0 Industrial Ave,
uite 3
Mahwah NJ 07430

hone: 201.684.0055
ax: 201.684.0066

Transcend Wireless

January 19, 2022

Members of the Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification
40 Sherman Road, Woodstock, CT 06281
Latitude: 41.97865275
Longitude: -72.09443573
T-Mobile Site#: CTNL184A - Microwave

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennas at the 105-foot level 140-foot Monopole at the existing facility at 40 Sherman Road in Woodstock, CT. The property is owned by Colin Hallquest. The tower is owned by American Tower. T-Mobile now intends to add (1) microwave dish and supporting equipment. The new antennas support 5G services and will be installed at the same 105-foot level of the monopole.

Planned Modifications:
Tower:
Install New:
(1) VHLP-11W/A MW Dish
(2) RFU-D-HPs
(2) .28" Control Cables
(2) .19" Fiber Cables

Existing to Remain:
(3) APXVAALL24_43-U-NA20 Antennas
(3) VV-65A-R1 Antennas
(3) AIR6449 B41 Antennas
(3) Radio 4480 B71
(3) Radio 4460 B2 B25
(3) 1.99" Hybrid Cables

This facility was originally approved by the Connecticut Siting Council on April 23, 2009 in Docket No. 369. A copy of the original decision of the facility is attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies§ 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.SA. § 16-SOj-73, a copy of this letter is being sent to First Selectman Jay Swan, Elected Official, and Dan Malo, Zoning Enforcement Officer, as well as the property and tower owner.

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

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading.

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

Sincerely,

Eric Breun
Transcend Wireless
Cell: 201-658-7728
Email: ebreun@transcendwireless.com

Attachments
cc: Jay Swan - First Selectman of Woodstock
Dan Malo - ZEO
Colin Mallquest - Property Owner
American Tower - Tower Owner

ERIC BREUN
2016587728
1 INTERNATIONAL BLVD.
MAHWAH NJ 07495

1 LBS

1 OF 1

SHIP TO:
COLIN HALLQUEST
117 SHERMAN ROAD
WOODSTOCK CT 06281

CT 063 0-02

UPS GROUND
TRACKING #: 1Z V25 742 03 9480 2076

BILLING: P/P

Reference #1: CTNL184A

XOL 23.01.06 NV45 2.0A 01/2023*

ERIC BREUN
2016587728
1 INTERNATIONAL BLVD.
MAHWAH NJ 07495

1 LBS

1 OF 1

SHIP TO:
CONTACTS MANAGEMENT
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN MA 01801

MA 018 9-04

UPS GROUND
TRACKING #: 1Z V25 742 03 9581 9753

BILLING: P/P

Reference #1: CTNL184A

XOL 23.01.06 NV45 2.0A 01/2023*

ERIC BREUN
2016587728
1 INTERNATIONAL BLVD.
MAHWAH NJ 07495

1 LBS **1 OF 1**

SHIP TO:
ZEO
DAN MALO
415 CONNECTICUT 169
WOODSTOCK CT 06281

CT 063 0-02

UPS GROUND
TRACKING #: 1Z V25 742 03 9007 4094

BILLING: P/P

Reference #1: CTNL184A

XOL 23.01.06 NV45 2.0A 01/2023*

ERIC BREUN
2016587728
1 INTERNATIONAL BLVD.
MAHWAH NJ 07495

1 LBS **1 OF 1**

SHIP TO:
FIRST SELECTMAN
JAY SWAN
415 CONNECTICUT 169
WOODSTOCK CT 06281

CT 063 0-02

UPS GROUND
TRACKING #: 1Z V25 742 03 9063 6085

BILLING: P/P

Reference #1: CTNL184A

XOL 23.01.06 NV45 2.0A 01/2023*

Hello, your package has been delivered.

Delivery Date: Friday, 01/13/2023

Delivery Time: 11:32 AM

Signed by: ANCRI

TRANSCEND WIRELESS

Tracking Number:	1ZV257420395819753
Ship To:	AMERICAN TOWER CORPORATION 10 PRESIDENTIAL WAY WOBURN, MA 01801 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	CTNL184A

Hello, your package has been delivered.

Delivery Date: Saturday, 01/14/2023

Delivery Time: 1:38 PM

TRANSCEND WIRELESS

Tracking Number:	1ZV257420394802076
Ship To:	COLIN HALLQUEST 40 SHERMAN RD WOODSTOCK, CT 06281 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	CTNL184A

Hello, your package has been delivered.

Delivery Date: Tuesday, 01/17/2023

Delivery Time: 12:13 PM

TRANSCEND WIRELESS

Tracking Number:	1ZV257420390636085
Ship To:	JAY SWAN 415 CONNECTICUT 169 WOODSTOCK, CT 06281 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	CTNL184A

Hello, your package has been delivered.

Delivery Date: Tuesday, 01/17/2023

Delivery Time: 12:13 PM

TRANSCEND WIRELESS

Tracking Number:	1ZV257420390074094
Ship To:	DAN MALO 415 CONNECTICUT 169 WOODSTOCK, CT 06281 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	CTNL184A

117 SHERMAN RD

Sales | Print | Map It

Location	117 SHERMAN RD	**Mblu**	5122/ 18/ 04/ /
Acct#	H0164700	**Owner**	HALLQUEST COLIN G
Assessment	$159,980	**Appraisal**	$340,400
PID	1730	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$0	$340,400	$340,400
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$0	$159,980	$159,980

Owner of Record

Owner	HALLQUEST COLIN G	**Sale Price**	$0
Co-Owner	AMERICAN TOWER / LAND MANAGEMENT	**Certificate**	1
Address	10 PRESIDENTIAL WAY WOBURN, MA 01801	**Book & Page**	298/ 157
		Sale Date	04/01/1999

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
HALLQUEST COLIN G	$0	1	298/ 157	04/01/1999

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Replacement Cost: $0
Building Percent Good:
Replacement Cost Less Depreciation: $0

Building Attributes	
Field	**Description**
Style	Vacant Land
Model	
Grade:	
Stories:	
Living Units	

Building Photo

Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Whirlpool Tubs	
Bsmt. Garages	

Building Layout

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	63W
Description	Op. Space
Zone	
Neighborhood	
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	33.8
Frontage	
Depth	
Assessed Value	$159,980
Appraised Value	$340,400

Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$0	$290,600	$290,600
2019	$0	$290,600	$290,600
2018	$0	$290,600	$290,600

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$0	$110,740	$110,740
2019	$0	$110,740	$110,740
2018	$0	$110,740	$110,740

40 SHERMAN RD

Sales | Print | Map It

Location	40 SHERMAN RD	**Mblu**	5124/ 19/ 09/ /
Acct#	O0291500	**Owner**	HALLQUEST COLIN GUNNAR +
Assessment	$194,800	**Appraisal**	$278,285
PID	3052	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$199,885	$78,400	$278,285
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$156,030	$38,770	$194,800

Owner of Record

Owner	HALLQUEST COLIN GUNNAR +	**Sale Price**	$0
Co-Owner	SCHEUFLER WAYNE + KARIN	**Certificate**	
Address	40 SHERMAN RD WOODSTOCK, CT 06281	**Book & Page**	570/ 499
		Sale Date	07/23/2013

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
HALLQUEST COLIN GUNNAR +	$0		570/ 499	07/23/2013
HALLQUEST COLIN GUNNAR	$0	1	88/ 273	

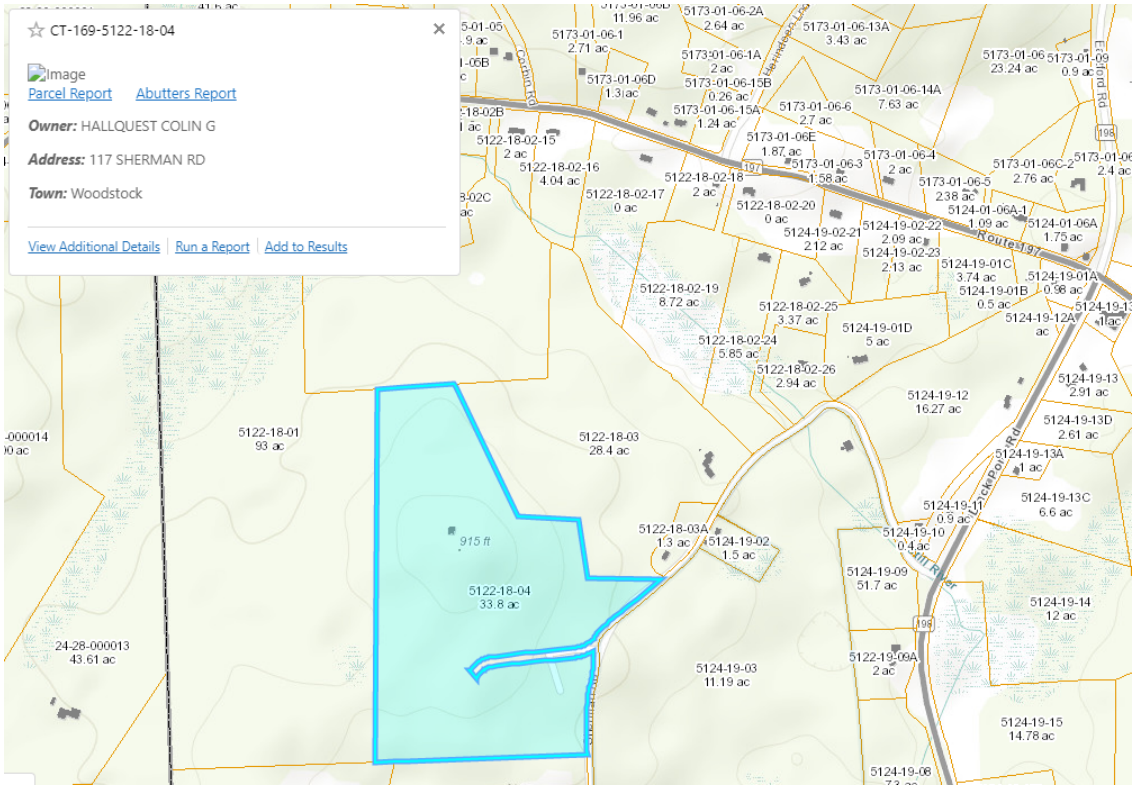
Land

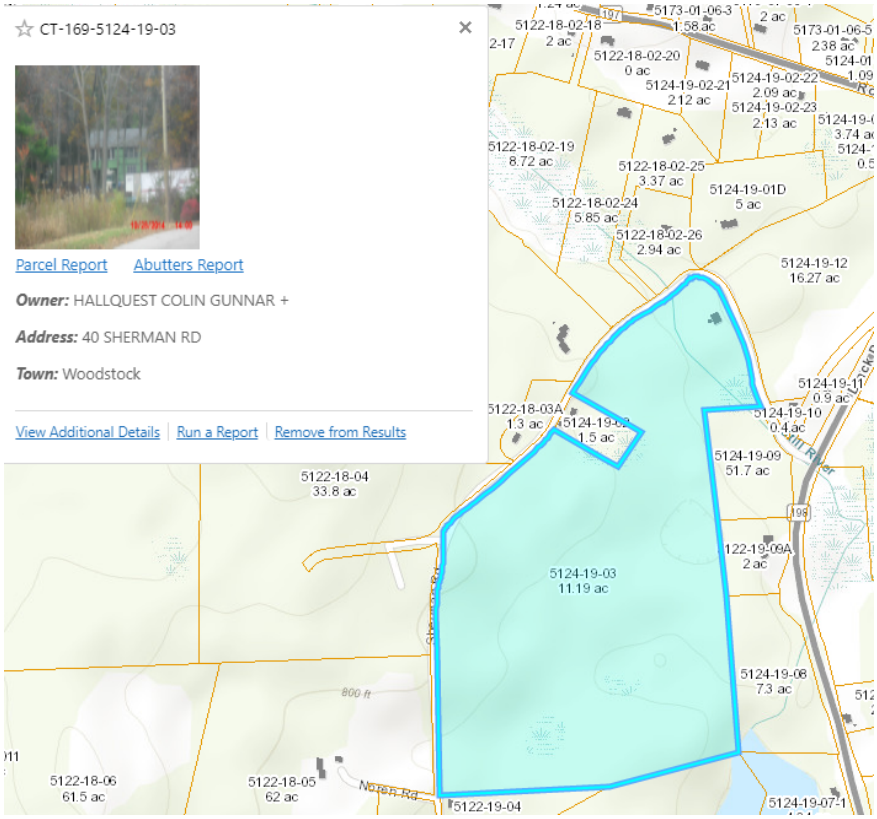
Land Use

Use Code	101
Description	Single Family
Zone	
Neighborhood	
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	11.19
Frontage	
Depth	
Assessed Value	$38,770
Appraised Value	$78,400


CT-169-5122-18-04
Image
Parcel Report
Abutters Report
Owner: HALLQUEST COLIN G
Address: 117 SHERMAN RD
Town: Woodstock
View Additional Details
Run a Report
Add to Results
5122-18-01
93 ac
5122-18-03
28.4 ac
5122-18-04
33.8 ac
915 ft
5122-18-03A
1.3 ac
5124-19-02
1.5 ac
24-28-000013
43.61 ac
5124-19-03
11.19 ac
5124-19-12
16.27 ac
5124-19-09
51.7 ac
5124-19-14
12 ac
5124-19-15
14.78 ac
5122-19-09A
2 ac
Route 197
Sherman Rd


CT-169-5124-19-03
Parcel Report
Abutters Report
Owner: HALLQUEST COLIN GUNNAR +
Address: 40 SHERMAN RD
Town: Woodstock
View Additional Details
Run a Report
Remove from Results
5122-18-04
33.8 ac
5124-19-03
11.19 ac
800 ft
5122-18-06
61.5 ac
5122-18-05
62 ac
North Rd
5122-19-04
5124-19-08
7.3 ac
5124-19-07-1
5122-19-09A
2 ac
5124-19-09
51.7 ac
5124-19-12
16.27 ac
5122-18-03A
1.3 ac
5124-19-02
1.5 ac
5122-18-02-19
8.72 ac
5122-18-02-24
5.85 ac
5122-18-02-25
3.37 ac
5124-19-01D
5 ac
5122-18-02-26
2.94 ac
5124-19-02-21
2.12 ac
5124-19-02-22
2.09 ac
5124-19-02-23
2.13 ac
5122-18-02-18
2 ac
5122-18-02-20
0 ac
5173-01-06-3
1.58 ac
5124-19-11
0.9 ac
5124-19-10
0.4 ac
Sherman Rd

DOCKET NO. 369 - Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Sherman Road, Woodstock, Connecticut.	}	Connecticut
	}	Siting
	}	Council
		April 23, 2009

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Cellco Partnership d/b/a Verizon Wireless, hereinafter referred to as the Certificate Holder, for a telecommunications facility off of Sherman Road, Woodstock, Connecticut.

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

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of the Certificate Holder and other entities, both public and private, but such tower shall not exceed a height of 140 feet above ground level. The height at the top of the Certificate Holder's antennas shall not exceed 140 feet above ground level.

2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Woodstock for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
    a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping; and
    b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

3. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

4. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.

6. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Woodstock public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.

7. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.

8. Any request for extension of the time period referred to in Condition 7 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Woodstock. Any proposed modifications to this Decision and Order shall likewise be so served.

9. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

10. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.

11. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Norwich Bulletin.

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

The parties and intervenors to this proceeding are:

Applicant	**Its Representative**
Cellco Partnership d/b/a Verizon Wireless	Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597 Sandy Carter, Regulatory Manager Verizon Wireless 99 East River Drive East Hartford, CT 06108

VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: WOODSTOCK NW PCS CT
ATC SITE NUMBER: 415439
T-MOBILE SITE NAME: CTNL184A
T-MOBILE SITE NUMBER: CTNL184A
SITE ADDRESS: 40 SHERMAN ROAD
WOODSTOCK, CT 06281
SITE CLASS: MONOPOLE

LOCATION MAP

T-MOBILE MICROWAVE 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: NORTHEAST UTILITY SERVICES
PHONE: (888) 783-6617

TELEPHONE COMPANY: SBC SNET
PHONE: (800) 922-4455

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

PROJECT SUMMARY

SITE ADDRESS:

40 SHERMAN ROAD
WOODSTOCK, CT 06281
COUNTY: WINDHAM

GEOGRAPHIC COORDINATES:

LATITUDE: 41.97865275
LONGITUDE: -72.09443573
GROUND ELEVATION: 902' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

T-MOBILE

ENGINEER:

ATC TOWER SERVICES, LLC
3500 REGENCY PKWY STE 100
CARY, NC 27518

PROPERTY OWNER:

COLIN HALLQUEST
40 SHERMAN ROAD
WOODSTOCK, CT 06281

PROJECT DESCRIPTION

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

INSTALL (1) DISH(s), (2) ODU(s), (2) 0.28" CONTROL / (2) 0.19" FIBER CABLE(s)

EXISTING (9) ANTENNA(s), (6) RRU(s), AND (3) 1.99" HYBRID CABLE(s) TO REMAIN

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

I-84 EAST TO EXIT 73. TAKE RIGHT OFF EXIT ONTO ROUT 190. FOLLOW FOR 1.8 MILES AND TAKE A RIGHT ONTO RTE 171. GO OVER 2 MILES AND BEAR LEFT ONTO RTE 197. GO 1.9 MILES AND TAKE A RIGHT ONTO RTE 198. FOLLOW RTE 198FOR 0.2 MILES AND TAKE 1ST RIGHT ONTO SHERMAN ROAD.FOLLOW SHERMAN ROAD APPROX 1/2 AND GATE IS ON THE RIGHT.

SHEET INDEX

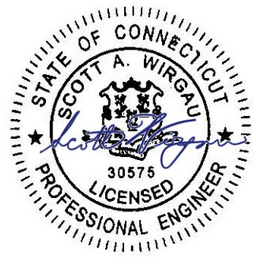
SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	11/14/22	JLR
G-002	GENERAL NOTES	0	11/14/22	JLR
C-101	DETAILED SITE PLAN	0	11/14/22	JLR
C-201	TOWER ELEVATION	0	11/14/22	JLR
C-401	ANTENNA INFORMATION & SCHEDULE	0	11/14/22	JLR
C-501	CONSTRUCTION DETAILS	0	11/14/22	JLR
E-501	GROUNDING DETAILS	0	11/14/22	JLR
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			

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

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JLR	11/14/22

ATC SITE NUMBER:
415439
ATC SITE NAME:
WOODSTOCK NW PCS CT
T-MOBILE SITE NAME:
CTNL184A
SITE ADDRESS:
40 SHERMAN ROAD
WOODSTOCK, CT 06281

SEAL:



Authorized by "EOR"
16 Nov 2022 09:12:11 cosign

T-Mobile

ATC PROJ. #:	14150709_D1
CUST. ID:	CTNL184A
CUST. #:	CTNL184A

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, T-MOBILE "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 T-MOBILE 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 T-MOBILE REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE T-MOBILE REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE T-MOBILE 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 T-MOBILE 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 T-MOBILE 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 T-MOBILE 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 T-MOBILE 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 T-MOBILE REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY T-MOBILE MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH T-MOBILE SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO T-MOBILE FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO T-MOBILE 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 T-MOBILE 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 T-MOBILE REP. ANY WORK FOUND BY THE T-MOBILE 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. T-MOBILE FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE T-MOBILE 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. T-MOBILE 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 T-MOBILE OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY T-MOBILE 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 T-MOBILE 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.

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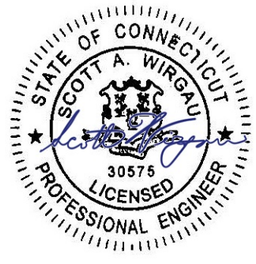
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JLR	11/14/22

ATC SITE NUMBER:
415439
ATC SITE NAME:
WOODSTOCK NW PCS CT
T-MOBILE SITE NAME:
CTNL184A
SITE ADDRESS:
40 SHERMAN ROAD
WOODSTOCK, CT 06281

SEAL:



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ATC PROJ. #:	14150709_D1
CUST. ID:	CTNL184A
CUST. #:	CTNL184A

GENERAL NOTES

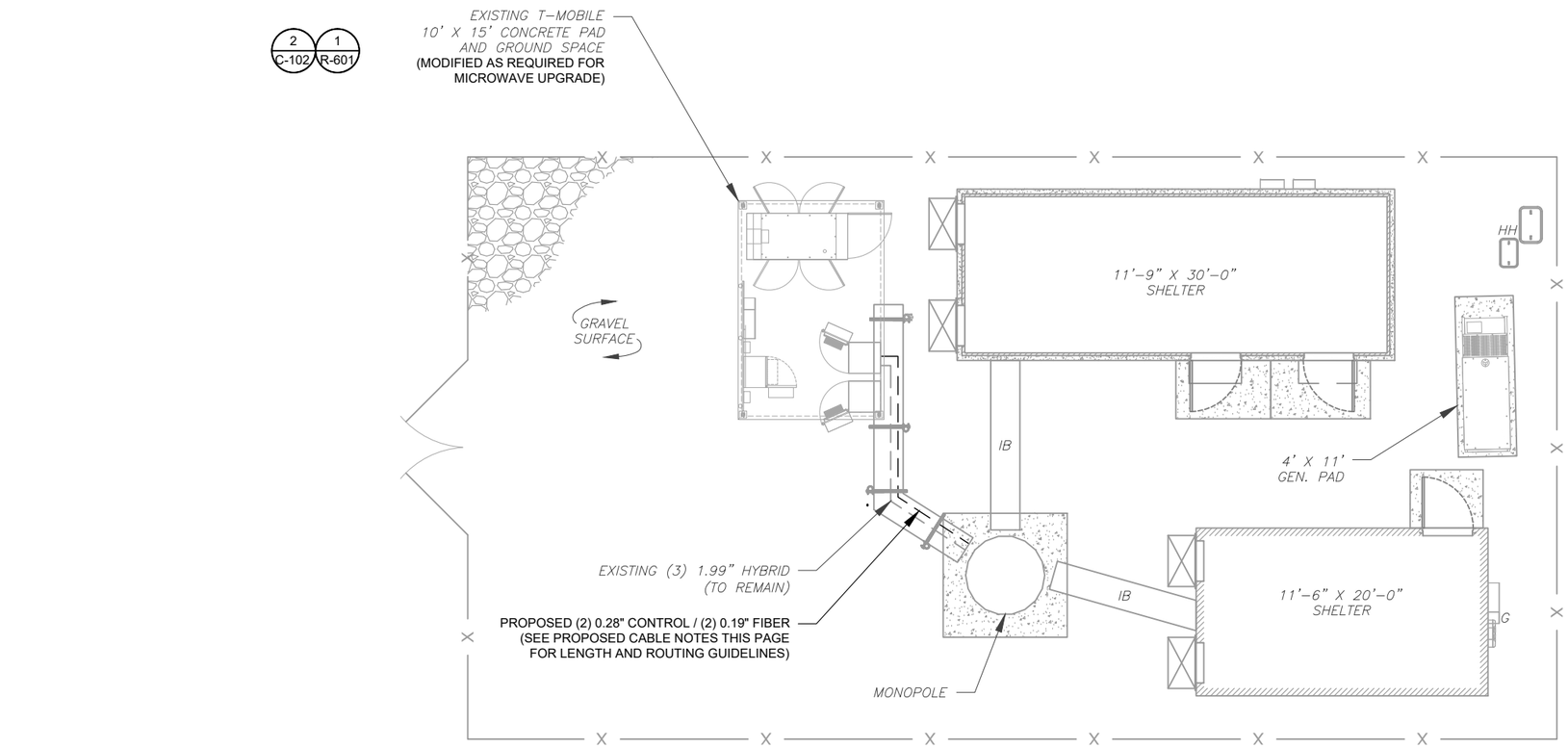
SHEET NUMBER:	REVISION:
G-002	0

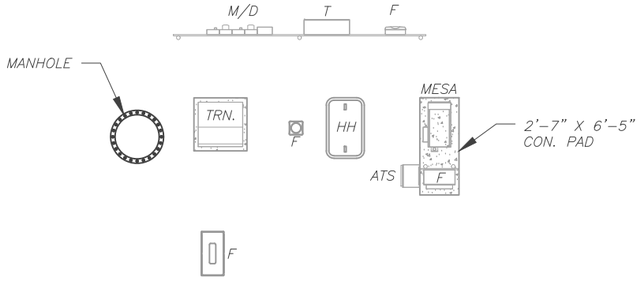
SITE PLAN NOTES:

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. THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

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
———	CHAINLINK FENCE





PROPOSED CABLE NOTES:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **145'**. 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.

1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

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PEC.0001553

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0	FOR CONSTRUCTION	JLR	11/14/22

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415439
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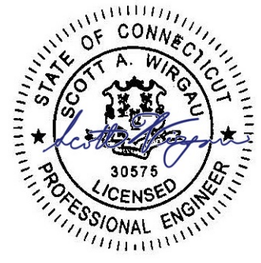
WOODSTOCK NW PCS CT
T-MOBILE SITE NAME:
CTNL184A
SITE ADDRESS:
40 SHERMAN ROAD
WOODSTOCK, CT 06281

SEAL:



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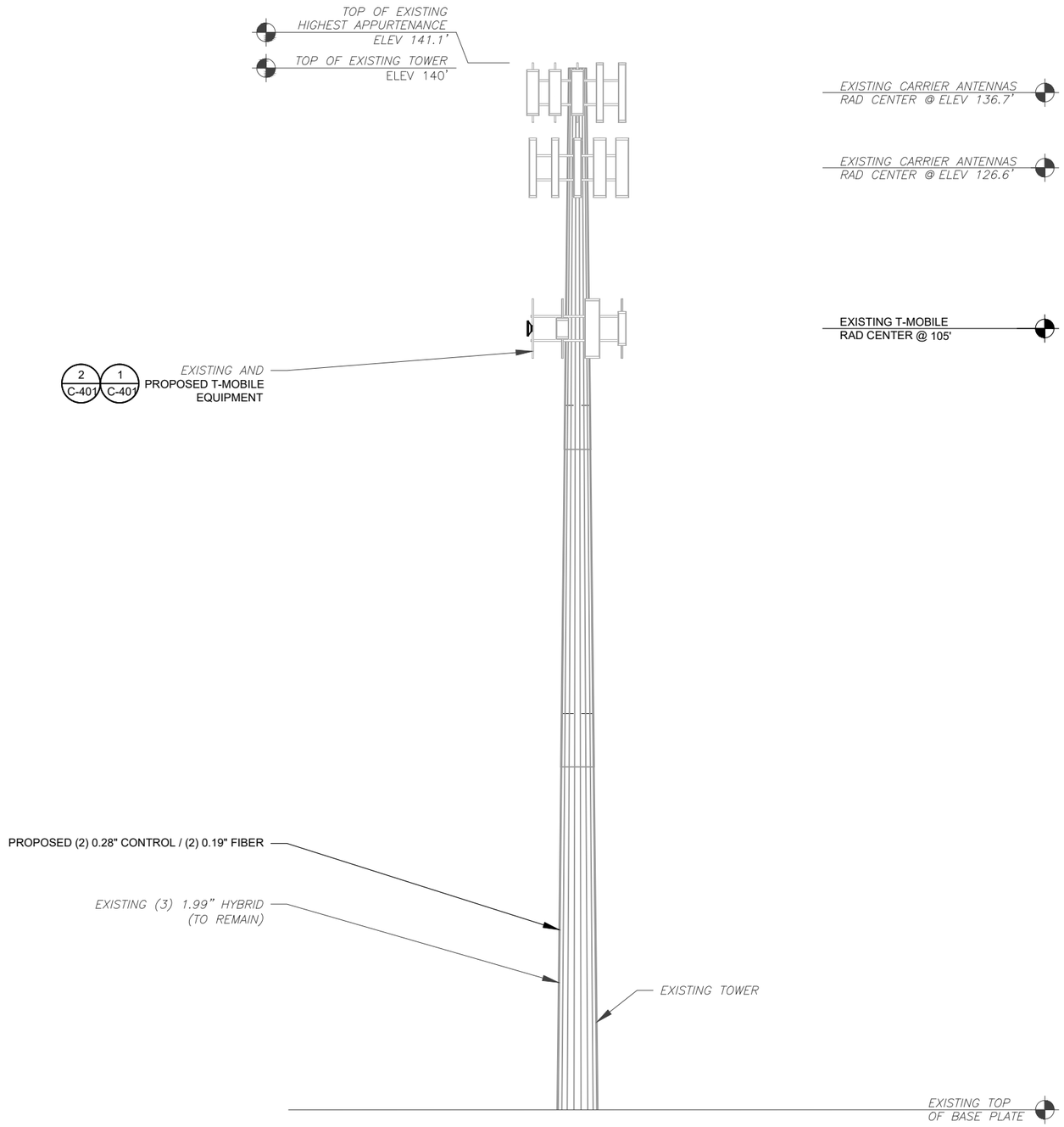
CUST. #:	CTNL184A

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

PER MOUNT ANALYSIS COMPLETED BY ENGINEERED TOWER SOLUTIONS, PLLC, DATED 11/09/2022, 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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0	FOR CONSTRUCTION	JLR	11/14/22

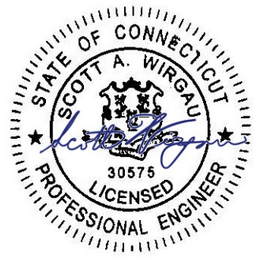
ATC SITE NUMBER:
415439

ATC SITE NAME:
WOODSTOCK NW PCS CT

T-MOBILE SITE NAME:
CTNL184A

SITE ADDRESS:
40 SHERMAN ROAD
WOODSTOCK, CT 06281

SEAL:



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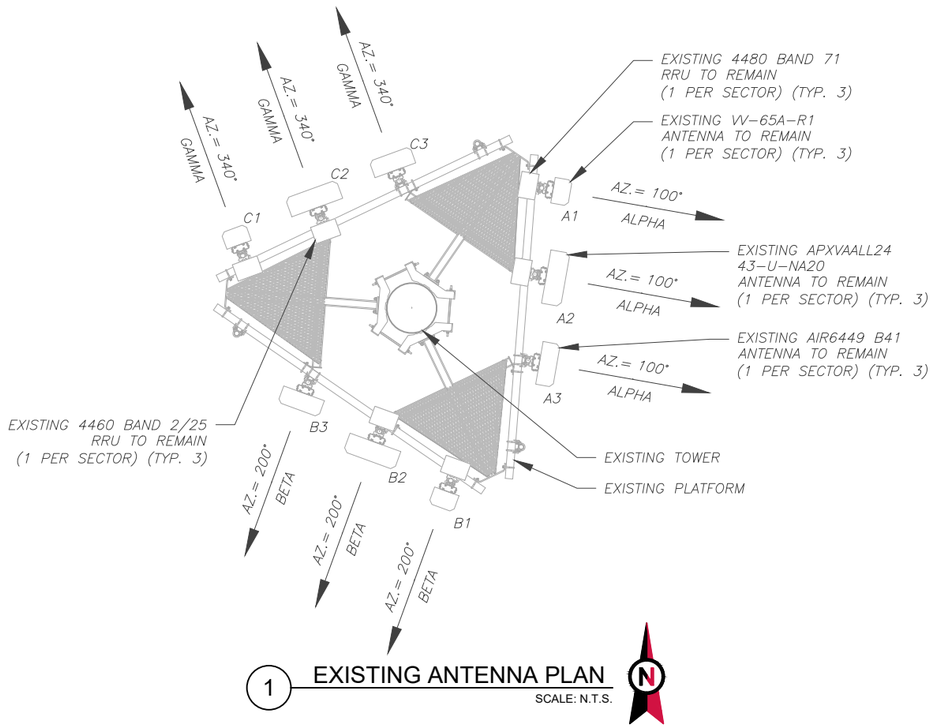
CUST. ID:	CTNL184A
CUST. #:	CTNL184A

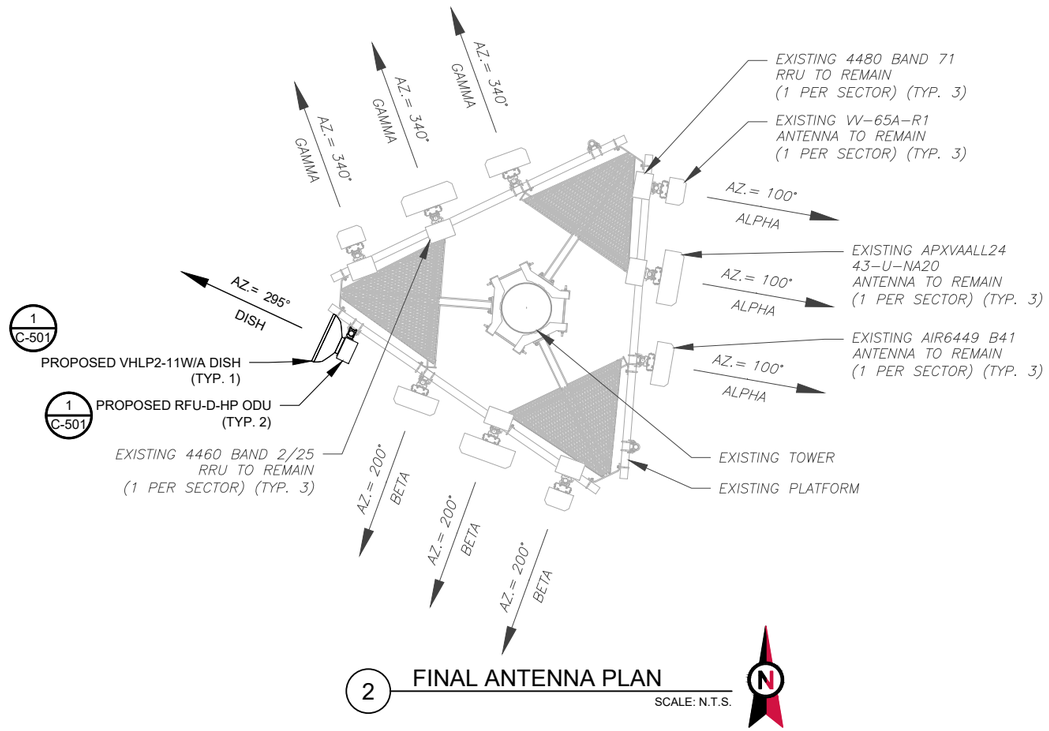
TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0



1 EXISTING ANTENNA PLAN

SCALE: N.T.S.



