



LETTER OF AUTHORIZATION

SITE NO: 302475

SITE NAME: Sttn - Southington

ADDRESS: 80 Shuttle Meadow Road, Southington, CT 06489-1313

I, Margaret Robinson, Senior Counsel, US Tower Division on behalf of American Tower Asset Sub II, LLC, owner of the property and tower facility located at the address identified above (the "Tower Facility"), do hereby authorize Network Building + Consulting, its successors and assigns, to act as American Tower's non-exclusive agent for the purpose of filing and securing any zoning, land-use, building permit and/or electrical permit application(s) and approvals of the applicable jurisdiction for and to conduct the construction of the installation of antennas and related telecommunications equipment on the Tower Facility located at the above address. This installation shall not affect adjoining lands and will occur only within the area leased by American Tower.

American Tower understands that the application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by American Tower of conditions related to American Tower's installation. Any such conditions of approval or modifications will not be effective unless approved in writing by American Tower.

The above authorization does not permit Network Building + Consulting to modify or alter any existing permit(s) and/or zoning or land-use conditions or impose any additional conditions unrelated to American Tower's installation of telecommunications equipment without the prior written approval of American Tower.

Signature: _____

Margaret Robinson, Senior Counsel
US Tower Division

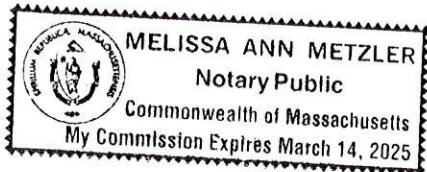
NOTARY BLOCK

COMMONWEALTH OF MASSACHUSETTS
County of Middlesex

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

WITNESS my hand and official seal, this 19 day of June, 2019.

NOTARY SEAL



Notary Public
My Commission Expires: March 14, 2025

NB&C, LLC
100 Apollo Drive Suite 303
Agent for American Tower Corporation
Lorenzo Eggleston
978-914-0495
leggleston@nbcllc.com

June 19, 2019

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

Notice of Exempt Modification

Facility Address: 80 Shuttle Meadow Rd., Southington, CT 06489-1313

**Facility Coordinates (N) 41.638600
(W) 72.841100**

Dear Ms. Bachman:

American Tower Corporation, Inc (ATC) currently maintains an Existing Cellular Tower Facility (150' Monopole) at 80 Shuttle Meadow Rd., Southington, CT 06489-1313, GIS PIN# 184019. The tower is owned by American Tower and the underlying property is owned by Southern New England Telephone Co c/o American Tower Land Management.

American Tower Corporation, Inc (ATC) now intends to install tower reinforcement modifications as presented in the *Monopole Modifications* completed under ATC PROJECT NUMBER: OAA740798_C6_05 and dated 01/22/19. A summary of the results of a post modification structural analysis is included in the *Structural Analysis Report*, completed under Engineering Number: OAA740798_C4_06 and dated 2/26/19. The purpose of the reinforcements is to support the change in loading by AT&T Mobility.

Because the proposed modifications to the existing tower existing structure can support the proposed loading if the tower will be re-enforced to support them, 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 the Mark J. Sciota, Town Manager of the Town of Southington; John Smigel, as Chief Building Official with the Town of Southington; Southern New England Telephone Co, as property owner; and the tower owner, American Tower Corporation.

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 operation of the generator back up power facility 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.
6. The existing structure and its foundation can support the proposed loading if the tower will be re-enforced to support them.

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).

Sincerely,

Lorenzo Eggleston

Attachments:

Property Card

Parcel Map

Monopole Modification Drawings – ATC Project # OAA740798_C6_05, dated 1/22/19

Structural Analysis Report – Engineering Number: OAA740798_C4_06, dated 2/26/19

Cc:

Mark J. Sciota Town Manager – As Chief Elected Official

John Smigel, as Chief Building Official

American Tower Corporation (ATC) – As Tower Owner

Southern New England Telephone Co c/o American Tower Land Management – As Property Owner



Property Information

Property Location	80 SHUTTLE MEADOW RD
Owner	SOUTHERN NEW ENGLAND TELEPHONE CO
Co-Owner	SITE# 302475 - STTN SOUTHINGTON CT
Mailing Address	C/O AMERICAN TOWER LAND MNGMT WOBURN MA 01801
Land Use	433V Radio, Television Trans Ld
Land Class	I
Water Service	

Sewer Service	
Census Tract	4303
Neighborhood	090
Zoning Code	R-80
Acreage	0.17
Book / Page	0331/0320
Lot Setting/Desc	
Trash Day	



184 019 05/24/2015

Sketch

No Photo Available

Primary Construction Details

Year Built	
Stories	
Building Style	
Building Use	Vacant
Building Condition	
Floors	
Total Rooms	

Bedrooms	0
Full Bathrooms	
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	
Roof Cover	

Exterior Walls	
Interior Walls	
Heating Type	
Heating Fuel	
AC Type	
Gross Bldg Area	
Total Living Area	0



Valuation Summary (Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings		0
Outbuildings	18560	12990
Improvements	18560	12990
Extras	0	0
Land	227860	159500
Total	246420	172490

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area		0

Outbuilding and Extra Items

Type	Description
Fence - Chain	2600 L.F.

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
SOUTHERN NEW ENGLAND TELEPHONE CO	0331/0320	1983-02-14	0

Town of Southington, Connecticut - Assessment Parcel Map

Parcel: 184019

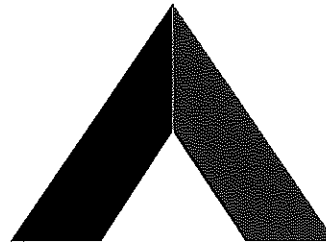
Address: 80 SHUTTLE MEADOW RD



Approximate Scale:
20 0 20 40 60 80
Feet

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


Map Produced May 2019



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

302475 - STTN - SOUTHTON, CONNECTICUT

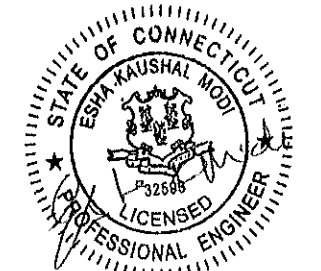
149.5 FT MONOPOLE MODIFICATIONS


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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NYG	01/22/19

ATC SITE NUMBER:
 302475
 ATC SITE NAME:
 STTN - SOUTHTON
 CONNECTICUT
 SITE ADDRESS:
 80 SHUTTLE MEADOW ROAD
 SOUTHTON, CT 06489



Authorized by "EOR"
 Jan 28 2019 5:21 PM cosign

DRAWN BY:	NYG
APPROVED BY:	MER/NOY
DATE DRAWN:	01/22/19
ATC JOB NO:	OAA740798_C6_05

COVER

SHEET NUMBER:	REVISION:
COVER	0


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

PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET	SHEET TITLE	REV.	
ATC PROJECT NUMBER: OAA740798_C6_05 CUSTOMER: AT&T MOBILITY CUSTOMER SITE NAME: SOUTHTON CUSTOMER SITE NUMBER: CT1004 SITE ADDRESS: 80 SHUTTLE MEADOW ROAD SOUTHTON, CT 06489 DATE: 01/22/19 GEOGRAPHIC COORDINATES: 41.63858333 -72.8411	THE MODIFICATIONS PRESENTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL ANALYSIS COMPLETED UNDER ENGINEERING PROJECT NUMBER OAA740798_C3_03 DATED 01/10/19. SATISFACTORY COMPLETION OF THE WORK INDICATED ON THESE DRAWINGS WILL RESULT IN THE STRUCTURE MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE STRUCTURAL WAS COMPLETED.	B-1	BILL OF MATERIALS	0	
		IGN	IBC GENERAL NOTES	0	
		SIC	SPECIAL INSPECTION CHECKLIST	0	
		C-101	SITE PLAN	0	
		A-1	MODIFICATION PROFILE	0	
		A-2	REINFORCEMENT INSTALLATION DETAILS	0	
		A-2A	REINFORCEMENT INSTALLATION DETAILS (CONT'D)	0	
		#20SB	#20 STEP BOLT BRACKET INSTALLATION DETAILS	0	
		W519-20	#20 BAR BRACKET [W5X19 T-BRACKET]	0	
		W519-8U	#20 BAR TERMINATION BRACKET [W5X19 8 U-BOLT]	0	

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BILL OF MATERIALS

QUANTITY REQUIRED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTION	LENGTH	SHEET LIST	PART WEIGHT	WEIGHT (lb)	NOTES
DYWIDAG REINFORCEMENT MATERIAL & HARDWARE								
4	4	DYD-20-ATR-30	#20 ALL THREAD ROD 30'	30'-0"	A-2	501.0	2004	GALVANIZED
4	4	DYD-20-ATR-PF	#20 ALL THREAD ROD (PER FT)	20'-0"	A-2	334.0	1336	GALVANIZED
4	4	DYD-20-COUP-00	#20 COUPLING HDG	----	----	----	----	GALVANIZED
8	8	DYD-20-HN-00	#20 HEX NUT HDG	----	----	----	----	GALVANIZED
72	72	W519-20	W5X19	1'-3"	A-2, W519-20	25.0	1800	#20 T-BRACKET
12	12	W519-8U	W5X19	2'-5 3/4"	A-2, W519-8U	49.5	594	#20 T-BRACKET
280	294	UB-580-3125	U-BOLT ASSEMBLIES FOR #20 ROD	----	----	----	----	GALVANIZED
204	214	NG-0625-0875-A490	NEXGEN2 BLIND BOLT ASSEMB., M20 W/ SPRING SLEEVE, A490	----	----	----	----	ALLFASTENERS - 2NG2060
30	32	NG-0938-1438-A490	NEXGEN2 BLIND BOLT ASSEMB., M20 W/ SPRING SLEEVE, A490	----	----	----	----	ALLFASTENERS - 2NG2036
40	45	#20SB	STEP BOLT WELDMENT	0'-7 1/4"	#20SB	2.5	113	
TOTAL WEIGHT (lb)						5,847		

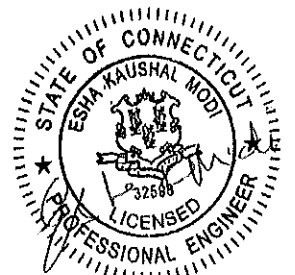


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BILL OF MATERIALS

SHEET NUMBER: B-1	REVISION: 0
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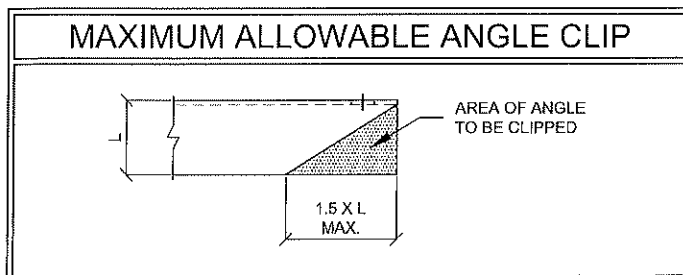
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GENERAL

- ALL WORK TO BE COMPLETED PER APPLICABLE LOCAL, STATE, FEDERAL CODES AND ORDINANCES AND COMPLY WITH ATC MASTER 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 ANSITIA-322 AND ANS/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

- ALL DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS, LATEST EDITION.
- 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-14 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.



PAINT

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

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 DYE PENETRANT OR MAGNETIC PARTICLE (100% IF REJECTABLE DEFECTS ARE FOUND) TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
- INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
- ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
- 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.

BOLT TIGHTENING PROCEDURE

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

BOLT LENGTHS UP TO AND INCLUDING FOUR DIAMETERS

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

BOLT LENGTHS OVER FOUR DIAMETERS BUT NOT EXCEEDING EIGHT DIAMETERS

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

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

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

8.2.1 TURN-OF-NUT PRETENSIONING

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

- 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-G EDITION.
- 2015 INTERNATIONAL BUILDING CODE WITH 2018 CONNECTICUT SUPPLEMENTS AND 2018 CONNECTICUT AMENDMENTS.
- ACI 318: AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 318-02.
- 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 2015, SECTION 1704 AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
 - a) STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELD ONLY)
 - b) HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 EXTENSION FLANGE BOLTS TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD)
- THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER IN ACCORDANCE WITH IBC 2015, SECTION 1704, UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM SUCH WORK WITHOUT THE SPECIAL INSPECTIONS.

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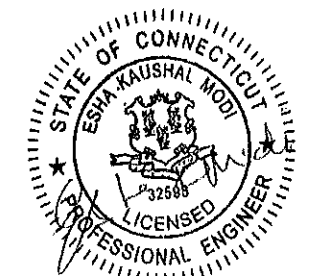
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ATC SITE NUMBER:
302475

ATC SITE NAME:
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CONNECTICUT

SITE ADDRESS:
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SOUTHLINGTON, CT 06489



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IBC GENERAL NOTES

SHEET NUMBER:	REVISION:
IGN	0

MODIFICATION INSPECTION NOTES

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

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

SPECIAL INSPECTOR

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

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

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

GENERAL CONTRACTOR

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

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

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


SPECIAL INSPECTION CHECKLIST

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

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

TABLE KEY:

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



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 SUITE 100
 CARY, NC 27518
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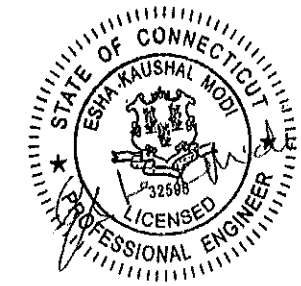
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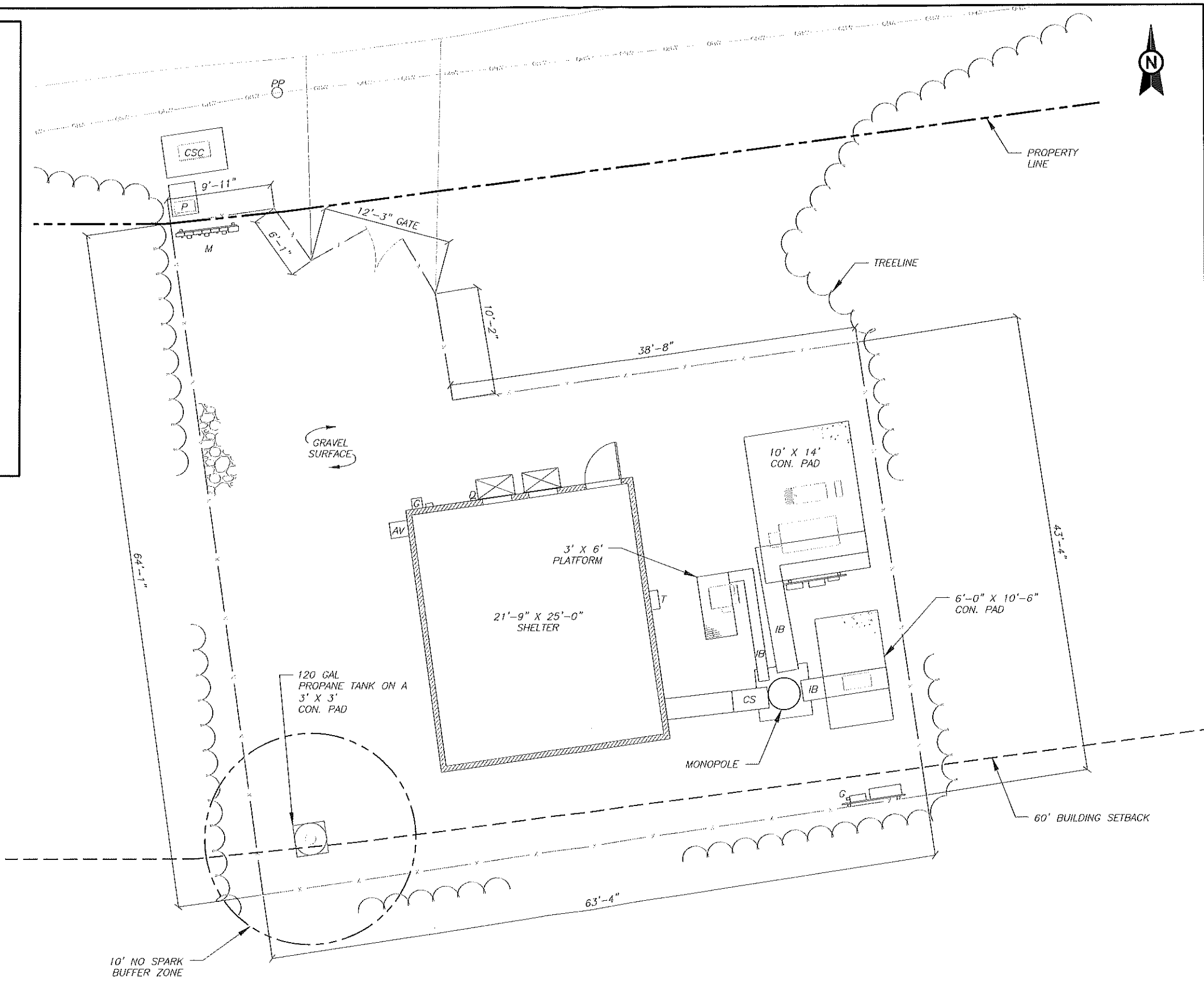
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SPECIAL INSPECTION CHECKLIST

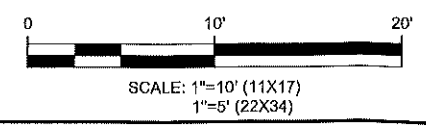
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LEGEND

⊗	GROUNDING TEST WELL
AV, AVV	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)



1 SITE PLAN



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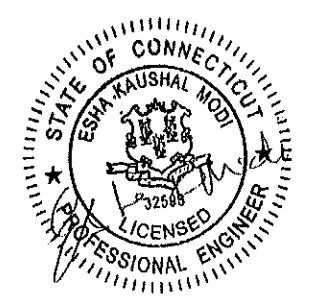
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SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

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AT&T MOBILITY
EL: 153.0' [PROPOSED]

EL: 150.0'
[TOP OF STRUCTURE]

SECTION 4

EL: 109.3'

SECTION 3

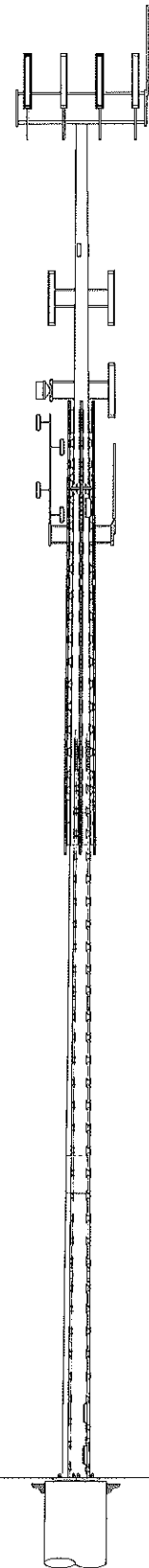
EL: 73.5'

SECTION 2

EL: 35.7'

SECTION 1

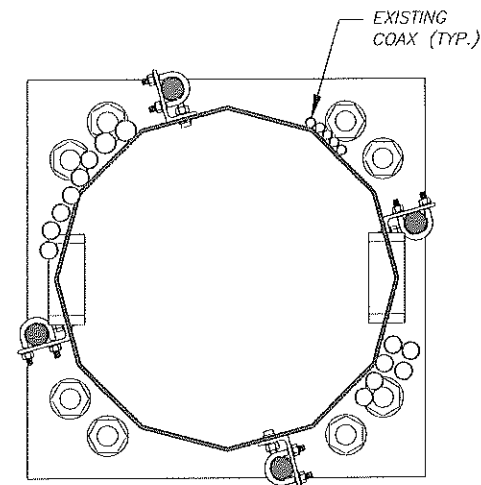
EL: 0.0'
[BOTTOM OF STRUCTURE]



TOWER ELEVATION VIEW

MOUNTS MAY REQUIRE SUPPORT AND RE-MOUNTING DURING INSTALLATION. SEE NOTE BELOW.

INSTALL (4) DYWIDAG #20 ALL THREAD RODS FROM EL: 69.0' TO 119.0'. SEE SHEETS A-2 TO A-2A FOR INSTALLATION DETAILS.



COAX DISTRIBUTION
EXTERIOR ONLY

NOTES:

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

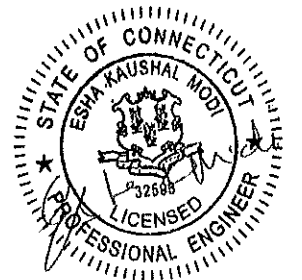


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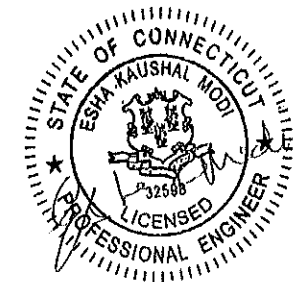
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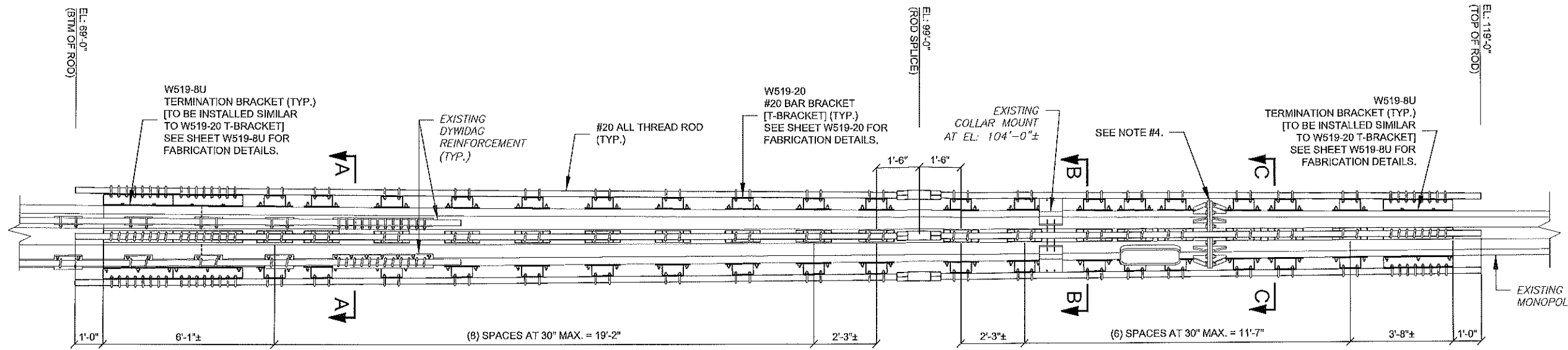


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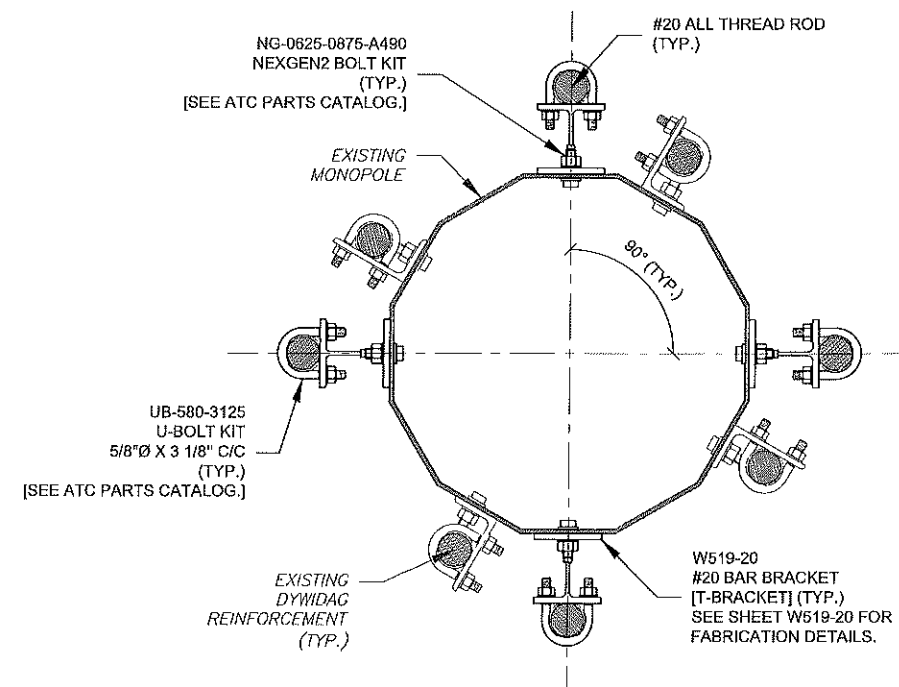
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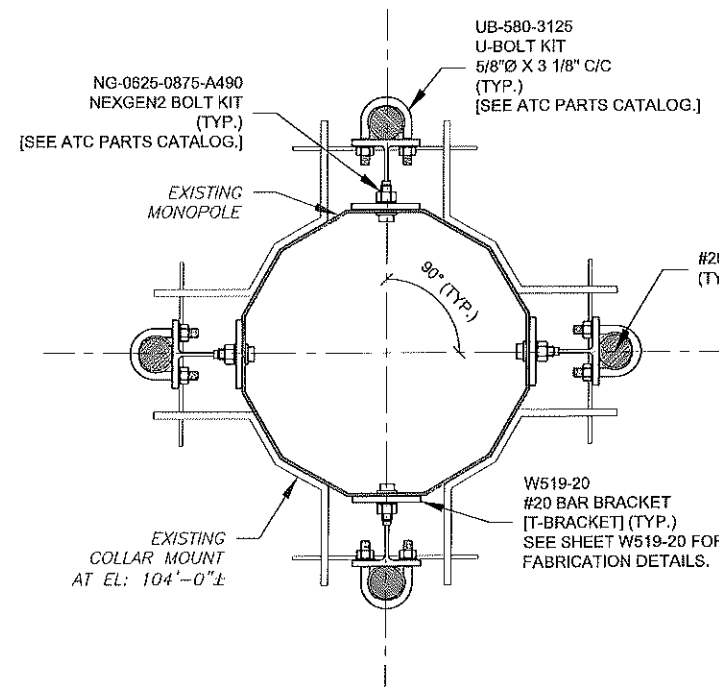
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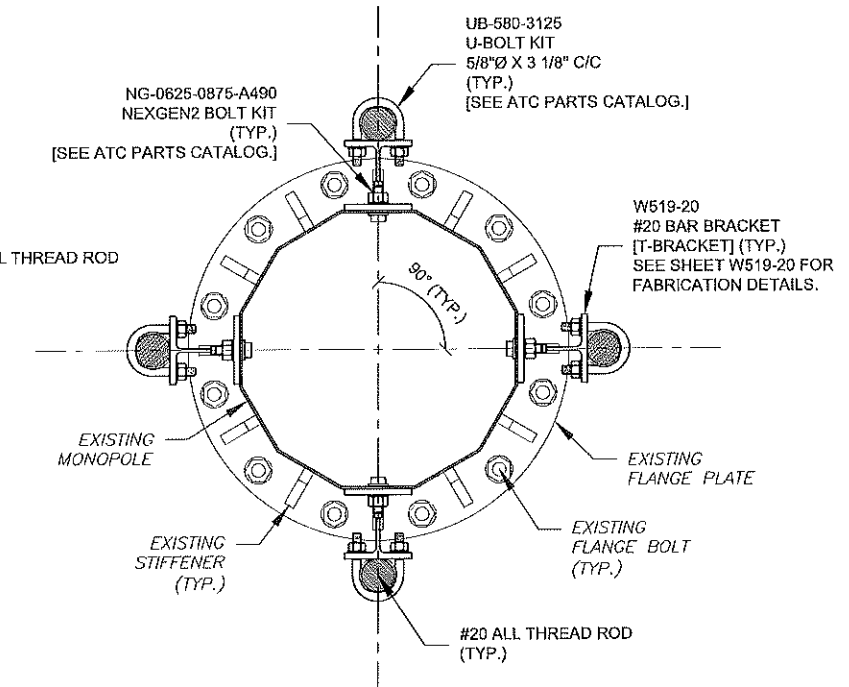
**ELEVATION VIEW
 #20 BAR BRACKET SPACING DETAIL
 (ANTENNAS NOT SHOWN FOR CLARITY)**



**SECTION "A-A"
 TYPICAL DETAIL**



**SECTION "B-B"
 TYPICAL DETAIL**



**SECTION "C-C"
 TYPICAL DETAIL**

- NOTES:**
1. REPLACE ANY EXISTING STEP BOLTS THAT INTERFERE WITH THE NEW #20 ALL THREAD ROD REINFORCEMENTS. THE NEW STEP BOLTS SHALL BE ATTACHED TO THE #20 ALL THREAD RODS IN THE SAME APPROXIMATE LOCATION. SEE SHEET #20SB FOR INSTALLATION DETAILS.
 2. PLACE A BRACKET (W519-20) DIRECTLY ABOVE AND BELOW ANY EXISTING PORTHOLE AS REQUIRED.
 3. SEE SHEET A-2A FOR #20 ALL THREAD ROD BRACKET INSTALLATION DETAILS.
 4. PLACE A BRACKET (W519-20) DIRECTLY ABOVE AND BELOW EXISTING FLANGE PLATE STIFFENERS AS REQUIRED.
 5. EXTRA LONG NEXGEN2 BOLTS SUPPLIED FOR MONOPOLE SLIP JOINT LOCATIONS.

