20	0.03
59.00	-36.49	-1.53	0.00	-102.38	0.00	102.38	2,084.57	503.18	1,351	1,205.28	1.20	-0.20	0.03
60.00	-34.39	-1.50	0.00	-100.85	0.00	100.85	2,076.84	500.41	1,336	1,194.13	1.24	-0.20	0.03
65.00	-32.41	-1.48	0.00	-93.34	0.00	93.34	2,037.58	486.55	1,263	1,138.75	1.46	-0.22	0.03
70.00	-30.72	-1.45	0.00	-85.96	0.00	85.96	1,985.31	472.69	1,192	1,077.58	1.69	-0.23	0.03
73.50	-30.17	-1.44	0.00	-80.88	0.00	80.88	1,474.00	377.76	953	802.36	1.86	-0.24	0.03
75.00	-29.36	-1.43	0.00	-78.71	0.00	78.71	1,466.32	374.43	936	791.10	1.94	-0.24	0.03
75.00	-29.36	-1.43	0.00	-78.71	0.00	78.71	1,466.32	374.43	936	791.10	1.94	-0.24	0.03
77.25	-28.76	-1.42	0.00	-75.49	0.00	75.49	1,454.62	369.45	911	774.25	2.06	-0.25	0.03
77.25	-28.76	-1.42	0.00	-75.49	0.00	75.49	1,454.62	369.45	911	774.25	2.06	-0.25	0.06
80.00	-27.68	-1.40	0.00	-71.59	0.00	71.59	1,440.03	363.37	882	753.74	2.20	-0.26	0.05
85.00	-26.61	-1.38	0.00	-64.58	0.00	64.58	1,412.71	352.30	829	716.70	2.49	-0.28	0.05
90.00	-25.97	-1.37	0.00	-57.66	0.00	57.66	1,384.35	341.23	778	680.02	2.80	-0.31	0.05
93.00	-25.52	-1.36	0.00	-53.54	0.00	53.54	1,366.84	334.59	748	658.22	2.99	-0.32	0.04
95.00	-24.48	-1.34	0.00	-50.81	0.00	50.81	1,354.95	330.16	728	643.77	3.13	-0.33	0.04
100.00	-23.86	-1.32	0.00	-44.13	0.00	44.13	1,324.51	319.09	680	607.99	3.48	-0.35	0.04
103.00	-19.52	-1.16	0.00	-40.17	0.00	40.17	1,305.75	312.45	652	586.76	3.70	-0.36	0.04
105.00	-18.53	-1.13	0.00	-37.85	0.00	37.85	1,293.03	308.02	634	572.72	3.86	-0.37	0.03
110.00	-17.99	-1.11	0.00	-32.21	0.00	32.21	1,247.19	296.95	589	532.34	4.25	-0.38	0.03
110.00	-17.99	-1.11	0.00	-32.21	0.00	32.21	856.53	223.97	445	367.75	4.25	-0.38	0.04
113.00	-15.27	-0.99	0.00	-28.88	0.00	28.88	845.64	218.97	426	354.91	4.50	-0.39	0.03

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
115.00	-14.48	-0.96	0.00	-26.90	0.00	26.90	838.16	215.64	413	346.37	4.66	-0.40	0.03
119.00	-14.33	-0.95	0.00	-23.08	0.00	23.08	822.72	208.98	388	329.40	5.01	-0.41	0.03
119.00	-14.33	-0.95	0.00	-23.08	0.00	23.08	822.72	208.98	388	329.40	5.01	-0.41	0.09
120.00	-14.04	-0.94	0.00	-22.12	0.00	22.12	818.76	207.32	382	325.17	5.09	-0.42	0.09
122.00	-13.63	-0.92	0.00	-20.25	0.00	20.25	810.71	203.99	370	316.76	5.27	-0.44	0.08
125.00	-12.99	-0.90	0.00	-17.47	0.00	17.47	798.31	198.99	352	304.20	5.56	-0.47	0.07
130.00	-12.34	-0.87	0.00	-12.98	0.00	12.98	776.83	190.67	323	283.51	6.07	-0.51	0.06
135.00	-11.77	-0.84	0.00	-8.65	0.00	8.65	754.30	182.35	295	263.15	6.62	-0.54	0.05
140.00	-6.08	-0.46	0.00	-4.46	0.00	4.46	730.89	174.02	269	243.21	7.21	-0.57	0.03
145.00	-5.73	-0.43	0.00	-2.17	0.00	2.17	695.93	165.70	244	220.38	7.81	-0.58	0.02
150.00	0.00	-0.38	0.00	0.00	0.00	0.00	660.97	157.37	220	198.67	8.42	-0.59	0.00

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

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-41.81	-1.49	0.00	-187.94	0.00	187.94	3,157.17	784.20	2,738	2,376.61	0.00	0.00	0.05
2.00	-40.81	-1.49	0.00	-184.97	0.00	184.97	3,140.17	777.55	2,692	2,343.59	0.00	-0.01	0.05
5.00	-39.15	-1.50	0.00	-180.49	0.00	180.49	3,114.35	767.59	2,623	2,294.24	0.01	-0.02	0.04
10.00	-37.51	-1.51	0.00	-172.99	0.00	172.99	3,070.50	750.99	2,511	2,212.51	0.03	-0.03	0.04
15.00	-36.53	-1.51	0.00	-165.46	0.00	165.46	3,025.61	734.39	2,401	2,131.46	0.07	-0.04	0.04
18.00	-35.99	-1.52	0.00	-160.92	0.00	160.92	2,998.18	724.42	2,336	2,083.18	0.11	-0.05	0.04
18.00	-35.99	-1.52	0.00	-160.92	0.00	160.92	2,998.18	724.42	2,336	2,083.18	0.11	-0.05	0.04
20.00	-34.64	-1.52	0.00	-157.89	0.00	157.89	2,979.68	717.78	2,294	2,051.14	0.13	-0.06	0.04
25.00	-33.30	-1.52	0.00	-150.30	0.00	150.30	2,932.71	701.18	2,189	1,971.59	0.20	-0.08	0.04
30.00	-32.90	-1.53	0.00	-142.69	0.00	142.69	2,875.21	684.57	2,087	1,886.65	0.29	-0.09	0.04
31.50	-31.64	-1.52	0.00	-140.40	0.00	140.40	2,854.29	679.59	2,056	1,859.14	0.32	-0.10	0.04
35.00	-31.40	-1.53	0.00	-135.07	0.00	135.07	2,805.48	667.97	1,987	1,795.73	0.40	-0.11	0.04
35.67	-30.34	-1.52	0.00	-134.06	0.00	134.06	2,253.08	567.85	1,720	1,471.98	0.41	-0.11	0.04
40.00	-29.12	-1.52	0.00	-127.46	0.00	127.46	2,223.50	555.84	1,648	1,421.63	0.52	-0.13	0.04
45.00	-27.91	-1.51	0.00	-119.87	0.00	119.87	2,188.39	541.99	1,567	1,363.96	0.66	-0.15	0.04
50.00	-26.72	-1.50	0.00	-112.32	0.00	112.32	2,152.25	528.13	1,488	1,306.78	0.83	-0.16	0.04
55.00	-25.87	-1.50	0.00	-104.80	0.00	104.80	2,115.06	514.27	1,411	1,250.16	1.01	-0.18	0.04
58.00	-25.44	-1.49	0.00	-100.32	0.00	100.32	2,092.25	505.95	1,365	1,216.46	1.12	-0.19	0.03
59.00	-25.14	-1.49	0.00	-98.83	0.00	98.83	2,084.57	503.18	1,351	1,205.28	1.16	-0.19	0.02
59.00	-25.14	-1.49	0.00	-98.83	0.00	98.83	2,084.57	503.18	1,351	1,205.28	1.16	-0.19	0.03
60.00	-23.70	-1.46	0.00	-97.34	0.00	97.34	2,076.84	500.41	1,336	1,194.13	1.20	-0.19	0.03
65.00	-22.33	-1.44	0.00	-90.04	0.00	90.04	2,037.58	486.55	1,263	1,138.75	1.41	-0.21	0.03
70.00	-21.17	-1.41	0.00	-82.86	0.00	82.86	1,985.31	472.69	1,192	1,077.58	1.64	-0.22	0.03
73.50	-20.78	-1.40	0.00	-77.93	0.00	77.93	1,474.00	377.76	953	802.36	1.81	-0.23	0.03
75.00	-20.23	-1.39	0.00	-75.82	0.00	75.82	1,466.32	374.43	936	791.10	1.88	-0.24	0.03
75.00	-20.23	-1.39	0.00	-75.82	0.00	75.82	1,466.32	374.43	936	791.10	1.88	-0.24	0.03
77.25	-19.82	-1.38	0.00	-72.70	0.00	72.70	1,454.62	369.45	911	774.25	1.99	-0.24	0.03
77.25	-19.82	-1.38	0.00	-72.70	0.00	72.70	1,454.62	369.45	911	774.25	1.99	-0.24	0.05
80.00	-19.07	-1.36	0.00	-68.91	0.00	68.91	1,440.03	363.37	882	753.74	2.14	-0.25	0.05
85.00	-18.33	-1.34	0.00	-62.12	0.00	62.12	1,412.71	352.30	829	716.70	2.41	-0.27	0.05
90.00	-17.89	-1.33	0.00	-55.43	0.00	55.43	1,384.35	341.23	778	680.02	2.71	-0.30	0.04
93.00	-17.58	-1.32	0.00	-51.45	0.00	51.45	1,366.84	334.59	748	658.22	2.90	-0.31	0.04
95.00	-16.87	-1.29	0.00	-48.82	0.00	48.82	1,354.95	330.16	728	643.77	3.03	-0.32	0.04
100.00	-16.44	-1.27	0.00	-42.38	0.00	42.38	1,324.51	319.09	680	607.99	3.37	-0.34	0.03
103.00	-13.45	-1.12	0.00	-38.57	0.00	38.57	1,305.75	312.45	652	586.76	3.59	-0.35	0.03
105.00	-12.76	-1.09	0.00	-36.32	0.00	36.32	1,293.03	308.02	634	572.72	3.74	-0.36	0.03
110.00	-12.39	-1.07	0.00	-30.89	0.00	30.89	1,247.19	296.95	589	532.34	4.12	-0.37	0.03
110.00	-12.39	-1.07	0.00	-30.89	0.00	30.89	856.53	223.97	445	367.75	4.12	-0.37	0.03
113.00	-10.52	-0.96	0.00	-27.69	0.00	27.69	845.64	218.97	426	354.91	4.35	-0.38	0.03
115.00	-9.98	-0.92	0.00	-25.78	0.00	25.78	838.16	215.64	413	346.37	4.51	-0.39	0.03
119.00	-9.88	-0.92	0.00	-22.09	0.00	22.09	822.72	208.98	388	329.40	4.84	-0.40	0.02
119.00	-9.88	-0.92	0.00	-22.09	0.00	22.09	822.72	208.98	388	329.40	4.84	-0.40	0.08
120.00	-9.67	-0.90	0.00	-21.17	0.00	21.17	818.76	207.32	382	325.17	4.93	-0.40	0.08

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
122.00	-9.39	-0.89	0.00	-19.36	0.00	19.36	810.71	203.99	370	316.76	5.10	-0.42	0.07
125.00	-8.95	-0.86	0.00	-16.70	0.00	16.70	798.31	198.99	352	304.20	5.37	-0.45	0.07
130.00	-8.50	-0.83	0.00	-12.40	0.00	12.40	776.83	190.67	323	283.51	5.87	-0.49	0.06
135.00	-8.11	-0.80	0.00	-8.25	0.00	8.25	754.30	182.35	295	263.15	6.40	-0.52	0.04
140.00	-4.19	-0.44	0.00	-4.26	0.00	4.26	730.89	174.02	269	243.21	6.96	-0.55	0.02
145.00	-3.95	-0.41	0.00	-2.07	0.00	2.07	695.93	165.70	244	220.38	7.54	-0.56	0.02
150.00	0.00	-0.38	0.00	0.00	0.00	0.00	660.97	157.37	220	198.67	8.13	-0.56	0.00