2 FINAL ANTENNA PLAN

SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	105'	100°	A1	VV-65A-R1	–	–	RMN	4480 BAND 71	RMN
			A2	APXVAALL24 43-U-NA20	–	–	RMN	4460 BAND 2/25	RMN
			A3	AIR6449 B41	–	–	RMN	–	–
BETA	105'	200°	B1	VV-65A-R1	–	–	RMN	4480 BAND 71	RMN
			B2	APXVAALL24 43-U-NA20	–	–	RMN	4460 BAND 2/25	RMN
			B3	AIR6449 B41	–	–	RMN	–	–
GAMMA	105'	340°	C1	VV-65A-R1	–	–	RMN	4480 BAND 71	RMN
			C2	APXVAALL24 43-U-NA20	–	–	RMN	4460 BAND 2/25	RMN
			C3	AIR6449 B41	–	–	RMN	–	–

NOTES

1. CONFIRM WITH T-MOBILE 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.

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'

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	105'	100°	A1	VV-65A-R1	-	-	RMN	4480 BAND 71	RMN
			A2	APXVAALL24 43-U-NA20	-	-	RMN	4460 BAND 2/25	RMN
			A3	AIR6449 B41	-	-	RMN	-	-
BETA	105'	200°	B1	VV-65A-R1	-	-	RMN	4480 BAND 71	RMN
			B2	APXVAALL24 43-U-NA20	-	-	RMN	4460 BAND 2/25	RMN
			B3	AIR6449 B41	-	-	RMN	-	-
		295°	B4	VHLP2-11W/A	-	-	ADD	(2) RFU-D-HP	ADD
GAMMA	105'	340°	C1	VV-65A-R1	-	-	RMN	4480 BAND 71	RMN
			C2	APXVAALL24 43-U-NA20	-	-	RMN	4460 BAND 2/25	RMN
			C3	AIR6449 B41	-	-	RMN	-	-

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
–	–	(3) 1.99" HYBRID	RMN

3 EQUIPMENT SCHEDULES

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
–	–	(3) 1.99" HYBRID	RMN
-	-	(2) 0.28" CONTROL / (2) 0.19" FIBER	ADD

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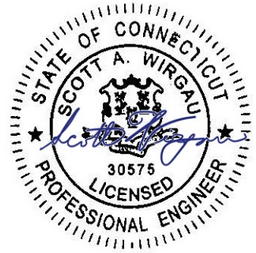

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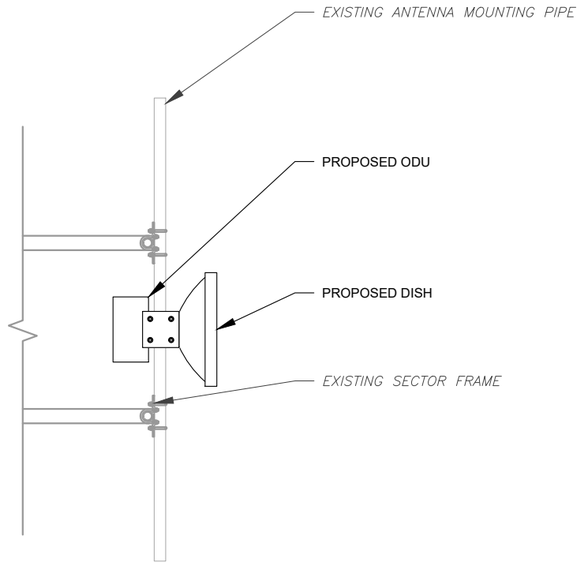
ATC PROJ. #:	14150709_D1
CUST. ID:	CTNL184A
CUST. #:	CTNL184A

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-401	0



1 PROPOSED DISH MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.

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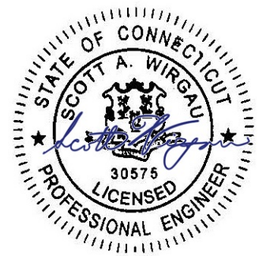

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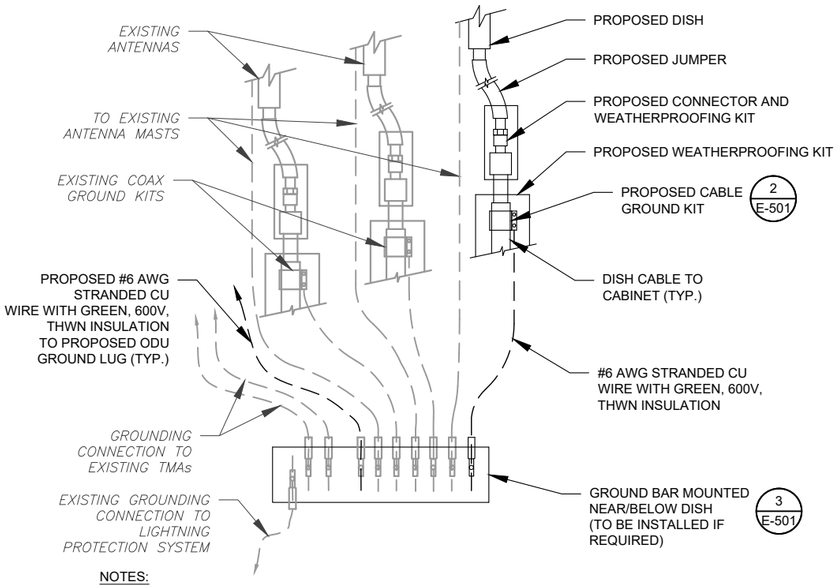
ATC PROJ. #:	14150709_D1
CUST. ID:	CTNL184A
CUST. #:	CTNL184A

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

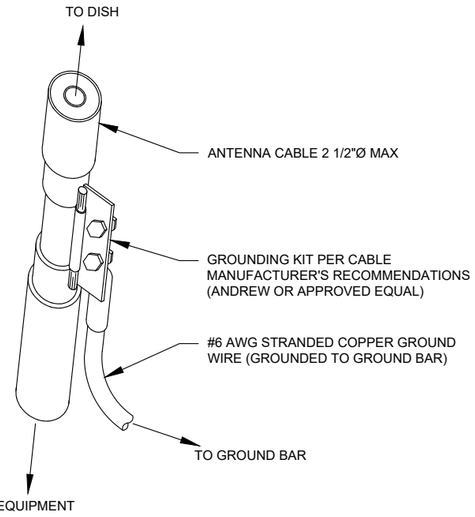


NOTES:

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 T-MOBILE GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH T-MOBILE 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.

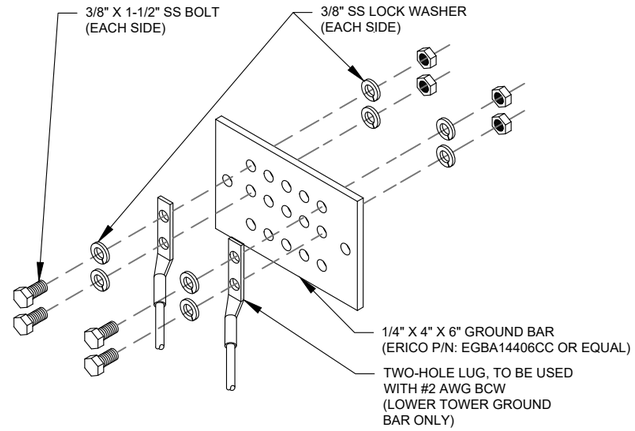


GROUND KIT NOTES:

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

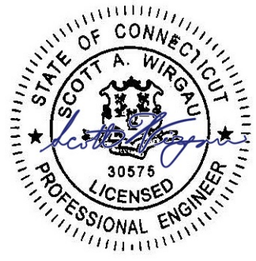
SCALE: N.T.S.

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

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JLR	11/14/22

ATC SITE NUMBER:
415439
ATC SITE NAME:
WOODSTOCK NW PCS CT
T-MOBILE SITE NAME:
CTNL184A
SITE ADDRESS:
40 SHERMAN ROAD
WOODSTOCK, CT 06281

SEAL:



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16 Nov 2022 09:12:13
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T-Mobile

ATC PROJ. #:	14150709_D1
CUST. ID:	CTNL184A
CUST. #:	CTNL184A

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

A&E - Prelim Required?	YES
A&E - Order Type:	Amendment CD WISP
Notes for A&E:	SOW - (1) MW, (2) radios, (2) DC cables, (2) fiber cables to be installed. Spec sheets attached

Mount Type:	Platform with Handrails
MW RAD:	105'
Azimuth:	295
TX/RX Frequency (GHZ):	10-11.7
Existing MW equipment to remain?	REFER TO ADDITIONAL COMMENTS
Additional MW Info on Sheets 2 & 3?	NO

	Name	Quantity
MW Manufacturer:	Commscope	1
MW Model:	VHLP2-11W/A	1
ODU Manufacturer:	Ceragon	2
ODU Model:	RFU-D	2
Fiber Cable:	0.19" (4.8mm) Fiber	2
Control/CAT5 Cable:		
Coax Cable:	14 AWG DC Cable	2
Ice Shield Manufacturer:		Enter # Below
Ice Shield Model:		

ADDITONAL COMMENTS:	NO MW on site currently - Final configuration will be (1) MW, (2) radios, (2) DC cables, (2) fiber cables to be installed. Radio type is listed on page 4 in provided datasheet - RFU-D – 9.05"(H), 9.17"(W), 3.85"(D), 14.33 lbs. (includes diplexer unit)

1 MICROWAVE CONFIGURATION

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

SUPPLEMENTAL

SHEET NUMBER: R-601

REVISION: 0

VHLP2-11W/A

0.6 m | 2 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 10.000–11.700 GHz

Product Classification

Product Type	Microwave antenna
Product Brand	ValuLine®

General Specifications

Antenna Type	VHLP - ValuLine® High Performance Low Profile Antenna, single-polarized
Polarization	Single
Side Struts, Included	0
Side Struts, Optional	0

Dimensions

Diameter, nominal	0.6 m | 2 ft

Electrical Specifications

Operating Frequency Band	10.000 – 11.700 GHz
Gain, Low Band	33.7 dBi
Gain, Mid Band	34.5 dBi
Gain, Top Band	35.2 dBi
Boresite Cross Polarization Discrimination (XPD)	30 dB
Front-to-Back Ratio	61 dB
Beamwidth, Horizontal	3.3 °
Beamwidth, Vertical	3.3 °
Return Loss	17.7 dB
VSWR	1.3
Radiation Pattern Envelope Reference (RPE)	7200A | 7201A

CERAGON

High-availability, split-mount, modular multicore aggregation node

Designed uniquely for the North American market, FibeAir IP-20A is a highly-flexible aggregation node that delivers multi-Gbps radio capacity at a very large scale. Now available with multicore technology and new radio units, IP-20A features high modularity and flexibility and supports up to 8 radio links with an exceptionally wide variety of line interfaces via pluggable modules, in a wide range of network topologies - making it the preferred node for your transport network's aggregation sites.

The FibeAir IP-20A operates within the entire microwave and millimeter-wave spectrum, offering high spectral efficiency across licensed and license-exempt frequency bands (4-86 GHz). It also supports all high-speed data interfaces (10G/1G/FE) and a wide variety of TDM interfaces (DS1, OC-3); operates with a wide variety of multicore, standard and high power radios; and accommodates various network configurations including 1x 8+0, 4x 2+0, and 8x 1+0.

Note: For exact feature availability, contact your Ceragon representative. In case of discrepancy between this Datasheet and the Technical Description for the product, the Technical Description prevails.

General

Assembly options

1RU Chassis – 5x Universal slots;

2RU Chassis –10x Universal slots

Redundant TCC slots (2RU chassis only)

Radio

Supported Frequency Range

Standard Power: 6-42 GHz, 71-76 GHz, 81-86 GHz

High Power: 4-11 GHz

Supported RFUs

RFU-D – High-capacity MultiCore radio

RFU-D-HP – High-capacity, high-power MultiCore radio

RFU-E – High capacity E-band radio

RFU-S – High-capacity radio

RFU-C – High-capacity radio

RFU-A – High-capacity, high-power radio

1500HP/RFU-HP – High-capacity, high-power radio

Typical Radio Configurations

N+0 (up to N=8), 1x 8+0, 2x 4+0, 4x 2+0, 8x 1+0, 1+1, 2+2

Split Mount (Standard Power, High Power)

All Indoor (High Power)

Radio Features

Multi-Carrier Adaptive Bandwidth Control (up to 8+0)

Protection and Diversity: HSB, SD (BBC and BBS)

High spectral utilization: BPSK to 4096 QAM w/ACM

Channel bandwidth:

- 4-42 GHz: up to 112 MHz
- E-Band: up to 500 MHz

Note: 112 channels are planned for future release.

XPIC

Multiband (with IP-50E/IP-20E)

Advanced Space Diversity (ASD)*

Field Replaceable Diplexers/ Field Replaceable Channel Filters

Ethernet

Ethernet Interfaces

1RU/2RU Traffic Interfaces - Up to 10 x 1000Base-T (RJ-45) or 1000base-X (SFP)

Up to 2 x 10Gbase-X (SFP+)

Management Interfaces - 2 x 10/100 Base-T (RJ-45)

SFP Types - Optical 1000Base-LX (1310 nm) or SX (850 nm)

Ethernet Features

MTU – 9600 Bytes

Quality of Service

- Multiple Classification criteria (VLAN ID, P-bits, IPv4 DSCP, IPv6 TC, MPLS EXP)
- 8 priority queues per port
- Deep buffering (configurable up to 64 Mbit per queue)
- WRED
- P-bit marking/remarking

4K VLANs

VLAN add/remove

MSTP, ERP (ITU-T G.8032)

Frame Cut Through – controlled latency and PDV for delay sensitive applications

Header DeDuplication – Capacity boosting by eliminating inefficiency in all layers (L2,MPLS, L3,L4, Tunneling – GTP for LTE, GRE)

Y.1731 Ethernet OAM

Y.1731 Ethernet Bandwidth Notification (ETH-BN)

* Planned for future release.

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

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-602	0

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

ENGINEERED
TOWER SOLUTIONS

Antenna Mount Analysis Report

ATC Site Name	:	**Woodstock NW PCS CT**
ATC Site Number	:	**415439**
Engineering Number	:	**14150709_C8_04**
ETS, PLLC Job Number	:	**22112572.STR.7577**
Mount Elevation	:	**105.0 ft**
Carrier	:	**T-Mobile**
Carrier Site Name	:	**CTNL184A**
Carrier Site Number	:	**CTNL184A**
Site Location	:	**40 Sherman Road** **Woodstock, CT 06281** **41.97865275, -72.09443573**
County	:	**Windham**
Date	:	**November 9, 2022**
Max Usage	:	**80%**
Result	:	**Pass**

Prepared By:
Andre Trevizan
Structural Engineer I

Reviewed By:
Frederic G. Bost, PE
Chief Technical Officer

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for T-Mobile at 105.0 ft.

Supporting Documents

Spec. Sheet	Site Pro 1 Document# RMQP-496-HK, dated May 23, 2021
Construction Drawings	Colliers Engineering & Design, ATC Job# 13704269_D3, dated December 3, 2021

Analysis

This antenna mount was analyzed using RISA-3D v17 analysis software.

Basic Wind Speed:	125 mph (3-Second Gust, V_{ult})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.5" radial ice concurrent
Codes:	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Structure Class:	II
Exposure Category:	C
Topographic Procedure:	Method 2
Topographic Feature:	Flat
Crest Height:	0 ft
Crest Length:	0 ft
Spectral Response:	Ss = 0.179, S_1 = 0.055
Site Class:	D – Default
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. The mount can support the equipment as described in this report. Analysis is based on new Site Pro 1 part# RMQP-496-HK Mount.

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.

Engineered Tower Solutions, PLLC – 3227 Wellington Ct, Raleigh, NC 27615 - 919.782.2710 Office - www.engineeredtowersolutions.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

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	140 ft Monopole
ATC Asset Name	:	Woodstock NW PCS CT
ATC Asset Number	:	415439
Engineering Number	:	14150709_C3_05
Proposed Carrier	:	T-MOBILE
Carrier Site Name	:	CTNL184A
Carrier Site Number	:	CTNL184A
Site Location	:	40 Sherman Road Woodstock, CT 06281-1901 41.9787, -72.0944
County	:	Windham
Date	:	November 15, 2022
Max Usage	:	52%
Analysis Result	:	Pass

Prepared By:

Taylor Kellner
Structural Engineer I

Reviewed

Authorized by "EOR"
15 Nov 2022 04:22:29 cosign

COA: PEC.0001553

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 140 ft Monopole tower to reflect the change in loading by T-MOBILE.

Supporting Documents

Tower Drawing:	Valmont Order #12650-09, dated October 28, 2009
Foundation Drawing:	Valmont Order #12650-09, dated June 26, 2009
Geotechnical Report:	Terracon Project #J2095149, datedMay 29, 2009

Analysis

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

Basic Wind Speed:	119 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.50" radial ice concurrent
Code(s):	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	Ss = 0.18, S_1 = 0.06
Site Class:	D - Stiff Soil - Default

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

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

Existing/Reserved Loading

Elev.*	Qty	Equipment	Lines	Carrier
138.4’	3	Alcatel-Lucent RRH2x60	(2) 1 1/4" Hybriflex Cable (11) 1 5/8" Coax (2) 1 5/8" Hybriflex	VERIZON WIRELESS
137.0’	2	RFS DB-T1-6Z-8AB-0Z		
	3	Commscope LNX-8514DS-A1M		
	3	Samsung B2/B66A RRH-BR049		
	3	Samsung B5/B13 RRH-BR04C		
	3	Samsung MT6407-77A		
	6	JMA Wireless MX06FRO660-03		
136.0’	1	VZW Unused Reserve (14552.07 sqin)		
134.0’	1	Low Profile Platform		
127.0’	1	Mount Reinforcement	(4) 0.39" (10mm) Fiber Trunk (2) 0.78" (19.7mm) 8 AWG 6 (2) 0.82" (20.8mm) 8 AWG 6 (12) 1 5/8" Coax (1) 2" conduit (2) 0.82" (20.8mm) 8 AWG 6 (1) 2" conduit	AT&T MOBILITY
	1	Platform with Handrails		
	2	Raycap DC6-48-60-18-8F(32.8 lbs)		
	3	CCI DMP65R-BU8D		
	3	CCI HPA65R-BU8A		
	3	Ericsson RRUS 4449 B5, B12		
	3	Ericsson Radio 8843 - B2 + B66A		
	3	Powerwave Allgon 7770.00		
	3	Powerwave Allgon TT08-19DB111-001		
116.0’	1	Platform with Handrails	(1) 1.60" (40.6mm) Hybrid	DISH WIRELESS L.L.C.
	1	Raycap RDIDC-9181-PF-48		
	3	Commscope FFVV-65B-R2		
	3	Fujitsu TA08025-B604		
	3	Fujitsu TA08025-B605		

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

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

Proposed Carrier Final Loading

Elev.*	Qty	Equipment	Lines	Carrier
105.0’	1	Commscope VHLP2-11W/A	(2) .28" (7mm) Cable (2) 0.19" (4.8mm) Fiber (3) 1.99" (50.7mm) Hybrid	T-MOBILE
	2	Ceragon RFU-D-HP		
	3	Commscope VV-65A-R1		
	3	Ericsson 4460 BAND 2/25		
	1	Platform with Handrails		
	3	Ericsson 4480 BAND 71		
	3	Ericsson Air6449 B41		
	3	RFS APXVAALL24 43-U-NA20		

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

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

Install proposed lines inside the pole shaft.

Structure Usages

Structural Component	Usage	Pass/Fail
Anchor Rods	38%	Pass
Base Plate	11%	Pass
Shaft	49%	Pass

Foundation Reactions & Usages

Reaction Component	Analysis Reactions	Usage
Moment (k-ft)	3741.8	52%
Axial (k)	59.7	22%
Shear (k)	36.9	20%

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

Antenna Deflection, Twist, and Sway

Elev.	Antenna	Carrier	Deflection	Twist	Sway [Rotation]
105.0’	Commscope VHLP2-11W/A Ceragon RFU-D-HP	T-MOBILE	0.523’	N/A	0.580°

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

Standard Conditions

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

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

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

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

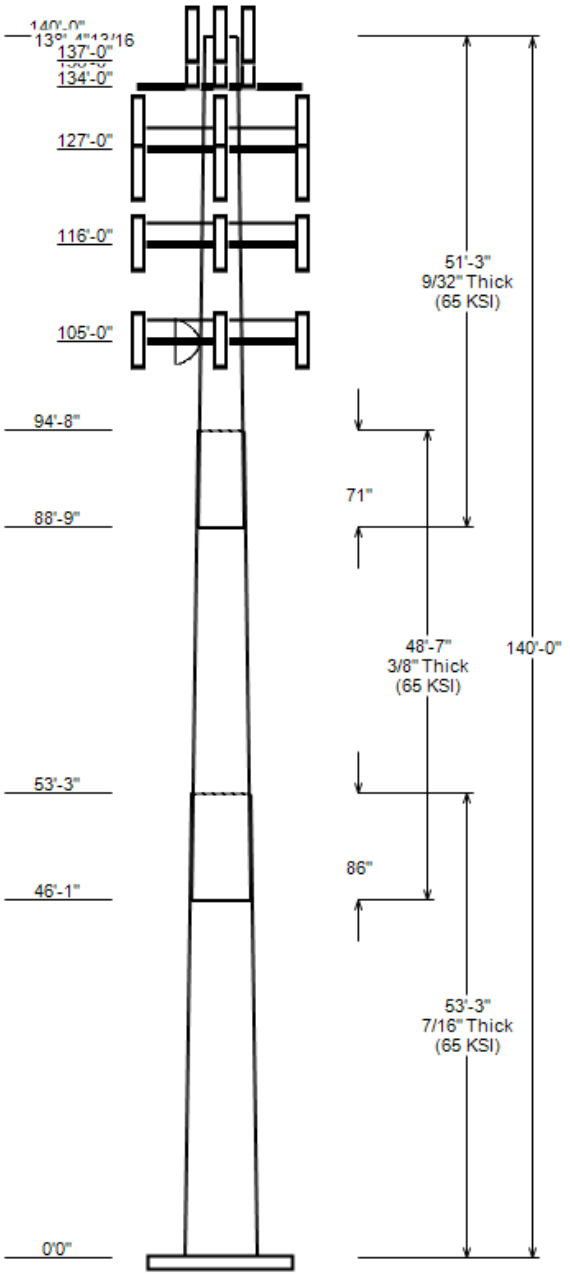
Unless explicitly agreed by both the client and A.T. Engineering Services LLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

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

ASSET:	415439, Woodstock NW PCS CT	CODE:	ANSI/TIA-222-H
CUSTOMER:	T-MOBILE	PROJECT:	14150709

ANALYSIS PARAMETERS

Nominal Wind:	119 mph	**Ice Wind:**	50 mph w/ 1.5" ice	**Service Wind:**	60 mph
Risk Category:	II	**Exposure:**	C	**S_s:** 0.179	**S_1:** 0.055
Topo Category:	1	**Topo Factor:**	Method 1	**Topo Feature:**	
Structure Height:	140 ft	**Base Elevation:**	0.00 ft	**Structure Type:**	Taper
Base Diameter:	65 in	**Base Rotation:**	0°	**Taper:**	0.2700 (in/ft)



POLE SECTION PROPERTIES

Section	Length (ft)	Flat Diameter (in) Top	Flat Diameter (in) Bottom	Thick (in)	Joint Type	Joint Length (in)	Pole Shape	Yield Strength (ksi)
1	53.250	50.65	65.00	0.438		0.000	12 Sides	65
2	48.583	40.24	53.33	0.375	Slip Joint	86.000	12 Sides	65
3	51.250	28.58	42.39	0.281	Slip Joint	71.000	18 Sides	65

DISCRETE APPURTENANCE

Elev (ft)	Description
138.4	(3) Alcatel-Lucent RRH2x60
137.0	(3) Samsung B2/B66A RRH-BR049
137.0	(3) Samsung B5/B13 RRH-BR04C
137.0	(3) Samsung MT6407-77A
137.0	(2) RFS DB-T1-6Z-8AB-0Z
137.0	(6) JMA Wireless MX06FRO660-03
137.0	(3) Commscope LNX-8514DS-A1M
136.0	(1) VZW Unused Reserve (14552.07 s
134.0	(1) Generic Round Low Profile Plat
127.0	(3) Powerwave Allgon TT08-19DB111-
127.0	(2) Raycap DC6-48-60-18-8F(32.8 lb
127.0	(3) Ericsson Radio 8843 - B2 + B66
127.0	(3) Ericsson RRUS 4449 B5, B12
127.0	(3) Powerwave Allgon 7770.00
127.0	(1) Generic Mount Reinforcement
127.0	(3) CCI HPA65R-BU8A
127.0	(3) CCI DMP65R-BU8D
127.0	(1) Generic Round Platform with Ha
116.0	(1) Raycap RDIDC-9181-PF-48
116.0	(3) Fujitsu TA08025-B604
116.0	(3) Fujitsu TA08025-B605
116.0	(3) Commscope FFVV-65B-R2
116.0	(1) Generic Flat Platform with Han
105.0	(2) Ceragon RFU-D-HP
105.0	(3) Ericsson 4460 BAND 2/25
105.0	(3) Ericsson 4480 BAND 71
105.0	(1) Commscope VHLP2-11W/A
105.0	(3) Ericsson Air6449 B41
105.0	(3) Commscope VV-65A-R1
105.0	(3) RFS APXVAALL24 43-U-NA20
105.0	(1) Generic Flat Platform with Han

LINEAR APPURTENANCE

Elev To (ft)	Description
138.4	(2) 1 1/4" Hybriflex Cable
137.0	(2) 1 5/8" Hybriflex
137.0	(11) 1 5/8" Coax
127.0	(1) 2" conduit
127.0	(12) 1 5/8" Coax
127.0	(2) 0.82" (20.8mm) 8 AWG 6
127.0	(2) 0.78" (19.7mm) 8 AWG 6
127.0	(4) 0.39" (10mm) Fiber Trunk
126.7	(1) 2" conduit
126.7	(2) 0.82" (20.8mm) 8 AWG 6
116.0	(1) 1.60" (40.6mm) Hybrid
105.0	(3) 1.99" (50.7mm) Hybrid
105.0	(2) 0.19" (4.8mm) Fiber
105.0	(2) .28" (7mm) Cable

DISH SERVICEABILITY

Load Case	Elevation (ft)	Deflection (in)	Rotation (°)
1.0D + 1.0W	105.00	6.269	0.576

LOAD CASE KEY

1.2D + 1.0W	119 mph Wind with No Ice
0.9D + 1.0W	119 mph Wind with No Ice (Reduced
1.2D + 1.0Di + 1.0Wi	50 mph Wind with 1.5" Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

GLOBAL BASE REACTIONS

Load Case	Moment (kip-ft)	Axial (kip)	Shear (kip)
1.2D + 1.0W	3741.78	59.73	36.86
0.9D + 1.0W	3716.94	44.80	36.86
1.2D + 1.0Di + 1.0Wi	1055.41	86.68	10.42
1.2D + 1.0Ev + 1.0Eh	187.29	60.79	1.69
0.9D - 1.0Ev + 1.0Eh	185.75	42.31	1.69
1.0D + 1.0W	847.50	49.79	8.38

ANALYSIS PARAMETERS

Location:	Windham County,CT	**Height:**	140 ft
Type and Shape:	Taper, 18 Sides	**Base Diameter:**	65.00 in
Manufacturer:	Valmont	**Top Diameter:**	28.58 in
K_d (non-service):	0.95	**Taper:**	0.2700 in/ft
K_e:	0.97	**Rotation:**	0.000º

ICE & WIND PARAMETERS

Risk Category:	II	**Design Wind Speed:**	119 mph
Exposure Category:	C	**Design Wind Speed w/ Ice:**	50 mph
Topo Factor Procedure:	Method 1	**Design Ice Thickness:**	1.50 in
Topographic Category:	1	**Service Wind Speed:**	60 mph
Crest Height:	0 ft	**HMSL:**	902.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil		**Period Based on Rayleigh Method (sec):**		1.73
T_L (sec):	6	**P:**	1	**$C_{s:}$**	0.034
$S_{s:}$	0.179	**$S_{1:}$**	0.055	**C_s Max:**	0.034
$F_{a:}$	1.600	**$F_{v:}$**	2.400	**C_s Min:**	0.030
$S_{ds:}$	0.191	**$S_{d1:}$**	0.088		

LOAD CASES

1.2D + 1.0W	119 mph Wind with No Ice
0.9D + 1.0W	119 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph Wind with 1.5" Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

SHAFT SECTION PROPERTIES

							Bottom						Top						
Section	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Joint Len (in)	Weight (lb)	Dia (in)	Elev (ft)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-12	53.25	0.4375	65		0.00	14,439	65.00	0.000	89.65	47,213.2	24.79	148.57	50.65	53.25	69.72	22,208.	19.00	115.77	0.2695
2-12	48.58	0.3750	65	Slip	86.00	9,131	53.33	46.087	63.03	22,330.3	23.67	142.21	40.24	94.67	47.44	9,524.0	17.51	107.30	0.2695
3-18	51.25	0.2813	65	Slip	71.00	5,480	42.39	88.750	37.60	8,424.2	25.16	150.70	28.58	140.00	25.27	2,556.5	16.50	101.60	0.2695
			Total Shaft Weight			**29,050**													

