June 24, 2022

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

Re: Notice of Exempt Modification – AT&T Mobility Site 13753218
AT&T Wireless Telecommunications Facility @ 585 South Main St., Naugatuck, CT 06770

Dear Ms. Bachman,

AT&T Mobility ("AT&T") is proposing to modify a wireless telecommunications facility on an existing eighty nine (89) foot tall monopole tower at 585 South Main St, in Naugatuck, CT 06770 (Latitude: 41.47847032 Longitude: -73.04845171). The monopole tower is owned and operated by American Tower Corporation. The subject property is owned by The Office LLC.

AT&T proposes to remove six (6) existing antennas, four (4) RRH units, two (2) TMA's, four (4) diplexers, and eight (8) coax cables, and replace them with six (6) new panel antennas, two (2) RRH's and two (2) Y cables, as more particularly detailed and described on the enclosed Construction Drawings. The proposal involves minimal groundwork: removing four (4) diplexers and installing one 6630 IDLe, one (1) 6648 + XCEDE and two (2) rectifiers.

The eighty nine (89) foot tall monopole was approved by the Siting Council on 9/28/2017 in Petition number 1319.

Please accept this application as notification in accordance with R.C.S.A. § 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 following individuals: American Tower Corporation as Tower Operator/Owner; The Office LLC, as Property Owner; the Honorable N. Warren "Pete" Hess III Mayor of the Borough of Naugatuck, and Lori Rotella, the Town Planner.

The applicant's proposal falls 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. AT&T's antennas and associated lines will be installed at the existing mount height of 103' on the tower.
2. The proposed modifications will NOT require an 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.

Jack Andrews. 10130 Donleigh Dr., Columbia, MD 21046 443-677-0144 jmandrews@clinellc.com
Centerline Communications • 750 W Center Street, Suite 301, W Bridgewater, MA 02379

4. The operation of the modified facility will NOT increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.
5. The proposed modifications will NOT cause an ineligible change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading. Please see the structural analysis enclosed herewith.

For the foregoing reasons, AT&T respectfully requests that the Council approve this request for the exempt modifications under R.C.S.A. § 16-50j-72(b)(2), for this tower located at 585 South Main St., Naugatuck, CT 06770.

If you have any questions, please feel free to contact me.

Sincerely,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046
443-677-0144

Enclosures:
Exhibit 1 – Property Card and GIS
Exhibit 2 – Construction Drawings
Exhibit 3 – Structural Analysis Report
Exhibit 4 – Antenna Mount Analysis Report
Exhibit 5 – EME Study Report
Exhibit 6 – (4) Notice Confirmations

cc: American Tower Corporation - Tower Operator/Owner
The Office LLC - Property Owner
The Honorable N. Warren "Pete" Hess III - Mayor of the Borough of Naugatuck
Lori Rotella - Town Planner/WEO

Borough of Naugatuck, Connecticut - Assessment Parcel Map
Parcel Account Number: 011-8400
Address: 585 SOUTH MAIN ST

0 25 50 75 100 Feet

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

Map Produced March 2019

BOROUGH OF NAUGATUCK CONNECTICUT

GIS & Real Property Information

Borough Offices
229 Church Street
Naugatuck, CT 06770
ph (203) 720-7000

Property Search

Name: ex. Smith

House No:
585

Street:
SOUTH MAIN ST

Account Number:
ex. 074-8400

GO

Information Updates

GIS Parcel Maps Updated
by Town Personnel

Property Info Data Updated
Every Friday

Current Parcel Count
9,956 +/-

Detailed Parcel Information

Parcel ID
AQ14 35E23

Unique ID
011-8400

Owner
THE OFFICE LLC

Location
585 SOUTH MAIN ST

MAILING ADDRESS
137 RUELLA DRIVE
NAUGATUCK CT 06770

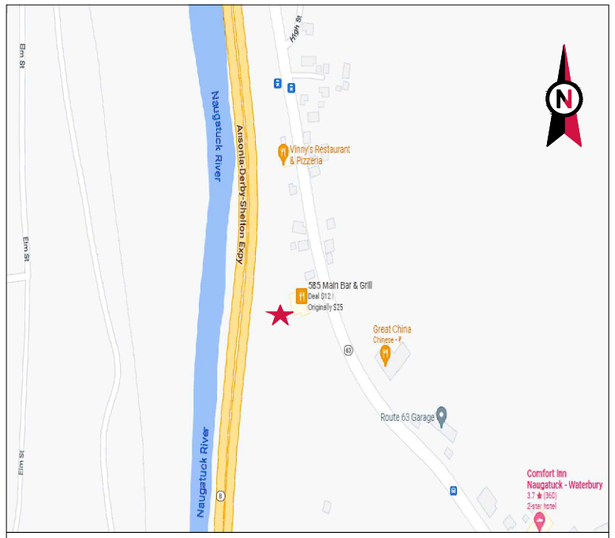
Quick Map Assessor Tax Map Summary Card FEMA Panel eQuality

Scroll Down For Complete Property Detail

PARCEL VALUATIONS

	Appraised Value	Assessed Value
Buildings	156220	109360
Land	189900	132930
Outbuildings	106320	74420
TOTAL:	452440	316710

REPORT AN ISSUE



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: NAUGATUCK (TELEPHONE POLE)
ATC SITE NUMBER: 302526
AT&T PACE NUMBERS: MRCTB055370/ MRCTB053700/ MRCTB053697/ MRCTB054641/ MRCTB054795/ MRCTB054995
AT&T SITE ID: CTL02166
AT&T FA CODE:10035065
AT&T SITE NAME: NAUGATUCK SOUTH MAIN
SITE ADDRESS: 585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK,CT 06770-4725

LOCATION MAP

AT&T 5G NR 1SR CBAND / 4TXRX ANT RETROFIT / BBU RECONFIG WITH NEW IDS / 5G NR ACTIVATION AMENDMENT PLAN

COMPLIANCE CODE

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

1. INTERNATIONAL BUILDING CODE (IBC)
2. NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: UTILITY COMPANY DIRECT
PHONE: UNKNOWN

TELEPHONE COMPANY: UNKNOWN
PHONE: UNKNOWN

811 Know what's below. Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK,CT 06770-4725
COUNTY: NEW HAVEN

GEOGRAPHIC COORDINATES:

LATITUDE: 41.47847032
LONGITUDE: -73.04845171
GROUND ELEVATION: 262' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

AT&T MOBILITY

ENGINEER:

HUDSON DESIGN GROUP, LLC
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845

PROPERTY OWNER:

585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK,CT 06770-4725

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

TOWER WORK:

REMOVE (6) ANTENNA(S), (4) RRH(S), (2) TMA(S), (4) DIPLEXER(S) AND (8) 1 5/8" COAX CABLE(S),

INSTALL (6) ANTENNA(S), (2) RRH(S) AND (2) Y-CABLE(S)

EXISTING (2) ANTENNA(S), (8) RRH(S), (3) DC-6 SQUID(S), (4) 1-5/8" COAX CABLE(S), (6) 8AWG6 DC TRUNK(S), (2) 18 PAIR FIBER TRUNK(S) AND (1) 2" CONDUIT TO REMAIN

GROUND WORK:

REMOVE (4) DIPLEXERS

INSTALL (1) 6630+IDLE, (1) 6648+XCEDE AND (2) RECTIFIERS

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.
6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).

PROJECT LOCATION DIRECTIONS

FROM HARTFORD TAKE I-84 WEST TO RT 8 SOUTH. TAKE EXIT FOR SOUTH MAIN STREET (RT 63). TURN LEFT OFF EXIT THEN RIGHT ONTO RT 63. FOLLOW UP HILL AND TURN RIGHT INTO CLUB PARKING LOT JUST BEFORE CURVE. TOWER IS BEHIND RESTAURANT.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	05/24/22	BB
G-002	GENERAL NOTES	0	05/24/22	BB
C-101	DETAILED SITE PLAN	0	05/24/22	BB
C-201	TOWER ELEVATION	0	05/24/22	BB
E-501	GROUNDING DETAILS	0	05/24/22	BB
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
R-604	SUPPLEMENTAL			

AMERICAN TOWER®

HUDSON Design Group LLC
45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

REV.	DESCRIPTION	BY	DATE
A	PRELIM	AB	04/19/22
0	FINALS	BB	05/24/22

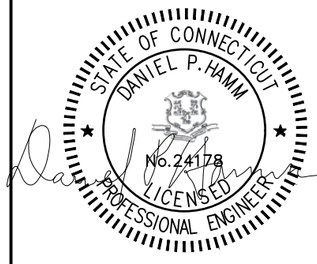
ATC SITE NUMBER:
302526

ATC SITE NAME:
NAUGATUCK (TELEPHONE POLE)

AT&T SITE NAME:
NAUGATUCK SOUTH MAIN

SITE ADDRESS:
585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK,CT 06770-4725

SEAL:



AT&T

DATE DRAWN:	03/19/22
ATC JOB NO:	13753218_G5
CUSTOMER ID:	CTL02166
CUSTOMER #:	10035065

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, AT&T "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
   - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
   - B. AC/TELCO INTERFACE BOX (PPC)
   - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   - D. TOWERS, MONOPOLES
   - E. TOWER LIGHTING
   - F. GENERATORS & LIQUID PROPANE TANK
   - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   - H. ANTENNAS (INSTALLED BY OTHERS)
   - I. TRANSMISSION LINE
   - J. TRANSMISSION LINE JUMPERS
   - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   - L. TRANSMISSION LINE GROUND KITS
   - M. HANGERS
   - N. HOISTING GRIPS
   - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF AT&T TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH AT&T AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY AT&T REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE AT&T REP. ANY WORK FOUND BY THE AT&T REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. AT&T FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. AT&T OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO AT&T OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY AT&T UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
   - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND AT&T SPECIFICATIONS.
   - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
   - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
   - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
   - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
   - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

AMERICAN TOWER®

HUDSON Design Group LLC
45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

REV.	DESCRIPTION	BY	DATE
A	PRELIM	AB	04/19/22
0	FINALS	BB	05/24/22

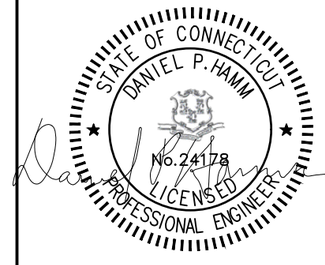
ATC SITE NUMBER:
302526

ATC SITE NAME:
NAUGATUCK (TELEPHONE POLE)

AT&T SITE NAME:
NAUGATUCK SOUTH MAIN

SITE ADDRESS:
585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK,CT 06770-4725

SEAL:



AT&T

DATE DRAWN:	03/19/22
ATC JOB NO:	13753218_G5
CUSTOMER ID:	CTL02166
CUSTOMER #:	10035065

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

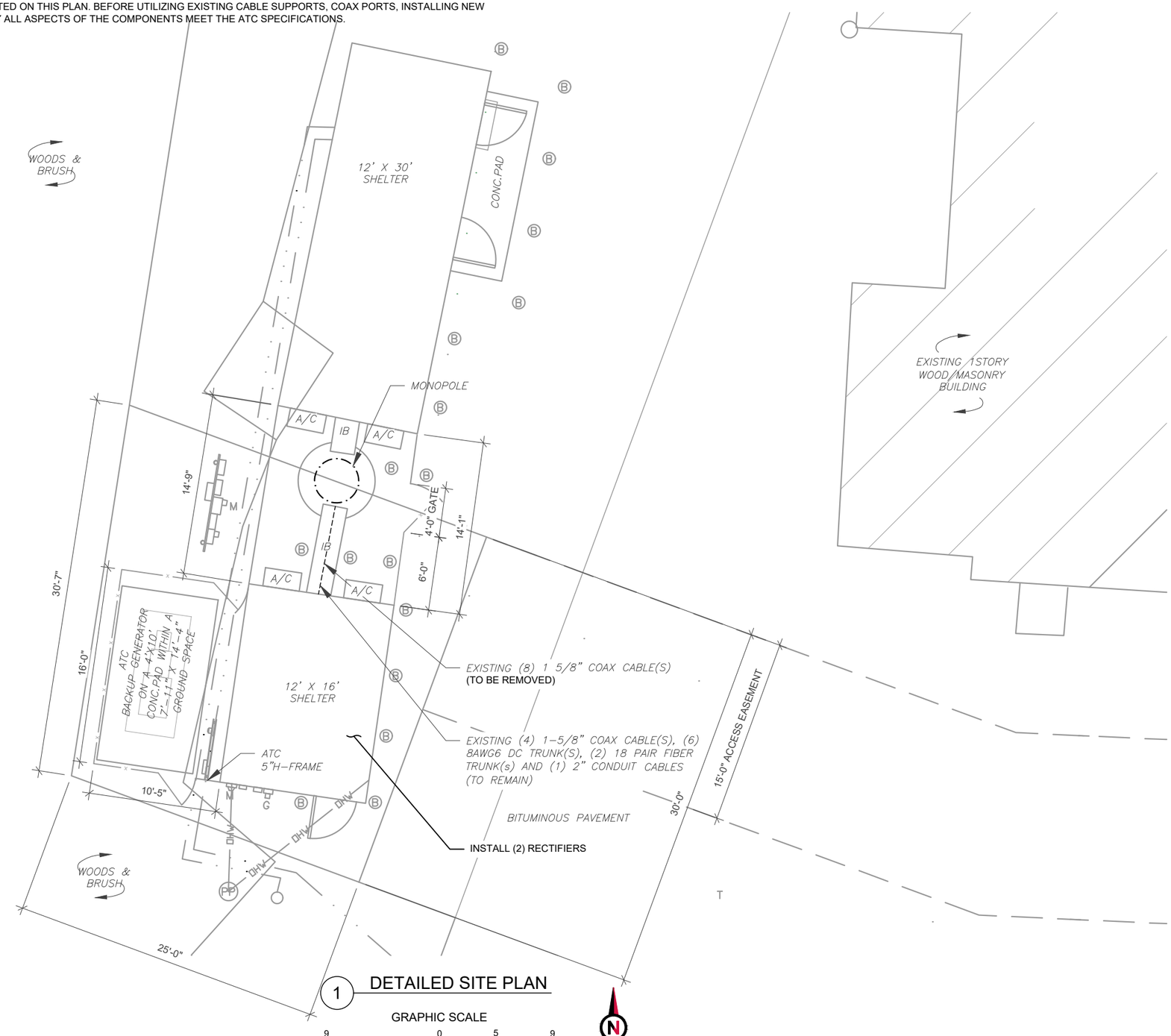
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

3. NO ELECTRICAL SCOPE IS INCLUDED IN THIS PROJECT.

LEGEND

⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
——x——	CHAINLINK FENCE



1 DETAILED SITE PLAN

GRAPHIC SCALE

9 0 5 9

(IN FEET)
1 UNIT = 9 FEET

PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **121'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.

AMERICAN TOWER®

HUDSON Design Group LLC

45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845

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FAX: (978) 336-5586

REV.	DESCRIPTION	BY	DATE
A	PRELIM	AB	04/19/22
0	FINALS	BB	05/24/22

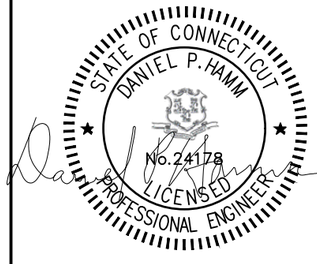
ATC SITE NUMBER:
302526

ATC SITE NAME:
NAUGATUCK (TELEPHONE POLE)

AT&T SITE NAME:
NAUGATUCK SOUTH MAIN

SITE ADDRESS:
585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK,CT 06770-4725

SEAL:



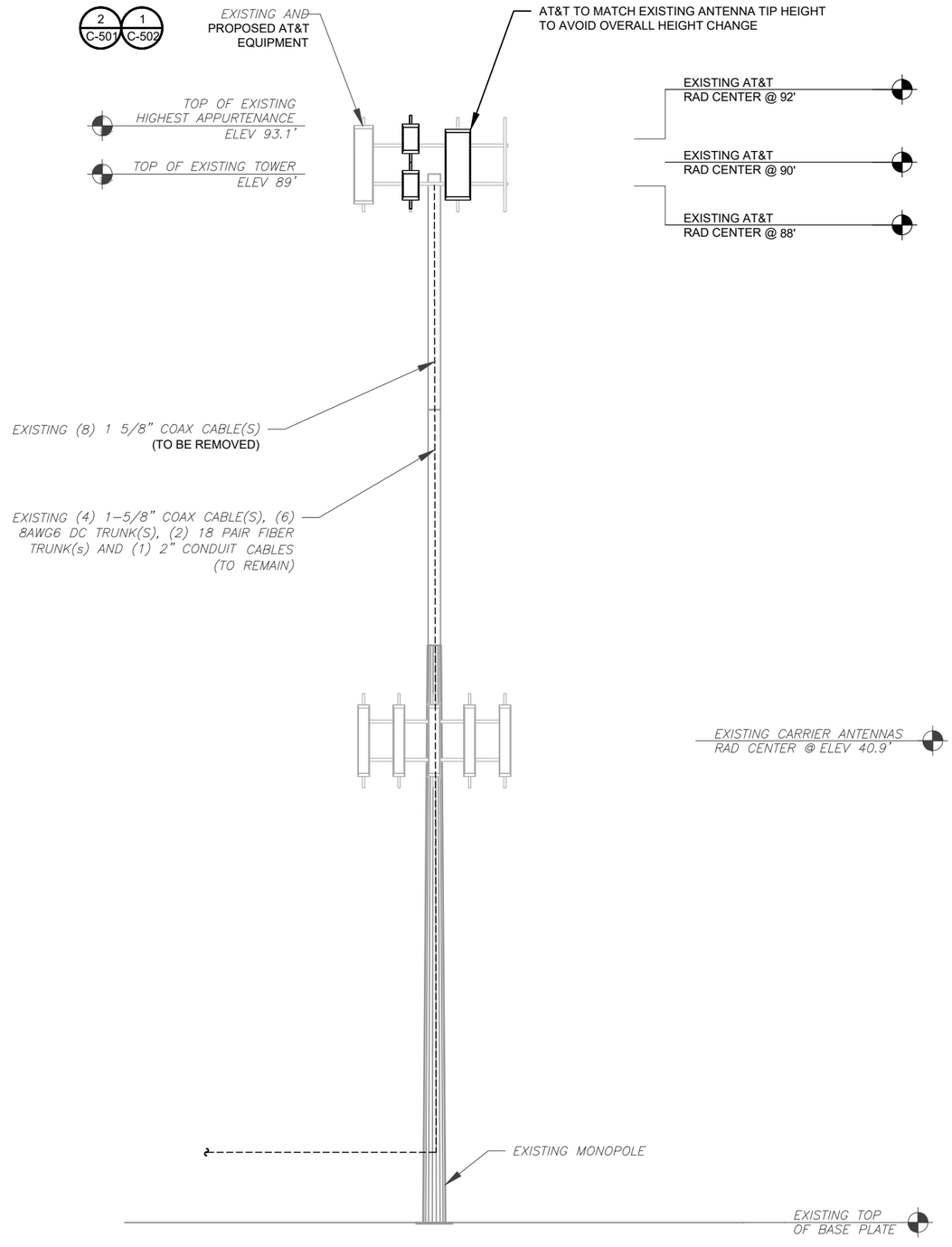
AT&T

DATE DRAWN:	03/19/22
ATC JOB NO:	13753218_G5
CUSTOMER ID:	CTL02166
CUSTOMER #:	10035065

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

PER MOUNT ANALYSIS COMPLETED BY EFI GLOBAL, DATED 02/15/22, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



1 TOWER ELEVATION
SCALE: N.T.S.

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
4. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
5. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

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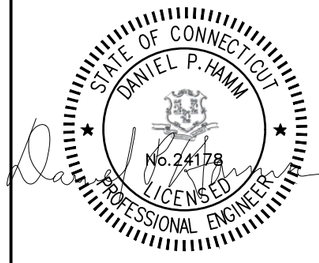
SEAL:



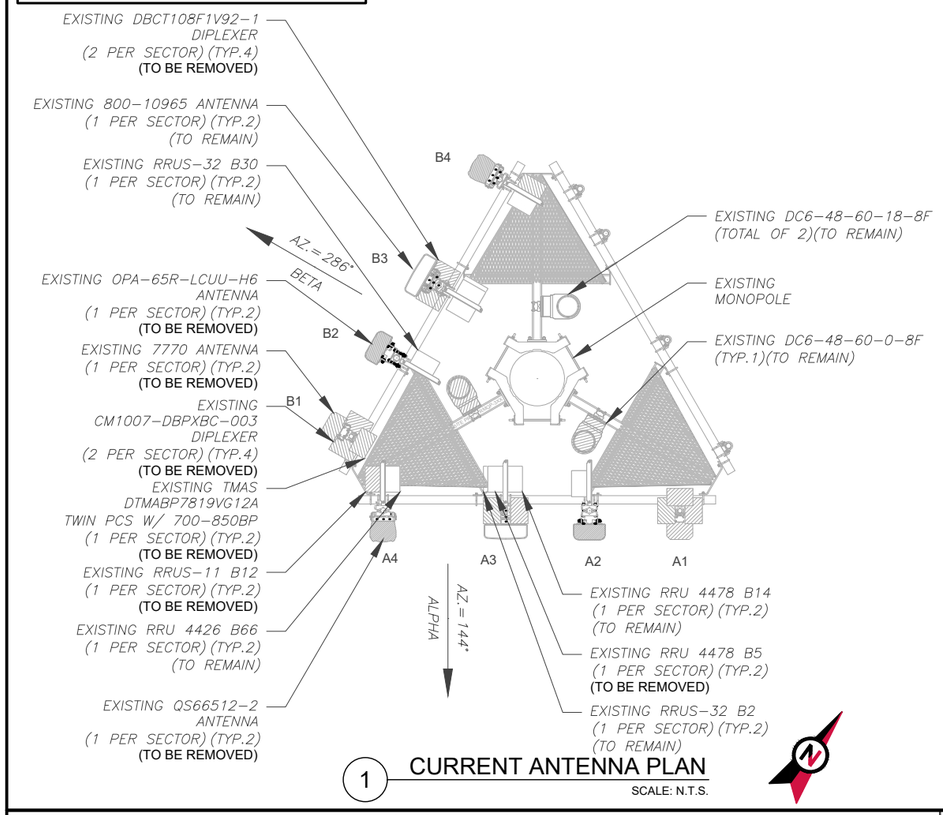
AT&T

DATE DRAWN:	03/19/22
ATC JOB NO:	13753218_G5
CUSTOMER ID:	CTL02166
CUSTOMER #:	10035065

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

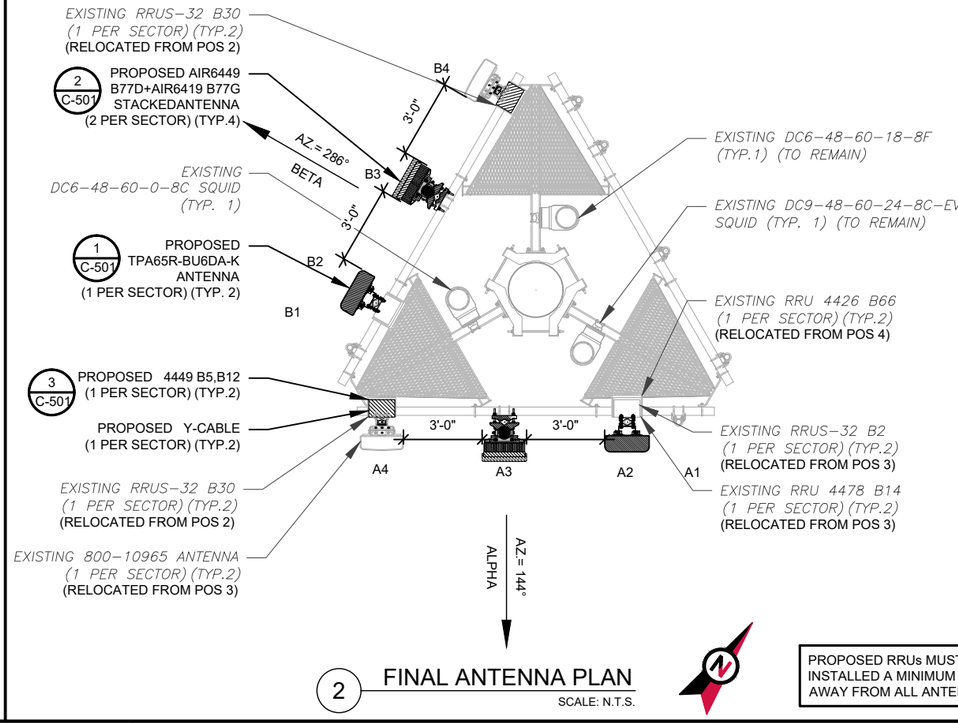
EXISTING CONFIGURATIONS ARE BASED ON RFDS.
CONTRACTOR TO VERIFY EXISTING CONDITIONS.



1 CURRENT ANTENNA PLAN
SCALE: N.T.S.

CONTRACTOR SHALL RE-ORIENT ANTENNA MOUNT(s) AS NECESSARY TO ACHIEVE PROPOSED ANTENNA AZIMUTHS

PER MOUNT ANALYSIS COMPLETED BY EFI GLOBAL, DATED 02/15/22, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



2 FINAL ANTENNA PLAN
SCALE: N.T.S.

PROPOSED RRUs MUST BE INSTALLED A MINIMUM OF 8" AWAY FROM ALL ANTENNAS

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	90'	144°	A1	7770	–	RMV	CM1007-DBPXBC-003 DIPLEXER DTMABP7819VG12A TWIN PCS W/ 700-850BP	RMV RMV
			A2	OPA-65R-LCUU-H6	WCS	RMV	RRUS-32 B30	REL
			A3	800-10965	700,850, 1900	REL	DBCT108F1V92-1 DIPLEXER RRU 4478 B14 RRU 4478 B5 RRUS-32 B2	RMN REL RMN REL
			A4	QS66512-2	700, AWS	RMV	RRUS-11 B12 RRU 4426 B66	RMN REL
BETA	90'	286°	B1	7770	–	RMV	CM1007-DBPXBC-003 DIPLEXER DTMABP7819VG12A TWIN PCS W/ 700-850BP	RMV RMV
			B2	OPA-65R-LCUU-H6	WCS	RMV	RRUS-32 B30	REL
			B3	800-10965	700,850, 1900	REL	DBCT108F1V92-1 DIPLEXER RRU 4478 B14 RRU 4478 B5 RRUS-32 B2	RMN REL RMN REL
			B4	QS66512-2	700, AWS	RMV	RRUS-11 B12 RRU 4426 B66	RMN REL

NOTES

1. CONFIRM WITH AT&T REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
3. THE ANTENNA ORIENTATION PLAN IS A SCHEMATIC. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA AZIMUTHS, MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES SHOWN ARE FOR REFERENCE ONLY AND EXISTING DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION AND NOTIFY ATC OF ANY DISCREPANCIES.
4. CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH AT&T'S FIRSTNET REQUIREMENTS (SEE SHEET R-602)

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	90'	144°	A1	-	-	EMPTY	-	-
	90'		A2	TPA65R-BU6DA-K	LTE B14/ PCS/ AWS	ADD	RRU 4478 B14 RRUS-32 B2 RRUS 4426 B66	REL REL REL
	92' 88'		A3UP A3DN	AIR6419 B77G AIR6449 B77D	DOD C-BAND	ADD	-	-
	90'		A4	800-10965	LTE 700 BC/ 850/ WCS	REL	RRUS 4449 B5,B12 RRUS-32 B30	ADD REL
BETA	90'	286°	B1	-	-	EMPTY	-	-
	90'		B2	TPA65R-BU6DA-K	LTE B14/ PCS/ AWS	ADD	RRU 4478 B14 RRUS-32 B2 RRUS 4426 B66	REL REL REL
	92' 88'		B3	AIR6419 B77G AIR6449 B77D	DOD C-BAND	ADD	-	-
	90'		B4	800-10965	LTE 700 BC/ 850/ WCS	REL	RRUS 4449 B5,B12 RRUS-32 B30	ADD REL

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

THIS PAGE CONTAINS CONFIDENTIAL, PROPRIETARY OR TRADE SECRET INFORMATION EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW.

EXISTING FIBER DISTRIBUTION/SQUID

MODEL NUMBER	STATUS
(2) DC6-48-60-18-8F (1) DC6-48-60-0-8F	RMN
–	RMV

EXISTING CABLING SUMMARY

COAX	CONDUIT	DC	FIBER	STATUS
(4) 1-5/8"	(2) 2"	(6) 8AWG6 DC	(2) 18 PAIR FIBER	RMN
(8) 1 5/8"	(3) 3"	–	–	RMV

3 EQUIPMENT SCHEDULES

FINAL FIBER DISTRIBUTION/SQUID

MODEL NUMBER	STATUS
(2) DC6-48-60-18-8F (1) DC6-48-60-0-8F	RMN
-	ADD

FINAL CABLING SUMMARY

COAX	CONDUIT	DC	FIBER	STATUS
(4) 1-5/8"	(2) 2"	(6) 8AWG6 DC	(2) 18 PAIR FIBER	RMN
-	(3) 2"	(6) 0.82" 8 AWG 6	(2) 0.40"	ADD

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FAX: (978) 336-5586

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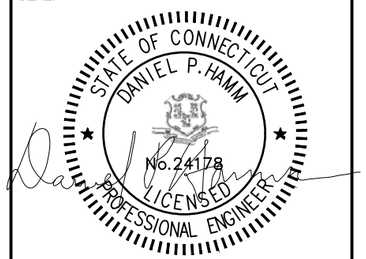
AT&T SITE NAME:
NAUGATUCK SOUTH MAIN

SITE ADDRESS:
585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK,CT 06770-4725

SEAL:

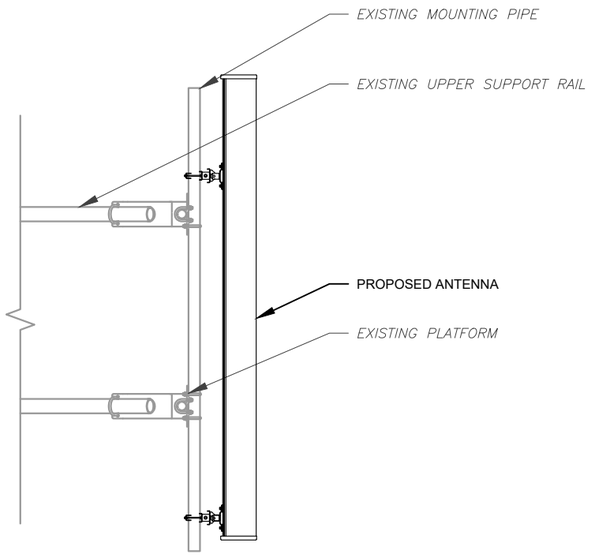


AT&T

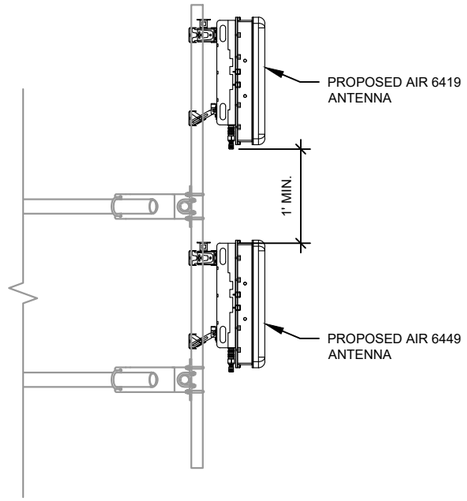
DATE DRAWN:	03/19/22
ATC JOB NO:	13753218_G5
CUSTOMER ID:	CTL02166
CUSTOMER #:	10035065

RF SCHEDULE AND ANTENNA INSTALLATION

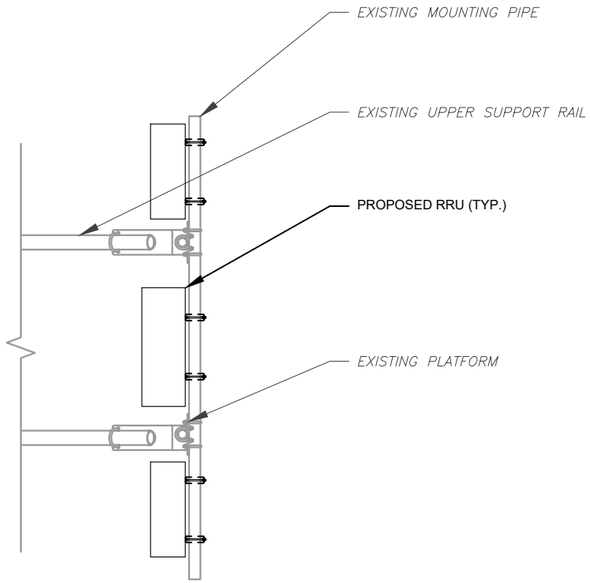
SHEET NUMBER:	REVISION:
C-401	0



1 ANTENNA DETAIL
SCALE: N.T.S.



2 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.