ANALYSIS SUMMARY

Load Case	Base Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W	29.39	0.00	59.32	0.00	0.00	3092.61	119.00	0.92
0.9D + 1.0W	29.37	0.00	44.49	0.00	0.00	3032.30	119.00	0.88
1.2D + 1.0Di + 1.0Wi	6.78	0.00	75.47	0.00	0.00	768.89	119.00	0.26
1.2D + 1.0Ev + 1.0Eh	1.56	0.00	60.68	0.00	0.00	192.93	119.00	0.09
0.9D - 1.0Ev + 1.0Eh	1.53	0.00	41.81	0.00	0.00	187.94	119.00	0.08
1.0D + 1.0W	6.82	0.00	49.46	0.00	0.00	710.25	119.00	0.22

ADDITIONAL STEEL SUMMARY

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors				Max Member		
			VQ/I (k/in)	Shear Applied (kips)	phiVn (kips)	Ratio	Pu (kip)	phiPn (kip)	Ratio
0.00	59.00	SOL #18 All Thread Bar	211.6	6.3	16.8	0.3776	216.7	249.8	
0.00	119.00	SOL #18 All Thread Bar	454.0	13.6	16.8	0.8103	246.2	249.8	
2.00	18.00	PL PL 4" x 1"	125.1	1.5	25.3	0.0594	151.6	174.4	
2.00	18.00	PL PL 5" x 1"	156.3	1.9	25.3	0.0742	189.5	218.0	
58.00	75.00	PL PL 7 x 1.25	349.1	8.4	38.3	0.2189	250.0	458.3	
75.00	77.25	PL PL 6.5 x 1.25	335.6	8.1	38.3	0.2105	207.4	418.1	

Elev From (ft)	Elev To (ft)	Member	Upper Termination Connectors					Lower Termination Connectors				
			MQ/I (kips)	phiVn (kips)	Number Required	Number Actual	Ratio	MQ/I (kips)	phiVn (kip)	Number Required	Number Actual	Ratio
0.00	59.00	SOL #18 All Thread Bar	106.3886	12	9	18	0.4925	0	12	0	0	0.0000
0.00	119.00	SOL #18 All Thread Bar	106.4874	12	9	10	0.8874	0	12	0	0	0.0000
2.00	18.00	PL PL 4" x 1"	138.0447	25.27	6	8	0.6828	149.0254	25.27	6	8	0.7372
2.00	18.00	PL PL 5" x 1"	172.5559	25.27	7	8	0.8536	186.2818	25.27	8	8	0.9215
58.00	75.00	PL PL 7 x 1.25	212.2534	38.27	6	12	0.4622	195.5074	38.27	6	12	0.4257
75.00	77.25	PL PL 6.5 x 1.25	197.6505	38.27	6	11	0.4695	203.9805	38.27	6	11	0.4845

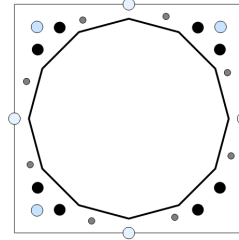
BASE PLATE ANALYSIS @ 0 FT

APPLIED REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
3092.61	59.32	29.39

PLATE PARAMETERS (ID# 26558)

Width:	44	in
Shape:	Square	
Thickness:	2.5	in
Grade:	A633 Gr. E	
Yield Strength:	60	ksi
Tensile Strength:	80	ksi
Clip Length:	0	in
Rod Detail Type:	c	
Clear Distance:	-	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Elastic	
Neutral Axis:	48	°



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	F _y (ksi)	F _u (ksi)	Spacing (in)	Offset (°)
Original [ID#27253]	Cluster	8	2.25	44	A615-75	75	100	6	-
Additional [ID#27254]	Radial	8	1.25	41.875	A325	92	120	-	25

DYWIDAG BAR PARAMETERS

Quantity	Bar Size	Bar Diameter (in)	F _y (ksi)	F _u (ksi)	Bracket Type	Bracket Offset (in)	Circle (in)	Offset (°)
3 [ID# 2359]	#18	2.25	75	100	W5x19	5.15	49.93	45
4 [ID# 2357]	#18	2.25	75	100	Angle	2.19	44.01	-

COMPONENT PROPERTIES

Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	37.38"ø x 0.375" (12 Sides)	43.0992	-	-	7379.37	-
Bolt Group	Original (8) 2.25"ø	3.9761	3.2477	0.8393	5566.40	4.5
Bolt Group	Additional (8) 1.25"ø	1.2272	0.9691	0.0747	1699.95	7.0
Dywidag Group	(4) #18	3.9761	3.9761	1.2581	3855.63	-
Dywidag Group	(3) #18	3.9761	3.9761	1.2581	2488.66	-

REACTION DISTRIBUTION

Component	ID	Moment M _u (k-ft)	Axial Load P _u (k)	Shear V _u (k)	Moment Factor
Pole	37.38"ø x 0.375" (12 Sides)	1662.9	59.32	29.39	0.538
Bolt Group	Original (8) 2.25"ø	1273.9	-	25.98	0.412
Bolt Group	Additional (8) 1.25"ø	389.0	-	3.41	0.126
Dywidag Group	(4) #18	868.9	-	-	0.281
Dywidag Group	(3) #18	560.8	-	-	0.181

ASSET: 302484, Branford CT 6
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
 PROJECT: 14543166

BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter: 37.50 in
 Point-to-Point Diameter: 38.83 in
 Orientation Offset: - °

Flat Width: 10.049 in
 Flat Radians: 0.524 rad

PLATE PROPERTIES

Neutral Axis: 48 °

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in ³)	Applied Moment M _u (k-in)	Moment Capacity ΦM _n (k-in)	Flexure Result M _u /ΦM _n	
Flats	24.720	0.00	38.626	698.3	2085.8	33.5%	✓
Corners	23.397	0.00	36.558	391.4	1974.2	19.8%	✓

ELASTIC ANCHOR ROD ANALYSIS

Class	Group Quantity	Rod Diameter (in)	Applied Axial Load P _u (k)	Applied Shear Load V _u (k)	Compressive Capacity ΦP _n (k)	Compressive Result	Interaction Result	
Original	8	2.25	186.9	0.5	243.6	0.767	77.1%	✓
Additional	8	1.25	52.1	0.2	87.2	0.598	60.3%	✓

DYWIDAG BAR ANALYSIS

Group Quantity	Bar Size	Bar Circle (in)	Applied Axial Load P _u (k)	Compressive Capacity ΦP _n (k)	Compressive Result P _u / ΦP _n	
4	#18	44.01	180.0	298.2	60.4%	✓
3	#18	49.93	271.6	298.2	91.1%	✓

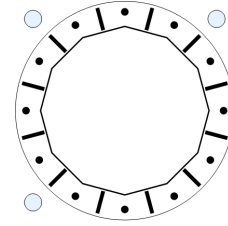
UPPER FLANGE PLATE ANALYSIS @ 110 FT

APPLIED REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
422.18	16.41	15.71

PLATE PARAMETERS (ID# 26557)

Width:	28.5	in
Shape:	Round	
Thickness:	1	in
Grade:	A572-60	
Yield Strength:	60	ksi
Tensile Strength:	75	ksi
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Elastic	
Neutral Axis:	229	°



FLANGE BOLT PARAMETERS

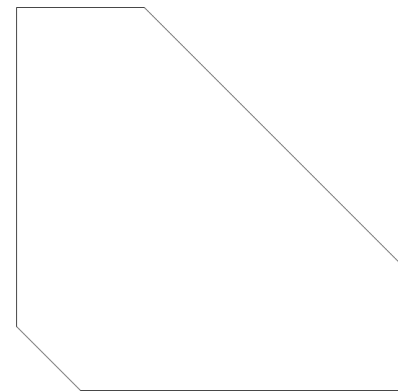
Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	F _y (ksi)	F _u (ksi)	Spacing (in)	Offset (°)
Original [ID#27255]	Radial	12	1	25.75	A325	92	120	-	-

DYWIDAG BAR PARAMETERS

Quantity	Bar Size	Bar Diameter (in)	F _y (ksi)	F _u (ksi)	Bracket Type	Bracket Offset (in)	Circle (in)	Offset (°)
3 [ID# 2358]	#18	2.25	75	100	W5x19	5.15	33.82	45

STIFFENER PARAMETERS

Arrangement:	Radial	
Quantity:	12	
Height:	3	in
Width:	3	in
Thickness:	0.5	in
Notch:	0.5	in
Grade:	A36	
Yield Strength:	36	ksi
Tensile Strength:	58	ksi
Horizontal Weld Type:	Fillet	
Horizontal Weld Fillet Size:	0.188	in
Vertical Weld Fillet Size:	0.188	in
Weld Strength:	70	ksi
Orientation Offset:	-	°



ASSET: 302484, Branford CT 6
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
 PROJECT: 14543166

COMPONENT PROPERTIES						
Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	21.269"Ø x 0.188" (12 Sides)	12.3091	-	-	683.93	-
Bolt Group	Original (12) 1"Ø	0.7854	0.6057	0.0292	545.75	8.0
Dywidag Group	(3) #18	3.9761	3.9761	1.2581	1146.19	-
Stiffeners	(12) 3"H x 3"W x 0.5"T	1.2500	1.1250	4.5000	1000.85	-

REACTION DISTRIBUTION					
Component	ID	Moment M _u (k-ft)	Axial Load P _u (k)	Shear V _u (k)	Moment Factor
Pole	21.269"Ø x 0.188" (12 Sides)	157.8	16.41	15.71	0.374
Bolt Group	Original (12) 1"Ø	157.8	-	15.71	0.374
Dywidag Group	(3) #18	264.4	-	-	0.626
Stiffeners	(12) 3"H x 3"W x 0.5"T	93.7	-	9.33	0.222

UPPER FLANGE PLATE BEND LINE ANALYSIS @ 110 FT

POLE PROPERTIES

Flat-to-Flat Diameter: 21.39 in
 Point-to-Point Diameter: 22.15 in
 Orientation Offset: - °

Flat Width: 5.733 in
 Flat Radians: 0.524 rad

PLATE PROPERTIES

Neutral Axis: 229 °
 Bend Line Limits: 4.926 to 6.069 rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in ³)	Applied Moment M _u (k-in)	Moment Capacity ΦM _n (k-in)	Flexure Result M _u /ΦM _n
Flats	16.999	3.73	5.183	56.2	279.9	20.1%
Corners	16.003	2.24	4.561	37.1	246.3	15.1%
Circumferential	21.079	9.11	7.546	59.5	407.5	14.6%

ELASTIC FLANGE BOLT ANALYSIS

Class	Group Quantity	Bolt Diameter (in)	Applied Axial Load P _u (k)	Applied Shear Load V _u (k)	Compressive Capacity ΦP _n (k)	Compressive Result	Interaction Result
Original	12	1	25.8	0.4	54.5	0.473	48.3%

DYWIDAG BAR ANALYSIS

Group Quantity	Bar Size	Bar Circle (in)	Applied Axial Load P _u (k)	Compressive Capacity ΦP _n (k)	Compressive Result P _u / ΦP _n
3	#18	33.82	16.4	298.2	5.5%

UPPER FLANGE PLATE STIFFENER ANALYSIS

Quantity:	12	
Height:	3	in
Width:	3	in
Effective Width:	3.000	in
Thickness:	0.5	in
Notch:	0.5	in
Grade:	A36	
Yield Strength:	36	ksi
Tensile Strength:	58	ksi
Horizontal Weld Type:	Fillet	
Horizontal Weld Fillet Size:	0.188	in
Horizontal Weld Bevel Size:		in
Vertical Weld Fillet Size:	0.188	in
Weld Strength:	70	ksi
Electrode Coefficient:	1.000	

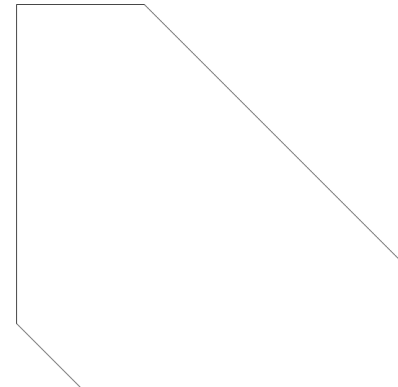


PLATE COMPRESSION

Radius of Gyration:	0.144	in ³
k/r:	12.47	
4.71 √(E/F _y):	133.68	
Buckling Stress, F _e :	1840.40	ksi
Crit. Buckling Stress, F _{cr} :	1614.03	ksi
Applied Compression, P _u :	15.61	k
Compressive Capacity, ΦP _n :	1815.78	k
Compressive Result, P _u /ΦP _n :	0.4%	✓