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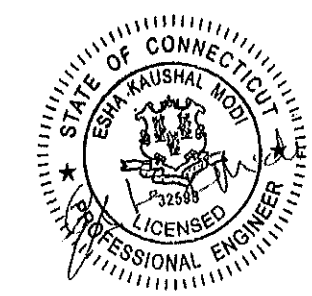
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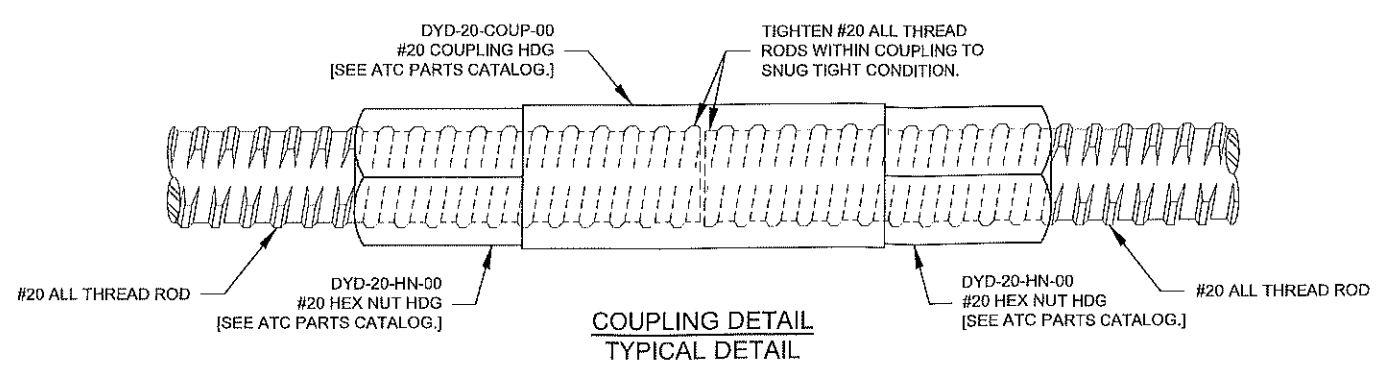
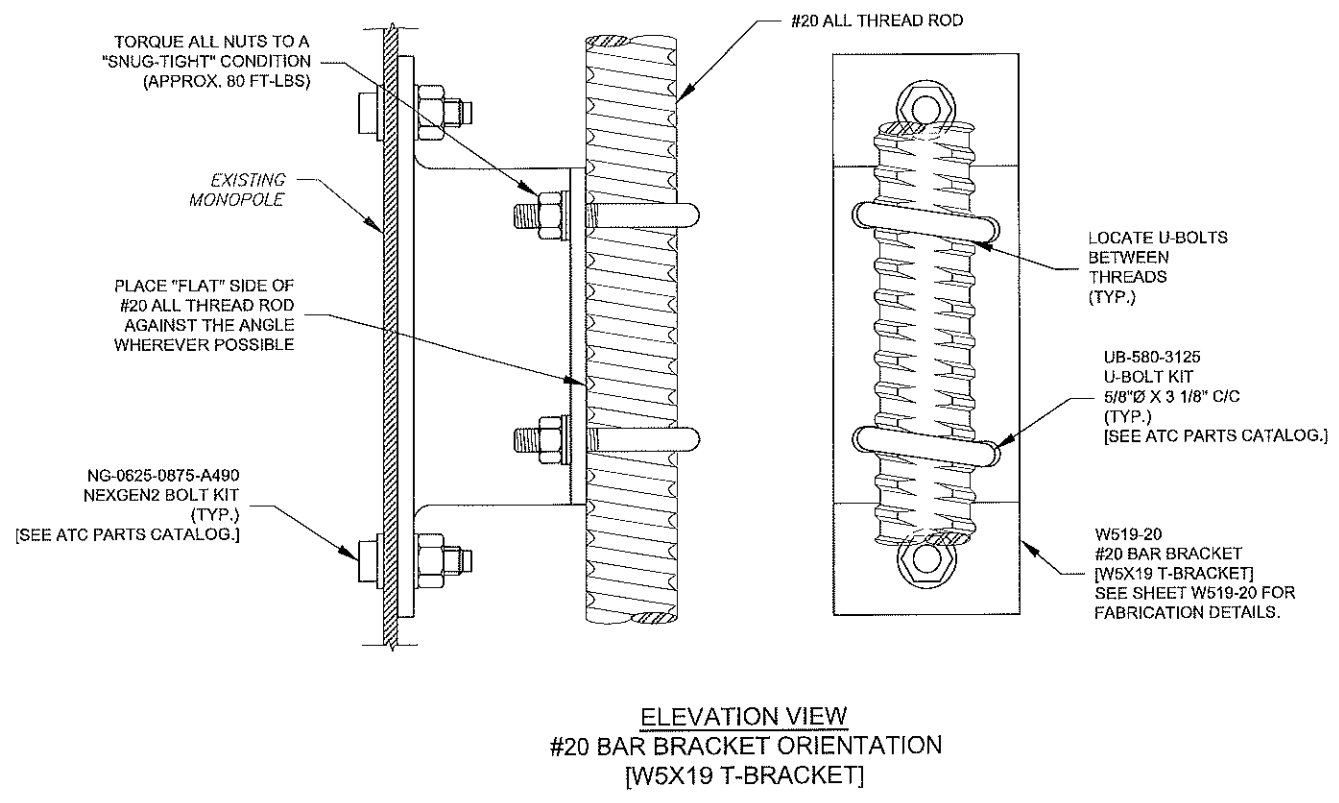
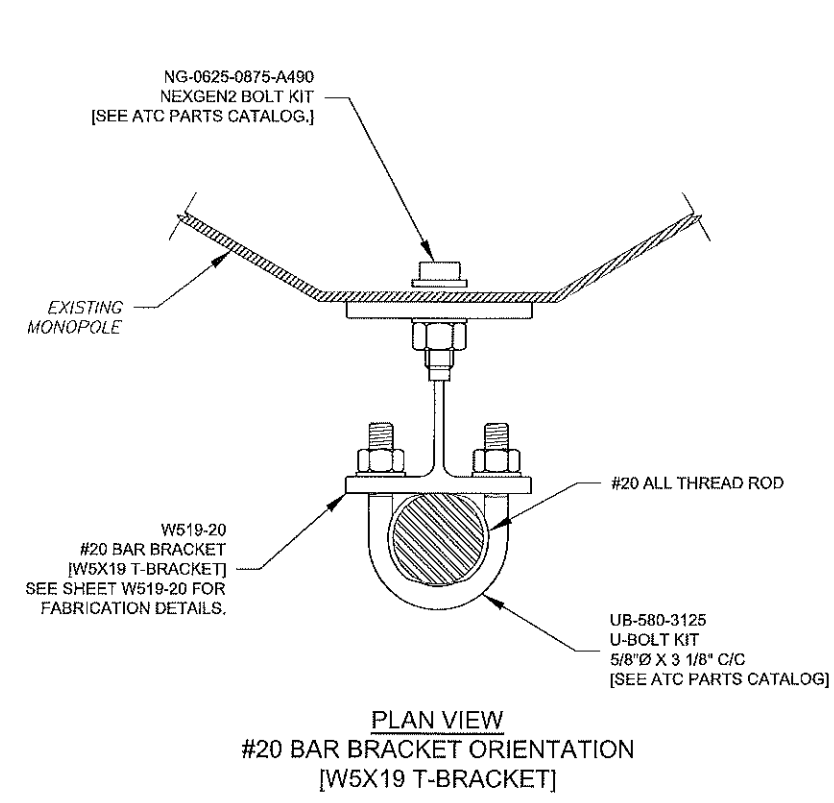


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 (CONT'D)**

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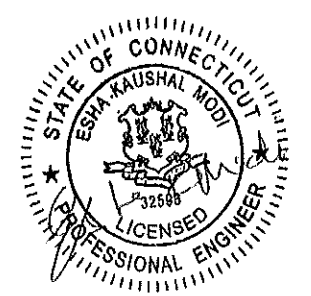


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ATC SITE NUMBER:
302475
 ATC SITE NAME:
STTN - SOUTHINGTON
CONNECTICUT
 SITE ADDRESS:
 80 SHUTTLE MEADOW ROAD
 SOUTHINGTON, CT 06489

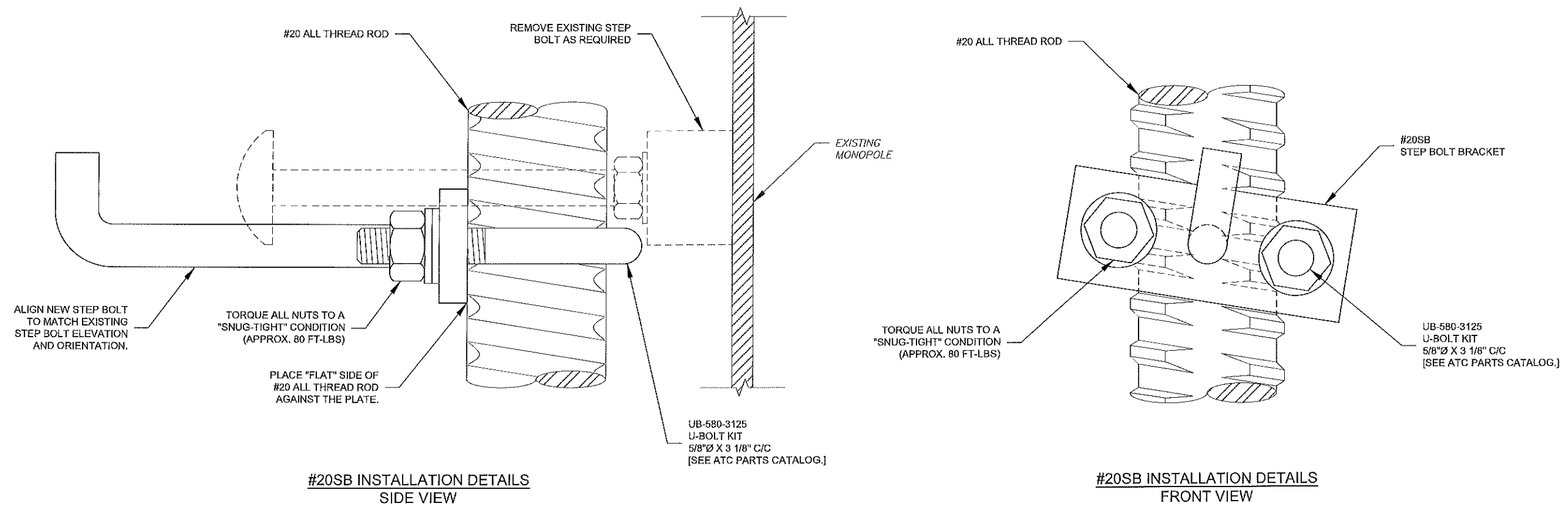


Authorized by "EOR"
 Jan 28 2019 5:21 PM **cosign**

DRAWN BY:	NYG
APPROVED BY:	MER/NOY
DATE DRAWN:	01/22/19
ATC JOB NO:	OAA740798_C6_05

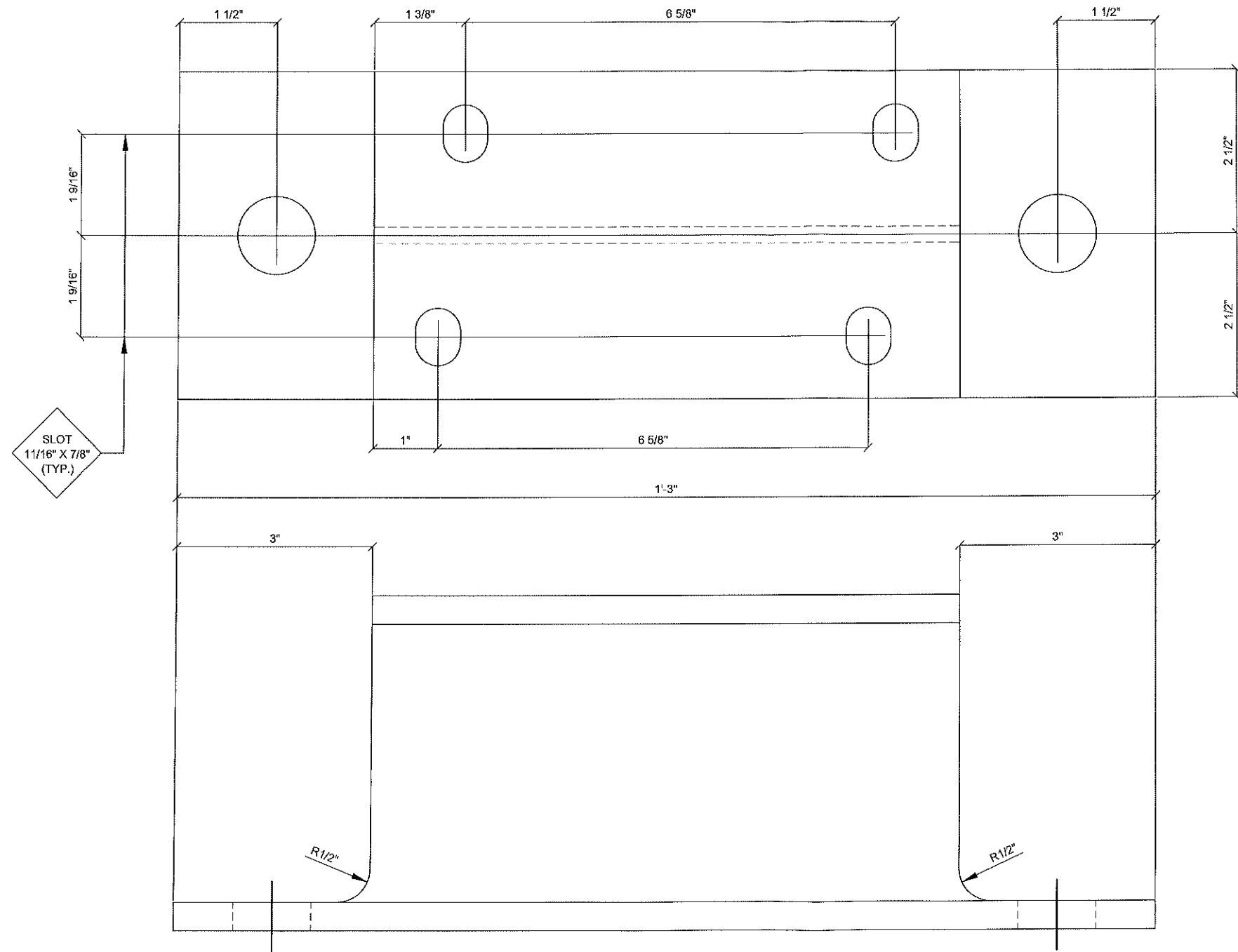
**#20 STEP BOLT BRACKET
 INSTALLATION DETAILS**

SHEET NUMBER:	REVISION:
#20SB	0



NOTE:
 STEP PEG SPACING IS NOT TO EXCEED 15" MAX. STAGGERED OR 30" MAX.
 ON ANY SINGLE SIDE OF THE DYWIDAG BAR.

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W519-20
#20 BAR BRACKET
[T-BRACKET]

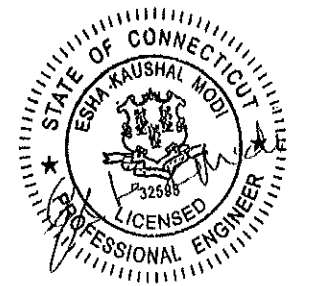
PART NO.	DESCRIPTION	LENGTH	NOTES	BLK WT	GALV WT
W519-20	W5X19	1'-3"		23.8#	25.0#
MATERIAL: A36			FINISH: GALVANIZED	HOLES: 1 3/16"Ø U.N.O.	

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	01/22/19

ATC SITE NUMBER:
302475
ATC SITE NAME:
STTN - SOUTHTON
CONNECTICUT
SITE ADDRESS:
80 SHUTTLE MEADOW ROAD
SOUTHTON, CT 06489



Authorized by "EOR"
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DRAWN BY:	NYG
APPROVED BY:	MER/NOY
DATE DRAWN:	01/22/19
ATC JOB NO:	OAA740798_C8_05

#20 BAR BRACKET
[W5X19 T-BRACKET]

SHEET NUMBER:	REVISION:
W519-20	0

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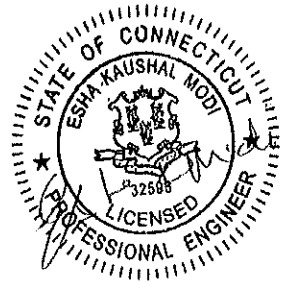


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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NYG	01/22/19

ATC SITE NUMBER:
302475
 ATC SITE NAME:
STTN - SOUTHTON
CONNECTICUT
 SITE ADDRESS:
 80 SHUTTLE MEADOW ROAD
 SOUTHTON, CT 06489

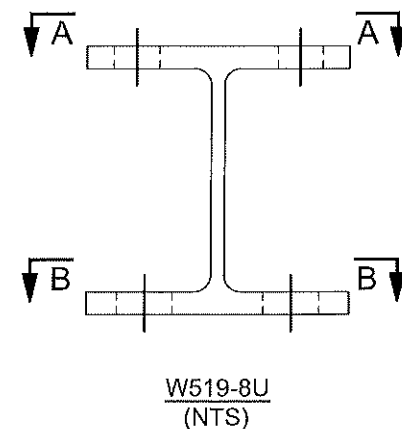
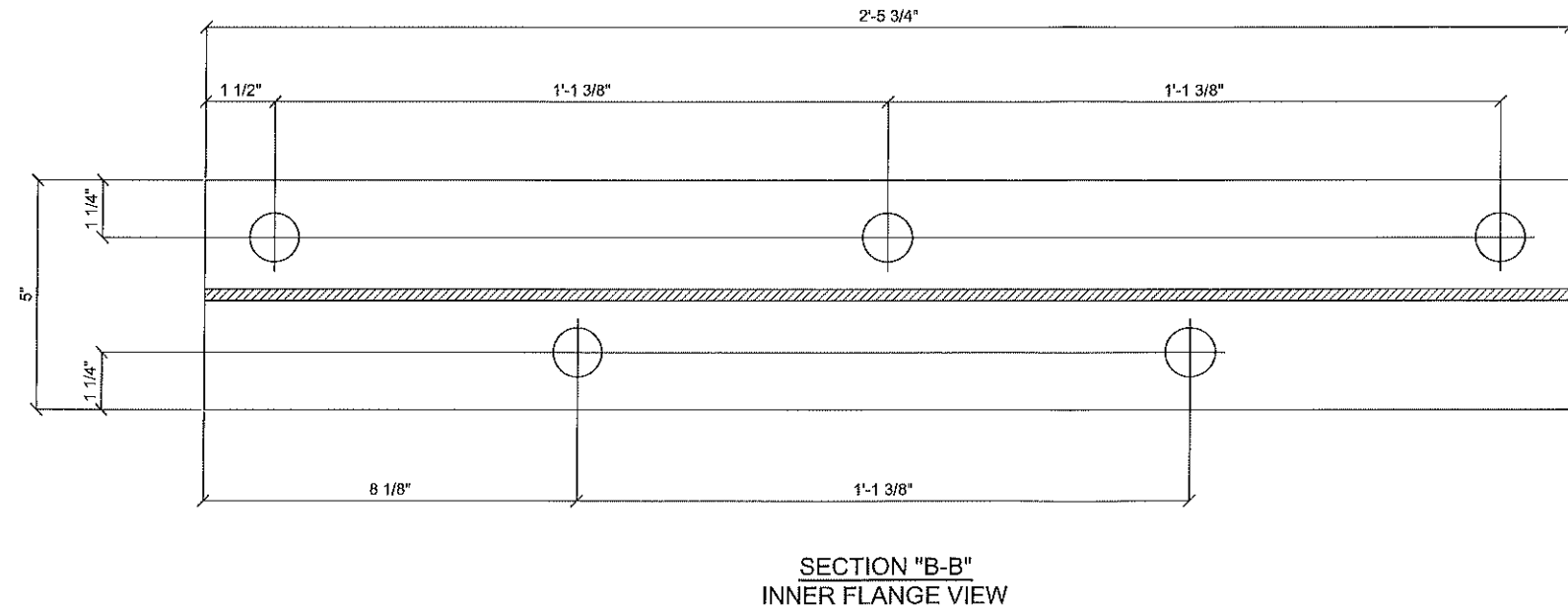
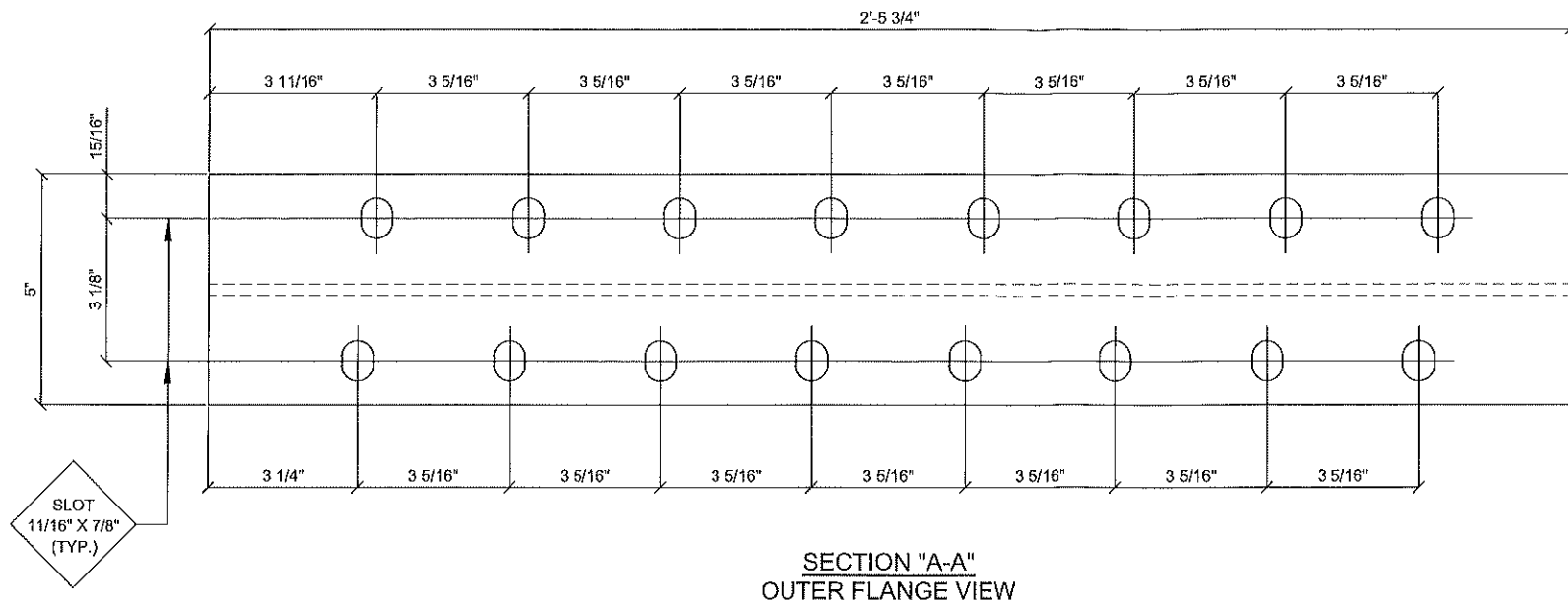


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DRAWN BY:	NYG
APPROVED BY:	MER/NOY
DATE DRAWN:	01/22/19
ATC JOB NO:	OAA740798_C6_05

#20 BAR
 TERMINATION BRACKET
 [W5X19 8 U-BOLT]

SHEET NUMBER:	REVISION:
W519-8U	0



PART NO.	DESCRIPTION	LENGTH	NOTES	BLK WT	GALV WT
W519-8U	W5X19	2'-5 3/4"		47.1#	49.5#
MATERIAL: A36		FINISH: GALVANIZED		HOLES: 1 3/16"Ø U.N.O.	