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A	PRELIM	AB	04/19/22
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ATC SITE NAME:
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AT&T SITE NAME:
NAUGATUCK SOUTH MAIN

SITE ADDRESS:
585 SOUTH MAIN ST. (SOC. CLUB)
NAUGATUCK,CT 06770-4725

SEAL:

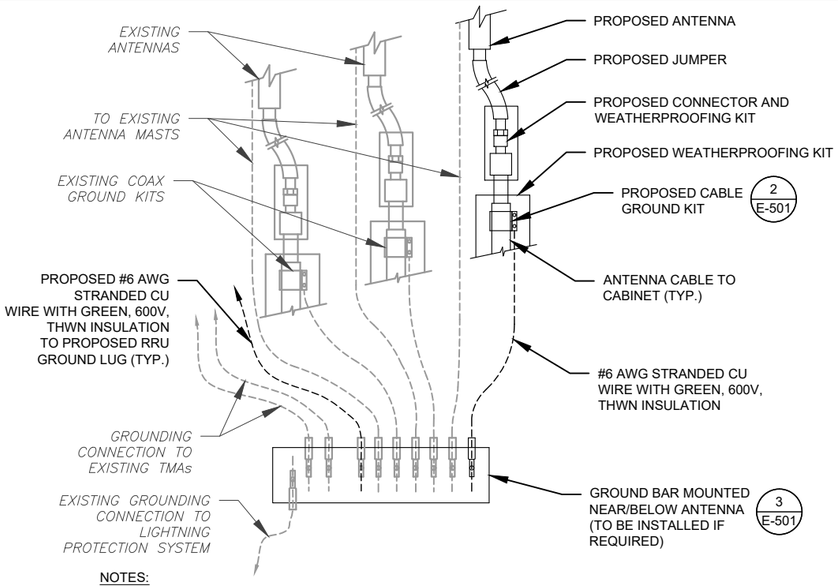
STATE OF CONNECTICUT
DANIEL P. HAMM
No. 24178
LICENSED PROFESSIONAL ENGINEER

AT&T

DATE DRAWN:	03/19/22
ATC JOB NO:	13753218_G5
CUSTOMER ID:	CTL02166
CUSTOMER #:	10035065

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

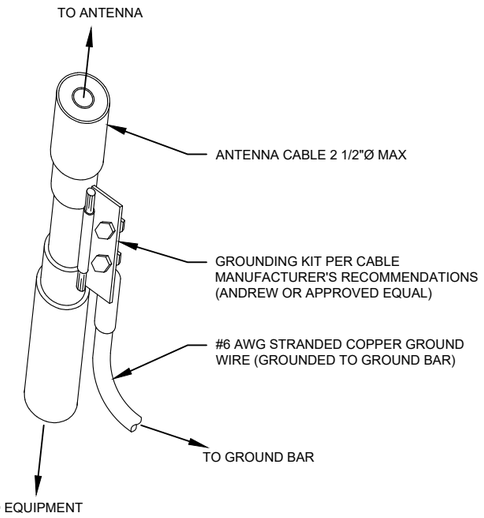


NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH AT&T GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

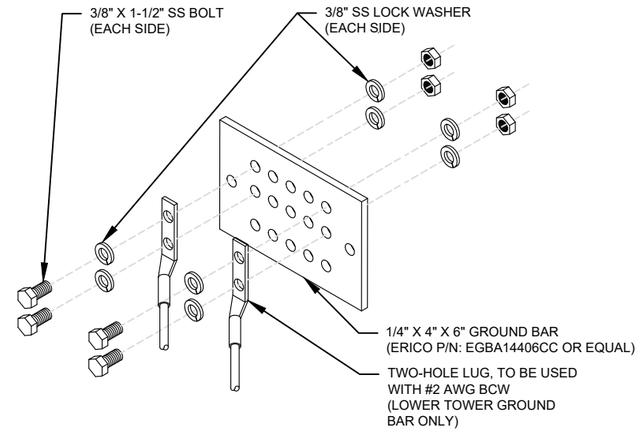


GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.

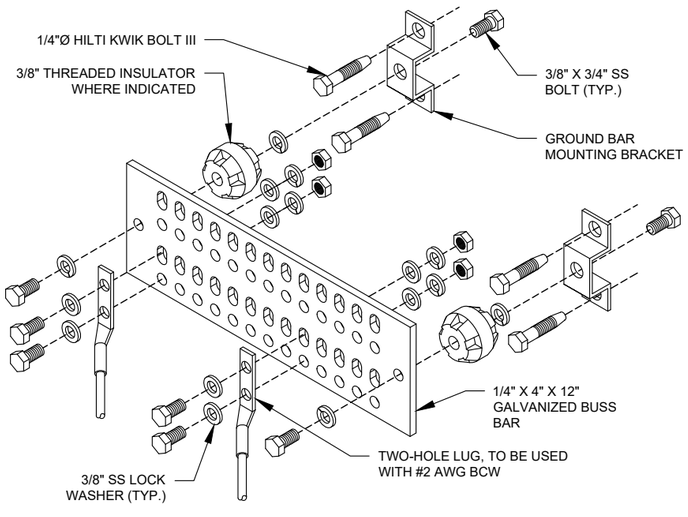


GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

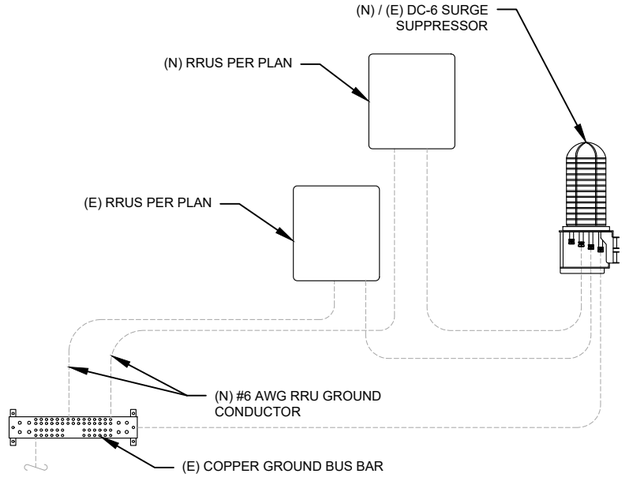


GROUND BAR NOTES

1. GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

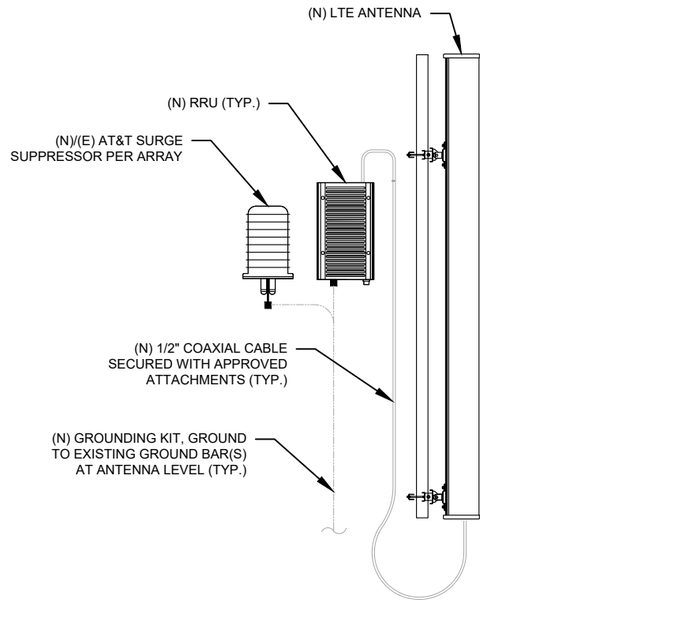
4 MAIN GROUND BAR DETAIL

SCALE: N.T.S.



5 RRU GROUNDING

SCALE: N.T.S.



6 ANTENNA/RRU GROUNDING

SCALE: N.T.S.

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SEAL:

AT&T

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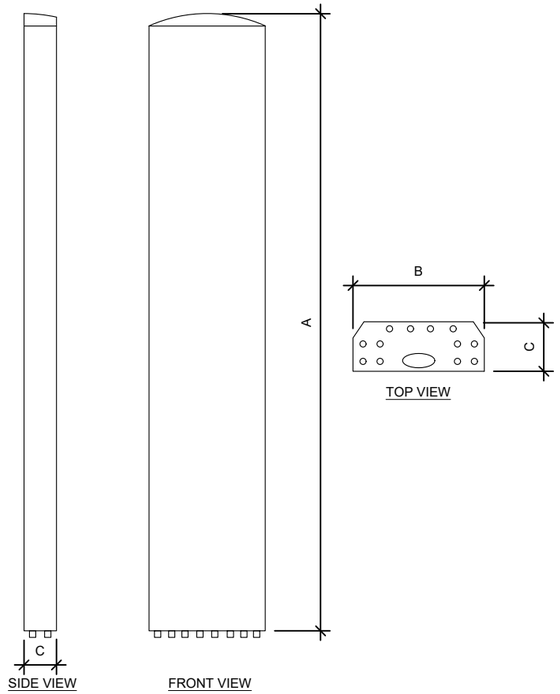
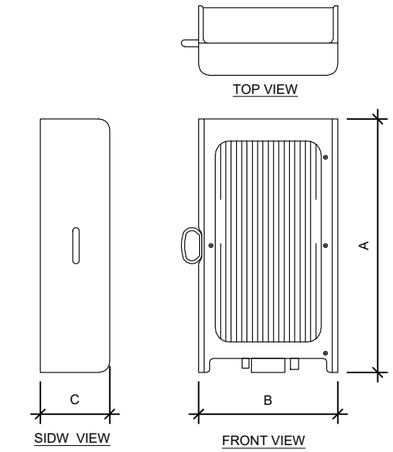
CUSTOMER ID:	CTL02166
CUSTOMER #:	10035065

GROUNDING DETAILS

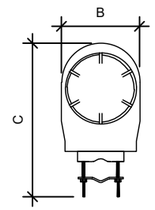
SHEET NUMBER:	REVISION:
E-501	0

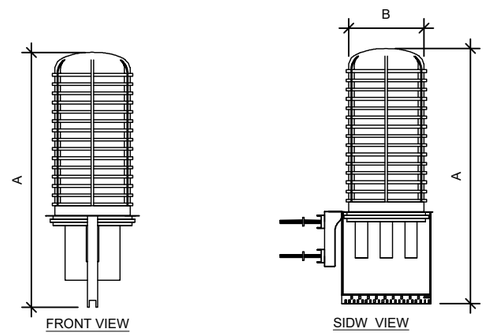


ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
TPA65R-BU6DA	71.1"	25.5"	7.6"	79.6
Air 6449 B77D	30.4"	15.9"	8.1"	81.6
AIR 6419 B77G	28.3"	16.1"	7.9"	66.1



RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
4449 B5, B12	17.9"	13.2"	9.4"	71.0





RAYCAP SPECIFICATIONS				
RAYCAP MODEL	A	B	C	WEIGHT (LBS)
DC9-48-60-24-8C-EV	31.4"	18.3"	10.2"	16.0
DC6-48-60-0-8C	20.1"	18.2"	6.4"	16.0

1 EQUIPMENT SPECIFICATIONS

SCALE: N.T.S.

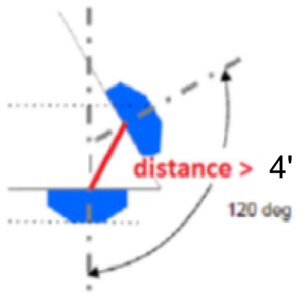
SUPPLEMENTAL

SHEET NUMBER: R-601

REVISION: 0

RF REQUIREMENTS FOR 700 B14 FIRSTNET, 700 B12, 700D B29 ANTENNA SEPARATION

- ❑ Horizontal separation (side to side of antenna): >= 3’
- ❑ Vertical separation (between the tips of the antennas): > 3’
- ❑ Inter-sector separation: > 4' between the center of the antenna backplanes.



- ❑ Please note additional horizontal separation may be required if B14 antennas azimuth are different from others or antennas are severely angled with respect to the mount.
- ❑ Typical 3' horizontal separation can tolerate skew angle up to 6°.

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER: R-602

REVISION: 0

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

efi global

Antenna Mount Analysis Report

ATC Site Name	:	Naugatuck (telephone Pole)
ATC Site Number	:	302526
Engineering Number	:	13753218_C8_01
Mount Elevation	:	88.5 ft
Carrier	:	AT&T Mobility
Carrier Site Name	:	MRCTB055370
Carrier Site Number	:	CT2166
Site Location	:	585 Sout Main St. (soc. Club) Naugatuck, CT 06770-4725 41.47847032, -73.04845171
County	:	New Haven
Date	:	February 15, 2022
Max Usage	:	72%
Result	:	Pass

Prepared By:
Akhil Jayaraj, E.I.T.
EFI Global, Inc.

Reviewed By:
Ahmet Colakoglu, P.E.
EFI Global, Inc.

2/15/2022

STATE OF CONNECTICUT AHMET COLAKOGLU PEN. 27057 LICENSED PROFESSIONAL ENGINEER

COA#: PEC.0001245

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for AT&T Mobility at 88.5 ft.

Supporting Documents

RFDS	RFDS dated February 2, 2021
Photos	Site photos from 2019
Antenna Mount Modification Analysis	Maser Consulting, MC Project # 18963006A, dated October 17, 2018

Analysis

This antenna mount was analyzed using RISA-3D v19 analysis software

Basic Wind Speed:	125 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.00" radial ice concurrent
Codes:	ANSI/TIA-222-H
Risk Category:	II
Exposure Category:	B
Topographic Factor Procedure:	Method 2
Feature:	Flat
Spectral Response:	Ss = 0.197, S_1 = 0.054
Seismic Design Category	B
Site Class:	D – Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report.

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.

EFI Global, Inc. – 1117 Perimeter Center West, Suite E500, Atlanta, GA 30338 – (470) 990-6593 – telecom@efiglobal.com

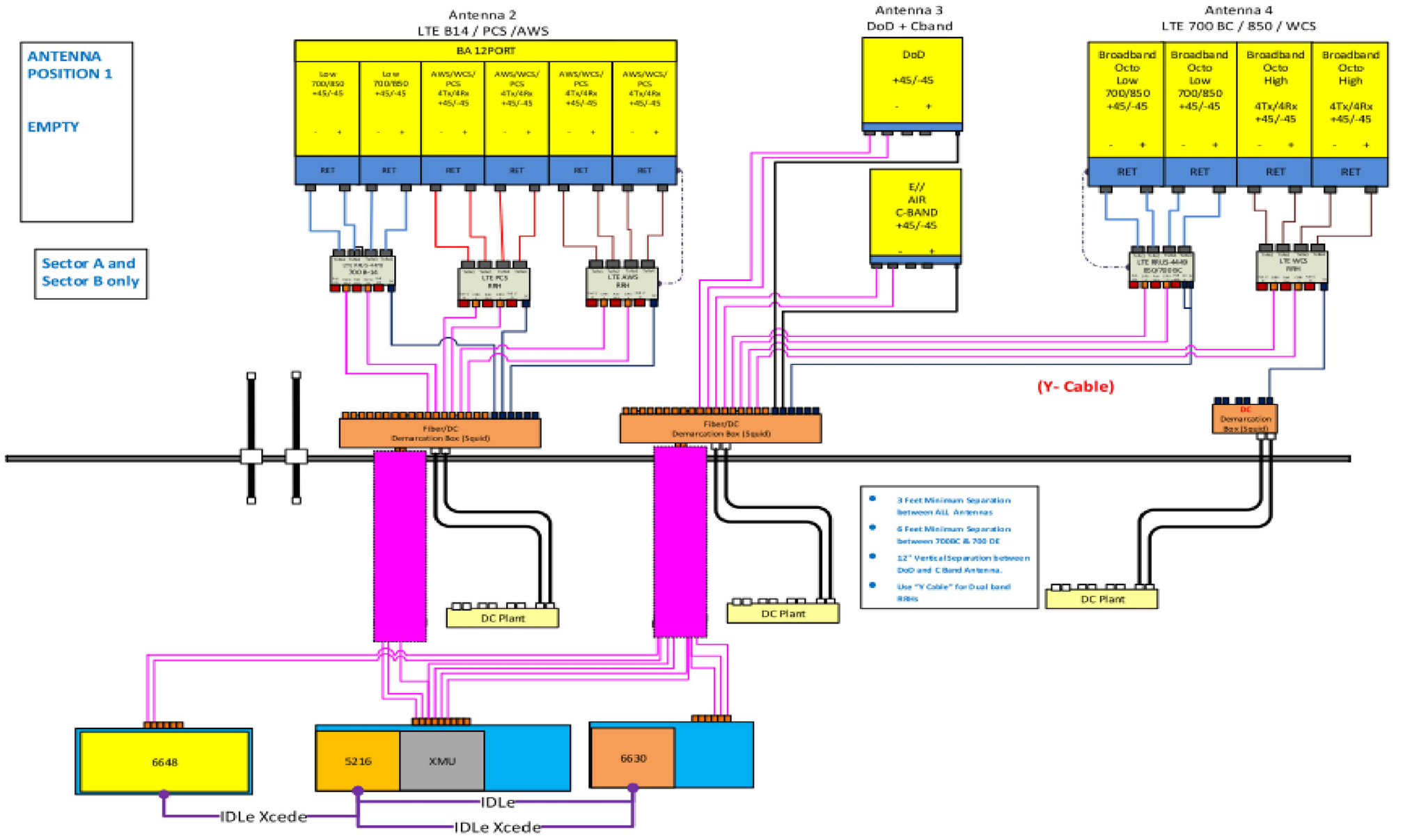
1 MOUNT ANALYSIS

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERYIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-603	0

Diagram - Sector	A	Diagram File Name - 2Sectorsite_Cband_3Ant_BA12_COAX_DoD_CB_DMP__AWS_PCS_2DCFIB_1DC_1x5216_XMU_6630_6648.vsd					
Atoll Site Name -	CTL02166	Location Name -	NAUGATUCK SOUTH MAIN	Market -	CONNECTICUT	Market Cluster -	NEW ENGLAND
Comments: 2 Sector site only-"Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson "							



1 RFDS PLUMBING DIAGRAM

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. GENERAL CONTRACTOR IS TO CHECK WITH THE AT&T CM TO ENSURE THIS IS THE MOST RECENT VERSION OF THE RFDS.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-604	0

Radio Frequency Exposure Analysis Report

June 20, 2022

American Tower on behalf of AT&T
Centerline Communications Project Number: 950035-004

AT&T Site Name: Naugatuck South Main
Site Number: CTL02166
FA#: 10035065
USID: 61187

Site Address: 585 South Main Street, Naugatuck, CT 06770

Site Compliance Summary

AT&T Compliance Status:	Compliant
Cumulative Calculated Power Density (Ground Level):	8.92332 µW/cm^2
Cumulative General Population % MPE (Ground Level):	1.13192%

June 20, 2022

American Tower
Attn: John Luca, Supervisor Quality Review
301 Fayetteville St
Raleigh, NC 27601

RF Exposure Analysis for Site: **Naugatuck South Main**

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed AT&T facility at **585 South Main Street, Naugatuck, CT 06770** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu W/cm^2$). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm^2) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ($f_{MHz}/1500$). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of 1 mW/cm^2 (1000 $\mu W/cm^2$). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

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

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/ controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.

Calculation Methodology

Centerline Communications, LLC has performed theoretical modeling of the site using a software tool, RoofMaster®, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.

Data & Results

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at ground level.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.

Maximum Calculated Cumulative Power Density (Location: approximately 240' SE of site)

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density (μW/cm²)	General Population MPE Limit (μW/cm²)	General Population % MPE
AT&T A 1	CCI TPA65R-BU6D	700	11.75	90.00	4.00	30.00	1795.48	0.00003	466.67	0.00001
AT&T A 1	CCI TPA65R-BU6D	1900	15.05	90.00	2.00	30.00	1919.34	0.00000	1000.00	0.00000
AT&T A 1	CCI TPA65R-BU6D	1900	15.45	90.00	2.00	30.00	2104.51	0.00000	1000.00	0.00000
AT&T A 1	CCI TPA65R-BU6D	2100	15.95	90.00	2.00	45.00	3541.95	0.00000	1000.00	0.00000
AT&T A 1	CCI TPA65R-BU6D	2100	15.95	90.00	2.00	45.00	3541.95	0.00000	1000.00	0.00000
AT&T A 2	ERICSSON AIR6449	3700	23.55	92.00	1.00	108.40	24548.74	0.00091	1000.00	0.00009
AT&T A 3	ERICSSON AIR6419 NR	3400	22.85	88.00	1.00	54.20	10447.19	0.00079	1000.00	0.00008
AT&T A 3	ERICSSON AIR6419 LTE	3400	22.85	88.00	1.00	54.20	10447.19	0.00079	1000.00	0.00008
AT&T A 4	KATHREIN 80010965	700	11.85	90.00	2.00	30.00	918.65	0.00023	466.67	0.00005
AT&T A 4	KATHREIN 80010965	2300	15.75	90.00	4.00	18.00	2706.03	0.00003	1000.00	0.00000
AT&T A 4	KATHREIN 80010965	850	13.55	90.00	2.00	30.00	1358.79	0.00005	566.67	0.00001
AT&T B 5	CCI TPA65R-BU6D	700	11.75	90.00	4.00	30.00	1795.48	0.14677	466.67	0.03145
AT&T B 5	CCI TPA65R-BU6D	1900	15.05	90.00	2.00	30.00	1919.34	0.08158	1000.00	0.00816
AT&T B 5	CCI TPA65R-BU6D	1900	15.45	90.00	2.00	30.00	2104.51	0.08156	1000.00	0.00816
AT&T B 5	CCI TPA65R-BU6D	2100	15.95	90.00	2.00	45.00	3541.95	0.12781	1000.00	0.01278
AT&T B 5	CCI TPA65R-BU6D	2100	15.95	90.00	2.00	45.00	3541.95	0.12781	1000.00	0.01278
AT&T B 6	ERICSSON AIR6449	3700	23.55	92.00	1.00	108.40	24548.74	1.35540	1000.00	0.13554
AT&T B 7	ERICSSON AIR6419 NR	3400	22.85	88.00	1.00	54.20	10447.19	0.91872	1000.00	0.09187
AT&T B 7	ERICSSON AIR6419 LTE	3400	22.85	88.00	1.00	54.20	10447.19	0.91872	1000.00	0.09187
AT&T B 8	KATHREIN 80010965	700	11.85	90.00	2.00	30.00	918.65	0.00800	466.67	0.00171
AT&T B 8	KATHREIN 80010965	2300	15.75	90.00	4.00	18.00	2706.03	0.01002	1000.00	0.00100
AT&T B 8	KATHREIN 80010965	850	13.55	90.00	2.00	30.00	1358.79	0.00869	566.67	0.00153
Unknown A 9	GENERIC PANEL 6FT	850	12.62	40.90	4.00	40.00	2924.96	0.00028	566.67	0.00005
Unknown A 10	GENERIC PANEL 6FT	1900	15.84	40.90	4.00	40.00	6139.32	0.00059	1000.00	0.00006
Unknown A 11	GENERIC PANEL 6FT	2100	16.39	40.90	4.00	40.00	6968.19	0.00034	1000.00	0.00003
Unknown A 12	GENERIC PANEL 6FT	700	12.33	40.90	4.00	40.00	2736.02	0.00311	466.67	0.00067
Unknown B 13	GENERIC PANEL 6FT	850	12.62	40.90	4.00	40.00	2924.96	0.00268	566.67	0.00047
Unknown B 14	GENERIC PANEL 6FT	1900	15.84	40.90	4.00	40.00	6139.32	0.00156	1000.00	0.00016
Unknown B 15	GENERIC PANEL 6FT	2100	16.39	40.90	4.00	40.00	6968.19	0.00082	1000.00	0.00008
Unknown B 16	GENERIC PANEL 6FT	700	12.33	40.90	4.00	40.00	2736.02	0.00074	466.67	0.00016
Unknown C 17	GENERIC PANEL 6FT	850	12.62	40.90	4.00	40.00	2924.96	1.15979	566.67	0.20467
Unknown C 18	GENERIC PANEL 6FT	1900	15.84	40.90	4.00	40.00	6139.32	1.34711	1000.00	0.13471

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density ($\mu W/cm^2$)	General Population MPE Limit ($\mu W/cm^2$)	General Population % MPE
Unknown C 19	GENERIC PANEL 6FT	2100	16.39	40.90	4.00	40.00	6968.19	1.46477	1000.00	0.14648
Unknown C 20	GENERIC PANEL 6FT	700	12.33	40.90	4.00	40.00	2736.02	1.15360	466.67	0.24720
							Cumulative Power Density:	**8.92332 $\mu W/cm^2$**	**Cumulative % MPE:**	**1.13192%**

Summary

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at ground level that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **compliant** with FCC rules and regulations.

Michelle Stone

Michelle Stone
RF EME Technical Writer II
Centerline Communications, LLC

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

efi global

Antenna Mount Analysis Report

ATC Site Name	:	**Naugatuck (telephone Pole)**
ATC Site Number	:	**302526**
Engineering Number	:	**13753218_C8_01**
Mount Elevation	:	**88.5 ft**
Carrier	:	**AT&T Mobility**
Carrier Site Name	:	**MRCTB055370**
Carrier Site Number	:	**CT2166**
Site Location	:	**585 Sout Main St. (soc. Club)** **Naugatuck, CT 06770-4725** **41.47847032, -73.04845171**
County	:	**New Haven**
Date	:	**February 15, 2022**
Max Usage	:	**72%**
Result	:	**Pass**

2/15/2022

Prepared By:
Akhil Jayaraj, E.I.T.
EFI Global, Inc.

Reviewed By:
Ahmet Colakoglu, P.E.
EFI Global, Inc.

STATE OF CONNECTICUT
AHMET COLAKOGLU
PEN. 27057
LICENSED
PROFESSIONAL ENGINEER

COA#: PEC.0001245

Table of Contents

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for AT&T Mobility at 88.5 ft.

Supporting Documents

RFDS	RFDS dated February 2, 2021
Photos	Site photos from 2019
Antenna Mount Modification Analysis	Maser Consulting, MC Project # 18963006A, dated October 17, 2018

Analysis

This antenna mount was analyzed using RISA-3D v19 analysis software

Basic Wind Speed:	125 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.00" radial ice concurrent
Codes:	ANSI/TIA-222-H
Risk Category:	II
Exposure Category:	B
Topographic Factor Procedure:	Method 2
Feature:	Flat
Spectral Response:	Ss = 0.197, S_1 = 0.054
Seismic Design Category	B
Site Class:	D – Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report.

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.