PLATE TENSION

Gross Cross Section:	1.2500	in ²
Net Cross Section:	1.1250	in ²
Applied Tension, T _u :	15.00	k
Tensile Capacity, ΦT _n :	40.50	k
Tension Result, T _u /ΦT _n :	18.5%	✓

VERTICAL WELD TO POLE

Vertical Eccentricity Ratio, a=e _x /l:	0.333	
Spacing Ratio, k:	0.167	
Weld Coefficient, C:	3.090	
Applied Compression, P _u :	15.61	k
Compressive Capacity, ΦP _n :	20.91	k
Horizontal Eccentricity Ratio, a=e _y /l:	0.333	
Weld Coefficient, C:	2.970	
Applied Shear, V _u :	0.09	k
Shear Capacity, ΦV _n :	20.10	k
Weld Result, P _u /ΦP _n + V _u /ΦV _n :	75.1%	✓

HORIZONTAL WELD TO PLATE

Horizontal Eccentricity Ratio, a=e _x /l:	0.167	
Spacing Ratio, k:	0.167	
Weld Coefficient, C:	3.940	
Effective Fillet Size:	0.188	in
Applied Compression, P _u :	15.61	k
Compressive Capacity, ΦP _n :	26.67	k
Vertical Eccentricity Ratio, a=e _y /l:	0.167	
Weld Coefficient, C:	3.660	
Applied Shear, V _u :	0.09	k
Shear Capacity, ΦV _n :	24.77	k
Weld Result, P _u /ΦP _n + V _u /ΦV _n :	58.9%	✓

PIER FOUNDATION ANALYSIS

GLOBAL REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
3,092.61	59.32	29.39

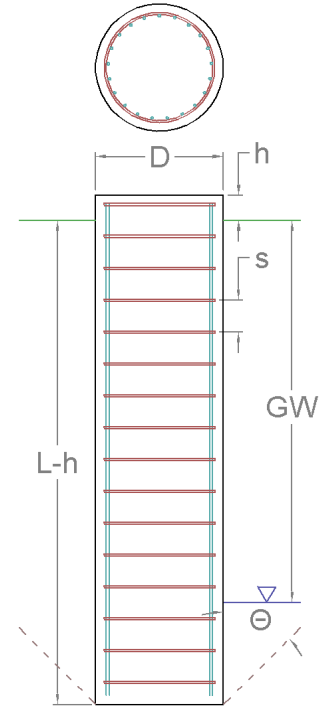
FOUNDATION PARAMETERS

Pier Diameter:	D	5.00	ft
Pier Embedment Depth:	L-h	22.2	ft
Pier Height above Grade:	h	0.50	ft

SOIL PARAMETERS

Water Table Depth [BGL]: GW 5 ft

Layer Depth (ft)		Unit Weight pcf	Cohesion psf	Friction Angle °	Ultimate Skin Friction psf	Ultimate Net Bearing psf
Top	Bottom					
0	1	116	0	0	0	0
1	3	115	0	30	0	0
3	4.5	106	0	29	0	0
4.5	7	117	0	31	731	0
7	8	126	0	34	788	0
8	10	126	0	34	892	0
10	23.25	135	5,112	0	2,300	42,670



SOIL STRENGTH ANALYSIS

Volume of Concrete (ft ³)	Buoyant Weight of Concrete (k)	Skin Friction Resistance (k)	Inflection Point [BGL] (ft)
446.70	45.87	511.68	15.55

SOIL MOMENT ANALYSIS

Total Lateral Resistance (k)	Moment at Inflection Point, M _u (k-ft)	Additional Resistance (k-ft)	Nominal Moment Capacity, ΦM _n (k-ft)	Soil Moment Usage, M _u / ΦM _n
2,496.88	3,564.36	0.00	6,566.41	54.3% ✔

SOIL COMPRESSION ANALYSIS

Compressive Bearing Resistance (k)	Compressive Force, P _u (k)	Additional Resistance (k)	Nominal Compressive Capacity, ΦP _n (k)	Soil Compressive Usage, P _u / ΦP _n
837.82	71.30	0.00	1,012.13	7.0% ✔



Town of Branford, CT

Property Listing Report

Map Block Lot

D02/000/003/0001 # 3

Sec # 1

PID 695

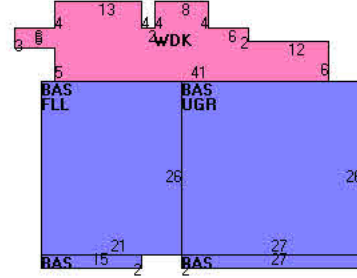
Account

004475

Photo



Sketch



Primary Construction Details

Year Built	1975
Building Desc.	Residential
Building Style	Raised Ranch
Building Grade	C +
Stories	1
Occupancy	1.00
Exterior Walls	Wood Shingle
Exterior Walls 2	NA
Roof Style	Gable/Hip
Roof Cover	Asphalt
Interior Walls	Drywall
Interior Walls 2	NA
Interior Floors 1	Carpet
Interior Floors 2	NA

Heating Fuel	Oil
Heating Type	Hot Water
AC Type	Central
Bedrooms	3 Bedrooms
Full Bathrooms	2
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	7
Bath Style	Average
Kitchen Style	Average
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Gar	
Fireplaces	

(*Industrial / Commercial Details)

Building Use	TEL REL TW MDL01
Building Condition	A
Sprinkler %	NA
Heat / AC	NA
Frame Type	NA
Baths / Plumbing	NA
Ceiling / Wall	NA
Rooms / Prtns	NA
Wall Height	NA
First Floor Use	NA
Foundation	NA

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	1332	1332
Finished Lower Level	546	410
Garage Under	702	0
Deck, Wood	406	0

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area	2986	1742



Property Information

Property Location	405 BRUSHY PLAIN RD
Owner	JACONETTE EDWARD F JR
Co-Owner	na
Mailing Address	405 BRUSHY PLAIN RD BRANFORD CT 06405
Land Use	0431 TEL REL TW MDL96
Land Class	I
Zoning Code	R-4
Census Tract	

Neighborhood	0050
Acreage	4.5
Utilities	Well,Public Sewer
Lot Setting/Desc	Suburban Rolling
Book / Page	1372/0757

Photo



Sketch



Primary Construction Details

Year Built	1992
Building Desc.	TEL REL TW MDL96
Building Style	Warehouse
Building Grade	C
Stories	1
Occupancy	1.00
Exterior Walls	Precast Panel
Exterior Walls 2	NA
Roof Style	Shed
Roof Cover	T&G/Rubber
Interior Walls	Minim/Masonry
Interior Walls 2	NA
Interior Floors 1	Concr-Finished
Interior Floors 2	NA

Heating Fuel	Electric
Heating Type	Hot Air-no Duc
AC Type	Heat Pump
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	NA
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Gar	
Fireplaces	

(*Industrial / Commercial Details)

Building Use	Ind/Comm
Building Condition	A
Sprinkler %	NA
Heat / AC	HEAT/AC PKGS
Frame Type	MASONRY
Baths / Plumbing	NONE
Ceiling / Wall	CEILING ONLY
Rooms / Prtns	AVERAGE
Wall Height	9.00
First Floor Use	NA
Foundation	NA

SHOPRUNNER by FedEx.
 READY TO SHOP AGAIN? SAVE ON YOUR NEXT ORDER. [SHOP NOW](#)

DELIVERED

Friday

10/20/23 at 9:46 AM

Signed for by: C.LRK

[Obtain proof of delivery](#)

DELIVERY STATUS

Delivered



TRACKING ID

773785878723

FROM

NB+C
 Margie Weber
 1777 Sentry Parkway W VEVA 17, Suite 400
 BLUE BELL, PA US 19422
 2154160363
 Label Created
 10/18/23 11:58 AM

WE HAVE YOUR PACKAGE

FORT WASHINGTON, PA
 10/18/23 4:11 PM

ON THE WAY

NORTH HAVEN, CT
 10/20/23 8:21 AM

OUT FOR DELIVERY

NORTH HAVEN, CT
 10/20/23 8:48 AM

DELIVERED

James Cosgrove, 1st Selectman
 Town of Branford
 1019 Main Street
 BRANFORD, CT US 06405
 2033150620
 Delivered
 10/20/23 at 9:46 AM

[View travel history](#)

Want updates on this shipment? Enter your email and we will do the rest!

YOUREMAIL

mweber@nbcllc.com

SUBMIT

MORE OPTIONS

Manage Delivery

Shipment facts

Shipment overview

TRACKING NUMBER 773785878723

SHIPPER REFERENCE 100322

SHIP DATE 10/18/23

STANDARD TRANSIT 10/23/23 before 5:00 PM

ACTUAL DELIVERY 10/20/23 at 9:46 AM

Services

SERVICE FedEx Express Saver

TERMS Shipper

SPECIAL HANDLING SECTION Deliver Weekday

Package details

WEIGHT 2 lbs / 0.91 kgs

TOTAL PIECES 1

TOTAL SHIPMENT WEIGHT 2 lbs / 0.91 kgs

PACKAGING FedEx Small Box

[↑ Back to top](#)

Travel history

Ascending

Local Scan Time

Wednesday, 10/18/23

- 11:58 AM
Shipment information sent to FedEx
- 4:11 PM
Picked up
FORT WASHINGTON, PA
- 4:14 PM
Shipment arriving early
FORT WASHINGTON, PA
- 8:04 PM
Left FedEx origin facility
FORT WASHINGTON, PA

Thursday, 10/19/23

- 9:16 AM
Arrived at FedEx hub
NEWARK, NJ
- 6:00 PM
Departed FedEx hub
NEWARK, NJ
- 9:59 PM
At destination sort facility
EAST GRANBY, CT

Friday, 10/20/23

- 8:21 AM
At local FedEx facility
NORTH HAVEN, CT
- 8:48 AM
On FedEx vehicle for delivery
NORTH HAVEN, CT

● 9:46 AM
Delivered
BRANFORD, CT

[↑ Back to top](#)

SHOPRUNNER by FedEx.  [SHOP NOW](#)

READY TO SHOP AGAIN? SAVE ON YOUR NEXT ORDER.

DELIVERED

Friday

10/20/23 at 9:24 AM

Signed for by: S.IGNATURE NOT REQ

[Obtain proof of delivery](#)

DELIVERY STATUS

Delivered



TRACKING ID

773785956787

FROM

NB+C
Margie Weber
1777 Sentry Parkway W VEVA 17, Suite 400
BLUE BELL, PA US 19422
2154160363

Label Created
10/18/23 12:03 PM

WE HAVE YOUR PACKAGE

FORT WASHINGTON, PA
10/18/23 4:11 PM

ON THE WAY

WALLINGFORD, CT
10/20/23 6:06 AM

OUT FOR DELIVERY

WALLINGFORD, CT
10/20/23 7:01 AM

DELIVERED

Edward Jaconette Jr.
405 Brushy Plain Rd
BRANFORD, CT US 06405
2154160363

Delivered
10/20/23 at 9:24 AM

[View travel history](#)

Want updates on this shipment? Enter your email and we will do the rest!

YOUR EMAIL
mweber@nbcllc.com

SUBMIT

MORE OPTIONS

Alerts (1)

Your package was released as requested and safely delivered.

Manage Delivery

SHOPRUNNER by FedEx.
 READY TO SHOP AGAIN? SAVE ON YOUR NEXT ORDER. [SHOP NOW](#)

DELIVERED

Friday

10/20/23 at 9:46 AM

Signed for by: C.LRK

[Obtain proof of delivery](#)

DELIVERY STATUS

Delivered



TRACKING ID

773785913291

FROM

NB+C
 Margie Weber
 1777 Sentry Parkway W VEVA 17, Suite 400
 BLUE BELL, PA US 19422
 2154160363
 Label Created
 10/18/23 12:00 PM

WE HAVE YOUR PACKAGE

FORT WASHINGTON, PA
 10/18/23 4:11 PM

ON THE WAY

NORTH HAVEN, CT
 10/20/23 8:06 AM

OUT FOR DELIVERY

NORTH HAVEN, CT
 10/20/23 8:48 AM

DELIVERED

Harry Smith, Town Planner
 Town of Branford
 1019 Main Street
 BRANFORD, CT US 06405
 2034881255
 Delivered
 10/20/23 at 9:46 AM

[View travel history](#)

Want updates on this shipment? Enter your email and we will do the rest!