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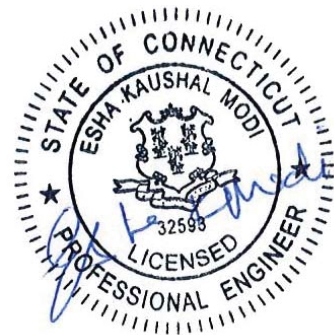
Structural Analysis Report


Structure : 150 ft Monopole
ATC Site Name : Sttn - Southington, CT
ATC Site Number : 302475
Engineering Number : OAA740798_C4_06
Proposed Carrier : AT&T Mobility
Carrier Site Name : SOUTHINGTON
Carrier Site Number : CT1004
Site Location : 80 Shuttle Meadow Road
Southington, CT 06489-1313
41.638600,-72.841100
County : HARTFORD
Date : February 26, 2019
Max Usage : 99%
Result : Pass

Prepared By:
Zackaryah Hughes
Structural Engineer I

Zackaryah Hughes

Reviewed By:



Authorized by "EOR"
Feb 28 2019 8:54 AM 

COA: PEC.0001553



Table of Contents

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Supporting Documents	1
Analysis	1
Conclusion.....	1
Existing and Reserved Equipment.....	2
Equipment to be Removed.....	2
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Foundations	4
Deflection and Sway	4
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Calculations	Attached



Introduction

The purpose of this report is to summarize results of a post-modification structural analysis performed on the 150 ft monopole to reflect the change in loading by AT&T Mobility.

Supporting Documents

Tower Drawings	SpectraSite Mapping Site #CT-0011, dated May 29, 2002 AT&T Technologies Project #AT-8935, dated April 13, 1984
Foundation Drawing	Girard & Co. Engineers Project #38922, dated May 18, 1983
Geotechnical Report	GeoTechnologies Project #1-02-0934-EA, dated July 12, 2002
Modifications	ATC Job #40480332, dated May 25, 2007 ATC Job #42608538, dated April 22, 2009 ATC Job #OAA740798_C6_05, dated January 22, 2019 (Pending)

Analysis

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

Basic Wind Speed:	97 mph (3-Second Gust, V _{sd}) / 125 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-G / 2015 IBC / 2018 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	S _s = 0.18, S ₁ = 0.06
Site Class:	D - Stiff Soil

Conclusion

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

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



Existing and Reserved Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
150.0	153.0	6	CCI TPX-070821	-	(12) 7/8" Coax (4) 0.78" 8 AWG 6 (2) 0.39" Fiber Trunk (1) 3" conduit	AT&T Mobility
		2	Raycap DC6-48-60-18-8F (23.5" Height)			
		3	CCI DTMABP7819VG12A (w/ Bracket)			
		3	Ericsson RRUS-11 (50 lbs.)			
		3	Ericsson RRUS 32 B2			
		3	Ericsson RRUS-32 (77 lbs)			
		3	Powerwave 7770.00			
		2	KMW AM-X-CD-16-65-00T-RET			
		3	Quintel QS66512-3 (112 lbs.)			
		1	Andrew SBNH-1D6565C (60.8 lbs)			
		154.0	1			
134.0	134.0	3	Kathrein Smart Bias Tee	Site-Pro UWS6-NPs	(12) 1 5/8" Coax	Metro PCS
		3	RFS APXV18-206517S-C			
		3	Andrew LNX-6515DS-VTM			
120.0	120.0	1	DragonWave Horizon Compact	Side Arms	(4) 1 1/4" Hybriflex (2) 2" conduit (1) 1/2" Coax	Clearwire
		1	12" x 12" Junction Box			
		6	Alcatel-Lucent RRH2x50-08			
		3	Nokia FZHN Flexi RRH 8TR 2600 9*20W			
		3	Alcatel-Lucent 1900MHz 4X45 RRH			
		3	RFS APXVTM14-ALU-I20			
		1	DragonWave A-ANT-11G-2.5-C			
3	Commscope NNVV-65B-R4					
105.0	109.0	1	dB Systems 5100A	Side Arms	(6) 7/8" Coax	M/a Com Private Radio Systems
		4	dB Systems 5100A-D			
	104.0	1	VertexRSI 101V VPD			

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
153.0	153.0	1	Andrew SBNH-1D6565C	Platform w. Handrails	-	AT&T Mobility
		3	Quintel QS66512-3			
		3	Powerwave 7770.00			
		2	KMW AM-X-CD-16-65-00T-RET			
		3	CCI DTMABP7819VG12A			
		6	CCI TPX-070821			
		3	Ericsson RRUS-32			
		3	Ericsson RRUS-11			
		3	Ericsson RRUS 32 B2			



Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
150.0	153.0	6	Kaelus DBCT108F1V92-1	Sabre 12' HD V-Boom Sector Frames	(2) 0.78" 8 AWG 6	AT&T Mobility
		1	Raycap DC6-48-60-18-8F ("Squid")			
		3	Ericsson RRUS 4426 B66			
		3	Ericsson RRUS 4478 B14			
		3	Ericsson RRUS 4478 B5			
		2	Kathrein 80010965			
		1	Kathrein 80010966			

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

Install proposed coax inside the pole shaft.



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	88%	Pass
Shaft	86%	Pass
Base Plate	63%	Pass
Flanges	96%	Pass
Reinforcement	88%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	2,723.7	99%
Axial (Kips)	39.9	65%
Shear (Kips)	27.2	42%

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

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
150.0	Kaelus DBCT108F1V92-1	AT&T Mobility	2.654	1.974
	Raycap DC6-48-60-18-8F ("Squid")			
	Ericsson RRUS 4426 B66			
	Ericsson RRUS 4478 B5			
	Ericsson RRUS 4478 B14			
	Kathrein Scala 80010965			
120.0	DragonWave A-ANT-11G-2.5-C	Clearwire Corporation	1.729	1.441

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



Standard Conditions

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

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

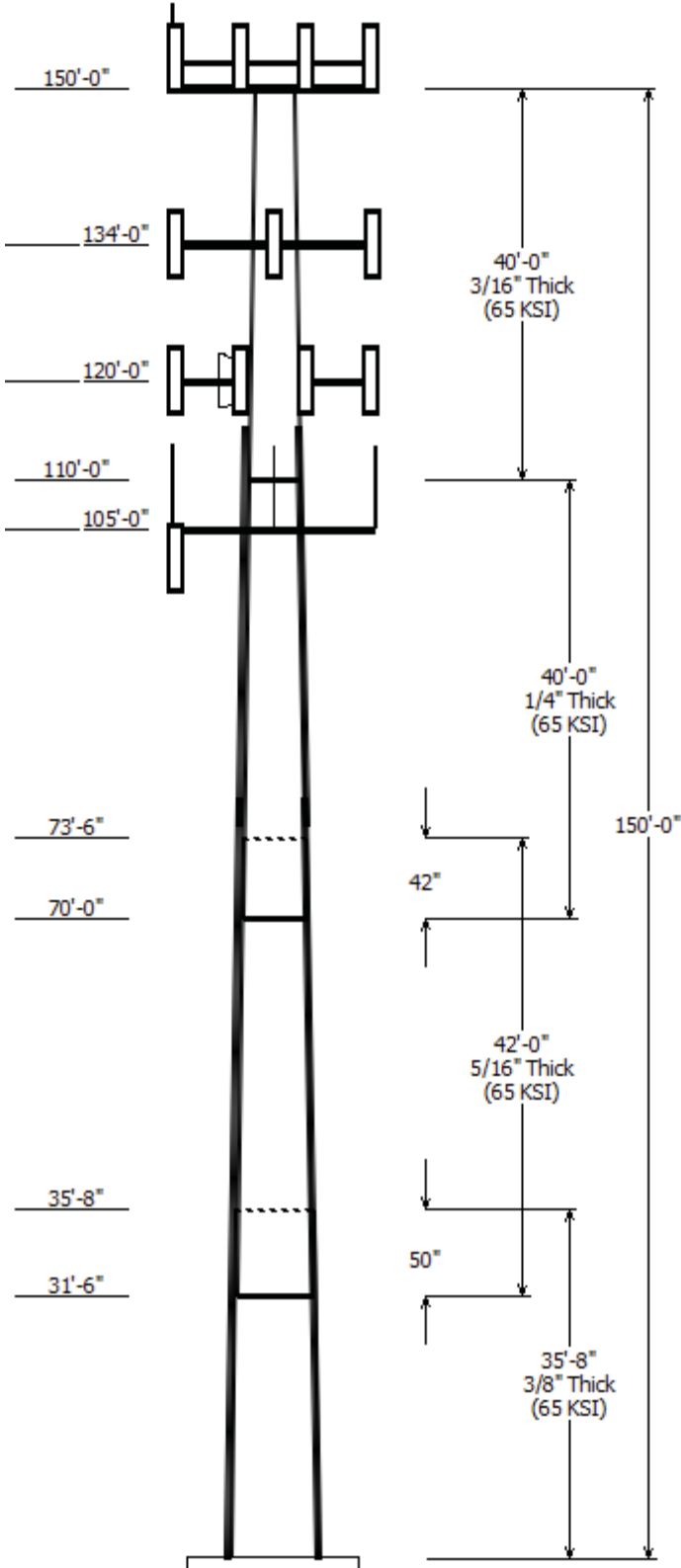
It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

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

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

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

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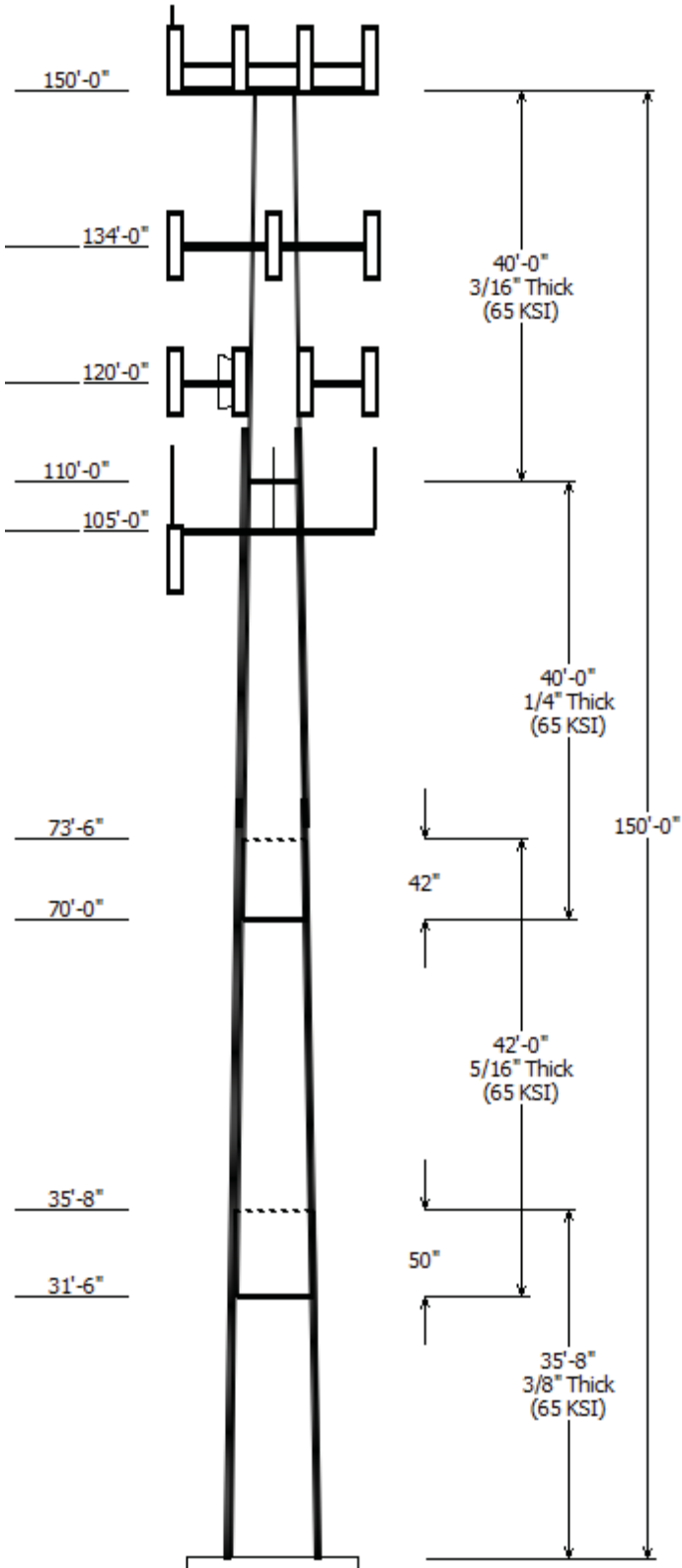


Job Information	
Pole : 302475	Code: ANSI/TIA-222-G
Location : Sttn - Southington, CT	
Description : 150' ITT Meyer Type "B" Monopole	
Client : AT&T MOBILITY	Struct Class : II
Shape : 12 Sides	Exposure : B
Height : 150.00 (ft)	Topo : 1
Base Elev (ft): 0.00	
Taper: 0.160833in/ft)	

Sections Properties							
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Steel Grade
		Top	Bottom				
1	35.667	31.26	37.00	0.375		0.000	12 Sides 65
2	42.000	25.80	32.55	0.313	Slip Joint	50.000	12 Sides 65
3	40.000	20.43	26.86	0.250	Slip Joint	42.000	12 Sides 65
4	40.000	14.00	20.43	0.188	Butt Joint	0.000	12 Sides 65

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
150.000	150.000	3	Round Sector Frame
150.000	153.000	1	Andrew SBNH-1D6565C (60.8
150.000	153.000	3	Quintel QS66512-3 (112 lbs.)
150.000	153.000	2	KMW AM-X-CD-16-65-00T-RET
150.000	153.000	3	Powerwave Allgon 7770.00
150.000	153.000	3	Ericsson RRUS-32 (77 lbs)
150.000	154.000	1	10' Omni
150.000	153.000	3	Ericsson RRUS 32 B2
150.000	153.000	3	Ericsson RRUS-11 (50 lbs.)
150.000	153.000	3	CCI DTMABP7819VG12A (w/
150.000	153.000	2	Raycap DC6-48-60-18-8F (23.5"
150.000	153.000	6	CCI TPX-070821
150.000	153.000	1	Kathrein Scala 80010966
150.000	153.000	2	Kathrein Scala 80010965
150.000	153.000	3	Ericsson RRUS 4478 B14
150.000	153.000	3	Ericsson RRUS 4478 B5
150.000	153.000	3	Ericsson RRUS 4426 B66
150.000	153.000	1	Raycap DC6-48-60-18-8F
150.000	153.000	6	Kaelus DBCT108F1V92-1
134.000	134.000	3	Andrew LNX-6515DS-VTM
134.000	134.000	3	RFS APXV18-206517S-C
134.000	134.000	3	Site-Pro UWS6-NP
134.000	134.000	3	Kathrein Smart Bias Tee
120.000	120.000	3	Nokia FZHN Flexi RRH 8TR 2600
120.000	120.000	1	DragonWave A-ANT-11G-2.5-C
120.000	120.000	3	Commscope NNVV-65B-R4
120.000	120.000	3	RFS APXVTM14-ALU-I20
120.000	120.000	3	Alcatel-Lucent 1900 MHz 4X45
120.000	120.000	6	Alcatel-Lucent RRH2x50-08
120.000	120.000	1	DragonWave Horizon Compact
120.000	120.000	1	12" x 12" Junction Box
120.000	120.000	2	Side Arms
105.000	105.000	3	Round Side Arm
105.000	105.000	3	Round Side Arm
105.000	109.000	4	dB Systems 5100A-D
105.000	104.000	1	VertexRSI 101V VPD
105.000	109.000	1	dB Systems 5100A

Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
82.500	119.0	#20 Dywidag Bars	Yes



0.000	120.0	1 1/4" Hybriflex	Yes
0.000	120.0	1/2" Coax	Yes
0.000	120.0	2" conduit	Yes
0.000	134.0	1 5/8" Coax	Yes
0.000	134.0	1 5/8" Coax	Yes
0.000	150.0	0.39" (10mm)	No
0.000	150.0	0.78" (19.7mm) 8	No
0.000	150.0	0.78" (19.7mm) 8	No
0.000	150.0	1 5/8" Coax	No
0.000	150.0	3" conduit	No
0.000	150.0	7/8" Coax	No
0.000	82.500	#20 Dywidag Bars	Yes
0.000	105.0	7/8" Coax	Yes

Load Cases

1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Lateral
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal
1.0D + 1.0W	Serviceability 60 mph

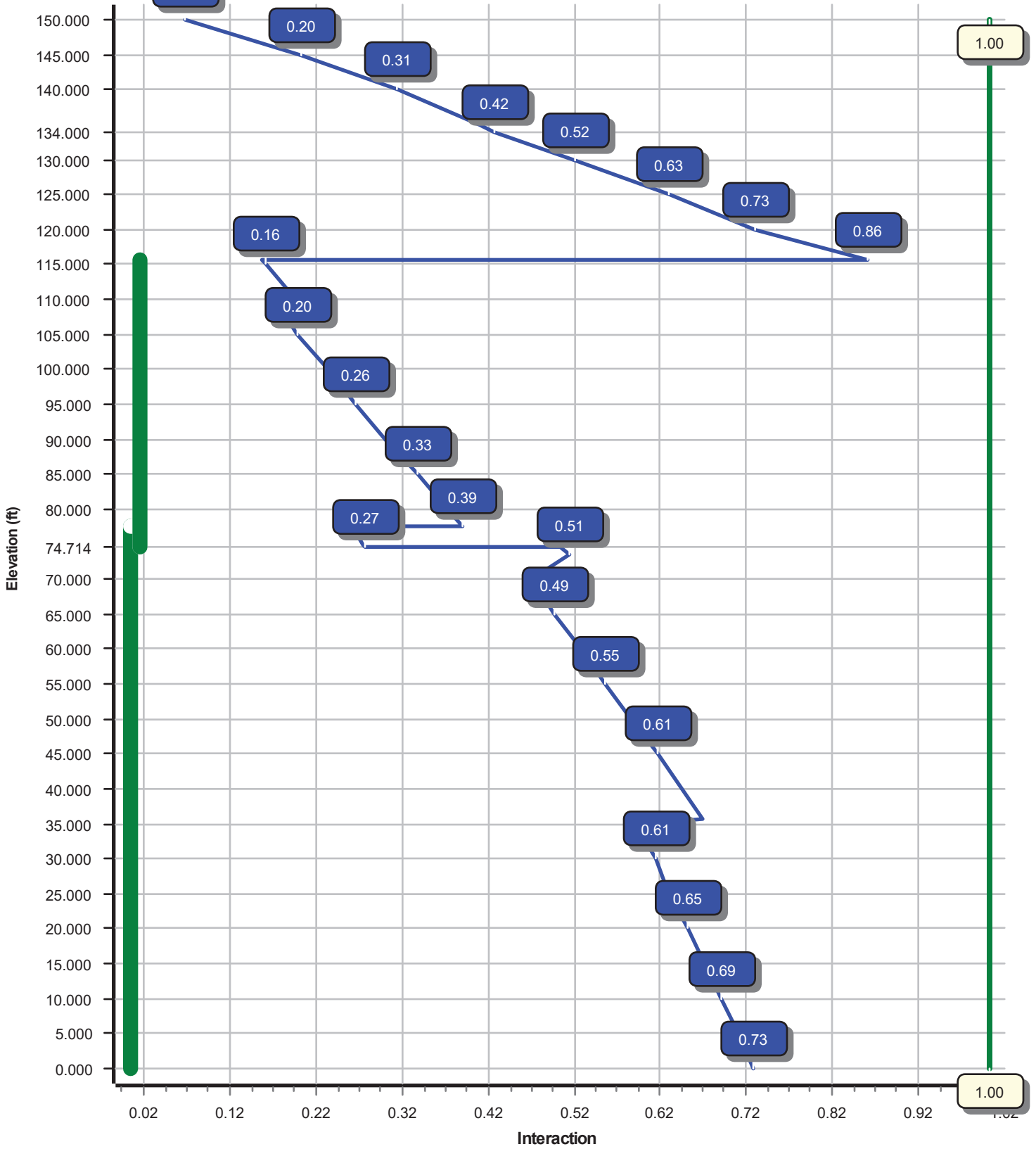
Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	2723.73	27.20	39.91
0.9D + 1.6W	2682.17	27.17	29.91
1.2D + 1.0Di + 1.0Wi	792.42	6.97	81.81
(1.2 + 0.2Sds) * DL + E ELFM	122.53	1.00	39.70
(1.2 + 0.2Sds) * DL + E EMAM	162.49	1.37	39.70
(0.9 - 0.2Sds) * DL + E ELFM	120.18	1.00	27.57
(0.9 - 0.2Sds) * DL + E EMAM	159.10	1.37	27.57
1.0D + 1.0W	648.77	6.53	33.31

Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	120.00	20.743	1.441

Load Case : 1.2D + 1.6W
Max Ratio 85.75% at 115.5 ft



Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

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Customer: AT&T MOBILITY

Analysis Parameters

Location :	HARTFORD County, CT	Height (ft) :	150
Code :	ANSI/TIA-222-G	Base Diameter (in) :	37.00
Shape :	12 Sides	Top Diameter (in) :	14.00
Pole Type :	Taper	Taper (in/ft) :	0.161
Pole Manufacturer :	ITT Meyer	Rotation (deg) :	0.00

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	97 mph
Exposure Category:	B	Design Wind Speed With Ice:	50 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0 ft	Design Ice Thickness:	1.00 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	2.66		
T _L (sec):	6	p:	1
S _s :	0.184	S ₁ :	0.064
F _a :	1.600	F _v :	2.400
S _{ds} :	0.196	S _{d1} :	0.102
		C _s :	0.030
		C _s Max:	0.030
		C _s Min:	0.030

Load Cases

1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2S _{ds}) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2S _{ds}) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2S _{ds}) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2S _{ds}) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