Antenna Loading

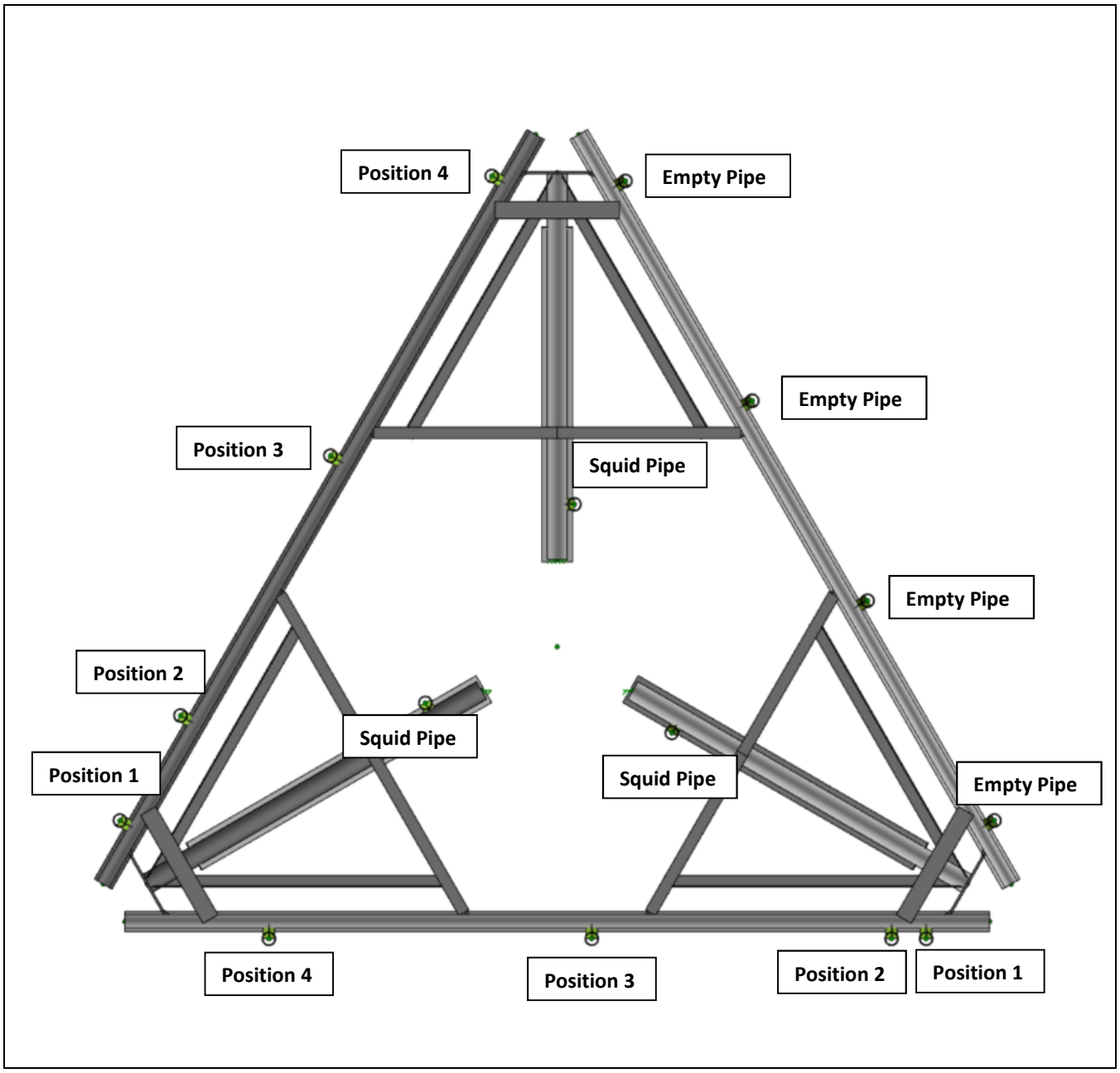
Mount Centerline (ft)	Antenna Centerline (ft)	Qty	Antenna Model
88.5	92.0	2	Ericsson AIR 6419 B77G*
	90.0	2	CCI TPA-65R-BU6DA-K
		2	Kathrein Scala 80010965
		1	Raycap DC6-48-60-0-8C
		1	Raycap DC9-48-60-24-8C-EV
		1	Raycap DC6-48-18-8F (“Squid”)
		2	Ericsson RRUS 4449 B5, B12
		2	Ericsson RRUS 32 B30
		2	Ericsson 4478 Band 14 (15” Height)
		2	Ericsson RRUS 32 B2
	88.0	2	Ericsson AIR 6449 B77D/ C-Band*

*** AIR 6419 & AIR 6449 are stacked.**

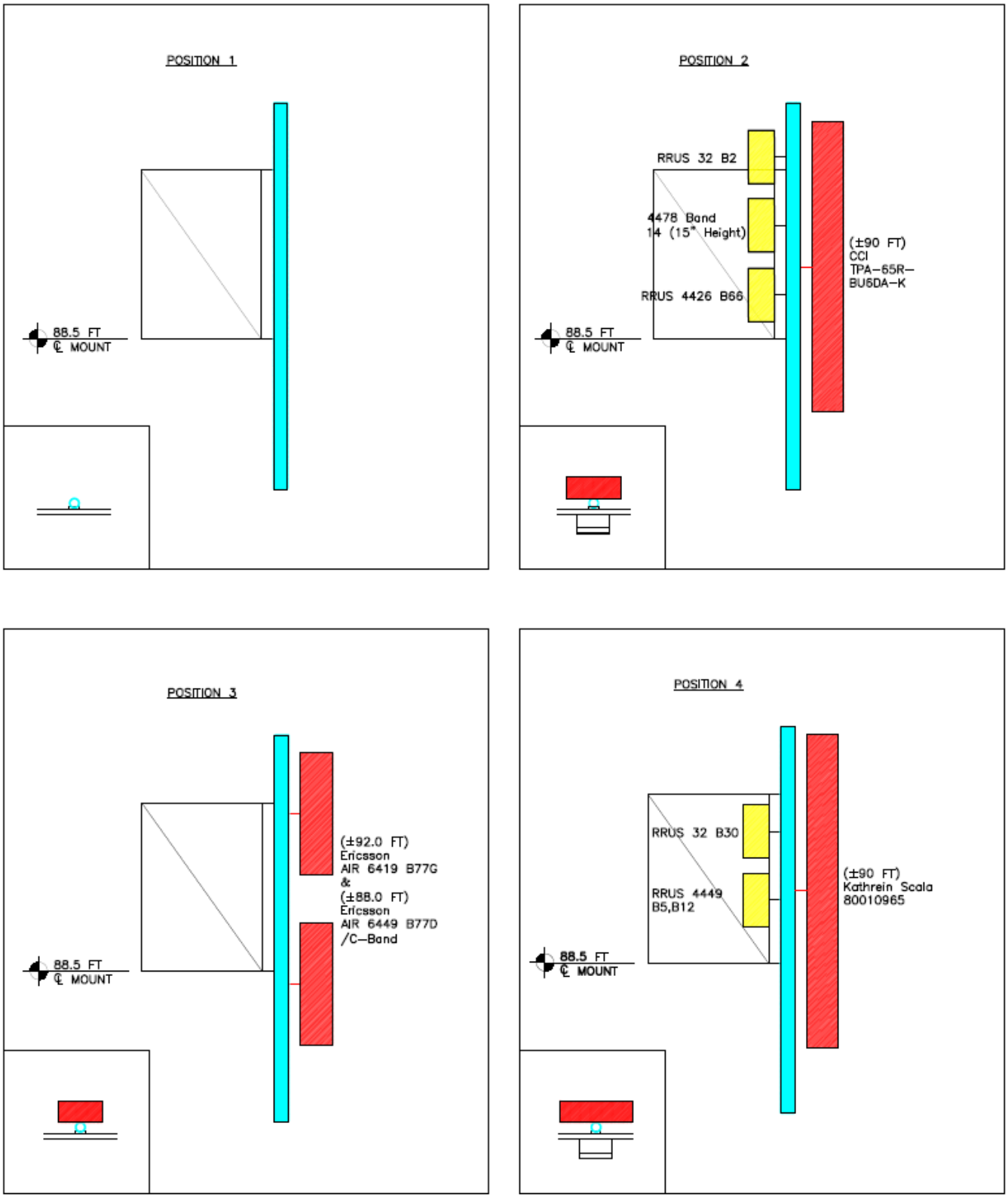
Structure Usages

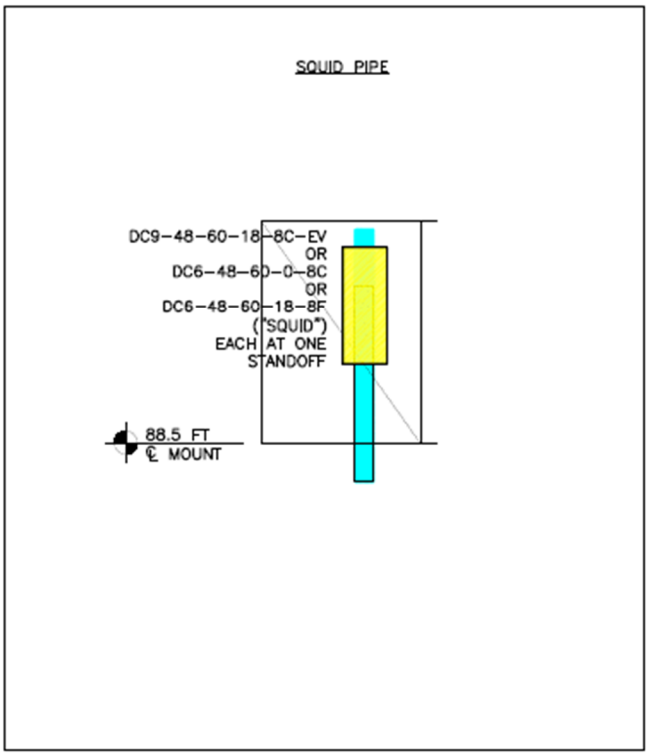
Structural Component	Controlling Usage	Pass/Fail
Base Horizontal Face Pipes	20%	Pass
Standoff Pipes	32%	Pass
Base Bracing Channels	37%	Pass
Base Connection Plates	72%	Pass
Support Rail Pipe	30%	Pass
Support Rail Connection Angle	27%	Pass
Antenna Mount Pipes	41%	Pass
Reinforcement Double Angles	< 20%	Pass

Mount Layout



Equipment Layout




SQUID PIPE
DC9-48-60-18-8C-EV
OR
DC6-48-60-0-8C
OR
DC6-48-60-18-8F
("SQUID")
EACH AT ONE
STANDOFF
88.5 FT
℄ MOUNT

Standard Conditions

All engineering services performed by EFI Global, Inc. (EFI) 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 EFI

It is the responsibility of the client to ensure that the information provided to EFI and used in the performance of our engineering services is correct and complete.

EFI assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appurtenance mounting system and/or equipment attached to it.

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

Installation of all equipment and steel should be confirmed not to cause tower conflicts nor impede the tower climbing pegs.

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

CLIENT: ATC

PROJECT: 302526_13753218_AT&T MOBILITY

SUBJECT: Antenna Loads - TIA 222 H Standard

Tower Height	90.00	ft	Type of Mount	Platform
Basic Wind Speed, V	125	mph		
Basic Wind Speed w/ Ice, V_i	50	mph		
Maintanence Load Factor, L_{FM}	0.0576	Load Factor for Maint. Load Cases (Basic Wind Speed=30 mph)		
Ultimate Ice Thickness, t_i	1	inches		

Table 2-3 Importance Factors

Structure Classification	Wind Load Without Ice	Wind Load With Ice	Ice Thickness	Earthquake
II	1	1	1	1

Table 2-4 Exposure Category Coefficients

Exposure Category	Zg	α	Kzmin	Ke	m
B	1200	7	0.7	0.9	0.55

Ground elevation factor, Ke

Zs 262 ft

Ke 0.99

Table 2-5 Topographic Categories

Kzt 1.000

Table 2-2 Wind Directionality Factor, Kd

Structure Type	Kd	
2 Monopole	0.95	DOES NOT CHANGE

Gust Effect Factor Gh

Structure Type	Gh	
2 Monopole	1.00	DOES NOT CHANGE

Shielding Factor, Ka

Structure Type	Ka	
Monopole	0.90	DOES NOT CHANGE

Seismic Factors

Ss	0.197	
S1	0.054	
Fa	1.6	
Fv	2.4	
R	2	Truss or Pole

Wind & Ice Load Calculations			
Velocity Pressure Coefficient	K_z	0.96	
Topographic Factor	K_{zt}	1.00	
Rooftop Wind Speed-up Factor	K_s	1.00	
Shielding Factor	K_a	0.90	
Ground Elevation Factor	K_e	0.99	
Wind Direction Probability Factor	K_d	0.95	
Basic Wind Speed	V	125	mph
Velocity Pressure	q_z	36.1	psf
Height Escalation Factor	K_{iz}	1.11	
Thickness of Radial Glaze Ice	T_{iz}	1.11	in

Seismic Load Calculations			
Short Period DSRAP	S_{DS}	0.21	
1 Second DSRAP	S_{D1}	0.09	
Importance Factor	I	1.00	
Response Modification Coefficient	R	2.00	
Seismic Response Coefficient	C_S	0.07	
Amplification Factor	A	1.00	
Seismic Design Category	SDC	B	

CLIENT: ATC

PROJECT: 302526_13753218_AT&T MOBILITY

SUBJECT: Antenna Loads - TIA 222 H Standard

Rad Center **90.00** ft

Antenna AND Mount Without Ice

Mounting Pole	Height (ft)	Model Number	#	Weight (lbs)	H (in)	*W (in)	D (in)	Ka	**A_N (ft2)	***A_T (ft2)	Aspect (FRONT)	Aspect (SIDE)	Ca (FRONT)	Ca (SIDE)	K_z	q_z (psf)	Pounds: Wind Load (Front)	Wind Load (Side)	Dead Load	Total Wind Load (Front)	Total Wind Load (Side)	Total Dead Load	Lateral Load (Seismic)	Vertical Load (Seismic)
Pos. 1		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0	0	0	0	0	0
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
																				0	**0**	**0**	**0**	**0**
Pos. 2	**90.00**	CCI TPA-65R-BU6DA-K	1	79.6	71.1	25.5	7.6	0.90	12.59	3.75	2.79	9.36	1.21	1.48	0.959	36.1	496.1	180.2	79.6	496	292	241	18	10
	90.00	4478 Band 14 (15" Height)	1	59.9	16.5	N/A	7.7	0.90	-	0.88	-	2.14	-	1.20	0.959	36.1	0.0	34.4	59.9					
	90.00	RRUS 32 B2	1	53.0	27.2	N/A	7.0	0.90	-	1.32	-	3.89	-	1.26	0.959	36.1	0.0	54.2	53					
	90.00	RRUS 4426 B66	1	48.4	15.0	N/A	5.8	0.90	-	0.60	-	2.59	-	1.20	0.959	36.1	0.0	23.6	48.4					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
																				249	**147**	**121**	**9**	**5**
Pos. 3	**92.00**	Ericsson AIR 6419 B77G	1	66.1	28.3	16.1	7.9	0.90	3.16	1.55	1.76	3.58	1.20	1.25	0.965	36.3	124.1	63.3	66.1	124	63	66	5	3
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
																				63	**32**	**34**	**2**	**1**
Pos. 3	**88.00**	Ericsson AIR 6449 B77D/ C-Band	1	81.6	30.4	15.9	10.6	0.90	3.36	2.24	1.91	2.87	1.20	1.22	0.953	35.9	130.0	87.9	81.6	130	88	82	6	3
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
																				66	**44**	**41**	**3**	**2**
Pos. 4	**90.00**	Kathrein Scala 80010965	1	97.6	78.7	20.0	6.9	0.90	10.93	3.77	3.94	11.41	1.26	1.55	0.959	36.1	448.7	189.5	97.6	449	289	229	17	10
	90.00	RRUS 32 B30	1	60.0	27.2	N/A	7.0	0.90	-	1.32	-	3.89	-	1.26	0.959	36.1	0.0	54.2	60					
	90.00	RRUS 4449 B5,B12	1	71.0	17.9	N/A	9.4	0.90	-	1.17	-	1.90	-	1.20	0.959	36.1	0.0	45.6	71					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
																				225	**145**	**115**	**8**	**5**
Squid		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0	156	89	16	1	1
	90.00	DC9-48-60-18-8C-EV	1	16.0	31.4	18.3	10.2	0.90	3.99	2.22	1.72	3.08	1.20	1.23	0.959	36.1	155.6	88.6	16					
	90.00	DC6-48-60-0-8C	0	16.0	20.1	18.2	6.4	0.90	2.54	0.89	1.10	3.14	1.20	1.23	0.959	36.1	0.0	0.0	0					
	90.00	DC6-48-60-18-8F ("Squid")	0	31.8	24.0	11.0	11.0	0.90	1.83	1.83	2.18	2.18	1.20	1.20	0.959	36.1	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
																				78	**45**	**8**	**1**	**0**

* Enter N/A in the W column for front sheilded apurtanances.

** A_N is the product of H and W

*** A_T is the product of H and D

DL 307

Mount	Height (ft)	Member	*L (in)	**W (in)	D (in)	Weight (lb/ft)	*** Ca	K_z	q_z (psf)	Wind Load (PLF)	Lateral Load (Seismic)	Vertical Load (Seismic)
	90.00	3.0 STD Pipe	12.00	3.50	0.00		1.20	0.959	32.5	11	-	-
	90.00	2.5 STD Pipe	0.00	2.88	0.00		-	-	-	-	-	-
	90.00	2.0 STD Pipe	12.00	2.38	0.00		1.20	0.959	32.5	8	-	-
	90.00	0.75 STD Pipe	0.00	1.05	0.00		-	-	-	-	-	-
	90.00	5/8" SR	0.00	0.63	0.00		-	-	-	-	-	-
	90.00	0.625" SR	0.00	0.63	0.00		-	-	-	-	-	-
	90.00	(L5x3)	12.00	5.00	3.00		2.00	0.959	32.5	27	-	-
	90.00	(L1.5x1.5)	0.00	1.50	1.50		-	-	-	-	-	-
	90.00	(L2x2x3)	12.00	2.00	2.00		2.00	0.959	32.5	11	-	-
	90.00	Plate (PL6x3/8)	12.00	6.00	0.38		2.00	0.959	32.5	32	-	-
	90.00	Plate (PL0.5x6)	0.00	0.50	6.00		-	-	-	-	-	-
	90.00	Plate (PL3x3/8)	0.00	3.00	0.38		-	-	-	-	-	-
	90.00	HSS4x4x4	0.00	4.00	4.00		-	-	-	-	-	-
	90.00	HSS4x4x3	0.00	4.00	4.00		-	-	-	-	-	-
	90.00	HSS2.5x2.5x3	0.00	2.50	2.50		-	-	-	-	-	-
	90.00	Double Angle (LL2.5x2.5x3x3)	12.00	2.50	5.00		2.00	0.959	32.5	14	-	-
	90.00	Channel (C3.5x2)	12.00	3.50	2.00		2.00	0.959	32.5	19	-	-
	90.00	Channel	0.00	0.00	0.00		-	-	-	-	-	-

* The dimension L is the longest dimension of the member

** The dimension W is the height or width of the member that resists wind load

*** Ca will equal 1.2 for round members and 2.0 for flat members

CLIENT: ATC

PROJECT: 302526_13753218_AT&T MOBILITY

SUBJECT: Antenna Loads - TIA 222 H Standard

ti (in) 1.105536 al 5.1591676 Kiz 1.1055359 reduction 0.16

Antenna AND Mount With Ice

Mounting Pole	Height (ft)	Model Number	#	H (in)	W (in)	D (in)	Ka	*A_N (ft2)	*A_T (ft2)	*Volume Ice (ft3)	*Weight Ice (lbs)	**Ca (FRONT)	**Ca (SIDE)	Kz	q_z (psf)	Pounds: Ice Wind Load (Front)	Ice Wind Load (Side)	Combined Wind Load (Front)	Combined Wind Load (Side)	Ice Dead Load	**Total Wind Load (Front)	**Total Wind Load (Side)	Total Ice Load
Pos. 1		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0	0	0	0
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
																					0	0	0
Pos. 2	**90.00**	CCI TPA-65R-BU6DA-K	1	71.1	25.5	7.6	0.90	1.52	1.24	3.56	199.38	0.70	0.81	0.959	5.8	5.5	5.2	84.9	34.1	199	85	57	321
	90.00	4478 Band 14 (15" Height)	1	16.5	13.4	7.7	0.90	-	0.41	0.69	38.65	0.70	0.70	0.959	5.8	0.0	1.5	0.0	7.0	39			
	90.00	RRUS 32 B2	1	27.2	12.1	7.0	0.90	-	0.56	0.91	50.98	0.70	0.72	0.959	5.8	0.0	2.1	0.0	10.7	51			
	90.00	RRUS 4426 B66	1	15.0	13.2	5.8	0.90	-	0.35	0.57	31.64	0.70	0.70	0.959	5.8	0.0	1.3	0.0	5.1	32			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
																					43	29	161
Pos. 3	**92.00**	Ericsson AIR 6419 B77G	1	28.3	16.1	7.9	0.90	0.72	0.59	1.19	66.42	0.70	0.71	0.965	5.8	2.6	2.2	22.5	12.3	66	22	12	66
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
																					12	7	34
Pos. 3	**88.00**	Ericsson AIR 6449 B77D/ C-Band	1	30.4	15.9	10.6	0.90	0.74	0.66	1.41	79.17	0.70	0.70	0.953	5.7	2.7	2.4	23.5	16.5	79	23	16	79
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
																					12	9	40
Pos. 4	**90.00**	Kathrein Scala 80010965	1	78.7	20.0	6.9	0.90	1.55	1.35	3.19	178.67	0.73	0.84	0.959	5.8	5.8	5.9	77.6	36.2	179	78	56	274
	90.00	RRUS 32 B30	1	27.2	12.1	7.0	0.90	-	0.56	0.91	50.98	0.70	0.72	0.959	5.8	0.0	2.1	0.0	10.7	51			
	90.00	RRUS 4449 B5,B12	1	17.9	13.2	9.4	0.90	-	0.45	0.80	44.65	0.70	0.70	0.959	5.8	0.0	1.6	0.0	8.9	45			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
																					39	28	138
Squid		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0	28	17	87
	90.00	DC9-48-60-18-8C-EV	1	31.4	18.3	10.2	0.90	0.80	0.67	1.56	87.34	0.70	0.70	0.959	5.8	2.9	2.5	27.8	16.6	87			
	90.00	DC6-48-60-0-8C	0	20.1	18.2	6.4	0.90	0.62	0.44	0.91	51.21	0.70	0.70	0.959	5.8	0.0	0.0	0.0	0.0	0			
	90.00	DC6-48-60-18-8F ("Squid")	0	24.0	11.0	11.0	0.90	0.57	0.57	0.97	54.14	0.70	0.70	0.959	5.8	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
																					14	9	44

* A_N ,A_T, Volume Ice and Weight Ice are calculated per unit

** Ca will equal 1.2 for all ice load calculations

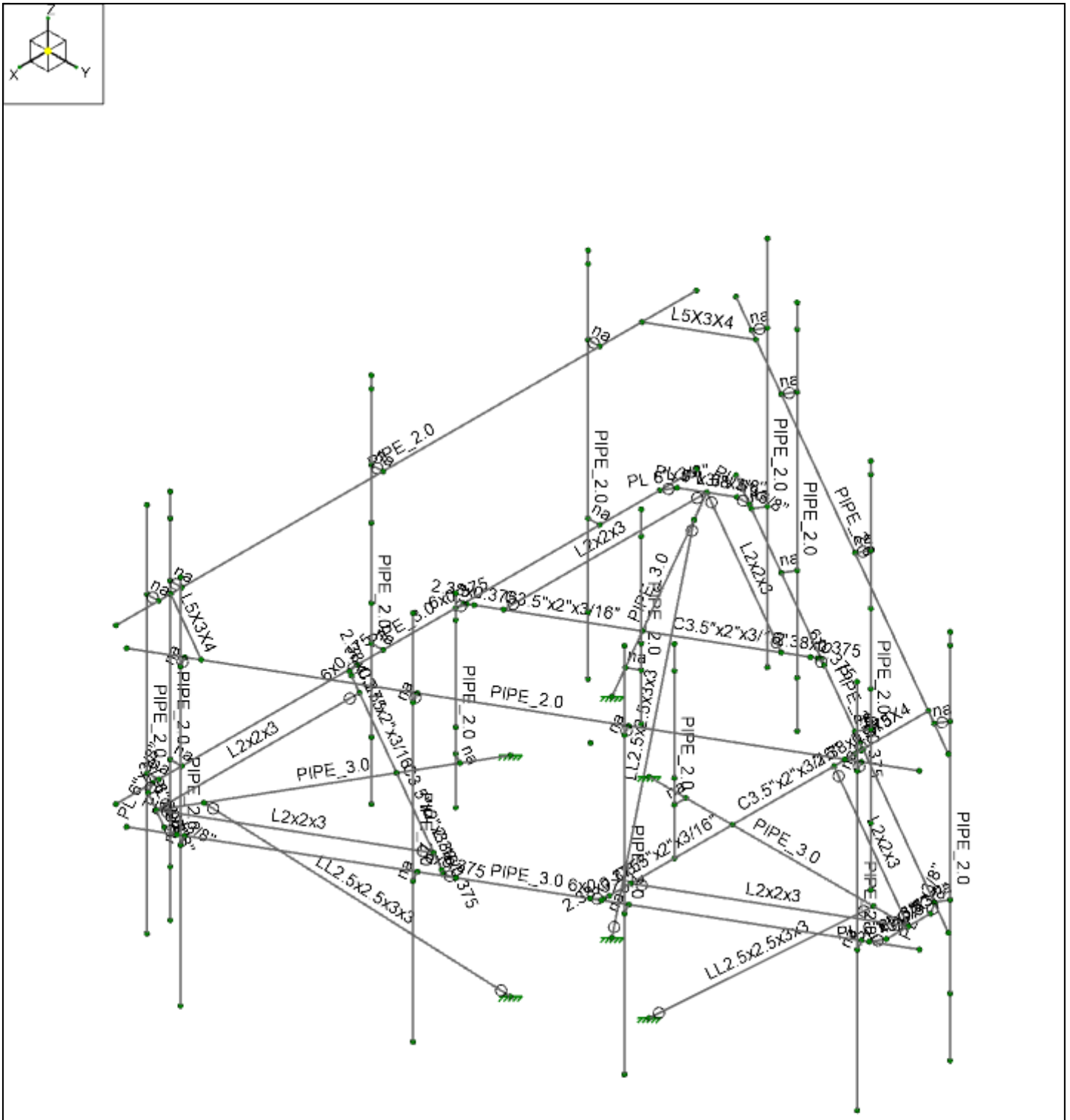
Mount	Height (ft)	Member	*L (in)	**W (in)	D (in)	***A_N (ft2)	Volume Ice (ft3)	Weight Ice (lbs)	****Ca (FRONT)	Kz	q_z (psf)	PLF: Ice Wind Load (Front)	Combined Wind Load (Front)	Ice Dead Load
	90.00	3.0 STD Pipe	12.00	3.50	0.00	0.27	0.11	6.22	1.20	0.959	5.2	1.7	3.5	6
	90.00	2.5 STD Pipe	0.00	2.88	0.00	-	-	-	-	-	-	-	-	-
	90.00	2.0 STD Pipe	12.00	2.38	0.00	0.25	0.08	4.70	1.20	0.959	5.2	1.6	2.8	5
	90.00	0.75 STD Pipe	0.00	1.05	0.00	-	-	-	-	-	-	-	-	-
	90.00	5/8" SR	0.00	0.63	0.00	-	-	-	-	-	-	-	-	-
	90.00	0.625" SR	0.00	0.63	0.00	-	-	-	-	-	-	-	-	-
	90.00	(L5x3)	12.00	5.00	3.00	0.29	0.12	6.88	1.20	0.959	5.2	1.8	6.2	7
	90.00	(L1.5x1.5)	0.00	1.50	1.50	-	-	-	-	-	-	-	-	-
	90.00	(L2x2x3)	12.00	2.00	2.00	0.25	0.06	3.44	1.20	0.959	5.2	1.6	3.3	3
	90.00	Plate (PL6x3/8)	12.00	6.00	0.38	0.31	0.16	8.90	1.20	0.959	5.2	1.9	7.1	9
	90.00	Plate (PL0.5x6)	0.00	0.50	6.00	-	-	-	-	-	-	-	-	-
	90.00	Plate (PL3x3/8)	0.00	3.00	0.38	-	-	-	-	-	-	-	-	-
	90.00	HSS4x4x4	0.00	4.00	4.00	-	-	-	-	-	-	-	-	-
	90.00	HSS4x4x3	0.00	4.00	4.00	-	-	-	-	-	-	-	-	-
	90.00	HSS2.5x2.5x3	0.00	2.50	2.50	-	-	-	-	-	-	-	-	-
	90.00	Double Angle (LL2.5x2.5x3x3)	12.00	2.50	5.00	0.26	0.15	8.60	1.20	0.959	5.2	1.6	3.8	9
	90.00	Channel (C3.5x2)	12.00	3.50	2.00	0.27	0.14	7.74	1.20	0.959	5.2	1.7	4.7	8
	90.00	Channel	0.00	0.00	0.00	-	-	-	-	-	-	-	-	-

* The dimension L is the longest dimension of the member

** The dimension W is the height or width of the member that resists wind load

*** A_N is the area of ice built up on the LW plane

**** Ca will equal 1.2 for all ice load calculations



Envelope Only Solution

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AJ		Feb 15, 2022
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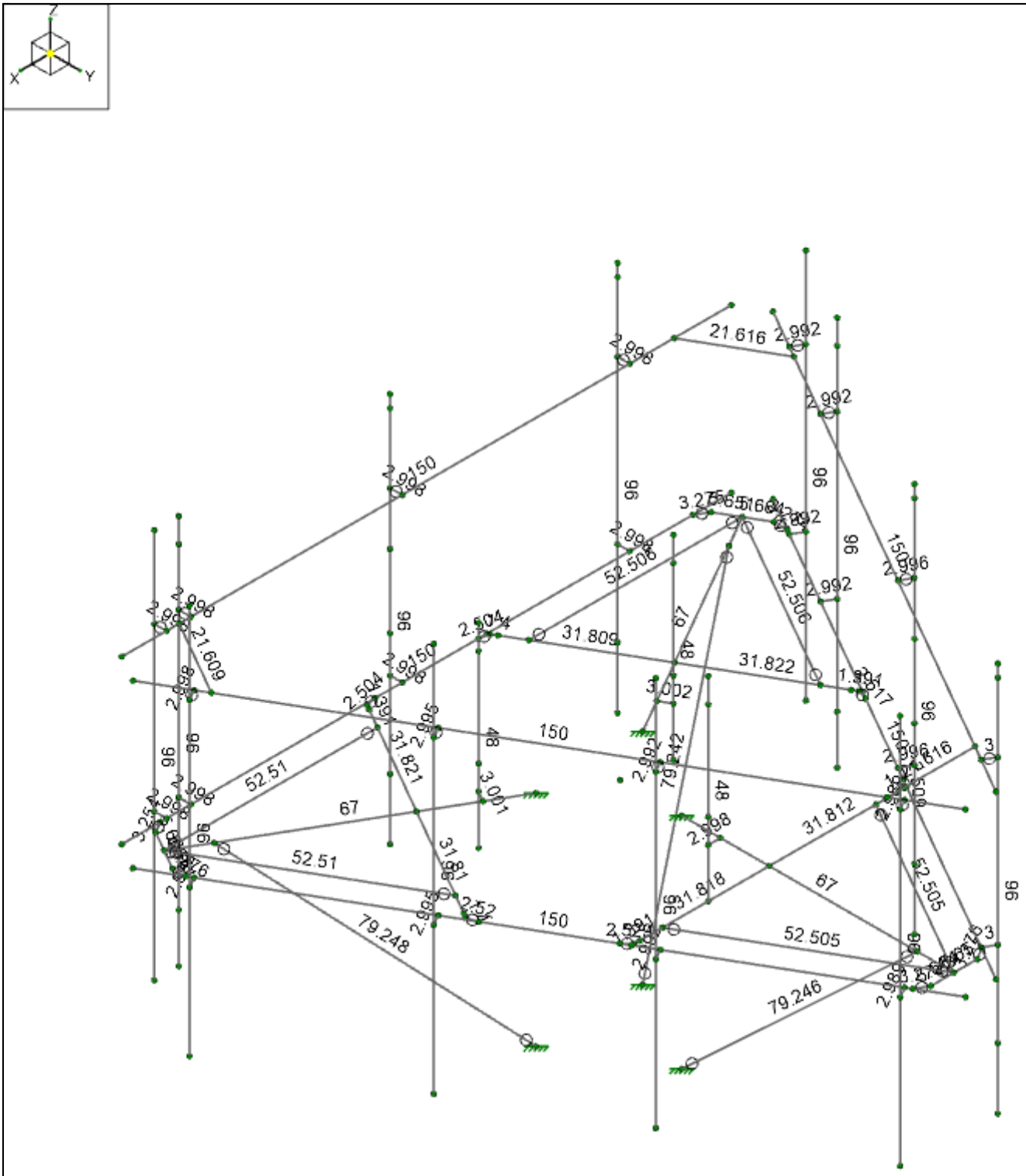