YOUREMAIL
 mweber@nbcllc.com

SUBMIT

MORE OPTIONS

Manage Delivery

Shipment facts

Shipment overview

TRACKING NUMBER 773785913291

DELIVERED TO Receptionist/Front Desk

SHIP DATE 10/18/23

STANDARD TRANSIT 10/23/23 before 5:00 PM

ACTUAL DELIVERY 10/20/23 at 9:46 AM

Services

SERVICE FedEx Express Saver

TERMS Shipper

SPECIAL HANDLING SECTION Deliver Weekday

Package details

WEIGHT 2 lbs / 0.91 kgs

TOTAL PIECES 1

TOTAL SHIPMENT WEIGHT 2 lbs / 0.91 kgs

PACKAGING FedEx Small Box

[↑ Back to top](#)

Travel history

Ascending

Local Scan Time

Wednesday, 10/18/23

- 12:00 PM
Shipment information sent to FedEx
- 4:11 PM
Picked up
FORT WASHINGTON, PA
- 4:14 PM
Shipment arriving early
FORT WASHINGTON, PA
- 8:04 PM
Left FedEx origin facility
FORT WASHINGTON, PA

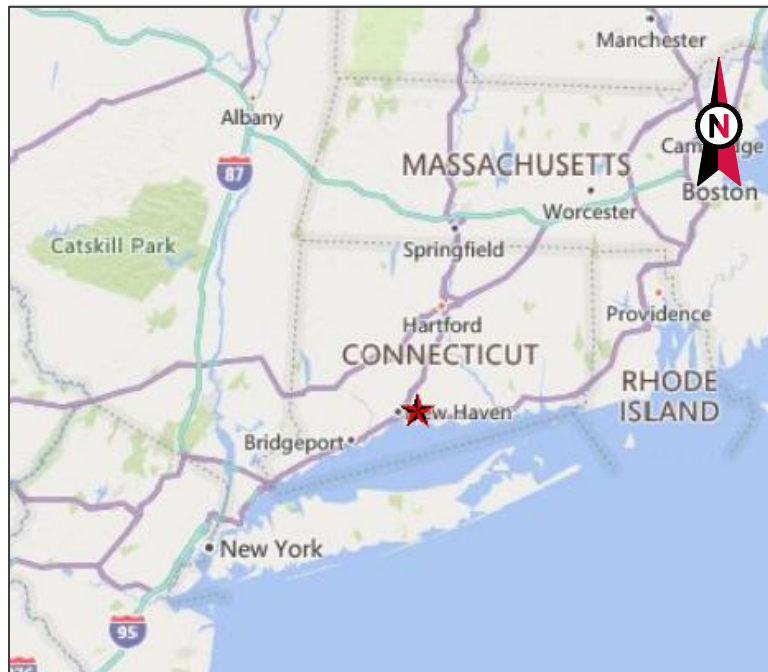
Thursday, 10/19/23

- 9:16 AM
Arrived at FedEx hub
NEWARK, NJ
- 6:00 PM
Departed FedEx hub
NEWARK, NJ
- 9:59 PM
At destination sort facility
EAST GRANBY, CT

Friday, 10/20/23

- 8:06 AM
At local FedEx facility
NORTH HAVEN, CT
- 8:48 AM
On FedEx vehicle for delivery
NORTH HAVEN, CT
- 9:46 AM
Delivered
BRANFORD, CT

[↑ Back to top](#)



VICINITY MAP



AMERICAN TOWER®

SITE NAME: BRANFORD CT 6
 SITE NUMBER: 302484
 ATC PROJECT NUMBER: 14532428_P5_01
 SITE ADDRESS: 405 BRUSHY PLAIN RD
 BRANFORD, CT 06405



LOCATION MAP

BIRD WATCH SITE:
 PLEASE CONTACT BIRD.WATCH@AMERICANTOWER.COM OR
 AMERICAN TOWER NOC AT 877-518-6937 FOR ASSISTANCE

150.0 FT MONOPOLE MODIFICATIONS

PROJECT TEAM	PROJECT INFORMATION	SHEET	SHEET TITLE	REV.
<p>TOWER OWNER AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801</p> <p>ENGINEERED BY ATC TOWER SERVICES 3500 REGENCY PARKWAY, SUITE 100 CARY, NC 27518</p> <p>CARRIER INFORMATION CARRIER: OPERATIONS CARRIER SITE NAME: N/A CARRIER SITE NUMBER: N/A</p>	<p>1. THE PROJECT DEPICTED IN THESE PLANS ARE BASED ON ATC ENGINEER RECOMMENDATIONS DATED 08/25/23.</p> <p>2. SEE SHEET S-201 FOR MODIFICATION SCOPE OF WORK (SOW) AND ANY ADDITIONAL WORK TO BE COMPLETED.</p>	G-001	COVER	0
		G-002	IBC GENERAL NOTES	0
		G-003	SPECIAL INSPECTION CHECKLIST	0
		G-004	BILL OF MATERIALS	0
		C-101	DETAILED SITE PLAN	0
		S-201	MODIFICATION PROFILE	0
		S-501	EXISTING CONDITIONS MODIFICATION DETAILS	0
		S-502	PLATE REINFORCEMENT INSTALLATION DETAILS	0
		S-503	PLATE REINFORCEMENT STEP BOLT BRACKET FABRICATION & INSTALLATION DETAILS	0
		Z-501	PLATE REINFORCEMENT FABRICATION DETAILS	0
<p>NTP APPROVED: N/A SAFETY CLIMB USABLE: N/A</p>				
COMPLIANCE CODE				
<p>ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.</p>				
<p>1. ANSI/TIA/EIA: STRUCTURAL STANDARDS (222-H EDITION) 2. INTERNATIONAL BUILDING CODE (2021 IBC) 3. CONNECTICUT STATE BUILDING CODE (2022)</p>				
PROJECT LOCATION				
GEOGRAPHIC COORDINATES				
<p>LATITUDE: 41.31680556 LONGITUDE: -72.8197</p>				

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

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NYG	09/06/23

ATC SITE NUMBER:
 302484

ATC SITE NAME:
 BRANFORD CT 6
 CONNECTICUT

SITE ADDRESS:
 405 BRUSHY PLAIN RD
 BRANFORD, CT 06405



DRAWN BY:	NYG
APPROVED BY:	RDB
DATE DRAWN:	09/06/23
ATC JOB NO:	14532428_P5_01

COVER

SHEET NUMBER:
G-001

REVISION:
0



GENERAL

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

STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
 - ALL W-SHAPES: ASTM A572, GRADE 50, UNLESS NOTED OTHERWISE.
 - ALL OTHER ROLLED SHAPES: ASTM A36, UNLESS NOTED OTHERWISE.
 - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND): ASTM A500, GRADE B, UNLESS NOTED OTHERWISE.
 - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS: ASTM A3125 GRADE A325, TYPE SC OR N, UNLESS NOTED OTHERWISE.
 - ALL ANCHOR RODS: ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE.
- 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.
- ALL U-BOLTS SHALL BE ASTM A36 OR EQUIVALENT, WITH LOCKING DEVICE, UNLESS NOTED OTHERWISE.
- FIELD CUT EDGES, EXCEPT DRILLED HOLES, SHALL BE GROUND SMOOTH.
- 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.
- ALL STRUCTURAL STEEL EMBEDDED IN THE CONCRETE SHALL BE APPLIED WITH (2) BRUSHED COATS OF POLYGUARD CA-9 MASTIC OR EQUIVALENT. REFER TO THE MANUFACTURER SPECIFICATIONS FOR SURFACE PREPARATION AND APPLICATION. APPLICATION OF POLYGUARD 400 WRAP IS NOT ESSENTIAL.
- CONTRACTOR SHALL PERFORM WORK ON ONLY ONE (1) TOWER FACE AND REPLACE/REINFORCE ONE (1) BOLT/MEMBER AT A TIME.
- ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.

WELDING

- ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
- ALL WELDS SHALL BE INSPECTED VISUALLY. IF DIRECTED BY ENGINEER OF RECORD, 25% OF WELDS SHALL BE INSPECTED WITH EITHER ULTRASONIC OR MAGNETIC PARTICLE METHODS. (100% IF REJECTABLE DEFECTS ARE FOUND) TO MEET THE ACCEPTABLE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY. 100% OF ALL FULL PENETRATION WELDS SHALL BE INSPECTED WITH EITHER ULTRASONIC OR MAGNETIC PARTICLE METHODS.
- INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
- ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER AND/OR BASE METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
- IN CASES WHERE BASE METAL GRADE IS UNKNOWN, ALL WELDING ON LATTICE TOWERS SHALL BE DONE WITH E70XX ELECTRODES; ALL WELDING ON POLE STRUCTURES SHALL BE DONE WITH E80XX ELECTRODES, UNLESS NOTED OTHERWISE.
- 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.

PAINT

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

BOLT TIGHTENING PROCEDURE

- STRUCTURAL CONNECTIONS TO BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH RCSC SPECIFICATIONS.
- ALL BOLTS WHOSE AXES ARE INSTALLED VERTICALLY, UNLESS OTHERWISE NOTED, SHALL BE INSTALLED AND TIGHTENED PER SECTION 8.2.1 THROUGH 8.2.4 OF THE RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS" PER THE FOLLOWING GUIDELINES:

FOR A325 BOLTS 1" DIAMETER AND LESS:

- DIRECT TENSION INDICATING (DTI) SQUIRTER WASHERS: WASHERS SHALL BE INSTALLED AND ORIENTED / TIGHTENED PER MANUFACTURER SPECIFICATIONS TO ACHIEVE DESIRED LEVEL OF BOLT PRE-TENSION.

FOR A325 BOLTS EXCEEDING 1" DIAMETER AND ALL OTHER HIGH STRENGTH BOLTS, ONE OF THE FOLLOWING METHODS SHALL BE USED:

- DIRECT TENSION INDICATING (DTI) SQUIRTER WASHERS: WASHERS SHALL BE INSTALLED AND ORIENTED / TIGHTENED PER MANUFACTURER SPECIFICATIONS TO ACHIEVE DESIRED LEVEL OF BOLT PRE-TENSION.
- RCSC "TURN-OF-THE-NUT" METHOD: PRIOR TO APPLICATION OF TURN-OF-NUT PRETENSIONING, ALL BOLTS IN THE CONNECTION SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN RCSC SECTION 8.1, AND MATCH-MARKING OF THE NUTS AND PROTRUDING END OF THE BOLTS MUST BE IMPLEMENTED FOR ALL BOLTS IN THE CONNECTION.

SUBSEQUENTLY, ALL BOLTS SHALL BE ROTATED BEYOND SNUG TIGHT CONDITION 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

- ALL OTHER BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1 OF THE SPECIFICATION.
- ALL BOLT HOLES SHALL BE ALIGNED TO PERMIT INSERTION OF THE BOLTS WITHOUT UNDUE DAMAGE TO THE THREADS. BOLTS SHALL BE PLACED IN ALL HOLES WITH WASHERS POSITIONED AS REQUIRED AND NUTS THREADED TO COMPLETE THE ASSEMBLY. COMPACTING THE JOINT TO THE SNUG-TIGHT CONDITION SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT. THE SNUG-TIGHTENED CONDITION IS THE TIGHTNESS THAT IS ATTAINED WITH A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.

APPLICABLE CODES AND STANDARDS

- ANSI/TIA: STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES, 222-H EDITION.
- 2022 CONNECTICUT STATE BUILDING CODE.
- 2021 INTERNATIONAL BUILDING CODE.
- ACI 318: AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE. REFERENCE LATEST APPROPRIATE EDITION TO MATCH LOCAL AND/OR INTERNATIONAL BUILDING CODE(S) LISTED ABOVE.
- CRSI: CONCRETE REINFORCING STEEL INSTITUTE, MANUAL OF STANDARD PRACTICE, LATEST EDITION.
- AISC: AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUAL OF STEEL CONSTRUCTION, LATEST EDITION.
- AWS: AMERICAN WELDING SOCIETY D1.1, STRUCTURAL WELDING CODE, LATEST EDITION.