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor
138.40	Alcatel-Lucent RRH2x60	3	0.80	0.000	60.00	3.500	0.50	138.64	4.959	0.50
137.00	JMA Wireless MX06FRO660-03	6	0.80	0.000	60.00	9.872	0.71	298.00	12.596	0.71
137.00	RFS DB-T1-6Z-8AB-0Z	2	0.80	0.900	44.00	4.800	0.50	168.94	6.211	0.50
137.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	182.78	6.217	0.61
137.00	Samsung B2/B66A RRH-BR049	3	0.80	0.000	84.40	1.875	0.50	147.73	2.771	0.50
137.00	Commscope LNX-8514DS-A1M	3	0.80	0.100	50.90	11.440	0.70	278.64	14.652	0.70
137.00	Samsung B5/B13 RRH-BR04C	3	0.80	0.000	70.30	1.875	0.50	127.08	2.771	0.50
136.00	VZW Unused Reserve (14552.07 s	1	0.80	0.000	1010.40	101.056	0.90	1708.35	170.862	0.90
134.00	Generic Round Low Profile Plat	1	1.00	0.000	1875.00	21.700	1.00	2676.82	40.709	1.00
127.00	Ericsson Radio 8843 - B2 + B66	3	0.75	0.200	71.90	1.650	0.50	132.59	2.485	0.50
127.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	4095.63	51.281	1.00
127.00	CCI DMP65R-BU8D	3	0.75	-0.400	95.70	17.871	0.63	430.53	21.501	0.63
127.00	CCI HPA65R-BU8A	3	0.75	-0.400	54.00	11.230	0.71	282.84	14.405	0.71
127.00	Generic Mount Reinforcement	1	1.00	0.000	200.00	7.500	1.00	390.65	14.876	1.00
127.00	Powerwave Allgon 7770.00	3	0.75	0.800	35.00	5.508	0.65	146.98	7.602	0.65
127.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.200	71.00	1.969	0.50	134.49	2.888	0.50
127.00	Raycap DC6-48-60-18-8F(32.8 lb	2	0.75	-0.300	32.80	1.470	0.50	93.58	2.158	0.50
127.00	Powerwave Allgon TT08-19DB111-	3	0.75	-0.100	22.00	0.793	0.50	48.17	1.419	0.50
116.00	Raycap RDIDC-9181-PF-48	1	0.75	0.000	21.90	1.867	1.00	77.43	2.745	1.00
116.00	Fujitsu TA08025-B604	3	0.75	0.000	63.90	1.962	0.50	120.80	2.860	0.50
116.00	Commscope FFVV-65B-R2	3	0.75	0.000	70.80	12.271	0.64	316.02	15.007	0.64
116.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	4233.44	62.864	1.00
116.00	Fujitsu TA08025-B605	3	0.75	0.000	75.00	1.962	0.50	136.13	2.860	0.50
105.00	Commscope VV-65A-R1	3	0.75	0.000	23.80	5.928	0.63	137.29	7.976	0.63
105.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	4216.93	62.669	1.00
105.00	RFS APXVAALL24 43-U-NA20	3	0.75	0.000	122.80	20.243	0.63	499.25	23.828	0.63
105.00	Ericsson Air6449 B41	3	0.75	0.000	104.00	5.682	0.63	235.71	7.216	0.63
105.00	Ceragon RFU-D-HP	2	0.75	0.000	26.50	1.187	0.50	56.03	1.888	0.50
105.00	Ericsson 4460 BAND 2/25	3	0.75	0.000	109.00	2.564	0.67	194.43	3.583	0.67
105.00	Ericsson 4480 BAND 71	3	0.75	0.000	81.00	2.878	0.67	154.57	3.963	0.67
105.00	Commscope VHLP2-11W/A	1	0.75	0.000	17.00	4.650	1.00	103.89	5.877	1.00
Totals	**Row Count: 31**	**77**			**15,232.20**			**31,462.25**		

LINEAR APPURTENANCE PROPERTIES

Elev From (ft)	Elev To (ft)	Qty	Description	Diameter (in)	Weight (lb/ft)	Flat	Max/ Row	Distance Between Rows(in)	Distance Between Cols(in)	Azimuth (deg)	Distance From Face (in)	Exposed To Wind	Carrier
0.00	138.40	2	1 1/4" Hybriflex Cabl	1.54	1	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	137.00	11	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	137.00	2	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	127.00	12	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	127.00	4	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	127.00	2	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	127.00	2	0.82" (20.8mm) 8 AWG	0.82	0.62	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	127.00	1	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	126.70	2	0.82" (20.8mm) 8 AWG	0.82	0.62	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	126.70	1	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	116.00	1	1.60" (40.6mm) Hybrid	1.6	2.34	N	0	0	0	0	0	N	DISH WIRELESS L.L.C.
0.00	105.00	3	1.99" (50.7mm) Hybrid	1.99	1.9	N	0	0	0	0	0	N	T-MOBILE
0.00	105.00	2	.28" (7mm) Cable	0.28	0.45	N	0	0	0	0	0	N	T-MOBILE

LINEAR APPURTENANCE PROPERTIES

Elev From (ft)	Elev To (ft)	Qty	Description	Diameter (in)	Weight (lb/ft)	Flat	Max/ Row	Distance Between Rows(in)	Distance Between Cols(in)	Azimuth (deg)	Distance From Face (in)	Exposed To Wind	Carrier
0.00	105.00	2	0.19" (4.8mm) Fiber	0.19	0.02	N	0	0	0	0	0	N	T-MOBILE

SEGMENT PROPERTIES

Seg Top Elev (ft)	Description *(Max Length: 2 ft)*	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)
0.00		0.4375	65.000	89.650	47,213.20	24.79	148.57	72.2	1430.6	0.0	0.0
2.00		0.4375	64.461	88.901	46,040.50	24.57	147.34	72.5	1406.8	0.0	607.6
4.00		0.4375	63.922	88.153	44,887.40	24.35	146.11	72.8	1383.1	0.0	602.5
6.00		0.4375	63.383	87.404	43,753.70	24.13	144.88	73	1359.6	0.0	597.4
8.00		0.4375	62.844	86.656	42,639.20	23.92	143.64	73.3	1336.4	0.0	592.3
10.00		0.4375	62.305	85.907	41,543.90	23.70	142.41	73.5	1313.3	0.0	587.2
12.00		0.4375	61.766	85.159	40,467.40	23.48	141.18	73.8	1290.4	0.0	582.1
14.00		0.4375	61.227	84.411	39,409.80	23.27	139.95	74	1267.8	0.0	577.0
16.00		0.4375	60.688	83.662	38,370.70	23.05	138.71	74.3	1245.3	0.0	571.9
18.00		0.4375	60.149	82.914	37,350.00	22.83	137.48	74.5	1223.1	0.0	566.8
20.00		0.4375	59.610	82.165	36,347.60	22.61	136.25	74.8	1201.0	0.0	561.7
22.00		0.4375	59.071	81.417	35,363.30	22.40	135.02	75.1	1179.1	0.0	556.6
24.00		0.4375	58.532	80.668	34,396.90	22.18	133.79	75.3	1157.5	0.0	551.5
26.00		0.4375	57.993	79.920	33,448.30	21.96	132.55	75.6	1136.0	0.0	546.4
28.00		0.4375	57.454	79.171	32,517.30	21.75	131.32	75.8	1114.8	0.0	541.4
30.00		0.4375	56.915	78.423	31,603.80	21.53	130.09	76.1	1093.7	0.0	536.3
32.00		0.4375	56.376	77.674	30,707.50	21.31	128.86	76.3	1072.8	0.0	531.2
34.00		0.4375	55.837	76.926	29,828.30	21.09	127.63	76.6	1052.2	0.0	526.1
36.00		0.4375	55.297	76.177	28,966.10	20.88	126.39	76.8	1031.7	0.0	521.0
38.00		0.4375	54.758	75.429	28,120.60	20.66	125.16	77.1	1011.5	0.0	515.9
40.00		0.4375	54.219	74.680	27,291.80	20.44	123.93	77.4	991.4	0.0	510.8
42.00		0.4375	53.680	73.932	26,479.40	20.22	122.70	77.6	971.6	0.0	505.7
44.00		0.4375	53.141	73.183	25,683.30	20.01	121.47	77.9	951.9	0.0	500.6
46.00		0.4375	52.602	72.435	24,903.30	19.79	120.23	78.1	932.5	0.0	495.5
46.08	Bot - Section 2	0.4375	52.580	72.404	24,871.10	19.78	120.18	78.1	931.7	0.0	20.5
48.00		0.4375	52.063	71.686	24,139.20	19.57	119.00	78.4	913.2	0.0	878.9
50.00		0.4375	51.524	70.938	23,391.00	19.36	117.77	78.6	894.2	0.0	907.9
52.00		0.4375	50.985	70.189	22,658.30	19.14	116.54	78.9	875.3	0.0	898.4
53.25	Top - Section 1	0.3750	51.398	60.728	19,974.80	22.76	137.06	74.6	765.4	0.0	556.7
54.00		0.3750	51.196	60.488	19,738.40	22.66	136.52	74.7	759.4	0.0	154.7
56.00		0.3750	50.657	59.846	19,116.90	22.41	135.09	75	743.3	0.0	409.5
58.00		0.3750	50.118	59.205	18,508.70	22.16	133.65	75.3	727.4	0.0	405.1
60.00		0.3750	49.579	58.563	17,913.50	21.90	132.21	75.6	711.6	0.0	400.7
62.00		0.3750	49.040	57.922	17,331.20	21.65	130.77	75.9	696.1	0.0	396.4
64.00		0.3750	48.501	57.280	16,761.70	21.39	129.34	76.2	680.7	0.0	392.0
66.00		0.3750	47.962	56.638	16,204.70	21.14	127.90	76.5	665.5	0.0	387.6
68.00		0.3750	47.423	55.997	15,660.30	20.89	126.46	76.8	650.4	0.0	383.3
70.00		0.3750	46.884	55.355	15,128.20	20.63	125.02	77.1	635.5	0.0	378.9
72.00		0.3750	46.345	54.714	14,608.30	20.38	123.59	77.4	620.8	0.0	374.5
74.00		0.3750	45.806	54.072	14,100.40	20.13	122.15	77.7	606.3	0.0	370.2
76.00		0.3750	45.267	53.431	13,604.40	19.87	120.71	78	591.9	0.0	365.8
78.00		0.3750	44.728	52.789	13,120.20	19.62	119.27	78.3	577.8	0.0	361.4
80.00		0.3750	44.189	52.148	12,647.70	19.37	117.84	78.6	563.7	0.0	357.1
82.00		0.3750	43.650	51.506	12,186.60	19.11	116.40	78.9	549.9	0.0	352.7
84.00		0.3750	43.111	50.864	11,736.80	18.86	114.96	79.2	536.2	0.0	348.3
86.00		0.3750	42.572	50.223	11,298.30	18.61	113.52	79.5	522.7	0.0	344.0
88.00		0.3750	42.033	49.581	10,870.80	18.35	112.09	79.8	509.4	0.0	339.6
88.75	Bot - Section 3	0.3750	41.831	49.341	10,713.40	18.26	111.55	79.9	504.4	0.0	126.2
90.00		0.3750	41.494	48.940	10,454.30	18.10	110.65	80.1	496.2	0.0	368.3
92.00		0.3750	40.955	48.298	10,048.50	17.85	109.21	80.4	483.3	0.0	583.1
94.00		0.3750	40.416	47.657	9,653.40	17.59	107.78	80.7	470.4	0.0	575.4
94.67	Top - Section 2	0.2813	40.799	36.174	7,503.00	24.16	145.04	73	362.2	0.0	190.1
96.00		0.2813	40.439	35.854	7,305.10	23.94	143.76	73.2	355.8	0.0	163.4
98.00		0.2813	39.900	35.372	7,014.90	23.60	141.84	73.6	346.3	0.0	242.4

SEGMENT PROPERTIES

Seg Top Elev (ft)	Description	*(Max Length: 2 ft)*	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)
100.00			0.2813	39.361	34.891	6,732.50	23.26	139.93	74	336.9	0.0	239.1
102.00			0.2813	38.822	34.410	6,457.70	22.92	138.01	74.4	327.6	0.0	235.8
104.00			0.2813	38.283	33.929	6,190.50	22.59	136.09	74.8	318.5	0.0	232.5
105.00			0.2813	38.014	33.688	6,059.70	22.42	135.14	75	314.0	0.0	115.0
106.00			0.2813	37.744	33.447	5,930.80	22.25	134.18	75.2	309.5	0.0	114.2
108.00			0.2813	37.205	32.966	5,678.50	21.91	132.26	75.6	300.6	0.0	226.0
110.00			0.2813	36.666	32.485	5,433.40	21.57	130.34	76	291.9	0.0	222.7
112.00			0.2813	36.127	32.004	5,195.50	21.23	128.43	76.4	283.3	0.0	219.4
114.00			0.2813	35.588	31.522	4,964.60	20.90	126.51	76.8	274.8	0.0	216.2
116.00			0.2813	35.049	31.041	4,740.70	20.56	124.60	77.2	266.4	0.0	212.9
118.00			0.2813	34.510	30.560	4,523.60	20.22	122.68	77.6	258.2	0.0	209.6
120.00			0.2813	33.971	30.079	4,313.20	19.88	120.76	78	250.1	0.0	206.3
122.00			0.2813	33.432	29.597	4,109.50	19.55	118.85	78.4	242.1	0.0	203.1
124.00			0.2813	32.893	29.116	3,912.30	19.21	116.93	78.8	234.3	0.0	199.8
126.00			0.2813	32.354	28.635	3,721.50	18.87	115.02	79.2	226.6	0.0	196.5
127.00			0.2813	32.084	28.394	3,628.40	18.70	114.06	79.4	222.7	0.0	97.0
128.00			0.2813	31.815	28.154	3,537.00	18.53	113.10	79.6	219.0	0.0	96.2
130.00			0.2813	31.276	27.672	3,358.70	18.19	111.18	80	211.5	0.0	190.0
132.00			0.2813	30.737	27.191	3,186.50	17.86	109.27	80.4	204.2	0.0	186.7
134.00			0.2813	30.198	26.710	3,020.20	17.52	107.35	80.8	197.0	0.0	183.4
136.00			0.2813	29.659	26.229	2,859.90	17.18	105.43	81.2	189.9	0.0	180.1
137.00			0.2813	29.389	25.988	2,781.90	17.01	104.48	81.4	186.4	0.0	88.8
138.00			0.2813	29.120	25.747	2,705.40	16.84	103.52	81.6	183.0	0.0	88.0
138.40			0.2813	29.012	25.651	2,675.10	16.77	103.13	81.7	181.6	0.0	35.0
140.00			0.2813	28.581	25.266	2,556.50	16.50	101.60	82	176.2	0.0	138.6
											Total:	**29,051.5**

CALCULATED FORCES

Load Case: 1.2D + 1.0W — 119 mph Wind with No Ice — 22 Iterations

Gust Response Factor: 1.10
Dead load Factor: 1.20
Wind Load Factor: 1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-59.73	-36.86	0.00	-3,741.8	0.00	3,741.78	5,829.27	1,573.36	9,174.65	7,752.02	0	0	0.493
2.00	-58.87	-36.66	0.00	-3,668.1	0.00	3,668.06	5,801.05	1,560.22	9,022.10	7,649.65	0.01	-0.04	0.490
4.00	-58.02	-36.46	0.00	-3,594.7	0.00	3,594.74	5,772.48	1,547.08	8,870.84	7,547.45	0.04	-0.09	0.487
6.00	-57.17	-36.26	0.00	-3,521.8	0.00	3,521.83	5,743.57	1,533.95	8,720.86	7,445.45	0.09	-0.13	0.484
8.00	-56.32	-36.06	0.00	-3,449.3	0.00	3,449.31	5,714.31	1,520.81	8,572.15	7,343.65	0.15	-0.18	0.480
10.00	-55.49	-35.86	0.00	-3,377.2	0.00	3,377.19	5,684.71	1,507.68	8,424.72	7,242.07	0.24	-0.23	0.477
12.00	-54.66	-35.66	0.00	-3,305.5	0.00	3,305.48	5,654.76	1,494.54	8,278.58	7,140.71	0.34	-0.27	0.473
14.00	-53.83	-35.47	0.00	-3,234.2	0.00	3,234.15	5,624.47	1,481.40	8,133.71	7,039.60	0.47	-0.32	0.470
16.00	-53.01	-35.27	0.00	-3,163.2	0.00	3,163.22	5,593.84	1,468.27	7,990.12	6,938.73	0.61	-0.36	0.466
18.00	-52.20	-35.06	0.00	-3,092.7	0.00	3,092.69	5,562.86	1,455.13	7,847.80	6,838.13	0.77	-0.41	0.462
20.00	-51.40	-34.86	0.00	-3,022.6	0.00	3,022.56	5,531.54	1,442.00	7,706.77	6,737.80	0.96	-0.46	0.458
22.00	-50.60	-34.65	0.00	-2,952.8	0.00	2,952.85	5,499.87	1,428.86	7,567.02	6,637.75	1.16	-0.5	0.455
24.00	-49.80	-34.43	0.00	-2,883.6	0.00	2,883.56	5,467.86	1,415.73	7,428.54	6,538.00	1.38	-0.55	0.451
26.00	-49.02	-34.21	0.00	-2,814.7	0.00	2,814.70	5,435.50	1,402.59	7,291.34	6,438.56	1.62	-0.6	0.447
28.00	-48.24	-33.99	0.00	-2,746.3	0.00	2,746.27	5,402.81	1,389.45	7,155.43	6,339.43	1.88	-0.64	0.443
30.00	-47.47	-33.77	0.00	-2,678.3	0.00	2,678.29	5,369.76	1,376.32	7,020.79	6,240.64	2.16	-0.69	0.439
32.00	-46.70	-33.55	0.00	-2,610.7	0.00	2,610.74	5,336.37	1,363.18	6,887.43	6,142.19	2.46	-0.74	0.434
34.00	-45.94	-33.32	0.00	-2,543.6	0.00	2,543.65	5,302.64	1,350.05	6,755.34	6,044.10	2.78	-0.79	0.430
36.00	-45.18	-33.09	0.00	-2,477.0	0.00	2,477.02	5,268.57	1,336.91	6,624.54	5,946.37	3.12	-0.84	0.426
38.00	-44.44	-32.86	0.00	-2,410.8	0.00	2,410.83	5,234.14	1,323.77	6,495.02	5,849.01	3.48	-0.88	0.421
40.00	-43.70	-32.63	0.00	-2,345.1	0.00	2,345.11	5,199.38	1,310.64	6,366.77	5,752.05	3.86	-0.93	0.417
42.00	-42.96	-32.40	0.00	-2,279.8	0.00	2,279.85	5,164.27	1,297.50	6,239.81	5,655.49	4.27	-0.98	0.412
44.00	-42.23	-32.17	0.00	-2,215.0	0.00	2,215.05	5,128.82	1,284.37	6,114.12	5,559.33	4.69	-1.03	0.407
46.00	-41.52	-32.04	0.00	-2,150.7	0.00	2,150.72	5,093.02	1,271.23	5,989.71	5,463.61	5.13	-1.08	0.402
46.08	-41.48	-31.93	0.00	-2,148.0	0.00	2,148.05	5,091.52	1,270.68	5,984.55	5,459.63	5.15	-1.08	0.402
48.00	-40.31	-31.68	0.00	-2,086.9	0.00	2,086.86	5,056.88	1,258.09	5,866.58	5,368.31	5.59	-1.12	0.397
50.00	-39.09	-31.43	0.00	-2,023.5	0.00	2,023.50	5,020.39	1,244.96	5,744.73	5,273.46	6.07	-1.17	0.392

CALCULATED FORCES

52.00	-37.89	-31.22	0.00	-1,960.6	0.00	1,960.64	4,983.56	1,231.82	5,624.15	5,179.08	6.57	-1.22	0.387
53.25	-37.15	-31.09	0.00	-1,921.6	0.00	1,921.61	4,079.17	1,065.78	4,911.65	4,284.64	6.9	-1.25	0.458
54.00	-36.91	-30.94	0.00	-1,898.3	0.00	1,898.29	4,069.10	1,061.56	4,872.82	4,257.00	7.1	-1.27	0.456
56.00	-36.29	-30.70	0.00	-1,836.4	0.00	1,836.41	4,042.00	1,050.30	4,770.01	4,183.47	7.64	-1.32	0.449
58.00	-35.68	-30.46	0.00	-1,775.0	0.00	1,775.02	4,014.55	1,039.04	4,668.30	4,110.19	8.21	-1.38	0.442
60.00	-35.07	-30.23	0.00	-1,714.1	0.00	1,714.09	3,986.76	1,027.78	4,567.69	4,037.18	8.8	-1.43	0.434
62.00	-34.47	-29.99	0.00	-1,653.6	0.00	1,653.64	3,958.62	1,016.52	4,468.17	3,964.44	9.41	-1.49	0.427
64.00	-33.87	-29.75	0.00	-1,593.7	0.00	1,593.66	3,930.14	1,005.26	4,369.75	3,891.99	10.04	-1.54	0.419
66.00	-33.28	-29.52	0.00	-1,534.2	0.00	1,534.15	3,901.32	994.00	4,272.42	3,819.84	10.7	-1.59	0.411
68.00	-32.70	-29.28	0.00	-1,475.1	0.00	1,475.12	3,872.15	982.75	4,176.19	3,748.00	11.38	-1.64	0.403
70.00	-32.12	-29.04	0.00	-1,416.6	0.00	1,416.56	3,842.64	971.49	4,081.06	3,676.48	12.08	-1.7	0.395
72.00	-31.54	-28.81	0.00	-1,358.5	0.00	1,358.48	3,812.79	960.23	3,987.02	3,605.30	12.8	-1.75	0.386
74.00	-30.98	-28.57	0.00	-1,300.9	0.00	1,300.86	3,782.59	948.97	3,894.08	3,534.46	13.55	-1.8	0.377
76.00	-30.42	-28.34	0.00	-1,243.7	0.00	1,243.72	3,752.04	937.71	3,802.23	3,463.99	14.31	-1.85	0.368
78.00	-29.86	-28.10	0.00	-1,187.0	0.00	1,187.04	3,721.15	926.45	3,711.49	3,393.88	15.1	-1.9	0.359
80.00	-29.31	-27.87	0.00	-1,130.8	0.00	1,130.84	3,689.92	915.19	3,621.83	3,324.15	15.91	-1.95	0.349
82.00	-28.77	-27.64	0.00	-1,075.1	0.00	1,075.10	3,658.34	903.93	3,533.28	3,254.81	16.74	-2	0.339
84.00	-28.23	-27.40	0.00	-1,019.8	0.00	1,019.83	3,626.42	892.67	3,445.81	3,185.88	17.59	-2.05	0.329
86.00	-27.70	-27.17	0.00	-965.0	0.00	965.02	3,594.15	881.41	3,359.45	3,117.36	18.46	-2.1	0.318
88.00	-27.18	-27.01	0.00	-910.7	0.00	910.68	3,561.54	870.15	3,274.18	3,049.27	19.35	-2.15	0.307
88.75	-26.98	-26.89	0.00	-890.4	0.00	890.43	3,549.23	865.93	3,242.49	3,023.84	19.69	-2.16	0.303
90.00	-26.47	-26.70	0.00	-856.8	0.00	856.81	3,528.59	858.89	3,190.01	2,981.61	20.26	-2.19	0.296
92.00	-25.65	-26.45	0.00	-803.4	0.00	803.42	3,495.29	847.63	3,106.93	2,914.41	21.19	-2.24	0.284
94.00	-24.85	-26.28	0.00	-750.5	0.00	750.51	3,461.65	836.37	3,024.95	2,847.66	22.13	-2.28	0.272
94.67	-24.58	-26.16	0.00	-733.0	0.00	732.99	2,376.03	634.86	2,323.29	1,982.62	22.45	-2.3	0.382
96.00	-24.30	-25.98	0.00	-698.1	0.00	698.11	2,363.50	629.23	2,282.26	1,954.56	23.1	-2.33	0.369
98.00	-23.90	-25.76	0.00	-646.2	0.00	646.15	2,344.43	620.78	2,221.41	1,912.58	24.09	-2.38	0.350
100.00	-23.49	-25.54	0.00	-594.6	0.00	594.63	2,325.01	612.34	2,161.38	1,870.75	25.09	-2.43	0.330
102.00	-23.09	-25.31	0.00	-543.6	0.00	543.56	2,305.25	603.89	2,102.18	1,829.09	26.12	-2.48	0.309
104.00	-22.70	-25.15	0.00	-492.9	0.00	492.94	2,285.14	595.45	2,043.79	1,787.59	27.17	-2.52	0.287
105.00	-18.05	-20.14	0.00	-467.8	0.00	467.79	2,274.96	591.22	2,014.91	1,766.91	27.7	-2.54	0.274
106.00	-17.87	-19.97	0.00	-447.7	0.00	447.66	2,264.69	587.00	1,986.23	1,746.28	28.24	-2.57	0.265
108.00	-17.50	-19.75	0.00	-407.7	0.00	407.71	2,243.90	578.55	1,929.49	1,705.16	29.32	-2.61	0.248
110.00	-17.14	-19.53	0.00	-368.2	0.00	368.20	2,222.76	570.11	1,873.58	1,664.26	30.42	-2.65	0.230
112.00	-16.79	-19.32	0.00	-329.1	0.00	329.13	2,201.28	561.66	1,818.48	1,623.57	31.54	-2.68	0.212
114.00	-16.44	-19.10	0.00	-290.5	0.00	290.50	2,179.45	553.22	1,764.21	1,583.11	32.67	-2.72	0.192
116.00	-12.47	-15.55	0.00	-252.3	0.00	252.30	2,157.28	544.77	1,710.76	1,542.89	33.82	-2.75	0.170
118.00	-12.14	-15.34	0.00	-221.2	0.00	221.20	2,134.76	536.32	1,658.13	1,502.92	34.97	-2.78	0.154
120.00	-11.81	-15.12	0.00	-190.5	0.00	190.52	2,111.90	527.88	1,606.32	1,463.22	36.14	-2.8	0.137
122.00	-11.49	-14.91	0.00	-160.3	0.00	160.27	2,088.70	519.43	1,555.34	1,423.80	37.32	-2.83	0.119
124.00	-11.17	-14.70	0.00	-130.4	0.00	130.45	2,065.15	510.99	1,505.17	1,384.67	38.51	-2.85	0.100
126.00	-10.86	-14.54	0.00	-101.0	0.00	101.04	2,041.25	502.54	1,455.84	1,345.83	39.71	-2.86	0.081
127.00	-6.36	-9.72	0.00	-86.5	0.00	86.50	2,029.18	498.32	1,431.47	1,326.53	40.31	-2.87	0.069
128.00	-6.24	-9.57	0.00	-76.8	0.00	76.78	2,017.02	494.09	1,407.32	1,307.31	40.91	-2.88	0.062
130.00	-5.98	-9.37	0.00	-57.6	0.00	57.63	1,992.44	485.65	1,359.62	1,269.10	42.11	-2.89	0.049
132.00	-5.74	-9.17	0.00	-38.9	0.00	38.88	1,967.51	477.20	1,312.75	1,231.24	43.33	-2.89	0.035
134.00	-3.30	-7.79	0.00	-20.5	0.00	20.54	1,942.24	468.76	1,266.70	1,193.72	44.54	-2.9	0.019
136.00	-2.03	-3.99	0.00	-5.0	0.00	4.95	1,916.63	460.31	1,221.47	1,156.55	45.75	-2.9	0.005
137.00	-0.51	-0.44	0.00	-0.7	0.00	0.70	1,903.69	456.09	1,199.16	1,138.11	46.36	-2.9	0.001
138.00	-0.41	-0.37	0.00	-0.3	0.00	0.26	1,890.67	451.86	1,177.06	1,119.75	46.97	-2.9	0.000
138.40	-0.16	-0.07	0.00	-0.1	0.00	0.11	1,885.43	450.18	1,168.28	1,112.44	47.21	-2.9	0.000
140.00	0.00	-0.06	0.00	0.0	0.00	0.00	1,864.36	443.42	1,133.48	1,083.34	48.18	-2.9	0.000