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Customer: AT&T MOBILITY

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip		Weight (lb)	Bottom				Top				Taper (in/ft)				
				Joint Type	Joint Len (in)		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
1-12	35.667	0.3750	65		0.00	4,947	37.00	0.00	44.22	7571.9	23.76	98.67	31.26	35.67	37.30	4542.2	19.66	83.37	0.160833
2-12	42.000	0.3125	65	Slip	50.00	4,152	32.55	31.50	32.45	4306.6	25.24	104.19	25.80	73.50	25.65	2127.5	19.45	82.57	0.160833
3-12	40.000	0.2500	65	Slip	42.00	2,564	26.86	70.00	21.43	1937.5	26.12	107.47	20.43	110.00	16.25	844.8	19.22	81.73	0.160833
4-12	40.000	0.1875	65	Butt	0.00	1,399	20.43	110.00	12.22	639.5	26.52	108.98	14.00	150.00	8.34	203.1	17.33	74.67	0.160833
Shaft Weight						13,062													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	Weight (lb)	No Ice EPAa (sf)	Orientation Factor	Weight (lb)	Ice EPAa (sf)	Orientation Factor
150.00	CCI TPX-070821	6	0.75	3.000	7.50	0.550	0.50	23.67	1.299	0.50
150.00	Kaelus DBCT108F1V92-1	6	0.75	3.000	13.90	0.740	0.50	47.48	1.591	0.50
150.00	Raycap DC6-48-60-18-8F (23.5"	2	0.75	3.000	20.00	1.110	0.50	90.25	1.884	0.50
150.00	Raycap DC6-48-60-18-8F	1	0.75	3.000	31.80	1.280	1.00	114.24	2.091	1.00
150.00	CCI DTMABP7819VG12A (w/	3	0.75	3.000	19.20	1.370	0.50	64.69	2.411	0.50
150.00	Ericsson RRUS 4426 B66	3	0.75	3.000	48.40	1.650	0.50	107.77	2.783	0.50
150.00	Ericsson RRUS 4478 B5	3	0.75	3.000	59.90	1.840	0.50	133.93	3.035	0.50
150.00	Ericsson RRUS 4478 B14	3	0.75	3.000	59.90	1.840	0.50	133.93	3.035	0.50
150.00	Ericsson RRUS-11 (50 lbs.)	3	0.75	3.000	50.00	2.570	0.50	141.06	3.969	0.50
150.00	Ericsson RRUS 32 B2	3	0.75	3.000	53.00	2.740	0.50	151.00	4.298	0.50
150.00	10' Omni	1	1.00	4.000	25.00	3.000	1.00	126.28	7.800	1.00
150.00	Ericsson RRUS-32 (77 lbs)	3	0.75	3.000	77.00	3.310	0.50	206.72	5.020	0.50
150.00	Powerwave Allgon 7770.00	3	0.75	3.000	35.00	5.510	0.65	228.57	6.943	0.65
150.00	KMW AM-X-CD-16-65-00T-RET	2	0.75	3.000	48.50	8.020	0.67	264.37	11.739	0.67
150.00	Quintel QS66512-3 (112 lbs.)	3	0.75	3.000	112.00	8.130	0.74	377.38	11.847	0.74
150.00	Andrew SBNH-1D6565C (60.8 lbs)	1	0.75	3.000	60.80	11.450	0.70	367.01	15.770	0.70
150.00	Kathrein Scala 80010965	2	0.75	3.000	97.60	13.810	0.62	453.11	17.878	0.62
150.00	Round Sector Frame	3	0.75	0.000	300.00	14.400	0.67	790.63	36.478	0.67
150.00	Kathrein Scala 80010966	1	0.80	3.000	114.60	17.360	0.63	542.68	22.280	0.63
134.00	Kathrein Smart Bias Tee	3	0.80	0.000	3.31	0.090	0.50	7.66	0.399	0.50
134.00	Site-Pro UWS6-NP	3	0.75	0.000	92.00	1.500	0.50	193.45	3.182	0.50
134.00	RFS APXV18-206517S-C	3	0.80	0.000	26.40	5.170	0.68	148.67	8.296	0.68
134.00	Andrew LNX-6515DS-VTM	3	0.80	0.000	51.30	11.430	0.70	353.48	15.705	0.70
120.00	DragonWave Horizon Compact	1	0.80	0.000	10.60	0.840	0.50	39.97	2.140	0.50
120.00	12" x 12" Junction Box	1	0.80	0.000	10.00	1.200	0.50	64.33	2.146	0.50
120.00	Alcatel-Lucent RRH2x50-08	6	0.80	0.000	52.90	1.700	0.50	130.28	2.824	0.50
120.00	Nokia FZHN Flexi RRH 8TR 2600	3	0.80	0.000	44.10	2.020	0.50	129.32	2.803	0.50
120.00	Alcatel-Lucent 1900 MHz 4X45	3	0.80	0.000	60.00	2.320	0.50	165.21	3.728	0.50
120.00	RFS APXVTM14-ALU-i20	3	0.80	0.000	56.20	6.340	0.66	155.26	9.053	0.66
120.00	Side Arms	2	1.00	0.000	560.00	8.500	1.00	1,170.53	17.767	1.00
120.00	DragonWave A-ANT-11G-2.5-C	1	1.00	0.000	47.60	8.670	1.00	278.53	10.923	1.00
120.00	Commscope NNVV-65B-R4	3	0.80	0.000	77.40	12.270	0.64	459.84	14.220	0.64
105.00	dB Systems 5100A	1	0.80	4.000	21.00	2.070	1.00	89.68	3.826	1.00
105.00	VertexRSI 101V VPD	1	0.80	-1.000	4.00	2.540	1.00	103.60	11.386	1.00
105.00	dB Systems 5100A-D	4	0.80	4.000	38.00	3.110	1.00	163.64	4.924	1.00
105.00	Round Side Arm	3	1.00	0.000	150.00	5.200	0.67	244.08	8.694	0.67
105.00	Round Side Arm	3	1.00	0.000	150.00	5.200	0.67	244.08	8.694	0.67
Totals	Num Loadings:37	99			6,950.73			20,856.24		

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Projected Width Flat (in)	Exposed To Wind	Carrier	
0.00	150.00	2	0.39" (10mm) Fiber	0.39	0.06	N	0.00	N	AT&T Mobility

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sstn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:27 PM

Customer: AT&T MOBILITY

0.00	150.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0.00	N	AT&T Mobility
0.00	150.00	2	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0.00	N	AT&T Mobility
0.00	150.00	3	1 5/8" Coax	1.98	0.82	N	0.00	N	Other
0.00	150.00	1	3" conduit	3.50	7.58	N	0.00	N	AT&T Mobility
0.00	150.00	12	7/8" Coax	1.09	0.33	N	0.00	N	AT&T Mobility
0.00	134.00	6	1 5/8" Coax	1.98	0.82	N	3.96	Y	Metro PCS
0.00	134.00	6	1 5/8" Coax	1.98	0.82	N	0.00	Y	Metro PCS
0.00	120.00	4	1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	Y	Clearwire Corporation
0.00	120.00	1	1/2" Coax	0.63	0.15	N	0.00	Y	Clearwire Corporation
0.00	120.00	2	2" conduit	2.38	3.65	N	2.38	Y	Clearwire Corporation
82.50	119.00	4	#20 Dywidag Bars	2.72	0.00	N	3.64	Y	-
0.00	105.00	6	7/8" Coax	1.09	0.33	N	0.00	Y	ITT Corporation
0.00	82.50	4	#20 Dywidag Bars	2.72	0.00	N	1.70	Y	-

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Description	Spacing (in)	Len (in)	Connectors	Continuation?
0.00	77.44	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	No
74.71	115.5	4	SOL #20 All Thread	80	5.15	6" T Bracket	30.0	3.31	5/8" A36 U-Bolt	No

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sstn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:27 PM

Customer: AT&T MOBILITY

Segment Properties (Max Len : 5. ft)

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	37.000	44.225	7,571.9	23.76	98.67	78.8	395.3	0.0	0.0	19.64	4,734	0.0
5.00		0.3750	36.196	43.254	7,084.0	23.18	96.52	79.4	378.1	0.0	744.2	19.64	4,563	334.0
10.00		0.3750	35.392	42.283	6,617.6	22.61	94.38	80.1	361.2	0.0	727.7	19.64	4,394	334.0
15.00		0.3750	34.588	41.312	6,172.0	22.03	92.23	80.7	344.7	0.0	711.1	19.64	4,229	334.0
20.00		0.3750	33.783	40.341	5,747.0	21.46	90.09	81.3	328.6	0.0	694.6	19.64	4,067	334.0
25.00		0.3750	32.979	39.370	5,341.9	20.89	87.94	81.9	312.9	0.0	678.1	19.64	3,908	334.0
30.00		0.3750	32.175	38.398	4,956.3	20.31	85.80	81.9	297.6	0.0	661.6	19.64	3,752	334.0
31.50	Bot - Section 2	0.3750	31.934	38.107	4,844.3	20.14	85.16	81.9	293.1	0.0	195.2	19.64	3,706	100.2
35.00		0.3750	31.371	37.427	4,589.7	19.74	83.66	81.9	282.6	0.0	832.9	19.64	3,718	233.8
35.67	Top - Section 1	0.3125	31.889	31.773	4,043.6	24.66	102.04	77.8	245.0	0.0	157.0	19.64	3,697	44.5
40.00		0.3125	31.192	31.072	3,781.7	24.07	99.81	78.5	234.2	0.0	463.3	19.64	3,566	289.5
45.00		0.3125	30.388	30.263	3,493.9	23.38	97.24	79.2	222.1	0.0	521.8	19.64	3,417	334.0
50.00		0.3125	29.583	29.454	3,221.0	22.69	94.67	80.0	210.3	0.0	508.0	19.64	3,271	334.0
55.00		0.3125	28.779	28.645	2,962.8	22.00	92.09	80.7	198.9	0.0	494.2	19.64	3,129	334.0
60.00		0.3125	27.975	27.835	2,718.7	21.31	89.52	81.5	187.7	0.0	480.5	19.64	2,990	334.0
65.00		0.3125	27.171	27.026	2,488.5	20.62	86.95	81.9	176.9	0.0	466.7	19.64	2,854	334.0
70.00	Bot - Section 3	0.3125	26.367	26.217	2,271.6	19.93	84.37	81.9	166.4	0.0	452.9	19.64	2,721	334.0
73.50	Top - Section 2	0.2500	26.304	20.973	1,817.2	25.51	105.22	76.9	133.5	0.0	561.3	19.64	2,711	233.8
74.71	Reinf Bottom	0.2500	26.109	20.816	1,776.6	25.30	104.43	77.1	131.5	0.0	86.3	19.64	2,679	81.1
75.00		0.2500	26.063	20.779	1,767.1	25.25	104.25	77.2	131.0	0.0	20.3	39.28	6,387	38.3
77.44	Reinf. Top	0.2500	25.670	20.463	1,687.8	24.83	102.68	77.6	127.0	0.0	171.0	39.28	6,312	182.0
80.00		0.2500	25.258	20.132	1,607.1	24.39	101.03	78.1	122.9	0.0	177.0	19.64	3,563	171.2
85.00		0.2500	24.454	19.484	1,457.0	23.53	97.82	79.1	115.1	0.0	337.0	19.64	3,414	334.0
90.00		0.2500	23.650	18.837	1,316.5	22.67	94.60	80.0	107.5	0.0	326.0	19.64	3,269	334.0
95.00		0.2500	22.846	18.190	1,185.4	21.81	91.38	80.9	100.2	0.0	315.0	19.64	3,127	334.0
100.0		0.2500	22.042	17.542	1,063.3	20.94	88.17	81.9	93.2	0.0	304.0	19.64	2,987	334.0
105.0		0.2500	21.238	16.895	949.9	20.08	84.95	81.9	86.4	0.0	293.0	19.64	2,851	334.0
110.0	Top - Section 3	0.2500	20.433	16.248	844.8	19.22	81.73	81.9	79.9	0.0	281.9	19.64	2,719	334.0
110.0	Bot - Section 4	0.1875	20.433	12.223	639.5	26.52	108.98	75.8	60.5	0.0		19.64	2,719	
115.0		0.1875	19.629	11.738	566.3	25.37	104.69	77.0	55.7	0.0	203.8	19.64	2,589	334.0
115.5	Reinf. Top	0.1875	19.545	11.687	559.0	25.25	104.24	77.2	55.3	0.0	20.8	19.64	2,576	34.8
120.0		0.1875	18.825	11.252	498.9	24.22	100.40	78.3	51.2	0.0	174.8			
125.0		0.1875	18.021	10.767	437.1	23.07	96.11	79.5	46.9	0.0	187.3			
130.0		0.1875	17.217	10.281	380.6	21.92	91.82	80.8	42.7	0.0	179.1			
134.0		0.1875	16.573	9.893	339.0	21.00	88.39	81.8	39.5	0.0	137.3			
135.0		0.1875	16.413	9.796	329.2	20.77	87.53	81.9	38.7	0.0	33.5			
140.0		0.1875	15.608	9.310	282.6	19.63	83.24	81.9	35.0	0.0	162.5			
145.0		0.1875	14.804	8.825	240.7	18.48	78.96	81.9	31.4	0.0	154.3			
150.0		0.1875	14.000	8.339	203.1	17.33	74.67	81.9	28.0	0.0	146.0			
											13,062.0	7,755.0		

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sstn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:28 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.6W

97 mph with No Ice

26 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		266.0	0.0					0.0	0.0	266.0	0.0	0.0	0.0
5.00		526.2	893.0					112.9	646.4	639.2	1,539.4	0.0	0.0
10.00		514.6	873.2					112.9	646.4	627.5	1,519.6	0.0	0.0
15.00		502.9	853.4					112.9	646.4	615.8	1,499.7	0.0	0.0
20.00		491.2	833.5					112.9	646.4	604.1	1,479.9	0.0	0.0
25.00		479.5	813.7					112.9	646.4	592.4	1,460.1	0.0	0.0
30.00		307.3	793.9					112.9	646.4	420.2	1,440.3	0.0	0.0
31.50	Bot - Section 2	239.7	234.3					34.1	193.9	273.9	428.2	0.0	0.0
35.00		201.8	999.4					81.5	452.5	283.2	1,451.9	0.0	0.0
35.67	Top - Section 1	245.0	188.4					15.8	86.2	260.8	274.5	0.0	0.0
40.00		460.0	556.0					104.6	560.2	564.6	1,116.2	0.0	0.0
45.00		496.2	626.1					124.8	646.4	621.1	1,272.5	0.0	0.0
50.00		497.9	609.6					128.9	646.4	626.8	1,256.0	0.0	0.0
55.00		497.8	593.1					132.6	646.4	630.4	1,239.5	0.0	0.0
60.00		496.0	576.6					136.1	646.4	632.1	1,222.9	0.0	0.0
65.00		493.0	560.0					139.4	646.4	632.3	1,206.4	0.0	0.0
70.00	Bot - Section 3	419.2	543.5					142.5	646.4	561.7	1,189.9	0.0	0.0
73.50	Top - Section 2	233.6	673.6					101.5	452.5	335.1	1,126.1	0.0	0.0
74.71	Reinf Bottom	74.0	103.5					35.5	156.9	109.6	260.4	0.0	0.0
75.00		133.9	24.3					8.4	60.0	142.3	84.3	0.0	0.0
77.44	Reinf. Top	244.8	205.2					71.9	338.1	316.7	543.3	0.0	0.0
80.00		366.5	212.4					76.3	331.3	442.8	543.7	0.0	0.0
85.00		479.0	404.4					169.1	646.4	648.1	1,050.8	0.0	0.0
90.00		470.9	391.2					190.5	646.4	661.4	1,037.6	0.0	0.0
95.00		462.0	378.0					193.5	646.4	655.5	1,024.4	0.0	0.0
100.00		452.3	364.8					196.4	646.4	648.8	1,011.1	0.0	0.0
105.00	Appurtenance(s)	441.9	351.5	1,393.8	0.0	1,805.5	1,292.4	199.3	646.4	2,035.0	2,290.3	0.0	0.0
110.00	Top - Section 3	430.9	338.3					201.8	634.5	632.7	972.8	0.0	0.0
115.00		234.4	244.6					203.9	634.5	438.3	879.1	0.0	0.0
115.52	Reinf. Top	206.6	24.9					21.4	66.1	228.0	91.0	0.0	0.0
120.00	Appurtenance(s)	385.2	209.8	2,701.1	0.0	0.0	2,662.4	169.4	209.4	3,255.8	3,081.6	0.0	0.0
125.00		394.2	224.8					81.4	165.0	475.6	389.8	0.0	0.0
130.00		344.0	214.9					81.9	165.0	425.9	379.9	0.0	0.0
134.00	Appurtenance(s)	180.9	164.8	1,269.0	0.0	0.0	622.8	65.8	132.0	1,515.7	919.6	0.0	0.0
135.00		180.7	40.2					0.0	21.2	180.7	61.4	0.0	0.0
140.00		293.9	195.0					0.0	106.0	293.9	301.0	0.0	0.0
145.00		281.5	185.1					0.0	106.0	281.5	291.1	0.0	0.0
150.00	Appurtenance(s)	137.6	175.2	4,646.7	0.0	11,175.3	3,763.2	0.0	106.0	4,784.4	4,044.4	0.0	0.0
Totals:										27,359.4	39,980.6	0.00	0.00

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:32 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.6W

97 mph with No Ice

26 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-39.91	-27.20	0.00	-2,723.73	0.00	2,723.73	3,136.53	1,568.27	4,731.25	2,336.59	0.00	0.00	0.726
5.00	-38.23	-26.76	0.00	-2,587.72	0.00	2,587.72	3,092.06	1,546.03	4,560.72	2,252.37	0.16	-0.31	0.708
10.00	-36.57	-26.32	0.00	-2,453.90	0.00	2,453.90	3,046.49	1,523.25	4,391.58	2,168.84	0.65	-0.61	0.688
15.00	-34.94	-25.87	0.00	-2,322.30	0.00	2,322.30	2,999.83	1,499.91	4,223.96	2,086.05	1.46	-0.92	0.669
20.00	-33.33	-25.42	0.00	-2,192.93	0.00	2,192.93	2,952.07	1,476.04	4,057.95	2,004.07	2.59	-1.23	0.649
25.00	-31.76	-24.97	0.00	-2,065.82	0.00	2,065.82	2,901.93	1,450.96	3,891.94	1,922.08	4.05	-1.54	0.628
30.00	-30.24	-24.61	0.00	-1,940.99	0.00	1,940.99	2,830.35	1,415.18	3,701.25	1,827.91	5.83	-1.85	0.612
31.50	-29.76	-24.40	0.00	-1,904.08	0.00	1,904.08	2,808.88	1,404.44	3,644.98	1,800.12	6.42	-1.94	0.607
35.00	-28.26	-24.13	0.00	-1,818.67	0.00	1,818.67	2,758.78	1,379.39	3,515.36	1,736.10	7.93	-2.16	0.586
35.67	-27.93	-23.93	0.00	-1,802.59	0.00	1,802.59	2,225.24	1,112.62	2,894.88	1,429.67	8.24	-2.20	0.667
40.00	-26.72	-23.46	0.00	-1,698.87	0.00	1,698.87	2,194.35	1,097.17	2,791.07	1,378.40	10.35	-2.46	0.642
45.00	-25.36	-22.92	0.00	-1,581.58	0.00	1,581.58	2,157.69	1,078.84	2,672.25	1,319.72	13.10	-2.78	0.613
50.00	-24.01	-22.36	0.00	-1,466.97	0.00	1,466.97	2,119.93	1,059.96	2,554.56	1,261.60	16.18	-3.09	0.584
55.00	-22.69	-21.78	0.00	-1,355.16	0.00	1,355.16	2,081.07	1,040.54	2,438.12	1,204.10	19.59	-3.40	0.554
60.00	-21.40	-21.19	0.00	-1,246.24	0.00	1,246.24	2,041.12	1,020.56	2,323.03	1,147.26	23.32	-3.71	0.524
65.00	-20.14	-20.58	0.00	-1,140.29	0.00	1,140.29	1,992.10	996.05	2,200.59	1,086.79	27.36	-4.00	0.495
70.00	-18.90	-20.02	0.00	-1,037.39	0.00	1,037.39	1,932.46	966.23	2,070.05	1,022.32	31.70	-4.29	0.468
73.50	-17.76	-19.64	0.00	-967.34	0.00	967.34	1,451.36	725.68	1,558.37	769.62	34.92	-4.49	0.511
74.71	-17.50	-19.52	0.00	-943.51	0.00	943.51	1,444.76	722.38	1,539.55	760.33	36.08	-4.56	0.502
75.00	-17.41	-19.39	0.00	-937.91	0.00	937.91	1,443.19	721.60	1,535.11	758.14	36.35	-4.58	0.273
77.44	-16.86	-19.05	0.00	-890.66	0.00	890.66	1,429.71	714.86	1,497.46	739.54	38.71	-4.66	0.259
77.44	-16.86	-19.05	0.00	-890.66	0.00	890.66	1,429.71	714.86	1,497.46	739.54	38.71	-4.66	0.388
80.00	-16.31	-18.61	0.00	-841.85	0.00	841.85	1,415.26	707.63	1,458.06	720.08	41.23	-4.74	0.370
85.00	-15.25	-17.93	0.00	-748.82	0.00	748.82	1,386.24	693.12	1,381.78	682.41	46.30	-4.96	0.334
90.00	-14.22	-17.23	0.00	-659.18	0.00	659.18	1,356.12	678.06	1,306.38	645.17	51.60	-5.16	0.299
95.00	-13.20	-16.52	0.00	-573.04	0.00	573.04	1,324.90	662.45	1,231.99	608.43	57.10	-5.35	0.264
100.00	-12.21	-15.82	0.00	-490.43	0.00	490.43	1,293.04	646.52	1,159.10	572.44	62.79	-5.53	0.230
105.00	-10.10	-13.59	0.00	-409.54	0.00	409.54	1,245.33	622.66	1,074.67	530.74	68.66	-5.69	0.197
110.00	-9.16	-12.89	0.00	-341.57	0.00	341.57	1,197.61	598.80	993.42	490.61	74.68	-5.83	0.169
110.00	-9.16	-12.89	0.00	-341.57	0.00	341.57	833.77	416.88	695.90	343.68	74.68	-5.83	0.194
115.00	-8.32	-12.37	0.00	-277.13	0.00	277.13	813.89	406.95	652.08	322.04	80.85	-5.95	0.159
115.52	-8.24	-12.14	0.00	-270.69	0.00	270.69	811.76	405.88	647.55	319.80	81.49	-5.96	0.156
115.52	-8.24	-12.14	0.00	-270.69	0.00	270.69	811.76	405.88	647.55	319.80	81.49	-5.96	0.857
120.00	-5.47	-8.61	0.00	-216.29	0.00	216.29	792.92	396.46	608.75	300.64	87.13	-6.06	0.727
125.00	-5.06	-8.15	0.00	-173.22	0.00	173.22	770.85	385.43	566.02	279.54	93.77	-6.62	0.627
130.00	-4.68	-7.71	0.00	-132.49	0.00	132.49	747.69	373.84	524.00	258.78	100.95	-7.11	0.519
134.00	-3.93	-6.11	0.00	-101.64	0.00	101.64	728.37	364.19	490.97	242.47	107.05	-7.46	0.425
135.00	-3.87	-5.93	0.00	-95.53	0.00	95.53	722.05	361.03	481.88	237.98	108.62	-7.55	0.407
140.00	-3.58	-5.62	0.00	-65.86	0.00	65.86	686.26	343.13	435.03	214.85	116.70	-7.90	0.312
145.00	-3.32	-5.31	0.00	-37.75	0.00	37.75	650.48	325.24	390.59	192.90	125.09	-8.16	0.201
150.00	0.00	-4.78	0.00	-11.18	0.00	11.18	614.69	307.34	348.53	172.13	133.69	-8.30	0.065

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sstn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:32 PM

Customer: AT&T MOBILITY

Load Case: 0.9D + 1.6W

97 mph with No Ice (Reduced DL)

26 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		266.0	0.0					0.0	0.0	266.0	0.0	0.0	0.0
5.00		526.2	669.8					112.9	484.8	639.2	1,154.5	0.0	0.0
10.00		514.6	654.9					112.9	484.8	627.5	1,139.7	0.0	0.0
15.00		502.9	640.0					112.9	484.8	615.8	1,124.8	0.0	0.0
20.00		491.2	625.1					112.9	484.8	604.1	1,109.9	0.0	0.0
25.00		479.5	610.3					112.9	484.8	592.4	1,095.1	0.0	0.0
30.00		307.3	595.4					112.9	484.8	420.2	1,080.2	0.0	0.0
31.50	Bot - Section 2	239.7	175.7					34.1	145.4	273.9	321.2	0.0	0.0
35.00		201.8	749.6					81.5	339.3	283.2	1,088.9	0.0	0.0
35.67	Top - Section 1	245.0	141.3					15.8	64.6	260.8	205.9	0.0	0.0
40.00		460.0	417.0					104.6	420.1	564.6	837.2	0.0	0.0
45.00		496.2	469.6					124.8	484.8	621.1	954.4	0.0	0.0
50.00		497.9	457.2					128.9	484.8	626.8	942.0	0.0	0.0
55.00		497.8	444.8					132.6	484.8	630.4	929.6	0.0	0.0
60.00		496.0	432.4					136.1	484.8	632.1	917.2	0.0	0.0
65.00		493.0	420.0					139.4	484.8	632.3	904.8	0.0	0.0
70.00	Bot - Section 3	419.2	407.6					142.5	484.8	561.7	892.4	0.0	0.0
73.50	Top - Section 2	233.6	505.2					101.5	339.3	335.1	844.6	0.0	0.0
74.71	Reinf Bottom	74.0	77.7					35.5	117.7	109.6	195.3	0.0	0.0
75.00		133.9	18.2					8.4	45.0	142.3	63.3	0.0	0.0
77.44	Reinf. Top	244.8	153.9					71.9	253.6	316.7	407.5	0.0	0.0
80.00		366.5	159.3					76.3	248.5	442.8	407.7	0.0	0.0
85.00		479.0	303.3					169.1	484.8	648.1	788.1	0.0	0.0
90.00		470.9	293.4					190.5	484.8	661.4	778.2	0.0	0.0
95.00		462.0	283.5					193.5	484.8	655.5	768.3	0.0	0.0
100.00		452.3	273.6					196.4	484.8	648.8	758.4	0.0	0.0
105.00	Appurtenance(s)	441.9	263.7	1,393.8	0.0	1,805.5	969.3	199.3	484.8	2,035.0	1,717.7	0.0	0.0
110.00	Top - Section 3	430.9	253.7					201.8	475.9	632.7	729.6	0.0	0.0
115.00		234.4	183.5					203.9	475.9	438.3	659.3	0.0	0.0
115.52	Reinf. Top	206.6	18.7					21.4	49.6	228.0	68.2	0.0	0.0
120.00	Appurtenance(s)	385.2	157.3	2,701.1	0.0	0.0	1,996.8	169.4	157.0	3,255.8	2,311.2	0.0	0.0
125.00		394.2	168.6					81.4	123.7	475.6	292.3	0.0	0.0
130.00		344.0	161.2					81.9	123.7	425.9	284.9	0.0	0.0
134.00	Appurtenance(s)	180.9	123.6	1,269.0	0.0	0.0	467.1	65.8	99.0	1,515.7	689.7	0.0	0.0
135.00		180.7	30.1					0.0	15.9	180.7	46.0	0.0	0.0
140.00		293.9	146.3					0.0	79.5	293.9	225.8	0.0	0.0
145.00		281.5	138.8					0.0	79.5	281.5	218.3	0.0	0.0
150.00	Appurtenance(s)	137.6	131.4	4,646.7	0.0	11,175.3	2,822.4	0.0	79.5	4,784.4	3,033.3	0.0	0.0
Totals:										27,359.4	29,985.4	0.00	0.00