SPECIAL INSPECTION

- A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH IBC 2021, SECTION 1704 AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
 - STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELD ONLY)
 - HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 EXTENSION FLANGE BOLTS TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD)
- THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER IN ACCORDANCE WITH IBC 2021, SECTION 1704, UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM SUCH WORK WITHOUT THE SPECIAL INSPECTIONS.



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REV.	DESCRIPTION	BY	DATE
△	FIRST ISSUE	NYG	09/06/23
△			
△			
△			
△			

ATC SITE NUMBER:
302484

ATC SITE NAME:
BRANFORD CT 6

CONNECTICUT

SITE ADDRESS:
405 BRUSHY PLAIN RD
BRANFORD, CT 06405

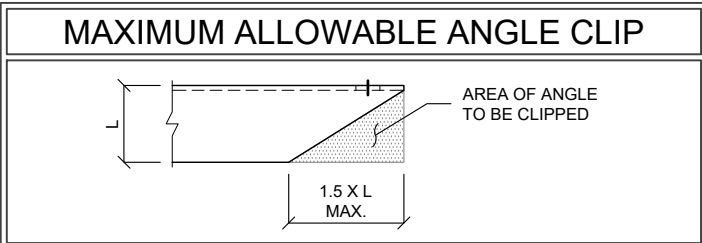


Digitally Signed: 2023-10-18

DRAWN BY:	NYG
APPROVED BY:	RDB
DATE DRAWN:	09/06/23
ATC JOB NO:	14532428_P5_01

IBC GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0



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MODIFICATION INSPECTION NOTES

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

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

SPECIAL INSPECTOR

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

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

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

GENERAL CONTRACTOR

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

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

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

SPECIAL INSPECTION CHECKLIST

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

NOTE: SPECIAL INSPECTIONS ARE INTENDED TO BE A COLLABORATIVE EFFORT BETWEEN GC AND SI. WHENEVER POSSIBLE GC IS TO PROVIDE SI WITH PHOTOGRAPHIC OR OTHER ACCEPTABLE EVIDENCE OF PROPER INSTALLATION IF PERIODIC INSPECTION FREQUENCY IS ACCEPTABLE. THE GC AND SI SHALL WORK TO COMPILE EVIDENCE OF PROPER CONSTRUCTION AND LIMIT THE NUMBER OF SI SITE VISITS REQUIRED.

TABLE KEY:
 SI - ATC APPROVED SPECIAL INSPECTOR
 GC - GENERAL CONTRACTOR
 TA - 3RD PARTY TESTING AGENCY
 CX - CONSTRUCTION
 CM - CONSTRUCTION MANAGER
 ATC - AMERICAN TOWER CORPORATION



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

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NYG	09/06/23

ATC SITE NUMBER:
302484
 ATC SITE NAME:
BRANFORD CT 6
CONNECTICUT
 SITE ADDRESS:
 405 BRUSHY PLAIN RD
 BRANFORD, CT 06405



Digitally Signed: 2023-10-18

DRAWN BY:	NYG
APPROVED BY:	RDB
DATE DRAWN:	09/06/23
ATC JOB NO:	14532428_P5_01


SPECIAL INSPECTION CHECKLIST

SHEET NUMBER:
G-003
 REVISION:
0

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BILL OF MATERIALS

QUANTITY REQUIRED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTION	LENGTH	SHEET LIST	PART WEIGHT	WEIGHT (lb)	NOTES	
PLATE REINFORCEMENT MATERIAL & HARDWARE									
4	4	302484-1	PL 1 1/4" X 7"	20'-0"	S-502, Z-501	625.3	2501		
4	4	302484-2	PL 1 1/4" X 6 1/2"	5'-0"	S-502, Z-501	145.1	580		
4	4	302484-3	PL 1 1/4" X 5"	6'-0"	S-502, Z-501	134.0	536		
100	105	NG-1438-1875-A490	NEXGEN2 BLIND BOLT ASSEMB., M20 W/ SPRING SLEEVE, A490	----	----	----	----	ALLFASTENERS - 2NG2048	
100	105	NG-2688-3750-A490	NEXGEN2 BLIND BOLT ASSEMB., M20 W/ SPRING SLEEVE, A490	----	----	----	----	ALLFASTENERS - 2NG2096	
20	25	FPSB	FLAT PLATE STEP BOLT WELDMENT	0'-7 1/4"	S-503	2.0	50		
TOTAL WEIGHT (lb)							3,667		



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BILL OF MATERIALS

SHEET NUMBER:	REVISION:
G-004	0

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LEGEND

⊗	GROUNDING TEST WELL
AV, A/V	AIR VENT
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
C	CABINET
CS	COAX SHROUD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACLE
HH, V	HAND HOLE, VAULT
HFC	HYDROGEN FUEL CELL
HSM	HYDROGEN STORAGE MATERIAL
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
LPG	LIQUID PROPANE GAS
M	METER
OHW	OVERHEAD WIRE
P	POWER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
---	PROPERTY LINE
- - -	ADJACENT PROPERTY LINE
- · - · -	LEASE AREA
- · - · - ·	EASEMENT
○ ○ ○ ○	WOOD FENCE
□ □ □ □	WIRE FENCE
■ ■ ■ ■	METAL FENCE
— — — —	GUARD RAIL
x x x x	CHAINLINK FENCE
— — — —	ROAD (DIRT)
— — — —	ROAD (STONE)
— — — —	ROAD (PAVED)



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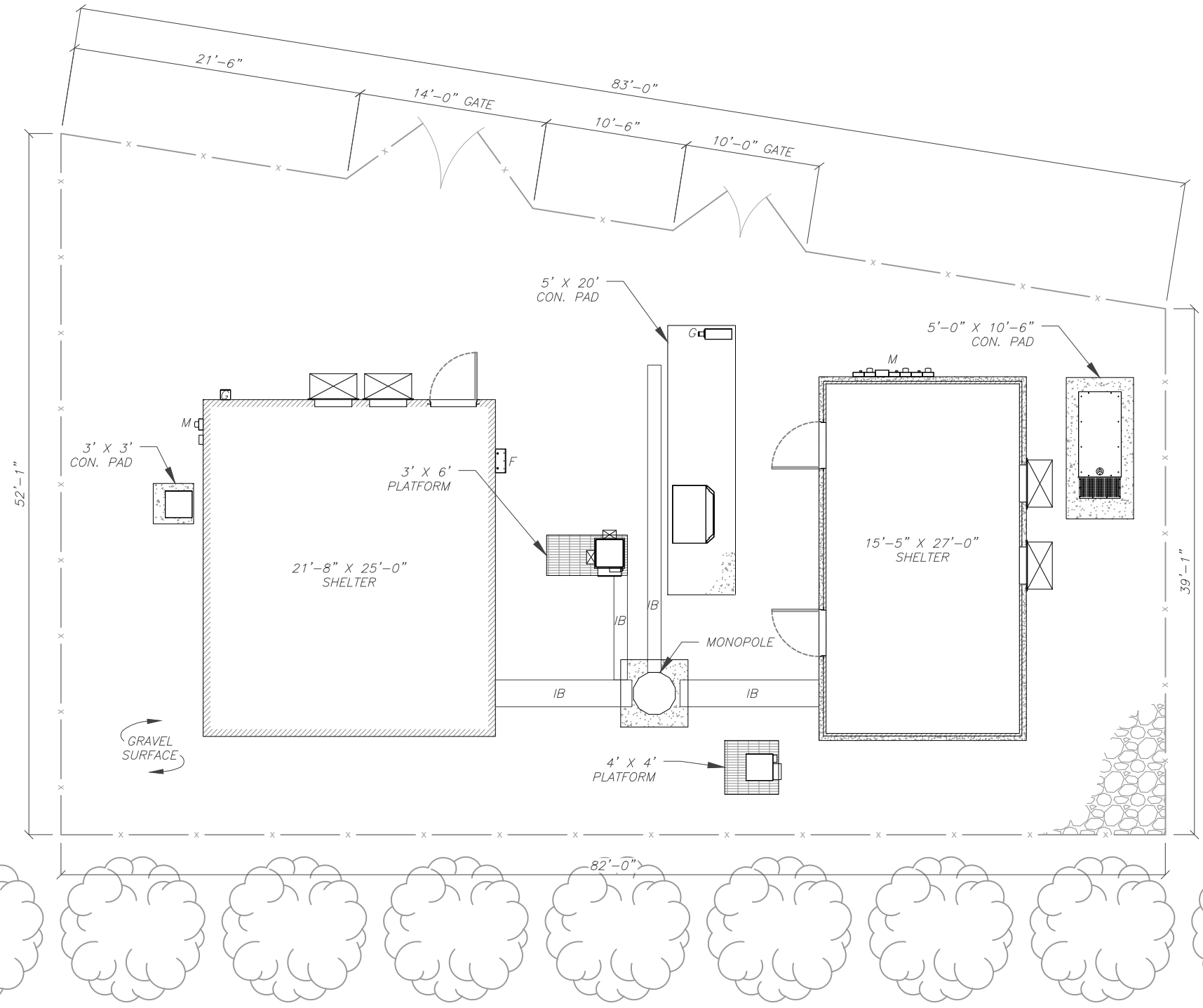


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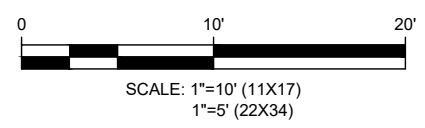
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APPROVED BY:	RDB
DATE DRAWN:	09/06/23
ATC JOB NO:	14532428_P5_01