CALCULATED FORCES

Load Case: 0.9D + 1.0W — 119 mph Wind with No Ice (Reduced DL) — 22 Iterations

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

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-44.80	-36.86	0.00	-3,716.9	0.00	3,716.94	5,829.27	1,573.36	9,174.65	7,752.02	0	0	0.488
2.00	-44.14	-36.64	0.00	-3,643.2	0.00	3,643.23	5,801.05	1,560.22	9,022.10	7,649.65	0.01	-0.04	0.484
4.00	-43.49	-36.43	0.00	-3,569.9	0.00	3,569.94	5,772.48	1,547.08	8,870.84	7,547.45	0.04	-0.09	0.481
6.00	-42.85	-36.22	0.00	-3,497.1	0.00	3,497.09	5,743.57	1,533.95	8,720.86	7,445.45	0.09	-0.13	0.478
8.00	-42.21	-36.01	0.00	-3,424.6	0.00	3,424.65	5,714.31	1,520.81	8,572.15	7,343.65	0.15	-0.18	0.474
10.00	-41.58	-35.80	0.00	-3,352.6	0.00	3,352.64	5,684.71	1,507.68	8,424.72	7,242.07	0.24	-0.22	0.471
12.00	-40.95	-35.59	0.00	-3,281.0	0.00	3,281.04	5,654.76	1,494.54	8,278.58	7,140.71	0.34	-0.27	0.467
14.00	-40.32	-35.38	0.00	-3,209.9	0.00	3,209.86	5,624.47	1,481.40	8,133.71	7,039.60	0.46	-0.32	0.464
16.00	-39.70	-35.18	0.00	-3,139.1	0.00	3,139.10	5,593.84	1,468.27	7,990.12	6,938.73	0.61	-0.36	0.460
18.00	-39.09	-34.96	0.00	-3,068.8	0.00	3,068.75	5,562.86	1,455.13	7,847.80	6,838.13	0.77	-0.41	0.456
20.00	-38.48	-34.75	0.00	-2,998.8	0.00	2,998.82	5,531.54	1,442.00	7,706.77	6,737.80	0.95	-0.45	0.453
22.00	-37.87	-34.53	0.00	-2,929.3	0.00	2,929.33	5,499.87	1,428.86	7,567.02	6,637.75	1.15	-0.5	0.449
24.00	-37.27	-34.30	0.00	-2,860.3	0.00	2,860.28	5,467.86	1,415.73	7,428.54	6,538.00	1.37	-0.55	0.445
26.00	-36.68	-34.08	0.00	-2,791.7	0.00	2,791.67	5,435.50	1,402.59	7,291.34	6,438.56	1.61	-0.59	0.441
28.00	-36.08	-33.85	0.00	-2,723.5	0.00	2,723.52	5,402.81	1,389.45	7,155.43	6,339.43	1.87	-0.64	0.437
30.00	-35.50	-33.62	0.00	-2,655.8	0.00	2,655.83	5,369.76	1,376.32	7,020.79	6,240.64	2.15	-0.69	0.433
32.00	-34.92	-33.39	0.00	-2,588.6	0.00	2,588.59	5,336.37	1,363.18	6,887.43	6,142.19	2.44	-0.73	0.429
34.00	-34.34	-33.15	0.00	-2,521.8	0.00	2,521.82	5,302.64	1,350.05	6,755.34	6,044.10	2.76	-0.78	0.424
36.00	-33.77	-32.92	0.00	-2,455.5	0.00	2,455.52	5,268.57	1,336.91	6,624.54	5,946.37	3.1	-0.83	0.420
38.00	-33.20	-32.68	0.00	-2,389.7	0.00	2,389.69	5,234.14	1,323.77	6,495.02	5,849.01	3.46	-0.88	0.416
40.00	-32.64	-32.44	0.00	-2,324.3	0.00	2,324.33	5,199.38	1,310.64	6,366.77	5,752.05	3.84	-0.92	0.411
42.00	-32.09	-32.20	0.00	-2,259.4	0.00	2,259.45	5,164.27	1,297.50	6,239.81	5,655.49	4.23	-0.97	0.406
44.00	-31.54	-31.96	0.00	-2,195.0	0.00	2,195.04	5,128.82	1,284.37	6,114.12	5,559.33	4.65	-1.02	0.402
46.00	-31.00	-31.84	0.00	-2,131.1	0.00	2,131.11	5,093.02	1,271.23	5,989.71	5,463.61	5.09	-1.07	0.397
46.08	-30.97	-31.72	0.00	-2,128.5	0.00	2,128.46	5,091.52	1,270.68	5,984.55	5,459.63	5.11	-1.07	0.397
48.00	-30.08	-31.47	0.00	-2,067.7	0.00	2,067.67	5,056.88	1,258.09	5,866.58	5,368.31	5.55	-1.12	0.392
50.00	-29.16	-31.22	0.00	-2,004.7	0.00	2,004.73	5,020.39	1,244.96	5,744.73	5,273.46	6.03	-1.16	0.387
52.00	-28.26	-31.01	0.00	-1,942.3	0.00	1,942.29	4,983.56	1,231.82	5,624.15	5,179.08	6.52	-1.21	0.381
53.25	-27.70	-30.88	0.00	-1,903.5	0.00	1,903.52	4,079.17	1,065.78	4,911.65	4,284.64	6.85	-1.24	0.452
54.00	-27.52	-30.72	0.00	-1,880.4	0.00	1,880.36	4,069.10	1,061.56	4,872.82	4,257.00	7.04	-1.26	0.449
56.00	-27.05	-30.48	0.00	-1,818.9	0.00	1,818.93	4,042.00	1,050.30	4,770.01	4,183.47	7.58	-1.31	0.442
58.00	-26.58	-30.23	0.00	-1,758.0	0.00	1,757.98	4,014.55	1,039.04	4,668.30	4,110.19	8.14	-1.37	0.435
60.00	-26.12	-29.99	0.00	-1,697.5	0.00	1,697.51	3,986.76	1,027.78	4,567.69	4,037.18	8.73	-1.42	0.428
62.00	-25.66	-29.75	0.00	-1,637.5	0.00	1,637.52	3,958.62	1,016.52	4,468.17	3,964.44	9.34	-1.47	0.420
64.00	-25.21	-29.51	0.00	-1,578.0	0.00	1,578.02	3,930.14	1,005.26	4,369.75	3,891.99	9.96	-1.53	0.413
66.00	-24.77	-29.27	0.00	-1,519.0	0.00	1,519.00	3,901.32	994.00	4,272.42	3,819.84	10.61	-1.58	0.405
68.00	-24.32	-29.03	0.00	-1,460.5	0.00	1,460.46	3,872.15	982.75	4,176.19	3,748.00	11.29	-1.63	0.397
70.00	-23.88	-28.79	0.00	-1,402.4	0.00	1,402.40	3,842.64	971.49	4,081.06	3,676.48	11.98	-1.68	0.389
72.00	-23.45	-28.55	0.00	-1,344.8	0.00	1,344.83	3,812.79	960.23	3,987.02	3,605.30	12.7	-1.73	0.380
74.00	-23.02	-28.31	0.00	-1,287.7	0.00	1,287.73	3,782.59	948.97	3,894.08	3,534.46	13.44	-1.79	0.371
76.00	-22.60	-28.07	0.00	-1,231.1	0.00	1,231.10	3,752.04	937.71	3,802.23	3,463.99	14.2	-1.84	0.362
78.00	-22.18	-27.84	0.00	-1,175.0	0.00	1,174.95	3,721.15	926.45	3,711.49	3,393.88	14.98	-1.89	0.353
80.00	-21.76	-27.60	0.00	-1,119.3	0.00	1,119.28	3,689.92	915.19	3,621.83	3,324.15	15.78	-1.94	0.344
82.00	-21.35	-27.37	0.00	-1,064.1	0.00	1,064.08	3,658.34	903.93	3,533.28	3,254.81	16.6	-1.99	0.334
84.00	-20.94	-27.13	0.00	-1,009.4	0.00	1,009.35	3,626.42	892.67	3,445.81	3,185.88	17.44	-2.03	0.324
86.00	-20.54	-26.90	0.00	-955.1	0.00	955.08	3,594.15	881.41	3,359.45	3,117.36	18.3	-2.08	0.313
88.00	-20.15	-26.73	0.00	-901.3	0.00	901.29	3,561.54	870.15	3,274.18	3,049.27	19.19	-2.13	0.302
88.75	-20.00	-26.62	0.00	-881.2	0.00	881.24	3,549.23	865.93	3,242.49	3,023.84	19.52	-2.15	0.298
90.00	-19.61	-26.43	0.00	-848.0	0.00	847.96	3,528.59	858.89	3,190.01	2,981.61	20.09	-2.17	0.291
92.00	-19.00	-26.18	0.00	-795.1	0.00	795.11	3,495.29	847.63	3,106.93	2,914.41	21.01	-2.22	0.279
94.00	-18.39	-26.02	0.00	-742.8	0.00	742.75	3,461.65	836.37	3,024.95	2,847.66	21.95	-2.26	0.267
94.67	-18.19	-25.90	0.00	-725.4	0.00	725.40	2,376.03	634.86	2,323.29	1,982.62	22.27	-2.28	0.375
96.00	-17.98	-25.71	0.00	-690.9	0.00	690.87	2,363.50	629.23	2,282.26	1,954.56	22.91	-2.31	0.363
98.00	-17.67	-25.49	0.00	-639.4	0.00	639.45	2,344.43	620.78	2,221.41	1,912.58	23.88	-2.36	0.344
100.00	-17.37	-25.27	0.00	-588.5	0.00	588.47	2,325.01	612.34	2,161.38	1,870.75	24.88	-2.41	0.324

CALCULATED FORCES

102.00	-17.06	-25.04	0.00	-537.9	0.00	537.94	2,305.25	603.89	2,102.18	1,829.09	25.9	-2.45	0.303
104.00	-16.77	-24.88	0.00	-487.8	0.00	487.85	2,285.14	595.45	2,043.79	1,787.59	26.94	-2.5	0.282
105.00	-13.33	-19.92	0.00	-463.0	0.00	462.98	2,274.96	591.22	2,014.91	1,766.91	27.47	-2.52	0.269
106.00	-13.19	-19.76	0.00	-443.1	0.00	443.06	2,264.69	587.00	1,986.23	1,746.28	28	-2.54	0.261
108.00	-12.92	-19.54	0.00	-403.5	0.00	403.54	2,243.90	578.55	1,929.49	1,705.16	29.07	-2.58	0.244
110.00	-12.65	-19.32	0.00	-364.5	0.00	364.47	2,222.76	570.11	1,873.58	1,664.26	30.16	-2.62	0.226
112.00	-12.38	-19.10	0.00	-325.8	0.00	325.83	2,201.28	561.66	1,818.48	1,623.57	31.27	-2.66	0.207
114.00	-12.12	-18.89	0.00	-287.6	0.00	287.62	2,179.45	553.22	1,764.21	1,583.11	32.39	-2.69	0.188
116.00	-9.18	-15.39	0.00	-249.8	0.00	249.85	2,157.28	544.77	1,710.76	1,542.89	33.52	-2.72	0.167
118.00	-8.93	-15.18	0.00	-219.1	0.00	219.07	2,134.76	536.32	1,658.13	1,502.92	34.67	-2.75	0.151
120.00	-8.69	-14.97	0.00	-188.7	0.00	188.72	2,111.90	527.88	1,606.32	1,463.22	35.83	-2.78	0.134
122.00	-8.45	-14.76	0.00	-158.8	0.00	158.79	2,088.70	519.43	1,555.34	1,423.80	37	-2.8	0.116
124.00	-8.21	-14.55	0.00	-129.3	0.00	129.27	2,065.15	510.99	1,505.17	1,384.67	38.17	-2.82	0.098
126.00	-7.98	-14.39	0.00	-100.2	0.00	100.17	2,041.25	502.54	1,455.84	1,345.83	39.36	-2.84	0.079
127.00	-4.66	-9.64	0.00	-85.8	0.00	85.78	2,029.18	498.32	1,431.47	1,326.53	39.95	-2.84	0.067
128.00	-4.56	-9.49	0.00	-76.1	0.00	76.14	2,017.02	494.09	1,407.32	1,307.31	40.55	-2.85	0.061
130.00	-4.38	-9.29	0.00	-57.2	0.00	57.17	1,992.44	485.65	1,359.62	1,269.10	41.75	-2.86	0.048
132.00	-4.19	-9.09	0.00	-38.6	0.00	38.59	1,967.51	477.20	1,312.75	1,231.24	42.95	-2.87	0.034
134.00	-2.38	-7.75	0.00	-20.4	0.00	20.40	1,942.24	468.76	1,266.70	1,193.72	44.15	-2.87	0.019
136.00	-1.47	-3.96	0.00	-4.9	0.00	4.91	1,916.63	460.31	1,221.47	1,156.55	45.35	-2.88	0.005
137.00	-0.38	-0.43	0.00	-0.7	0.00	0.68	1,903.69	456.09	1,199.16	1,138.11	45.95	-2.88	0.001
138.00	-0.30	-0.36	0.00	-0.2	0.00	0.25	1,890.67	451.86	1,177.06	1,119.75	46.56	-2.88	0.000
138.40	-0.12	-0.07	0.00	-0.1	0.00	0.11	1,885.43	450.18	1,168.28	1,112.44	46.8	-2.88	0.000
140.00	0.00	-0.06	0.00	0.0	0.00	0.00	1,864.36	443.42	1,133.48	1,083.34	47.76	-2.88	0.000

CALCULATED FORCES

Load Case: 1.2D + 1.0Di + 1.0Wi — 50 mph Wind with 1.5" Radial Ice — 21 Iterations

Gust Response Factor: 1.10 — Ice Dead Load Factor 1.00
Dead load Factor: 1.20 — Ice Importance Factor 1.00
Wind Load Factor: 1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-86.68	-10.42	0.00	-1,055.4	0.00	1,055.41	5,829.27	1,573.36	9,174.65	7,752.02	0	0	0.151
2.00	-85.67	-10.36	0.00	-1,034.6	0.00	1,034.58	5,801.05	1,560.22	9,022.10	7,649.65	0	-0.01	0.150
4.00	-84.65	-10.30	0.00	-1,013.9	0.00	1,013.86	5,772.48	1,547.08	8,870.84	7,547.45	0.01	-0.03	0.149
6.00	-83.63	-10.25	0.00	-993.2	0.00	993.25	5,743.57	1,533.95	8,720.86	7,445.45	0.02	-0.04	0.148
8.00	-82.60	-10.19	0.00	-972.8	0.00	972.76	5,714.31	1,520.81	8,572.15	7,343.65	0.04	-0.05	0.147
10.00	-81.58	-10.14	0.00	-952.4	0.00	952.37	5,684.71	1,507.68	8,424.72	7,242.07	0.07	-0.06	0.146
12.00	-80.56	-10.08	0.00	-932.1	0.00	932.09	5,654.76	1,494.54	8,278.58	7,140.71	0.1	-0.08	0.145
14.00	-79.55	-10.03	0.00	-911.9	0.00	911.93	5,624.47	1,481.40	8,133.71	7,039.60	0.13	-0.09	0.144
16.00	-78.54	-9.97	0.00	-891.9	0.00	891.87	5,593.84	1,468.27	7,990.12	6,938.73	0.17	-0.1	0.143
18.00	-77.54	-9.92	0.00	-871.9	0.00	871.93	5,562.86	1,455.13	7,847.80	6,838.13	0.22	-0.12	0.141
20.00	-76.54	-9.86	0.00	-852.1	0.00	852.10	5,531.54	1,442.00	7,706.77	6,737.80	0.27	-0.13	0.140
22.00	-75.55	-9.80	0.00	-832.4	0.00	832.39	5,499.87	1,428.86	7,567.02	6,637.75	0.33	-0.14	0.139
24.00	-74.56	-9.74	0.00	-812.8	0.00	812.79	5,467.86	1,415.73	7,428.54	6,538.00	0.39	-0.16	0.138
26.00	-73.58	-9.67	0.00	-793.3	0.00	793.32	5,435.50	1,402.59	7,291.34	6,438.56	0.46	-0.17	0.137
28.00	-72.61	-9.61	0.00	-774.0	0.00	773.97	5,402.81	1,389.45	7,155.43	6,339.43	0.53	-0.18	0.136
30.00	-71.64	-9.55	0.00	-754.8	0.00	754.75	5,369.76	1,376.32	7,020.79	6,240.64	0.61	-0.2	0.134
32.00	-70.68	-9.48	0.00	-735.7	0.00	735.66	5,336.37	1,363.18	6,887.43	6,142.19	0.69	-0.21	0.133
34.00	-69.73	-9.42	0.00	-716.7	0.00	716.69	5,302.64	1,350.05	6,755.34	6,044.10	0.78	-0.22	0.132
36.00	-68.78	-9.35	0.00	-697.9	0.00	697.86	5,268.57	1,336.91	6,624.54	5,946.37	0.88	-0.24	0.130
38.00	-67.84	-9.29	0.00	-679.2	0.00	679.15	5,234.14	1,323.77	6,495.02	5,849.01	0.98	-0.25	0.129
40.00	-66.91	-9.22	0.00	-660.6	0.00	660.58	5,199.38	1,310.64	6,366.77	5,752.05	1.09	-0.26	0.128
42.00	-65.98	-9.15	0.00	-642.1	0.00	642.14	5,164.27	1,297.50	6,239.81	5,655.49	1.2	-0.28	0.126
44.00	-65.07	-9.08	0.00	-623.8	0.00	623.84	5,128.82	1,284.37	6,114.12	5,559.33	1.32	-0.29	0.125
46.00	-64.16	-9.05	0.00	-605.7	0.00	605.67	5,093.02	1,271.23	5,989.71	5,463.61	1.45	-0.3	0.124
46.08	-64.12	-9.01	0.00	-604.9	0.00	604.92	5,091.52	1,270.68	5,984.55	5,459.63	1.45	-0.3	0.123
48.00	-62.76	-8.94	0.00	-587.6	0.00	587.64	5,056.88	1,258.09	5,866.58	5,368.31	1.58	-0.32	0.122
50.00	-61.35	-8.87	0.00	-569.8	0.00	569.75	5,020.39	1,244.96	5,744.73	5,273.46	1.71	-0.33	0.120
52.00	-59.96	-8.81	0.00	-552.0	0.00	552.01	4,983.56	1,231.82	5,624.15	5,179.08	1.85	-0.34	0.119
53.25	-59.09	-8.77	0.00	-541.0	0.00	541.00	4,079.17	1,065.78	4,911.65	4,284.64	1.94	-0.35	0.141
54.00	-58.79	-8.73	0.00	-534.4	0.00	534.42	4,069.10	1,061.56	4,872.82	4,257.00	2	-0.36	0.140
56.00	-57.98	-8.66	0.00	-517.0	0.00	516.97	4,042.00	1,050.30	4,770.01	4,183.47	2.15	-0.37	0.138
58.00	-57.19	-8.59	0.00	-499.7	0.00	499.66	4,014.55	1,039.04	4,668.30	4,110.19	2.31	-0.39	0.136
60.00	-56.39	-8.52	0.00	-482.5	0.00	482.49	3,986.76	1,027.78	4,567.69	4,037.18	2.48	-0.4	0.134
62.00	-55.61	-8.45	0.00	-465.4	0.00	465.45	3,958.62	1,016.52	4,468.17	3,964.44	2.65	-0.42	0.132
64.00	-54.83	-8.38	0.00	-448.6	0.00	448.55	3,930.14	1,005.26	4,369.75	3,891.99	2.83	-0.43	0.129
66.00	-54.06	-8.31	0.00	-431.8	0.00	431.80	3,901.32	994.00	4,272.42	3,819.84	3.02	-0.45	0.127
68.00	-53.30	-8.24	0.00	-415.2	0.00	415.18	3,872.15	982.75	4,176.19	3,748.00	3.21	-0.46	0.125
70.00	-52.54	-8.17	0.00	-398.7	0.00	398.70	3,842.64	971.49	4,081.06	3,676.48	3.4	-0.48	0.122
72.00	-51.79	-8.10	0.00	-382.4	0.00	382.36	3,812.79	960.23	3,987.02	3,605.30	3.61	-0.49	0.120
74.00	-51.05	-8.03	0.00	-366.2	0.00	366.17	3,782.59	948.97	3,894.08	3,534.46	3.82	-0.51	0.117
76.00	-50.31	-7.96	0.00	-350.1	0.00	350.11	3,752.04	937.71	3,802.23	3,463.99	4.03	-0.52	0.115
78.00	-49.58	-7.89	0.00	-334.2	0.00	334.19	3,721.15	926.45	3,711.49	3,393.88	4.26	-0.54	0.112
80.00	-48.86	-7.82	0.00	-318.4	0.00	318.41	3,689.92	915.19	3,621.83	3,324.15	4.48	-0.55	0.109
82.00	-48.14	-7.75	0.00	-302.8	0.00	302.77	3,658.34	903.93	3,533.28	3,254.81	4.72	-0.56	0.106
84.00	-47.44	-7.68	0.00	-287.3	0.00	287.28	3,626.42	892.67	3,445.81	3,185.88	4.96	-0.58	0.103
86.00	-46.74	-7.61	0.00	-271.9	0.00	271.92	3,594.15	881.41	3,359.45	3,117.36	5.2	-0.59	0.100
88.00	-46.04	-7.56	0.00	-256.7	0.00	256.70	3,561.54	870.15	3,274.18	3,049.27	5.45	-0.6	0.097
88.75	-45.78	-7.52	0.00	-251.0	0.00	251.03	3,549.23	865.93	3,242.49	3,023.84	5.55	-0.61	0.096
90.00	-45.16	-7.47	0.00	-241.6	0.00	241.63	3,528.59	858.89	3,190.01	2,981.61	5.71	-0.62	0.094
92.00	-44.18	-7.39	0.00	-226.7	0.00	226.70	3,495.29	847.63	3,106.93	2,914.41	5.97	-0.63	0.091
94.00	-43.20	-7.34	0.00	-211.9	0.00	211.91	3,461.65	836.37	3,024.95	2,847.66	6.24	-0.64	0.087
94.67	-42.88	-7.30	0.00	-207.0	0.00	207.02	2,376.03	634.86	2,323.29	1,982.62	6.33	-0.65	0.123
96.00	-42.50	-7.25	0.00	-197.3	0.00	197.29	2,363.50	629.23	2,282.26	1,954.56	6.51	-0.66	0.119
98.00	-41.93	-7.18	0.00	-182.8	0.00	182.79	2,344.43	620.78	2,221.41	1,912.58	6.79	-0.67	0.114
100.00	-41.36	-7.11	0.00	-168.4	0.00	168.43	2,325.01	612.34	2,161.38	1,870.75	7.07	-0.68	0.108

CALCULATED FORCES

102.00	-40.80	-7.05	0.00	-154.2	0.00	154.21	2,305.25	603.89	2,102.18	1,829.09	7.36	-0.7	0.102
104.00	-40.25	-6.99	0.00	-140.1	0.00	140.12	2,285.14	595.45	2,043.79	1,787.59	7.66	-0.71	0.096
105.00	-31.74	-5.74	0.00	-133.1	0.00	133.12	2,274.96	591.22	2,014.91	1,766.91	7.81	-0.72	0.089
106.00	-31.47	-5.69	0.00	-127.4	0.00	127.39	2,264.69	587.00	1,986.23	1,746.28	7.96	-0.72	0.087
108.00	-30.95	-5.62	0.00	-116.0	0.00	116.02	2,243.90	578.55	1,929.49	1,705.16	8.26	-0.74	0.082
110.00	-30.43	-5.55	0.00	-104.8	0.00	104.78	2,222.76	570.11	1,873.58	1,664.26	8.57	-0.75	0.077
112.00	-29.92	-5.48	0.00	-93.7	0.00	93.69	2,201.28	561.66	1,818.48	1,623.57	8.89	-0.76	0.071
114.00	-29.41	-5.41	0.00	-82.7	0.00	82.73	2,179.45	553.22	1,764.21	1,583.11	9.21	-0.77	0.066
116.00	-22.69	-4.47	0.00	-71.9	0.00	71.91	2,157.28	544.77	1,710.76	1,542.89	9.53	-0.78	0.057
118.00	-22.20	-4.40	0.00	-63.0	0.00	62.96	2,134.76	536.32	1,658.13	1,502.92	9.86	-0.78	0.052
120.00	-21.72	-4.33	0.00	-54.2	0.00	54.16	2,111.90	527.88	1,606.32	1,463.22	10.19	-0.79	0.047
122.00	-21.24	-4.27	0.00	-45.5	0.00	45.49	2,088.70	519.43	1,555.34	1,423.80	10.52	-0.8	0.042
124.00	-20.77	-4.20	0.00	-37.0	0.00	36.95	2,065.15	510.99	1,505.17	1,384.67	10.86	-0.8	0.037
126.00	-20.30	-4.15	0.00	-28.6	0.00	28.56	2,041.25	502.54	1,455.84	1,345.83	11.19	-0.81	0.031
127.00	-11.77	-2.79	0.00	-24.4	0.00	24.41	2,029.18	498.32	1,431.47	1,326.53	11.36	-0.81	0.024
128.00	-11.57	-2.74	0.00	-21.6	0.00	21.62	2,017.02	494.09	1,407.32	1,307.31	11.53	-0.81	0.022
130.00	-11.16	-2.67	0.00	-16.1	0.00	16.14	1,992.44	485.65	1,359.62	1,269.10	11.87	-0.81	0.018
132.00	-10.77	-2.61	0.00	-10.8	0.00	10.79	1,967.51	477.20	1,312.75	1,231.24	12.22	-0.82	0.014
134.00	-7.45	-2.15	0.00	-5.6	0.00	5.57	1,942.24	468.76	1,266.70	1,193.72	12.56	-0.82	0.009
136.00	-5.27	-1.00	0.00	-1.3	0.00	1.28	1,916.63	460.31	1,221.47	1,156.55	12.9	-0.82	0.004
137.00	-0.93	-0.13	0.00	-0.2	0.00	0.22	1,903.69	456.09	1,199.16	1,138.11	13.07	-0.82	0.001
138.00	-0.76	-0.11	0.00	-0.1	0.00	0.08	1,890.67	451.86	1,177.06	1,119.75	13.24	-0.82	0.000
138.40	-0.27	-0.02	0.00	-0.0	0.00	0.04	1,885.43	450.18	1,168.28	1,112.44	13.31	-0.82	0.000
140.00	0.00	-0.02	0.00	0.0	0.00	0.00	1,864.36	443.42	1,133.48	1,083.34	13.59	-0.82	0.000

CALCULATED FORCES

Load Case: 1.0D + 1.0W 60 mph Wind with No Ice 21 Iterations

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

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-49.79	-8.38	0.00	-847.5	0.00	847.50	5,829.27	1,573.36	9,174.65	7,752.02	0	0	0.118
2.00	-49.09	-8.33	0.00	-830.7	0.00	830.73	5,801.05	1,560.22	9,022.10	7,649.65	0	-0.01	0.117
4.00	-48.40	-8.29	0.00	-814.1	0.00	814.06	5,772.48	1,547.08	8,870.84	7,547.45	0.01	-0.02	0.116
6.00	-47.72	-8.24	0.00	-797.5	0.00	797.49	5,743.57	1,533.95	8,720.86	7,445.45	0.02	-0.03	0.115
8.00	-47.04	-8.19	0.00	-781.0	0.00	781.01	5,714.31	1,520.81	8,572.15	7,343.65	0.03	-0.04	0.115
10.00	-46.36	-8.15	0.00	-764.6	0.00	764.62	5,684.71	1,507.68	8,424.72	7,242.07	0.05	-0.05	0.114
12.00	-45.69	-8.10	0.00	-748.3	0.00	748.33	5,654.76	1,494.54	8,278.58	7,140.71	0.08	-0.06	0.113
14.00	-45.02	-8.05	0.00	-732.1	0.00	732.13	5,624.47	1,481.40	8,133.71	7,039.60	0.11	-0.07	0.112
16.00	-44.36	-8.01	0.00	-716.0	0.00	716.03	5,593.84	1,468.27	7,990.12	6,938.73	0.14	-0.08	0.111
18.00	-43.71	-7.96	0.00	-700.0	0.00	700.01	5,562.86	1,455.13	7,847.80	6,838.13	0.18	-0.09	0.110
20.00	-43.06	-7.91	0.00	-684.1	0.00	684.10	5,531.54	1,442.00	7,706.77	6,737.80	0.22	-0.1	0.109
22.00	-42.41	-7.86	0.00	-668.3	0.00	668.28	5,499.87	1,428.86	7,567.02	6,637.75	0.26	-0.11	0.108
24.00	-41.77	-7.81	0.00	-652.6	0.00	652.55	5,467.86	1,415.73	7,428.54	6,538.00	0.31	-0.12	0.107
26.00	-41.14	-7.76	0.00	-636.9	0.00	636.93	5,435.50	1,402.59	7,291.34	6,438.56	0.37	-0.14	0.107
28.00	-40.51	-7.71	0.00	-621.4	0.00	621.41	5,402.81	1,389.45	7,155.43	6,339.43	0.43	-0.15	0.106
30.00	-39.88	-7.66	0.00	-606.0	0.00	605.99	5,369.76	1,376.32	7,020.79	6,240.64	0.49	-0.16	0.105
32.00	-39.26	-7.61	0.00	-590.7	0.00	590.68	5,336.37	1,363.18	6,887.43	6,142.19	0.56	-0.17	0.104
34.00	-38.65	-7.55	0.00	-575.5	0.00	575.47	5,302.64	1,350.05	6,755.34	6,044.10	0.63	-0.18	0.103
36.00	-38.04	-7.50	0.00	-560.4	0.00	560.36	5,268.57	1,336.91	6,624.54	5,946.37	0.71	-0.19	0.101
38.00	-37.43	-7.45	0.00	-545.4	0.00	545.36	5,234.14	1,323.77	6,495.02	5,849.01	0.79	-0.2	0.100
40.00	-36.84	-7.39	0.00	-530.5	0.00	530.47	5,199.38	1,310.64	6,366.77	5,752.05	0.87	-0.21	0.099
42.00	-36.24	-7.34	0.00	-515.7	0.00	515.68	5,164.27	1,297.50	6,239.81	5,655.49	0.97	-0.22	0.098
44.00	-35.65	-7.29	0.00	-501.0	0.00	501.01	5,128.82	1,284.37	6,114.12	5,559.33	1.06	-0.23	0.097
46.00	-35.07	-7.26	0.00	-486.4	0.00	486.43	5,093.02	1,271.23	5,989.71	5,463.61	1.16	-0.24	0.096
46.08	-35.04	-7.23	0.00	-485.8	0.00	485.83	5,091.52	1,270.68	5,984.55	5,459.63	1.17	-0.24	0.096
48.00	-34.08	-7.17	0.00	-472.0	0.00	471.97	5,056.88	1,258.09	5,866.58	5,368.31	1.27	-0.25	0.095
50.00	-33.08	-7.12	0.00	-457.6	0.00	457.62	5,020.39	1,244.96	5,744.73	5,273.46	1.37	-0.27	0.093
52.00	-32.10	-7.07	0.00	-443.4	0.00	443.39	4,983.56	1,231.82	5,624.15	5,179.08	1.49	-0.28	0.092
53.25	-31.49	-7.04	0.00	-434.6	0.00	434.55	4,079.17	1,065.78	4,911.65	4,284.64	1.56	-0.28	0.109
54.00	-31.30	-7.00	0.00	-429.3	0.00	429.27	4,069.10	1,061.56	4,872.82	4,257.00	1.61	-0.29	0.109
56.00	-30.80	-6.95	0.00	-415.3	0.00	415.26	4,042.00	1,050.30	4,770.01	4,183.47	1.73	-0.3	0.107
58.00	-30.31	-6.90	0.00	-401.4	0.00	401.36	4,014.55	1,039.04	4,668.30	4,110.19	1.86	-0.31	0.105
60.00	-29.82	-6.84	0.00	-387.6	0.00	387.57	3,986.76	1,027.78	4,567.69	4,037.18	1.99	-0.32	0.104
62.00	-29.33	-6.79	0.00	-373.9	0.00	373.89	3,958.62	1,016.52	4,468.17	3,964.44	2.13	-0.34	0.102
64.00	-28.85	-6.73	0.00	-360.3	0.00	360.32	3,930.14	1,005.26	4,369.75	3,891.99	2.27	-0.35	0.100
66.00	-28.38	-6.68	0.00	-346.9	0.00	346.86	3,901.32	994.00	4,272.42	3,819.84	2.42	-0.36	0.098
68.00	-27.90	-6.62	0.00	-333.5	0.00	333.50	3,872.15	982.75	4,176.19	3,748.00	2.58	-0.37	0.096
70.00	-27.44	-6.57	0.00	-320.3	0.00	320.26	3,842.64	971.49	4,081.06	3,676.48	2.73	-0.38	0.094
72.00	-26.97	-6.52	0.00	-307.1	0.00	307.12	3,812.79	960.23	3,987.02	3,605.30	2.9	-0.4	0.092
74.00	-26.52	-6.46	0.00	-294.1	0.00	294.09	3,782.59	948.97	3,894.08	3,534.46	3.07	-0.41	0.090
76.00	-26.06	-6.41	0.00	-281.2	0.00	281.17	3,752.04	937.71	3,802.23	3,463.99	3.24	-0.42	0.088
78.00	-25.61	-6.35	0.00	-268.4	0.00	268.35	3,721.15	926.45	3,711.49	3,393.88	3.42	-0.43	0.086
80.00	-25.17	-6.30	0.00	-255.6	0.00	255.64	3,689.92	915.19	3,621.83	3,324.15	3.6	-0.44	0.084
82.00	-24.73	-6.25	0.00	-243.0	0.00	243.04	3,658.34	903.93	3,533.28	3,254.81	3.79	-0.45	0.081
84.00	-24.29	-6.19	0.00	-230.6	0.00	230.55	3,626.42	892.67	3,445.81	3,185.88	3.98	-0.46	0.079
86.00	-23.86	-6.14	0.00	-218.2	0.00	218.16	3,594.15	881.41	3,359.45	3,117.36	4.18	-0.48	0.077
88.00	-23.43	-6.10	0.00	-205.9	0.00	205.87	3,561.54	870.15	3,274.18	3,049.27	4.38	-0.49	0.074
88.75	-23.27	-6.08	0.00	-201.3	0.00	201.30	3,549.23	865.93	3,242.49	3,023.84	4.46	-0.49	0.073
90.00	-22.85	-6.03	0.00	-193.7	0.00	193.70	3,528.59	858.89	3,190.01	2,981.61	4.58	-0.5	0.071
92.00	-22.18	-5.98	0.00	-181.6	0.00	181.63	3,495.29	847.63	3,106.93	2,914.41	4.79	-0.51	0.069
94.00	-21.51	-5.94	0.00	-169.7	0.00	169.67	3,461.65	836.37	3,024.95	2,847.66	5.01	-0.52	0.066
94.67	-21.29	-5.91	0.00	-165.7	0.00	165.71	2,376.03	634.86	2,323.29	1,982.62	5.08	-0.52	0.093
96.00	-21.07	-5.87	0.00	-157.8	0.00	157.82	2,363.50	629.23	2,282.26	1,954.56	5.23	-0.53	0.090
98.00	-20.74	-5.82	0.00	-146.1	0.00	146.08	2,344.43	620.78	2,221.41	1,912.58	5.45	-0.54	0.085
100.00	-20.42	-5.77	0.00	-134.4	0.00	134.44	2,325.01	612.34	2,161.38	1,870.75	5.68	-0.55	0.081