Member Length (in) Displayed
Envelope Only Solution

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AJ		Feb 15, 2022
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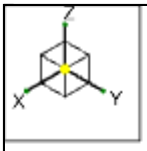

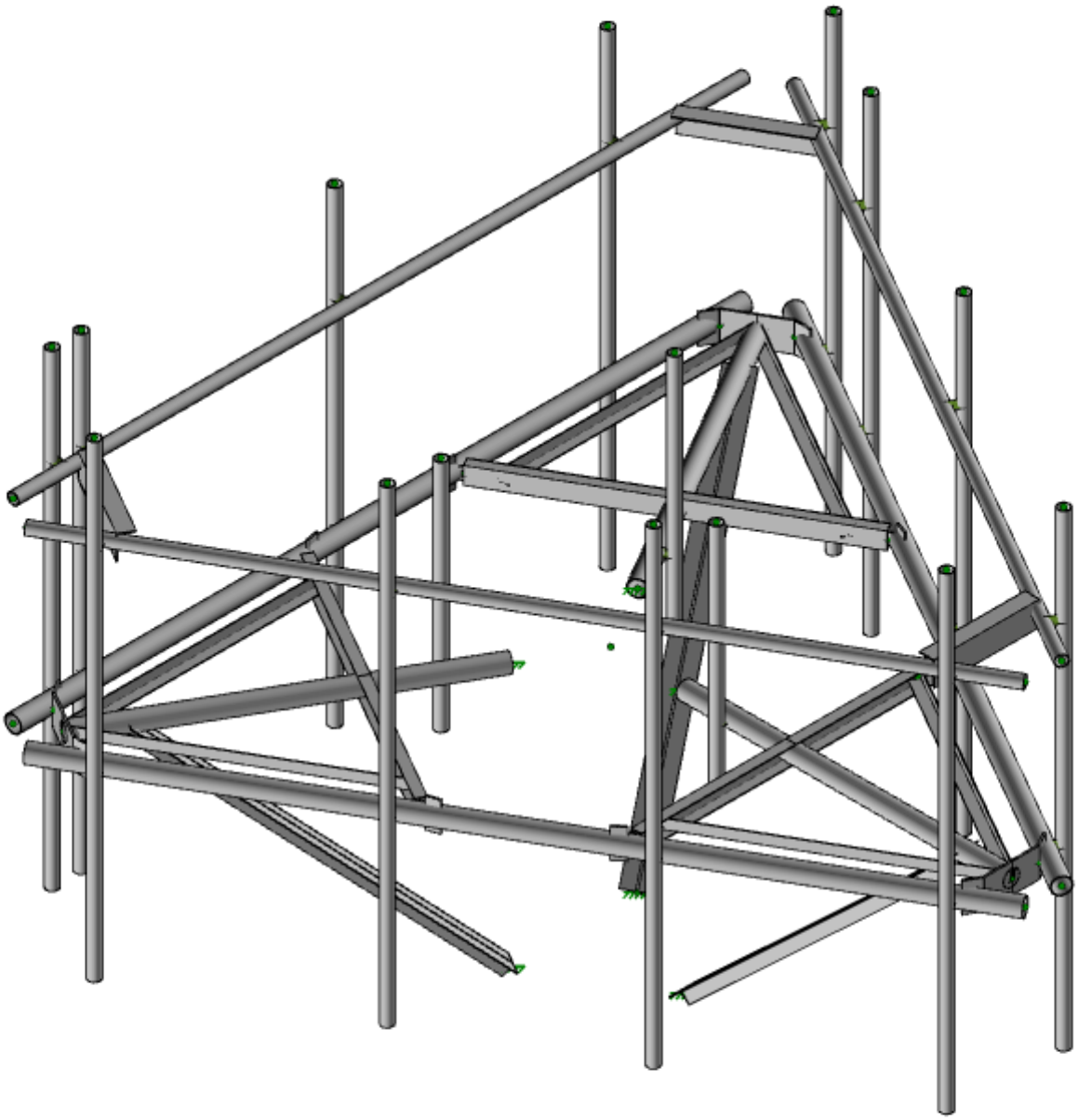

Member Length (in) Displayed
Envelope Only Solution

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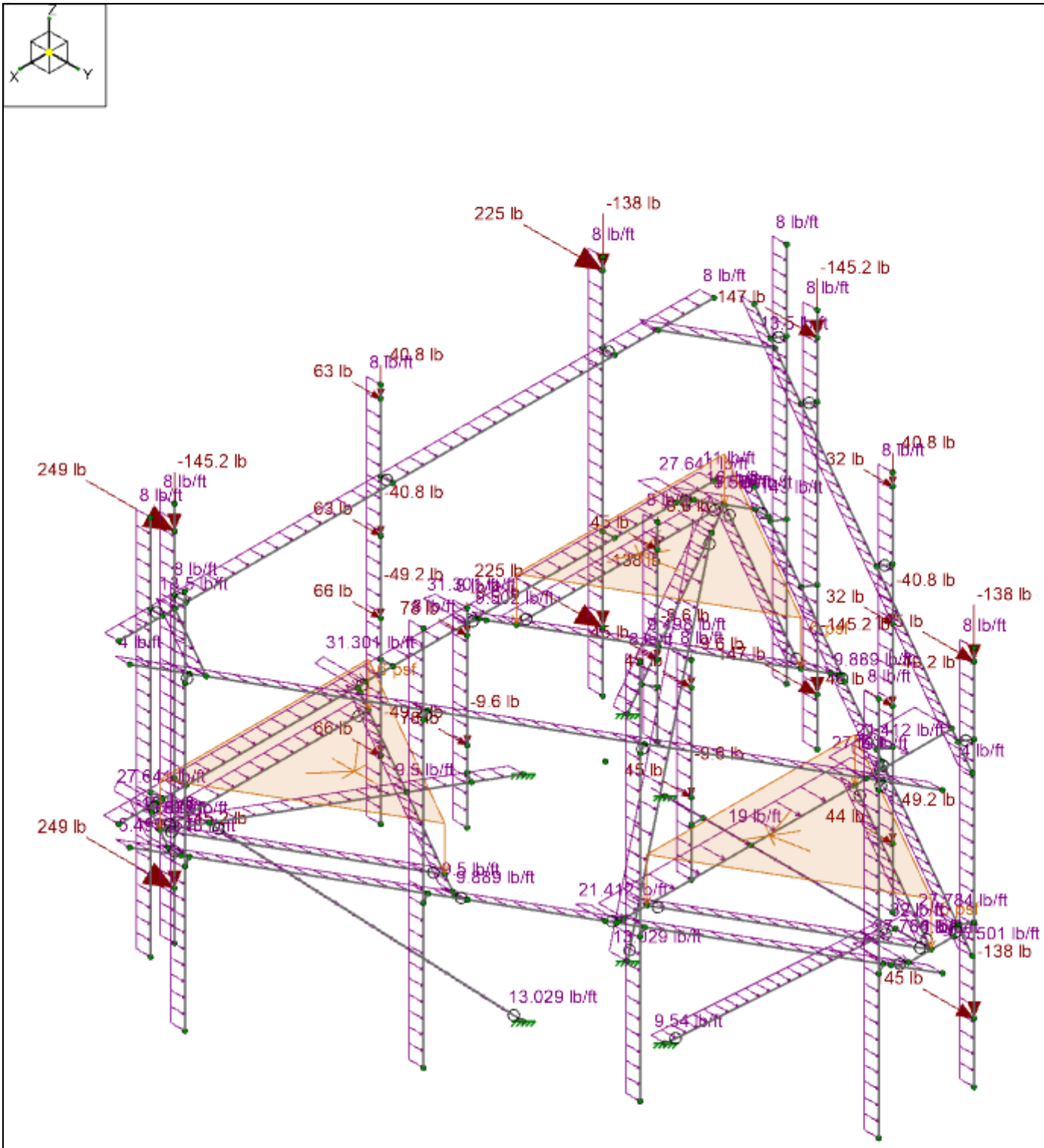

Loads: LC 1, DL + WL (NO ICE) 0 Degree
Envelope Only Solution

ATC/ EFI	302526_13753218_AT&T MOBILITY	SK-4
AJ		Feb 15, 2022
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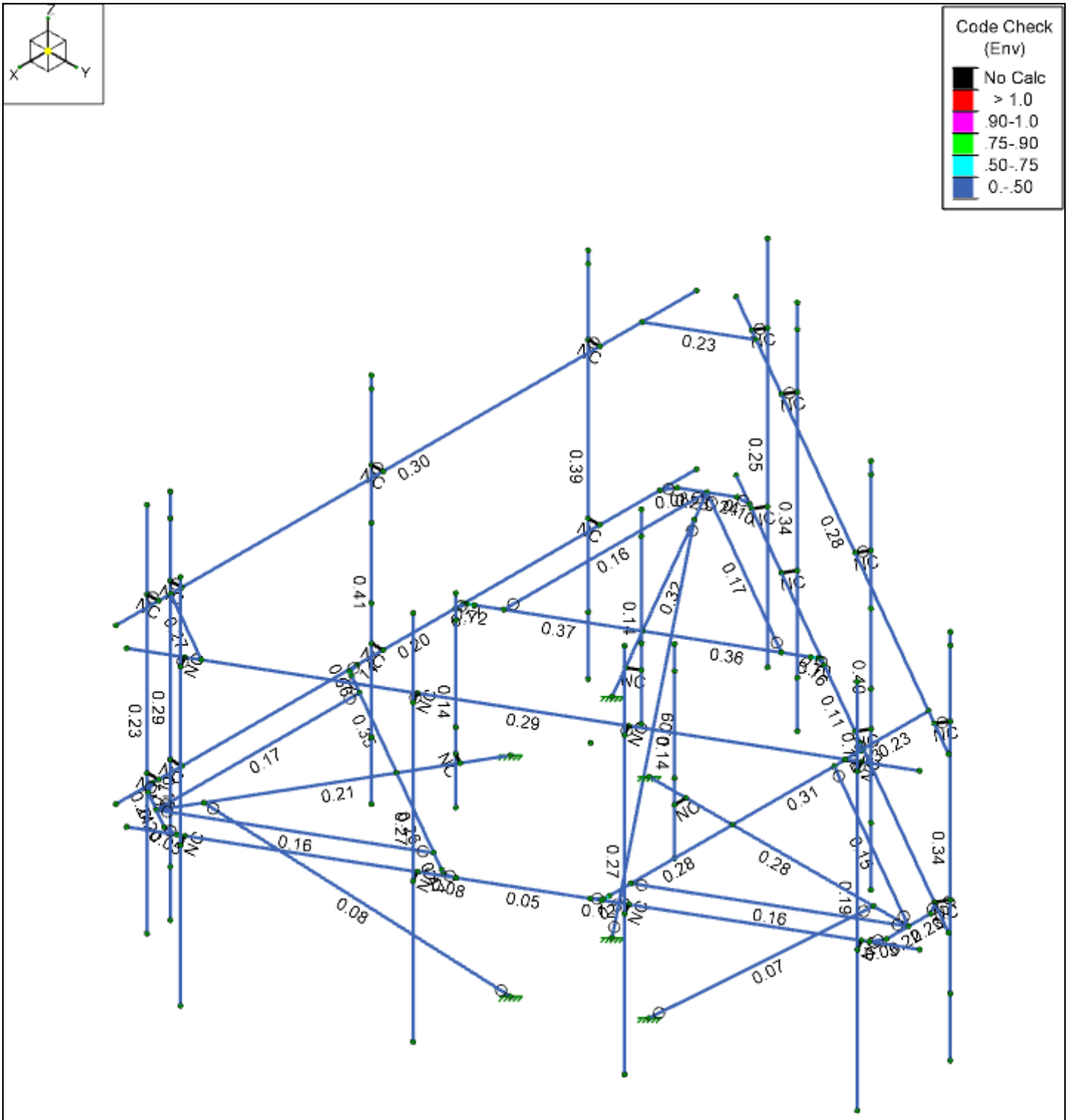

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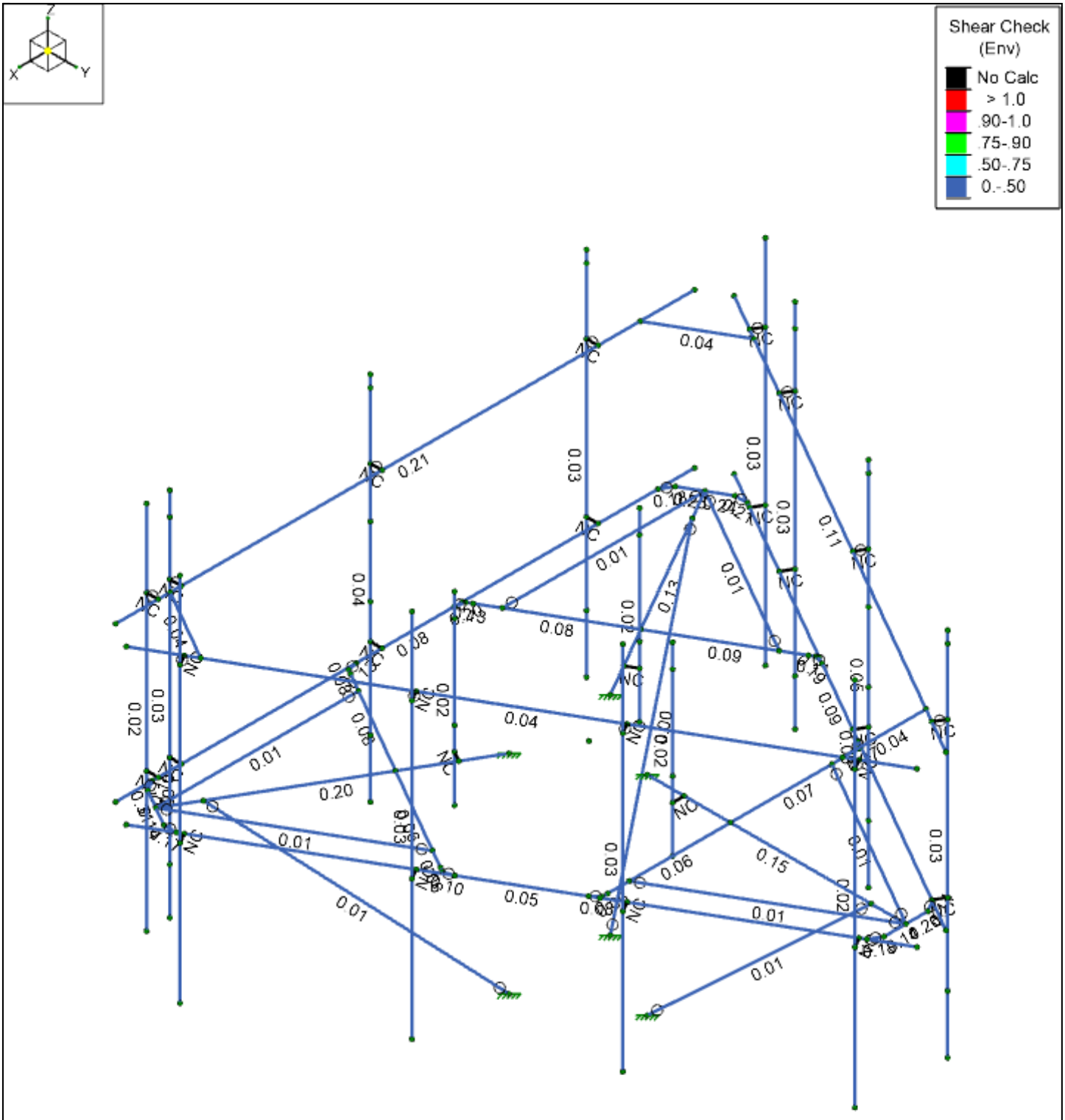

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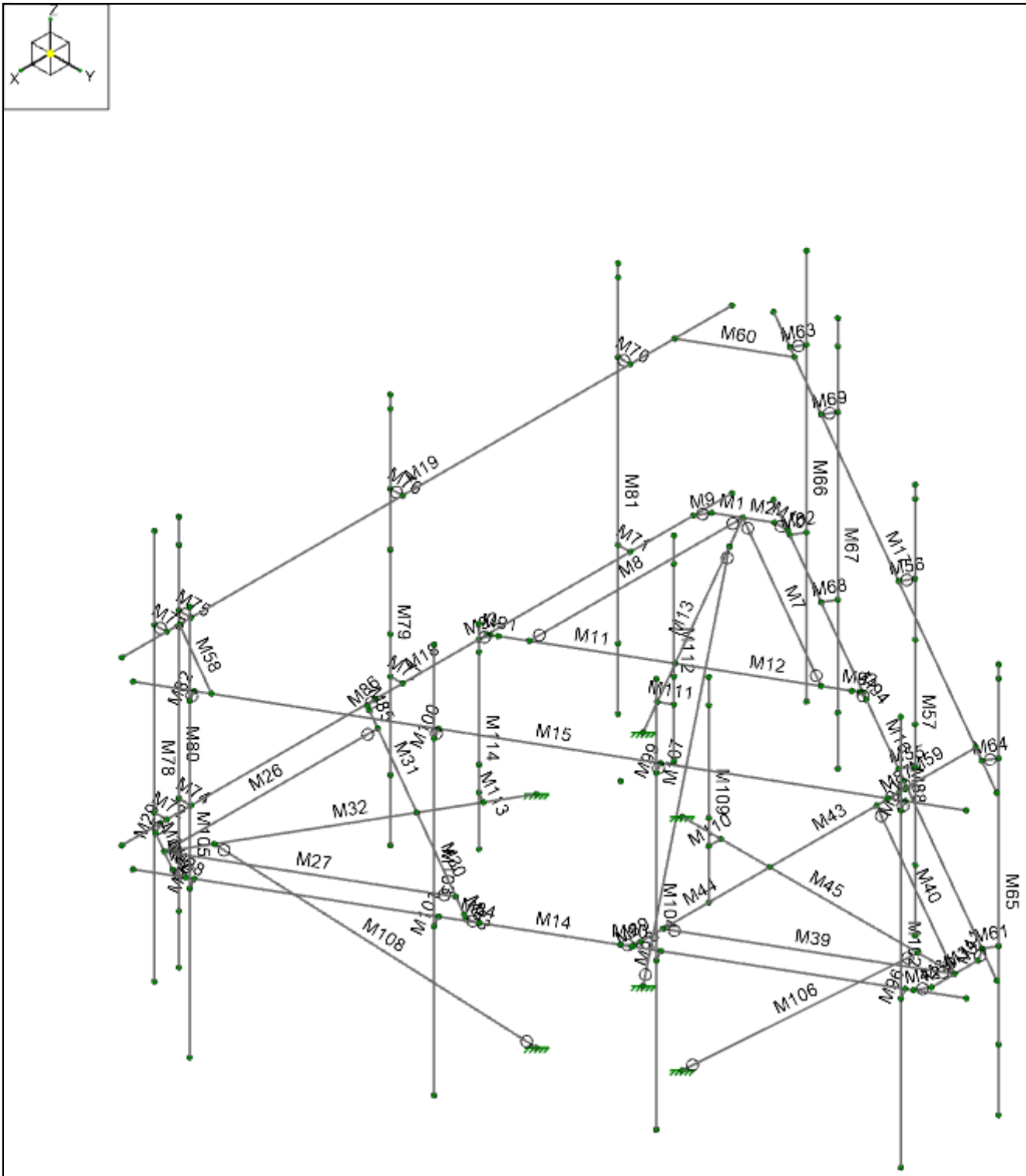

Envelope Only Solution

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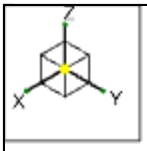

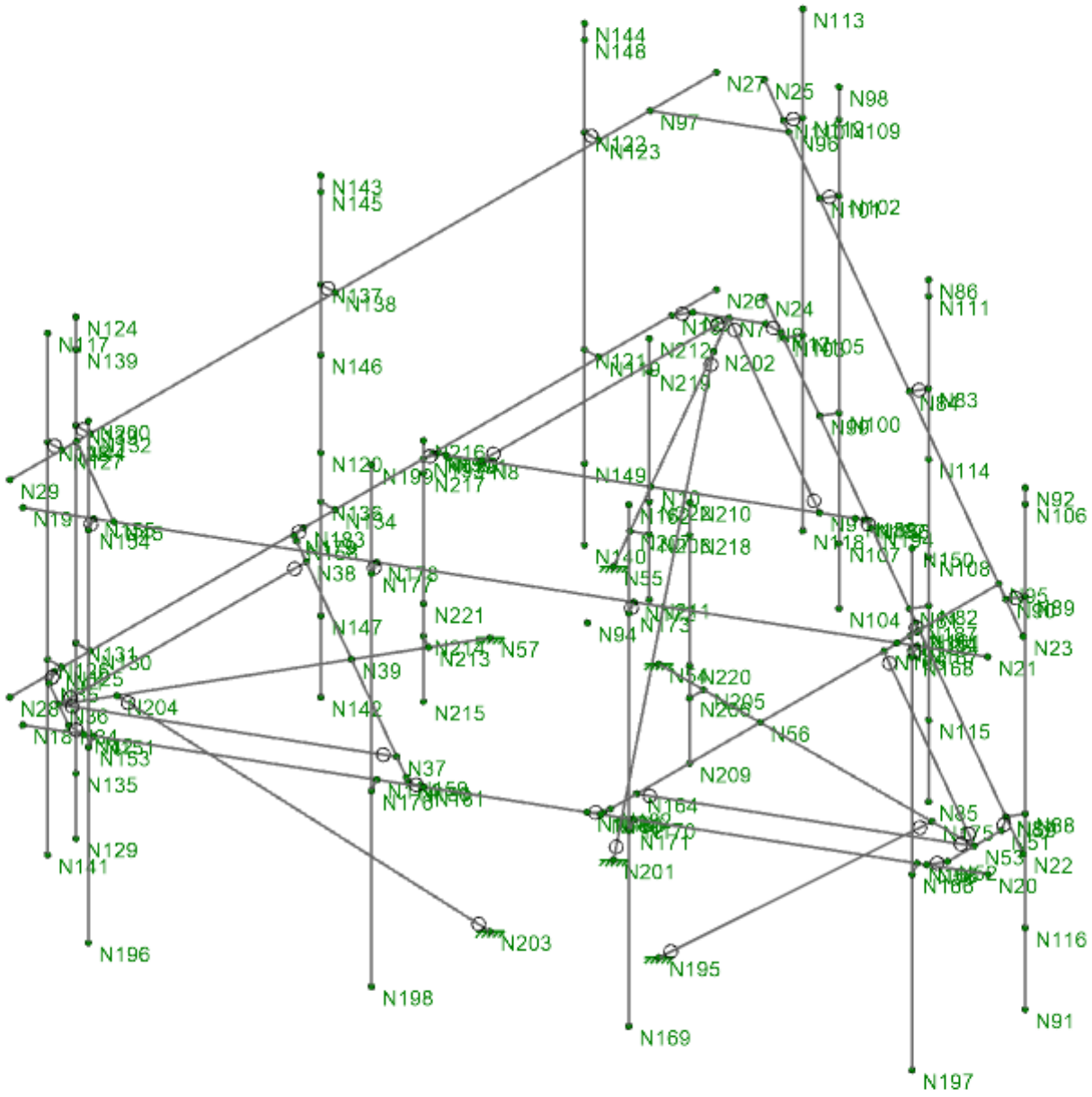

Envelope Only Solution

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AJ		Feb 15, 2022
049.02954 - 2210096		302526_13753218_AT&T MOBILITY.r3d

Model Settings

Solution

Members

Number of Reported Sections	5
Number of Internal Sections	100
Member Area Load Mesh Size (in^2)	144
Consider Shear Deformation	Yes
Consider Torsional Warping	Yes

Wall Panels

Approximate Mesh Size (in)	12
Transfer Forces Between Intersecting Wood Walls	Yes
Increase Wood Wall Nailing Capacity for Wind Loads	Yes
Include P-Delta for Walls	Yes
Optimize Masonry and Wood Walls	No
Maximum Number of Iterations	3

Processor Core Utilization

Single	No
Multiple (Optimum)	Yes
Maximum	No

Axis

Vertical Global Axis

Global Axis corresponding to vertical direction	Z
Convert Existing Data	Yes

Default Member Orientation

Default Global Plane for z-axis	XY

Plate Axis

Plate Local Axis Orientation	Nodal

Codes

Hot Rolled Steel	AISC 15th (360-16): LRFD
Stiffness Adjustment	No
Notional Annex	None
Connections	AISC 15th (360-16): LRFD
Cold Formed Steel	AISI 1999: ASD
Stiffness Adjustment	Yes (Iterative)
Wood	AF&PA NDS-91/97: ASD
Temperature	< 100F
Concrete	ACI 318-02
Masonry	ACI 530-05: ASD
Aluminum	AA ADM1-05: ASD
Structure Type	Building
Stiffness Adjustment	Yes (Iterative)
Stainless	AISC 14th (360-10): ASD
Stiffness Adjustment	Yes (Iterative)

Concrete

Column Design

Analysis Methodology	PCA Load Contour Method
Parme Beta Factor	0.65

Compression Stress Block	Rectangular Stress Block
Analyze using Cracked Sections	Yes
Leave room for horizontal rebar splices (2*d bar spacing)	No
List forces which were ignored for design in the Detail Report	Yes

Rebar

Column Min Steel	1
Column Max Steel	8
Rebar Material Spec	ASTM A615
Warn if beam-column framing arrangement is not understood	No

Model Settings (Continued)

Shear Reinforcement

Number of Shear Regions	4
Region 2 & 3 Spacing Increase Increment (in)	4

Seismic

RISA-3D Seismic Load Options

Code	UBC 1997
Occupancy Cat	4
Seismic Zone	3
Base Elevation (ft)	
Include the weight of the structure in base shear calcs	No

Site Parameters

C_a	0.36
C_v	0.54

Structure Characteristics

T Z (sec)	
T X (sec)	
C_tX	0.035
R Z	8.5
R X	8.5
Ω_0Z	1
Ω_0X	1
ρ Z	1
ρ X	1

Project Grid Lines

No Data to Print...