DETAILED SITE PLAN

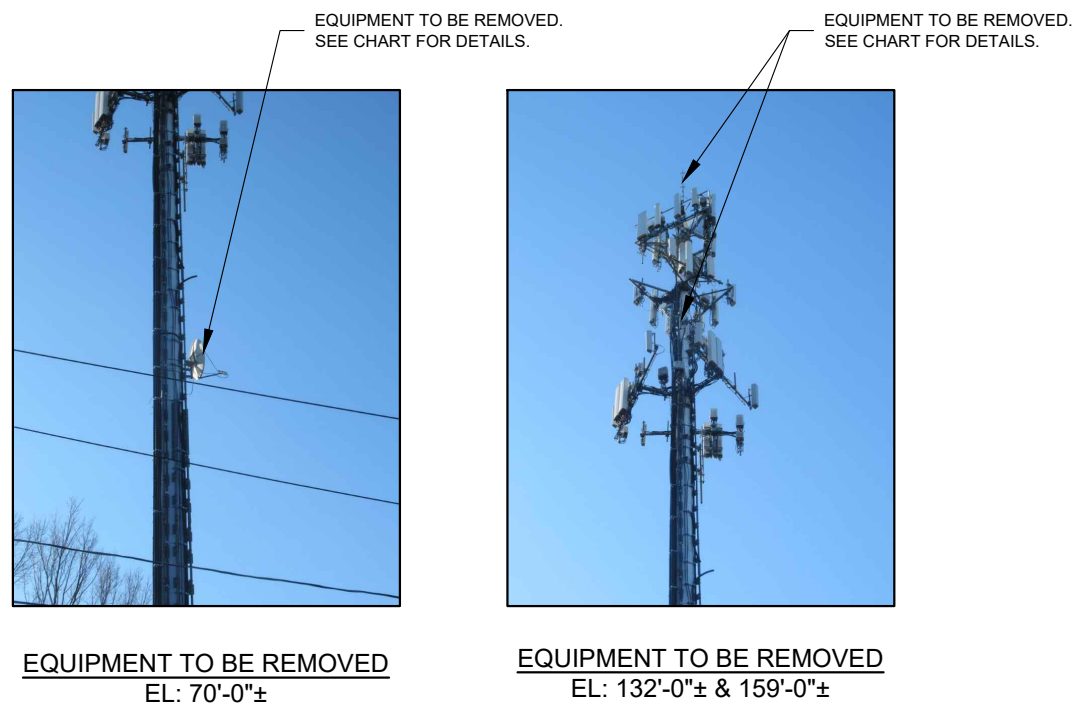
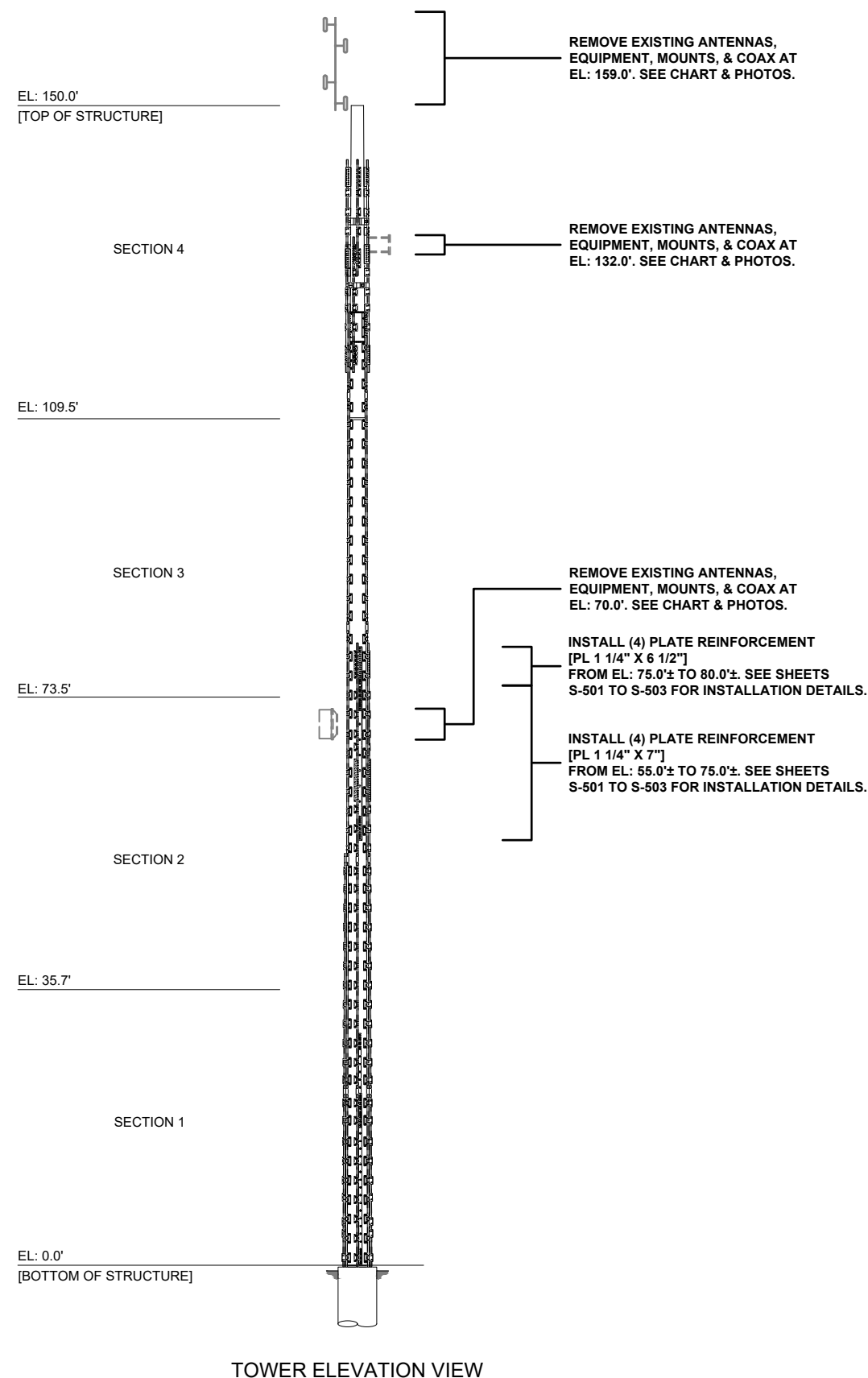
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C-101	0



NOTE:
THIS SITE PLAN IS USED FOR STAGING PURPOSES ONLY AND IS NOT INTENDED TO BE USED FOR ANY OTHER PURPOSE.



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EQUIPMENT TO BE REMOVED			
ELEVATION	ANTENNA	MOUNT	COAX
70.0'	(1) 4' STD. DISH	----	(1) 0.28" (7MM) RG-6
132.0'	(2) DRAGONWAVE HORIZON COMPACT (1) 12" X 12" JUNCTION BOX (1) DRAGONWAVE A-ANT-23G-1-C (1) DRAGONWAVE A-A-ANT-18G-2.5-C	SIDE ARM	(2) 2" CONDUIT (4) 1/2" COAX (6) 5/16" (0.31"-7.9MM) COAX
159.0'	(1) 4' OMNI	----	(1) 1 5/8" COAX

- NOTES:**
- BASE FLANGE WELD AND STIFFENER PLATE WELDS (WHEN PRESENT) ARE TO BE INSPECTED VISUALLY AND BY NDT METHODS BY A CERTIFIED WELD INSPECTOR WITH NDT LEVEL II CERTIFICATION. RESULTS ARE TO BE SENT TO PMI@AMERICANTOWER.COM.
 - 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.
 - A CONSTRUCTION WASTE MANAGEMENT PLAN, AS NEEDED, WILL BE COMPLETED PRIOR TO FINAL INSPECTION.

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CONNECTICUT

SITE ADDRESS:
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BRANFORD, CT 06405



Digitally Signed: 2023-10-18

DRAWN BY:	NYG
APPROVED BY:	RDB
DATE DRAWN:	09/06/23
ATC JOB NO:	14532428_P5_01

MODIFICATION PROFILE

SHEET NUMBER: S-201	REVISION: 0
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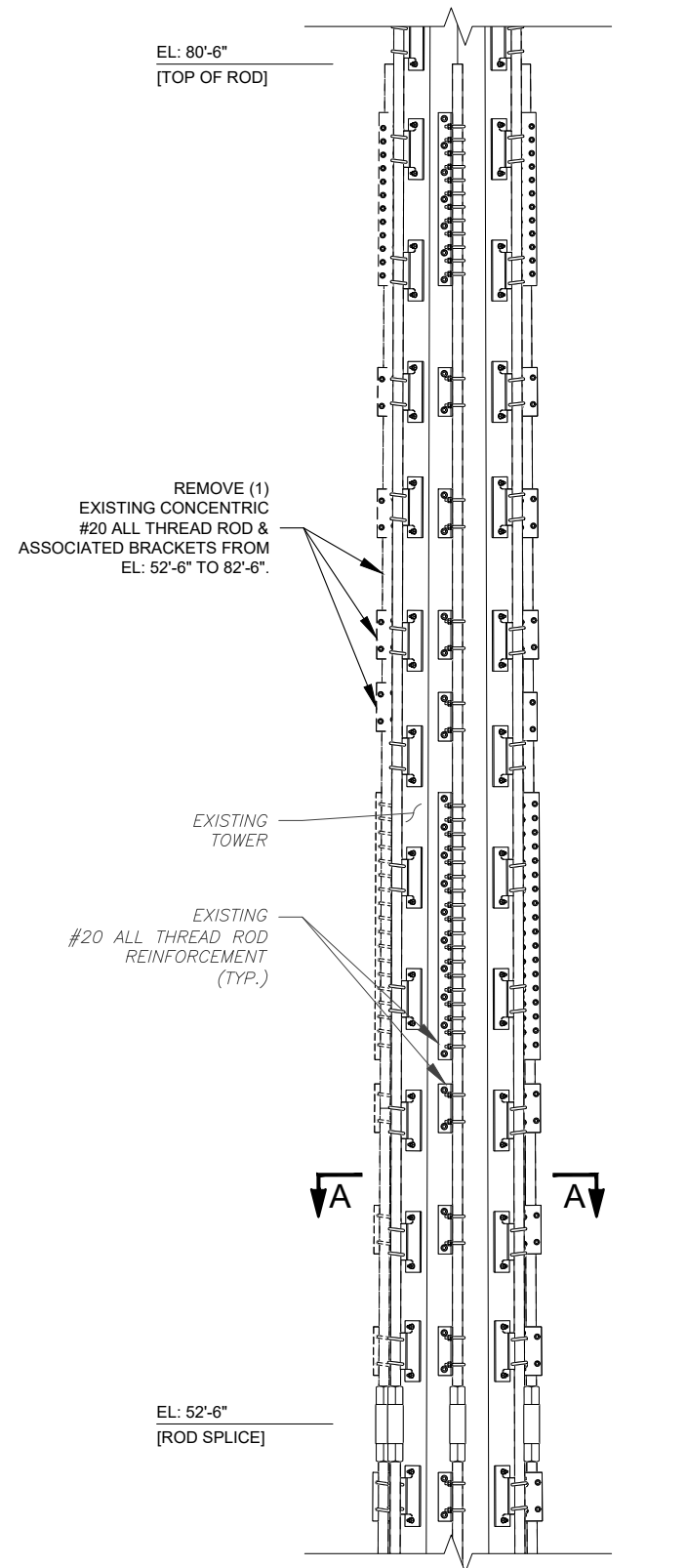
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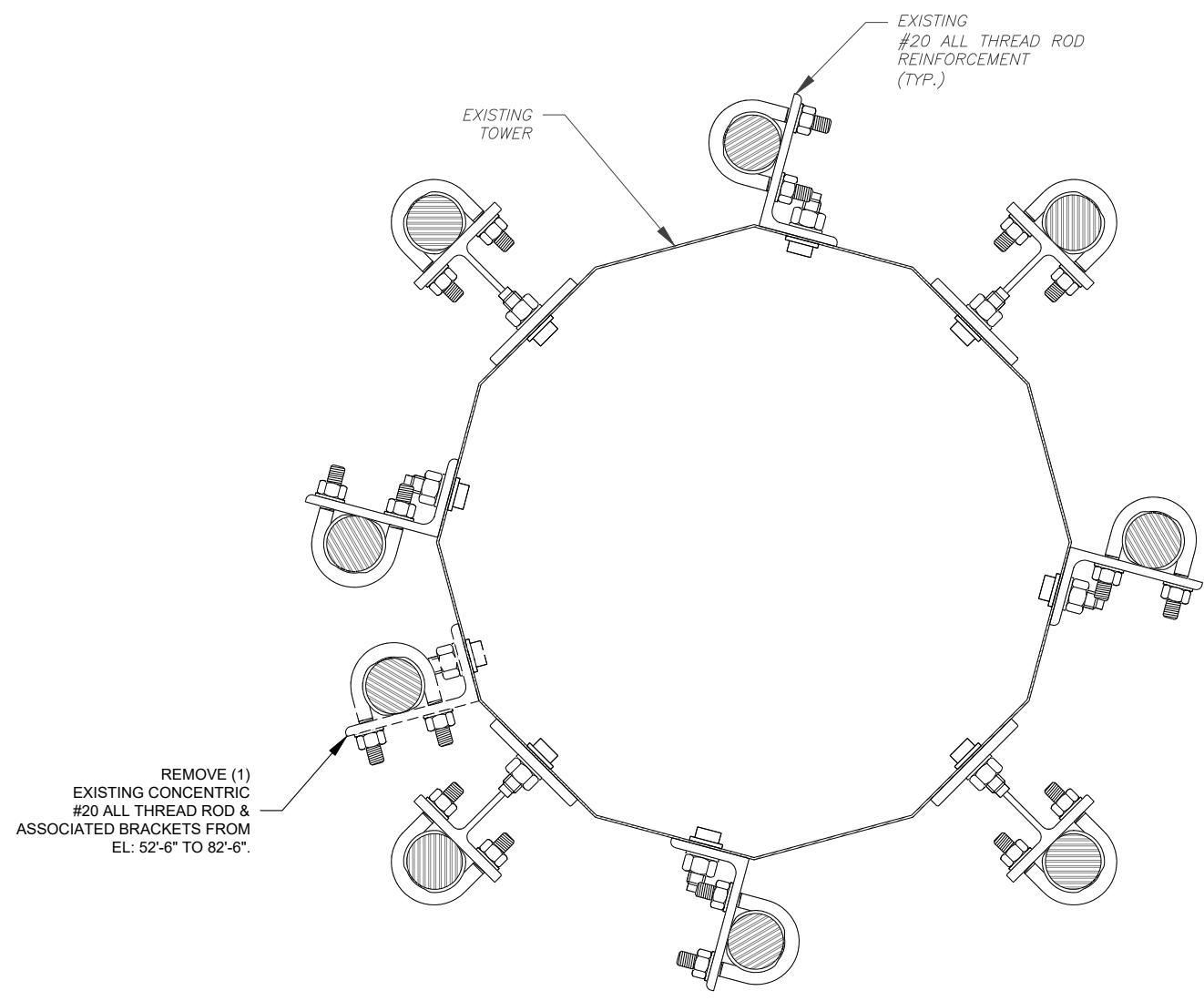
**EXISTING CONDITIONS
 MODIFICATION DETAILS**