CALCULATED FORCES

102.00	-20.09	-5.72	0.00	-122.9	0.00	122.89	2,305.25	603.89	2,102.18	1,829.09	5.91	-0.56	0.076
104.00	-19.77	-5.68	0.00	-111.4	0.00	111.45	2,285.14	595.45	2,043.79	1,787.59	6.15	-0.57	0.071
105.00	-15.73	-4.55	0.00	-105.8	0.00	105.77	2,274.96	591.22	2,014.91	1,766.91	6.27	-0.58	0.067
106.00	-15.58	-4.51	0.00	-101.2	0.00	101.22	2,264.69	587.00	1,986.23	1,746.28	6.39	-0.58	0.065
108.00	-15.28	-4.46	0.00	-92.2	0.00	92.19	2,243.90	578.55	1,929.49	1,705.16	6.64	-0.59	0.061
110.00	-14.98	-4.41	0.00	-83.3	0.00	83.26	2,222.76	570.11	1,873.58	1,664.26	6.88	-0.6	0.057
112.00	-14.69	-4.37	0.00	-74.4	0.00	74.43	2,201.28	561.66	1,818.48	1,623.57	7.14	-0.61	0.053
114.00	-14.40	-4.32	0.00	-65.7	0.00	65.70	2,179.45	553.22	1,764.21	1,583.11	7.39	-0.61	0.048
116.00	-10.97	-3.52	0.00	-57.1	0.00	57.07	2,157.28	544.77	1,710.76	1,542.89	7.65	-0.62	0.042
118.00	-10.69	-3.47	0.00	-50.0	0.00	50.04	2,134.76	536.32	1,658.13	1,502.92	7.91	-0.63	0.038
120.00	-10.42	-3.42	0.00	-43.1	0.00	43.11	2,111.90	527.88	1,606.32	1,463.22	8.18	-0.63	0.034
122.00	-10.14	-3.37	0.00	-36.3	0.00	36.27	2,088.70	519.43	1,555.34	1,423.80	8.45	-0.64	0.030
124.00	-9.87	-3.32	0.00	-29.5	0.00	29.52	2,065.15	510.99	1,505.17	1,384.67	8.71	-0.64	0.026
126.00	-9.61	-3.29	0.00	-22.9	0.00	22.87	2,041.25	502.54	1,455.84	1,345.83	8.98	-0.65	0.022
127.00	-5.68	-2.20	0.00	-19.6	0.00	19.58	2,029.18	498.32	1,431.47	1,326.53	9.12	-0.65	0.018
128.00	-5.57	-2.17	0.00	-17.4	0.00	17.38	2,017.02	494.09	1,407.32	1,307.31	9.26	-0.65	0.016
130.00	-5.35	-2.12	0.00	-13.0	0.00	13.05	1,992.44	485.65	1,359.62	1,269.10	9.53	-0.65	0.013
132.00	-5.14	-2.08	0.00	-8.8	0.00	8.81	1,967.51	477.20	1,312.75	1,231.24	9.8	-0.65	0.010
134.00	-3.05	-1.77	0.00	-4.7	0.00	4.66	1,942.24	468.76	1,266.70	1,193.72	10.08	-0.66	0.005
136.00	-1.85	-0.90	0.00	-1.1	0.00	1.12	1,916.63	460.31	1,221.47	1,156.55	10.35	-0.66	0.002
137.00	-0.44	-0.10	0.00	-0.2	0.00	0.16	1,903.69	456.09	1,199.16	1,138.11	10.49	-0.66	0.000
138.00	-0.35	-0.08	0.00	-0.1	0.00	0.06	1,890.67	451.86	1,177.06	1,119.75	10.63	-0.66	0.000
138.40	-0.14	-0.02	0.00	-0.0	0.00	0.02	1,885.43	450.18	1,168.28	1,112.44	10.68	-0.66	0.000
140.00	0.00	-0.01	0.00	0.0	0.00	0.00	1,864.36	443.42	1,133.48	1,083.34	10.9	-0.66	0.000

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

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

Spectral Response Acceleration for Short Period (S_S):	0.179
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.055
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.000
Site Coefficient F_a:	1.600
Site Coefficient F_v:	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.191
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.088
Seismic Response Coefficient (C_s):	0.034
Upper Limit C_S:	0.034
Lower Limit C_S:	0.030
Period based on Rayleigh Method (sec):	1.730
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	1.620
Total Unfactored Dead Load:	49.790 k
Seismic Base Shear (E):	1.690 k

SEISMIC FORCES

1.2D + 1.0Ev + 1.0Eh **Seismic**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
78	139.2	139	402	0.006	11	172
77	138.2	36	103	0.002	3	44
76	137.5	90	256	0.004	7	111
75	136.5	102	288	0.004	8	127
74	135	207	573	0.009	15	257
73	133	211	568	0.009	15	261
72	131	214	563	0.009	15	265
71	129	217	557	0.009	15	269
70	127.5	110	277	0.004	7	136
69	126.5	130	324	0.005	8	161
68	125	266	648	0.010	17	329
67	123	269	639	0.010	17	333
66	121	272	630	0.010	17	337
65	119	276	621	0.010	16	341
64	117	279	611	0.010	16	345
63	115	287	611	0.010	16	355
62	113	290	601	0.009	16	359
61	111	293	591	0.009	16	363
60	109	297	580	0.009	15	367
59	107	300	569	0.009	15	371
58	105.5	151	280	0.004	7	187
57	104.5	159	290	0.004	8	196
56	103	320	570	0.009	15	396
55	101	323	558	0.009	15	400
54	99	326	546	0.008	14	404
53	97	330	534	0.008	14	408
52	95.3333	222	349	0.005	9	274
51	94.3333	219	339	0.005	9	271
50	93	663	1,002	0.016	26	821
49	91	670	979	0.015	26	830
48	89.375	423	600	0.009	16	524
47	88.375	159	221	0.003	6	197
46	87	427	580	0.009	15	529
45	85	431	564	0.009	15	534
44	83	436	548	0.008	14	539
43	81	440	532	0.008	14	545
42	79	444	516	0.008	14	550
41	77	449	500	0.008	13	556

SEISMIC FORCES

1.2D + 1.0Ev + 1.0Eh **Seismic**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
40	75	453	484	0.008	13	561
39	73	457	468	0.007	12	566
38	71	462	452	0.007	12	572
37	69	466	435	0.007	11	577
36	67	471	419	0.006	11	583
35	65	475	403	0.006	11	588
34	63	479	386	0.006	10	593
33	61	484	370	0.006	10	599
32	59	488	354	0.006	9	604
31	57	492	338	0.005	9	610
30	55	497	322	0.005	8	615
29	53.625	187	116	0.002	3	232
28	52.625	611	369	0.006	10	757
27	51	986	565	0.009	15	1,220
26	49	995	535	0.008	14	1,232
25	47.0417	963	484	0.008	13	1,192
24	46.0417	24	12	0.000	0	30
23	45	583	273	0.004	7	722
22	43	588	256	0.004	7	728
21	41	593	239	0.004	6	734
20	39	598	222	0.004	6	741
19	37	603	206	0.003	5	747
18	35	608	190	0.003	5	753
17	33	613	174	0.003	5	759
16	31	618	159	0.002	4	766
15	29	624	144	0.002	4	772
14	27	629	129	0.002	3	778
13	25	634	115	0.002	3	785
12	23	639	101	0.002	3	791
11	21	644	88	0.001	2	797
10	19	649	75	0.001	2	804
9	17	654	64	0.001	2	810
8	15	659	52	0.001	1	816
7	13	664	42	0.001	1	823
6	11	669	32	0.000	1	829
5	9	674	23	0.000	1	835
4	7	680	16	0.000	0	841
3	5	685	9	0.000	0	848
2	3	690	4	0.000	0	854
1	1	695	1	0.000	0	860
Alcatel-Lucent RRH2x60	138.4	180	517	0.008	14	223
Samsung B2/B66A RRH-BR049	137	253	716	0.011	19	314
Samsung B5/B13 RRH-BR04C	137	211	596	0.009	16	261
Samsung MT6407-77A	137	245	692	0.011	18	303
RFS DB-T1-6Z-8AB-0Z	137	88	249	0.004	7	109
JMA Wireless MX06FRO660-03	137	360	1,018	0.016	27	446
Commscope LNX-8514DS-A1M	137	153	432	0.007	11	189
VZW Unused Reserve (14552.07 sqin)	136	1,010	2,823	0.044	74	1,251
Generic Round Low Profile Platform	134	1,875	5,116	0.080	134	2,322
Powerwave Allgon TT08-19DB111-001	127	66	165	0.003	4	82
Raycap DC6-48-60-18-8F(32.8 lbs)	127	66	164	0.003	4	81
Ericsson Radio 8843 - B2 + B66A	127	216	540	0.008	14	267
Ericsson RRUS 4449 B5, B12	127	213	533	0.008	14	264
Powerwave Allgon 7770.00	127	105	263	0.004	7	130
Generic Mount Reinforcement	127	200	500	0.008	13	248
CCI HPA65R-BU8A	127	162	405	0.006	11	201
CCI DMP65R-BU8D	127	287	718	0.011	19	355
Generic Round Platform with Handrails	127	2,500	6,254	0.097	164	3,095
Raycap RDIDC-9181-PF-48	116	22	47	0.001	1	27
Fujitsu TA08025-B605	116	225	486	0.008	13	279
Fujitsu TA08025-B604	116	192	414	0.006	11	237

SEISMIC FORCES

1.2D + 1.0Ev + 1.0Eh **Seismic**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
Commscope FFVV-65B-R2	116	212	459	0.007	12	263
Generic Flat Platform with Handrails	116	2,500	5,403	0.084	142	3,095
Generic Flat Platform with Handrails	105	2,500	4,600	0.072	121	3,095
Ceragon RFU-D-HP	105	53	98	0.002	3	66
Ericsson 4460 BAND 2/25	105	327	602	0.009	16	405
Ericsson 4480 BAND 71	105	243	447	0.007	12	301
Commscope VHLP2-11W/A	105	17	31	0.000	1	21
Ericsson Air6449 B41	105	312	574	0.009	15	386
Commscope VV-65A-R1	105	71	131	0.002	3	88
RFS APXVAALL24 43-U-NA20	105	368	678	0.010	18	456
	Totals:	**49,792**	**64,318**	**1.000**	**1,688**	**61,652**

SEISMIC FORCES

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

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
78	139.2	139	402	0.006	11	119
77	138.2	36	103	0.002	3	31
76	137.5	90	256	0.004	7	78
75	136.5	102	288	0.004	8	88
74	135	207	573	0.009	15	179
73	133	211	568	0.009	15	182
72	131	214	563	0.009	15	184
71	129	217	557	0.009	15	187
70	127.5	110	277	0.004	7	95
69	126.5	130	324	0.005	8	112
68	125	266	648	0.010	17	229
67	123	269	639	0.010	17	232
66	121	272	630	0.010	17	235
65	119	276	621	0.010	16	238
64	117	279	611	0.010	16	240
63	115	287	611	0.010	16	247
62	113	290	601	0.009	16	250
61	111	293	591	0.009	16	253
60	109	297	580	0.009	15	256
59	107	300	569	0.009	15	259
58	105.5	151	280	0.004	7	130
57	104.5	159	290	0.004	8	137
56	103	320	570	0.009	15	276
55	101	323	558	0.009	15	278
54	99	326	546	0.008	14	281
53	97	330	534	0.008	14	284
52	95.3333	222	349	0.005	9	191
51	94.3333	219	339	0.005	9	189
50	93	663	1,002	0.016	26	571
49	91	670	979	0.015	26	578
48	89.375	423	600	0.009	16	364
47	88.375	159	221	0.003	6	137
46	87	427	580	0.009	15	368
45	85	431	564	0.009	15	372
44	83	436	548	0.008	14	375
43	81	440	532	0.008	14	379
42	79	444	516	0.008	14	383
41	77	449	500	0.008	13	387
40	75	453	484	0.008	13	390
39	73	457	468	0.007	12	394
38	71	462	452	0.007	12	398
37	69	466	435	0.007	11	402
36	67	471	419	0.006	11	406
35	65	475	403	0.006	11	409
34	63	479	386	0.006	10	413

SEISMIC FORCES

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

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
33	61	484	370	0.006	10	417
32	59	488	354	0.006	9	421
31	57	492	338	0.005	9	424
30	55	497	322	0.005	8	428
29	53.625	187	116	0.002	3	162
28	52.625	611	369	0.006	10	527
27	51	986	565	0.009	15	849
26	49	995	535	0.008	14	858
25	47.0417	963	484	0.008	13	830
24	46.0417	24	12	0.000	0	21
23	45	583	273	0.004	7	502
22	43	588	256	0.004	7	507
21	41	593	239	0.004	6	511
20	39	598	222	0.004	6	515
19	37	603	206	0.003	5	520
18	35	608	190	0.003	5	524
17	33	613	174	0.003	5	529
16	31	618	159	0.002	4	533
15	29	624	144	0.002	4	537
14	27	629	129	0.002	3	542
13	25	634	115	0.002	3	546
12	23	639	101	0.002	3	551
11	21	644	88	0.001	2	555
10	19	649	75	0.001	2	559
9	17	654	64	0.001	2	564
8	15	659	52	0.001	1	568
7	13	664	42	0.001	1	572
6	11	669	32	0.000	1	577
5	9	674	23	0.000	1	581
4	7	680	16	0.000	0	586
3	5	685	9	0.000	0	590
2	3	690	4	0.000	0	594
1	1	695	1	0.000	0	599
Alcatel-Lucent RRH2x60	138.4	180	517	0.008	14	155
Samsung B2/B66A RRH-BR049	137	253	716	0.011	19	218
Samsung B5/B13 RRH-BR04C	137	211	596	0.009	16	182
Samsung MT6407-77A	137	245	692	0.011	18	211
RFS DB-T1-6Z-8AB-0Z	137	88	249	0.004	7	76
JMA Wireless MX06FRO660-03	137	360	1,018	0.016	27	310
Commscope LNX-8514DS-A1M	137	153	432	0.007	11	132
VZW Unused Reserve (14552.07 sqin)	136	1,010	2,823	0.044	74	871
Generic Round Low Profile Platform	134	1,875	5,116	0.080	134	1,616
Powerwave Allgon TT08-19DB111-001	127	66	165	0.003	4	57
Raycap DC6-48-60-18-8F(32.8 lbs)	127	66	164	0.003	4	57
Ericsson Radio 8843 - B2 + B66A	127	216	540	0.008	14	186
Ericsson RRUS 4449 B5, B12	127	213	533	0.008	14	184
Powerwave Allgon 7770.00	127	105	263	0.004	7	90
Generic Mount Reinforcement	127	200	500	0.008	13	172
CCI HPA65R-BU8A	127	162	405	0.006	11	140
CCI DMP65R-BU8D	127	287	718	0.011	19	247
Generic Round Platform with Handrails	127	2,500	6,254	0.097	164	2,155
Raycap RDIDC-9181-PF-48	116	22	47	0.001	1	19
Fujitsu TA08025-B605	116	225	486	0.008	13	194
Fujitsu TA08025-B604	116	192	414	0.006	11	165
Commscope FFVV-65B-R2	116	212	459	0.007	12	183
Generic Flat Platform with Handrails	116	2,500	5,403	0.084	142	2,155
Generic Flat Platform with Handrails	105	2,500	4,600	0.072	121	2,155
Ceragon RFU-D-HP	105	53	98	0.002	3	46
Ericsson 4460 BAND 2/25	105	327	602	0.009	16	282
Ericsson 4480 BAND 71	105	243	447	0.007	12	209
Commscope VHLP2-11W/A	105	17	31	0.000	1	15

SEISMIC FORCES

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

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
Ericsson Air6449 B41	105	312	574	0.009	15	269
Commscope VV-65A-R1	105	71	131	0.002	3	62
RFS APXVAALL24 43-U-NA20	105	368	678	0.010	18	317
	Totals:	**49,792**	**64,318**	**1.000**	**1,688**	**42,911**

1.2D + 1.0Ev + 1.0Eh **Seismic**

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-60.79	-1.69	0.00	-187.29	0.00	187.29	5,829.27	1,573.36	9,175	7,752.02	0.00	0.00	0.04
2.00	-59.94	-1.69	0.00	-183.92	0.00	183.92	5,801.05	1,560.22	9,022	7,649.65	0.00	0.00	0.03
4.00	-59.09	-1.69	0.00	-180.54	0.00	180.54	5,772.48	1,547.08	8,871	7,547.45	0.00	0.00	0.03
6.00	-58.25	-1.69	0.00	-177.15	0.00	177.15	5,743.57	1,533.95	8,721	7,445.45	0.00	-0.01	0.03
8.00	-57.41	-1.70	0.00	-173.76	0.00	173.76	5,714.31	1,520.81	8,572	7,343.65	0.01	-0.01	0.03
10.00	-56.58	-1.70	0.00	-170.37	0.00	170.37	5,684.71	1,507.68	8,425	7,242.07	0.01	-0.01	0.03
12.00	-55.76	-1.70	0.00	-166.98	0.00	166.98	5,654.76	1,494.54	8,279	7,140.71	0.02	-0.01	0.03
14.00	-54.94	-1.70	0.00	-163.59	0.00	163.59	5,624.47	1,481.40	8,134	7,039.60	0.02	-0.02	0.03
16.00	-54.13	-1.70	0.00	-160.19	0.00	160.19	5,593.84	1,468.27	7,990	6,938.73	0.03	-0.02	0.03
18.00	-53.33	-1.70	0.00	-156.79	0.00	156.79	5,562.86	1,455.13	7,848	6,838.13	0.04	-0.02	0.03
20.00	-52.53	-1.70	0.00	-153.39	0.00	153.39	5,531.54	1,442.00	7,707	6,737.80	0.05	-0.02	0.03
22.00	-51.74	-1.70	0.00	-150.00	0.00	150.00	5,499.87	1,428.86	7,567	6,637.75	0.06	-0.03	0.03
24.00	-50.96	-1.70	0.00	-146.60	0.00	146.60	5,467.86	1,415.73	7,429	6,538.00	0.07	-0.03	0.03
26.00	-50.18	-1.69	0.00	-143.21	0.00	143.21	5,435.50	1,402.59	7,291	6,438.56	0.08	-0.03	0.03
28.00	-49.41	-1.69	0.00	-139.82	0.00	139.82	5,402.81	1,389.45	7,155	6,339.43	0.09	-0.03	0.03
30.00	-48.64	-1.69	0.00	-136.44	0.00	136.44	5,369.76	1,376.32	7,021	6,240.64	0.11	-0.04	0.03
32.00	-47.88	-1.69	0.00	-133.06	0.00	133.06	5,336.37	1,363.18	6,887	6,142.19	0.12	-0.04	0.03
34.00	-47.13	-1.68	0.00	-129.69	0.00	129.69	5,302.64	1,350.05	6,755	6,044.10	0.14	-0.04	0.03
36.00	-46.38	-1.68	0.00	-126.32	0.00	126.32	5,268.57	1,336.91	6,625	5,946.37	0.16	-0.04	0.03
38.00	-45.64	-1.67	0.00	-122.96	0.00	122.96	5,234.14	1,323.77	6,495	5,849.01	0.18	-0.04	0.03
40.00	-44.91	-1.67	0.00	-119.61	0.00	119.61	5,199.38	1,310.64	6,367	5,752.05	0.20	-0.05	0.03
42.00	-44.18	-1.66	0.00	-116.27	0.00	116.27	5,164.27	1,297.50	6,240	5,655.49	0.22	-0.05	0.03
44.00	-43.46	-1.66	0.00	-112.94	0.00	112.94	5,128.82	1,284.37	6,114	5,559.33	0.24	-0.05	0.03
46.00	-43.43	-1.66	0.00	-109.63	0.00	109.63	5,093.02	1,271.23	5,990	5,463.61	0.26	-0.05	0.03
46.08	-42.24	-1.65	0.00	-109.49	0.00	109.49	5,091.52	1,270.68	5,985	5,459.63	0.26	-0.05	0.03
48.00	-41.00	-1.63	0.00	-106.33	0.00	106.33	5,056.88	1,258.09	5,867	5,368.31	0.28	-0.06	0.03
50.00	-39.78	-1.62	0.00	-103.07	0.00	103.07	5,020.39	1,244.96	5,745	5,273.46	0.31	-0.06	0.03
52.00	-39.03	-1.61	0.00	-99.83	0.00	99.83	4,983.56	1,231.82	5,624	5,179.08	0.33	-0.06	0.03
53.25	-38.79	-1.61	0.00	-97.82	0.00	97.82	4,079.17	1,065.78	4,912	4,284.64	0.35	-0.06	0.03
54.00	-38.18	-1.60	0.00	-96.61	0.00	96.61	4,069.10	1,061.56	4,873	4,257.00	0.36	-0.06	0.03
56.00	-37.57	-1.59	0.00	-93.42	0.00	93.42	4,042.00	1,050.30	4,770	4,183.47	0.39	-0.07	0.03
58.00	-36.96	-1.58	0.00	-90.23	0.00	90.23	4,014.55	1,039.04	4,668	4,110.19	0.42	-0.07	0.03
60.00	-36.37	-1.57	0.00	-87.07	0.00	87.07	3,986.76	1,027.78	4,568	4,037.18	0.45	-0.07	0.03
62.00	-35.77	-1.57	0.00	-83.92	0.00	83.92	3,958.62	1,016.52	4,468	3,964.44	0.48	-0.08	0.03
64.00	-35.18	-1.56	0.00	-80.79	0.00	80.79	3,930.14	1,005.26	4,370	3,891.99	0.51	-0.08	0.03
66.00	-34.60	-1.55	0.00	-77.68	0.00	77.68	3,901.32	994.00	4,272	3,819.84	0.54	-0.08	0.03
68.00	-34.02	-1.53	0.00	-74.59	0.00	74.59	3,872.15	982.75	4,176	3,748.00	0.58	-0.08	0.03
70.00	-33.45	-1.52	0.00	-71.52	0.00	71.52	3,842.64	971.49	4,081	3,676.48	0.61	-0.09	0.03
72.00	-32.89	-1.51	0.00	-68.47	0.00	68.47	3,812.79	960.23	3,987	3,605.30	0.65	-0.09	0.03
74.00	-32.33	-1.50	0.00	-65.45	0.00	65.45	3,782.59	948.97	3,894	3,534.46	0.69	-0.09	0.03
76.00	-31.77	-1.49	0.00	-62.45	0.00	62.45	3,752.04	937.71	3,802	3,463.99	0.73	-0.09	0.03
78.00	-31.22	-1.47	0.00	-59.48	0.00	59.48	3,721.15	926.45	3,711	3,393.88	0.77	-0.10	0.03
80.00	-30.67	-1.46	0.00	-56.53	0.00	56.53	3,689.92	915.19	3,622	3,324.15	0.81	-0.10	0.03
82.00	-30.13	-1.45	0.00	-53.61	0.00	53.61	3,658.34	903.93	3,533	3,254.81	0.85	-0.10	0.03
84.00	-29.60	-1.43	0.00	-50.71	0.00	50.71	3,626.42	892.67	3,446	3,185.88	0.89	-0.10	0.02
86.00	-29.07	-1.42	0.00	-47.85	0.00	47.85	3,594.15	881.41	3,359	3,117.36	0.94	-0.11	0.02
88.00	-28.88	-1.41	0.00	-45.02	0.00	45.02	3,561.54	870.15	3,274	3,049.27	0.98	-0.11	0.02
88.75	-28.35	-1.40	0.00	-43.96	0.00	43.96	3,549.23	865.93	3,242	3,023.84	1.00	-0.11	0.02
90.00	-27.52	-1.37	0.00	-42.21	0.00	42.21	3,528.59	858.89	3,190	2,981.61	1.03	-0.11	0.02
92.00	-26.70	-1.34	0.00	-39.48	0.00	39.48	3,495.29	847.63	3,107	2,914.41	1.07	-0.11	0.02

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
94.00	-26.43	-1.33	0.00	-36.79	0.00	36.79	3,461.65	836.37	3,025	2,847.66	1.12	-0.12	0.02
94.67	-26.16	-1.32	0.00	-35.90	0.00	35.90	2,376.03	634.86	2,323	1,982.62	1.14	-0.12	0.03
96.00	-25.75	-1.31	0.00	-34.14	0.00	34.14	2,363.50	629.23	2,282	1,954.56	1.17	-0.12	0.03
98.00	-25.34	-1.30	0.00	-31.52	0.00	31.52	2,344.43	620.78	2,221	1,912.58	1.22	-0.12	0.03
100.00	-24.94	-1.28	0.00	-28.92	0.00	28.92	2,325.01	612.34	2,161	1,870.75	1.27	-0.12	0.03
102.00	-24.55	-1.27	0.00	-26.36	0.00	26.36	2,305.25	603.89	2,102	1,829.09	1.32	-0.12	0.03
104.00	-24.35	-1.26	0.00	-23.83	0.00	23.83	2,285.14	595.45	2,044	1,787.59	1.38	-0.13	0.02
105.00	-19.35	-1.05	0.00	-22.57	0.00	22.57	2,274.96	591.22	2,015	1,766.91	1.40	-0.13	0.02
106.00	-18.97	-1.04	0.00	-21.51	0.00	21.51	2,264.69	587.00	1,986	1,746.28	1.43	-0.13	0.02
108.00	-18.61	-1.02	0.00	-19.44	0.00	19.44	2,243.90	578.55	1,929	1,705.16	1.48	-0.13	0.02
110.00	-18.24	-1.01	0.00	-17.39	0.00	17.39	2,222.76	570.11	1,874	1,664.26	1.54	-0.13	0.02
112.00	-17.88	-0.99	0.00	-15.38	0.00	15.38	2,201.28	561.66	1,818	1,623.57	1.60	-0.13	0.02
114.00	-17.53	-0.97	0.00	-13.39	0.00	13.39	2,179.45	553.22	1,764	1,583.11	1.65	-0.14	0.02
116.00	-13.28	-0.77	0.00	-11.44	0.00	11.44	2,157.28	544.77	1,711	1,542.89	1.71	-0.14	0.01
118.00	-12.94	-0.75	0.00	-9.90	0.00	9.90	2,134.76	536.32	1,658	1,502.92	1.77	-0.14	0.01
120.00	-12.60	-0.74	0.00	-8.40	0.00	8.40	2,111.90	527.88	1,606	1,463.22	1.83	-0.14	0.01
122.00	-12.27	-0.72	0.00	-6.93	0.00	6.93	2,088.70	519.43	1,555	1,423.80	1.88	-0.14	0.01
124.00	-11.94	-0.70	0.00	-5.49	0.00	5.49	2,065.15	510.99	1,505	1,384.67	1.94	-0.14	0.01
126.00	-11.78	-0.69	0.00	-4.08	0.00	4.08	2,041.25	502.54	1,456	1,345.83	2.00	-0.14	0.01
127.00	-6.92	-0.42	0.00	-3.39	0.00	3.39	2,029.18	498.32	1,431	1,326.53	2.03	-0.14	0.01
128.00	-6.65	-0.41	0.00	-2.97	0.00	2.97	2,017.02	494.09	1,407	1,307.31	2.06	-0.14	0.01
130.00	-6.39	-0.39	0.00	-2.15	0.00	2.15	1,992.44	485.65	1,360	1,269.10	2.12	-0.14	0.01
132.00	-6.13	-0.38	0.00	-1.37	0.00	1.37	1,967.51	477.20	1,313	1,231.24	2.18	-0.14	0.00
134.00	-3.55	-0.22	0.00	-0.62	0.00	0.62	1,942.24	468.76	1,267	1,193.72	2.24	-0.14	0.00
136.00	-2.17	-0.14	0.00	-0.17	0.00	0.17	1,916.63	460.31	1,221	1,156.55	2.30	-0.14	0.00
137.00	-0.44	-0.03	0.00	-0.04	0.00	0.04	1,903.69	456.09	1,199	1,138.11	2.33	-0.14	0.00
138.00	-0.39	-0.03	0.00	-0.01	0.00	0.01	1,890.67	451.86	1,177	1,119.75	2.37	-0.14	0.00
138.40	0.00	0.00	0.00	0.00	0.00	0.00	1,885.43	450.18	1,168	1,112.44	2.38	-0.14	0.00
140.00	0.00	0.00	0.00	0.00	0.00	0.00	1,864.36	443.42	1,133	1,083.34	2.43	-0.14	0.00

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

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-42.31	-1.69	0.00	-185.75	0.00	185.75	5,829.27	1,573.36	9,175	7,752.02	0.00	0.00	0.03
2.00	-41.72	-1.69	0.00	-182.38	0.00	182.38	5,801.05	1,560.22	9,022	7,649.65	0.00	0.00	0.03
4.00	-41.13	-1.69	0.00	-179.00	0.00	179.00	5,772.48	1,547.08	8,871	7,547.45	0.00	0.00	0.03
6.00	-40.54	-1.69	0.00	-175.62	0.00	175.62	5,743.57	1,533.95	8,721	7,445.45	0.00	-0.01	0.03
8.00	-39.96	-1.69	0.00	-172.24	0.00	172.24	5,714.31	1,520.81	8,572	7,343.65	0.01	-0.01	0.03
10.00	-39.38	-1.69	0.00	-168.85	0.00	168.85	5,684.71	1,507.68	8,425	7,242.07	0.01	-0.01	0.03
12.00	-38.81	-1.69	0.00	-165.47	0.00	165.47	5,654.76	1,494.54	8,279	7,140.71	0.02	-0.01	0.03
14.00	-38.24	-1.69	0.00	-162.08	0.00	162.08	5,624.47	1,481.40	8,134	7,039.60	0.02	-0.02	0.03
16.00	-37.68	-1.69	0.00	-158.70	0.00	158.70	5,593.84	1,468.27	7,990	6,938.73	0.03	-0.02	0.03
18.00	-37.12	-1.69	0.00	-155.31	0.00	155.31	5,562.86	1,455.13	7,848	6,838.13	0.04	-0.02	0.03
20.00	-36.56	-1.69	0.00	-151.93	0.00	151.93	5,531.54	1,442.00	7,707	6,737.80	0.05	-0.02	0.03
22.00	-36.01	-1.69	0.00	-148.54	0.00	148.54	5,499.87	1,428.86	7,567	6,637.75	0.06	-0.03	0.03
24.00	-35.47	-1.69	0.00	-145.16	0.00	145.16	5,467.86	1,415.73	7,429	6,538.00	0.07	-0.03	0.03
26.00	-34.93	-1.69	0.00	-141.79	0.00	141.79	5,435.50	1,402.59	7,291	6,438.56	0.08	-0.03	0.03
28.00	-34.39	-1.68	0.00	-138.41	0.00	138.41	5,402.81	1,389.45	7,155	6,339.43	0.09	-0.03	0.03
30.00	-33.86	-1.68	0.00	-135.05	0.00	135.05	5,369.76	1,376.32	7,021	6,240.64	0.11	-0.03	0.03
32.00	-33.33	-1.68	0.00	-131.69	0.00	131.69	5,336.37	1,363.18	6,887	6,142.19	0.12	-0.04	0.03
34.00	-32.80	-1.67	0.00	-128.33	0.00	128.33	5,302.64	1,350.05	6,755	6,044.10	0.14	-0.04	0.03
36.00	-32.28	-1.67	0.00	-124.99	0.00	124.99	5,268.57	1,336.91	6,625	5,946.37	0.16	-0.04	0.03
38.00	-31.77	-1.66	0.00	-121.65	0.00	121.65	5,234.14	1,323.77	6,495	5,849.01	0.17	-0.04	0.03
40.00	-31.26	-1.66	0.00	-118.33	0.00	118.33	5,199.38	1,310.64	6,367	5,752.05	0.19	-0.05	0.03
42.00	-30.75	-1.65	0.00	-115.01	0.00	115.01	5,164.27	1,297.50	6,240	5,655.49	0.21	-0.05	0.03
44.00	-30.25	-1.65	0.00	-111.70	0.00	111.70	5,128.82	1,284.37	6,114	5,559.33	0.23	-0.05	0.03
46.00	-30.23	-1.65	0.00	-108.41	0.00	108.41	5,093.02	1,271.23	5,990	5,463.61	0.26	-0.05	0.03
46.08	-29.40	-1.63	0.00	-108.28	0.00	108.28	5,091.52	1,270.68	5,985	5,459.63	0.26	-0.05	0.03