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [k/ft^{3}]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.2
3	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.2
4	A500 Gr.42	29000	11154	0.3	0.65	0.49	42	1.3	58	1.1
5	A500 Gr.46	29000	11154	0.3	0.65	0.49	46	1.2	58	1.1
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.5	60	1.2
7	Q235	29000	11154	0.3	0.65	0.49	34	1.5	58	1.2

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	M68	N99	N100		RIGID	None	None	RIGID	Typical
2	M96	N163	N166		RIGID	None	None	RIGID	Typical
3	M74	N130	N131		RIGID	None	None	RIGID	Typical
4	M97	N167	N168		RIGID	None	None	RIGID	Typical
5	M98	N170	N171		RIGID	None	None	RIGID	Typical
6	M99	N172	N173		RIGID	None	None	RIGID	Typical
7	M100	N178	N177		RIGID	None	None	RIGID	Typical
8	M75	N132	N133		RIGID	None	None	RIGID	Typical
9	M101	N174	N176		RIGID	None	None	RIGID	Typical
10	M76	N138	N137		RIGID	None	None	RIGID	Typical
11	M55	N81	N82		RIGID	None	None	RIGID	Typical
12	M71	N119	N121		RIGID	None	None	RIGID	Typical
13	M70	N123	N122		RIGID	None	None	RIGID	Typical
14	M95	N151	N153		RIGID	None	None	RIGID	Typical
15	M77	N134	N136		RIGID	None	None	RIGID	Typical
16	M69	N101	N102		RIGID	None	None	RIGID	Typical
17	M72	N125	N126		RIGID	None	None	RIGID	Typical
18	M61	N87	N88		RIGID	None	None	RIGID	Typical
19	M64	N90	N89		RIGID	None	None	RIGID	Typical
20	M62	N103	N105		RIGID	None	None	RIGID	Typical
21	M63	N110	N112		RIGID	None	None	RIGID	Typical
22	M82	N155	N154		RIGID	None	None	RIGID	Typical
23	M73	N127	N128		RIGID	None	None	RIGID	Typical
24	M56	N84	N83		RIGID	None	None	RIGID	Typical
25	M10	N6	N12		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
26	M33	N53	N51		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
27	M28	N34	N42		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
28	M34	N53	N52		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
29	M41	N51	N59		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
30	M20	N36	N34		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
31	M29	N35	N41		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
32	M9	N5	N13		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
33	M1	N7	N5		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
34	M42	N52	N58		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
35	M2	N7	N6		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
36	M21	N36	N35		PL 6"x3/8"	Beam	RECT	A36 Gr.36	Typical
37	M45	N53	N54		PIPE_3.0	VBrace	HSS Pipe	A53 Gr.B	Typical
38	M16	N22	N24		PIPE_3.0	Beam	HSS Pipe	A53 Gr.B	Typical
39	M18	N26	N28		PIPE_3.0	Beam	HSS Pipe	A53 Gr.B	Typical
40	M14	N18	N20		PIPE_3.0	Beam	HSS Pipe	A53 Gr.B	Typical
41	M13	N7	N55		PIPE_3.0	VBrace	HSS Pipe	A53 Gr.B	Typical
42	M32	N36	N57		PIPE_3.0	VBrace	HSS Pipe	A53 Gr.B	Typical
43	M104	N162	N169		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
44	M105	N200	N196		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
45	M102	N150	N197		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
46	M103	N199	N198		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
47	M19	N27	N29		PIPE_2.0	Beam	HSS Pipe	A53 Gr.B	Typical
48	M17	N23	N25		PIPE_2.0	Beam	HSS Pipe	A53 Gr.B	Typical
49	M78	N117	N141		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
50	M81	N144	N140		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
51	M79	N143	N142		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
52	M80	N124	N129		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
53	M67	N98	N104		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
54	M65	N92	N91		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
55	M57	N86	N85		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
56	M15	N19	N21		PIPE_2.0	Beam	HSS Pipe	A53 Gr.B	Typical
57	M66	N113	N118		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
58	M106	N195	N175		LL2.5x2.5x3x3	Beam	Double Angle (No Gap)	A36 Gr.36	Typical
59	M107	N201	N202	0.002	LL2.5x2.5x3x3	Beam	Double Angle (No Gap)	A36 Gr.36	Typical
60	M108	N203	N204	0.002	LL2.5x2.5x3x3	Beam	Double Angle (No Gap)	A36 Gr.36	Typical
61	M60	N96	N97	180	L5X3X4	Beam	Single Angle	A36 Gr.36	Typical
62	M59	N93	N95	180	L5X3X4	Beam	Single Angle	A36 Gr.36	Typical
63	M58	N44	N45	180	L5X3X4	Beam	Single Angle	A36 Gr.36	Typical
64	M7	N7	N9		L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
65	M39	N53	N164		L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
66	M8	N7	N8	270	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
67	M26	N36	N38		L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
68	M40	N53	N165	270	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
69	M27	N36	N37	270	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
70	M11	N191	N10	180	C3.5"x2"x3/16"	Beam	Channel	A36 Gr.36	Typical
71	M12	N10	N189	180	C3.5"x2"x3/16"	Beam	Channel	A36 Gr.36	Typical
72	M43	N185	N56	180	C3.5"x2"x3/16"	Beam	Channel	A36 Gr.36	Typical
73	M31	N39	N158	180	C3.5"x2"x3/16"	Beam	Channel	A36 Gr.36	Typical
74	M44	N56	N182	180	C3.5"x2"x3/16"	Beam	Channel	A36 Gr.36	Typical
75	M30	N159	N39	180	C3.5"x2"x3/16"	Beam	Channel	A36 Gr.36	Typical
76	M86	N183	N179		6x0.375	Beam	RECT	A36 Gr.36	Typical
77	M88	N187	N184		6x0.375	Beam	RECT	A36 Gr.36	Typical
78	M84	N181	N180		6x0.375	Beam	RECT	A36 Gr.36	Typical
79	M90	N188	N186		6x0.375	Beam	RECT	A36 Gr.36	Typical
80	M92	N193	N190		6x0.375	Beam	RECT	A36 Gr.36	Typical
81	M94	N194	N192		6x0.375	Beam	RECT	A36 Gr.36	Typical
82	M89	N182	N186		2.38x0.375	Beam	RECT	A36 Gr.36	Typical
83	M85	N158	N179		2.38x0.375	Beam	RECT	A36 Gr.36	Typical
84	M83	N159	N180		2.38x0.375	Beam	RECT	A36 Gr.36	Typical
85	M93	N189	N192		2.38x0.375	Beam	RECT	A36 Gr.36	Typical
86	M87	N185	N184		2.38x0.375	Beam	RECT	A36 Gr.36	Typical
87	M91	N191	N190		2.38x0.375	Beam	RECT	A36 Gr.36	Typical
88	M109	N210	N209		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
89	M110	N205	N206		RIGID	None	None	RIGID	Typical
90	M111	N207	N208		RIGID	None	None	RIGID	Typical
91	M112	N212	N211		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical
92	M113	N213	N214		RIGID	None	None	RIGID	Typical
93	M114	N216	N215		PIPE_2.0	Column	HSS Pipe	A53 Gr.B	Typical

Member Advanced Data

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
1	M68			Yes	** NA **	None
2	M96			Yes	** NA **	None
3	M74			Yes	** NA **	None
4	M97		BenPIN	Yes	** NA **	None
5	M98			Yes	** NA **	None
6	M99		BenPIN	Yes	** NA **	None
7	M100		BenPIN	Yes	** NA **	None
8	M75		BenPIN	Yes	** NA **	None
9	M101			Yes	** NA **	None
10	M76		BenPIN	Yes	** NA **	None
11	M55			Yes	** NA **	None
12	M71			Yes	** NA **	None
13	M70		BenPIN	Yes	** NA **	None
14	M95			Yes	** NA **	None
15	M77			Yes	** NA **	None
16	M69		BenPIN	Yes	** NA **	None
17	M72			Yes	** NA **	None
18	M61			Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
19	M64		BenPIN	Yes	** NA **	None
20	M62			Yes	** NA **	None
21	M63		BenPIN	Yes	** NA **	None
22	M82		BenPIN	Yes	** NA **	None
23	M73		BenPIN	Yes	** NA **	None
24	M56		BenPIN	Yes	** NA **	None
25	M10		BenPIN	Yes	Default	None
26	M33			Yes	Default	None
27	M28		BenPIN	Yes	Default	None
28	M34			Yes	Default	None
29	M41		BenPIN	Yes	Default	None
30	M20			Yes	Default	None
31	M29		BenPIN	Yes	Default	None
32	M9		BenPIN	Yes	Default	None
33	M1			Yes	Default	None
34	M42		BenPIN	Yes	Default	None
35	M2			Yes	Default	None
36	M21			Yes	Default	None
37	M45			Yes	** NA **	None
38	M16			Yes		None
39	M18			Yes		None
40	M14			Yes		None
41	M13			Yes	** NA **	None
42	M32			Yes	** NA **	None
43	M104			Yes	** NA **	None
44	M105			Yes	** NA **	None
45	M102			Yes	** NA **	None
46	M103			Yes	** NA **	None
47	M19			Yes		None
48	M17			Yes		None
49	M78			Yes	** NA **	None
50	M81			Yes	** NA **	None
51	M79			Yes	** NA **	None
52	M80			Yes	** NA **	None
53	M67			Yes	** NA **	None
54	M65			Yes	** NA **	None
55	M57			Yes	** NA **	None
56	M15			Yes		None
57	M66			Yes	** NA **	None
58	M106	BenPIN	BenPIN	Yes	Default	None
59	M107	BenPIN	BenPIN	Yes	Default	None
60	M108	BenPIN	BenPIN	Yes	Default	None
61	M60			Yes	Default	None
62	M59			Yes	Default	None
63	M58			Yes	Default	None
64	M7	BenPIN	BenPIN	Yes		None
65	M39	BenPIN	BenPIN	Yes	Default	None
66	M8	BenPIN	BenPIN	Yes		None
67	M26	BenPIN	BenPIN	Yes		None
68	M40	BenPIN	BenPIN	Yes	Default	None
69	M27	BenPIN	BenPIN	Yes		None
70	M11			Yes	Default	None
71	M12			Yes	Default	None
72	M43			Yes	Default	None
73	M31			Yes	Default	None
74	M44			Yes	Default	None
75	M30			Yes	Default	None
76	M86	BenPIN		Yes	Default	None
77	M88	BenPIN		Yes	Default	None
78	M84	BenPIN		Yes	Default	None
79	M90	BenPIN		Yes	Default	None
80	M92	BenPIN		Yes	Default	None
81	M94	BenPIN		Yes	Default	None
82	M89			Yes	Default	None
83	M85			Yes	Default	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
84	M83			Yes	Default	None
85	M93			Yes	Default	None
86	M87			Yes	Default	None
87	M91			Yes	Default	None
88	M109			Yes	** NA **	None
89	M110			Yes	** NA **	None
90	M111			Yes	** NA **	None
91	M112			Yes	** NA **	None
92	M113			Yes	** NA **	None
93	M114			Yes	** NA **	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	Function
1	M10	PL 6"x3/8"	3.274			Lbyy	Lateral
2	M33	PL 6"x3/8"	5.651			Lbyy	Lateral
3	M28	PL 6"x3/8"	3.276			Lbyy	Lateral
4	M34	PL 6"x3/8"	5.664			Lbyy	Lateral
5	M41	PL 6"x3/8"	3.276			Lbyy	Lateral
6	M20	PL 6"x3/8"	5.651			Lbyy	Lateral
7	M29	PL 6"x3/8"	3.254			Lbyy	Lateral
8	M9	PL 6"x3/8"	3.275			Lbyy	Lateral
9	M1	PL 6"x3/8"	5.651			Lbyy	Lateral
10	M42	PL 6"x3/8"	3.274			Lbyy	Lateral
11	M2	PL 6"x3/8"	5.664			Lbyy	Lateral
12	M21	PL 6"x3/8"	5.664			Lbyy	Lateral
13	M45	PIPE_3.0	67			Lbyy	Lateral
14	M16	PIPE_3.0	150			Lbyy	Lateral
15	M18	PIPE_3.0	150			Lbyy	Lateral
16	M14	PIPE_3.0	150			Lbyy	Lateral
17	M13	PIPE_3.0	67			Lbyy	Lateral
18	M32	PIPE_3.0	67			Lbyy	Lateral
19	M104	PIPE_2.0	96			Lbyy	Lateral
20	M105	PIPE_2.0	96			Lbyy	Lateral
21	M102	PIPE_2.0	96			Lbyy	Lateral
22	M103	PIPE_2.0	96			Lbyy	Lateral
23	M19	PIPE_2.0	150	96	96	Lbyy	Lateral
24	M17	PIPE_2.0	150	96	96	Lbyy	Lateral
25	M78	PIPE_2.0	96			Lbyy	Lateral
26	M81	PIPE_2.0	96			Lbyy	Lateral
27	M79	PIPE_2.0	96			Lbyy	Lateral
28	M80	PIPE_2.0	96			Lbyy	Lateral
29	M67	PIPE_2.0	96			Lbyy	Lateral
30	M65	PIPE_2.0	96			Lbyy	Lateral
31	M57	PIPE_2.0	96			Lbyy	Lateral
32	M15	PIPE_2.0	150	96	96	Lbyy	Lateral
33	M66	PIPE_2.0	96			Lbyy	Lateral
34	M106	LL2.5x2.5x3x3	79.246			Lbyy	Lateral
35	M107	LL2.5x2.5x3x3	79.242			Lbyy	Lateral
36	M108	LL2.5x2.5x3x3	79.248			Lbyy	Lateral
37	M60	L5X3X4	21.616			Lbyy	Lateral
38	M59	L5X3X4	21.616			Lbyy	Lateral
39	M58	L5X3X4	21.609			Lbyy	Lateral
40	M7	L2x2x3	52.506			Lbyy	Lateral
41	M39	L2x2x3	52.505			Lbyy	Lateral
42	M8	L2x2x3	52.506			Lbyy	Lateral
43	M26	L2x2x3	52.51			Lbyy	Lateral
44	M40	L2x2x3	52.505			Lbyy	Lateral
45	M27	L2x2x3	52.51			Lbyy	Lateral
46	M11	C3.5"x2"x3/16"	31.809			Lbyy	Lateral
47	M12	C3.5"x2"x3/16"	31.822			Lbyy	Lateral
48	M43	C3.5"x2"x3/16"	31.812			Lbyy	Lateral
49	M31	C3.5"x2"x3/16"	31.821			Lbyy	Lateral
50	M44	C3.5"x2"x3/16"	31.818			Lbyy	Lateral
51	M30	C3.5"x2"x3/16"	31.81			Lbyy	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	Function
52	M86	6x0.375	2.504			Lbyy	Lateral
53	M88	6x0.375	2.509			Lbyy	Lateral
54	M84	6x0.375	2.52			Lbyy	Lateral
55	M90	6x0.375	2.529			Lbyy	Lateral
56	M92	6x0.375	2.504			Lbyy	Lateral
57	M94	6x0.375	2.517			Lbyy	Lateral
58	M89	2.38x0.375	1.391			Lbyy	Lateral
59	M85	2.38x0.375	1.391			Lbyy	Lateral
60	M83	2.38x0.375	1.4			Lbyy	Lateral
61	M93	2.38x0.375	1.391			Lbyy	Lateral
62	M87	2.38x0.375	1.4			Lbyy	Lateral
63	M91	2.38x0.375	1.4			Lbyy	Lateral
64	M109	PIPE_2.0	48			Lbyy	Lateral
65	M112	PIPE_2.0	48			Lbyy	Lateral
66	M114	PIPE_2.0	48			Lbyy	Lateral

Node Coordinates

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
1	N94	-0.000337	0.0006	0	
2	N5	-68.31552	-45.969978	0	
3	N6	-73.973028	-36.170886	0	
4	N7	-71.141199	-41.075759	0	
5	N8	-18.635181	-41.075759	0	
6	N9	-44.88819	4.395787	0	
7	N10	-31.763904	-18.341583	0	
8	N12	-73.98768	-32.8974	0	
9	N13	-65.486765	-47.620085	0	
10	N18	78.741714	-41.14663	0	
11	N19	78.741714	-41.14663	40	
12	N20	3.750773	88.762796	0	
13	N21	3.750773	88.762796	40	
14	N22	-3.736021	88.762087	0	
15	N23	-3.736021	88.762087	40	
16	N24	-78.745414	-41.136686	0	
17	N25	-78.745414	-41.136686	40	
18	N26	-75.001403	-47.620085	0	
19	N27	-75.001403	-47.620085	40	
20	N28	74.998931	-47.630738	0	
21	N29	74.998931	-47.630738	40	
22	N34	73.969738	-36.181539	0	
23	N35	68.312229	-45.980631	0	
24	N36	71.144059	-41.075759	0	
25	N37	44.889288	4.398839	0	
26	N38	18.634515	-41.075759	0	
27	N39	31.762733	-18.337021	0	
28	N41	65.501737	-47.620085	0	
29	N42	73.984401	-32.905371	0	
30	N44	60.871591	-47.620085	40	
31	N45	71.675958	-28.906374	40	
32	N51	-5.649928	82.146889	0	
33	N52	5.665089	82.146889	0	
34	N53	0.00143	82.146889	0	
35	N56	0.00143	36.675844	0	
36	N58	8.507337	80.522835	0	
37	N59	-8.494504	80.521504	0	
38	N156	-48.668129	10.937394	0	
39	N157	-14.857487	-47.624356	0	
40	N158	15.852462	-45.894416	0	
41	N159	47.667657	9.211114	0	
42	N160	33.812964	36.685013	0	
43	N161	-33.802735	36.685011	0	
44	N164	26.25415	36.675844	0	
45	N165	-26.25129	36.675844	0	
46	N54	-0.001228	15.146889	0	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
47	N55	-13.117295	-7.576108	0	
48	N57	13.121581	-7.573639	0	
49	N103	-73.243533	-31.608711	0	
50	N105	-75.834311	-30.112925	0	
51	N110	-73.243533	-31.608711	40	
52	N112	-75.834311	-30.112925	40	
53	N113	-75.834311	-30.112925	60	
54	N118	-75.834311	-30.112925	-36	
55	N180	48.367657	10.42355	0	
56	N181	47.58878	12.820685	0	
57	N179	15.156769	-47.099394	0	
58	N183	12.707112	-47.620085	0	
59	N182	31.819499	36.675843	0	
60	N184	-33.210887	36.675844	0	
61	N185	-31.810887	36.675844	0	
62	N186	33.210887	36.675844	0	
63	N187	-34.889454	34.811607	0	
64	N188	34.903229	34.796309	0	
65	N189	-47.671961	9.218573	0	
66	N190	-15.156769	-47.099394	0	
67	N191	-15.856769	-45.886959	0	
68	N192	-48.367657	10.42355	0	
69	N193	-12.707112	-47.620085	0	
70	N194	-47.589782	12.817601	0	
71	N81	-36.741412	31.6053	0	
72	N82	-39.336311	33.103466	0	
73	N83	-39.336311	33.103466	40	
74	N84	-36.741412	31.6053	40	
75	N85	-39.336311	33.103466	-36	
76	N86	-39.336311	33.103466	60	
77	N87	-8.740255	80.096774	0	
78	N88	-11.338598	81.596927	0	
79	N89	-11.338598	81.596927	40	
80	N90	-8.740255	80.096774	40	
81	N91	-11.338598	81.596927	-36	
82	N92	-11.338598	81.596927	60	
83	N93	10.814308	76.526387	40	
84	N95	-10.801464	76.526387	40	
85	N96	-71.679519	-28.900205	40	
86	N97	-60.871591	-47.620085	40	
87	N98	-65.334311	-11.926391	60	
88	N99	-62.742795	-13.422604	0	
89	N100	-65.334311	-11.926391	0	
90	N101	-62.742795	-13.422604	40	
91	N102	-65.334311	-11.926391	40	
92	N104	-65.334311	-11.926391	-36	
93	N106	-11.338598	81.596927	57	
94	N107	-65.334311	-11.926391	-24	
95	N108	-39.336311	33.103466	9	
96	N109	-65.334311	-11.926391	54	
97	N111	-39.336311	33.103466	57	
98	N114	-39.336311	33.103466	27	
99	N115	-39.336311	33.103466	-21	
100	N116	-11.338598	81.596927	-21	
101	N117	63.995713	-50.617977	60	
102	N119	-49.995713	-47.620085	0	
103	N120	5.999713	-50.617977	9	
104	N121	-49.995713	-50.617977	0	
105	N122	-49.995713	-50.617977	40	
106	N123	-49.995713	-47.620085	40	
107	N124	57.995713	-50.617977	60	
108	N125	63.995713	-47.620085	0	
109	N126	63.995713	-50.617977	0	
110	N127	63.995713	-47.620085	40	
111	N128	63.995713	-50.617977	40	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
112	N129	57.995713	-50.617977	-36	
113	N130	57.995713	-47.620085	0	
114	N131	57.995713	-50.617977	0	
115	N132	57.995713	-47.620085	40	
116	N133	57.995713	-50.617977	40	
117	N134	5.999713	-47.620085	0	
118	N135	57.995713	-50.617977	-24	
119	N136	5.999713	-50.617977	0	
120	N137	5.999713	-50.617977	40	
121	N138	5.999713	-47.620085	40	
122	N139	57.995713	-50.617977	54	
123	N140	-49.995713	-50.617977	-36	
124	N141	63.995713	-50.617977	-36	
125	N142	5.999713	-50.617977	-36	
126	N143	5.999713	-50.617977	60	
127	N144	-49.995713	-50.617977	60	
128	N145	5.999713	-50.617977	57	
129	N146	5.999713	-50.617977	27	
130	N147	5.999713	-50.617977	-21	
131	N148	-49.995713	-50.617977	57	
132	N149	-49.995713	-50.617977	-21	
133	N150	11.836454	80.734614	60	
134	N151	73.239949	-31.61573	0	
135	N153	75.836454	-30.116637	0	
136	N154	75.836454	-30.116637	40	
137	N155	73.239949	-31.61573	40	
138	N162	33.836454	42.629497	60	
139	N163	9.247822	79.240067	0	
140	N166	11.836454	80.734614	0	
141	N167	9.247822	79.240067	40	
142	N168	11.836454	80.734614	40	
143	N169	33.836454	42.629497	-36	
144	N170	31.245115	41.133386	0	
145	N171	33.836454	42.629497	0	
146	N172	31.245115	41.133386	40	
147	N173	33.836454	42.629497	40	
148	N174	51.242655	6.49095	0	
149	N176	53.836454	7.988481	0	
150	N177	53.836454	7.988481	40	
151	N178	51.242655	6.49095	40	
152	N196	75.836454	-30.116637	-36	
153	N197	11.836454	80.734614	-36	
154	N198	53.836454	7.988481	-36	
155	N199	53.836454	7.988481	60	
156	N200	75.836454	-30.116637	60	
157	N175	0.00143	73.146889	0	
158	N195	-0.001228	15.146889	-54	
159	N201	-13.116977	-7.574508	-54	
160	N202	-63.340709	-36.572206	0	
161	N203	13.118205	-7.572381	-54	
162	N204	63.348625	-36.574683	0	
163	N205	0.00143	24.679138	0	
164	N206	2.999626	24.679138	0	
165	N209	2.999626	24.679138	-12	
166	N210	2.999626	24.679138	36	
167	N207	-21.371562	-12.341645	0	
168	N208	-22.872573	-9.741816	0	
169	N211	-22.872573	-9.741816	-12	
170	N212	-22.872573	-9.741816	36	
171	N213	21.373499	-12.338288	0	
172	N214	19.872947	-14.937321	0	
173	N215	19.872947	-14.937321	-12	
174	N216	19.872947	-14.937321	36	
175	N217	19.872947	-14.937321	30	
176	N218	2.999626	24.679138	30	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
177	N219	-22.872573	-9.741816	30	
178	N220	2.999626	24.679138	6	
179	N221	19.872947	-14.937321	6	
180	N222	-22.872573	-9.741816	6	

Node Boundary Conditions

	Y [k/in]	X Rot [k-ft/rad]	X [k/in]	Z Rot [k-ft/rad]	Z [k/in]	Node Label	Y Rot [k-ft/rad]
1	Reaction	Reaction	Reaction	Reaction	Reaction	N57	Reaction
2	Reaction	Reaction	Reaction	Reaction	Reaction	N55	Reaction
3	Reaction	Reaction	Reaction	Reaction	Reaction	N54	Reaction
4	Reaction	Reaction	Reaction	Reaction	Reaction	N195	Reaction
5	Reaction	Reaction	Reaction	Reaction	Reaction	N201	Reaction
6	Reaction	Reaction	Reaction	Reaction	Reaction	N203	Reaction

Basic Load Cases

	BLC Description	Category	Z Gravity	Nodal	Distributed	Area(Member)
1	DEAD LOAD	None	-1	22		3
2	DEAD LOAD ICE	None		22	60	3
3	WIND LOAD (NO ICE) FRONT	None		22	60	
4	WIND LOAD (NO ICE) SIDE	None		22	60	
5	WIND LOAD (ICE) FRONT	None		22	60	
6	WIND LOAD (ICE) SIDE	None		22	60	
7	LIVE LOAD1	None		1		
8	LIVE LOAD2	None		1		
9	LIVE LOAD3	None		1		
10	MAINTENANCE LOAD1	None		1		
11	MAINTENANCE LOAD2	None		1		
12	MAINTENANCE LOAD3	None		1		
13	MAINTENANCE LOAD4	None		1		
14	BLC 1 Transient Area Loads	None			58	
15	BLC 2 Transient Area Loads	None			58	

Node Loads and Enforced Displacements (BLC 1 : DEAD LOAD)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N139	L	Z	-121
2	N135	L	Z	-121
3	N109	L	Z	-121
4	N107	L	Z	-121
5	N145	L	Z	-34
6	N146	L	Z	-34
7	N111	L	Z	-34
8	N114	L	Z	-34
9	N120	L	Z	-41
10	N147	L	Z	-41
11	N108	L	Z	-41
12	N115	L	Z	-41
13	N148	L	Z	-115
14	N149	L	Z	-115
15	N106	L	Z	-115
16	N116	L	Z	-115
17	N217	L	Z	-8
18	N219	L	Z	-8
19	N218	L	Z	-8
20	N220	L	Z	-8
21	N221	L	Z	-8
22	N222	L	Z	-8

Node Loads and Enforced Displacements (BLC 2 : DEAD LOAD ICE)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N139	L	Z	-161
2	N135	L	Z	-161
3	N109	L	Z	-161
4	N107	L	Z	-161
5	N145	L	Z	-34
6	N146	L	Z	-34
7	N111	L	Z	-34
8	N114	L	Z	-34
9	N120	L	Z	-40
10	N147	L	Z	-40
11	N108	L	Z	-40
12	N115	L	Z	-40
13	N148	L	Z	-138
14	N149	L	Z	-138
15	N106	L	Z	-138
16	N116	L	Z	-138
17	N217	L	Z	-44
18	N219	L	Z	-44
19	N218	L	Z	-44
20	N220	L	Z	-44
21	N221	L	Z	-44
22	N222	L	Z	-44

Node Loads and Enforced Displacements (BLC 3 : WIND LOAD (NO ICE) FRONT)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N139	L	Y	249
2	N135	L	Y	249
3	N109	L	Y	147
4	N107	L	Y	147
5	N145	L	Y	63
6	N146	L	Y	63
7	N111	L	Y	32
8	N114	L	Y	32
9	N120	L	Y	66
10	N147	L	Y	66
11	N108	L	Y	44
12	N115	L	Y	44
13	N148	L	Y	225
14	N149	L	Y	225
15	N106	L	Y	145
16	N116	L	Y	145
17	N217	L	Y	78
18	N219	L	Y	45
19	N218	L	Y	45
20	N220	L	Y	45
21	N221	L	Y	78
22	N222	L	Y	45

Node Loads and Enforced Displacements (BLC 4 : WIND LOAD (NO ICE) SIDE)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N139	L	X	147
2	N135	L	X	147
3	N109	L	X	249
4	N107	L	X	249
5	N145	L	X	32
6	N146	L	X	32
7	N111	L	X	63
8	N114	L	X	63
9	N120	L	X	44
10	N147	L	X	44
11	N108	L	X	66
12	N115	L	X	66

Node Loads and Enforced Displacements (BLC 4 : WIND LOAD (NO ICE) SIDE) (Continued)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
13	N148	L	X	145
14	N149	L	X	145
15	N106	L	X	225
16	N116	L	X	225
17	N217	L	X	45
18	N219	L	X	78
19	N218	L	X	78
20	N220	L	X	78
21	N221	L	X	45
22	N222	L	X	78

Node Loads and Enforced Displacements (BLC 5 : WIND LOAD (ICE) FRONT)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N139	L	Y	43
2	N135	L	Y	43
3	N109	L	Y	29
4	N107	L	Y	29
5	N145	L	Y	12
6	N146	L	Y	12
7	N111	L	Y	7
8	N114	L	Y	7
9	N120	L	Y	12
10	N147	L	Y	12
11	N108	L	Y	9
12	N115	L	Y	9
13	N148	L	Y	39
14	N149	L	Y	39
15	N106	L	Y	28
16	N116	L	Y	28
17	N217	L	Y	14
18	N219	L	Y	9
19	N218	L	Y	9
20	N220	L	Y	9
21	N221	L	Y	14
22	N222	L	Y	9

Node Loads and Enforced Displacements (BLC 6 : WIND LOAD (ICE) SIDE)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N139	L	X	29
2	N135	L	X	29
3	N109	L	X	43
4	N107	L	X	43
5	N145	L	X	7
6	N146	L	X	7
7	N111	L	X	12
8	N114	L	X	12
9	N120	L	X	9
10	N147	L	X	9
11	N108	L	X	12
12	N115	L	X	12
13	N148	L	X	28
14	N149	L	X	28
15	N106	L	X	39
16	N116	L	X	39
17	N217	L	X	9
18	N219	L	X	14
19	N218	L	X	14
20	N220	L	X	14
21	N221	L	X	9
22	N222	L	X	14

Node Loads and Enforced Displacements (BLC 7 : LIVE LOAD1)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N53	L	Z	-250

Node Loads and Enforced Displacements (BLC 8 : LIVE LOAD2)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N7	L	Z	-250

Node Loads and Enforced Displacements (BLC 9 : LIVE LOAD3)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N36	L	Z	-250

Node Loads and Enforced Displacements (BLC 10 : MAINTENANCE LOAD1)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N141	L	Z	-500

Node Loads and Enforced Displacements (BLC 11 : MAINTENANCE LOAD2)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N129	L	Z	-500

Node Loads and Enforced Displacements (BLC 12 : MAINTENANCE LOAD3)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N142	L	Z	-500

Node Loads and Enforced Displacements (BLC 13 : MAINTENANCE LOAD4)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N140	L	Z	-500

Member Point Loads

No Data to Print...