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:37 PM

Customer: AT&T MOBILITY

Load Case: 0.9D + 1.6W

97 mph with No Ice (Reduced DL)

26 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-29.91	-27.17	0.00	-2,682.17	0.00	2,682.17	3,136.53	1,568.27	4,731.25	2,336.59	0.00	0.00	0.713
5.00	-28.62	-26.68	0.00	-2,546.30	0.00	2,546.30	3,092.06	1,546.03	4,560.72	2,252.37	0.16	-0.30	0.694
10.00	-27.35	-26.19	0.00	-2,412.89	0.00	2,412.89	3,046.49	1,523.25	4,391.58	2,168.84	0.64	-0.61	0.675
15.00	-26.09	-25.70	0.00	-2,281.94	0.00	2,281.94	2,999.83	1,499.91	4,223.96	2,086.05	1.44	-0.91	0.655
20.00	-24.86	-25.21	0.00	-2,153.44	0.00	2,153.44	2,952.07	1,476.04	4,057.95	2,004.07	2.55	-1.21	0.635
25.00	-23.65	-24.71	0.00	-2,027.41	0.00	2,027.41	2,901.93	1,450.96	3,891.94	1,922.08	3.98	-1.51	0.615
30.00	-22.50	-24.34	0.00	-1,903.85	0.00	1,903.85	2,830.35	1,415.18	3,701.25	1,827.91	5.73	-1.82	0.598
31.50	-22.12	-24.11	0.00	-1,867.34	0.00	1,867.34	2,808.88	1,404.44	3,644.98	1,800.12	6.32	-1.91	0.593
35.00	-20.99	-23.84	0.00	-1,782.94	0.00	1,782.94	2,758.78	1,379.39	3,515.36	1,736.10	7.80	-2.12	0.573
35.67	-20.74	-23.62	0.00	-1,767.05	0.00	1,767.05	2,225.24	1,112.62	2,894.88	1,429.67	8.10	-2.16	0.652
40.00	-19.81	-23.13	0.00	-1,664.68	0.00	1,664.68	2,194.35	1,097.17	2,791.07	1,378.40	10.18	-2.42	0.628
45.00	-18.76	-22.56	0.00	-1,549.05	0.00	1,549.05	2,157.69	1,078.84	2,672.25	1,319.72	12.88	-2.73	0.599
50.00	-17.73	-21.99	0.00	-1,436.23	0.00	1,436.23	2,119.93	1,059.96	2,554.56	1,261.60	15.90	-3.04	0.570
55.00	-16.73	-21.39	0.00	-1,326.31	0.00	1,326.31	2,081.07	1,040.54	2,438.12	1,204.10	19.24	-3.34	0.541
60.00	-15.75	-20.79	0.00	-1,219.35	0.00	1,219.35	2,041.12	1,020.56	2,323.03	1,147.26	22.90	-3.64	0.511
65.00	-14.78	-20.17	0.00	-1,115.42	0.00	1,115.42	1,992.10	996.05	2,200.59	1,086.79	26.86	-3.93	0.483
70.00	-13.85	-19.60	0.00	-1,014.57	0.00	1,014.57	1,932.46	966.23	2,070.05	1,022.32	31.13	-4.21	0.456
73.50	-12.99	-19.24	0.00	-945.95	0.00	945.95	1,451.36	725.68	1,558.37	769.62	34.29	-4.41	0.499
74.71	-12.79	-19.12	0.00	-922.61	0.00	922.61	1,444.76	722.38	1,539.55	760.33	35.42	-4.47	0.489
75.00	-12.72	-18.98	0.00	-917.13	0.00	917.13	1,443.19	721.60	1,535.11	758.14	35.68	-4.49	0.266
77.44	-12.32	-18.65	0.00	-870.86	0.00	870.86	1,429.71	714.86	1,497.46	739.54	38.00	-4.57	0.252
77.44	-12.32	-18.65	0.00	-870.86	0.00	870.86	1,429.71	714.86	1,497.46	739.54	38.00	-4.57	0.378
80.00	-11.90	-18.21	0.00	-823.06	0.00	823.06	1,415.26	707.63	1,458.06	720.08	40.47	-4.64	0.360
85.00	-11.11	-17.54	0.00	-732.01	0.00	732.01	1,386.24	693.12	1,381.78	682.41	45.44	-4.86	0.325
90.00	-10.33	-16.85	0.00	-644.32	0.00	644.32	1,356.12	678.06	1,306.38	645.17	50.63	-5.06	0.291
95.00	-9.57	-16.16	0.00	-560.08	0.00	560.08	1,324.90	662.45	1,231.99	608.43	56.03	-5.25	0.257
100.00	-8.83	-15.46	0.00	-479.30	0.00	479.30	1,293.04	646.52	1,159.10	572.44	61.61	-5.42	0.224
105.00	-7.29	-13.29	0.00	-400.17	0.00	400.17	1,245.33	622.66	1,074.67	530.74	67.36	-5.57	0.192
110.00	-6.59	-12.61	0.00	-333.71	0.00	333.71	1,197.61	598.80	993.42	490.61	73.26	-5.71	0.164
110.00	-6.59	-12.61	0.00	-333.71	0.00	333.71	833.77	416.88	695.90	343.68	73.26	-5.71	0.189
115.00	-5.97	-12.11	0.00	-270.67	0.00	270.67	813.89	406.95	652.08	322.04	79.30	-5.83	0.154
115.52	-5.91	-11.88	0.00	-264.37	0.00	264.37	811.76	405.88	647.55	319.80	79.93	-5.84	0.151
115.52	-5.91	-11.88	0.00	-264.37	0.00	264.37	811.76	405.88	647.55	319.80	79.93	-5.84	0.835
120.00	-3.90	-8.43	0.00	-211.14	0.00	211.14	792.92	396.46	608.75	300.64	85.46	-5.94	0.708
125.00	-3.59	-7.96	0.00	-168.99	0.00	168.99	770.85	385.43	566.02	279.54	91.96	-6.48	0.610
130.00	-3.30	-7.53	0.00	-129.21	0.00	129.21	747.69	373.84	524.00	258.78	99.00	-6.97	0.504
134.00	-2.79	-5.95	0.00	-99.10	0.00	99.10	728.37	364.19	490.97	242.47	104.97	-7.31	0.413
135.00	-2.74	-5.77	0.00	-93.16	0.00	93.16	722.05	361.03	481.88	237.98	106.50	-7.39	0.396
140.00	-2.53	-5.46	0.00	-64.30	0.00	64.30	686.26	343.13	435.03	214.85	114.41	-7.73	0.303
145.00	-2.33	-5.16	0.00	-36.99	0.00	36.99	650.48	325.24	390.59	192.90	122.62	-7.98	0.196
150.00	0.00	-4.78	0.00	-11.18	0.00	11.18	614.69	307.34	348.53	172.13	131.05	-8.13	0.065

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:37 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice	26 Iterations
Gust Response Factor :1.10	Ice Dead Load Factor :1.00	Wind Importance Factor :1.00
Dead Load Factor :1.20		Ice Importance Factor :1.00
Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		48.0	0.0					0.0	0.0	48.0	0.0	0.0	0.0
5.00		95.4	1,270.5					40.5	1,109.1	135.9	2,379.6	0.0	0.0
10.00		94.1	1,287.4					43.0	1,171.0	137.1	2,458.4	0.0	0.0
15.00		92.5	1,280.9					44.3	1,203.2	136.8	2,484.1	0.0	0.0
20.00		90.8	1,266.6					45.2	1,225.8	136.0	2,492.4	0.0	0.0
25.00		89.0	1,248.4					45.9	1,243.3	134.9	2,491.7	0.0	0.0
30.00		57.2	1,227.6					46.4	1,257.8	103.6	2,485.4	0.0	0.0
31.50	Bot - Section 2	44.7	365.0					14.1	379.8	58.9	744.9	0.0	0.0
35.00		37.7	1,307.6					33.9	890.3	71.5	2,197.9	0.0	0.0
35.67	Top - Section 1	45.9	247.2					6.6	170.2	52.5	417.4	0.0	0.0
40.00		86.4	933.6					43.8	1,110.8	130.2	2,044.4	0.0	0.0
45.00		93.6	1,056.5					52.7	1,290.7	146.2	2,347.2	0.0	0.0
50.00		94.3	1,034.3					54.7	1,299.5	149.0	2,333.8	0.0	0.0
55.00		94.7	1,011.4					56.7	1,307.5	151.3	2,318.9	0.0	0.0
60.00		94.8	987.9					58.5	1,314.9	153.3	2,302.8	0.0	0.0
65.00		94.7	964.0					60.2	1,321.7	154.9	2,285.7	0.0	0.0
70.00	Bot - Section 3	80.8	939.6					61.8	1,328.1	142.6	2,267.7	0.0	0.0
73.50	Top - Section 2	45.1	952.1					44.2	933.2	89.3	1,885.3	0.0	0.0
74.71	Reinf Bottom	14.3	199.7					15.5	324.2	29.8	524.0	0.0	0.0
75.00		25.9	47.0					3.7	99.6	29.6	146.6	0.0	0.0
77.44	Reinf. Top	47.5	396.1					31.4	675.4	78.9	1,071.5	0.0	0.0
80.00		71.4	410.7					33.4	687.3	104.8	1,098.0	0.0	0.0
85.00		93.7	781.9					69.3	1,345.1	163.0	2,127.0	0.0	0.0
90.00		92.7	759.6					73.8	1,350.2	166.5	2,109.8	0.0	0.0
95.00		91.5	737.1					75.2	1,355.0	166.7	2,092.1	0.0	0.0
100.00		90.2	714.3					76.6	1,359.7	166.8	2,074.0	0.0	0.0
105.00	Appurtenance(s)	88.7	691.3	422.6	0.0	449.0	3,079.7	77.9	1,364.1	589.3	5,135.1	0.0	0.0
110.00	Top - Section 3	87.1	668.2					79.2	1,265.3	166.4	1,933.4	0.0	0.0
115.00		47.6	564.3					80.5	1,268.8	128.1	1,833.1	0.0	0.0
115.52	Reinf. Top	42.3	58.2					8.5	132.4	50.8	190.5	0.0	0.0
120.00	Appurtenance(s)	79.2	487.0	689.1	0.0	0.0	7,124.1	67.6	752.8	835.9	8,363.9	0.0	0.0
125.00		81.8	523.7					29.8	458.9	111.6	982.6	0.0	0.0
130.00		72.0	503.2					30.2	460.2	102.3	963.4	0.0	0.0
134.00	Appurtenance(s)	39.4	388.6	316.0	0.0	0.0	1,267.0	24.5	369.1	379.9	2,024.8	0.0	0.0
135.00		46.1	95.8					0.0	21.2	46.1	117.0	0.0	0.0
140.00		75.6	461.7					0.0	106.0	75.6	567.7	0.0	0.0
145.00		73.4	440.8					0.0	106.0	73.4	546.8	0.0	0.0
150.00	Appurtenance(s)	36.1	419.8	1,324.1	0.0	2,806.2	11,448.4	0.0	106.0	1,360.2	11,974.1	0.0	0.0
				Totals:						6,957.54	81,813.2	0.00	0.00

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:42 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.0Di + 1.0Wi

50 mph with 1.00 in Radial Ice

26 Iterations

Gust Response Factor :1.10

Ice Dead Load Factor :1.00

Wind Importance Factor :1.00

Dead Load Factor :1.20

Ice Importance Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-81.81	-6.97	0.00	-792.42	0.00	792.42	3,136.53	1,568.27	4,731.25	2,336.59	0.00	0.00	0.227
5.00	-79.42	-6.96	0.00	-757.55	0.00	757.55	3,092.06	1,546.03	4,560.72	2,252.37	0.05	-0.09	0.222
10.00	-76.95	-6.94	0.00	-722.75	0.00	722.75	3,046.49	1,523.25	4,391.58	2,168.84	0.19	-0.18	0.218
15.00	-74.45	-6.91	0.00	-688.05	0.00	688.05	2,999.83	1,499.91	4,223.96	2,086.05	0.43	-0.27	0.213
20.00	-71.95	-6.88	0.00	-653.48	0.00	653.48	2,952.07	1,476.04	4,057.95	2,004.07	0.76	-0.36	0.207
25.00	-69.45	-6.84	0.00	-619.09	0.00	619.09	2,901.93	1,450.96	3,891.94	1,922.08	1.19	-0.46	0.202
30.00	-66.96	-6.78	0.00	-584.91	0.00	584.91	2,830.35	1,415.18	3,701.25	1,827.91	1.72	-0.55	0.198
31.50	-66.21	-6.77	0.00	-574.73	0.00	574.73	2,808.88	1,404.44	3,644.98	1,800.12	1.89	-0.58	0.196
35.00	-64.01	-6.72	0.00	-551.03	0.00	551.03	2,758.78	1,379.39	3,515.36	1,736.10	2.34	-0.64	0.191
35.67	-63.58	-6.71	0.00	-546.55	0.00	546.55	2,225.24	1,112.62	2,894.88	1,429.67	2.43	-0.65	0.217
40.00	-61.53	-6.65	0.00	-517.46	0.00	517.46	2,194.35	1,097.17	2,791.07	1,378.40	3.06	-0.73	0.210
45.00	-59.18	-6.58	0.00	-484.20	0.00	484.20	2,157.69	1,078.84	2,672.25	1,319.72	3.88	-0.83	0.202
50.00	-56.83	-6.49	0.00	-451.32	0.00	451.32	2,119.93	1,059.96	2,554.56	1,261.60	4.80	-0.93	0.194
55.00	-54.51	-6.38	0.00	-418.89	0.00	418.89	2,081.07	1,040.54	2,438.12	1,204.10	5.83	-1.02	0.185
60.00	-52.20	-6.27	0.00	-386.97	0.00	386.97	2,041.12	1,020.56	2,323.03	1,147.26	6.95	-1.12	0.176
65.00	-49.91	-6.15	0.00	-355.60	0.00	355.60	1,992.10	996.05	2,200.59	1,086.79	8.17	-1.21	0.167
70.00	-47.63	-6.02	0.00	-324.84	0.00	324.84	1,932.46	966.23	2,070.05	1,022.32	9.48	-1.30	0.159
73.50	-45.75	-5.92	0.00	-303.76	0.00	303.76	1,451.36	725.68	1,558.37	769.62	10.46	-1.36	0.175
74.71	-45.22	-5.89	0.00	-296.57	0.00	296.57	1,444.76	722.38	1,539.55	760.33	10.81	-1.38	0.172
75.00	-45.07	-5.87	0.00	-294.88	0.00	294.88	1,443.19	721.60	1,535.11	758.14	10.89	-1.39	0.095
77.44	-44.00	-5.78	0.00	-280.57	0.00	280.57	1,429.71	714.86	1,497.46	739.54	11.60	-1.41	0.091
77.44	-44.00	-5.78	0.00	-280.57	0.00	280.57	1,429.71	714.86	1,497.46	739.54	11.60	-1.41	0.136
80.00	-42.90	-5.69	0.00	-265.75	0.00	265.75	1,415.26	707.63	1,458.06	720.08	12.37	-1.44	0.130
85.00	-40.77	-5.52	0.00	-237.31	0.00	237.31	1,386.24	693.12	1,381.78	682.41	13.91	-1.51	0.119
90.00	-38.66	-5.34	0.00	-209.72	0.00	209.72	1,356.12	678.06	1,306.38	645.17	15.53	-1.57	0.107
95.00	-36.57	-5.15	0.00	-183.03	0.00	183.03	1,324.90	662.45	1,231.99	608.43	17.21	-1.63	0.096
100.00	-34.50	-4.96	0.00	-157.29	0.00	157.29	1,293.04	646.52	1,159.10	572.44	18.95	-1.69	0.085
105.00	-29.38	-4.24	0.00	-132.06	0.00	132.06	1,245.33	622.66	1,074.67	530.74	20.75	-1.74	0.073
110.00	-27.45	-4.03	0.00	-110.88	0.00	110.88	1,197.61	598.80	993.42	490.61	22.60	-1.79	0.064
110.00	-27.45	-4.03	0.00	-110.88	0.00	110.88	833.77	416.88	695.90	343.68	22.60	-1.79	0.074
115.00	-25.62	-3.86	0.00	-90.72	0.00	90.72	813.89	406.95	652.08	322.04	24.49	-1.83	0.062
115.52	-25.43	-3.81	0.00	-88.71	0.00	88.71	811.76	405.88	647.55	319.80	24.69	-1.83	0.061
115.52	-25.43	-3.81	0.00	-88.71	0.00	88.71	811.76	405.88	647.55	319.80	24.69	-1.83	0.309
120.00	-17.09	-2.74	0.00	-71.66	0.00	71.66	792.92	396.46	608.75	300.64	26.42	-1.86	0.260
125.00	-16.11	-2.64	0.00	-57.99	0.00	57.99	770.85	385.43	566.02	279.54	28.48	-2.05	0.228
130.00	-15.14	-2.54	0.00	-44.79	0.00	44.79	747.69	373.84	524.00	258.78	30.71	-2.22	0.193
134.00	-13.13	-2.10	0.00	-34.64	0.00	34.64	728.37	364.19	490.97	242.47	32.62	-2.33	0.161
135.00	-13.01	-2.06	0.00	-32.54	0.00	32.54	722.05	361.03	481.88	237.98	33.11	-2.36	0.155
140.00	-12.45	-1.98	0.00	-22.23	0.00	22.23	686.26	343.13	435.03	214.85	35.65	-2.48	0.122
145.00	-11.90	-1.90	0.00	-12.31	0.00	12.31	650.48	325.24	390.59	192.90	38.30	-2.57	0.082
150.00	0.00	-1.36	0.00	-2.81	0.00	2.81	614.69	307.34	348.53	172.13	41.02	-2.61	0.016

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sstn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:42 PM

Customer: AT&T MOBILITY

Load Case: 1.0D + 1.0W

Serviceability 60 mph

25 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		63.9	0.0					0.0	0.0	63.9	0.0	0.0	0.0
5.00		126.3	744.2					27.1	538.6	153.4	1,282.8	0.0	0.0
10.00		123.5	727.7					27.1	538.6	150.6	1,266.3	0.0	0.0
15.00		120.7	711.1					27.1	538.6	147.8	1,249.8	0.0	0.0
20.00		117.9	694.6					27.1	538.6	145.0	1,233.3	0.0	0.0
25.00		115.1	678.1					27.1	538.6	142.2	1,216.7	0.0	0.0
30.00		73.8	661.6					27.1	538.6	100.9	1,200.2	0.0	0.0
31.50	Bot - Section 2	57.5	195.2					8.2	161.6	65.7	356.8	0.0	0.0
35.00		48.4	832.9					19.6	377.1	68.0	1,209.9	0.0	0.0
35.67	Top - Section 1	58.8	157.0					3.8	71.8	62.6	228.8	0.0	0.0
40.00		110.4	463.3					25.1	466.8	135.5	930.2	0.0	0.0
45.00		119.1	521.8					30.0	538.6	149.1	1,060.4	0.0	0.0
50.00		119.5	508.0					30.9	538.6	150.4	1,046.7	0.0	0.0
55.00		119.5	494.2					31.8	538.6	151.3	1,032.9	0.0	0.0
60.00		119.1	480.5					32.7	538.6	151.7	1,019.1	0.0	0.0
65.00		118.3	466.7					33.5	538.6	151.8	1,005.4	0.0	0.0
70.00	Bot - Section 3	100.6	452.9					34.2	538.6	134.8	991.6	0.0	0.0
73.50	Top - Section 2	56.1	561.3					24.4	377.1	80.4	938.4	0.0	0.0
74.71	Reinf Bottom	17.8	86.3					8.5	130.7	26.3	217.0	0.0	0.0
75.00		32.1	20.3					2.0	50.0	34.2	70.3	0.0	0.0
77.44	Reinf. Top	58.8	171.0					17.3	281.7	76.0	452.8	0.0	0.0
80.00		88.0	177.0					18.3	276.1	106.3	453.0	0.0	0.0
85.00		115.0	337.0					40.6	538.6	155.6	875.7	0.0	0.0
90.00		113.0	326.0					45.7	538.6	158.7	864.6	0.0	0.0
95.00		110.9	315.0					46.4	538.6	157.3	853.6	0.0	0.0
100.00		108.6	304.0					47.1	538.6	155.7	842.6	0.0	0.0
105.00	Appurtenance(s)	106.1	293.0	334.5	0.0	433.4	1,077.0	47.8	538.6	488.4	1,908.6	0.0	0.0
110.00	Top - Section 3	103.4	281.9					48.5	528.7	151.9	810.7	0.0	0.0
115.00		56.3	203.8					49.1	528.7	105.4	732.6	0.0	0.0
115.52	Reinf. Top	49.6	20.8					5.2	55.1	54.7	75.8	0.0	0.0
120.00	Appurtenance(s)	92.5	174.8	648.3	0.0	0.0	2,218.7	40.9	174.5	781.7	2,568.0	0.0	0.0
125.00		94.6	187.3					20.0	137.5	114.6	324.8	0.0	0.0
130.00		82.6	179.1					20.2	137.5	102.8	316.6	0.0	0.0
134.00	Appurtenance(s)	43.4	137.3	304.6	0.0	0.0	519.0	16.3	110.0	364.3	766.3	0.0	0.0
135.00		43.4	33.5					0.0	17.7	43.4	51.2	0.0	0.0
140.00		70.5	162.5					0.0	88.3	70.5	250.8	0.0	0.0
145.00		67.6	154.3					0.0	88.3	67.6	242.6	0.0	0.0
150.00	Appurtenance(s)	33.0	146.0	1,115.3	0.0	2,682.3	3,136.0	0.0	88.3	1,148.4	3,370.3	0.0	0.0
Totals:										6,568.91	33,317.1	0.00	0.00