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
48.00	-28.54	-1.62	0.00	-105.14	0.00	105.14	5,056.88	1,258.09	5,867	5,368.31	0.28	-0.06	0.03
50.00	-27.69	-1.61	0.00	-101.90	0.00	101.90	5,020.39	1,244.96	5,745	5,273.46	0.30	-0.06	0.03
52.00	-27.16	-1.60	0.00	-98.69	0.00	98.69	4,983.56	1,231.82	5,624	5,179.08	0.33	-0.06	0.03
53.25	-27.00	-1.59	0.00	-96.70	0.00	96.70	4,079.17	1,065.78	4,912	4,284.64	0.35	-0.06	0.03
54.00	-26.57	-1.59	0.00	-95.50	0.00	95.50	4,069.10	1,061.56	4,873	4,257.00	0.36	-0.06	0.03
56.00	-26.15	-1.58	0.00	-92.33	0.00	92.33	4,042.00	1,050.30	4,770	4,183.47	0.38	-0.07	0.03
58.00	-25.73	-1.57	0.00	-89.18	0.00	89.18	4,014.55	1,039.04	4,668	4,110.19	0.41	-0.07	0.03
60.00	-25.31	-1.56	0.00	-86.04	0.00	86.04	3,986.76	1,027.78	4,568	4,037.18	0.44	-0.07	0.03
62.00	-24.90	-1.55	0.00	-82.92	0.00	82.92	3,958.62	1,016.52	4,468	3,964.44	0.47	-0.07	0.03
64.00	-24.49	-1.54	0.00	-79.82	0.00	79.82	3,930.14	1,005.26	4,370	3,891.99	0.50	-0.08	0.03
66.00	-24.08	-1.53	0.00	-76.74	0.00	76.74	3,901.32	994.00	4,272	3,819.84	0.54	-0.08	0.03
68.00	-23.68	-1.52	0.00	-73.68	0.00	73.68	3,872.15	982.75	4,176	3,748.00	0.57	-0.08	0.03
70.00	-23.28	-1.51	0.00	-70.64	0.00	70.64	3,842.64	971.49	4,081	3,676.48	0.61	-0.09	0.03
72.00	-22.89	-1.50	0.00	-67.63	0.00	67.63	3,812.79	960.23	3,987	3,605.30	0.64	-0.09	0.03
74.00	-22.50	-1.48	0.00	-64.64	0.00	64.64	3,782.59	948.97	3,894	3,534.46	0.68	-0.09	0.02
76.00	-22.11	-1.47	0.00	-61.67	0.00	61.67	3,752.04	937.71	3,802	3,463.99	0.72	-0.09	0.02
78.00	-21.73	-1.46	0.00	-58.73	0.00	58.73	3,721.15	926.45	3,711	3,393.88	0.76	-0.10	0.02
80.00	-21.35	-1.44	0.00	-55.82	0.00	55.82	3,689.92	915.19	3,622	3,324.15	0.80	-0.10	0.02
82.00	-20.97	-1.43	0.00	-52.93	0.00	52.93	3,658.34	903.93	3,533	3,254.81	0.84	-0.10	0.02
84.00	-20.60	-1.42	0.00	-50.07	0.00	50.07	3,626.42	892.67	3,446	3,185.88	0.88	-0.10	0.02
86.00	-20.23	-1.40	0.00	-47.24	0.00	47.24	3,594.15	881.41	3,359	3,117.36	0.93	-0.11	0.02
88.00	-20.10	-1.39	0.00	-44.44	0.00	44.44	3,561.54	870.15	3,274	3,049.27	0.97	-0.11	0.02
88.75	-19.73	-1.38	0.00	-43.39	0.00	43.39	3,549.23	865.93	3,242	3,023.84	0.99	-0.11	0.02
90.00	-19.16	-1.35	0.00	-41.67	0.00	41.67	3,528.59	858.89	3,190	2,981.61	1.02	-0.11	0.02
92.00	-18.58	-1.33	0.00	-38.97	0.00	38.97	3,495.29	847.63	3,107	2,914.41	1.06	-0.11	0.02
94.00	-18.40	-1.32	0.00	-36.31	0.00	36.31	3,461.65	836.37	3,025	2,847.66	1.11	-0.11	0.02
94.67	-18.20	-1.31	0.00	-35.44	0.00	35.44	2,376.03	634.86	2,323	1,982.62	1.13	-0.11	0.03
96.00	-17.92	-1.29	0.00	-33.69	0.00	33.69	2,363.50	629.23	2,282	1,954.56	1.16	-0.12	0.03
98.00	-17.64	-1.28	0.00	-31.11	0.00	31.11	2,344.43	620.78	2,221	1,912.58	1.21	-0.12	0.02
100.00	-17.36	-1.27	0.00	-28.55	0.00	28.55	2,325.01	612.34	2,161	1,870.75	1.26	-0.12	0.02
102.00	-17.08	-1.25	0.00	-26.02	0.00	26.02	2,305.25	603.89	2,102	1,829.09	1.31	-0.12	0.02
104.00	-16.95	-1.24	0.00	-23.52	0.00	23.52	2,285.14	595.45	2,044	1,787.59	1.36	-0.13	0.02
105.00	-13.46	-1.04	0.00	-22.27	0.00	22.27	2,274.96	591.22	2,015	1,766.91	1.39	-0.13	0.02
106.00	-13.21	-1.03	0.00	-21.23	0.00	21.23	2,264.69	587.00	1,986	1,746.28	1.41	-0.13	0.02
108.00	-12.95	-1.01	0.00	-19.18	0.00	19.18	2,243.90	578.55	1,929	1,705.16	1.47	-0.13	0.02
110.00	-12.70	-0.99	0.00	-17.16	0.00	17.16	2,222.76	570.11	1,874	1,664.26	1.52	-0.13	0.02
112.00	-12.45	-0.98	0.00	-15.18	0.00	15.18	2,201.28	561.66	1,818	1,623.57	1.58	-0.13	0.02
114.00	-12.20	-0.96	0.00	-13.22	0.00	13.22	2,179.45	553.22	1,764	1,583.11	1.63	-0.13	0.01
116.00	-9.24	-0.76	0.00	-11.30	0.00	11.30	2,157.28	544.77	1,711	1,542.89	1.69	-0.14	0.01
118.00	-9.01	-0.74	0.00	-9.78	0.00	9.78	2,134.76	536.32	1,658	1,502.92	1.75	-0.14	0.01
120.00	-8.77	-0.73	0.00	-8.29	0.00	8.29	2,111.90	527.88	1,606	1,463.22	1.81	-0.14	0.01
122.00	-8.54	-0.71	0.00	-6.84	0.00	6.84	2,088.70	519.43	1,555	1,423.80	1.86	-0.14	0.01
124.00	-8.31	-0.69	0.00	-5.42	0.00	5.42	2,065.15	510.99	1,505	1,384.67	1.92	-0.14	0.01
126.00	-8.20	-0.68	0.00	-4.03	0.00	4.03	2,041.25	502.54	1,456	1,345.83	1.98	-0.14	0.01
127.00	-4.82	-0.42	0.00	-3.35	0.00	3.35	2,029.18	498.32	1,431	1,326.53	2.01	-0.14	0.01
128.00	-4.63	-0.40	0.00	-2.93	0.00	2.93	2,017.02	494.09	1,407	1,307.31	2.04	-0.14	0.01
130.00	-4.45	-0.39	0.00	-2.13	0.00	2.13	1,992.44	485.65	1,360	1,269.10	2.10	-0.14	0.00
132.00	-4.26	-0.37	0.00	-1.35	0.00	1.35	1,967.51	477.20	1,313	1,231.24	2.16	-0.14	0.00
134.00	-2.47	-0.22	0.00	-0.61	0.00	0.61	1,942.24	468.76	1,267	1,193.72	2.22	-0.14	0.00
136.00	-1.51	-0.13	0.00	-0.17	0.00	0.17	1,916.63	460.31	1,221	1,156.55	2.28	-0.14	0.00
137.00	-0.31	-0.03	0.00	-0.04	0.00	0.04	1,903.69	456.09	1,199	1,138.11	2.31	-0.14	0.00
138.00	-0.27	-0.02	0.00	-0.01	0.00	0.01	1,890.67	451.86	1,177	1,119.75	2.34	-0.14	0.00
138.40	0.00	0.00	0.00	0.00	0.00	0.00	1,885.43	450.18	1,168	1,112.44	2.35	-0.14	0.00
140.00	0.00	0.00	0.00	0.00	0.00	0.00	1,864.36	443.42	1,133	1,083.34	2.40	-0.14	0.00

ANALYSIS SUMMARY

Load Case	Base Reactions Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Max Usage Elev (ft)	Interaction Ratio
1.2D + 1.0W	36.86	0.00	59.73	0.00	0.00	3741.78	0.00	0.49
0.9D + 1.0W	36.86	0.00	44.80	0.00	0.00	3716.94	0.00	0.49
1.2D + 1.0Di + 1.0Wi	10.42	0.00	86.68	0.00	0.00	1055.41	0.00	0.15
1.2D + 1.0Ev + 1.0Eh	1.70	0.00	60.79	0.00	0.00	187.29	0.00	0.03
0.9D - 1.0Ev + 1.0Eh	1.69	0.00	42.31	0.00	0.00	185.75	0.00	0.03
1.0D + 1.0W	8.38	0.00	49.79	0.00	0.00	847.50	0.00	0.12

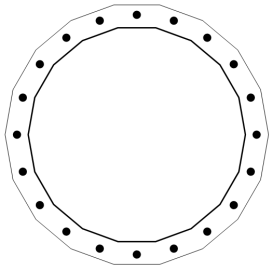
BASE PLATE ANALYSIS @ 0 FT

APPLIED REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
3741.78	59.73	36.86

PLATE PARAMETERS (ID# 4925)

Width:	78.5	in
Shape:	18	
Thickness:	3.25	in
Grade:	A572-50	
Yield Strength:	50	ksi
Tensile Strength:	65	ksi
Rod Detail Type:	d	
Clear Distance	3	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Plastic	
Neutral Axis:	252	°



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	F_y (ksi)	F_u (ksi)	Spacing (in)	Offset (°)
Original [ID#9707]	Radial	20	2.5	72.5	A615-75	75	100	-	-

COMPONENT PROPERTIES

Component	ID	Gross Area (in^2)	Net Area (in^2)	Individual Inertia (in^4)	Moment of Inertia (in^4)	Threads/in
Pole	64.9995"ø x 0.4375" (18 Sides)	88.2872	-	-	46006.07	-
Bolt Group	Original (20) 2.5"ø	4.9087	3.9988	1.2725	48487.65	4.0

REACTION DISTRIBUTION

Component	ID	Moment M_u (k-ft)	Axial Load P_u (k)	Shear V_u (k)	Moment Factor
Pole	64.9995"ø x 0.4375" (18 Sides)	3741.8	59.73	36.86	1.000
Bolt Group	Original (20) 2.5"ø	3741.8	-	36.86	1.000

BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	65.12	in	Flat Width:	11.483	in	Neutral Axis:	252	°
Point-to-Point Diameter:	66.13	in	Flat Radians:	0.349	rad	Bend Line Limits:	5.457 to 0.198	rad
Orientation Offset:	-	°						

PLATE PROPERTIES

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in^3)	Applied Moment M_u (k-in)	Moment Capacity ΦM_n (k-in)	Flexure Result $M_u/\Phi M_n$
Flats	39.659	0.00	104.725	434.1	4712.6	9.2%
Corners	37.960	0.00	100.239	241.6	4510.8	5.4%
Circumferential	49.624	0.00	131.039	669.6	5896.8	11.4%

PLASTIC ANCHOR ROD ANALYSIS

Class	Group Quantity	Rod Diameter (in)	Applied Axial Load P_u (k)	Applied Shear Load V_u (k)	Compressive Capacity ΦP_n (k)	Interaction Result
Original	20	2.5	108.0	2.9	299.9	38.0%

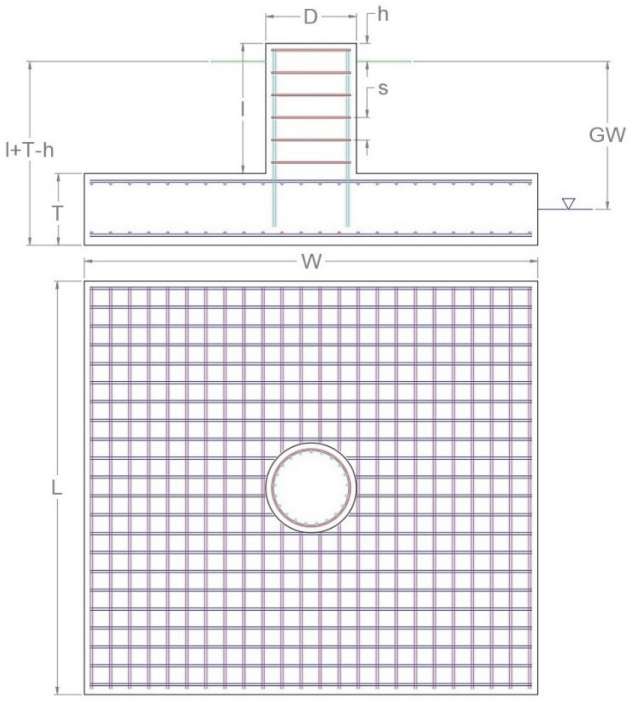
MONOLITHIC MAT & PIER FOUNDATION ANALYSIS

APPLIED GLOBAL REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
3,741.78	59.73	36.86

FOUNDATION PARAMETERS

Mat Length:	L	26	ft
Mat Width:	W	26	ft
Mat Thickness:	T	3	ft
Base Depth:	L+T-h	7	ft
Pier Shape:		Round	
Pier Diameter:	D	8.5	ft
Pier Height above Grade:	h	0.5	ft
Concrete Compressive Strength:		3,000	psi
Mat Top Rebar:		(21) #7 bars [60 ksi]	
Mat Bottom Rebar:		(34) #9 bars [60 ksi]	
Pier Vertical Rebar:		(52) #11 bars [60 ksi]	
Pier Rebar Ties:	s	#5 bars @ 12.0" c/c [60 ksi]	
Rebar Clear Cover:		3.0	in
Tower Eccentricity:	ecc	0	ft
Tower Leg Count		1	



SOIL PARAMETERS

Water Table Depth [BGL]:	GW	-	ft
Soil Unit Weight:		120	pcf
Ultimate Skin Friction:			psf
Ultimate Bearing Pressure:		16,000	psf
Bearing Pressure Type:		Gross	
Coefficient of Shear Friction:		0.5	

SOIL STRENGTH ANALYSIS

Soil Strength Reduction Factor, Φ_s	Uplift Strength Reduction Factor, Φ_s	Asset Dead Load Factor	Dead Load Factor
0.75	0.75	0.9	1.2

SOIL OVERTURNING ANALYSIS

Design Moment, $M_{u,Design}$ (k-ft)	Nominal Overturning Capacity, $\Phi_m M_n$ (k-ft)	Soil Overturning Usage, $M_{u,Design} / \Phi_m M_n$	
4,018.23	8,125.30	**49.5%**	✓

SOIL BEARING ANALYSIS

Net Bearing Pressure, $P_{u,Net}$ (psf)	Nominal Bearing Capacity, $\Phi_b P_n$ (k-ft)	Bearing Pressure Controlling Load Direction	Soil Bearing Usage, $P_{u,net} / \Phi_b P_n$	
1,916.00	12,000.00	Diagonal to Pad Edge	**16.0%**	✓

SOIL SLIDING SHEAR ANALYSIS

Applied Shear Force, V_u (k)	Friction Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Nominal Shear Capacity, $\Phi_s V_n$ (k)	Soil Sliding Shear Usage, $V_u / \Phi_s V_n$	
36.86	0.00	660.0	51.48	297.18	**12.0%**	✓

MAT REINFORCING STEEL STRENGTH ANALYSIS

Steel Elastic Modulus, E (ksi)	Strength Bending/Tension Reduction Factor, Φ_b	Strength Shear Reduction Factor, Φ_v	Strength Compression Reduction Factor, Φ_c
29,000	0.9	0.75	0.65

MAT REINFORCING ONE WAY SHEAR ANALYSIS

One Way Design Shear, V_u (k)	Nominal One Way Shear Capacity, $\Phi_c V_n$ (k)	One Way Shear Controlling Load Direction	Mat One Way Shear Usage, $V_u / \Phi_c V_n$	
141.71	721.44	Diagonal to Pad Edge	**19.6%**	✓

MAT REINFORCING PUNCHING SHEAR ANALYSIS

Punching Shear Design Stress, v_u (psi)	Nominal Punching Shear Capacity, $\Phi_c v_n$ (psi)	Mat Punching Shear Usage, $v_u / \Phi_c v_n$	
36.0	164.3	**21.9%**	✓

MAT REINFORCING MOMENT TRANSFER ANALYSIS

Moment Transfer Effective Flexural Width, w_f (in)	Neutral Axis Depth (in)	Pier Moment at Joint, M_{ut} (k-in)	Nominal Moment Transfer Capacity, $\Phi M_{sc,f}$ (k-in)	Mat Moment Transfer Usage, $0.6\ M_{ut} / \Phi M_{sc,f}$	
17.50	2.65	0.00	39,331.3	**0.0%**	✓

MAT REINFORCING FLEXURE ANALYSIS – UPPER STEEL

Factored Moment, M_u (k-ft)	Nominal Flexural Capacity, ΦM_n (k-ft)	Flexural Steel Controlling Load Direction	Mat Upper Rebar Flexure Usage, $M_u / \Phi M_n$	
925.64	1,784.41	Parallel to Pad Edge	**51.9%**	✓

MAT REINFORCING FLEXURE ANALYSIS – LOWER STEEL

Factored Moment, M_u (k-ft)	Nominal Flexural Capacity, ΦM_n (k-ft)	Flexural Steel Controlling Load Direction	Mat Lower Rebar Flexure Usage, $M_u / \Phi M_n$	
1,392.80	4,710.14	Parallel to Pad Edge	**29.6%**	✓

PIER REINFORCING STEEL STRENGTH ANALYSIS

Rebar Cage Diameter (in)	Steel Elastic Modulus, E (ksi)	Strength Bending/Tension Reduction Factor, Φ_b	Strength Shear Reduction Factor, Φ_v	Strength Compression Reduction Factor, Φ_c
93.38	29,000	0.9	0.75	0.65

PIER REINFORCING MOMENT ANALYSIS

Design Moment, M_u (k-ft)	Nominal Moment Capacity, $\Phi_b M_n$ (k-ft)	Bending Reinforcement Ratio	Pier Rebar Flexure Usage, $M_u/\Phi_b M_n$	
3,907.65	16,666.32	0.010	**23.4%**	✓

PIER REINFORCING COMPRESSION ANALYSIS

Design Compression, P_u (k)	Nominal Compressive Capacity, $\Phi_p P_n$ (k)	Pier Rebar Compressive Usage, $P_u / \Phi_p P_n$	
59.73	10,776.23	**0.6%**	✓

PIER REINFORCING SHEAR ANALYSIS

Design Shear, V_u (k)	Nominal Shear Capacity, $\Phi_v V_n$ (k)	Pier Rebar Shear Usage, $V_u / \Phi_v V_n$	
36.86	863.51	**4.3%**	✓

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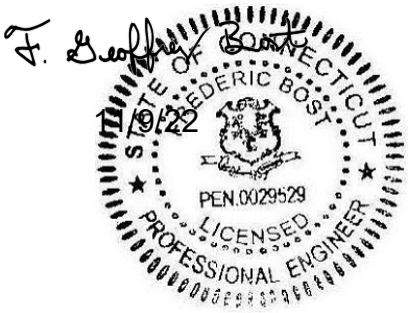
This report was prepared for American Tower Corporation by

ENGINEERED
TOWER SOLUTIONS

Antenna Mount Analysis Report

ATC Site Name	:	**Woodstock NW PCS CT**
ATC Site Number	:	**415439**
Engineering Number	:	**14150709_C8_04**
ETS, PLLC Job Number	:	**22112572.STR.7577**
Mount Elevation	:	**105.0 ft**
Carrier	:	**T-Mobile**
Carrier Site Name	:	**CTNL184A**
Carrier Site Number	:	**CTNL184A**
Site Location	:	**40 Sherman Road** **Woodstock, CT 06281** **41.97865275, -72.09443573**
County	:	**Windham**
Date	:	**November 9, 2022**
Max Usage	:	**80%**
Result	:	**Pass**



Prepared By:
Andre Trevizan
Structural Engineer I

Reviewed By:
Frederic G. Bost, PE
Chief Technical Officer

Table of Contents

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for T-Mobile at 105.0 ft.

Supporting Documents

Spec. Sheet	Site Pro 1 Document# RMQP-496-HK, dated May 23, 2021
Construction Drawings	Colliers Engineering & Design, ATC Job# 13704269_D3, dated December 3, 2021

Analysis

This antenna mount was analyzed using RISA-3D v17 analysis software.

Basic Wind Speed:	125 mph (3-Second Gust, V_{ult})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.5" radial ice concurrent
Codes:	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Structure Class:	II
Exposure Category:	C
Topographic Procedure:	Method 2
Topographic Feature:	Flat
Crest Height:	0 ft
Crest Length:	0 ft
Spectral Response:	Ss = 0.179, S_1 = 0.055
Site Class:	D – Default
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. The mount can support the equipment as described in this report. Analysis is based on new Site Pro 1 part# RMQP-496-HK Mount.

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.

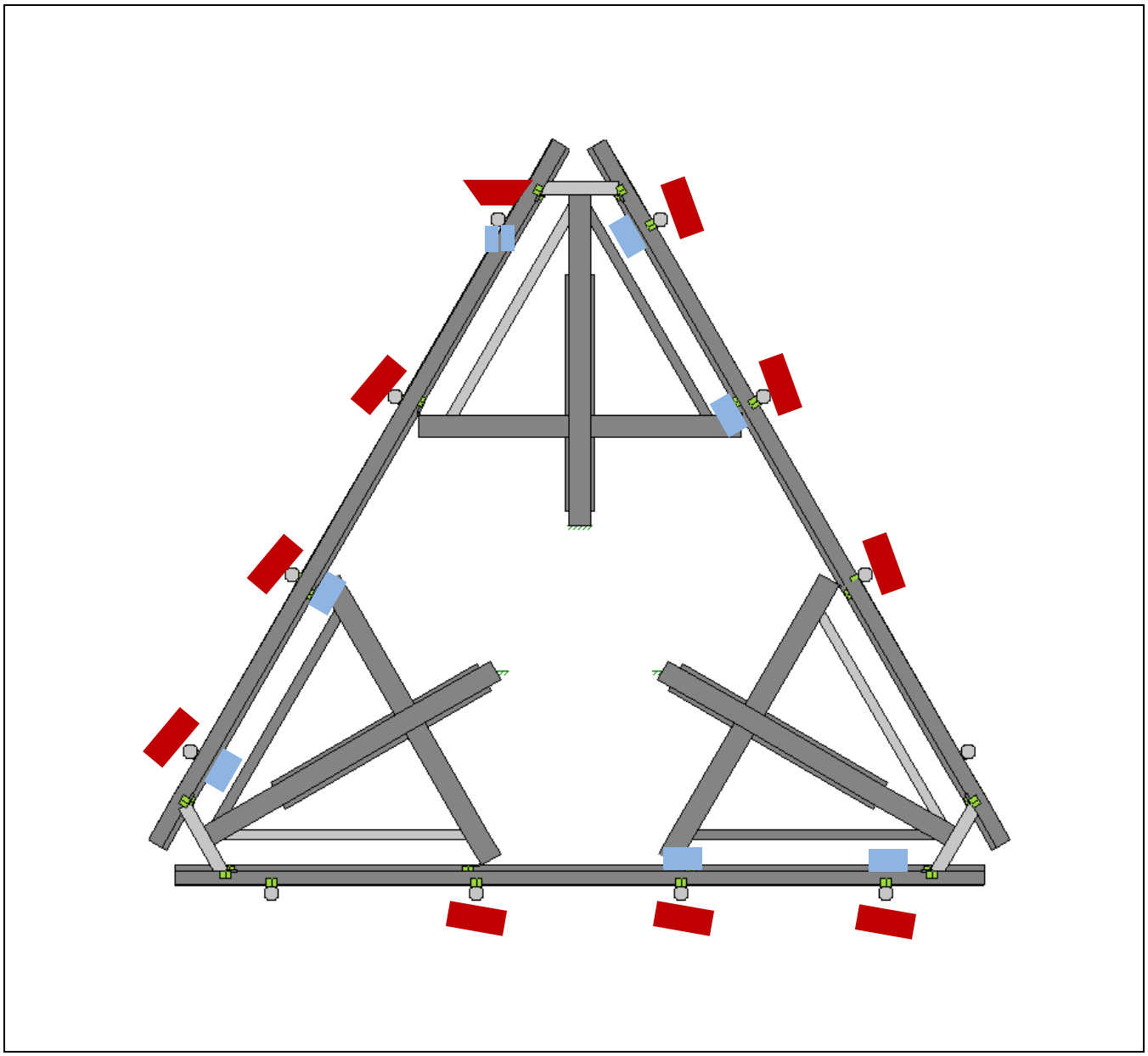
Antenna Loading

Mount Centerline (ft)	Antenna Centerline (ft)	Qty	Antenna Model
105.0	105.0	3	Ericsson Air6449 B41
		3	Commscope VV-65A-R1
		3	RFS APXVAALL24 43-U-NA20
		1	Commscope VHLP2-11W/A
		2	Ceragon RFU-D-HP
		3	Ericsson 4460 BAND 2/25
		3	Ericsson 4480 BAND 71

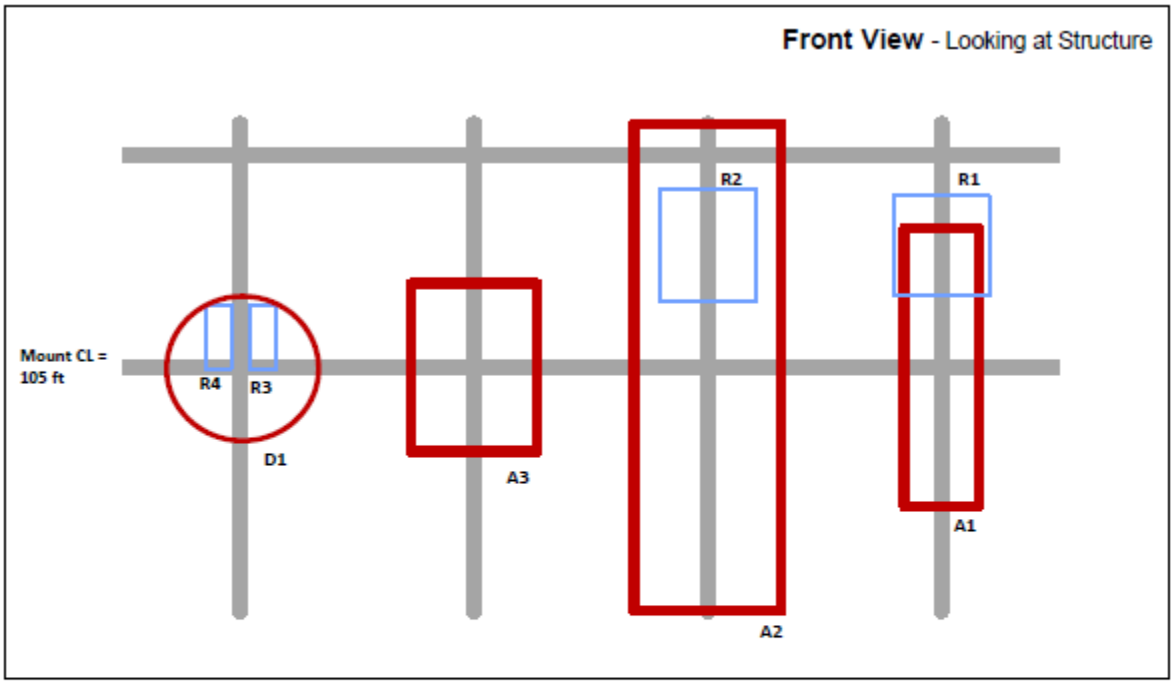
Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Horizontals	80%	Pass
Mount Pipes	79%	Pass
Connection Plates	20%	Pass
Support Rails	20%	Pass
Kicker kit	9%	Pass
Mount to tower connection	20%	Pass

Mount Layout



Equipment Layout



Position	Equipment	Qtd	Eqp. Type	A_{CL} (ft)
A1	Commscope VV-65A-R1	1	Antenna	105.0
R1	Ericsson 4460 BAND 2/25	1	TME	107.0
A2	RFS APXVAALL24 43-U-NA20	1	Antenna	105.0
R2	Ericsson 4480 BAND 71	1	TME	107.0
A3	Ericsson Air6449 B41	1	Antenna	105.0
D1	Commscope VHLP2-11W/A	1	DISH	105.0
R3	Ceragon RFU-D-HP	1	TME	105.5
R4	Ceragon RFU-D-HP	1	TME	105.5

* Beta sector shown above (All sectors are not typical)

Standard Conditions

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

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

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

Engineered Tower Solutions, PLLC 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.

Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate, Threaded Rod	ASTM A36 (Gr. 36)
HSS (Rectangular)	ASTM A500 (Gr. B-46)
HSS (Round)	ASTM A500 (Gr. B-42)
Pipe	ASTM A53 (Gr. 35)
Connection Bolts	ASTM A325
U-Bolt	SAE J429 (Gr. 2)

Unless explicitly agreed by both the client and ETS, PLLC, 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. ETS, PPLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

TIA-222-H Mount Load Generator

Site Inputs	
Mount Support (Tower, or Building Support)?	Tower
Risk Category (TIA Table 2-1)	II
Exposure Category	C
Basic Wind Speed without Ice, V	125 mph
Basic Wind Speed with Ice, V_i	50 mph
Design of Ice, δ_{ice}	56 pcf
Design Ice Thickness, t_i	1.50 in
Basic Wind Speed (Maintenance)	30 mph
Maintenance Load, L_m	500 lb
Maintenance Load, L_v	250 lb
Height of Structure, h	140.0 ft
Mount Centerline, h_m	105.0 ft
Topographic Factor, K_{zt}	1.00
Rooftop Wind Speed-Up Factor, K_s	1.00
Mean Elevation of base of structure above sea level, z_s	903 ft
Ground Elevation Factor, K_e	0.97
Wind Direction Probability Factor, K_d	0.95
Gust Response Factor, G_h	1.00
Shielding Factor for Appurtenances, K_a	0.90

Seismic Design Input/Output	
0.179	Spectral response acceleration at short periods, S_s
0.055	Spectral response acceleration at a period of 1 second, S_1
D	Soil Site Class
1.600	Short-period site coefficient, F_a
2.400	Long-period site coefficient, F_v
0.191	Design spectral response acceleration at short periods, S_{DS}
0.088	Design spectral response acceleration at a period of 1 second, S_{D1}
2.00	Response modification coefficient, R
1.00	Earthquake amplification factor, A_s
1.00	Importance Factor
0.0955	Seismic Response Coefficient, C_s
Eh = 0.095 W	Total Seismic Shear Force, $E_h = \rho Q_E$ ($Q_E = \rho C_s$ W A_s & ρ = 1.0)
Ev = 0.038 D	Vertical Seismic Load Effect, $E_v = 0.2 S_{DS}$ D A_s

Output File Name: 415439_14150709_T-Mobile

Mount Pipe Information							Mount Pipe Forces					
Mount Pipe	Mount Location	Vertical Offset	Length	Diameter	Weight	Shape	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{iz}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
P 2 SCH 40 x 96	MP1	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	32.03 lb	89.35 lb	1.684 in	66.81 lb	13.40 lb	30.68 lb
P 2 SCH 40 x 96	MP2	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	0.08 lb	89.35 lb	1.684 in	66.81 lb	1.04 lb	30.68 lb
P 2 SCH 40 x 96	MP3	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	48.79 lb	89.35 lb	1.684 in	66.81 lb	19.89 lb	30.68 lb
P 2 SCH 40 x 96	MP4	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	89.35 lb	89.35 lb	1.684 in	66.81 lb	30.68 lb	30.68 lb
P 2 SCH 40 x 96	MP5	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	32.03 lb	89.35 lb	1.684 in	66.81 lb	13.40 lb	30.68 lb
P 2 SCH 40 x 96	MP6	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	0.08 lb	89.35 lb	1.684 in	66.81 lb	1.04 lb	30.68 lb
P 2 SCH 40 x 96	MP7	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	48.79 lb	89.35 lb	1.684 in	66.81 lb	19.89 lb	30.68 lb
P 2 SCH 40 x 96	MP8	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	74.46 lb	89.35 lb	1.684 in	66.81 lb	29.82 lb	30.68 lb
P 2 SCH 40 x 96	MP9	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	32.03 lb	89.35 lb	1.684 in	66.81 lb	13.40 lb	30.68 lb
P 2 SCH 40 x 96	MP10	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	0.08 lb	89.35 lb	1.684 in	66.81 lb	1.04 lb	30.68 lb
P 2 SCH 40 x 96	MP11	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	48.79 lb	89.35 lb	1.684 in	66.81 lb	19.89 lb	30.68 lb
P 2 SCH 40 x 96	MP12	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	89.35 lb	89.35 lb	1.684 in	66.81 lb	30.68 lb	30.68 lb

Engineered Tower Solutions, PLLC
3227 Wellington Court
Raleigh, NC 27615

Appurtenance Information - MP1							Appurtenance Forces - MP1					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{iz}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
Commscope VV-65A-R1	1	0.00 ft	54.70 in	12.10 in	4.60 in	23.80 lb	278.80 lb	128.44 lb	1.684 in	137.20 lb	50.87 lb	27.43 lb
Ericsson 4460 BAND 2/25	1	2.00 ft	19.60 in	15.70 in	12.10 in	109.00 lb	121.08 lb	93.31 lb	1.687 in	72.42 lb	22.25 lb	19.28 lb

Appurtenance Information - MP2							Appurtenance Forces - MP2					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{iz}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
RFS APXVAALL24 43-U-NA20	1	0.00 ft	95.90 in	24.00 in	8.50 in	122.80 lb	951.97 lb	410.70 lb	1.684 in	446.33 lb	163.01 lb	77.32 lb
Ericsson 4480 BAND 71	1	2.00 ft	22.00 in	15.70 in	7.50 in	81.00 lb	135.90 lb	65.96 lb	1.687 in	72.13 lb	24.89 lb	14.46 lb

Appurtenance Information - MP3							Appurtenance Forces - MP3					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{iz}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
Ericsson Air6449 B41	1	0.00 ft	33.10 in	20.60 in	8.60 in	104.00 lb	267.22 lb	117.13 lb	1.684 in	136.25 lb	47.25 lb	23.86 lb

Appurtenance Information - MP5							Appurtenance Forces - MP5					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{iz}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
Commscope VV-65A-R1	1	0.00 ft	54.70 in	12.10 in	4.60 in	23.80 lb	278.80 lb	128.44 lb	1.684 in	137.20 lb	50.87 lb	27.43 lb
Ericsson 4460 BAND 2/25	1	2.00 ft	19.60 in	15.70 in	12.10 in	109.00 lb	121.08 lb	93.31 lb	1.687 in	72.42 lb	22.25 lb	19.28 lb

Appurtenance Information - MP6							Appurtenance Forces - MP6					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{iz}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
RFS APXVAALL24 43-U-NA20	1	0.00 ft	95.90 in	24.00 in	8.50 in	122.80 lb	951.97 lb	410.70 lb	1.684 in	446.33 lb	163.01 lb	77.32 lb
Ericsson 4480 BAND 71	1	2.00 ft	22.00 in	15.70 in	7.50 in	81.00 lb	135.90 lb	65.96 lb	1.687 in	72.13 lb	24.89 lb	14.46 lb

Appurtenance Information - MP7							Appurtenance Forces - MP7					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{iz}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
Ericsson Air6449 B41	1	0.00 ft	33.10 in	20.60 in	8.60 in	104.00 lb	267.22 lb	117.13 lb	1.684 in	136.25 lb	47.25 lb	23.86 lb

Appurtenance Information - MP8							Appurtenance Forces - MP8					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{iz}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
Commscope VHLP2-11W/A	1	0.00 ft	26.04 in	26.04 in	9.96 in	17.00 lb	0.00 lb	0.00 lb	1.684 in	81.55 lb	0.00 lb	0.00 lb
Ceragon RFU-D-HP	1	0.50 ft	12.60 in	4.20 in	11.30 in	26.50 lb	21.14 lb	0.00 lb	1.685 in	29.70 lb	5.39 lb	3.36 lb
Ceragon RFU-D-HP	1	0.50 ft	12.60 in	4.20 in	11.30 in	26.50 lb	21.14 lb	55.85 lb	1.685 in	29.70 lb	5.39 lb	12.30 lb

Appurtenance Information - MP9							Appurtenance Forces - MP9					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{iz}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
Commscope VV-65A-R1	1	0.00 ft	54.70 in	12.10 in	4.60 in	23.80 lb	278.80 lb	128.44 lb	1.684 in	137.20 lb	50.87 lb	27.43 lb
Ericsson 4460 BAND 2/25	1	2.00 ft	19.60 in	15.70 in	12.10 in	109.00 lb	121.08 lb	93.31 lb	1.687 in	72.42 lb	22.25 lb	19.28 lb

Appurtenance Information - MP10							Appurtenance Forces - MP10					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{iz}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
RFS APXVAALL24 43-U-NA20	1	0.00 ft	95.90 in	24.00 in	8.50 in	122.80 lb	951.97 lb	410.70 lb	1.684 in	446.33 lb	163.01 lb	77.32 lb
Ericsson 4480 BAND 71	1	2.00 ft	22.00 in	15.70 in	7.50 in	81.00 lb	135.90 lb	65.96 lb	1.687 in	72.13 lb	24.89 lb	14.46 lb

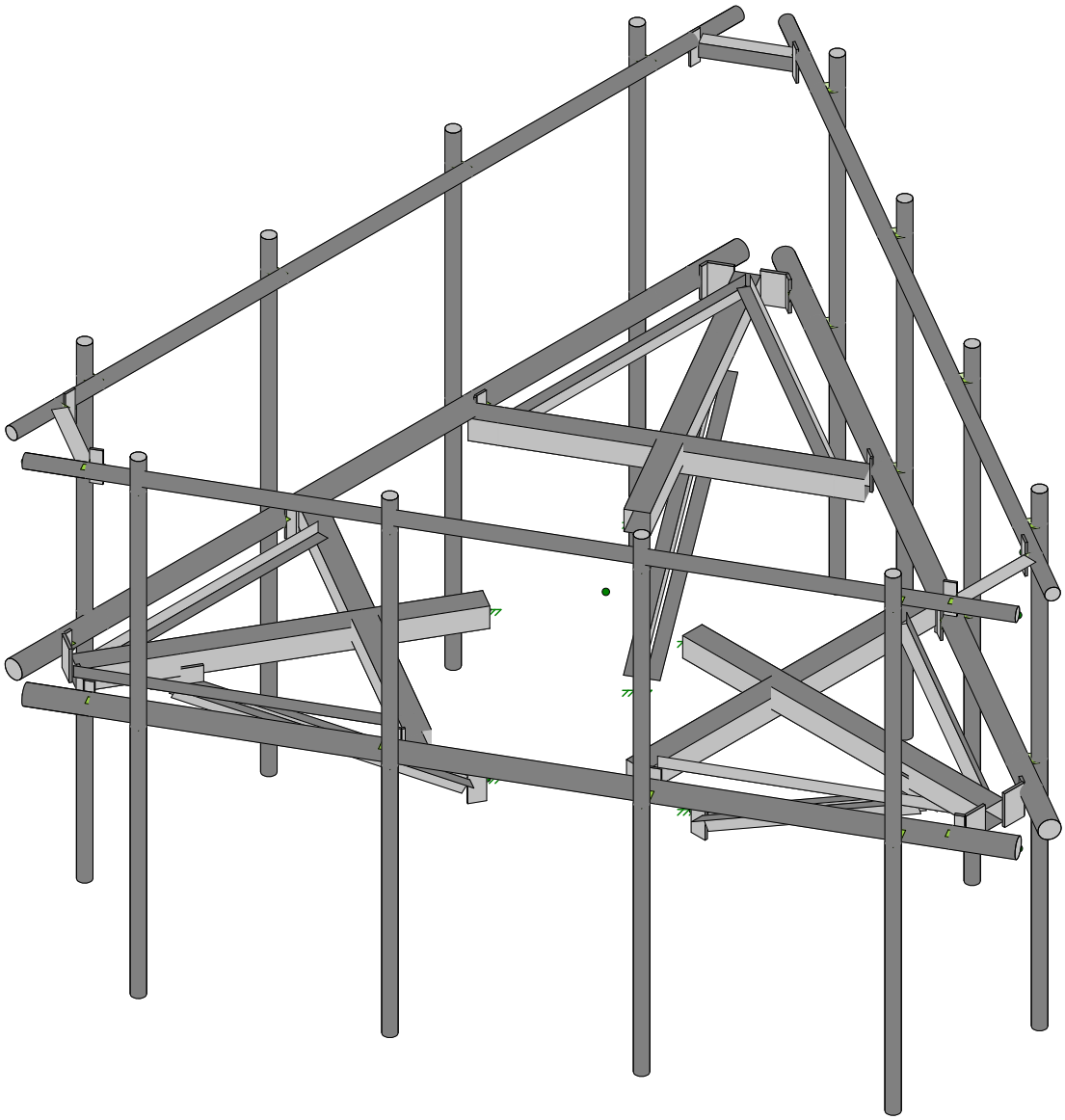
Appurtenance Information - MP11							Appurtenance Forces - MP11					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{iz}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
Ericsson Air6449 B41	1	0.00 ft	33.10 in	20.60 in	8.60 in	104.00 lb	267.22 lb	117.13 lb	1.684 in	136.25 lb	47.25 lb	23.86 lb

Member Distributed Loads	Member Information			Member Forces		
Mount Members	Width/Diameter (in)	Depth/Diameter (in)	Length (in)	$Ka * Force/_{Length, No Ice}$	Ice Weight (plf)	$Ka * Force/_{Length, Ice}$
PIPE 3.0	3.500 in	3.500 in	150.0 in	14.2 lb/ft	10.7 lb/ft	4.4 lb/ft
PIPE 2.0	2.380 in	2.380 in	150.0 in	10.1 lb/ft	8.4 lb/ft	3.9 lb/ft
HSS 4x4SA	4.000 in	4.000 in	62.3 in	15.0 lb/ft	15.1 lb/ft	4.0 lb/ft
HSS 4x4 BRACE	4.000 in	4.000 in	59.8 in	14.9 lb/ft	15.1 lb/ft	4.0 lb/ft
LL2.5x2.5	5.500 in	2.500 in	52.5 in	28.8 lb/ft	14.8 lb/ft	6.1 lb/ft
L2x2	2.000 in	2.000 in	50.7 in	14.1 lb/ft	9.3 lb/ft	3.9 lb/ft
L2.5x2.5	2.500 in	2.500 in	13.0 in	11.6 lb/ft	10.7 lb/ft	3.2 lb/ft
PL 6x1/2	6.000 in	0.500 in	12.0 in	25.4 lb/ft	15.9 lb/ft	5.4 lb/ft
PL 6x3/8	6.000 in	0.375 in	6.0 in	25.4 lb/ft	15.8 lb/ft	5.4 lb/ft
PL 8x1/2	8.000 in	0.500 in	4.0 in	33.9 lb/ft	20.0 lb/ft	6.7 lb/ft
PL 6x3/8 (S)	6.000 in	0.375 in	2.0 in	25.4 lb/ft	15.8 lb/ft	5.4 lb/ft

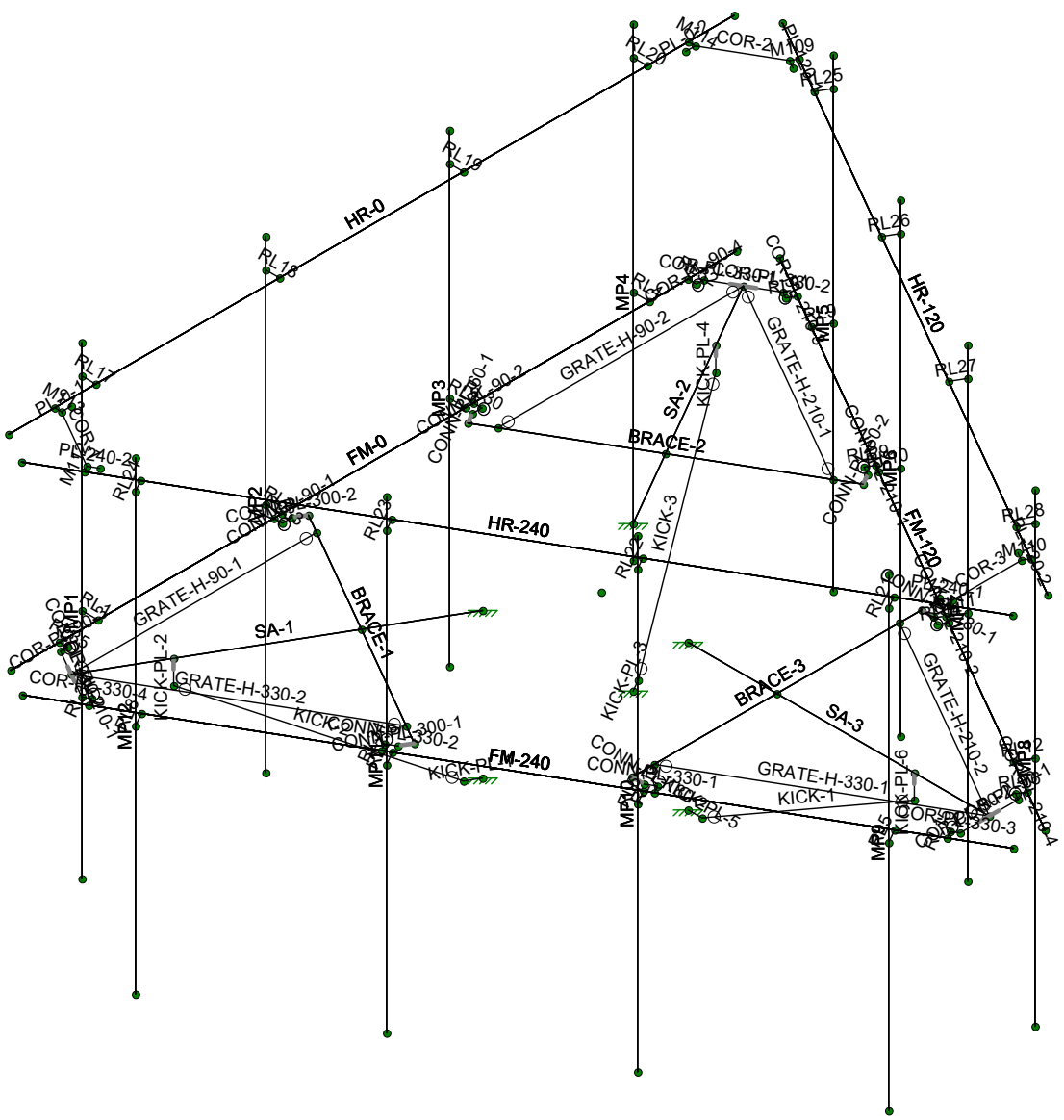
Member Lookup	Member Label	Position	Maintenance Load
HSS 4x4 BRACE	BRACE-1	210°	
HSS 4x4 BRACE	BRACE-2	330°	
HSS 4x4 BRACE	BRACE-3	90°	
PL 6x3/8	CONN-PL-60-1	60°	
PL 6x3/8	CONN-PL-60-2	60°	
PL 6x3/8	CONN-PL-90-1	90°	
PL 6x3/8	CONN-PL-90-2	90°	
PL 6x3/8	CONN-PL-180-1	0°	
PL 6x3/8	CONN-PL-180-2	0°	
PL 6x3/8	CONN-PL-210-1	210°	
PL 6x3/8	CONN-PL-210-2	210°	
PL 6x3/8	CONN-PL-300-1	300°	
PL 6x3/8	CONN-PL-300-2	300°	
PL 6x3/8	CONN-PL-330-1	330°	
PL 6x3/8	CONN-PL-330-2	330°	
L2.5x2.5	COR-1	210°	

Member Lookup	Member Label	Position	Maintenance Load
L2.5x2.5	COR-2	330°	
L2.5x2.5	COR-3	90°	
PL 6x1/2	COR-PL-90-1	90°	
PL 6x1/2	COR-PL-90-2	90°	
PL 6x1/2	COR-PL-90-3	90°	
PL 6x1/2	COR-PL-90-4	90°	
PL 6x1/2	COR-PL-210-1	210°	
PL 6x1/2	COR-PL-210-2	210°	
PL 6x1/2	COR-PL-210-3	210°	
PL 6x1/2	COR-PL-210-4	210°	
PL 6x1/2	COR-PL-330-1	330°	
PL 6x1/2	COR-PL-330-2	330°	
PL 6x1/2	COR-PL-330-3	330°	
PL 6x1/2	COR-PL-330-4	330°	
PIPE 3.0	FM-0	90°	Start/Mid/End
PIPE 3.0	FM-120	210°	Start/Mid/End
PIPE 3.0	FM-240	330°	Start/Mid/End
L2x2	GRATE-H-90-1	90°	Mid
L2x2	GRATE-H-90-2	90°	Mid
L2x2	GRATE-H-210-1	210°	Mid
L2x2	GRATE-H-210-2	210°	Mid
L2x2	GRATE-H-330-1	330°	Mid
L2x2	GRATE-H-330-2	330°	Mid
PIPE 2.0	HR-0	90°	Start/Mid/End
PIPE 2.0	HR-120	210°	Start/Mid/End
PIPE 2.0	HR-240	330°	Start/Mid/End
LL2.5x2.5	KICK-1	V	
LL2.5x2.5	KICK-2	V	
LL2.5x2.5	KICK-3	V	
PL 8x1/2	KICK-PL-1	300°	
PL 8x1/2	KICK-PL-2	V	
PL 8x1/2	KICK-PL-3	60°	
PL 8x1/2	KICK-PL-4	V	
PL 8x1/2	KICK-PL-5	180°	
PL 8x1/2	KICK-PL-6	V	
HSS 4x4SA	SA-1	300°	
HSS 4x4SA	SA-2	60°	
HSS 4x4SA	SA-3	180°	
PL 6x3/8 (S)	PL-0-1	90°	
PL 6x3/8 (S)	PL-0-2	90°	
PL 6x3/8 (S)	PL-120-1	210°	
PL 6x3/8 (S)	PL-120-2	210°	

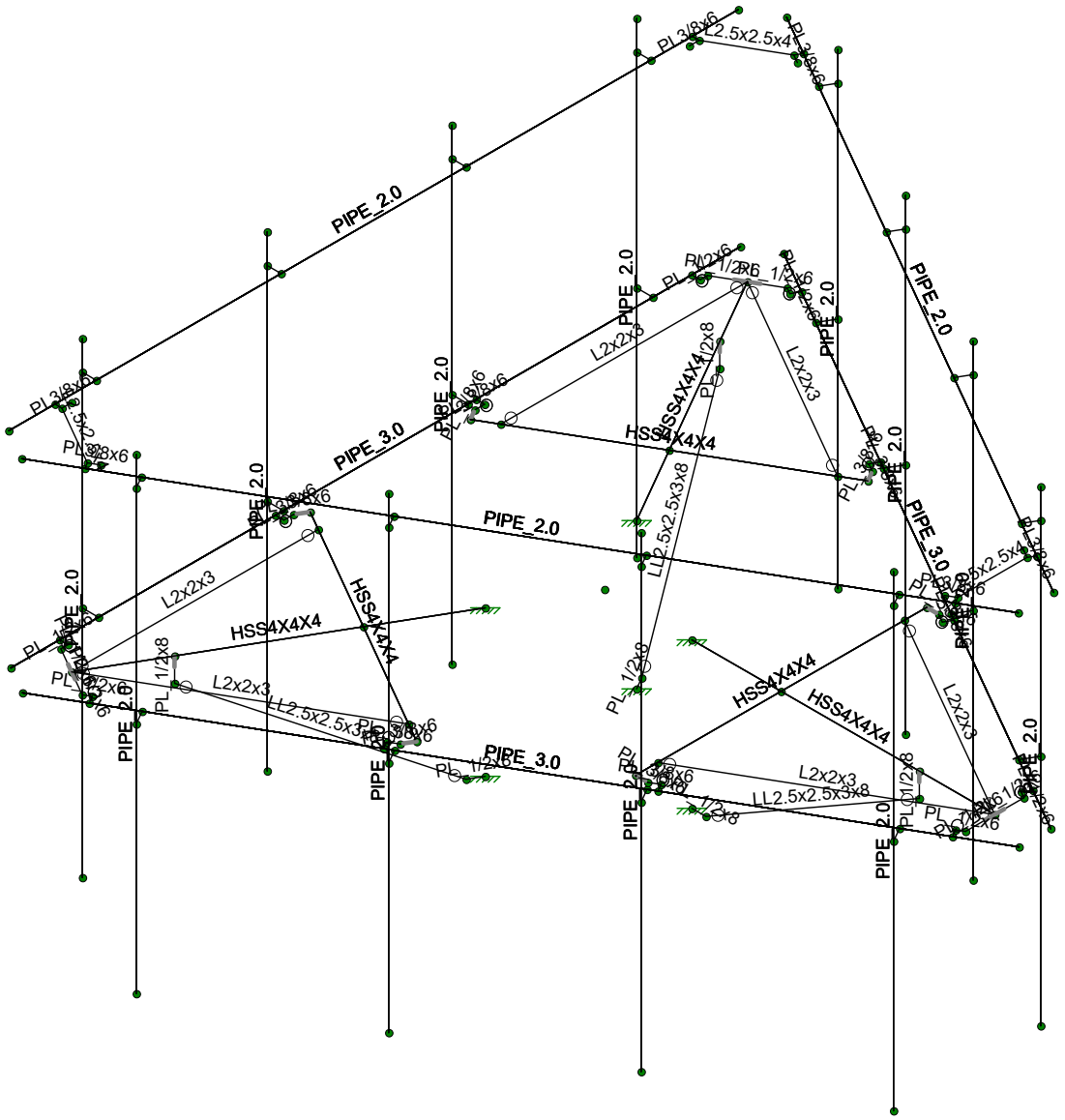
Member Lookup	Member Label	Position	Maintenance Load
PL 6x3/8 (S)	PL-240-1	330°	
PL 6x3/8 (S)	PL-240-2	330°	



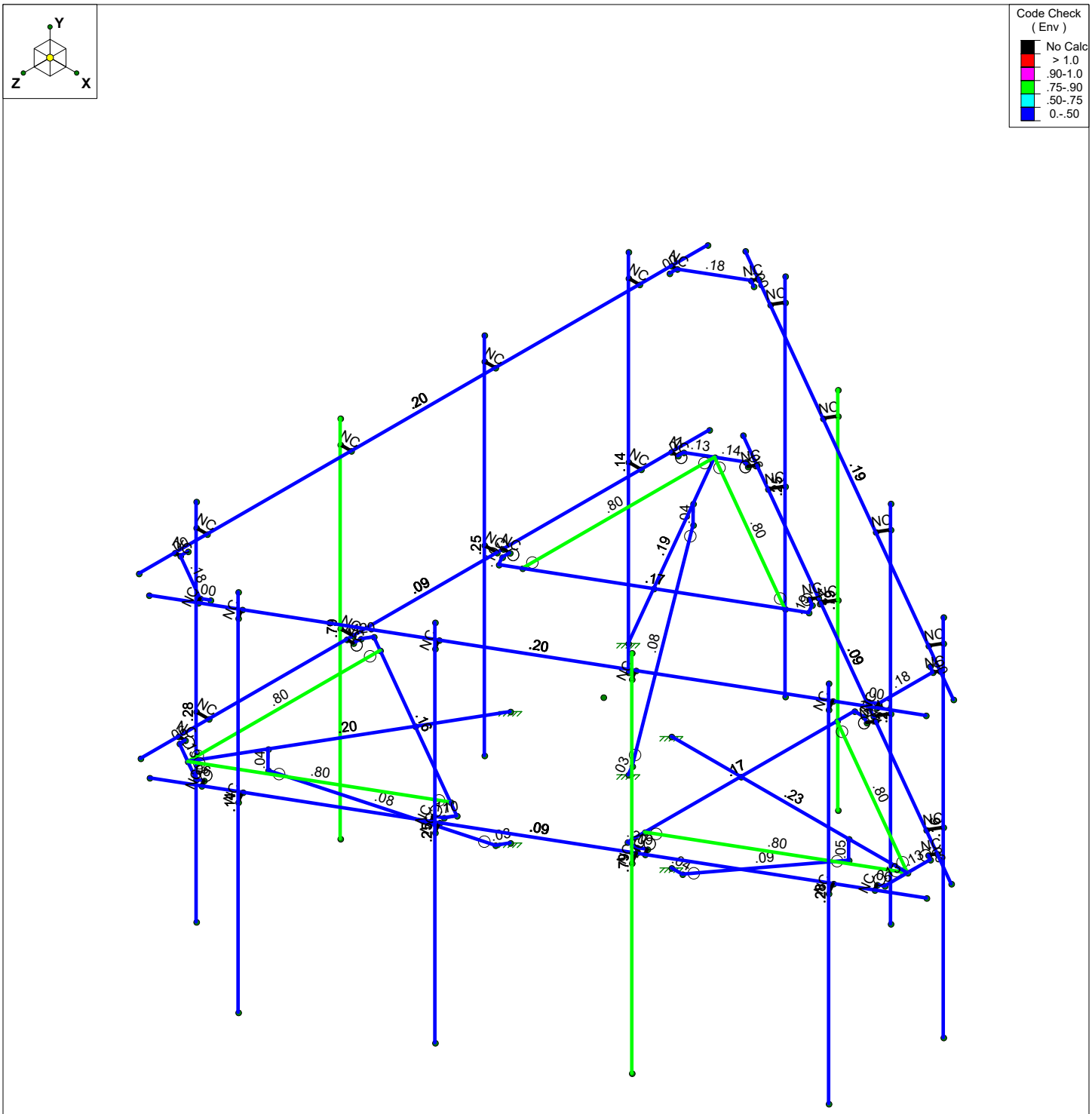
ETS, PLLC	Woodstock NW PCS CT	SK - 1
AT		Nov 9, 2022 at 11:55 AM
ETS# 22112572.STR.7577		415439_14150709_T-Mobile.r3d



ETS, PLLC	Woodstock NW PCS CT	SK - 2
AT		Nov 9, 2022 at 11:55 AM
ETS# 22112572.STR.7577		415439_14150709_T-Mobile.r3d

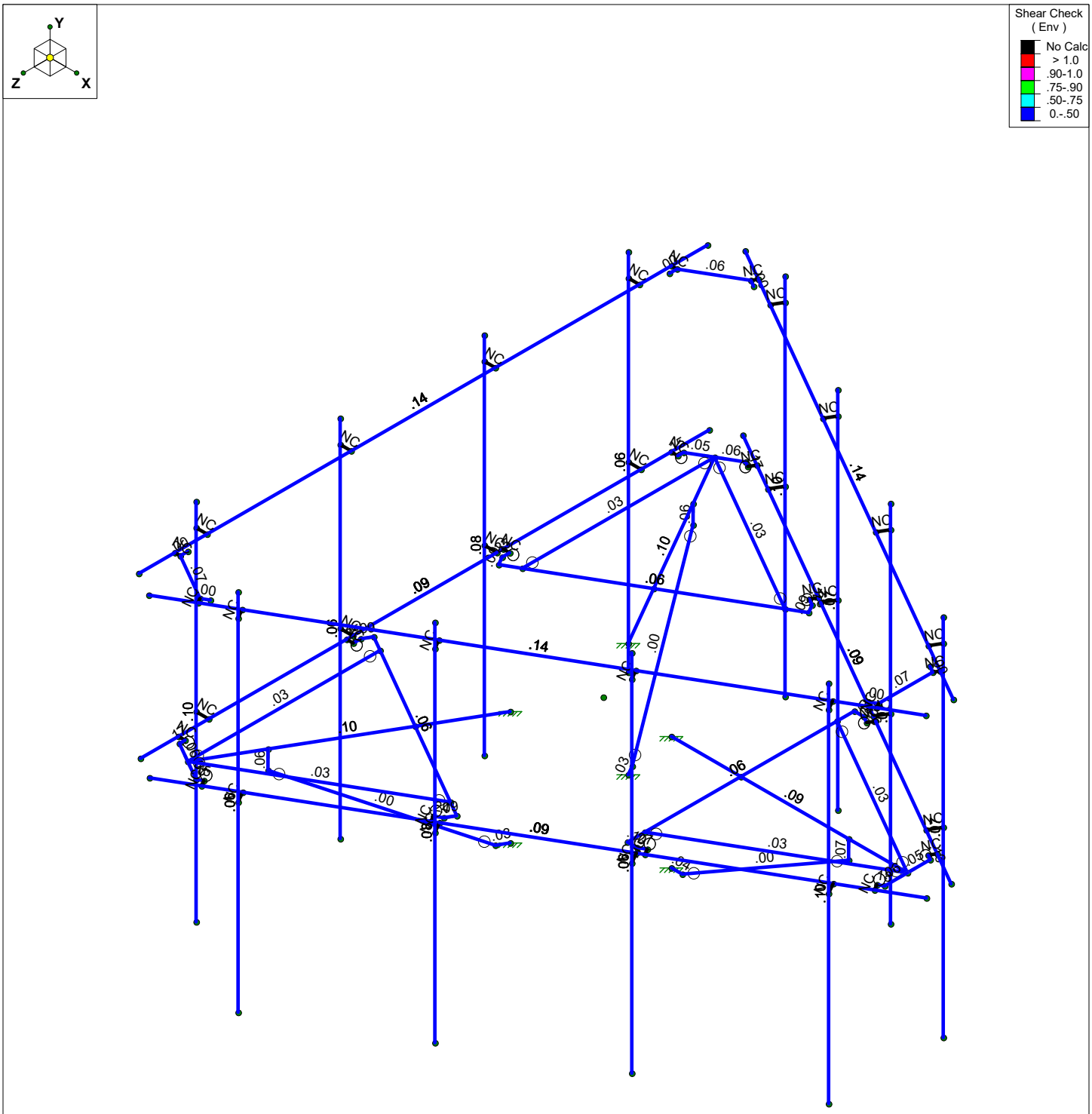


ETS, PLLC	Woodstock NW PCS CT	SK - 3
AT		Nov 9, 2022 at 11:55 AM
ETS# 22112572.STR.7577		415439_14150709_T-Mobile.r3d