Member Distributed Loads (BLC 2 : DEAD LOAD ICE)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M10	Z	-9	-9	0	%100
2	M33	Z	-9	-9	0	%100
3	M28	Z	-9	-9	0	%100
4	M34	Z	-9	-9	0	%100
5	M41	Z	-9	-9	0	%100
6	M20	Z	-9	-9	0	%100
7	M29	Z	-9	-9	0	%100
8	M9	Z	-9	-9	0	%100
9	M1	Z	-9	-9	0	%100
10	M42	Z	-9	-9	0	%100
11	M2	Z	-9	-9	0	%100
12	M21	Z	-9	-9	0	%100
13	M45	Z	-6	-6	0	%100
14	M16	Z	-6	-6	0	%100
15	M18	Z	-6	-6	0	%100
16	M14	Z	-6	-6	0	%100
17	M13	Z	-6	-6	0	%100
18	M32	Z	-6	-6	0	%100
19	M104	Z	-5	-5	0	%100
20	M105	Z	-5	-5	0	%100
21	M102	Z	-5	-5	0	%100
22	M103	Z	-5	-5	0	%100
23	M19	Z	-5	-5	0	%100

Member Distributed Loads (BLC 2 : DEAD LOAD ICE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
24	M17	Z	-5	-5	0	%100
25	M78	Z	-5	-5	0	%100
26	M81	Z	-5	-5	0	%100
27	M79	Z	-5	-5	0	%100
28	M80	Z	-5	-5	0	%100
29	M67	Z	-5	-5	0	%100
30	M65	Z	-5	-5	0	%100
31	M57	Z	-5	-5	0	%100
32	M15	Z	-5	-5	0	%100
33	M66	Z	-5	-5	0	%100
34	M109	Z	-5	-5	0	%100
35	M112	Z	-5	-5	0	%100
36	M114	Z	-5	-5	0	%100
37	M106	Z	-9	-9	0	%100
38	M107	Z	-9	-9	0	%100
39	M108	Z	-9	-9	0	%100
40	M60	Z	-7	-7	0	%100
41	M59	Z	-7	-7	0	%100
42	M58	Z	-7	-7	0	%100
43	M7	Z	-3	-3	0	%100
44	M39	Z	-3	-3	0	%100
45	M8	Z	-3	-3	0	%100
46	M26	Z	-3	-3	0	%100
47	M40	Z	-3	-3	0	%100
48	M27	Z	-3	-3	0	%100
49	M11	Z	-8	-8	0	%100
50	M12	Z	-8	-8	0	%100
51	M43	Z	-8	-8	0	%100
52	M31	Z	-8	-8	0	%100
53	M44	Z	-8	-8	0	%100
54	M30	Z	-8	-8	0	%100
55	M86	Z	-9	-9	0	%100
56	M88	Z	-9	-9	0	%100
57	M84	Z	-9	-9	0	%100
58	M90	Z	-9	-9	0	%100
59	M92	Z	-9	-9	0	%100
60	M94	Z	-9	-9	0	%100

Member Distributed Loads (BLC 3 : WIND LOAD (NO ICE) FRONT)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M10	PY	32	32	0	%100
2	M33	PY	32	32	0	%100
3	M28	PY	32	32	0	%100
4	M34	PY	32	32	0	%100
5	M41	PY	32	32	0	%100
6	M20	PY	32	32	0	%100
7	M29	PY	32	32	0	%100
8	M9	PY	32	32	0	%100
9	M1	PY	32	32	0	%100
10	M42	PY	32	32	0	%100
11	M2	PY	32	32	0	%100
12	M21	PY	32	32	0	%100
13	M45	PY	11	11	0	%100
14	M16	PY	11	11	0	%100
15	M18	PY	11	11	0	%100
16	M14	PY	11	11	0	%100
17	M13	PY	11	11	0	%100
18	M32	PY	11	11	0	%100
19	M104	PY	8	8	0	%100
20	M105	PY	8	8	0	%100
21	M102	PY	8	8	0	%100
22	M103	PY	8	8	0	%100
23	M19	PY	8	8	0	%100
24	M17	PY	8	8	0	%100

Member Distributed Loads (BLC 3 : WIND LOAD (NO ICE) FRONT) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
25	M78	PY	8	8	0	%100
26	M81	PY	8	8	0	%100
27	M79	PY	8	8	0	%100
28	M80	PY	8	8	0	%100
29	M67	PY	8	8	0	%100
30	M65	PY	8	8	0	%100
31	M57	PY	8	8	0	%100
32	M15	PY	8	8	0	%100
33	M66	PY	8	8	0	%100
34	M109	PY	8	8	0	%100
35	M112	PY	8	8	0	%100
36	M114	PY	8	8	0	%100
37	M106	PY	14	14	0	%100
38	M107	PY	14	14	0	%100
39	M108	PY	14	14	0	%100
40	M60	PY	27	27	0	%100
41	M59	PY	27	27	0	%100
42	M58	PY	27	27	0	%100
43	M7	PY	11	11	0	%100
44	M39	PY	11	11	0	%100
45	M8	PY	11	11	0	%100
46	M26	PY	11	11	0	%100
47	M40	PY	11	11	0	%100
48	M27	PY	11	11	0	%100
49	M11	PY	19	19	0	%100
50	M12	PY	19	19	0	%100
51	M43	PY	19	19	0	%100
52	M31	PY	19	19	0	%100
53	M44	PY	19	19	0	%100
54	M30	PY	19	19	0	%100
55	M86	PY	32	32	0	%100
56	M88	PY	32	32	0	%100
57	M84	PY	32	32	0	%100
58	M90	PY	32	32	0	%100
59	M92	PY	32	32	0	%100
60	M94	PY	32	32	0	%100

Member Distributed Loads (BLC 4 : WIND LOAD (NO ICE) SIDE)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M10	PX	32	32	0	%100
2	M33	PX	32	32	0	%100
3	M28	PX	32	32	0	%100
4	M34	PX	32	32	0	%100
5	M41	PX	32	32	0	%100
6	M20	PX	32	32	0	%100
7	M29	PX	32	32	0	%100
8	M9	PX	32	32	0	%100
9	M1	PX	32	32	0	%100
10	M42	PX	32	32	0	%100
11	M2	PX	32	32	0	%100
12	M21	PX	32	32	0	%100
13	M45	PX	11	11	0	%100
14	M16	PX	11	11	0	%100
15	M18	PX	11	11	0	%100
16	M14	PX	11	11	0	%100
17	M13	PX	11	11	0	%100
18	M32	PX	11	11	0	%100
19	M104	PX	8	8	0	%100
20	M105	PX	8	8	0	%100
21	M102	PX	8	8	0	%100
22	M103	PX	8	8	0	%100
23	M19	PX	8	8	0	%100
24	M17	PX	8	8	0	%100
25	M78	PX	8	8	0	%100

Member Distributed Loads (BLC 4 : WIND LOAD (NO ICE) SIDE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
26	M81	PX	8	8	0	%100
27	M79	PX	8	8	0	%100
28	M80	PX	8	8	0	%100
29	M67	PX	8	8	0	%100
30	M65	PX	8	8	0	%100
31	M57	PX	8	8	0	%100
32	M15	PX	8	8	0	%100
33	M66	PX	8	8	0	%100
34	M109	PX	8	8	0	%100
35	M112	PX	8	8	0	%100
36	M114	PX	8	8	0	%100
37	M106	PX	14	14	0	%100
38	M107	PX	14	14	0	%100
39	M108	PX	14	14	0	%100
40	M60	PX	27	27	0	%100
41	M59	PX	27	27	0	%100
42	M58	PX	27	27	0	%100
43	M7	PX	11	11	0	%100
44	M39	PX	11	11	0	%100
45	M8	PX	11	11	0	%100
46	M26	PX	11	11	0	%100
47	M40	PX	11	11	0	%100
48	M27	PX	11	11	0	%100
49	M11	PX	19	19	0	%100
50	M12	PX	19	19	0	%100
51	M43	PX	19	19	0	%100
52	M31	PX	19	19	0	%100
53	M44	PX	19	19	0	%100
54	M30	PX	19	19	0	%100
55	M86	PX	32	32	0	%100
56	M88	PX	32	32	0	%100
57	M84	PX	32	32	0	%100
58	M90	PX	32	32	0	%100
59	M92	PX	32	32	0	%100
60	M94	PX	32	32	0	%100

Member Distributed Loads (BLC 5 : WIND LOAD (ICE) FRONT)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M10	PY	7.1	7.1	0	%100
2	M33	PY	7.1	7.1	0	%100
3	M28	PY	7.1	7.1	0	%100
4	M34	PY	7.1	7.1	0	%100
5	M41	PY	7.1	7.1	0	%100
6	M20	PY	7.1	7.1	0	%100
7	M29	PY	7.1	7.1	0	%100
8	M9	PY	7.1	7.1	0	%100
9	M1	PY	7.1	7.1	0	%100
10	M42	PY	7.1	7.1	0	%100
11	M2	PY	7.1	7.1	0	%100
12	M21	PY	7.1	7.1	0	%100
13	M45	PY	3.5	3.5	0	%100
14	M16	PY	3.5	3.5	0	%100
15	M18	PY	3.5	3.5	0	%100
16	M14	PY	3.5	3.5	0	%100
17	M13	PY	3.5	3.5	0	%100
18	M32	PY	3.5	3.5	0	%100
19	M104	PY	2.8	2.8	0	%100
20	M105	PY	2.8	2.8	0	%100
21	M102	PY	2.8	2.8	0	%100
22	M103	PY	2.8	2.8	0	%100
23	M19	PY	2.8	2.8	0	%100
24	M17	PY	2.8	2.8	0	%100
25	M78	PY	2.8	2.8	0	%100
26	M81	PY	2.8	2.8	0	%100

Member Distributed Loads (BLC 5 : WIND LOAD (ICE) FRONT) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
27	M79	PY	2.8	2.8	0	%100
28	M80	PY	2.8	2.8	0	%100
29	M67	PY	2.8	2.8	0	%100
30	M65	PY	2.8	2.8	0	%100
31	M57	PY	2.8	2.8	0	%100
32	M15	PY	2.8	2.8	0	%100
33	M66	PY	2.8	2.8	0	%100
34	M109	PY	2.8	2.8	0	%100
35	M112	PY	2.8	2.8	0	%100
36	M114	PY	2.8	2.8	0	%100
37	M106	PY	3.8	3.8	0	%100
38	M107	PY	3.8	3.8	0	%100
39	M108	PY	3.8	3.8	0	%100
40	M60	PY	6.2	6.2	0	%100
41	M59	PY	6.2	6.2	0	%100
42	M58	PY	6.2	6.2	0	%100
43	M7	PY	3.3	3.3	0	%100
44	M39	PY	3.3	3.3	0	%100
45	M8	PY	3.3	3.3	0	%100
46	M26	PY	3.3	3.3	0	%100
47	M40	PY	3.3	3.3	0	%100
48	M27	PY	3.3	3.3	0	%100
49	M11	PY	4.7	4.7	0	%100
50	M12	PY	4.7	4.7	0	%100
51	M43	PY	4.7	4.7	0	%100
52	M31	PY	4.7	4.7	0	%100
53	M44	PY	4.7	4.7	0	%100
54	M30	PY	4.7	4.7	0	%100
55	M86	PY	6.2	6.2	0	%100
56	M88	PY	6.2	6.2	0	%100
57	M84	PY	6.2	6.2	0	%100
58	M90	PY	6.2	6.2	0	%100
59	M92	PY	6.2	6.2	0	%100
60	M94	PY	6.2	6.2	0	%100

Member Distributed Loads (BLC 6 : WIND LOAD (ICE) SIDE)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M10	PX	7.1	7.1	0	%100
2	M33	PX	7.1	7.1	0	%100
3	M28	PX	7.1	7.1	0	%100
4	M34	PX	7.1	7.1	0	%100
5	M41	PX	7.1	7.1	0	%100
6	M20	PX	7.1	7.1	0	%100
7	M29	PX	7.1	7.1	0	%100
8	M9	PX	7.1	7.1	0	%100
9	M1	PX	7.1	7.1	0	%100
10	M42	PX	7.1	7.1	0	%100
11	M2	PX	7.1	7.1	0	%100
12	M21	PX	7.1	7.1	0	%100
13	M45	PX	3.5	3.5	0	%100
14	M16	PX	3.5	3.5	0	%100
15	M18	PX	3.5	3.5	0	%100
16	M14	PX	3.5	3.5	0	%100
17	M13	PX	3.5	3.5	0	%100
18	M32	PX	3.5	3.5	0	%100
19	M104	PX	2.8	2.8	0	%100
20	M105	PX	2.8	2.8	0	%100
21	M102	PX	2.8	2.8	0	%100
22	M103	PX	2.8	2.8	0	%100
23	M19	PX	2.8	2.8	0	%100
24	M17	PX	2.8	2.8	0	%100
25	M78	PX	2.8	2.8	0	%100
26	M81	PX	2.8	2.8	0	%100
27	M79	PX	2.8	2.8	0	%100

Member Distributed Loads (BLC 6 : WIND LOAD (ICE) SIDE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
28	M80	PX	2.8	2.8	0	%100
29	M67	PX	2.8	2.8	0	%100
30	M65	PX	2.8	2.8	0	%100
31	M57	PX	2.8	2.8	0	%100
32	M15	PX	2.8	2.8	0	%100
33	M66	PX	2.8	2.8	0	%100
34	M109	PX	2.8	2.8	0	%100
35	M112	PX	2.8	2.8	0	%100
36	M114	PX	2.8	2.8	0	%100
37	M106	PX	3.8	3.8	0	%100
38	M107	PX	3.8	3.8	0	%100
39	M108	PX	3.8	3.8	0	%100
40	M60	PX	6.2	6.2	0	%100
41	M59	PX	6.2	6.2	0	%100
42	M58	PX	6.2	6.2	0	%100
43	M7	PX	3.3	3.3	0	%100
44	M39	PX	3.3	3.3	0	%100
45	M8	PX	3.3	3.3	0	%100
46	M26	PX	3.3	3.3	0	%100
47	M40	PX	3.3	3.3	0	%100
48	M27	PX	3.3	3.3	0	%100
49	M11	PX	4.7	4.7	0	%100
50	M12	PX	4.7	4.7	0	%100
51	M43	PX	4.7	4.7	0	%100
52	M31	PX	4.7	4.7	0	%100
53	M44	PX	4.7	4.7	0	%100
54	M30	PX	4.7	4.7	0	%100
55	M86	PX	6.2	6.2	0	%100
56	M88	PX	6.2	6.2	0	%100
57	M84	PX	6.2	6.2	0	%100
58	M90	PX	6.2	6.2	0	%100
59	M92	PX	6.2	6.2	0	%100
60	M94	PX	6.2	6.2	0	%100

Member Distributed Loads (BLC 14 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M39	Z	-38.122	-12.228	8.1	10.117
2	M39	Z	-12.228	0.719	10.117	12.134
3	M39	Z	0.719	0.719	12.134	14.15
4	M39	Z	0.719	0.719	14.15	16.167
5	M39	Z	0.719	0.719	16.167	18.184
6	M39	Z	0.719	-10.19	18.184	20.201
7	M39	Z	-10.19	-16.505	20.201	22.218
8	M39	Z	-16.505	-5.595	22.218	24.235
9	M39	Z	-5.595	0.719	24.235	26.252
10	M39	Z	0.719	-5.596	26.252	28.269
11	M39	Z	-5.596	-16.508	28.269	30.286
12	M39	Z	-16.508	-10.193	30.286	32.302
13	M39	Z	-10.193	0.719	32.302	34.319
14	M39	Z	0.719	0.719	34.319	36.336
15	M39	Z	0.719	0.719	36.336	38.353
16	M39	Z	0.719	0.719	38.353	40.37
17	M39	Z	0.719	-12.234	40.37	42.387
18	M39	Z	-12.234	-38.14	42.387	44.404
19	M40	Z	-2.671	-3.947	10.501	31.503
20	M40	Z	-3.947	-5.224	31.503	52.505
21	M43	Z	-3.765	-3.765	20.106	31.812
22	M44	Z	-3.763	-3.763	0	11.709
23	M7	Z	-5.224	-3.948	0	21.002
24	M7	Z	-3.948	-2.671	21.002	42.005
25	M8	Z	-3.86	-3.86	14.839	37.67
26	M11	Z	-35.242	-11.381	13.656	15.845
27	M11	Z	-11.381	0.55	15.845	18.035
28	M11	Z	0.55	0.55	18.035	20.225

Member Distributed Loads (BLC 14 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
29	M11	Z	0.55	0.55	20.225	22.415
30	M11	Z	0.55	-9.502	22.415	24.605
31	M11	Z	-9.502	-15.318	24.605	26.794
32	M11	Z	-15.318	-6.848	26.794	28.984
33	M12	Z	-6.855	-15.325	2.835	5.024
34	M12	Z	-15.325	-9.505	5.024	7.212
35	M12	Z	-9.505	0.55	7.212	9.4
36	M12	Z	0.55	0.55	9.4	11.588
37	M12	Z	0.55	0.55	11.588	13.777
38	M12	Z	0.55	-11.383	13.777	15.965
39	M12	Z	-11.383	-35.25	15.965	18.153
40	M26	Z	-3.886	-3.886	14.984	37.858
41	M27	Z	-5.34	-3.996	0	21.004
42	M27	Z	-3.996	-2.651	21.004	42.008
43	M31	Z	-8.015	-17.456	2.83	4.748
44	M31	Z	-17.456	-10.814	4.748	6.665
45	M31	Z	-10.814	0.548	6.665	8.583
46	M31	Z	0.548	0.548	8.583	10.501
47	M31	Z	0.548	0.548	10.501	12.418
48	M31	Z	0.548	0.548	12.418	14.336
49	M31	Z	0.548	-12.936	14.336	16.253
50	M31	Z	-12.936	-39.904	16.253	18.171
51	M30	Z	-39.157	-12.7	13.558	15.479
52	M30	Z	-12.7	0.529	15.479	17.399
53	M30	Z	0.529	0.529	17.399	19.32
54	M30	Z	0.529	0.529	19.32	21.24
55	M30	Z	0.529	0.529	21.24	23.161
56	M30	Z	0.529	-10.858	23.161	25.081
57	M30	Z	-10.858	-17.474	25.081	27.002
58	M30	Z	-17.474	-7.935	27.002	28.923

Member Distributed Loads (BLC 15 : BLC 2 Transient Area Loads)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M39	Z	-39.335	-12.617	8.1	10.117
2	M39	Z	-12.617	0.742	10.117	12.134
3	M39	Z	0.742	0.742	12.134	14.15
4	M39	Z	0.742	0.742	14.15	16.167
5	M39	Z	0.742	0.742	16.167	18.184
6	M39	Z	0.742	-10.514	18.184	20.201
7	M39	Z	-10.514	-17.03	20.201	22.218
8	M39	Z	-17.03	-5.773	22.218	24.235
9	M39	Z	-5.773	0.742	24.235	26.252
10	M39	Z	0.742	-5.774	26.252	28.269
11	M39	Z	-5.774	-17.034	28.269	30.286
12	M39	Z	-17.034	-10.518	30.286	32.302
13	M39	Z	-10.518	0.742	32.302	34.319
14	M39	Z	0.742	0.742	34.319	36.336
15	M39	Z	0.742	0.742	36.336	38.353
16	M39	Z	0.742	0.742	38.353	40.37
17	M39	Z	0.742	-12.623	40.37	42.387
18	M39	Z	-12.623	-39.354	42.387	44.404
19	M40	Z	-2.756	-4.073	10.501	31.503
20	M40	Z	-4.073	-5.39	31.503	52.505
21	M43	Z	-3.885	-3.885	20.106	31.812
22	M44	Z	-3.883	-3.883	0	11.709
23	M7	Z	-5.39	-4.073	0	21.002
24	M7	Z	-4.073	-2.756	21.002	42.005
25	M8	Z	-3.983	-3.983	14.839	37.67
26	M11	Z	-36.364	-11.743	13.656	15.845
27	M11	Z	-11.743	0.567	15.845	18.035
28	M11	Z	0.567	0.567	18.035	20.225
29	M11	Z	0.567	0.567	20.225	22.415
30	M11	Z	0.567	-9.804	22.415	24.605
31	M11	Z	-9.804	-15.806	24.605	26.794

Member Distributed Loads (BLC 15 : BLC 2 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
32	M11	Z	-15.806	-7.066	26.794	28.984
33	M12	Z	-7.074	-15.813	2.835	5.024
34	M12	Z	-15.813	-9.808	5.024	7.212
35	M12	Z	-9.808	0.567	7.212	9.4
36	M12	Z	0.567	0.567	9.4	11.588
37	M12	Z	0.567	0.567	11.588	13.777
38	M12	Z	0.567	-11.746	13.777	15.965
39	M12	Z	-11.746	-36.372	15.965	18.153
40	M26	Z	-4.009	-4.009	14.984	37.858
41	M27	Z	-5.51	-4.123	0	21.004
42	M27	Z	-4.123	-2.736	21.004	42.008
43	M31	Z	-8.271	-18.012	2.83	4.748
44	M31	Z	-18.012	-11.159	4.748	6.665
45	M31	Z	-11.159	0.565	6.665	8.583
46	M31	Z	0.565	0.565	8.583	10.501
47	M31	Z	0.565	0.565	10.501	12.418
48	M31	Z	0.565	0.565	12.418	14.336
49	M31	Z	0.565	-13.348	14.336	16.253
50	M31	Z	-13.348	-41.175	16.253	18.171
51	M30	Z	-40.403	-13.104	13.558	15.479
52	M30	Z	-13.104	0.546	15.479	17.399
53	M30	Z	0.546	0.546	17.399	19.32
54	M30	Z	0.546	0.546	19.32	21.24
55	M30	Z	0.546	0.546	21.24	23.161
56	M30	Z	0.546	-11.203	23.161	25.081
57	M30	Z	-11.203	-18.031	25.081	27.002
58	M30	Z	-18.031	-8.188	27.002	28.923

Member Area Loads (BLC 1 : DEAD LOAD)

	Node A	Node B	Node C	Direction	Load Direction	Magnitude [psf]
1	N53	N165	N164	Z	Two Way	-5
2	N9	N7	N8	Z	Two Way	-5
3	N38	N36	N37	Z	Two Way	-5

Member Area Loads (BLC 2 : DEAD LOAD ICE)

	Node A	Node B	Node C	Direction	Load Direction	Magnitude [psf]
1	N53	N165	N164	Z	Two Way	-5.159
2	N9	N7	N8	Z	Two Way	-5.159
3	N38	N36	N37	Z	Two Way	-5.159

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	DL + WL (NO ICE) 0 Degree	Yes	Y	1	1.2			3	1		
2	DL + WL (NO ICE) 30 Degree	Yes	Y	1	1.2			3	0.866	4	0.5
3	DL + WL (NO ICE) 60 Degree	Yes	Y	1	1.2			3	0.5	4	0.866
4	DL + WL (NO ICE) 90 Degree	Yes	Y	1	1.2					4	1
5	DL + WL (NO ICE) 120 Degree	Yes	Y	1	1.2			3	-0.5	4	0.866
6	DL + WL (NO ICE) 150 Degree	Yes	Y	1	1.2			3	-0.866	4	0.5
7	DL + WL (NO ICE) 180 Degree	Yes	Y	1	1.2			3	-1		
8	DL + WL (NO ICE) 210 Degree	Yes	Y	1	1.2			3	-0.866	4	-0.5
9	DL + WL (NO ICE) 240 Degree	Yes	Y	1	1.2			3	-0.5	4	-0.866
10	DL + WL (NO ICE) 270 Degree	Yes	Y	1	1.2					4	-1
11	DL + WL (NO ICE) 300 Degree	Yes	Y	1	1.2			3	0.5	4	-0.866
12	DL + WL (NO ICE) 330 Degree	Yes	Y	1	1.2			3	0.866	4	-0.5
13	DL + DL ICE + WL (ICE) 0 Degree	Yes	Y	1	1.2	2	1	5	1		
14	DL + DL ICE + WL (ICE) 30 Degree	Yes	Y	1	1.2	2	1	5	0.866	6	0.5
15	DL + DL ICE + WL (ICE) 60 Degree	Yes	Y	1	1.2	2	1	5	0.5	6	0.866
16	DL + DL ICE + WL (ICE) 90 Degree	Yes	Y	1	1.2	2	1			6	1
17	DL + DL ICE + WL (ICE) 120 Degree	Yes	Y	1	1.2	2	1	5	-0.5	6	0.866
18	DL + DL ICE + WL (ICE) 150 Degree	Yes	Y	1	1.2	2	1	5	-0.866	6	0.5
19	DL + DL ICE + WL (ICE) 180 Degree	Yes	Y	1	1.2	2	1	5	-1		

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
20	DL + DL ICE + WL (ICE) 210 Degree	Yes	Y	1	1.2	2	1	5	-0.866	6	-0.5
21	DL + DL ICE + WL (ICE) 240 Degree	Yes	Y	1	1.2	2	1	5	-0.5	6	-0.866
22	DL + DL ICE + WL (ICE) 270 Degree	Yes	Y	1	1.2	2	1			6	-1
23	DL + DL ICE + WL (ICE) 300 Degree	Yes	Y	1	1.2	2	1	5	0.5	6	-0.866
24	DL + DL ICE + WL (ICE) 330 Degree	Yes	Y	1	1.2	2	1	5	0.866	6	-0.5
25	DEAD LOAD + LIVE LOAD1	Yes	Y	1	1.2					7	1.5
26	DEAD LOAD + LIVE LOAD2	Yes	Y	1	1.2					8	1.5
27	DEAD LOAD + LIVE LOAD3	Yes	Y	1	1.2					9	1.5
28	DL + MAIN L1+30MPH WL FRONT	Yes	Y	1	1.2	10	1.5	3	0.058		
29	DL + MAIN L2+30MPH WL FRONT	Yes	Y	1	1.2	11	1.5	3	0.058		
30	DL + MAIN L3+30MPH WL FRONT	Yes	Y	1	1.2	12	1.5	3	0.058		
31	DL + MAIN L4+30MPH WL FRONT	Yes	Y	1	1.2	13	1.5	3	0.058		
32	DL + MAIN L1+30MPH WL SIDE	Yes	Y	1	1.2	10	1.5	4	0.058		
33	DL + MAIN L2+30MPH WL SIDE	Yes	Y	1	1.2	11	1.5	4	0.058		
34	DL + MAIN L3+30MPH WL SIDE	Yes	Y	1	1.2	12	1.5	4	0.058		
35	DL + MAIN L4+30MPH WL SIDE	Yes	Y	1	1.2	13	1.5	4	0.058		
36	DL + MAIN L1+30MPH WL FRONT (REVERSED)	Yes	Y	1	1.2	10	1.5	3	-0.058		
37	DL + MAIN L2+30MPH WL FRONT (REVERSED)	Yes	Y	1	1.2	11	1.5	3	-0.058		
38	DL + MAIN L3+30MPH WL FRONT (REVERSED)	Yes	Y	1	1.2	12	1.5	3	-0.058		
39	DL + MAIN L4+30MPH WL FRONT (REVERSED)	Yes	Y	1	1.2	13	1.5	3	-0.058		
40	DL + MAIN L1+30MPH WL SIDE (REVERSED)	Yes	Y	1	1.2	10	1.5	4	-0.058		
41	DL + MAIN L2+30MPH WL SIDE (REVERSED)	Yes	Y	1	1.2	11	1.5	4	-0.058		
42	DL + MAIN L3+30MPH WL SIDE (REVERSED)	Yes	Y	1	1.2	12	1.5	4	-0.058		
43	DL + MAIN L4+30MPH WL SIDE (REVERSED)	Yes	Y	1	1.2	13	1.5	4	-0.058		

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N57	max	1342.272	10	1911.477	6	371.721	23	-0.11	3	0.303	36	1.155	8
2		min	-2697.346	4	-1139.264	12	-4.042	5	-0.694	42	-0.012	12	-1.181	2
3	N55	max	2991.53	10	2190.829	8	682.153	14	-0.077	2	0.513	24	1.775	12
4		min	-1198.95	4	-1160.123	2	192.835	8	-0.52	38	0.047	39	-1.775	6
5	N54	max	1171.581	10	1607.797	7	340.458	18	0.213	16	0.477	23	1.55	4
6		min	-1176.906	4	-3168.915	1	46.779	30	-0.005	42	0.12	4	-1.528	10
7	N195	max	45.257	10	1773.416	13	1712.762	13	0	7	0.001	16	0.001	16
8		min	-45.274	4	293.324	7	268.048	7	0	13	0	10	0	10
9	N201	max	-449.224	3	-262.848	3	2194.531	21	0	7	0	7	0.001	31
10		min	-1982.823	21	-1144.022	21	473.918	3	0	31	0	31	0	7
11	N203	max	1575.888	17	-117.973	11	1756.854	17	0	7	0.001	28	0	7
12		min	198.079	11	-908.886	17	203.922	11	-0.001	28	0	7	-0.001	28
13	Totals:	max	4514.409	10	4565.578	7	6582.839	19						
14		min	-4514.469	4	-4565.593	1	3171.956	12						

Envelope Node Displacements

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
1	N94	max	0	43	0	43	0	43	0	43	0	43	0	43
2		min	0	1	0	1	0	1	0	1	0	1	0	1
3	N5	max	0.031	6	0.078	1	-0.003	4	1.975e-3	39	5.676e-3	31	6.383e-3	2
4		min	-0.031	12	-0.079	7	-0.049	43	-1.929e-3	12	-2.979e-3	6	-6.043e-3	8
5	N6	max	0.051	6	0.069	1	0.001	2	4.138e-3	31	3.729e-3	6	6.984e-3	10
6		min	-0.051	12	-0.07	7	-0.034	20	-3.351e-3	6	-2.321e-3	12	-7.326e-3	4
7	N7	max	0.04	6	0.07	12	-0.001	3	4.66e-3	31	5.462e-4	31	3.825e-4	8
8		min	-0.041	12	-0.071	6	-0.029	21	-2.871e-4	6	-2.252e-3	20	-3.648e-4	2
9	N8	max	0.039	6	0.019	12	-0.019	4	3.75e-3	7	9.93e-3	12	1.962e-3	2
10		min	-0.04	12	-0.019	6	-0.095	42	-3.361e-3	1	-3.37e-3	6	-1.867e-3	8
11	N9	max	0.009	2	0.043	12	-0.007	43	1.009e-3	11	7.136e-3	5	2.611e-3	10
12		min	-0.011	8	-0.044	6	-0.064	15	-6.233e-3	5	-4.753e-3	11	-2.699e-3	4
13	N10	max	0.018	6	0.031	12	-0.001	26	1.234e-3	42	7.491e-4	43	1.999e-3	6
14		min	-0.018	12	-0.031	6	-0.007	24	-1.988e-4	4	-1.958e-4	3	-1.992e-3	12
15	N12	max	0.073	5	0.069	1	0.014	31	2.194e-3	6	5.276e-3	5	1.159e-3	8
16		min	-0.073	11	-0.07	7	-0.041	20	-4.388e-3	12	-5.185e-3	11	-1.122e-3	2
17	N13	max	0.029	5	0.097	1	0	5	6.013e-3	6	3.096e-3	23	7.978e-4	6
18		min	-0.029	11	-0.097	7	-0.068	43	-5.332e-3	12	9.299e-4	5	-7.34e-4	12
19	N18	max	0.054	3	0.035	1	0.051	28	2.678e-3	8	4.361e-3	3	4.632e-4	1