SHEET NUMBER:
S-501

REVISION:
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**ELEVATION VIEW
 EXISTING DYWIDAG MODIFICATION**



**SECTION "A-A"
 EXISTING DYWIDAG MODIFICATION**

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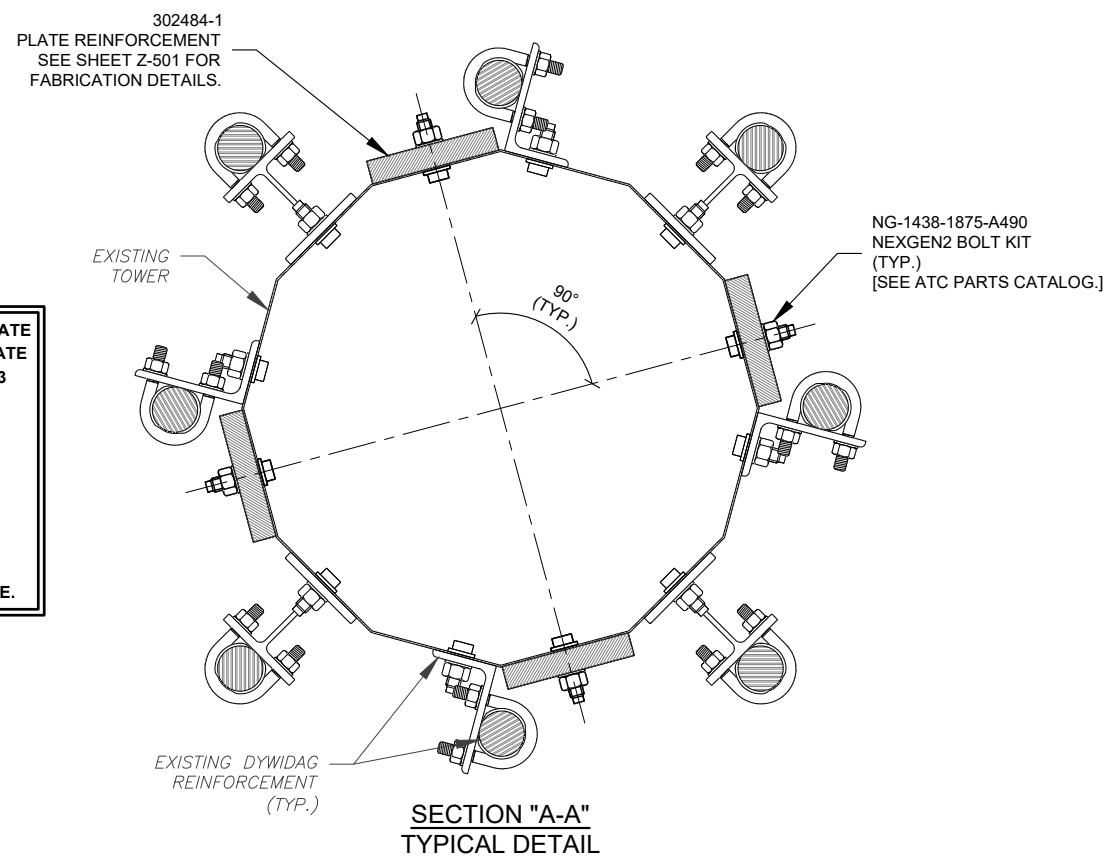
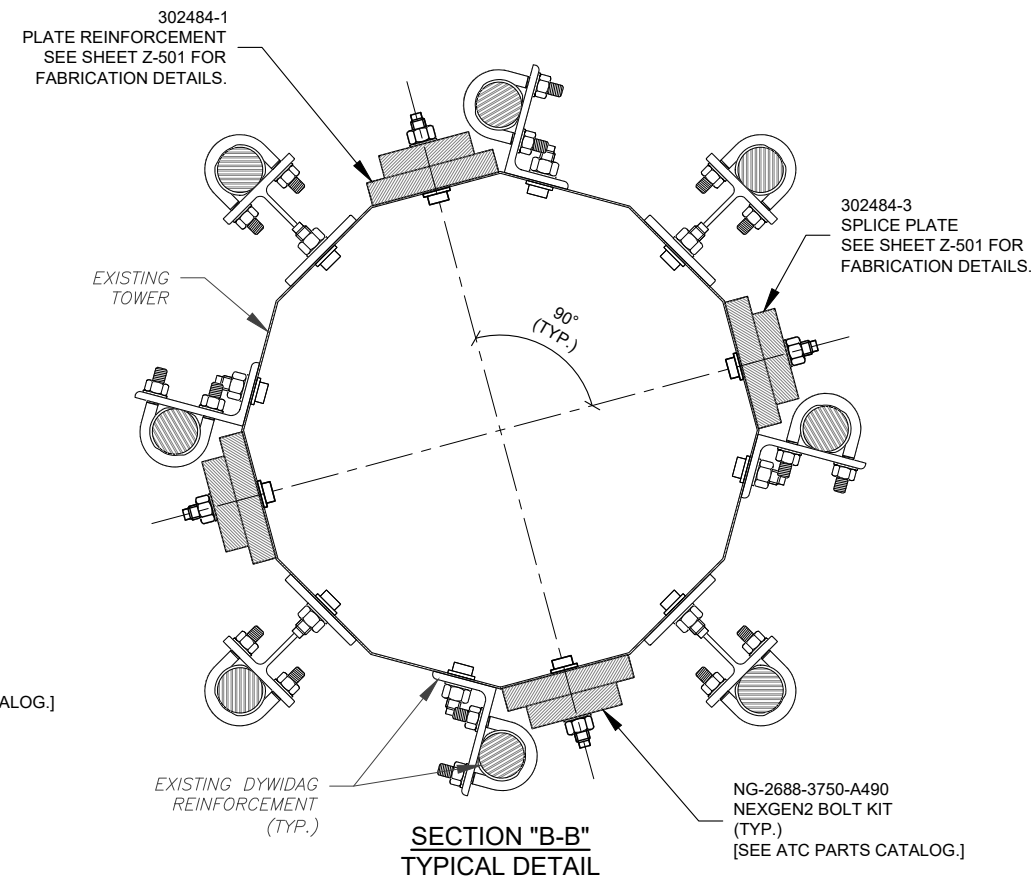
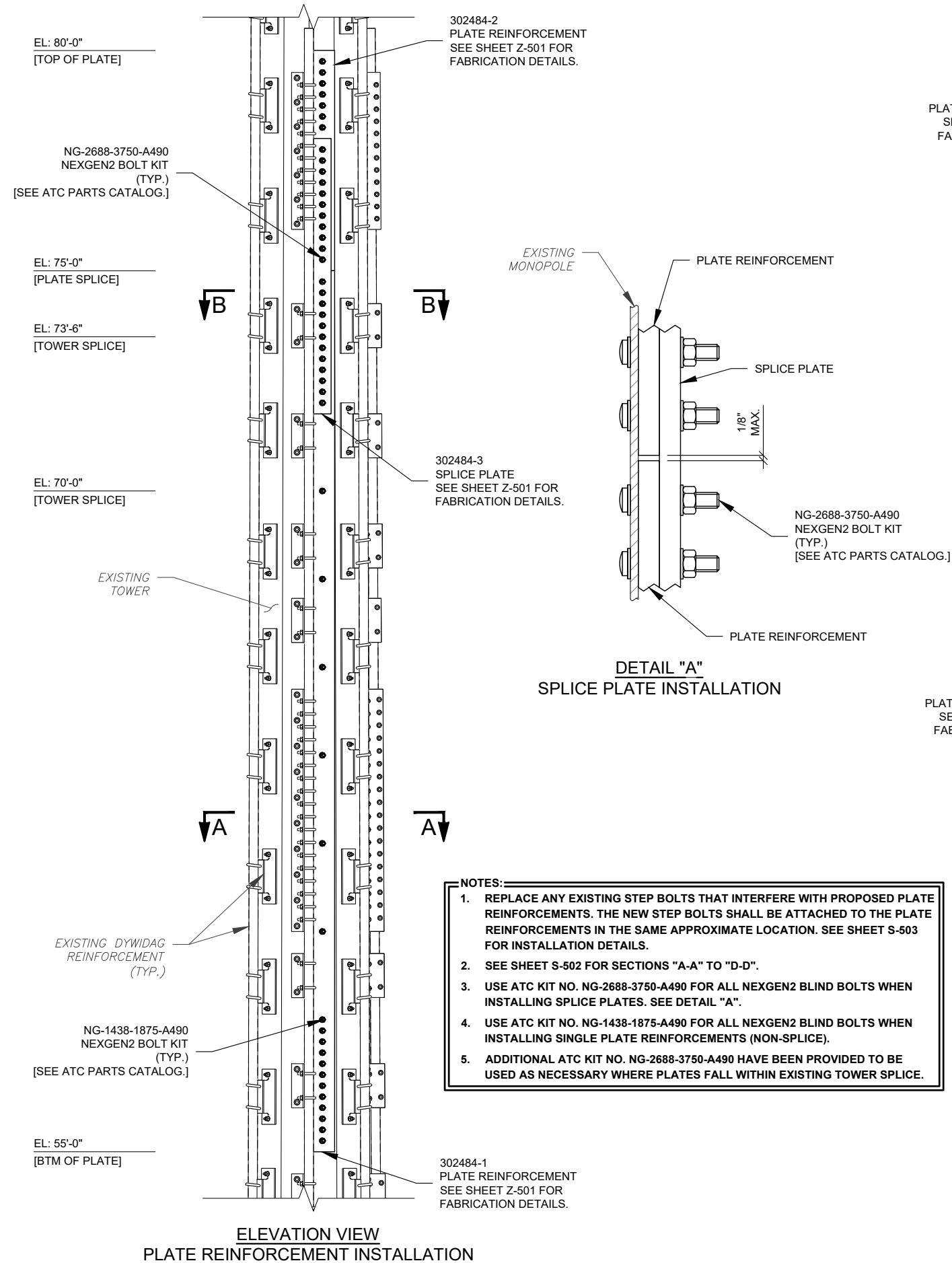