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:47 PM

Customer: AT&T MOBILITY

Load Case: 1.0D + 1.0W

Serviceability 60 mph

25 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-33.31	-6.53	0.00	-648.77	0.00	648.77	3,136.53	1,568.27	4,731.25	2,336.59	0.00	0.00	0.178
5.00	-32.02	-6.41	0.00	-616.14	0.00	616.14	3,092.06	1,546.03	4,560.72	2,252.37	0.04	-0.07	0.174
10.00	-30.75	-6.30	0.00	-584.07	0.00	584.07	3,046.49	1,523.25	4,391.58	2,168.84	0.16	-0.15	0.169
15.00	-29.49	-6.19	0.00	-552.58	0.00	552.58	2,999.83	1,499.91	4,223.96	2,086.05	0.35	-0.22	0.164
20.00	-28.25	-6.07	0.00	-521.65	0.00	521.65	2,952.07	1,476.04	4,057.95	2,004.07	0.62	-0.29	0.159
25.00	-27.03	-5.96	0.00	-491.30	0.00	491.30	2,901.93	1,450.96	3,891.94	1,922.08	0.96	-0.37	0.154
30.00	-25.82	-5.87	0.00	-461.52	0.00	461.52	2,830.35	1,415.18	3,701.25	1,827.91	1.39	-0.44	0.150
31.50	-25.46	-5.82	0.00	-452.71	0.00	452.71	2,808.88	1,404.44	3,644.98	1,800.12	1.53	-0.46	0.148
35.00	-24.25	-5.75	0.00	-432.36	0.00	432.36	2,758.78	1,379.39	3,515.36	1,736.10	1.89	-0.51	0.143
35.67	-24.02	-5.70	0.00	-428.52	0.00	428.52	2,225.24	1,112.62	2,894.88	1,429.67	1.96	-0.52	0.163
40.00	-23.08	-5.58	0.00	-403.82	0.00	403.82	2,194.35	1,097.17	2,791.07	1,378.40	2.46	-0.59	0.157
45.00	-22.02	-5.45	0.00	-375.89	0.00	375.89	2,157.69	1,078.84	2,672.25	1,319.72	3.12	-0.66	0.150
50.00	-20.97	-5.32	0.00	-348.63	0.00	348.63	2,119.93	1,059.96	2,554.56	1,261.60	3.85	-0.74	0.143
55.00	-19.93	-5.18	0.00	-322.04	0.00	322.04	2,081.07	1,040.54	2,438.12	1,204.10	4.66	-0.81	0.136
60.00	-18.91	-5.03	0.00	-296.16	0.00	296.16	2,041.12	1,020.56	2,323.03	1,147.26	5.55	-0.88	0.128
65.00	-17.90	-4.89	0.00	-270.99	0.00	270.99	1,992.10	996.05	2,200.59	1,086.79	6.51	-0.95	0.121
70.00	-16.90	-4.75	0.00	-246.55	0.00	246.55	1,932.46	966.23	2,070.05	1,022.32	7.55	-1.02	0.115
73.50	-15.96	-4.66	0.00	-229.91	0.00	229.91	1,451.36	725.68	1,558.37	769.62	8.31	-1.07	0.126
74.71	-15.75	-4.64	0.00	-224.25	0.00	224.25	1,444.76	722.38	1,539.55	760.33	8.59	-1.08	0.123
75.00	-15.68	-4.60	0.00	-222.93	0.00	222.93	1,443.19	721.60	1,535.11	758.14	8.65	-1.09	0.068
77.44	-15.22	-4.52	0.00	-211.70	0.00	211.70	1,429.71	714.86	1,497.46	739.54	9.21	-1.11	0.064
77.44	-15.22	-4.52	0.00	-211.70	0.00	211.70	1,429.71	714.86	1,497.46	739.54	9.21	-1.11	0.096
80.00	-14.77	-4.42	0.00	-200.11	0.00	200.11	1,415.26	707.63	1,458.06	720.08	9.81	-1.13	0.092
85.00	-13.89	-4.26	0.00	-178.01	0.00	178.01	1,386.24	693.12	1,381.78	682.41	11.02	-1.18	0.083
90.00	-13.03	-4.09	0.00	-156.73	0.00	156.73	1,356.12	678.06	1,306.38	645.17	12.28	-1.23	0.074
95.00	-12.18	-3.93	0.00	-136.27	0.00	136.27	1,324.90	662.45	1,231.99	608.43	13.59	-1.27	0.066
100.00	-11.33	-3.76	0.00	-116.64	0.00	116.64	1,293.04	646.52	1,159.10	572.44	14.95	-1.31	0.058
105.00	-9.44	-3.23	0.00	-97.42	0.00	97.42	1,245.33	622.66	1,074.67	530.74	16.34	-1.35	0.049
110.00	-8.63	-3.06	0.00	-81.26	0.00	81.26	1,197.61	598.80	993.42	490.61	17.78	-1.39	0.043
110.00	-8.63	-3.06	0.00	-81.26	0.00	81.26	833.77	416.88	695.90	343.68	17.78	-1.39	0.049
115.00	-7.90	-2.94	0.00	-65.94	0.00	65.94	813.89	406.95	652.08	322.04	19.25	-1.41	0.040
115.52	-7.82	-2.89	0.00	-64.40	0.00	64.40	811.76	405.88	647.55	319.80	19.40	-1.42	0.040
115.52	-7.82	-2.89	0.00	-64.40	0.00	64.40	811.76	405.88	647.55	319.80	19.40	-1.42	0.211
120.00	-5.27	-2.05	0.00	-51.46	0.00	51.46	792.92	396.46	608.75	300.64	20.74	-1.44	0.178
125.00	-4.94	-1.94	0.00	-41.21	0.00	41.21	770.85	385.43	566.02	279.54	22.32	-1.57	0.154
130.00	-4.63	-1.83	0.00	-31.51	0.00	31.51	747.69	373.84	524.00	258.78	24.04	-1.69	0.128
134.00	-3.87	-1.45	0.00	-24.17	0.00	24.17	728.37	364.19	490.97	242.47	25.49	-1.78	0.105
135.00	-3.82	-1.41	0.00	-22.72	0.00	22.72	722.05	361.03	481.88	237.98	25.87	-1.79	0.101
140.00	-3.57	-1.34	0.00	-15.68	0.00	15.68	686.26	343.13	435.03	214.85	27.79	-1.88	0.078
145.00	-3.33	-1.26	0.00	-9.00	0.00	9.00	650.48	325.24	390.59	192.90	29.79	-1.94	0.052
150.00	0.00	-1.15	0.00	-2.68	0.00	2.68	614.69	307.34	348.53	172.13	31.85	-1.97	0.016

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

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Customer: AT&T MOBILITY

Equivalent Lateral Forces Method Analysis

(Based on ASCE7-10 Chapters 11, 12, 15)

Spectral Response Acceleration for Short Period (S_s):	0.18
Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.06
Long-Period Transition Period (T_L):	6
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.20
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_s	0.03
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	2.66
Redundancy Factor (p):	1.00
Seismic Force Distribution Exponent (k):	2.00
Total Unfactored Dead Load:	33.32 k
Seismic Base Shear (E):	1.00 k

Load Case (1.2 + 0.2Sds) * DL + E ELM

Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
37	147.50	234	5,098	0.020	20	290
36	142.50	243	4,926	0.020	20	301
35	137.50	251	4,742	0.019	19	311
34	134.50	51	925	0.004	4	63
33	132.00	247	4,309	0.017	17	306
32	127.50	317	5,146	0.020	20	392
31	122.50	325	4,874	0.019	19	403
30	117.76	349	4,844	0.019	19	433
29	115.26	76	1,007	0.004	4	94
28	112.50	733	9,272	0.037	37	908
27	107.50	811	9,369	0.037	37	1,005
26	102.50	832	8,737	0.035	35	1,031
25	97.50	843	8,010	0.032	32	1,044
24	92.50	854	7,304	0.029	29	1,058
23	87.50	865	6,620	0.026	26	1,072
22	82.50	876	5,960	0.024	24	1,085
21	78.72	453	2,807	0.011	11	561
20	76.22	453	2,630	0.010	10	561
19	74.86	70	394	0.002	2	87
18	74.11	217	1,192	0.005	5	269
17	71.75	938	4,831	0.019	19	1,163
16	67.50	992	4,518	0.018	18	1,229
15	62.50	1,005	3,927	0.016	16	1,246

Site Number: 302475

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Site Name: Sttn - Southington, CT

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Customer: AT&T MOBILITY

14	57.50	1,019	3,369	0.013	13	1,263
13	52.50	1,033	2,847	0.011	11	1,280
12	47.50	1,047	2,362	0.009	9	1,297
11	42.50	1,060	1,915	0.008	8	1,314
10	37.83	930	1,331	0.005	5	1,153
9	35.33	229	286	0.001	1	284
8	33.25	1,210	1,338	0.005	5	1,499
7	30.75	357	337	0.001	1	442
6	27.50	1,200	908	0.004	4	1,487
5	22.50	1,217	616	0.002	2	1,508
4	17.50	1,233	378	0.002	2	1,528
3	12.50	1,250	195	0.001	1	1,549
2	7.50	1,266	71	0.000	0	1,569
1	2.50	1,283	8	0.000	0	1,590
CCI TPX-070821	150.00	45	1,013	0.004	4	56
Kaelus DBCT108F1V92-	150.00	83	1,876	0.007	7	103
Raycap DC6-48-60-18-	150.00	40	900	0.004	4	50
Raycap DC6-48-60-18-	150.00	32	715	0.003	3	39
CCI DTMAPB7819VG12A	150.00	58	1,296	0.005	5	71
Ericsson RRUS 4426 B	150.00	145	3,267	0.013	13	180
Ericsson RRUS 4478 B	150.00	180	4,043	0.016	16	223
Ericsson RRUS 4478 B	150.00	180	4,043	0.016	16	223
Ericsson RRUS-11 (50	150.00	150	3,375	0.013	13	186
Ericsson RRUS 32 B2	150.00	159	3,577	0.014	14	197
10' Omni	150.00	25	563	0.002	2	31
Ericsson RRUS-32 (77	150.00	231	5,198	0.021	21	286
Powerwave Allgon 777	150.00	105	2,363	0.009	9	130
KMW AM-X-CD-16-65-00	150.00	97	2,183	0.009	9	120
Quintel QS66512-3 (1	150.00	336	7,560	0.030	30	416
Andrew SBNH-1D6565C	150.00	61	1,368	0.005	5	75
Kathrein Scala 80010	150.00	195	4,392	0.017	17	242
Round Sector Frame	150.00	900	20,250	0.081	81	1,115
Kathrein Scala 80010	150.00	115	2,579	0.010	10	142
Kathrein Smart Bias	134.00	10	178	0.001	1	12
Site-Pro UWS6-NP	134.00	276	4,956	0.020	20	342
RFS APXV18-206517S-C	134.00	79	1,422	0.006	6	98
Andrew LNX-6515DS-VT	134.00	154	2,763	0.011	11	191
DragonWave Horizon C	120.00	11	153	0.001	1	13
12" x 12" Junction B	120.00	10	144	0.001	1	12
Alcatel-Lucent RRH2x	120.00	317	4,571	0.018	18	393
Nokia FZHN Flexi RRH	120.00	132	1,905	0.008	8	164
Alcatel-Lucent 1900	120.00	180	2,592	0.010	10	223
RFS APXVTM14-ALU-I20	120.00	169	2,428	0.010	10	209
Side Arms	120.00	1,120	16,128	0.064	64	1,388
DragonWave A-ANT-11G	120.00	48	685	0.003	3	59
Commscope NNVV-65B-R	120.00	232	3,344	0.013	13	288
dB Systems 5100A	105.00	21	232	0.001	1	26
VertexRSI 101V VPD	105.00	4	44	0.000	0	5
dB Systems 5100A-D	105.00	152	1,676	0.007	7	188
Round Side Arm	105.00	450	4,961	0.020	20	558
Round Side Arm	105.00	450	4,961	0.020	20	558
		33,317	251,106	1.000	1,000	41,288

Load Case (0.9 - 0.2Sds) * DL + E ELFM

Seismic (Reduced DL) Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
37	147.50	234	5,098	0.020	20	202
36	142.50	243	4,926	0.020	20	209
35	137.50	251	4,742	0.019	19	216

Site Number: 302475

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34	134.50	51	925	0.004	4	44
33	132.00	247	4,309	0.017	17	213
32	127.50	317	5,146	0.020	20	272
31	122.50	325	4,874	0.019	19	280
30	117.76	349	4,844	0.019	19	301
29	115.26	76	1,007	0.004	4	65
28	112.50	733	9,272	0.037	37	631
27	107.50	811	9,369	0.037	37	698
26	102.50	832	8,737	0.035	35	716
25	97.50	843	8,010	0.032	32	725
24	92.50	854	7,304	0.029	29	735
23	87.50	865	6,620	0.026	26	744
22	82.50	876	5,960	0.024	24	754
21	78.72	453	2,807	0.011	11	390
20	76.22	453	2,630	0.010	10	390
19	74.86	70	394	0.002	2	60
18	74.11	217	1,192	0.005	5	187
17	71.75	938	4,831	0.019	19	808
16	67.50	992	4,518	0.018	18	854
15	62.50	1,005	3,927	0.016	16	865
14	57.50	1,019	3,369	0.013	13	877
13	52.50	1,033	2,847	0.011	11	889
12	47.50	1,047	2,362	0.009	9	901
11	42.50	1,060	1,915	0.008	8	913
10	37.83	930	1,331	0.005	5	801
9	35.33	229	286	0.001	1	197
8	33.25	1,210	1,338	0.005	5	1,041
7	30.75	357	337	0.001	1	307
6	27.50	1,200	908	0.004	4	1,033
5	22.50	1,217	616	0.002	2	1,047
4	17.50	1,233	378	0.002	2	1,062
3	12.50	1,250	195	0.001	1	1,076
2	7.50	1,266	71	0.000	0	1,090
1	2.50	1,283	8	0.000	0	1,104
CCI TPX-070821	150.00	45	1,013	0.004	4	39
Kaelus DBCT108F1V92-	150.00	83	1,876	0.007	7	72
Raycap DC6-48-60-18-	150.00	40	900	0.004	4	34
Raycap DC6-48-60-18-	150.00	32	715	0.003	3	27
CCI DTMABP7819VG12A	150.00	58	1,296	0.005	5	50
Ericsson RRUS 4426 B	150.00	145	3,267	0.013	13	125
Ericsson RRUS 4478 B	150.00	180	4,043	0.016	16	155
Ericsson RRUS 4478 B	150.00	180	4,043	0.016	16	155
Ericsson RRUS-11 (50	150.00	150	3,375	0.013	13	129
Ericsson RRUS 32 B2	150.00	159	3,577	0.014	14	137
10' Omni	150.00	25	563	0.002	2	22
Ericsson RRUS-32 (77	150.00	231	5,198	0.021	21	199
Powerwave Allgon 777	150.00	105	2,363	0.009	9	90
KMW AM-X-CD-16-65-00	150.00	97	2,183	0.009	9	83
Quintel QS66512-3 (1	150.00	336	7,560	0.030	30	289
Andrew SBNH-1D6565C	150.00	61	1,368	0.005	5	52
Kathrein Scala 80010	150.00	195	4,392	0.017	17	168
Round Sector Frame	150.00	900	20,250	0.081	81	775
Kathrein Scala 80010	150.00	115	2,579	0.010	10	99
Kathrein Smart Bias	134.00	10	178	0.001	1	9
Site-Pro UWS6-NP	134.00	276	4,956	0.020	20	238
RFS APXV18-206517S-C	134.00	79	1,422	0.006	6	68
Andrew LNX-6515DS-VT	134.00	154	2,763	0.011	11	132
DragonWave Horizon C	120.00	11	153	0.001	1	9
12" x 12" Junction B	120.00	10	144	0.001	1	9
Alcatel-Lucent RRH2x	120.00	317	4,571	0.018	18	273
Nokia FZHN Flexi RRH	120.00	132	1,905	0.008	8	114
Alcatel-Lucent 1900	120.00	180	2,592	0.010	10	155
RFS APXVTM14-ALU-I20	120.00	169	2,428	0.010	10	145
Side Arms	120.00	1,120	16,128	0.064	64	964

Site Number: 302475

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DragonWave A-ANT-11G	120.00	48	685	0.003	3	41
Commscope NNVV-65B-R	120.00	232	3,344	0.013	13	200
dB Systems 5100A	105.00	21	232	0.001	1	18
VertexRSI 101V VPD	105.00	4	44	0.000	0	3
dB Systems 5100A-D	105.00	152	1,676	0.007	7	131
Round Side Arm	105.00	450	4,961	0.020	20	387
Round Side Arm	105.00	450	4,961	0.020	20	387
		33,317	251,106	1.000	1,000	28,678

Load Case (1.2 + 0.2Sds) * DL + E ELFM Seismic Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-39.70	-1.00	0.00	-122.53	0.00	122.53	3,136.53	1,568.27	4,731.25	2,336.59	0.00	0.00	0.041
5.00	-38.13	-1.01	0.00	-117.51	0.00	117.51	3,092.06	1,546.03	4,560.72	2,252.37	0.01	-0.01	0.040
10.00	-36.58	-1.02	0.00	-112.45	0.00	112.45	3,046.49	1,523.25	4,391.58	2,168.84	0.03	-0.03	0.039
15.00	-35.05	-1.03	0.00	-107.35	0.00	107.35	2,999.83	1,499.91	4,223.96	2,086.05	0.07	-0.04	0.038
20.00	-33.54	-1.03	0.00	-102.22	0.00	102.22	2,952.07	1,476.04	4,057.95	2,004.07	0.12	-0.06	0.038
25.00	-32.06	-1.03	0.00	-97.07	0.00	97.07	2,901.93	1,450.96	3,891.94	1,922.08	0.18	-0.07	0.037
30.00	-31.61	-1.04	0.00	-91.90	0.00	91.90	2,830.35	1,415.18	3,701.25	1,827.91	0.27	-0.09	0.036
31.50	-30.11	-1.03	0.00	-90.35	0.00	90.35	2,808.88	1,404.44	3,644.98	1,800.12	0.29	-0.09	0.036
35.00	-29.83	-1.03	0.00	-86.73	0.00	86.73	2,758.78	1,379.39	3,515.36	1,736.10	0.36	-0.10	0.035
35.67	-28.68	-1.03	0.00	-86.04	0.00	86.04	2,225.24	1,112.62	2,894.88	1,429.67	0.38	-0.10	0.039
40.00	-27.36	-1.03	0.00	-81.57	0.00	81.57	2,194.35	1,097.17	2,791.07	1,378.40	0.48	-0.11	0.038
45.00	-26.07	-1.02	0.00	-76.44	0.00	76.44	2,157.69	1,078.84	2,672.25	1,319.72	0.61	-0.13	0.037
50.00	-24.79	-1.01	0.00	-71.33	0.00	71.33	2,119.93	1,059.96	2,554.56	1,261.60	0.75	-0.15	0.035
55.00	-23.52	-1.00	0.00	-66.25	0.00	66.25	2,081.07	1,040.54	2,438.12	1,204.10	0.91	-0.16	0.033
60.00	-22.28	-0.99	0.00	-61.23	0.00	61.23	2,041.12	1,020.56	2,323.03	1,147.26	1.09	-0.18	0.032
65.00	-21.05	-0.97	0.00	-56.28	0.00	56.28	1,992.10	996.05	2,200.59	1,086.79	1.28	-0.19	0.030
70.00	-19.88	-0.95	0.00	-51.41	0.00	51.41	1,932.46	966.23	2,070.05	1,022.32	1.48	-0.20	0.029
73.50	-19.62	-0.95	0.00	-48.07	0.00	48.07	1,451.36	725.68	1,558.37	769.62	1.64	-0.21	0.032
74.71	-19.53	-0.95	0.00	-46.92	0.00	46.92	1,444.76	722.38	1,539.55	760.33	1.69	-0.22	0.032
75.00	-18.97	-0.94	0.00	-46.64	0.00	46.64	1,443.19	721.60	1,535.11	758.14	1.70	-0.22	0.018
77.44	-18.41	-0.93	0.00	-44.36	0.00	44.36	1,429.71	714.86	1,497.46	739.54	1.82	-0.22	0.017
77.44	-18.41	-0.93	0.00	-44.36	0.00	44.36	1,429.71	714.86	1,497.46	739.54	1.82	-0.22	0.026
80.00	-17.32	-0.90	0.00	-41.98	0.00	41.98	1,415.26	707.63	1,458.06	720.08	1.94	-0.23	0.024
85.00	-16.25	-0.87	0.00	-37.48	0.00	37.48	1,386.24	693.12	1,381.78	682.41	2.18	-0.24	0.022
90.00	-15.19	-0.84	0.00	-33.11	0.00	33.11	1,356.12	678.06	1,306.38	645.17	2.43	-0.25	0.020
95.00	-14.15	-0.81	0.00	-28.90	0.00	28.90	1,324.90	662.45	1,231.99	608.43	2.70	-0.26	0.018
100.00	-13.12	-0.77	0.00	-24.86	0.00	24.86	1,293.04	646.52	1,159.10	572.44	2.97	-0.27	0.016
105.00	-10.78	-0.68	0.00	-21.01	0.00	21.01	1,245.33	622.66	1,074.67	530.74	3.26	-0.27	0.014
110.00	-9.87	-0.64	0.00	-17.63	0.00	17.63	1,197.61	598.80	993.42	490.61	3.55	-0.28	0.012
110.00	-9.87	-0.64	0.00	-17.63	0.00	17.63	833.77	416.88	695.90	343.68	3.55	-0.28	0.014
115.00	-9.78	-0.63	0.00	-14.45	0.00	14.45	813.89	406.95	652.08	322.04	3.84	-0.29	0.013
115.52	-9.34	-0.61	0.00	-14.12	0.00	14.12	811.76	405.88	647.55	319.80	3.88	-0.29	0.012
115.52	-9.34	-0.61	0.00	-14.12	0.00	14.12	811.76	405.88	647.55	319.80	3.88	-0.29	0.056
120.00	-6.19	-0.45	0.00	-11.38	0.00	11.38	792.92	396.46	608.75	300.64	4.15	-0.29	0.046
125.00	-5.80	-0.43	0.00	-9.13	0.00	9.13	770.85	385.43	566.02	279.54	4.47	-0.32	0.040
130.00	-5.49	-0.41	0.00	-6.97	0.00	6.97	747.69	373.84	524.00	258.78	4.82	-0.35	0.034
134.00	-4.79	-0.37	0.00	-5.31	0.00	5.31	728.37	364.19	490.97	242.47	5.13	-0.37	0.028
135.00	-4.48	-0.35	0.00	-4.94	0.00	4.94	722.05	361.03	481.88	237.98	5.20	-0.37	0.027
140.00	-4.17	-0.33	0.00	-3.19	0.00	3.19	686.26	343.13	435.03	214.85	5.60	-0.39	0.021
145.00	-3.88	-0.31	0.00	-1.54	0.00	1.54	650.48	325.24	390.59	192.90	6.02	-0.40	0.014
150.00	0.00	-0.28	0.00	0.00	0.00	0.00	614.69	307.34	348.53	172.13	6.44	-0.41	0.000

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sstn - Southington, CT

Engineering Number: OAA740798_C4_06

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Customer: AT&T MOBILITY

Load Case (0.9 - 0.2Sds) * DL + E ELMF

Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-27.57	-1.00	0.00	-120.18	0.00	120.18	3,136.53	1,568.27	4,731.25	2,336.59	0.00	0.00	0.038
5.00	-26.48	-1.01	0.00	-115.17	0.00	115.17	3,092.06	1,546.03	4,560.72	2,252.37	0.01	-0.01	0.037
10.00	-25.41	-1.01	0.00	-110.13	0.00	110.13	3,046.49	1,523.25	4,391.58	2,168.84	0.03	-0.03	0.036
15.00	-24.35	-1.02	0.00	-105.07	0.00	105.07	2,999.83	1,499.91	4,223.96	2,086.05	0.06	-0.04	0.035
20.00	-23.30	-1.02	0.00	-99.99	0.00	99.99	2,952.07	1,476.04	4,057.95	2,004.07	0.12	-0.06	0.035
25.00	-22.26	-1.02	0.00	-94.89	0.00	94.89	2,901.93	1,450.96	3,891.94	1,922.08	0.18	-0.07	0.034
30.00	-21.96	-1.02	0.00	-89.80	0.00	89.80	2,830.35	1,415.18	3,701.25	1,827.91	0.26	-0.08	0.033
31.50	-20.92	-1.02	0.00	-88.26	0.00	88.26	2,808.88	1,404.44	3,644.98	1,800.12	0.29	-0.09	0.033
35.00	-20.72	-1.02	0.00	-84.70	0.00	84.70	2,758.78	1,379.39	3,515.36	1,736.10	0.36	-0.10	0.032
35.67	-19.92	-1.01	0.00	-84.02	0.00	84.02	2,225.24	1,112.62	2,894.88	1,429.67	0.37	-0.10	0.036
40.00	-19.00	-1.01	0.00	-79.63	0.00	79.63	2,194.35	1,097.17	2,791.07	1,378.40	0.47	-0.11	0.035
45.00	-18.10	-1.00	0.00	-74.59	0.00	74.59	2,157.69	1,078.84	2,672.25	1,319.72	0.59	-0.13	0.034
50.00	-17.21	-0.99	0.00	-69.58	0.00	69.58	2,119.93	1,059.96	2,554.56	1,261.60	0.73	-0.14	0.032
55.00	-16.34	-0.98	0.00	-64.61	0.00	64.61	2,081.07	1,040.54	2,438.12	1,204.10	0.89	-0.16	0.031
60.00	-15.47	-0.97	0.00	-59.70	0.00	59.70	2,041.12	1,020.56	2,323.03	1,147.26	1.06	-0.17	0.029
65.00	-14.62	-0.95	0.00	-54.86	0.00	54.86	1,992.10	996.05	2,200.59	1,086.79	1.25	-0.19	0.028
70.00	-13.81	-0.93	0.00	-50.11	0.00	50.11	1,932.46	966.23	2,070.05	1,022.32	1.45	-0.20	0.026
73.50	-13.62	-0.93	0.00	-46.85	0.00	46.85	1,451.36	725.68	1,558.37	769.62	1.60	-0.21	0.029
74.71	-13.56	-0.93	0.00	-45.72	0.00	45.72	1,444.76	722.38	1,539.55	760.33	1.65	-0.21	0.029
75.00	-13.17	-0.92	0.00	-45.46	0.00	45.46	1,443.19	721.60	1,535.11	758.14	1.67	-0.21	0.016
77.44	-12.78	-0.90	0.00	-43.23	0.00	43.23	1,429.71	714.86	1,497.46	739.54	1.78	-0.22	0.015
77.44	-12.78	-0.90	0.00	-43.23	0.00	43.23	1,429.71	714.86	1,497.46	739.54	1.78	-0.22	0.023
80.00	-12.03	-0.88	0.00	-40.91	0.00	40.91	1,415.26	707.63	1,458.06	720.08	1.89	-0.22	0.022
85.00	-11.28	-0.85	0.00	-36.52	0.00	36.52	1,386.24	693.12	1,381.78	682.41	2.13	-0.23	0.020
90.00	-10.55	-0.82	0.00	-32.27	0.00	32.27	1,356.12	678.06	1,306.38	645.17	2.38	-0.24	0.018
95.00	-9.82	-0.79	0.00	-28.16	0.00	28.16	1,324.90	662.45	1,231.99	608.43	2.64	-0.25	0.016
100.00	-9.11	-0.75	0.00	-24.23	0.00	24.23	1,293.04	646.52	1,159.10	572.44	2.91	-0.26	0.014
105.00	-7.48	-0.66	0.00	-20.47	0.00	20.47	1,245.33	622.66	1,074.67	530.74	3.18	-0.27	0.012
110.00	-6.85	-0.62	0.00	-17.17	0.00	17.17	1,197.61	598.80	993.42	490.61	3.47	-0.27	0.011
110.00	-6.85	-0.62	0.00	-17.17	0.00	17.17	833.77	416.88	695.90	343.68	3.47	-0.27	0.013
115.00	-6.79	-0.62	0.00	-14.07	0.00	14.07	813.89	406.95	652.08	322.04	3.76	-0.28	0.011
115.52	-6.49	-0.60	0.00	-13.75	0.00	13.75	811.76	405.88	647.55	319.80	3.79	-0.28	0.011
115.52	-6.49	-0.60	0.00	-13.75	0.00	13.75	811.76	405.88	647.55	319.80	3.79	-0.28	0.051
120.00	-4.30	-0.44	0.00	-11.08	0.00	11.08	792.92	396.46	608.75	300.64	4.05	-0.29	0.042
125.00	-4.03	-0.42	0.00	-8.88	0.00	8.88	770.85	385.43	566.02	279.54	4.37	-0.31	0.037
130.00	-3.81	-0.40	0.00	-6.78	0.00	6.78	747.69	373.84	524.00	258.78	4.71	-0.34	0.031
134.00	-3.32	-0.36	0.00	-5.16	0.00	5.16	728.37	364.19	490.97	242.47	5.01	-0.36	0.026
135.00	-3.11	-0.34	0.00	-4.80	0.00	4.80	722.05	361.03	481.88	237.98	5.08	-0.36	0.024
140.00	-2.90	-0.32	0.00	-3.10	0.00	3.10	686.26	343.13	435.03	214.85	5.47	-0.38	0.019
145.00	-2.70	-0.30	0.00	-1.50	0.00	1.50	650.48	325.24	390.59	192.90	5.88	-0.39	0.012
150.00	0.00	-0.28	0.00	0.00	0.00	0.00	614.69	307.34	348.53	172.13	6.29	-0.40	0.000