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
20		min	-0.052	9	-0.033	7	-0.005	6	-2.599e-3	2	-4.922e-3	9	-4.103e-4	7
21	N19	max	0.154	3	0.151	1	0.043	11	3.276e-3	36	-1.333e-3	5	6.671e-3	8
22		min	-0.169	9	-0.157	7	-0.023	5	6.278e-6	12	-5.712e-3	40	-6.359e-3	2
23	N20	max	0.087	3	0.042	2	0.039	5	2.927e-3	9	4.53e-3	3	8.861e-4	10
24		min	-0.084	9	-0.04	8	-0.006	11	-2.704e-3	3	-4.537e-3	9	-9.259e-4	4
25	N21	max	0.229	4	0.139	2	0.039	7	2.877e-3	18	-1.539e-3	5	4.868e-3	4
26		min	-0.215	10	-0.13	8	-0.021	1	-2.126e-4	12	-4.294e-3	23	-5.632e-3	10
27	N22	max	0.087	4	0.043	12	-0.02	8	1.853e-3	5	1.509e-3	5	1.243e-3	9
28		min	-0.083	10	-0.046	6	-0.077	14	-1.881e-3	11	-3.016e-3	11	-1.321e-3	3
29	N23	max	0.223	4	0.159	1	0.013	8	2.077e-3	8	-6.687e-4	2	5.888e-3	5
30		min	-0.211	10	-0.142	7	-0.085	2	-4.32e-3	2	-4.e-3	20	-6.527e-3	11
31	N24	max	0.074	5	0.074	1	0.028	2	2.195e-3	6	5.276e-3	5	1.159e-3	8
32		min	-0.073	11	-0.075	7	-0.043	8	-4.387e-3	12	-5.185e-3	11	-1.122e-3	2
33	N25	max	0.192	5	0.239	1	0.025	3	2.467e-3	43	5.056e-3	31	9.54e-3	12
34		min	-0.202	11	-0.209	7	-0.059	9	-2.21e-3	3	9.303e-4	6	-9.925e-3	6
35	N26	max	0.029	5	0.103	1	0.009	5	6.013e-3	6	3.094e-3	23	7.992e-4	6
36		min	-0.029	11	-0.103	7	-0.039	43	-5.332e-3	12	9.286e-4	5	-7.353e-4	12
37	N27	max	0.146	4	0.258	1	0.035	3	5.404e-3	43	2.329e-3	4	9.769e-3	12
38		min	-0.158	10	-0.228	7	-0.114	43	-1.443e-3	3	-2.781e-3	10	-1.025e-2	6
39	N28	max	0.029	5	0.068	1	-0.007	10	4.343e-3	7	9.544e-4	5	5.217e-4	4
40		min	-0.029	11	-0.063	7	-0.104	32	-3.322e-3	1	-2.075e-3	11	-4.418e-4	10
41	N29	max	0.145	4	0.161	1	0.006	11	6.265e-3	32	2.055e-3	4	8.566e-3	7
42		min	-0.157	10	-0.17	7	-0.093	32	2.04e-3	12	-2.741e-3	10	-8.361e-3	1
43	N34	max	0.034	3	0.033	1	0.021	42	8.605e-3	28	1.937e-3	2	5.571e-3	10
44		min	-0.032	9	-0.031	7	-0.008	5	6.349e-4	8	-3.52e-3	8	-5.553e-3	4
45	N35	max	0.021	4	0.045	1	-0.015	10	4.781e-3	36	-7.52e-4	7	7.197e-3	6
46		min	-0.019	10	-0.043	7	-0.074	32	1.017e-3	12	-8.636e-3	28	-7.716e-3	12
47	N36	max	0.022	2	0.036	2	0.003	11	8.179e-3	32	1.583e-4	6	2.311e-4	8
48		min	-0.019	8	-0.034	8	-0.027	32	2.307e-3	9	-2.276e-3	29	-2.048e-4	2
49	N37	max	0.006	4	0.024	2	0.036	41	3.445e-3	3	5.604e-3	3	2.195e-3	10
50		min	-0.005	10	-0.024	8	0.011	5	-3.659e-3	9	-7.096e-3	9	-2.183e-3	4
51	N38	max	0.021	2	0.015	1	-0.03	4	4.541e-3	7	4.345e-3	6	2.636e-3	6
52		min	-0.018	8	-0.016	7	-0.107	42	-3.134e-3	1	-9.112e-3	12	-2.803e-3	12
53	N39	max	0.012	2	0.02	2	0.003	32	2.212e-3	42	-5.298e-4	12	1.233e-3	2
54		min	-0.011	8	-0.019	8	-0.004	42	6.385e-4	4	-1.285e-3	36	-1.175e-3	8
55	N41	max	0.029	5	0.068	1	-0.026	9	4.343e-3	7	9.532e-4	5	5.217e-4	4
56		min	-0.029	11	-0.063	7	-0.106	32	-3.322e-3	1	-2.076e-3	11	-4.418e-4	10
57	N42	max	0.053	3	0.033	1	0.049	28	2.677e-3	8	4.36e-3	3	4.628e-4	1
58		min	-0.05	9	-0.031	7	-0.001	6	-2.6e-3	2	-4.923e-3	9	-4.099e-4	7
59	N44	max	0.145	4	0.279	1	-0.031	11	6.384e-3	32	1.708e-3	4	8.614e-3	7
60		min	-0.157	10	-0.291	7	-0.092	33	1.774e-3	10	-2.557e-3	10	-8.363e-3	1
61	N45	max	0.211	3	0.195	1	0.03	40	3.241e-3	36	-1.44e-3	4	6.662e-3	8
62		min	-0.23	9	-0.204	7	-0.004	4	4.368e-4	12	-5.664e-3	40	-6.358e-3	2
63	N51	max	0.072	4	0.024	12	-0.015	8	4.288e-3	17	-1.905e-3	10	6.867e-3	6
64		min	-0.069	10	-0.024	6	-0.059	14	-3.712e-4	11	-6.277e-3	16	-6.267e-3	12
65	N52	max	0.072	4	0.022	2	0.019	6	2.641e-3	10	-1.813e-3	10	5.64e-3	2
66		min	-0.069	10	-0.02	8	-0.008	12	-4.497e-3	4	-6.095e-3	16	-5.592e-3	8
67	N53	max	0.072	4	0.004	1	0.001	7	-4.222e-5	7	-1.844e-3	10	3.789e-4	8
68		min	-0.069	10	-0.002	7	-0.025	13	-1.945e-3	13	-6.131e-3	16	-3.984e-4	2
69	N56	max	0.031	4	0.001	1	0.001	25	1.845e-4	25	-7.683e-4	43	1.676e-3	10
70		min	-0.03	10	-0.001	7	-0.002	17	-9.803e-6	6	-1.974e-3	15	-1.731e-3	4
71	N58	max	0.08	3	0.039	2	0.035	17	2.928e-3	9	4.531e-3	3	8.85e-4	10
72		min	-0.077	9	-0.037	8	-0.003	11	-2.703e-3	3	-4.536e-3	9	-9.247e-4	4
73	N59	max	0.078	4	0.044	12	-0.023	9	1.854e-3	5	1.508e-3	5	1.242e-3	9
74		min	-0.074	10	-0.046	6	-0.083	15	-1.88e-3	11	-3.016e-3	11	-1.32e-3	3
75	N156	max	0.056	4	0.047	1	-0.022	43	2.563e-3	5	5.411e-3	5	6.48e-4	5
76		min	-0.056	10	-0.048	7	-0.108	16	-3.663e-3	11	-5.863e-3	12	-6.865e-4	11
77	N157	max	0.029	5	0.056	1	-0.023	5	6.898e-3	7	1.394e-3	30	5.688e-4	8
78		min	-0.028	11	-0.055	7	-0.149	42	-6.328e-3	1	-5.399e-4	39	-5.463e-4	2
79	N158	max	0.021	4	0.024	1	-0.038	4	5.248e-3	7	5.459e-3	6	3.903e-3	6
80		min	-0.02	10	-0.024	7	-0.134	42	-4.164e-3	1	-1.097e-2	1	-4.183e-3	12
81	N159	max	0.02	4	0.024	1	0.041	41	4.172e-3	3	6.953e-3	3	3.214e-3	10
82		min	-0.019	10	-0.023	7	0.012	5	-4.568e-3	9	-8.582e-3	9	-3.193e-3	4
83	N160	max	0.046	3	0.027	1	0.032	32	3.397e-3	9	5.479e-3	3	4.473e-4	9
84		min	-0.045	9	-0.027	7	-0.002	9	-3.246e-3	3	-5.885e-3	9	-4.737e-4	3

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
85	N161	max	0.047	4	0.049	1	-0.032	10	3.135e-3	5	5.104e-3	5	7.344e-5	1
86		min	-0.044	10	-0.05	7	-0.121	16	-3.63e-3	11	-6.11e-3	11	-1.067e-4	7
87	N164	max	0.031	4	0.022	10	0.026	14	7.68e-3	9	-1.338e-4	25	1.848e-3	2
88		min	-0.031	10	-0.021	4	0.013	7	-6.437e-3	3	-7.985e-4	37	-1.833e-3	8
89	N165	max	0.032	4	0.027	3	-0.026	43	9.054e-3	5	-1.167e-3	39	2.704e-3	7
90		min	-0.031	10	-0.025	9	-0.08	15	-6.17e-3	11	-3.571e-3	14	-2.515e-3	1
91	N54	max	0	4	0	1	0	30	0	42	0	4	0	10
92		min	0	10	0	7	0	18	0	16	0	23	0	4
93	N55	max	0	4	0	2	0	8	0	38	0	39	0	6
94		min	0	10	0	8	0	14	0	2	0	24	0	12
95	N57	max	0	4	0	12	0	5	0	42	0	12	0	2
96		min	0	10	0	6	0	23	0	3	0	36	0	8
97	N103	max	0.073	5	0.068	1	0.012	31	2.2e-3	6	5.287e-3	5	1.159e-3	8
98		min	-0.072	11	-0.069	7	-0.043	19	-4.388e-3	12	-5.21e-3	11	-1.122e-3	2
99	N105	max	0.073	5	0.071	1	0.011	35	2.2e-3	6	5.287e-3	5	1.159e-3	8
100		min	-0.072	11	-0.072	7	-0.046	21	-4.388e-3	12	-5.21e-3	11	-1.122e-3	2
101	N110	max	0.284	5	0.279	1	-0.003	3	2.463e-3	43	5.059e-3	31	9.545e-3	12
102		min	-0.29	11	-0.251	7	-0.053	21	-2.214e-3	3	9.324e-4	6	-9.93e-3	6
103	N112	max	0.299	5	0.26	1	0.011	35	3.128e-3	7	5.958e-3	5	1.159e-3	8
104		min	-0.303	11	-0.232	7	-0.046	21	-4.194e-3	1	-5.605e-3	11	-1.122e-3	2
105	N113	max	0.419	5	0.345	1	0.011	35	3.177e-3	7	6.001e-3	5	1.159e-3	8
106		min	-0.416	11	-0.295	7	-0.046	21	-4.243e-3	1	-5.648e-3	11	-1.122e-3	2
107	N118	max	0.116	12	0.006	6	0.011	35	1.953e-3	6	5.039e-3	5	1.159e-3	8
108		min	-0.118	6	-0.092	24	-0.046	21	-4.14e-3	12	-4.963e-3	12	-1.122e-3	2
109	N180	max	0.026	4	0.023	1	0.041	41	4.261e-3	3	7.192e-3	3	6.855e-3	9
110		min	-0.026	10	-0.022	7	0.012	5	-4.739e-3	9	-8.815e-3	9	-6.873e-3	3
111	N181	max	0.043	4	0.025	1	0.04	29	3.293e-3	9	5.504e-3	3	1.437e-4	4
112		min	-0.042	10	-0.024	7	-0.001	8	-3.006e-3	3	-5.965e-3	9	-1.311e-4	10
113	N179	max	0.025	5	0.029	1	-0.04	4	5.396e-3	7	5.625e-3	6	9.265e-3	6
114		min	-0.024	11	-0.029	7	-0.141	42	-4.314e-3	1	-1.128e-2	1	-9.773e-3	12
115	N183	max	0.029	5	0.055	1	-0.035	6	7.268e-3	7	5.72e-4	33	3.796e-4	11
116		min	-0.028	11	-0.053	7	-0.162	30	-6.526e-3	1	-9.168e-4	43	-3.704e-4	5
117	N182	max	0.031	4	0.019	11	0.029	29	9.35e-3	9	-8.25e-5	25	2.97e-3	2
118		min	-0.031	10	-0.018	5	0.014	25	-7.932e-3	3	-7.789e-4	37	-2.955e-3	8
119	N184	max	0.032	4	0.04	2	-0.035	39	1.144e-2	5	-1.201e-3	39	8.897e-3	5
120		min	-0.031	10	-0.041	8	-0.105	14	-7.769e-3	11	-3.742e-3	14	-8.214e-3	11
121	N185	max	0.032	4	0.037	2	-0.033	39	1.11e-2	5	-1.186e-3	39	3.801e-3	6
122		min	-0.031	10	-0.037	8	-0.1	14	-7.543e-3	11	-3.665e-3	14	-3.478e-3	1
123	N186	max	0.031	4	0.02	12	0.03	41	9.623e-3	9	-3.974e-5	25	7.516e-3	3
124		min	-0.031	10	-0.02	6	0.014	25	-8.176e-3	3	-7.627e-4	37	-7.463e-3	9
125	N187	max	0.047	4	0.049	1	-0.033	10	3.159e-3	5	5.278e-3	5	1.223e-4	2
126		min	-0.045	10	-0.05	7	-0.121	16	-3.739e-3	11	-6.225e-3	11	-1.664e-4	8
127	N188	max	0.045	3	0.027	1	0.033	32	3.386e-3	9	5.472e-3	3	3.892e-4	9
128		min	-0.044	9	-0.026	7	-0.002	9	-3.22e-3	3	-5.892e-3	9	-4.133e-4	3
129	N189	max	0.024	3	0.044	1	-0.013	43	1.407e-3	11	8.833e-3	5	3.846e-3	10
130		min	-0.026	9	-0.045	7	-0.084	15	-7.323e-3	5	-5.684e-3	11	-4.015e-3	4
131	N190	max	0.031	5	0.029	1	-0.027	4	4.591e-3	7	1.256e-2	12	9.588e-3	1
132		min	-0.031	11	-0.029	7	-0.129	42	-4.604e-3	1	-4.457e-3	6	-9.064e-3	7
133	N191	max	0.033	6	0.024	1	-0.025	4	4.346e-3	7	1.192e-2	12	3.196e-3	2
134		min	-0.034	12	-0.025	7	-0.122	42	-4.343e-3	1	-4.225e-3	6	-3.028e-3	8
135	N192	max	0.031	4	0.044	1	-0.015	43	1.468e-3	11	9.333e-3	5	9.161e-3	11
136		min	-0.032	10	-0.044	7	-0.089	15	-7.692e-3	5	-6.004e-3	11	-9.644e-3	5
137	N193	max	0.029	5	0.055	1	-0.024	5	6.965e-3	7	1.322e-3	30	5.135e-4	8
138		min	-0.028	11	-0.054	7	-0.152	42	-6.406e-3	1	-5.648e-4	39	-4.875e-4	2
139	N194	max	0.055	4	0.047	1	-0.024	43	2.6e-3	5	5.445e-3	5	5.965e-4	4
140		min	-0.054	10	-0.048	7	-0.109	16	-3.702e-3	11	-5.875e-3	11	-6.467e-4	10
141	N81	max	0.047	4	0.049	1	-0.033	10	3.187e-3	5	5.576e-3	5	2.189e-4	2
142		min	-0.045	10	-0.05	7	-0.121	16	-3.949e-3	12	-6.428e-3	11	-2.813e-4	9
143	N82	max	0.047	4	0.048	1	-0.038	39	3.187e-3	5	5.576e-3	5	2.189e-4	2
144		min	-0.045	10	-0.049	7	-0.121	14	-3.949e-3	12	-6.428e-3	11	-2.813e-4	9
145	N83	max	0.472	5	0.345	12	-0.038	39	7.781e-3	5	1.335e-2	5	2.189e-4	2
146		min	-0.484	11	-0.314	6	-0.122	14	-8.1e-3	11	-1.376e-2	11	-2.813e-4	9
147	N84	max	0.477	5	0.334	12	-0.042	39	9.149e-4	8	1.031e-3	31	4.362e-3	6
148		min	-0.489	11	-0.303	6	-0.115	14	-2.049e-3	2	-1.885e-3	19	-4.253e-3	12
149	N85	max	0.171	12	0.079	4	-0.038	39	2.775e-3	5	4.633e-3	5	2.189e-4	2

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
150		min	-0.138	6	-0.107	10	-0.121	14	-3.532e-3	11	-5.484e-3	11	-2.813e-4	9
151	N86	max	0.746	5	0.501	12	-0.038	39	7.936e-3	5	1.383e-2	5	2.189e-4	2
152		min	-0.766	11	-0.464	6	-0.122	14	-8.255e-3	11	-1.424e-2	11	-2.813e-4	9
153	N87	max	0.077	4	0.044	12	-0.023	9	1.855e-3	5	1.51e-3	5	1.242e-3	9
154		min	-0.074	10	-0.046	6	-0.084	15	-1.884e-3	11	-3.019e-3	11	-1.32e-3	3
155	N88	max	0.079	4	0.044	12	-0.025	8	1.855e-3	5	1.51e-3	5	1.242e-3	9
156		min	-0.075	10	-0.046	6	-0.087	14	-1.884e-3	11	-3.019e-3	11	-1.32e-3	3
157	N89	max	0.261	4	0.188	12	-0.025	8	4.061e-3	6	7.401e-3	4	1.242e-3	9
158		min	-0.254	10	-0.166	6	-0.088	14	-3.945e-3	12	-7.102e-3	10	-1.32e-3	3
159	N90	max	0.269	4	0.174	12	-0.02	8	2.08e-3	8	-6.703e-4	2	5.893e-3	5
160		min	-0.263	10	-0.154	6	-0.075	13	-4.318e-3	2	-4.004e-3	20	-6.531e-3	11
161	N91	max	0.142	3	0.071	2	-0.025	8	1.721e-3	3	9.988e-4	8	1.242e-3	9
162		min	-0.085	9	-0.074	8	-0.087	14	-1.74e-3	9	-2.502e-3	2	-1.32e-3	3
163	N92	max	0.436	4	0.282	12	-0.025	8	5.106e-3	6	9.248e-3	4	1.242e-3	9
164		min	-0.423	10	-0.263	6	-0.088	14	-4.991e-3	12	-8.949e-3	10	-1.32e-3	3
165	N93	max	0.288	4	0.149	2	0.019	7	2.812e-3	19	-1.762e-3	35	4.857e-3	4
166		min	-0.284	10	-0.145	8	-0.003	1	1.686e-4	1	-4.162e-3	23	-5.615e-3	10
167	N95	max	0.288	4	0.185	12	-0.031	7	1.333e-3	8	-1.473e-3	1	6.032e-3	5
168		min	-0.284	10	-0.164	6	-0.073	13	-3.211e-3	2	-4.119e-3	20	-6.772e-3	11
169	N96	max	0.31	5	0.291	1	-0.008	35	2.291e-3	43	5.016e-3	31	9.566e-3	12
170		min	-0.315	11	-0.263	7	-0.056	22	-1.875e-3	3	9.667e-4	6	-9.882e-3	6
171	N97	max	0.146	4	0.385	12	0.002	3	5.404e-3	43	2.338e-3	4	9.784e-3	12
172		min	-0.158	10	-0.361	6	-0.106	43	-1.443e-3	3	-2.772e-3	10	-1.026e-2	6
173	N98	max	0.736	5	0.505	12	-0.009	39	7.925e-3	6	1.46e-2	5	1.046e-3	7
174		min	-0.728	11	-0.457	6	-0.084	13	-9.006e-3	12	-1.406e-2	11	-1.031e-3	1
175	N99	max	0.069	5	0.058	1	-0.008	43	2.354e-3	6	5.373e-3	6	1.046e-3	7
176		min	-0.068	11	-0.058	7	-0.081	16	-4.096e-3	12	-5.624e-3	12	-1.031e-3	1
177	N100	max	0.068	5	0.06	1	-0.009	39	2.354e-3	6	5.373e-3	6	1.046e-3	7
178		min	-0.068	11	-0.061	7	-0.083	13	-4.096e-3	12	-5.624e-3	12	-1.031e-3	1
179	N101	max	0.439	5	0.342	12	-0.021	39	1.633e-3	43	3.885e-3	31	6.482e-3	11
180		min	-0.442	11	-0.316	6	-0.084	13	-2.36e-3	3	-4.297e-4	8	-6.473e-3	5
181	N102	max	0.449	5	0.328	12	-0.009	39	7.19e-3	6	1.338e-2	5	1.046e-3	7
182		min	-0.451	11	-0.302	6	-0.084	13	-8.27e-3	12	-1.285e-2	11	-1.031e-3	1
183	N104	max	0.148	2	0.014	3	-0.009	39	4.693e-4	4	4.125e-3	7	1.046e-3	7
184		min	-0.139	8	-0.077	9	-0.084	13	-2.192e-3	10	-4.374e-3	1	-1.031e-3	1
185	N106	max	0.409	4	0.267	12	-0.025	8	5.106e-3	6	9.248e-3	4	1.242e-3	9
186		min	-0.396	10	-0.247	6	-0.088	14	-4.991e-3	12	-8.949e-3	10	-1.32e-3	3
187	N107	max	0.099	2	0.017	2	-0.009	39	4.693e-4	4	4.125e-3	7	1.046e-3	7
188		min	-0.093	8	-0.059	8	-0.084	13	-2.192e-3	10	-4.375e-3	1	-1.031e-3	1
189	N108	max	0.109	5	0.091	12	-0.038	39	5.755e-3	6	8.686e-3	5	2.189e-4	2
190		min	-0.113	11	-0.085	6	-0.121	14	-6.687e-3	12	-9.161e-3	11	-2.813e-4	9
191	N109	max	0.648	5	0.451	12	-0.009	39	7.924e-3	6	1.46e-2	5	1.046e-3	7
192		min	-0.643	11	-0.41	6	-0.084	13	-9.005e-3	12	-1.406e-2	11	-1.031e-3	1
193	N111	max	0.704	5	0.478	12	-0.038	39	7.935e-3	5	1.383e-2	5	2.189e-4	2
194		min	-0.724	11	-0.441	6	-0.122	14	-8.255e-3	11	-1.424e-2	11	-2.813e-4	9
195	N114	max	0.303	5	0.237	12	-0.038	39	7.883e-3	6	1.232e-2	5	2.189e-4	2
196		min	-0.312	11	-0.213	6	-0.122	14	-8.686e-3	12	-1.252e-2	11	-2.813e-4	9
197	N115	max	0.09	12	0.046	4	-0.038	39	2.785e-3	5	4.651e-3	5	2.189e-4	2
198		min	-0.07	6	-0.063	10	-0.121	14	-3.542e-3	11	-5.502e-3	11	-2.813e-4	9
199	N116	max	0.106	3	0.049	2	-0.025	8	1.71e-3	3	9.885e-4	8	1.242e-3	9
200		min	-0.071	9	-0.051	8	-0.087	14	-1.729e-3	9	-2.491e-3	2	-1.32e-3	3
201	N117	max	0.185	4	0.359	1	-0.029	11	5.426e-3	7	2.099e-3	4	5.226e-4	4
202		min	-0.211	10	-0.373	7	-0.111	32	-5.343e-3	1	-2.794e-3	10	-4.421e-4	10
203	N119	max	0.029	5	0.086	1	-0.013	5	6.2e-3	6	2.379e-3	42	9.227e-4	6
204		min	-0.029	11	-0.085	7	-0.11	43	-5.451e-3	12	6.195e-4	5	-9.09e-4	12
205	N120	max	0.044	5	0.136	1	-0.044	4	1.134e-2	7	3.147e-3	4	4.151e-4	10
206		min	-0.045	11	-0.14	7	-0.168	42	-1.082e-2	1	-3.458e-3	10	-3.98e-4	4
207	N121	max	0.031	5	0.086	1	-0.021	3	6.2e-3	6	2.379e-3	42	9.227e-4	6
208		min	-0.031	11	-0.085	7	-0.115	43	-5.451e-3	12	6.195e-4	5	-9.09e-4	12
209	N122	max	0.138	4	0.479	12	-0.021	3	1.328e-2	6	2.711e-3	4	9.227e-4	6
210		min	-0.152	10	-0.462	6	-0.115	43	-1.425e-2	12	-3.069e-3	10	-9.09e-4	12
211	N123	max	0.146	4	0.479	12	-0.024	3	5.201e-3	43	2.711e-3	4	7.441e-3	12
212		min	-0.158	10	-0.462	6	-0.099	43	-8.952e-4	3	-3.069e-3	10	-7.948e-3	6
213	N124	max	0.196	4	0.508	1	-0.042	12	1.068e-2	7	2.725e-3	4	4.901e-4	4
214		min	-0.223	10	-0.524	7	-0.112	37	-1.056e-2	1	-3.495e-3	10	-4.149e-4	10

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
215	N125	max	0.029	5	0.068	1	-0.029	9	4.357e-3	7	9.673e-4	5	5.226e-4	4
216		min	-0.029	11	-0.064	7	-0.106	32	-3.331e-3	1	-2.077e-3	11	-4.421e-4	10
217	N126	max	0.03	5	0.068	1	-0.03	11	4.357e-3	7	9.673e-4	5	5.226e-4	4
218		min	-0.03	11	-0.064	7	-0.11	32	-3.331e-3	1	-2.077e-3	11	-4.421e-4	10
219	N127	max	0.145	4	0.253	1	-0.023	11	6.265e-3	32	2.05e-3	4	8.574e-3	7
220		min	-0.157	10	-0.265	7	-0.092	32	2.04e-3	12	-2.745e-3	10	-8.369e-3	1
221	N128	max	0.144	4	0.253	1	-0.029	11	5.377e-3	7	2.05e-3	4	5.226e-4	4
222		min	-0.155	10	-0.265	7	-0.111	32	-5.294e-3	1	-2.745e-3	10	-4.421e-4	10
223	N129	max	0.075	4	0.068	1	-0.042	12	1.364e-3	20	8.606e-4	9	4.901e-4	4
224		min	-0.037	10	-0.029	7	-0.113	37	6.179e-5	7	-1.904e-3	3	-4.149e-4	10
225	N130	max	0.029	5	0.067	1	-0.037	8	4.294e-3	7	7.64e-4	5	4.901e-4	4
226		min	-0.029	11	-0.064	7	-0.108	29	-3.283e-3	1	-1.811e-3	11	-4.149e-4	10
227	N131	max	0.03	5	0.067	1	-0.042	12	4.294e-3	7	7.64e-4	5	4.901e-4	4
228		min	-0.029	11	-0.064	7	-0.112	37	-3.283e-3	1	-1.811e-3	11	-4.149e-4	10
229	N132	max	0.145	4	0.303	1	-0.036	1	6.377e-3	32	1.882e-3	4	8.425e-3	7
230		min	-0.157	10	-0.316	7	-0.093	37	1.566e-3	10	-2.651e-3	10	-8.223e-3	1
231	N133	max	0.145	4	0.303	1	-0.042	12	9.28e-3	7	1.882e-3	4	4.901e-4	4
232		min	-0.157	10	-0.316	7	-0.112	37	-9.157e-3	1	-2.651e-3	10	-4.149e-4	10
233	N134	max	0.029	5	0.055	1	-0.033	5	7.739e-3	7	6.676e-4	33	4.151e-4	10
234		min	-0.028	11	-0.053	7	-0.165	42	-6.999e-3	1	-8.296e-4	43	-3.98e-4	4
235	N135	max	0.052	4	0.057	1	-0.042	12	1.367e-3	20	8.515e-4	9	4.901e-4	4
236		min	-0.027	10	-0.029	7	-0.113	37	7.135e-5	6	-1.894e-3	3	-4.149e-4	10
237	N136	max	0.027	5	0.055	1	-0.044	4	7.739e-3	7	6.676e-4	33	4.151e-4	10
238		min	-0.027	11	-0.053	7	-0.168	42	-6.999e-3	1	-8.296e-4	43	-3.98e-4	4
239	N137	max	0.153	4	0.59	1	-0.045	4	1.706e-2	7	1.295e-3	4	4.151e-4	10
240		min	-0.166	10	-0.603	7	-0.168	42	-1.687e-2	1	-1.293e-3	10	-3.98e-4	4
241	N138	max	0.145	4	0.59	1	-0.041	4	4.961e-3	42	1.295e-3	4	3.261e-3	5
242		min	-0.157	10	-0.603	7	-0.153	42	9.898e-4	3	-1.293e-3	10	-3.53e-3	11
243	N139	max	0.179	4	0.445	1	-0.042	12	1.068e-2	7	2.724e-3	4	4.901e-4	4
244		min	-0.202	10	-0.46	7	-0.112	37	-1.055e-2	1	-3.494e-3	10	-4.149e-4	10
245	N140	max	0.06	4	0.093	5	-0.021	3	3.583e-3	6	3.398e-3	10	9.227e-4	6
246		min	-0.135	10	-0.065	11	-0.116	43	-2.835e-3	12	-1.324e-3	4	-9.09e-4	12
247	N141	max	0.06	42	0.085	7	-0.03	11	4.071e-3	7	7.202e-4	5	5.226e-4	4
248		min	0.001	4	-0.044	1	-0.111	32	-3.045e-3	1	-1.83e-3	11	-4.421e-4	10
249	N142	max	0.03	35	0.195	7	-0.044	4	6.648e-3	7	6.484e-4	41	4.151e-4	10
250		min	-0.031	11	-0.166	1	-0.169	42	-5.909e-3	1	-8.105e-4	35	-3.98e-4	4
251	N143	max	0.183	4	0.935	1	-0.045	4	1.762e-2	7	1.598e-3	4	4.151e-4	10
252		min	-0.196	10	-0.952	7	-0.168	42	-1.743e-2	1	-1.596e-3	10	-3.98e-4	4
253	N144	max	0.21	4	0.788	12	-0.022	3	1.491e-2	7	3.916e-3	4	9.227e-4	6
254		min	-0.231	10	-0.751	6	-0.115	43	-1.59e-2	1	-4.275e-3	10	-9.09e-4	12
255	N145	max	0.178	4	0.883	1	-0.045	4	1.762e-2	7	1.598e-3	4	4.151e-4	10
256		min	-0.191	10	-0.899	7	-0.168	42	-1.743e-2	1	-1.596e-3	10	-3.98e-4	4
257	N146	max	0.116	4	0.378	1	-0.045	4	1.567e-2	7	3.9e-3	4	4.151e-4	10
258		min	-0.125	10	-0.388	7	-0.168	42	-1.542e-2	1	-4.358e-3	10	-3.98e-4	4
259	N147	max	0.025	5	0.095	7	-0.044	4	6.669e-3	7	6.473e-4	41	4.151e-4	10
260		min	-0.027	11	-0.077	1	-0.169	42	-5.929e-3	1	-8.093e-4	35	-3.98e-4	4
261	N148	max	0.199	4	0.741	12	-0.022	3	1.491e-2	7	3.916e-3	4	9.227e-4	6
262		min	-0.218	10	-0.707	6	-0.115	43	-1.59e-2	1	-4.275e-3	10	-9.09e-4	12
263	N149	max	0.043	5	0.054	3	-0.021	3	3.6e-3	6	3.377e-3	10	9.227e-4	6
264		min	-0.086	11	-0.037	9	-0.115	43	-2.852e-3	12	-1.304e-3	4	-9.09e-4	12
265	N150	max	0.36	4	0.196	2	0.034	19	2.365e-3	9	4.641e-3	4	8.846e-4	10
266		min	-0.348	10	-0.192	8	0	1	-2.401e-3	3	-4.384e-3	10	-9.245e-4	4
267	N151	max	0.052	3	0.033	1	0.048	28	2.68e-3	8	4.38e-3	3	4.629e-4	1
268		min	-0.05	9	-0.031	7	-0.001	6	-2.602e-3	2	-4.934e-3	9	-4.101e-4	7
269	N153	max	0.052	3	0.034	1	0.05	40	2.68e-3	8	4.38e-3	3	4.629e-4	1
270		min	-0.05	9	-0.032	7	0	5	-2.602e-3	2	-4.934e-3	9	-4.101e-4	7
271	N154	max	0.206	3	0.169	1	0.05	40	3.101e-3	7	3.629e-3	2	4.629e-4	1
272		min	-0.224	9	-0.176	7	0	5	-2.901e-3	1	-4.186e-3	8	-4.101e-4	7
273	N155	max	0.199	3	0.185	1	0.03	40	3.272e-3	36	-1.335e-3	5	6.676e-3	8
274		min	-0.217	9	-0.194	7	-0.007	5	2.615e-6	12	-5.714e-3	40	-6.364e-3	2
275	N162	max	0.5	4	0.281	2	0.031	37	4.79e-3	9	7.923e-3	3	5.514e-4	9
276		min	-0.522	10	-0.294	8	0.01	2	-4.549e-3	3	-8.303e-3	9	-5.828e-4	3
277	N163	max	0.079	3	0.039	2	0.035	17	2.937e-3	9	4.542e-3	3	8.846e-4	10
278		min	-0.076	9	-0.037	8	-0.003	11	-2.719e-3	3	-4.543e-3	9	-9.245e-4	4
279	N166	max	0.08	3	0.037	2	0.034	19	2.937e-3	9	4.542e-3	3	8.846e-4	10