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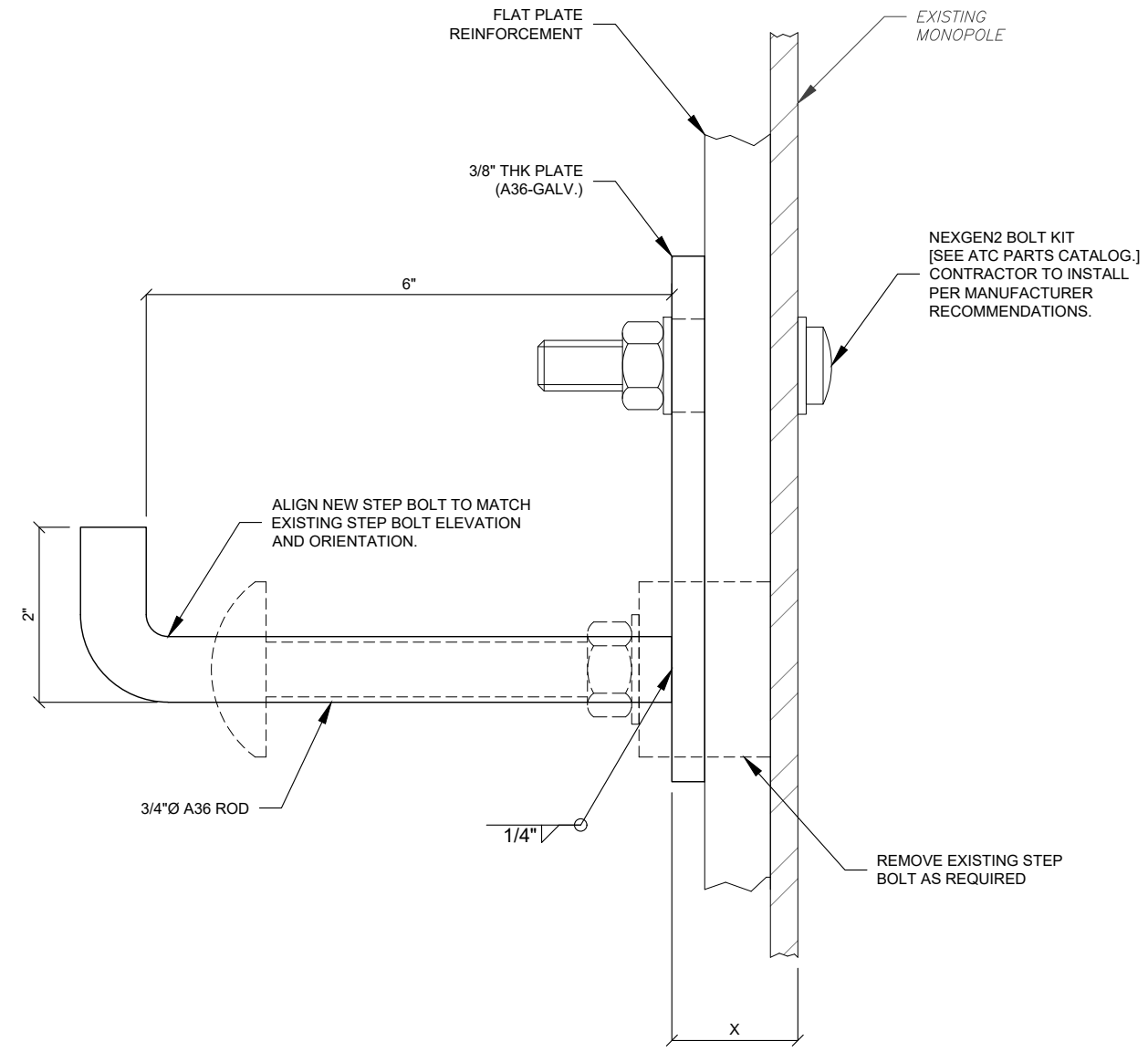
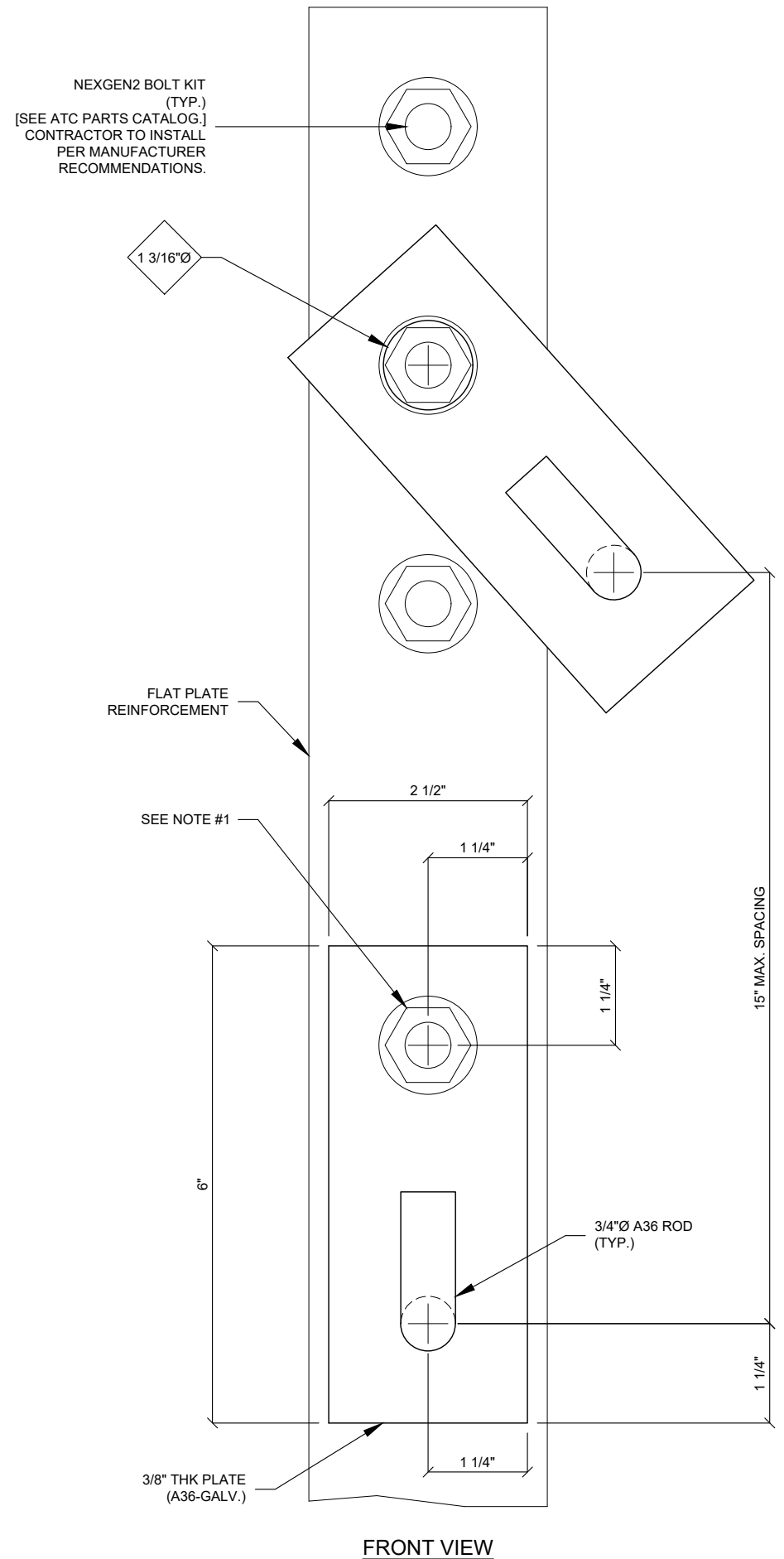
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APPROVED BY:	RDB
DATE DRAWN:	09/06/23
ATC JOB NO:	14532428_P5_01

**PLATE REINFORCEMENT
 INSTALLATION DETAILS**

SHEET NUMBER:
S-502
 REVISION:
0



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NEXGEN2 BLIND BOLTS (A490)		
ATC KIT NUMBER	ALLFASTENER	RANGE (IN)
NG-0625-0875-A490	2NG2060	0.625-0.875
NG-0938-1438-A490	2NG2036	0.9375-1.4375
NG-1438-1875-A490	2NG2048	1.4375-1.875
NG-1875-2250-A490	2NG2057	1.875-2.25
NG-2250-2688-A490	2NG2068	2.25-2.6875
NG-2688-3750-A490	2NG2096	2.6875-3.75
NG-3750-5000-A490	2NG2127	3.75-5
NG-5000-8313-A490	2NG2212	5-8.3125

- NOTES:
- BLIND BOLT LENGTHS TO BE VERIFIED PRIOR TO FLAT PLATE AND STEP BOLT INSTALLATION. USE NEXGEN2 BLIND BOLT CHART.
 - STEP PEG SPACING IS NOT TO EXCEED 15" MAX. STAGGERED OR 30" MAX. ON ANY SINGLE SIDE OF THE FLAT PLATE.

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Digitally Signed: 2023-10-18

DRAWN BY:	NYG
APPROVED BY:	RDB
DATE DRAWN:	09/06/23
ATC JOB NO:	14532428_P5_01

PLATE REINFORCEMENT STEP BOLT BRACKET FABRICATION & INSTALLATION DETAILS

SHEET NUMBER:	REVISION:
S-503	0



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

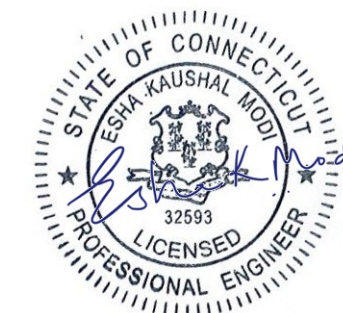
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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NYG	09/06/23

ATC SITE NUMBER:
302484

ATC SITE NAME:
BRANFORD CT 6
CONNECTICUT

SITE ADDRESS:
 405 BRUSHY PLAIN RD
 BRANFORD, CT 06405



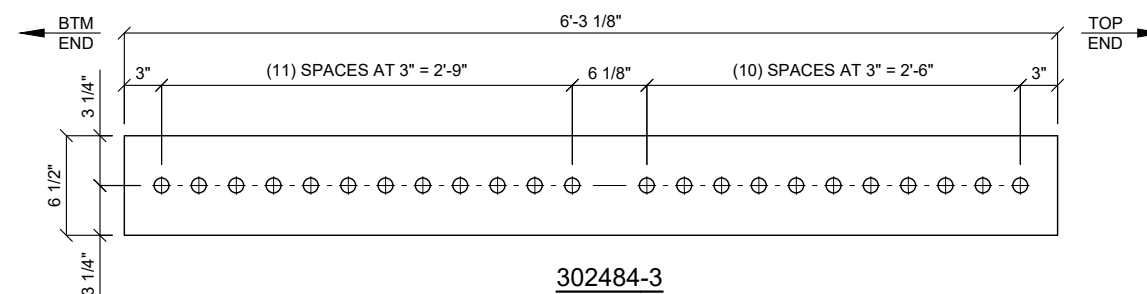
Digitally Signed: 2023-10-18

DRAWN BY:	NYG
APPROVED BY:	RDB
DATE DRAWN:	09/06/23
ATC JOB NO:	14532428_P5_01

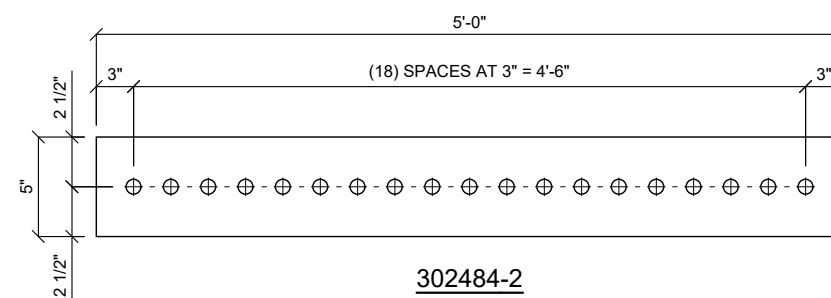
**PLATE REINFORCEMENT
 FABRICATION DETAILS**

SHEET NUMBER:
Z-501

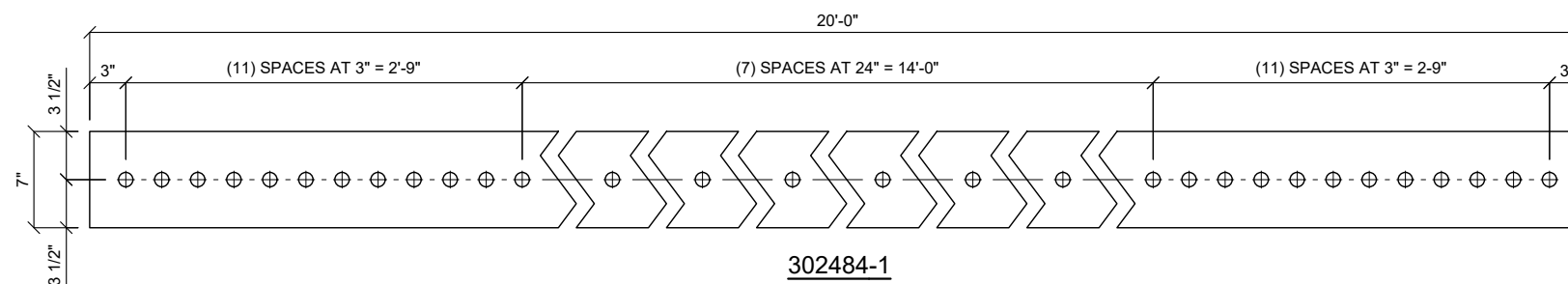
REVISION:
0



**302484-3
 SPLICE PLATE**



**302484-2
 PLATE REINFORCEMENT**



**302484-1
 PLATE REINFORCEMENT**

PART NO.	DESCRIPTION	LENGTH	NOTES	BLK WT	GALV WT
302484-3	PL 1 1/4" X 5"	6'-0"		127.6#	134.0#
302484-2	PL 1 1/4" X 6 1/2"	5'-0"		138.2#	145.1#
302484-1	PL 1 1/4" X 7"	20'-0"		595.5#	625.3#
MATERIAL: A572 GR. 65		FINISH: GALVANIZED		HOLES: 1-3/16"Ø	