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

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Customer: AT&T MOBILITY

Equivalent Modal Forces Analysis

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period (S_s):	0.18
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.20
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Period Based on Rayleigh Method (sec):	2.66
Redundancy Factor (ρ):	1.00

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
37	147.50	234	1.828	1.667	1.025	0.331	52	290
36	142.50	243	1.706	1.144	0.823	0.256	41	301
35	137.50	251	1.588	0.742	0.654	0.189	32	311
34	134.50	51	1.520	0.550	0.566	0.154	5	63
33	132.00	247	1.464	0.415	0.501	0.126	21	306
32	127.50	317	1.366	0.222	0.397	0.082	17	392
31	122.50	325	1.261	0.069	0.302	0.040	9	403
30	117.76	349	1.165	-0.026	0.229	0.007	2	433
29	115.26	76	1.116	-0.061	0.197	-0.007	0	94
28	112.50	733	1.063	-0.088	0.165	-0.021	-10	908
27	107.50	811	0.971	-0.116	0.117	-0.039	-21	1,005
26	102.50	832	0.883	-0.121	0.081	-0.050	-28	1,031
25	97.50	843	0.799	-0.112	0.053	-0.052	-29	1,044
24	92.50	854	0.719	-0.092	0.034	-0.047	-27	1,058
23	87.50	865	0.643	-0.068	0.020	-0.035	-20	1,072
22	82.50	876	0.572	-0.043	0.012	-0.018	-11	1,085
21	78.72	453	0.521	-0.024	0.008	-0.003	-1	561
20	76.22	453	0.488	-0.012	0.007	0.006	2	561
19	74.86	70	0.471	-0.006	0.006	0.012	1	87
18	74.11	217	0.461	-0.002	0.006	0.014	2	269
17	71.75	938	0.432	0.008	0.006	0.023	14	1,163
16	67.50	992	0.383	0.023	0.007	0.035	23	1,229
15	62.50	1,005	0.328	0.039	0.010	0.046	31	1,246
14	57.50	1,019	0.278	0.050	0.014	0.052	35	1,263
13	52.50	1,033	0.232	0.058	0.019	0.055	38	1,280
12	47.50	1,047	0.190	0.064	0.025	0.056	39	1,297
11	42.50	1,060	0.152	0.068	0.030	0.055	39	1,314
10	37.83	930	0.120	0.070	0.034	0.054	34	1,153
9	35.33	229	0.105	0.071	0.037	0.054	8	284
8	33.25	1,210	0.093	0.071	0.038	0.053	43	1,499
7	30.75	357	0.079	0.072	0.040	0.052	12	442
6	27.50	1,200	0.064	0.072	0.041	0.052	41	1,487
5	22.50	1,217	0.043	0.070	0.042	0.050	41	1,508
4	17.50	1,233	0.026	0.067	0.040	0.048	39	1,528

Site Number: 302475

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

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Customer: AT&T MOBILITY

3	12.50	1,250	0.013	0.059	0.034	0.043	36	1,549
2	7.50	1,266	0.005	0.044	0.025	0.034	29	1,569
1	2.50	1,283	0.001	0.018	0.010	0.016	14	1,590
CCI TPX-070821	150.00	45	1.890	1.980	1.140	0.371	11	56
Kaelus DBCT108F1V92-	150.00	83	1.890	1.980	1.140	0.371	21	103
Raycap DC6-48-60-18-	150.00	40	1.890	1.980	1.140	0.371	10	50
Raycap DC6-48-60-18-	150.00	32	1.890	1.980	1.140	0.371	8	39
CCI DTMAPB7819VG12A	150.00	58	1.890	1.980	1.140	0.371	14	71
Ericsson RRUS 4426 B	150.00	145	1.890	1.980	1.140	0.371	36	180
Ericsson RRUS 4478 B	150.00	180	1.890	1.980	1.140	0.371	44	223
Ericsson RRUS 4478 B	150.00	180	1.890	1.980	1.140	0.371	44	223
Ericsson RRUS-11 (50	150.00	150	1.890	1.980	1.140	0.371	37	186
Ericsson RRUS 32 B2	150.00	159	1.890	1.980	1.140	0.371	39	197
10' Omni	150.00	25	1.890	1.980	1.140	0.371	6	31
Ericsson RRUS-32 (77	150.00	231	1.890	1.980	1.140	0.371	57	286
Powerwave Allgon 777	150.00	105	1.890	1.980	1.140	0.371	26	130
KMW AM-X-CD-16-65-00	150.00	97	1.890	1.980	1.140	0.371	24	120
Quintel QS66512-3 (1	150.00	336	1.890	1.980	1.140	0.371	83	416
Andrew SBNH-1D6565C	150.00	61	1.890	1.980	1.140	0.371	15	75
Kathrein Scala 80010	150.00	195	1.890	1.980	1.140	0.371	48	242
Round Sector Frame	150.00	900	1.890	1.980	1.140	0.371	223	1,115
Kathrein Scala 80010	150.00	115	1.890	1.980	1.140	0.371	28	142
Kathrein Smart Bias	134.00	10	1.508	0.522	0.553	0.148	1	12
Site-Pro UWS6-NP	134.00	276	1.508	0.522	0.553	0.148	27	342
RFS APXV18-206517S-C	134.00	79	1.508	0.522	0.553	0.148	8	98
Andrew LNX-6515DS-VT	134.00	154	1.508	0.522	0.553	0.148	15	191
DragonWave Horizon C	120.00	11	1.210	0.014	0.262	0.022	0	13
12" x 12" Junction B	120.00	10	1.210	0.014	0.262	0.022	0	12
Alcatel-Lucent RRH2x	120.00	317	1.210	0.014	0.262	0.022	5	393
Nokia FZHN Flexi RRH	120.00	132	1.210	0.014	0.262	0.022	2	164
Alcatel-Lucent 1900	120.00	180	1.210	0.014	0.262	0.022	3	223
RFS APXVTM14-ALU-I20	120.00	169	1.210	0.014	0.262	0.022	2	209
Side Arms	120.00	1,120	1.210	0.014	0.262	0.022	16	1,388
DragonWave A-ANT-11G	120.00	48	1.210	0.014	0.262	0.022	1	59
Commscope NNVV-	120.00	232	1.210	0.014	0.262	0.022	3	288
dB Systems 5100A	105.00	21	0.926	-0.121	0.098	-0.045	-1	26
VertexRSI 101V VPD	105.00	4	0.926	-0.121	0.098	-0.045	0	5
dB Systems 5100A-D	105.00	152	0.926	-0.121	0.098	-0.045	-5	188
Round Side Arm	105.00	450	0.926	-0.121	0.098	-0.045	-14	558
Round Side Arm	105.00	450	0.926	-0.121	0.098	-0.045	-14	558
		33,317	80.602	44.190	32.373	9.333	1,378	41,288

Load Case (0.9 - 0.2Sds) * DL + E EMAM

Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
37	147.50	234	1.828	1.667	1.025	0.331	52	202
36	142.50	243	1.706	1.144	0.823	0.256	41	209
35	137.50	251	1.588	0.742	0.654	0.189	32	216
34	134.50	51	1.520	0.550	0.566	0.154	5	44
33	132.00	247	1.464	0.415	0.501	0.126	21	213
32	127.50	317	1.366	0.222	0.397	0.082	17	272
31	122.50	325	1.261	0.069	0.302	0.040	9	280
30	117.76	349	1.165	-0.026	0.229	0.007	2	301
29	115.26	76	1.116	-0.061	0.197	-0.007	0	65
28	112.50	733	1.063	-0.088	0.165	-0.021	-10	631
27	107.50	811	0.971	-0.116	0.117	-0.039	-21	698
26	102.50	832	0.883	-0.121	0.081	-0.050	-28	716
25	97.50	843	0.799	-0.112	0.053	-0.052	-29	725

Site Number: 302475

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

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Customer: AT&T MOBILITY

24	92.50	854	0.719	-0.092	0.034	-0.047	-27	735
23	87.50	865	0.643	-0.068	0.020	-0.035	-20	744
22	82.50	876	0.572	-0.043	0.012	-0.018	-11	754
21	78.72	453	0.521	-0.024	0.008	-0.003	-1	390
20	76.22	453	0.488	-0.012	0.007	0.006	2	390
19	74.86	70	0.471	-0.006	0.006	0.012	1	60
18	74.11	217	0.461	-0.002	0.006	0.014	2	187
17	71.75	938	0.432	0.008	0.006	0.023	14	808
16	67.50	992	0.383	0.023	0.007	0.035	23	854
15	62.50	1,005	0.328	0.039	0.010	0.046	31	865
14	57.50	1,019	0.278	0.050	0.014	0.052	35	877
13	52.50	1,033	0.232	0.058	0.019	0.055	38	889
12	47.50	1,047	0.190	0.064	0.025	0.056	39	901
11	42.50	1,060	0.152	0.068	0.030	0.055	39	913
10	37.83	930	0.120	0.070	0.034	0.054	34	801
9	35.33	229	0.105	0.071	0.037	0.054	8	197
8	33.25	1,210	0.093	0.071	0.038	0.053	43	1,041
7	30.75	357	0.079	0.072	0.040	0.052	12	307
6	27.50	1,200	0.064	0.072	0.041	0.052	41	1,033
5	22.50	1,217	0.043	0.070	0.042	0.050	41	1,047
4	17.50	1,233	0.026	0.067	0.040	0.048	39	1,062
3	12.50	1,250	0.013	0.059	0.034	0.043	36	1,076
2	7.50	1,266	0.005	0.044	0.025	0.034	29	1,090
1	2.50	1,283	0.001	0.018	0.010	0.016	14	1,104
CCI TPX-070821	150.00	45	1.890	1.980	1.140	0.371	11	39
Kaelus DBCT108F1V92-	150.00	83	1.890	1.980	1.140	0.371	21	72
Raycap DC6-48-60-18-	150.00	40	1.890	1.980	1.140	0.371	10	34
Raycap DC6-48-60-18-	150.00	32	1.890	1.980	1.140	0.371	8	27
CCI DTMABP7819VG12A	150.00	58	1.890	1.980	1.140	0.371	14	50
Ericsson RRUS 4426 B	150.00	145	1.890	1.980	1.140	0.371	36	125
Ericsson RRUS 4478 B	150.00	180	1.890	1.980	1.140	0.371	44	155
Ericsson RRUS 4478 B	150.00	180	1.890	1.980	1.140	0.371	44	155
Ericsson RRUS-11 (50	150.00	150	1.890	1.980	1.140	0.371	37	129
Ericsson RRUS 32 B2	150.00	159	1.890	1.980	1.140	0.371	39	137
10' Omni	150.00	25	1.890	1.980	1.140	0.371	6	22
Ericsson RRUS-32 (77	150.00	231	1.890	1.980	1.140	0.371	57	199
Powerwave Allgon 777	150.00	105	1.890	1.980	1.140	0.371	26	90
KMW AM-X-CD-16-65-00	150.00	97	1.890	1.980	1.140	0.371	24	83
Quintel QS66512-3 (1	150.00	336	1.890	1.980	1.140	0.371	83	289
Andrew SBNH-1D6565C	150.00	61	1.890	1.980	1.140	0.371	15	52
Kathrein Scala 80010	150.00	195	1.890	1.980	1.140	0.371	48	168
Round Sector Frame	150.00	900	1.890	1.980	1.140	0.371	223	775
Kathrein Scala 80010	150.00	115	1.890	1.980	1.140	0.371	28	99
Kathrein Smart Bias	134.00	10	1.508	0.522	0.553	0.148	1	9
Site-Pro UWS6-NP	134.00	276	1.508	0.522	0.553	0.148	27	238
RFS APXV18-206517S-C	134.00	79	1.508	0.522	0.553	0.148	8	68
Andrew LNX-6515DS-VT	134.00	154	1.508	0.522	0.553	0.148	15	132
DragonWave Horizon C	120.00	11	1.210	0.014	0.262	0.022	0	9
12" x 12" Junction B	120.00	10	1.210	0.014	0.262	0.022	0	9
Alcatel-Lucent RRH2x	120.00	317	1.210	0.014	0.262	0.022	5	273
Nokia FZHN Flexi RRH	120.00	132	1.210	0.014	0.262	0.022	2	114
Alcatel-Lucent 1900	120.00	180	1.210	0.014	0.262	0.022	3	155
RFS APXVTM14-ALU-I20	120.00	169	1.210	0.014	0.262	0.022	2	145
Side Arms	120.00	1,120	1.210	0.014	0.262	0.022	16	964
DragonWave A-ANT-11G	120.00	48	1.210	0.014	0.262	0.022	1	41
Commscope NNVV-	120.00	232	1.210	0.014	0.262	0.022	3	200
dB Systems 5100A	105.00	21	0.926	-0.121	0.098	-0.045	-1	18
VertexRSI 101V VPD	105.00	4	0.926	-0.121	0.098	-0.045	0	3
dB Systems 5100A-D	105.00	152	0.926	-0.121	0.098	-0.045	-5	131
Round Side Arm	105.00	450	0.926	-0.121	0.098	-0.045	-14	387
Round Side Arm	105.00	450	0.926	-0.121	0.098	-0.045	-14	387
		33,317	80.602	44.190	32.373	9.333	1,378	28,678

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:48 PM

Customer: AT&T MOBILITY

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:48 PM

Customer: AT&T MOBILITY

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-39.70	-1.37	0.00	-162.49	0.00	162.49	3,136.53	1,568.27	4,731.25	2,336.59	0.00	0.00	0.052
5.00	-38.13	-1.35	0.00	-155.64	0.00	155.64	3,092.06	1,546.03	4,560.72	2,252.37	0.01	-0.02	0.051
10.00	-36.58	-1.33	0.00	-148.88	0.00	148.88	3,046.49	1,523.25	4,391.58	2,168.84	0.04	-0.04	0.049
15.00	-35.05	-1.30	0.00	-142.23	0.00	142.23	2,999.83	1,499.91	4,223.96	2,086.05	0.09	-0.06	0.048
20.00	-33.54	-1.27	0.00	-135.74	0.00	135.74	2,952.07	1,476.04	4,057.95	2,004.07	0.16	-0.07	0.047
25.00	-32.05	-1.24	0.00	-129.40	0.00	129.40	2,901.93	1,450.96	3,891.94	1,922.08	0.24	-0.09	0.046
30.00	-31.61	-1.23	0.00	-123.22	0.00	123.22	2,830.35	1,415.18	3,701.25	1,827.91	0.35	-0.11	0.046
31.50	-30.11	-1.19	0.00	-121.37	0.00	121.37	2,808.88	1,404.44	3,644.98	1,800.12	0.39	-0.12	0.045
35.00	-29.83	-1.18	0.00	-117.21	0.00	117.21	2,758.78	1,379.39	3,515.36	1,736.10	0.48	-0.13	0.044
35.67	-28.68	-1.15	0.00	-116.42	0.00	116.42	2,225.24	1,112.62	2,894.88	1,429.67	0.50	-0.14	0.051
40.00	-27.36	-1.12	0.00	-111.43	0.00	111.43	2,194.35	1,097.17	2,791.07	1,378.40	0.63	-0.15	0.049
45.00	-26.06	-1.09	0.00	-105.83	0.00	105.83	2,157.69	1,078.84	2,672.25	1,319.72	0.80	-0.17	0.048
50.00	-24.78	-1.05	0.00	-100.40	0.00	100.40	2,119.93	1,059.96	2,554.56	1,261.60	1.00	-0.20	0.046
55.00	-23.52	-1.02	0.00	-95.13	0.00	95.13	2,081.07	1,040.54	2,438.12	1,204.10	1.21	-0.22	0.045
60.00	-22.28	-1.00	0.00	-90.01	0.00	90.01	2,041.12	1,020.56	2,323.03	1,147.26	1.45	-0.24	0.044
65.00	-21.05	-0.98	0.00	-85.03	0.00	85.03	1,992.10	996.05	2,200.59	1,086.79	1.71	-0.26	0.043
70.00	-19.88	-0.96	0.00	-80.15	0.00	80.15	1,932.46	966.23	2,070.05	1,022.32	2.00	-0.28	0.042
73.50	-19.61	-0.96	0.00	-76.78	0.00	76.78	1,451.36	725.68	1,558.37	769.62	2.21	-0.30	0.047
74.71	-19.53	-0.96	0.00	-75.62	0.00	75.62	1,444.76	722.38	1,539.55	760.33	2.29	-0.30	0.047
75.00	-18.97	-0.96	0.00	-75.34	0.00	75.34	1,443.19	721.60	1,535.11	758.14	2.31	-0.30	0.026
77.44	-18.40	-0.96	0.00	-73.00	0.00	73.00	1,429.71	714.86	1,497.46	739.54	2.46	-0.31	0.025
77.44	-18.40	-0.96	0.00	-73.00	0.00	73.00	1,429.71	714.86	1,497.46	739.54	2.46	-0.31	0.038
80.00	-17.32	-0.97	0.00	-70.54	0.00	70.54	1,415.26	707.63	1,458.06	720.08	2.63	-0.32	0.037
85.00	-16.25	-0.99	0.00	-65.71	0.00	65.71	1,386.24	693.12	1,381.78	682.41	2.97	-0.34	0.035
90.00	-15.19	-1.01	0.00	-60.77	0.00	60.77	1,356.12	678.06	1,306.38	645.17	3.34	-0.35	0.033
95.00	-14.14	-1.04	0.00	-55.71	0.00	55.71	1,324.90	662.45	1,231.99	608.43	3.72	-0.37	0.030
100.00	-13.11	-1.06	0.00	-50.51	0.00	50.51	1,293.04	646.52	1,159.10	572.44	4.12	-0.39	0.028
105.00	-10.77	-1.10	0.00	-45.19	0.00	45.19	1,245.33	622.66	1,074.67	530.74	4.53	-0.41	0.025
110.00	-9.86	-1.11	0.00	-39.66	0.00	39.66	1,197.61	598.80	993.42	490.61	4.97	-0.42	0.023
110.00	-9.86	-1.11	0.00	-39.66	0.00	39.66	833.77	416.88	695.90	343.68	4.97	-0.42	0.027
115.00	-9.77	-1.11	0.00	-34.11	0.00	34.11	813.89	406.95	652.08	322.04	5.42	-0.44	0.024
115.52	-9.34	-1.11	0.00	-33.53	0.00	33.53	811.76	405.88	647.55	319.80	5.47	-0.44	0.023
115.52	-9.34	-1.11	0.00	-33.53	0.00	33.53	811.76	405.88	647.55	319.80	5.47	-0.44	0.116
120.00	-6.18	-1.05	0.00	-28.57	0.00	28.57	792.92	396.46	608.75	300.64	5.89	-0.45	0.103
125.00	-5.79	-1.03	0.00	-23.33	0.00	23.33	770.85	385.43	566.02	279.54	6.40	-0.53	0.091
130.00	-5.48	-1.02	0.00	-18.16	0.00	18.16	747.69	373.84	524.00	258.78	6.99	-0.59	0.078
134.00	-4.78	-0.95	0.00	-14.09	0.00	14.09	728.37	364.19	490.97	242.47	7.51	-0.64	0.065
135.00	-4.47	-0.92	0.00	-13.14	0.00	13.14	722.05	361.03	481.88	237.98	7.64	-0.65	0.061
140.00	-4.17	-0.88	0.00	-8.53	0.00	8.53	686.26	343.13	435.03	214.85	8.35	-0.70	0.046
145.00	-3.88	-0.83	0.00	-4.13	0.00	4.13	650.48	325.24	390.59	192.90	9.10	-0.73	0.027
150.00	0.00	-0.78	0.00	0.00	0.00	0.00	614.69	307.34	348.53	172.13	9.88	-0.74	0.000

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sstn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:48 PM

Customer: AT&T MOBILITY

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-27.57	-1.37	0.00	-159.10	0.00	159.10	3,136.53	1,568.27	4,731.25	2,336.59	0.00	0.00	0.048
5.00	-26.48	-1.35	0.00	-152.26	0.00	152.26	3,092.06	1,546.03	4,560.72	2,252.37	0.01	-0.02	0.047
10.00	-25.41	-1.32	0.00	-145.52	0.00	145.52	3,046.49	1,523.25	4,391.58	2,168.84	0.04	-0.04	0.046
15.00	-24.34	-1.29	0.00	-138.93	0.00	138.93	2,999.83	1,499.91	4,223.96	2,086.05	0.09	-0.05	0.045
20.00	-23.30	-1.25	0.00	-132.50	0.00	132.50	2,952.07	1,476.04	4,057.95	2,004.07	0.15	-0.07	0.044
25.00	-22.26	-1.22	0.00	-126.23	0.00	126.23	2,901.93	1,450.96	3,891.94	1,922.08	0.24	-0.09	0.043
30.00	-21.96	-1.21	0.00	-120.15	0.00	120.15	2,830.35	1,415.18	3,701.25	1,827.91	0.35	-0.11	0.043
31.50	-20.91	-1.17	0.00	-118.34	0.00	118.34	2,808.88	1,404.44	3,644.98	1,800.12	0.38	-0.12	0.042
35.00	-20.72	-1.16	0.00	-114.25	0.00	114.25	2,758.78	1,379.39	3,515.36	1,736.10	0.47	-0.13	0.041
35.67	-19.92	-1.13	0.00	-113.47	0.00	113.47	2,225.24	1,112.62	2,894.88	1,429.67	0.49	-0.13	0.047
40.00	-19.00	-1.09	0.00	-108.58	0.00	108.58	2,194.35	1,097.17	2,791.07	1,378.40	0.62	-0.15	0.046
45.00	-18.10	-1.06	0.00	-103.11	0.00	103.11	2,157.69	1,078.84	2,672.25	1,319.72	0.79	-0.17	0.045
50.00	-17.21	-1.03	0.00	-97.81	0.00	97.81	2,119.93	1,059.96	2,554.56	1,261.60	0.98	-0.19	0.043
55.00	-16.34	-0.99	0.00	-92.68	0.00	92.68	2,081.07	1,040.54	2,438.12	1,204.10	1.19	-0.21	0.042
60.00	-15.47	-0.96	0.00	-87.72	0.00	87.72	2,041.12	1,020.56	2,323.03	1,147.26	1.42	-0.23	0.041
65.00	-14.62	-0.94	0.00	-82.89	0.00	82.89	1,992.10	996.05	2,200.59	1,086.79	1.67	-0.25	0.040
70.00	-13.81	-0.93	0.00	-78.17	0.00	78.17	1,932.46	966.23	2,070.05	1,022.32	1.95	-0.28	0.039
73.50	-13.62	-0.93	0.00	-74.92	0.00	74.92	1,451.36	725.68	1,558.37	769.62	2.16	-0.29	0.044
74.71	-13.56	-0.93	0.00	-73.79	0.00	73.79	1,444.76	722.38	1,539.55	760.33	2.23	-0.30	0.044
75.00	-13.17	-0.93	0.00	-73.53	0.00	73.53	1,443.19	721.60	1,535.11	758.14	2.25	-0.30	0.024
77.44	-12.78	-0.93	0.00	-71.27	0.00	71.27	1,429.71	714.86	1,497.46	739.54	2.40	-0.30	0.023
77.44	-12.78	-0.93	0.00	-71.27	0.00	71.27	1,429.71	714.86	1,497.46	739.54	2.40	-0.30	0.035
80.00	-12.03	-0.94	0.00	-68.89	0.00	68.89	1,415.26	707.63	1,458.06	720.08	2.57	-0.31	0.034
85.00	-11.28	-0.96	0.00	-64.21	0.00	64.21	1,386.24	693.12	1,381.78	682.41	2.90	-0.33	0.032
90.00	-10.55	-0.98	0.00	-59.44	0.00	59.44	1,356.12	678.06	1,306.38	645.17	3.26	-0.35	0.030
95.00	-9.82	-1.01	0.00	-54.53	0.00	54.53	1,324.90	662.45	1,231.99	608.43	3.63	-0.36	0.028
100.00	-9.11	-1.03	0.00	-49.48	0.00	49.48	1,293.04	646.52	1,159.10	572.44	4.02	-0.38	0.026
105.00	-7.48	-1.08	0.00	-44.31	0.00	44.31	1,245.33	622.66	1,074.67	530.74	4.43	-0.40	0.024
110.00	-6.85	-1.09	0.00	-38.91	0.00	38.91	1,197.61	598.80	993.42	490.61	4.85	-0.41	0.021
110.00	-6.85	-1.09	0.00	-38.91	0.00	38.91	833.77	416.88	695.90	343.68	4.85	-0.41	0.025
115.00	-6.78	-1.09	0.00	-33.47	0.00	33.47	813.89	406.95	652.08	322.04	5.29	-0.43	0.022
115.52	-6.48	-1.08	0.00	-32.91	0.00	32.91	811.76	405.88	647.55	319.80	5.34	-0.43	0.021
115.52	-6.48	-1.08	0.00	-32.91	0.00	32.91	811.76	405.88	647.55	319.80	5.34	-0.43	0.111
120.00	-4.29	-1.03	0.00	-28.05	0.00	28.05	792.92	396.46	608.75	300.64	5.75	-0.44	0.099
125.00	-4.02	-1.02	0.00	-22.89	0.00	22.89	770.85	385.43	566.02	279.54	6.25	-0.51	0.087
130.00	-3.81	-1.00	0.00	-17.81	0.00	17.81	747.69	373.84	524.00	258.78	6.82	-0.58	0.074
134.00	-3.32	-0.94	0.00	-13.83	0.00	13.83	728.37	364.19	490.97	242.47	7.33	-0.63	0.062
135.00	-3.10	-0.90	0.00	-12.89	0.00	12.89	722.05	361.03	481.88	237.98	7.46	-0.64	0.058
140.00	-2.89	-0.86	0.00	-8.36	0.00	8.36	686.26	343.13	435.03	214.85	8.16	-0.68	0.043
145.00	-2.69	-0.81	0.00	-4.05	0.00	4.05	650.48	325.24	390.59	192.90	8.89	-0.72	0.025
150.00	0.00	-0.78	0.00	0.00	0.00	0.00	614.69	307.34	348.53	172.13	9.65	-0.73	0.000