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
280		min	-0.077	9	-0.035	8	0	1	-2.719e-3	3	-4.543e-3	9	-9.245e-4	4
281	N167	max	0.275	4	0.147	2	0.023	7	2.885e-3	18	-1.536e-3	5	4.874e-3	4
282		min	-0.269	10	-0.142	8	-0.006	1	-2.089e-4	12	-4.289e-3	23	-5.638e-3	10
283	N168	max	0.268	4	0.151	2	0.034	19	2.341e-3	9	4.592e-3	4	8.846e-4	10
284		min	-0.26	10	-0.147	8	0	1	-2.377e-3	3	-4.335e-3	10	-9.245e-4	4
285	N169	max	0.156	9	0.106	9	0.031	37	3.285e-3	9	5.256e-3	3	5.514e-4	9
286		min	-0.142	3	-0.1	3	0.01	2	-3.148e-3	3	-5.614e-3	9	-5.828e-4	3
287	N170	max	0.048	3	0.028	1	0.03	32	3.429e-3	9	5.505e-3	3	5.514e-4	9
288		min	-0.047	9	-0.027	7	-0.002	9	-3.291e-3	3	-5.862e-3	9	-5.828e-4	3
289	N171	max	0.049	3	0.027	1	0.031	37	3.429e-3	9	5.505e-3	3	5.514e-4	9
290		min	-0.048	9	-0.027	7	0.01	2	-3.291e-3	3	-5.862e-3	9	-5.828e-4	3
291	N172	max	0.341	4	0.195	2	0.018	37	2.893e-3	18	-1.669e-3	5	3.122e-3	1
292		min	-0.356	10	-0.202	8	0.003	2	2.201e-4	12	-4.652e-3	23	-3.451e-3	7
293	N173	max	0.342	4	0.201	2	0.031	37	4.765e-3	9	7.88e-3	3	5.514e-4	9
294		min	-0.357	10	-0.209	8	0.01	2	-4.524e-3	3	-8.26e-3	9	-5.828e-4	3
295	N174	max	0.044	4	0.025	1	0.041	28	3.336e-3	8	5.536e-3	3	2.209e-4	2
296		min	-0.043	10	-0.025	7	-0.002	8	-3.056e-3	2	-5.981e-3	9	-1.997e-4	8
297	N176	max	0.044	4	0.026	1	0.043	41	3.336e-3	8	5.536e-3	3	2.209e-4	2
298		min	-0.043	10	-0.025	7	0.007	4	-3.056e-3	2	-5.981e-3	9	-1.997e-4	8
299	N177	max	0.324	3	0.227	1	0.043	41	5.267e-3	8	7.697e-3	2	2.209e-4	2
300		min	-0.346	9	-0.238	7	0.007	4	-4.989e-3	2	-8.307e-3	8	-1.997e-4	8
301	N178	max	0.321	3	0.226	2	0.028	42	2.875e-3	18	-1.592e-3	4	3.409e-3	11
302		min	-0.343	9	-0.237	8	0	5	2.649e-4	12	-4.876e-3	22	-3.489e-3	5
303	N196	max	0.129	8	0.065	9	0.05	40	2.433e-3	8	4.143e-3	2	4.629e-4	1
304		min	-0.107	2	-0.06	3	0	5	-2.355e-3	2	-4.692e-3	8	-4.101e-4	7
305	N197	max	0.079	9	0.074	10	0.034	19	2.793e-3	9	4.294e-3	3	8.846e-4	10
306		min	-0.077	3	-0.065	4	0	1	-2.576e-3	3	-4.295e-3	9	-9.245e-4	4
307	N198	max	0.167	8	0.1	9	0.043	41	3.109e-3	9	5.288e-3	3	2.209e-4	2
308		min	-0.151	2	-0.089	3	0.007	4	-2.827e-3	3	-5.733e-3	9	-1.997e-4	8
309	N199	max	0.478	3	0.327	2	0.043	41	5.309e-3	8	7.722e-3	2	2.209e-4	2
310		min	-0.512	9	-0.343	8	0.007	4	-5.032e-3	2	-8.331e-3	8	-1.997e-4	8
311	N200	max	0.275	3	0.228	1	0.05	40	3.15e-3	7	3.654e-3	2	4.629e-4	1
312		min	-0.305	9	-0.239	7	0	5	-2.95e-3	1	-4.211e-3	8	-4.101e-4	7
313	N175	max	0.069	4	0.003	1	0.001	7	-2.305e-5	7	-1.65e-3	10	5.047e-4	9
314		min	-0.067	10	-0.002	7	-0.008	13	-1.458e-3	13	-5.305e-3	16	-5.343e-4	3
315	N195	max	0	4	0	7	0	7	0	13	0	10	0	10
316		min	0	10	0	13	0	13	0	7	0	16	0	16
317	N201	max	0	21	0	21	0	3	0	31	0	31	0	7
318		min	0	3	0	3	0	21	0	7	0	7	0	31
319	N202	max	0.038	6	0.067	12	0	3	3.909e-3	31	6.611e-4	31	5.543e-4	7
320		min	-0.04	12	-0.068	6	-0.01	21	-2.808e-4	6	-1.655e-3	20	-5.378e-4	1
321	N203	max	0	11	0	17	0	11	0	28	0	7	0	28
322		min	0	17	0	11	0	17	0	7	0	28	0	7
323	N204	max	0.022	2	0.037	2	0.001	11	6.891e-3	32	-1.945e-5	6	5.587e-5	8
324		min	-0.02	8	-0.036	8	-0.008	17	2.038e-3	9	-2.098e-3	30	-2.216e-5	2
325	N205	max	0.009	4	0.001	1	0	25	4.742e-5	25	-2.157e-4	4	1.473e-3	10
326		min	-0.009	10	0	7	-0.001	15	-1.215e-4	14	-8.596e-4	23	-1.501e-3	4
327	N206	max	0.009	4	0.005	10	0.002	10	4.742e-5	25	-2.157e-4	4	1.473e-3	10
328		min	-0.009	10	-0.004	4	0	4	-1.215e-4	14	-8.596e-4	23	-1.501e-3	4
329	N209	max	0.012	16	0.004	10	0.002	10	4.742e-5	25	-2.262e-4	4	1.473e-3	10
330		min	-0.001	10	-0.005	4	0	4	-1.183e-4	14	-8.564e-4	23	-1.501e-3	4
331	N210	max	0.062	4	0.042	1	0.002	10	1.453e-3	7	2.078e-3	4	1.473e-3	10
332		min	-0.093	10	-0.039	7	0	4	-1.545e-3	1	-2.935e-3	10	-1.501e-3	4
333	N207	max	0.005	6	0.009	12	-0.001	5	7.032e-4	38	1.529e-4	35	1.733e-3	6
334		min	-0.005	12	-0.009	6	-0.003	24	-3.218e-5	2	-4.038e-4	24	-1.732e-3	12
335	N208	max	0.001	5	0.012	12	0	39	7.032e-4	38	1.529e-4	35	1.733e-3	6
336		min	-0.001	11	-0.012	6	-0.003	24	-3.218e-5	2	-4.038e-4	24	-1.732e-3	12
337	N211	max	0.004	13	0.012	12	0	39	7.026e-4	38	1.527e-4	39	1.733e-3	6
338		min	-0.002	39	-0.01	6	-0.003	24	-2.303e-5	2	-4.019e-4	24	-1.732e-3	12
339	N212	max	0.059	4	0.05	1	0	39	1.666e-3	7	2.229e-3	4	1.733e-3	6
340		min	-0.072	10	-0.057	7	-0.003	24	-1.467e-3	1	-2.575e-3	10	-1.732e-3	12
341	N213	max	0.004	2	0.006	2	0	32	1.098e-3	38	-9.517e-5	2	1.119e-3	2
342		min	-0.003	8	-0.006	8	-0.002	42	1.599e-4	2	-5.564e-4	36	-1.088e-3	8
343	N214	max	0.006	2	0.004	2	-0.001	3	1.098e-3	38	-9.517e-5	2	1.119e-3	2
344		min	-0.006	8	-0.004	8	-0.005	42	1.599e-4	2	-5.564e-4	36	-1.088e-3	8

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
345	N215	max	0.008	2	0.013	30	-0.001	3	1.098e-3	38	-1.004e-4	2	1.119e-3	2
346		min	-0.003	8	0.004	6	-0.005	42	1.69e-4	2	-5.564e-4	36	-1.088e-3	8
347	N216	max	0.037	4	0.057	1	-0.001	3	2.943e-3	7	1.314e-3	4	1.119e-3	2
348		min	-0.05	10	-0.088	7	-0.005	42	-2.08e-3	1	-1.679e-3	10	-1.088e-3	8
349	N217	max	0.029	4	0.045	1	-0.001	3	2.941e-3	7	1.312e-3	4	1.119e-3	2
350		min	-0.039	10	-0.071	7	-0.005	42	-2.079e-3	1	-1.677e-3	10	-1.088e-3	8
351	N218	max	0.05	4	0.033	1	0.002	10	1.452e-3	7	2.076e-3	4	1.473e-3	10
352		min	-0.075	10	-0.03	7	0	4	-1.543e-3	1	-2.933e-3	10	-1.501e-3	4
353	N219	max	0.046	4	0.041	1	0	39	1.664e-3	7	2.227e-3	4	1.733e-3	6
354		min	-0.057	10	-0.047	7	-0.003	24	-1.466e-3	1	-2.574e-3	10	-1.732e-3	12
355	N220	max	0.011	4	0.005	11	0.002	10	5.753e-4	7	6.768e-4	4	1.473e-3	10
356		min	-0.016	10	-0.004	5	0	4	-6.665e-4	1	-1.534e-3	10	-1.501e-3	4
357	N221	max	0.007	2	0.006	2	-0.001	3	1.542e-3	7	4.357e-4	4	1.119e-3	2
358		min	-0.009	8	-0.011	8	-0.005	42	-6.79e-4	1	-8.005e-4	10	-1.088e-3	8
359	N222	max	0.003	4	0.013	12	0	39	7.876e-4	7	8.278e-4	4	1.733e-3	6
360		min	-0.005	10	-0.014	6	-0.003	24	-5.892e-4	1	-1.174e-3	10	-1.732e-3	12

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	M10	PL 6"x3/8"	0.097	0	5	0.211	0	y	11	69473.744	72900	0.57	9.113	1.668	H1-1b
2	M33	PL 6"x3/8"	0.228	0	12	0.259	0	y	16	63156.288	72900	0.57	9.113	1.334	H1-1b
3	M28	PL 6"x3/8"	0.053	0	4	0.169	0	y	3	69468.261	72900	0.57	9.113	1.669	H1-1b
4	M34	PL 6"x3/8"	0.216	0	2	0.142	0	y	10	63116.81	72900	0.57	9.113	1.281	H1-1b
5	M41	PL 6"x3/8"	0.087	0	5	0.138	0	y	12	69468.261	72900	0.57	9.113	1.668	H1-1b
6	M20	PL 6"x3/8"	0.198	0	4	0.139	0	y	8	63156.288	72900	0.57	9.113	1.296	H1-1b
7	M29	PL 6"x3/8"	0.115	0	1	0.16	0	y	6	69514.094	72900	0.57	9.113	1.668	H1-1b
8	M9	PL 6"x3/8"	0.084	0	1	0.178	0	y	7	69471.003	72900	0.57	9.113	1.669	H1-1b
9	M1	PL 6"x3/8"	0.226	0	8	0.252	0	y	31	63156.288	72900	0.57	9.113	1.324	H1-1b
10	M42	PL 6"x3/8"	0.054	0	2	0.177	0	y	3	69473.744	72900	0.57	9.113	1.669	H1-1b
11	M2	PL 6"x3/8"	0.24	0	10	0.245	0	y	6	63116.81	72900	0.57	9.113	1.322	H1-1b
12	M21	PL 6"x3/8"	0.244	0	6	0.313	0	y	28	63116.81	72900	0.57	9.113	1.332	H1-1b
13	M45	PIPE_3.0	0.278	67	4	0.154	8.375		15	55183.305	65205	5.749	5.749	2.231	H1-1b
14	M16	PIPE_3.0	0.111	117.188	3	0.093	62.5		11	28250.449	65205	5.749	5.749	2.07	H1-1b
15	M18	PIPE_3.0	0.196	25	43	0.085	87.5		6	28250.449	65205	5.749	5.749	2.832	H1-1b
16	M14	PIPE_3.0	0.051	87.5	4	0.05	89.063		6	28250.449	65205	5.749	5.749	2.668	H1-1b
17	M13	PIPE_3.0	0.323	67	12	0.133	8.375		43	55183.305	65205	5.749	5.749	2.166	H1-1b
18	M32	PIPE_3.0	0.212	67	2	0.204	8.375		32	55183.305	65205	5.749	5.749	2.167	H1-1b
19	M104	PIPE_2.0	0.266	60	6	0.03	60		6	14916.096	32130	1.872	1.872	1.908	H1-1b
20	M105	PIPE_2.0	0.19	60	6	0.02	60		6	14916.096	32130	1.872	1.872	2.07	H1-1b
21	M102	PIPE_2.0	0.192	60	12	0.02	60		12	14916.096	32130	1.872	1.872	1.969	H1-1b
22	M103	PIPE_2.0	0.273	60	6	0.03	60		6	14916.096	32130	1.872	1.872	2.036	H1-1b
23	M19	PIPE_2.0	0.304	26.563	11	0.21	137.5		4	14916.096	32130	1.872	1.872	1.637	H1-1b
24	M17	PIPE_2.0	0.279	10.938	2	0.111	137.5		8	14916.096	32130	1.872	1.872	2.281	H1-1b
25	M78	PIPE_2.0	0.228	60	4	0.021	60		4	14916.096	32130	1.872	1.872	2.232	H1-1b
26	M81	PIPE_2.0	0.39	60	10	0.033	60		10	14916.096	32130	1.872	1.872	2.224	H1-1b
27	M79	PIPE_2.0	0.412	60	12	0.043	60		10	14916.096	32130	1.872	1.872	2.104	H1-1b
28	M80	PIPE_2.0	0.294	60	7	0.028	60		7	14916.096	32130	1.872	1.872	1.886	H1-1b
29	M67	PIPE_2.0	0.343	60	8	0.034	60		8	14916.096	32130	1.872	1.872	1.843	H1-1b
30	M65	PIPE_2.0	0.34	60	2	0.029	60		2	14916.096	32130	1.872	1.872	1.838	H1-1b
31	M57	PIPE_2.0	0.402	60	3	0.046	60		2	14916.096	32130	1.872	1.872	2.173	H1-1b
32	M15	PIPE_2.0	0.285	15.625	6	0.039	12.5		5	14916.096	32130	1.872	1.872	3	H1-1b
33	M66	PIPE_2.0	0.25	60	8	0.026	60		8	14916.096	32130	1.872	1.872	2.002	H1-1b
34	M106	LL2.5x2.5x3x3	0.074	0	13	0.007	79.246	y	14	33441.034	58320	3.954	2.518	1	H1-1b*
35	M107	LL2.5x2.5x3x3	0.095	0	21	0.004	79.242	y	43	33443.137	58320	3.954	2.518	1.123	H1-1b*
36	M108	LL2.5x2.5x3x3	0.076	0	17	0.007	79.248	y	16	33440.357	58320	3.954	2.518	1.154	H1-1b*
37	M60	L5X3X4	0.226	0	7	0.041	21.616	z	11	50404.244	62856	1.939	5.529	1.5	H2-1
38	M59	L5X3X4	0.231	0	11	0.039	21.616	z	4	50404.262	62856	1.939	5.529	1.5	H2-1
39	M58	L5X3X4	0.268	21.609	7	0.04	21.609	z	36	50405.761	62856	1.939	5.529	1.5	H2-1
40	M7	L2x2x3	0.171	25.706	10	0.01	0	y	6	8952.783	23392.8	0.558	1.079	1.221	H2-1
41	M39	L2x2x3	0.164	26.253	2	0.013	52.505	z	3	8952.981	23392.8	0.558	1.074	1.194	H2-1
42	M8	L2x2x3	0.158	26.253	8	0.01	52.506	y	1	8952.784	23392.8	0.558	1.046	1.076	H2-1
43	M26	L2x2x3	0.173	26.255	6	0.015	52.51	z	1	8951.581	23392.8	0.558	1.046	1.076	H2-1
44	M40	L2x2x3	0.151	27.347	1	0.014	52.505	z	17	8952.981	23392.8	0.558	1.065	1.153	H2-1
45	M27	L2x2x3	0.155	25.708	4	0.012	0	z	2	8951.582	23392.8	0.558	1.082	1.234	H2-1

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
46	M11	C3.5"x2"x3/16"	0.368	31.809	14	0.083	5.301	z	1	35704.001	43393.709	1.617	4.601	1.578	H1-1b
47	M12	C3.5"x2"x3/16"	0.357	26.187	4	0.087	26.518	z	4	35700.21	43393.709	1.617	4.601	1.59	H1-1b
48	M43	C3.5"x2"x3/16"	0.309	5.633	6	0.073	5.302	z	6	35702.928	43393.709	1.617	4.601	1.665	H1-1b
49	M31	C3.5"x2"x3/16"	0.348	26.186	12	0.08	26.517	z	12	35700.577	43393.709	1.617	4.601	1.635	H1-1b
50	M44	C3.5"x2"x3/16"	0.282	26.184	2	0.062	26.515	z	8	35701.284	43393.709	1.617	4.601	1.589	H1-1b
51	M30	C3.5"x2"x3/16"	0.264	5.633	10	0.061	5.302	z	10	35703.634	43393.709	1.617	4.601	1.641	H1-1b
52	M86	6x0.375	0.138	2.504	1	0.127	2.504	y	38	70874.666	72900	0.57	9.113	1.672	H1-1b
53	M88	6x0.375	0.167	2.509	4	0.083	2.509	y	13	70867.971	72900	0.57	9.113	1.671	H1-1b
54	M84	6x0.375	0.08	2.52	2	0.101	2.52	y	34	70848.892	72900	0.57	9.113	1.674	H1-1b
55	M90	6x0.375	0.115	2.529	3	0.084	2.529	y	15	70834.962	72900	0.57	9.113	1.672	H1-1b
56	M92	6x0.375	0.172	2.504	1	0.203	2.504	y	20	70874.666	72900	0.57	9.113	1.669	H1-1b
57	M94	6x0.375	0.162	2.517	6	0.192	2.517	y	24	70854.091	72900	0.57	9.113	1.669	H1-1b
58	M89	2.38x0.375	0.561	0	3	0.059	1.391	z	8	28666.6	28917	0.226	1.434	1.104	H1-1b
59	M85	2.38x0.375	0.662	0	12	0.078	1.391	z	12	28666.6	28917	0.226	1.434	1.178	H1-1b
60	M83	2.38x0.375	0.473	0	3	0.059	1.4	z	9	28663.505	28917	0.226	1.434	1.1	H1-1b
61	M93	2.38x0.375	0.699	0	5	0.112	0	y	5	28666.6	28917	0.226	1.434	1.164	H1-1b
62	M87	2.38x0.375	0.626	0	5	0.07	1.4	z	6	28663.505	28917	0.226	1.434	1.179	H1-1b
63	M91	2.38x0.375	0.725	0	1	0.126	0	y	12	28663.505	28917	0.226	1.434	1.161	H1-1b
64	M109	PIPE_2.0	0.145	36	10	0.019	36		10	26521.424	32130	1.872	1.872	1	H1-1b
65	M112	PIPE_2.0	0.145	36	10	0.019	36		10	26521.424	32130	1.872	1.872	1	H1-1b
66	M114	PIPE_2.0	0.145	36	7	0.019	36		7	26521.424	32130	1.872	1.872	1.573	H1-1b

CALCULATION SHEET

MOUNT TO TOWER CONNECTION CHECK:

FORCES FROM ANALYSIS RESULTS:

$V_x := 123.713lbf$ Horizontal shear per connection

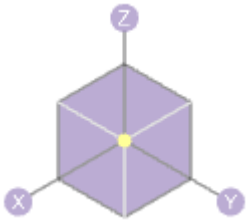
$V_y := 3168.915lbf$ Tension per connection

$V_z := 64.638lbf$ Vertical shear per connection

$M_x := 0.098kip \cdot ft$ Moment about X-axis

$M_y := 0.266kip \cdot ft$ Moment about Y-axis

$M_z := 0.187kip \cdot ft$ Moment about Z-axis



DIMENSIONS OF PLATE:

$H := 10in$ Height of Plate

$W := 10in$ Width of Plate

$T := 0.5in$ Thickness of Plate

$e := 2.5in$ Edge Distance of bolt

CONNECTION CHECK OF MOUNT TO TOWER:

Number of bolts per connection $n_{bolts} := 4$

Vertical shear per connection $V_z = 64.638\,lbf$

Horizontal shear per connection $V_x = 123.7\,lbf$

Total resultant shear per bolt $V_{max} := \frac{\sqrt{V_z^2 + V_x^2}}{n_{bolts}} = 0.03 \cdot kip$

Maximum tension per connection $T_{max} := \frac{V_y}{n_{bolts}} + \frac{M_z}{2(W - 2e)} + \frac{M_x}{2(W - 2e)} = 1134.2 \cdot lbf$

CALCULATION SHEET

CHECK BOLTS: MOUNT CONNECTION - Four bolts per support

Diameter of bolt : $d_b := \frac{5}{8}in$

Nominal unthreaded body area: $A_b := \frac{\pi}{4} \cdot d_b^{\,2} = 0.307 \cdot in^2$

Yiled Stress: $F_y := 92ksi$

Tensile Stress: $F_u := 120ksi$

Nominal tensile stress for A325 threaded rod: $F_{nt} := 0.75 \cdot F_u = 90 \cdot ksi$

Nominal shear stress for A325 threaded rod: $F_{nv} := 0.45 \cdot F_u = 54 \cdot ksi$

Resistance factor for mechanical connections : $\phi := 0.75$

Allowable tensile capacity per bolt : $T_n := (\phi \cdot F_{nt} \cdot A_b) = 20.7 \cdot kip$

Allowable shear capacity per bolt : $V_n := (\phi \cdot F_{nv} \cdot A_b) = 12.4 \cdot kip$

Actual tensile force per bolt : $T_{actual} := T_{max} = 1.134 \cdot kip$

Actual shear force per bolt : $V_{actual} := V_{max} = 0.035 \cdot kip$

Usage : $\frac{T_{actual}}{T_n} = 5.5 \cdot \%$ <100%...OK!

$\frac{V_{actual}}{V_n} = 0.3 \cdot \%$ <100%...OK!

CALCULATION SHEET

efi global

COMBINED TENSION AND SHEAR CHECK FOR BOLTS:

(Can be ignored when required stress, in either shear or tension, is less than or equal to 30% of the correspoding available stress)

$$f_v := \frac{V_{actual}}{A_b} = 0.114 \cdot ksi$$

Required Shear Stress

$$f_t := \frac{T_{actual}}{A_b} = 3.697 \cdot ksi$$

Required Tensile Stress

$$F_{nt1} := \min\left[1.3F_{nt} - \frac{(F_{nt}) \cdot f_v}{\phi \cdot F_{nv}}, F_{nt}\right] = 90 \cdot ksi$$

Equation J3.3a Section 16.1-125

$$T_n := F_{nt1} \cdot A_b \cdot \phi = 20.709 \cdot kip$$

$$\frac{T_{actual} + V_{actual}}{T_n} = 5.6 \cdot \%$$

<100%...OK!

CALCULATION SHEET

WELD CONNECTION:

Weld Properties

$b := 3.5in$ Width of HSS

$d := 3.5in$ Depth of HSS

$l_{weld} := \pi d = 10.996 \cdot in$ Length of Weld

$$S := \frac{\pi \cdot d^2}{4} = 9.621 \cdot in^2 \qquad I_p := \frac{\pi \cdot d^3}{4} = 33.674 \cdot in^3$$

Max Tensile Force on Weld:

$$P_{wy} := \frac{V_y}{l_{weld}} + \frac{M_x}{S} + \frac{M_z}{S} = 0.644 \cdot \frac{kip}{in}$$

Max Shear Force on Weld

$$P_{wx} := \frac{V_x}{l_{weld}} + \frac{M_y}{I_p} \cdot \frac{d}{2} = 0.177 \cdot \frac{kip}{in} \qquad P_{wz} := \frac{V_z}{l_{weld}} + \frac{M_y}{I_p} \cdot \frac{b}{2} = 0.172 \cdot \frac{kip}{in}$$

$$P_{w\_tot} := \sqrt{P_{wx}^2 + P_{wz}^2} = 0.247 \cdot \frac{kip}{in}$$

Max Applied Weld Force Per Inch:

$$P_{w\_max} := \sqrt{P_{wy}^2 + P_{w\_tot}^2} = 0.689 \cdot \frac{kip}{in}$$

Weld Sizing

Electrode Strength $F_{EXX} := 70 \cdot ksi$

Vertical fillet weld size - jump plate to leg (in sixteenths of an inch): $D_{vplate} := 6$ (Assumed)

$$Weldsizemax := T - \frac{1 \cdot in}{16} = 0.438 \cdot in > \quad Weldsize := \frac{D_{vplate} \cdot in}{16} = 0.375 \cdot in$$ Acceptable

Weld Capacity

$\phi_w := 0.75$ $\qquad \theta := \operatorname{atan}\left(\frac{P_{wy}}{P_{w\_tot}}\right) = 1.205$

$$F_w := 0.6 \cdot F_{EXX} \cdot \left[1 + 0.5 \left(\sin(\theta)\right)^{1.5}\right] = 60.948 \cdot ksi$$

$$\phi R_w := \phi_w \cdot (0.707 Weldsize) \cdot \left(F_w\right) = 12.119 \cdot \frac{kip}{in}$$

Interaction Capacity : $\frac{P_{w\_max}}{\phi R_w} = 5.7 \cdot \%$ <100%... OK!

CALCULATION SHEET

PLATE CHECK:

Dimensions of Plate

$H = 10 \cdot in$

$W = 10 \cdot in$

$T = 0.5 \cdot in$

$E_s := 29000ksi$

$F_y := 36ksi$

$\phi_n := 0.9$

$A_g := H \cdot T = 5 \cdot in^2$

$A_n := \left[H - 2 \cdot \left(d_b + \frac{1 \cdot in}{16}\right)\right] \cdot T = 4.313 \cdot in^2$ Net Section

$Z_p := W \cdot \frac{T^2}{4} = 0.625 \cdot in^3$

Moment Capacity

$\phi M_n := \phi_n \cdot F_y \cdot Z_p = 20.25 \cdot kip \cdot in$

Shear Capacity

$\phi := 1$ Yielding

$\phi R_{g1} := \phi \cdot 0.6 F_y \cdot A_g = 108 \cdot kip$

$\phi := 0.75$ Rupture

$\phi R_{n1} := \phi \cdot 0.6 F_u \cdot A_n = 232.875 \cdot kip$

$\phi R_n := \min\left(\phi R_{g1}, \phi R_{n1}\right) = 108 \cdot kip$

$M_u := \frac{M_x}{H - 2 \cdot e} \cdot \frac{H - b - 2e}{2} = 0.176 \cdot kip \cdot in$

Moment Capacity : $\frac{M_u}{\phi M_n} = 0.9 \cdot \%$ <100%... OK!

Shear Capacity : $\frac{V_y}{\phi R_n} = 2.934 \cdot \%$ <100%...OK!

CALCULATION SHEET

PRYING ACTION:

$T := \frac{V_y}{4} = 792.229\,lbf$ Tensile Force On Bolt

$b_1 := \frac{H}{2} - e - \frac{b}{2} = 0.75 \cdot in$ Effective Moment Arm

$p := H - 2e = 5 \cdot in$ Tributary Length

$F_u := 58ksi$

$t_{min} := \sqrt{\frac{4.44T \cdot b_1}{p \cdot F_u}} = 0.095 \cdot in$ < T=1in

No prying action. No further calculation required

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American Tower Corporation - Tower Operator/Owner

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June 27, 09:48AM
Naugatuck, CT

The Honorable N. Warren "Pete" Hess III - Mayor of the Borough of Naugatuck

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Lori Rotella - NaugatuckTown Planner/WEO

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June 24, 2022

Jacqueline Hall
Project Manager, Site Development
American Tower Corporation
10 Presidential Way
Woburn, MA 01801

Re: Notice of Exempt Modification – AT&T Mobility Site 13753218
AT&T Wireless Telecommunications Facility @ 585 South Main St., Naugatuck, CT 06770

Dear Ms. Hall:

AT&T Mobility ("AT&T") is proposing to modify a wireless telecommunications facility on an existing eighty nine (89) foot tall monopole tower at 585 South Main St, in Naugatuck, CT 06770 (Latitude: 41.47847032, Longitude: -73.04845171). The monopole tower is owned and operated by American Tower Corporation. The subject property is owned by The Office LLC. The eighty nine (89) foot tall monopole was approved by the Siting Council on 9/28/2017 in Petition number 1319.

AT&T proposes to remove six (6) existing antennas, four (4) RRH units, two (2) TMA's, four (4) diplexers, and eight (8) coax cables, and replace them with six (6) new panel antennas, two (2) RRH's and two (2) Y cables, as more particularly detailed and described on the enclosed Construction Drawings. The proposal involves minimal groundwork: removing four (4) diplexers and installing one 6630 IDLe, one (1) 6648 + XCEDE and two (2) rectifiers.

This letter is intended to serve as the required notice to the tower owner. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe AT&T's proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046

June 24, 2022

The Honorable N. Warren "Pete" Hess III
229 Church Street, 4th Floor
Naugatuck, CT 06770

Re: Notice of Exempt Modification – AT&T Mobility Site 13753218
AT&T Wireless Telecommunications Facility @ 585 South Main St., Naugatuck, CT 06770

Dear Mayor Hess:

AT&T Mobility ("AT&T") is proposing to modify a wireless telecommunications facility on an existing eighty nine (89) foot tall monopole tower at 585 South Main St, in Naugatuck, CT 06770 (Latitude: 41.47847032 Longitude: -73.04845171). The monopole tower is owned and operated by American Tower Corporation. The subject property is owned by The Office LLC.

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The eighty nine (89) foot tall monopole was approved by the Siting Council on 9/28/2017 in Petition number 1319.

This letter is intended to serve as the required notice to the chief elected official/municipal officer. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

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Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046

June 24, 2022

THE OFFICE LLC
137 RUELLA DRIVE
NAUGATUCK CT 06770

Re: Notice of Exempt Modification – AT&T Mobility Site 13753218
AT&T Wireless Telecommunications Facility @ 585 South Main St., Naugatuck, CT 06770

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Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046

June 24, 2022

Lori Rotella, Town Planner
Land Use Office, Borough of Naugatuck Town Hall
229 Church St., 2nd Floor
Naugatuck, CT 06770

Re: Notice of Exempt Modification – AT&T Mobility Site 13683394, Site # CT1009
AT&T Wireless Telecommunications Facility @ 699 West Street, Rocky Hill, CT 06067

Dear Ms. Ricci:

AT&T Mobility ("AT&T") is proposing to modify a wireless telecommunications facility on an existing one hundred (100) foot tall monopole tower at 699 West Street, in Rocky Hill, CT 06067 (Latitude: 41.65176772 Longitude: -72.66847905). The monopole tower is owned and operated by American Tower Corporation. The subject property is owned by Eversource (F/K/A Connecticut Power & Light).

AT&T proposes to remove three (3) existing antennas, six (6) RRH units, six (6) coax cables, two (2) DC cables, a fiber trunk and conduit, and replace them with twelve (12) new panel antennas at the existing centerline of one hundred three (103) feet on the existing one hundred (100) foot tall monopole, with nine (9) new RRH units, one (1) DC 9 squid, three (3) new cables and a fiber trunk. The proposal involves minimal groundwork: removing the BB Units, and installing a DC12, three (3) 6673 gateways, an MXU and a 6630 IDLe.

This letter is intended to serve as the required notice to the municipal planning agency. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe AT&T's proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046