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:48 PM

Customer: AT&T MOBILITY

Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	27.20	0.00	39.91	0.00	0.00	2723.73	115.52	0.86
0.9D + 1.6W	27.17	0.00	29.91	0.00	0.00	2682.17	115.52	0.83
1.2D + 1.0Di + 1.0Wi	6.97	0.00	81.81	0.00	0.00	792.42	115.52	0.31
(1.2 + 0.2Sds) * DL + E ELFM	1.00	0.00	39.70	0.00	0.00	122.53	115.52	0.06
(1.2 + 0.2Sds) * DL + E EMAM	1.37	0.00	39.70	0.00	0.00	162.49	115.52	0.12
(0.9 - 0.2Sds) * DL + E ELFM	1.00	0.00	27.57	0.00	0.00	120.18	115.52	0.05
(0.9 - 0.2Sds) * DL + E EMAM	1.37	0.00	27.57	0.00	0.00	159.10	115.52	0.11
1.0D + 1.0W	6.53	0.00	33.31	0.00	0.00	648.77	115.52	0.21

Site Number: 302475

Code: ANSI/TIA-222-G

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Site Name: Sttn - Southington, CT

Engineering Number: OAA740798_C4_06

2/26/2019 4:43:48 PM

Customer: AT&T MOBILITY

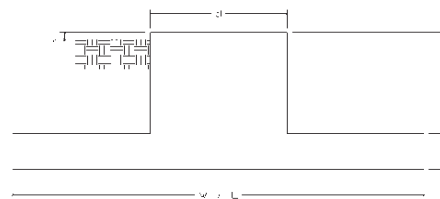
Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors				Max Member		
			VQ/I (lb/in)	Shear Applied (kips)	Shear phiVn (kips)	Ratio	Pu (kip)	phiPn (kip)	Ratio
0.00	77.44	(4) SOL-#20 All Thread Bar	354.8	10.6	16.8	0.633	289.2	330.5	0.875
74.71	115.52	(4) SOL-#20 All Thread Bar	337.6	10.1	16.8	0.603	191.5	330.5	0.579

Elev From (ft)	Elev To (ft)	Member	Upper Termination Connectors					Lower Termination Connectors				
			MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Ratio	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Ratio
0.00	77.44	(4) SOL-#20 All Thread Bar	108.0	12.0	10	12	0.750	0.0	12.0	0	0	0.000
74.71	115.52	(4) SOL-#20 All Thread Bar	82.3	12.0	7	8	0.857	132.2	12.0	12	16	0.689

Site Name: Sttn- Southington, CT
 Site Number: 302475
 Engineering Number: OAA740798
 Engineer: Zackaryah.Hughes
 Date: 02/26/19
 Tower Type: MP

Program Last Updated: 5/13/2014



Design Loads (Factored) - Analysis per TIA-222-G Standards

Design / Analysis / Mapping:	Analysis		
Compression/Leg:	39.9 k	Concrete Strength (f'_c):	3000 psi
Uplift/Leg:	0.0 k	Pad Tension Steel Depth:	32.00 in
Total Shear:	27.2 k	ϕ_{Shear} :	0.75
Moment:	2723.7 k-ft	$\phi_{\text{Flexure / Tension}}$:	0.90
Tower + Appurtenance Weight:	39.9 k	$\phi_{\text{Compression}}$:	0.65
Depth to Base of Foundation (l + t - h):	8.00 ft	β :	0.85
Diameter of Pier (d):	4.33 ft	Bottom Pad Rebar Size #:	10
Height of Pier above Ground (h):	0.50	# of Bottom Pad Rebar:	36
Width of Pad (W):	18.00 ft	Pad Bottom Steel Area:	45.72 in ²
Length of Pad (L):	18.00 ft	Pad Steel F_y :	60000 psi
Thickness of Pad (t):	3.00 ft	Top Pad Rebar Size #:	5
Tower Leg Center to Center:	0.00 ft	# of Top Pad Rebar:	36
Number of Tower Legs:	1.0 (1 if MP or GT)	Pad Top Steel Area:	11.16 in ²
Tower Center from Mat Center:	0.00 ft	Pier Rebar Size #:	11
Depth Below Ground Surface to Water Table:	9.00 ft	Pier Steel Area (Single Bar):	1.56 in ²
Unit Weight of Concrete:	150.0 pcf	# of Pier Rebar:	52
Unit Weight of Soil Above Water Table:	115.0 pcf	Pier Steel F_y :	60000 psi
Unit Weight of Water:	62.4 pcf	Pier Cage Diameter:	44.0 in
Unit Weight of Soil Below Water Table:	52.6 pcf	Rebar Strain Limit:	0.008
Friction Angle of Uplift:	0.0 Degrees	Steel Elastic Modulus:	29000 ksi
Ultimate Coefficient of Shear Friction:	0.35	Tie Rebar Size #:	4
Ultimate Compressive Bearing Pressure:	12000.0 psf	Tie Steel Area (Single Bar):	0.20 in ²
Ultimate Passive Pressure on Pad Face:	0.0 psf	Tie Spacing:	12 in
$\phi_{\text{Soil and Concrete Weight}}$:	0.9	Tie Steel F_y :	60000 psi
ϕ_{Soil} :	0.75		

Overturning Moment Usage

Design OTM:	2954.9 k-ft
OTM Resistance:	2989.2 k-ft
Design OTM / OTM Resistance:	0.99 Result: OK

Soil Bearing Pressure Usage

Net Bearing Pressure:	5808 psf
Factored Nominal Bearing Pressure:	9000 psf
Net Bearing Pressure/Factored Nominal Bearing Pressure:	0.65 Result: OK
Load Direction Controlling Design Bearing Pressure:	Diagonal to Pad Edge

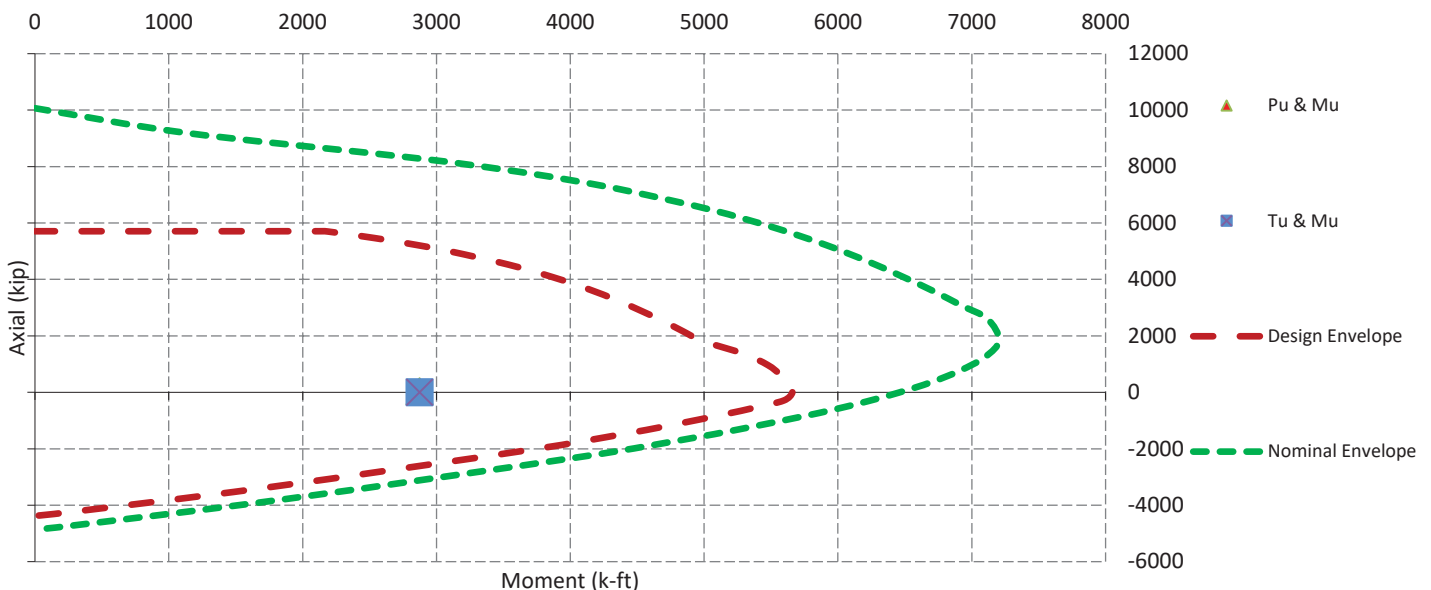
Sliding Factor of Safety

Total Factored Sliding Resistance:	96.9 k
Sliding Design / Sliding Resistance:	0.28 Result: OK

One Way Shear, Flexural Capacity, and Punching Shear

Factored One Way Shear (V_u):	209.8 k
One Way Shear Capacity (ϕV_c):	498.2 k - ACI11.3.1.1
$V_u / \phi V_c$:	0.42 Result: OK
Load Direction Controlling Shear Capacity:	Diagonal to Pad Edge
Lower Steel Pad Factored Moment (M_u):	1225.2 k-ft
Lower Steel Pad Moment Capacity (ϕM_n):	6148.2 k-ft - ACI10.3
$M_u / \phi M_n$:	0.20 Result: OK
Load Direction Controlling Flexural Capacity:	Parallel to Pad Edge
Upper Steel Pad Factored Moment (M_u):	688.3 k-ft
Upper Steel Pad Moment Capacity (ϕM_n):	1581.1 k-ft
$M_u / \phi M_n$:	0.44 Result: OK
Lower Pad Flexural Reinforcement Ratio:	0.0066 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Upper Pad Flexural Reinforcement Ratio:	0.0016 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Lower Pad Reinforcement Spacing:	6 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Upper Pad Reinforcement Spacing:	6 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Factored Punching Shear (V_u):	0.0 k
Nominal Punching Shear Capacity ($\phi_c V_n$):	1386.9 k - ACI11.12.2.1
$V_u / \phi V_c$:	0.00 Result: OK
Factored Moment in Pier (M_u):	2873.3 k-ft
Pier Moment Capacity (ϕM_n):	7846.3 k-ft
$M_u / \phi M_n$:	0.37 Result: OK
Factored Shear in Pier (V_u):	27.2 k
Pier Shear Capacity (ϕV_n):	175.9 k
$V_u / \phi V_c$:	0.15 Result: OK
Pier Shear Reinforcement Ratio:	0.0009 No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	0.0 k
Pier Tension Capacity (ϕT_n):	4380.5 k
$T_u / \phi T_n$:	0.00 Result: OK
Factored Compression in Pier (P_u):	39.9 k
Pier Compression Capacity (ϕP_n):	2704.2 k - ACI10.3.6.2
$P_u / \phi P_n$:	0.01 Result: OK
Pier Compression Reinforcement Ratio:	0.038 OK - Reinforcement Ratio Met - ACI10.9.1 & 10.8.4
$M_u / \phi_B M_n + T_u / \phi_T T_n$:	0.37 Result: OK

Nominal and Design Moment Capacity and Factored Design Loads



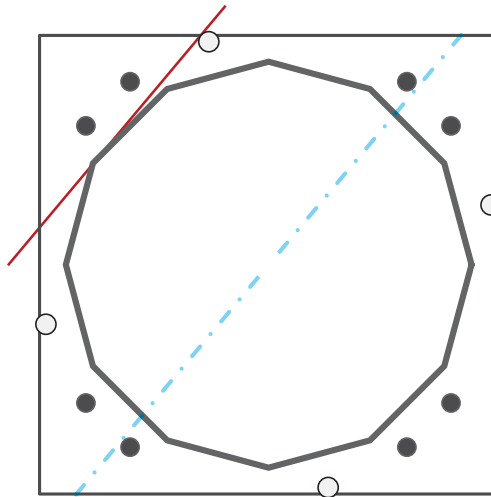
Base Plate & Anchor Rod Analysis

Pole Dimensions		
Number of Sides	12	-
Diameter	37.38	in
Thickness	0.375	in
Orientation Offset	0	°

Base Reactions		
Moment, Mu	2723.7	k-ft
Axial, Pu	39.9	k
Shear, Vu	27.2	k
Neutral Axis	50	°

Report Capacities		
Component	Capacity	Result
Base Plate	63%	Pass
Anchor Rods	88%	Pass
Dwyidag	62%	Pass

Base Plate		
Shape	Square	-
Width	44	in
Thickness	2 1/2	in
Grade	A572-60	-
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Clip	0	in
Orientation Offset	0	°
Anchor Rod Detail	c	$\eta=0.55$
Clear Distance	N/A	in
Applied Moment, Mu	1304.1	k
Bending Stress, ϕMn	2075.7	k



Dwyidag Reinforcement		
Quantity	4	-
Bar Size	#20	in
Diameter, ϕ	2.5	in
Bracket Type	Angle	-
Circle	44.26	in
Orientation Offset	15	°
Applied Force, Pu	242.5	k
Dwyidag Bar, ϕPn	392.7	k

Original Anchor Rods		
Arrangement	Cluster	-
Quantity	8	-
Diameter, ϕ	2 1/4	in
Bolt Circle	44	in
Grade	A615-75	-
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	6.0	in
Orientation Offset	0	°
Applied Force, Pu	227.2	k
Anchor Rods, ϕPn	259.8	k

Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	27.2	1648.0	0.61
Anchor Rod Forces	27.2	1648.0	0.61
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	1075.7	0.39
Stiffener Forces	0.0	0.0	0.00

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in ²	in ²	in ⁴	#	in ⁴
Pole	43.0934	3.5911	0.1692		7376.38
Bolt	3.9761	3.2477	0.8393	4.5	6294.24
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	4.9087	4.9087	1.9175		4814.56
Stiffener	0.0000	0.0000	0.0000		0.00

Base Plate		
Shape	Square	-
Width, W	44	in
Thickness, t	2.5	in
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Base Plate Chord	23.219	in
Detail Type	c	-
Detail Factor	0.55	-
Clear Distance	N/A	-

Anchor Rods		
Anchor Rod Quantity, N	8	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	44	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	227.2	k
Applied Shear, Vu	0.3	k
Compressive Capacity, φPn	259.8	k
Tensile Capacity, φRnt	0.875	OK
Interaction Capacity	0.877	OK

Base Plate Stiffeners		
Applied Axial Force, Pu	0.0	k
Applied Horizontal Force, Vu	0.00	k

External Base Plate		
Chord Length AA	24.600	in
Additional AA	0.000	in
Section Modulus, Z	38.438	in ³
Applied Moment, Mu	1304.1	k-ft
Bending Capacity, φMn	2075.7	k-ft
Capacity, Mu/φMn	0.628	OK

Additional Bolt Group 1		
Bolt Quantity, N	0	-
Bolt Diameter, d	0	in
Bolt Circle, BC	0	in
Yield Strength, Fy	0	ksi
Tensile Strength, Fu	0	ksi
Applied Axial, Pu	0.0	k
Applied Shear, Vu	0.0	k
Compressive Capacity, φPn	0.0	k
Compressive Capacity, φPn		
Interaction Capacity		

Vertical Weld		
Vert.-to-Stiffener a=e _v /l	#DIV/0!	-
Spacing Ratio, k	#DIV/0!	-
Weld Coefficient, C	#DIV/0!	-
Compressive Capacity, φPn	#DIV/0!	k
Vert.-to-Plate a=e _v /l	#DIV/0!	-
Spacing Ratio, k	#DIV/0!	-
Weld Coefficient, C	#DIV/0!	-
Shear Capacity, φVn	#DIV/0!	k
P _u /φ _p P _n + V _u /φ _v V _n		

Chord Length AB	23.273	in
Additional AB	0.000	in
Section Modulus, Z	36.364	in ³
Applied Moment, Mu	1006.0	k-ft
Bending Capacity, φMn	1963.7	k-ft
Capacity, Mu/φMn	0.512	OK

Additional Bolt Group 2		
Bolt Quantity, N	0	-
Bolt Diameter, d	0	in
Bolt Circle, BC	0	in
Yield Strength, Fy	0	ksi
Tensile Strength, Fu	0	ksi
Applied Axial, Pu	0.0	k
Applied Shear, Vu	0.0	k
Compressive Capacity, φPn	0.0	k
Compressive Capacity, φPn		
Interaction Capacity		

Horizontal Weld		
Horz.-to-Stiffener a=e _h /l	0.000	-
Spacing Ratio, k	#DIV/0!	-
Weld Coefficient, C	#DIV/0!	-
Effective Fillet	0.000	in
Compressive Capacity, φPn	#DIV/0!	k
Horz.-to-Pole a=e _h /l	#DIV/0!	-
Spacing Ratio, k	#DIV/0!	-
Weld Coefficient, C	#DIV/0!	-
Shear Capacity, φVn	#DIV/0!	k
P _u /φ _p P _n + V _u /φ _v V _n		

Internal Base Plate		
Arc Length	0.000	in
Section Modulus, Z	0.000	in ³
Moment Arm	0.000	in
Applied Moment, Mu	0.0	k-ft
Bending Capacity, φMn	0.0	k-ft
Capacity, Mu/φMn		

Dywidag Reinforcement		
Dywidag Quantity, N	4	-
Dywidag Diameter, d	2.5	in
Bolt Circle, BC	44.255	in
Yield Strength, Fy	80	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	242.5	k
Compressive Capacity, φPn	392.7	k
Capacity, Pu/φPn	0.617	OK

Plate Tension		
Gross Cross Section	0.000	in ²
Net Cross Section	0.000	in ²
Tensile Capacity, φTn	0.0	k
Capacity, Tu/φTn		

Plate Compression		
Radius of Gyration	#DIV/0!	in ³
kl/r	#DIV/0!	-
4.71 √(E/Fy)	0.00	-
Buckling Stress(Fe)	0.0	-
Crit. Buckling Stress(Fcr)	0.0	ksi
Compressive Capacity, φPn	0.0	k
Capacity, Pu/φPn		

Base/Flange Plate	Plate Type	Flange @ 110.0 ft
	Pole Diameter	20.43 in
	Pole Thickness	0.1875 in
	Plate Diameter	28 in
	Plate Thickness	1 in
	Plate Fy	36 ksi
	Weld Length	0.125 in
	ϕ_s Resistance	347.07 k-in
	Applied	103.08 k-in
Stiffeners	#	12 Show
	Thickness	0.75 in
	Length	3 in
	Height	6 in
	Chamfer	0.75 in
	Offset Angle	0°
	Fy	50 ksi

Code Rev. **G**

Date **2/26/2019**
 Engineer **Zackaryah.Hughes**
 Site # **302475**
 Carrier **AT&T MOBILITY**

Moment **341.6 k-ft**
 Axial **9.2 k**

Bolts	#	12
	Bolt Circle (R)adial / (S)quare	25.75 in R
	Diameter	1 in
	Hole Diameter	1.125 in
	Type	A325
	Fy	92 ksi
	Fu	120 ksi
	ϕ_s Resistance	54.52 k
	Applied	52.26 k
Reinforcement	#	0
Extra Bolts	#	0

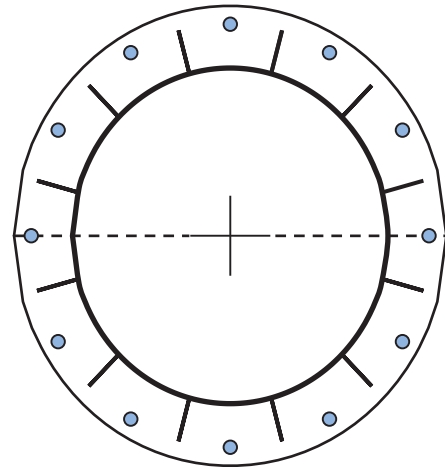


Plate Stress Ratio:
0.30 (Pass)

Bolt Stress Ratio:
0.96 (Pass)

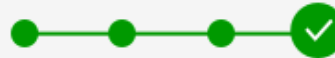
From: TrackingUpdates@fedex.com
Sent: Friday, June 21, 2019 11:05 AM
To: Lorenzo Eggleston
Subject: FedEx Shipment 775518093217 Delivered

Your package has been delivered

Tracking # [775518093217](#)

Ship date:
Wed, 6/19/2019

Lorenzo Eggleston
NB+C
CHELMSFORD, MA 01824
US



Delivered

Delivery date:
Fri, 6/21/2019 10:57 am

Mark J. Sciota
Connecticut Siting Council
75 Main Street
SOUTHINGTON, CT 06489
US



Personalized Message

Attention *Town Manager

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number: [775518093217](#)

Status: Delivered: 06/21/2019 10:57 AM
Signed for By: L.NICHOLS

Reference: ATC 302475

Signed for by: L.NICHOLS

Delivery location: SOUTHLINGTON, CT

Delivered to: Receptionist/Front Desk

Service type: FedEx 2Day®

Packaging type: FedEx® Envelope

Number of pieces: 1

Weight: 0.50 lb.

Special handling/Services: Adult Signature Required

Deliver Weekday

Standard transit: 6/21/2019 by 4:30 pm

This tracking update has been requested by:

Company name: NB+C
Name: Lorenzo Eggleston
Email: leggleston@nbcllc.com

approximately 10:03 AM CDT on 06/21/2019.

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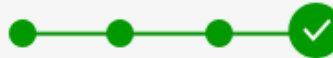
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Sent: Friday, June 21, 2019 11:21 AM
To: Lorenzo Eggleston
Subject: FedEx Shipment 775518466420 Delivered

Your package has been delivered

Tracking # [775518466420](#)

Ship date:
Wed, 6/19/2019

Lorenzo Eggleston
NB+C
CHELMSFORD, MA 01824
US



Delivered

Delivery date:
Fri, 6/21/2019 11:00 am

John Smigel
Connecticut Siting Council
196 North Main St
SOUTHINGTON, CT 06489
US



Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	775518466420
Status:	Delivered: 06/21/2019 11:00 AM Signed for By: B.BETTY
Reference:	ATC 302475
Signed for by:	B.BETTY
Delivery location:	SOUTHINGTON, CT
Delivered to:	Receptionist/Front Desk
Service type:	FedEx 2Day®
Packaging type:	FedEx® Envelope
Number of pieces:	1
Weight:	0.50 lb.
Special handling/Services:	Adult Signature Required Deliver Weekday
Standard transit:	6/21/2019 by 4:30 pm

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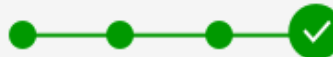
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To: Lorenzo Eggleston
Subject: FedEx Shipment 775518537596 Delivered

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Tracking # [775518537596](#)

Ship date:
Wed, 6/19/2019

Lorenzo Eggleston
NB+C
CHELMSFORD, MA 01824
US



Delivered

Delivery date:
Thu, 6/20/2019 11:19
am

American Tower Corp
American Tower
10 Presidential Way
WOBURN, MA 01801
US



Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	775518537596
Status:	Delivered: 06/20/2019 11:19 AM Signed for By: P.ANCRI
Reference:	ATC 302475
Signed for by:	P.ANCRI
Delivery location:	WOBURN, MA
Delivered to:	Receptionist/Front Desk
Service type:	FedEx 2Day®
Packaging type:	FedEx® Envelope
Number of pieces:	1
Weight:	0.50 lb.
Special handling/Services:	Adult Signature Required Deliver Weekday
Standard transit:	6/21/2019 by 4:30 pm

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Your package has been delivered

Tracking # [775518631720](#)

Ship date:
Wed, 6/19/2019

Lorenzo Eggleston
NB+C
CHELMSFORD, MA 01824
US



Delivery date:
Thu, 6/20/2019 11:19
am

American Tower Corp / Land
Manager
Southern New England
Telephone
10 Presidential Way
WOBURN, MA 01801
US



Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number: [775518631720](#)

Status: Delivered: 06/20/2019 11:19 AM
Signed for By: P.ANCRI

Reference: ATC 302475

Signed for by: P.ANCRI

Delivery location: WOBURN, MA

Delivered to: Receptionist/Front Desk

Service type: FedEx 2Day®

Packaging type: FedEx® Envelope

Number of pieces: 1

Weight: 0.50 lb.

Special handling/Services: Adult Signature Required

Deliver Weekday

Standard transit: 6/21/2019 by 4:30 pm

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