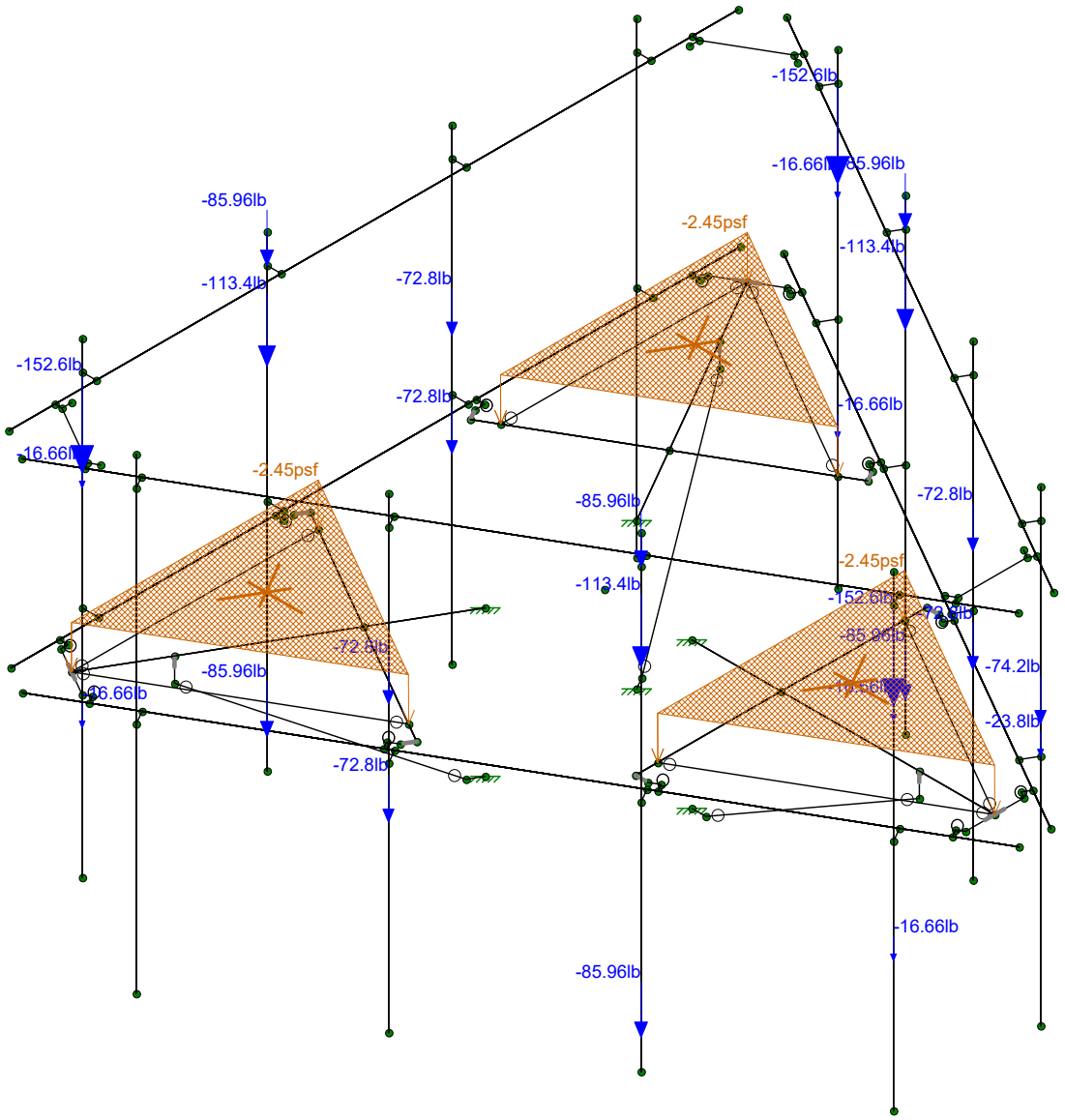
Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.4D

ETS, PLLC	Woodstock NW PCS CT	SK - 4
AT		Nov 9, 2022 at 11:56 AM
ETS# 22112572.STR.7577		415439_14150709_T-Mobile.r3d



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.4D

ETS, PLLC	Woodstock NW PCS CT	SK - 5
AT		Nov 9, 2022 at 11:56 AM
ETS# 22112572.STR.7577		415439_14150709_T-Mobile.r3d



Loads: LC 1, 1.4D

ETS, PLLC	Woodstock NW PCS CT	SK - 6
AT		Nov 9, 2022 at 11:56 AM
ETS# 22112572.STR.7577		415439_14150709_T-Mobile.r3d

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(M...	Surface(Plate/Wall)
1	Dead Load	None		-1			21		3	
2	Wind Load (0 deg)	None					45	120		
3	Wind Load (30 deg)	None					45	120		
4	Wind Load (60 deg)	None					45	120		
5	Wind Load (90 deg)	None					45	120		
6	Wind Load (120 deg)	None					45	120		
7	Wind Load (150 deg)	None					45	120		
8	Wind Load (180 deg)	None					45	120		
9	Wind Load (210 deg)	None					45	120		
10	Wind Load (240 deg)	None					45	120		
11	Wind Load (270 deg)	None					45	120		
12	Wind Load (300 deg)	None					45	120		
13	Wind Load (330 deg)	None					45	120		
14	Ice Load	None					21	60	3	
15	Wind on Ice (0 deg)	None					45	120		
16	Wind on Ice (30 deg)	None					45	120		
17	Wind on Ice (60 deg)	None					45	120		
18	Wind on Ice (90 deg)	None					45	120		
19	Wind on Ice (120 deg)	None					45	120		
20	Wind on Ice (150 deg)	None					45	120		
21	Wind on Ice (180 deg)	None					45	120		
22	Wind on Ice (210 deg)	None					45	120		
23	Wind on Ice (240 deg)	None					45	120		
24	Wind on Ice (270 deg)	None					45	120		
25	Wind on Ice (300 deg)	None					45	120		
26	Wind on Ice (330 deg)	None					45	120		
27	Horizontal Seismic, Eh (0)	None	1				42			
28	Horizontal Seismic, Eh (30)	None	.866		.5		42			
29	Horizontal Seismic, Eh (60)	None	.5		.866		42			
30	Horizontal Seismic, Eh (90)	None			1		42			
31	Horizontal Seismic, Eh (120)	None	-.5		.866		42			
32	Horizontal Seismic, Eh (150)	None	-.866		.5		42			
33	Horizontal Seismic, Eh (180)	None	-1				42			
34	Horizontal Seismic, Eh (210)	None	-.866		-.5		42			
35	Horizontal Seismic, Eh (240)	None	-.5		-.866		42			
36	Horizontal Seismic, Eh (270)	None			-1		42			
37	Horizontal Seismic, Eh (300)	None	.5		-.866		42			
38	Horizontal Seismic, Eh (330)	None	.866		-.5		42			
39	Maintenance Load, Lm (M...	None					1			
40	Maintenance Load, Lm (M...	None					1			
41	Maintenance Load, Lm (M...	None					1			
42	Maintenance Load, Lm (M...	None					1			
43	Maintenance Load, Lm (M...	None					1			
44	Maintenance Load, Lm (M...	None					1			
45	Maintenance Load, Lm (M...	None					1			
46	Maintenance Load, Lm (M...	None					1			
47	Maintenance Load, Lm (M...	None					1			
48	Maintenance Load, Lm (M...	None					1			
49	Maintenance Load, Lm (M...	None					1			
50	Maintenance Load, Lm (M...	None					1			
51	Maintenance Load, Lm (M...	None								
52	Maintenance Load, Lm (M...	None								
53	Maintenance Load, Lm (M...	None								
54	Maintenance Load, Lm (M...	None								
55	Maintenance Load, Lm (M...	None								
56	Maintenance Load, Lm (M...	None								

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(M...	Surface(Plate/Wall)
57	Maintenance Load, Lm (M...	None								
58	Maintenance Load, Lm (M...	None								
59	Maintenance Load, Lm (M...	None								
60	Maintenance Load, Lm (M...	None								
61	Maintenance Load, Lm (M...	None								
62	Maintenance Load, Lm (M...	None								
63	Maintenance Load, Lm (M...	None								
64	Maintenance Load, Lm (M...	None								
65	Maintenance Load, Lm (M...	None								
66	Maintenance Load, Lm (M...	None								
67	Maintenance Load, Lm (M...	None								
68	Maintenance Load, Lm (M...	None								
69	Maintenance Load, Lm (M...	None								
70	Maintenance Load, Lm (M...	None								
71	Maintenance Load, Lm (M...	None								
72	Maintenance Load, Lm (M...	None								
73	Maintenance Load, Lm (M...	None								
74	Maintenance Load, Lm (M...	None								
75	Maintenance Load, Lv (Po...	None					1			
76	Maintenance Load, Lv (Po...	None					1			
77	Maintenance Load, Lv (Po...	None					1			
78	Maintenance Load, Lv (Po...	None					1			
79	Maintenance Load, Lv (Po...	None					1			
80	Maintenance Load, Lv (Po...	None					1			
81	Maintenance Load, Lv (Po...	None					1			
82	Maintenance Load, Lv (Po...	None					1			
83	Maintenance Load, Lv (Po...	None					1			
84	Maintenance Load, Lv (Po...	None					1			
85	Maintenance Load, Lv (Po...	None					1			
86	Maintenance Load, Lv (Po...	None					1			
87	Maintenance Load, Lv (Po...	None					1			
88	Maintenance Load, Lv (Po...	None					1			
89	Maintenance Load, Lv (Po...	None					1			
90	Maintenance Load, Lv (Po...	None					1			
91	Maintenance Load, Lv (Po...	None					1			
92	Maintenance Load, Lv (Po...	None					1			
93	Maintenance Load, Lv (Po...	None					1			
94	Maintenance Load, Lv (Po...	None					1			
95	Maintenance Load, Lv (Po...	None					1			
96	Maintenance Load, Lv (Po...	None					1			
97	Maintenance Load, Lv (Po...	None					1			
98	Maintenance Load, Lv (Po...	None					1			
99	Maintenance Load, Lv (Po...	None								
100	Maintenance Load, Lv (Po...	None								
101	Maintenance Load, Lv (Po...	None								
102	Maintenance Load, Lv (Po...	None								
103	Maintenance Load, Lv (Po...	None								
104	Maintenance Load, Lv (Po...	None								
105	Maintenance Load, Lv (Po...	None								
106	Maintenance Load, Lv (Po...	None								
107	Maintenance Load, Lv (Po...	None								
108	Maintenance Load, Lv (Po...	None								
109	Maintenance Load, Lv (Po...	None								
110	Maintenance Load, Lv (Po...	None								
111	Maintenance Load, Lv (Po...	None								
112	Maintenance Load, Lv (Po...	None								
113	Maintenance Load, Lv (Po...	None								

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(M...	Surface(Plate/Wall)
114	Maintenance Load, Lv (Po...	None								
115	Maintenance Load, Lv (Po...	None								
116	Maintenance Load, Lv (Po...	None								
117	Maintenance Load, Lv (Po...	None								
118	Maintenance Load, Lv (Po...	None								
119	Maintenance Load, Lv (Po...	None								
120	Maintenance Load, Lv (Po...	None								
121	Maintenance Load, Lv (Po...	None								
122	Maintenance Load, Lv (Po...	None								
123	Maintenance Load, Lv (Po...	None								
124	Maintenance Load, Lv (Po...	None								
125	Maintenance Load, Lv (Po...	None								
126	Maintenance Load, Lv (Po...	None								
127	Maintenance Load, Lv (Po...	None								
128	Maintenance Load, Lv (Po...	None								
129	Maintenance Load, Lv (Po...	None								
130	Maintenance Load, Lv (Po...	None								
131	Maintenance Load, Lv (Po...	None								
132	Maintenance Load, Lv (Po...	None								
133	Maintenance Load, Lv (Po...	None								
134	Maintenance Load, Lv (Po...	None								
135	Maintenance Load, Lv (Po...	None								
136	Maintenance Load, Lv (Po...	None								
137	Maintenance Load, Lv (Po...	None								
138	Maintenance Load, Lv (Po...	None								
139	Maintenance Load, Lv (Po...	None								
140	Maintenance Load, Lv (Po...	None								
141	Maintenance Load, Lv (Po...	None								
142	Maintenance Load, Lv (Po...	None								
143	Maintenance Load, Lv (Po...	None								
144	Maintenance Load, Lv (Po...	None								
145	Maintenance Load, Lv (Po...	None								
146	Maintenance Load, Lv (Po...	None								
147	Maintenance Load, Lv (Po...	None								
148	Maintenance Load, Lv (Po...	None								
149	Maintenance Load, Lv (Po...	None								
150	Maintenance Load, Lv (Po...	None								
151	Maintenance Load, Lv (Po...	None								
152	Maintenance Load, Lv (Po...	None								
153	Maintenance Load, Lv (Po...	None								
154	Maintenance Load, Lv (Po...	None								
155	Maintenance Load, Lv (Po...	None								
156	Maintenance Load, Lv (Po...	None								
157	Maintenance Load, Lv (Po...	None								
158	Maintenance Load, Lv (Po...	None								
159	Maintenance Load, Lv (Po...	None								
160	Maintenance Load, Lv (Po...	None								
161	Maintenance Load, Lv (Po...	None								
162	Maintenance Load, Lv (Po...	None								
163	Maintenance Load, Lv (Po...	None								
164	Maintenance Load, Lv (Po...	None								
165	Maintenance Load, Lv (Po...	None								
166	Maintenance Load, Lv (Po...	None								
167	Maintenance Load, Lv (Po...	None								
168	Maintenance Load, Lv (Po...	None								
169	Maintenance Load, Lv (Po...	None								
170	Maintenance Load, Lv (Po...	None								

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(M...	Surface(Plate/Wall)
171	Maintenance Load, Lv (Po...	None								
172	Maintenance Load, Lv (Po...	None								
173	Maintenance Load, Lv (Po...	None								
174	Maintenance Load, Lv (Po...	None								
175	Antenna Dead Load	None					18			
176	Antenna Wind Load (0 deg)	None					36			
177	Antenna Wind Load (30 de...	None					36			
178	Antenna Wind Load (60 de...	None					36			
179	Antenna Wind Load (90 de...	None					36			
180	Antenna Wind Load (120 d...	None					36			
181	Antenna Wind Load (150 d...	None					36			
182	Antenna Wind Load (180 d...	None					36			
183	Antenna Wind Load (210 d...	None					36			
184	Antenna Wind Load (240 d...	None					36			
185	Antenna Wind Load (270 d...	None					36			
186	Antenna Wind Load (300 d...	None					36			
187	Antenna Wind Load (330 d...	None					36			
188	Antenna Ice Load	None					18			
189	Antenna Wind on Ice (0 deg)	None					36			
190	Antenna Wind on Ice (30 d...	None					36			
191	Antenna Wind on Ice (60 d...	None					36			
192	Antenna Wind on Ice (90 d...	None					36			
193	Antenna Wind on Ice (120 ...	None					36			
194	Antenna Wind on Ice (150 ...	None					36			
195	Antenna Wind on Ice (180 ...	None					36			
196	Antenna Wind on Ice (210 ...	None					36			
197	Antenna Wind on Ice (240 ...	None					36			
198	Antenna Wind on Ice (270 ...	None					36			
199	Antenna Wind on Ice (300 ...	None					36			
200	Antenna Wind on Ice (330 ...	None					36			
201	Ant. Horiz. Seismic, Eh (0)	None					36			
202	Ant. Horiz. Seismic, Eh (30)	None					36			
203	Ant. Horiz. Seismic, Eh (60)	None					36			
204	Ant. Horiz. Seismic, Eh (90)	None					36			
205	Ant. Horiz. Seismic, Eh (12...	None					36			
206	Ant. Horiz. Seismic, Eh (15...	None					36			
207	Ant. Horiz. Seismic, Eh (18...	None					36			
208	Ant. Horiz. Seismic, Eh (21...	None					36			
209	Ant. Horiz. Seismic, Eh (24...	None					36			
210	Ant. Horiz. Seismic, Eh (27...	None					36			
211	Ant. Horiz. Seismic, Eh (30...	None					36			
212	Ant. Horiz. Seismic, Eh (33...	None					36			
213	BLC 1 Transient Area Loads	None						147		
214	BLC 14 Transient Area Lo...	None						147		

Load Combinations

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4D	Yes	Y		1	1.4	175	1.4																
2	1.2D + 1.0W (0 deg)	Yes	Y		1	1.2	2	1	175	1.2	176	1												
3	1.2D + 1.0W (30 deg)	Yes	Y		1	1.2	3	1	175	1.2	177	1												
4	1.2D + 1.0W (60 deg)	Yes	Y		1	1.2	4	1	175	1.2	178	1												
5	1.2D + 1.0W (90 deg)	Yes	Y		1	1.2	5	1	175	1.2	179	1												
6	1.2D + 1.0W (120 deg)	Yes	Y		1	1.2	6	1	175	1.2	180	1												
7	1.2D + 1.0W (150 deg)	Yes	Y		1	1.2	7	1	175	1.2	181	1												
8	1.2D + 1.0W (180 deg)	Yes	Y		1	1.2	8	1	175	1.2	182	1												

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
9	1.2D + 1.0W (210 deg)	Yes	Y		1	1.2	9	1	175	1.2	183	1														
10	1.2D + 1.0W (240 deg)	Yes	Y		1	1.2	10	1	175	1.2	184	1														
11	1.2D + 1.0W (270 deg)	Yes	Y		1	1.2	11	1	175	1.2	185	1														
12	1.2D + 1.0W (300 deg)	Yes	Y		1	1.2	12	1	175	1.2	186	1														
13	1.2D + 1.0W (330 deg)	Yes	Y		1	1.2	13	1	175	1.2	187	1														
14	1.2D + Di + Wi (0 deg)	Yes	Y		1	1.2	14	1	15	1	175	1.2	188	1	189	1										
15	1.2D + Di + Wi (30 deg)	Yes	Y		1	1.2	14	1	16	1	175	1.2	188	1	190	1										
16	1.2D + Di + Wi (60 deg)	Yes	Y		1	1.2	14	1	17	1	175	1.2	188	1	191	1										
17	1.2D + Di + Wi (90 deg)	Yes	Y		1	1.2	14	1	18	1	175	1.2	188	1	192	1										
18	1.2D + Di + Wi (120 deg)	Yes	Y		1	1.2	14	1	19	1	175	1.2	188	1	193	1										
19	1.2D + Di + Wi (150 deg)	Yes	Y		1	1.2	14	1	20	1	175	1.2	188	1	194	1										
20	1.2D + Di + Wi (180 deg)	Yes	Y		1	1.2	14	1	21	1	175	1.2	188	1	195	1										
21	1.2D + Di + Wi (210 deg)	Yes	Y		1	1.2	14	1	22	1	175	1.2	188	1	196	1										
22	1.2D + Di + Wi (240 deg)	Yes	Y		1	1.2	14	1	23	1	175	1.2	188	1	197	1										
23	1.2D + Di + Wi (270 deg)	Yes	Y		1	1.2	14	1	24	1	175	1.2	188	1	198	1										
24	1.2D + Di + Wi (300 deg)	Yes	Y		1	1.2	14	1	25	1	175	1.2	188	1	199	1										
25	1.2D + Di + Wi (330 deg)	Yes	Y		1	1.2	14	1	26	1	175	1.2	188	1	200	1										
26	1.2D + 1.0 Ev + 1.0Eh (0 deg)	Yes	Y		1	1.2	1	.038	27	.095	175	1.2	175	.038	201	.095										
27	1.2D + 1.0 Ev + 1.0Eh (30 deg)	Yes	Y		1	1.2	1	.038	28	.095	175	1.2	175	.038	202	.095										
28	1.2D + 1.0 Ev + 1.0Eh (60 deg)	Yes	Y		1	1.2	1	.038	29	.095	175	1.2	175	.038	203	.095										
29	1.2D + 1.0 Ev + 1.0Eh (90 deg)	Yes	Y		1	1.2	1	.038	30	.095	175	1.2	175	.038	204	.095										
30	1.2D + 1.0 Ev + 1.0Eh (120 d...	Yes	Y		1	1.2	1	.038	31	.095	175	1.2	175	.038	205	.095										
31	1.2D + 1.0 Ev + 1.0Eh (150 d...	Yes	Y		1	1.2	1	.038	32	.095	175	1.2	175	.038	206	.095										
32	1.2D + 1.0 Ev + 1.0Eh (180 d...	Yes	Y		1	1.2	1	.038	33	.095	175	1.2	175	.038	207	.095										
33	1.2D + 1.0 Ev + 1.0Eh (210 d...	Yes	Y		1	1.2	1	.038	34	.095	175	1.2	175	.038	208	.095										
34	1.2D + 1.0 Ev + 1.0Eh (240 d...	Yes	Y		1	1.2	1	.038	35	.095	175	1.2	175	.038	209	.095										
35	1.2D + 1.0 Ev + 1.0Eh (270 d...	Yes	Y		1	1.2	1	.038	36	.095	175	1.2	175	.038	210	.095										
36	1.2D + 1.0 Ev + 1.0Eh (300 d...	Yes	Y		1	1.2	1	.038	37	.095	175	1.2	175	.038	211	.095										
37	1.2D + 1.0 Ev + 1.0Eh (330 d...	Yes	Y		1	1.2	1	.038	38	.095	175	1.2	175	.038	212	.095										
38	1.2D + 1.5Lm1 + 1.0Wm (0 d...	Yes	Y		1	1.2	39	1.5	2	.058	175	1.2	176	.058												
39	1.2D + 1.5Lm1 + 1.0Wm (30 ...	Yes	Y		1	1.2	39	1.5	3	.058	175	1.2	177	.058												
40	1.2D + 1.5Lm1 + 1.0Wm (60 ...	Yes	Y		1	1.2	39	1.5	4	.058	175	1.2	178	.058												
41	1.2D + 1.5Lm1 + 1.0Wm (90 ...	Yes	Y		1	1.2	39	1.5	5	.058	175	1.2	179	.058												
42	1.2D + 1.5Lm1 + 1.0Wm (120...	Yes	Y		1	1.2	39	1.5	6	.058	175	1.2	180	.058												
43	1.2D + 1.5Lm1 + 1.0Wm (150...	Yes	Y		1	1.2	39	1.5	7	.058	175	1.2	181	.058												
44	1.2D + 1.5Lm1 + 1.0Wm (180...	Yes	Y		1	1.2	39	1.5	8	.058	175	1.2	182	.058												
45	1.2D + 1.5Lm1 + 1.0Wm (210...	Yes	Y		1	1.2	39	1.5	9	.058	175	1.2	183	.058												
46	1.2D + 1.5Lm1 + 1.0Wm (240...	Yes	Y		1	1.2	39	1.5	10	.058	175	1.2	184	.058												
47	1.2D + 1.5Lm1 + 1.0Wm (270...	Yes	Y		1	1.2	39	1.5	11	.058	175	1.2	185	.058												
48	1.2D + 1.5Lm1 + 1.0Wm (300...	Yes	Y		1	1.2	39	1.5	12	.058	175	1.2	186	.058												
49	1.2D + 1.5Lm1 + 1.0Wm (330...	Yes	Y		1	1.2	39	1.5	13	.058	175	1.2	187	.058												
50	1.2D + 1.5Lm2 + 1.0Wm (0 d...	Yes	Y		1	1.2	40	1.5	2	.058	175	1.2	176	.058												
51	1.2D + 1.5Lm2 + 1.0Wm (30 ...	Yes	Y		1	1.2	40	1.5	3	.058	175	1.2	177	.058												
52	1.2D + 1.5Lm2 + 1.0Wm (60 ...	Yes	Y		1	1.2	40	1.5	4	.058	175	1.2	178	.058												
53	1.2D + 1.5Lm2 + 1.0Wm (90 ...	Yes	Y		1	1.2	40	1.5	5	.058	175	1.2	179	.058												
54	1.2D + 1.5Lm2 + 1.0Wm (120...	Yes	Y		1	1.2	40	1.5	6	.058	175	1.2	180	.058												
55	1.2D + 1.5Lm2 + 1.0Wm (150...	Yes	Y		1	1.2	40	1.5	7	.058	175	1.2	181	.058												
56	1.2D + 1.5Lm2 + 1.0Wm (180...	Yes	Y		1	1.2	40	1.5	8	.058	175	1.2	182	.058												
57	1.2D + 1.5Lm2 + 1.0Wm (210...	Yes	Y		1	1.2	40	1.5	9	.058	175	1.2	183	.058												
58	1.2D + 1.5Lm2 + 1.0Wm (240...	Yes	Y		1	1.2	40	1.5	10	.058	175	1.2	184	.058												
59	1.2D + 1.5Lm2 + 1.0Wm (270...	Yes	Y		1	1.2	40	1.5	11	.058	175	1.2	185	.058												
60	1.2D + 1.5Lm2 + 1.0Wm (300...	Yes	Y		1	1.2	40	1.5	12	.058	175	1.2	186	.058												
61	1.2D + 1.5Lm2 + 1.0Wm (330...	Yes	Y		1	1.2	40	1.5	13	.058	175	1.2	187	.058												
62	1.2D + 1.5Lm3 + 1.0Wm (0 d...	Yes	Y		1	1.2	41	1.5	2	.058	175	1.2	176	.058												
63	1.2D + 1.5Lm3 + 1.0Wm (30 ...	Yes	Y		1	1.2	41	1.5	3	.058	175	1.2	177	.058												
64	1.2D + 1.5Lm3 + 1.0Wm (60 ...	Yes	Y		1	1.2	41	1.5	4	.058	175	1.2	178	.058												
65	1.2D + 1.5Lm3 + 1.0Wm (90 ...	Yes	Y		1	1.2	41	1.5	5	.058	175	1.2	179	.058												

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
66	1.2D + 1.5Lm3 + 1.0Wm (120..	Yes	Y		1	1.2	41	1.5	6	.058	175	1.2	180	.058										
67	1.2D + 1.5Lm3 + 1.0Wm (150..	Yes	Y		1	1.2	41	1.5	7	.058	175	1.2	181	.058										
68	1.2D + 1.5Lm3 + 1.0Wm (180..	Yes	Y		1	1.2	41	1.5	8	.058	175	1.2	182	.058										
69	1.2D + 1.5Lm3 + 1.0Wm (210..	Yes	Y		1	1.2	41	1.5	9	.058	175	1.2	183	.058										
70	1.2D + 1.5Lm3 + 1.0Wm (240..	Yes	Y		1	1.2	41	1.5	10	.058	175	1.2	184	.058										
71	1.2D + 1.5Lm3 + 1.0Wm (270..	Yes	Y		1	1.2	41	1.5	11	.058	175	1.2	185	.058										
72	1.2D + 1.5Lm3 + 1.0Wm (300..	Yes	Y		1	1.2	41	1.5	12	.058	175	1.2	186	.058										
73	1.2D + 1.5Lm3 + 1.0Wm (330..	Yes	Y		1	1.2	41	1.5	13	.058	175	1.2	187	.058										
74	1.2D + 1.5Lm4 + 1.0Wm (0 d...	Yes	Y		1	1.2	42	1.5	2	.058	175	1.2	176	.058										
75	1.2D + 1.5Lm4 + 1.0Wm (30 ...	Yes	Y		1	1.2	42	1.5	3	.058	175	1.2	177	.058										
76	1.2D + 1.5Lm4 + 1.0Wm (60 ...	Yes	Y		1	1.2	42	1.5	4	.058	175	1.2	178	.058										
77	1.2D + 1.5Lm4 + 1.0Wm (90 ...	Yes	Y		1	1.2	42	1.5	5	.058	175	1.2	179	.058										
78	1.2D + 1.5Lm4 + 1.0Wm (120..	Yes	Y		1	1.2	42	1.5	6	.058	175	1.2	180	.058										
79	1.2D + 1.5Lm4 + 1.0Wm (150..	Yes	Y		1	1.2	42	1.5	7	.058	175	1.2	181	.058										
80	1.2D + 1.5Lm4 + 1.0Wm (180..	Yes	Y		1	1.2	42	1.5	8	.058	175	1.2	182	.058										
81	1.2D + 1.5Lm4 + 1.0Wm (210..	Yes	Y		1	1.2	42	1.5	9	.058	175	1.2	183	.058										
82	1.2D + 1.5Lm4 + 1.0Wm (240..	Yes	Y		1	1.2	42	1.5	10	.058	175	1.2	184	.058										
83	1.2D + 1.5Lm4 + 1.0Wm (270..	Yes	Y		1	1.2	42	1.5	11	.058	175	1.2	185	.058										
84	1.2D + 1.5Lm4 + 1.0Wm (300..	Yes	Y		1	1.2	42	1.5	12	.058	175	1.2	186	.058										
85	1.2D + 1.5Lm4 + 1.0Wm (330..	Yes	Y		1	1.2	42	1.5	13	.058	175	1.2	187	.058										
86	1.2D + 1.5Lm5 + 1.0Wm (0 d...	Yes	Y		1	1.2	43	1.5	2	.058	175	1.2	176	.058										
87	1.2D + 1.5Lm5 + 1.0Wm (30 ...	Yes	Y		1	1.2	43	1.5	3	.058	175	1.2	177	.058										
88	1.2D + 1.5Lm5 + 1.0Wm (60 ...	Yes	Y		1	1.2	43	1.5	4	.058	175	1.2	178	.058										
89	1.2D + 1.5Lm5 + 1.0Wm (90 ...	Yes	Y		1	1.2	43	1.5	5	.058	175	1.2	179	.058										
90	1.2D + 1.5Lm5 + 1.0Wm (120..	Yes	Y		1	1.2	43	1.5	6	.058	175	1.2	180	.058										
91	1.2D + 1.5Lm5 + 1.0Wm (150..	Yes	Y		1	1.2	43	1.5	7	.058	175	1.2	181	.058										
92	1.2D + 1.5Lm5 + 1.0Wm (180..	Yes	Y		1	1.2	43	1.5	8	.058	175	1.2	182	.058										
93	1.2D + 1.5Lm5 + 1.0Wm (210..	Yes	Y		1	1.2	43	1.5	9	.058	175	1.2	183	.058										
94	1.2D + 1.5Lm5 + 1.0Wm (240..	Yes	Y		1	1.2	43	1.5	10	.058	175	1.2	184	.058										
95	1.2D + 1.5Lm5 + 1.0Wm (270..	Yes	Y		1	1.2	43	1.5	11	.058	175	1.2	185	.058										
96	1.2D + 1.5Lm5 + 1.0Wm (300..	Yes	Y		1	1.2	43	1.5	12	.058	175	1.2	186	.058										
97	1.2D + 1.5Lm5 + 1.0Wm (330..	Yes	Y		1	1.2	43	1.5	13	.058	175	1.2	187	.058										
98	1.2D + 1.5Lm6 + 1.0Wm (0 d...	Yes	Y		1	1.2	44	1.5	2	.058	175	1.2	176	.058										
99	1.2D + 1.5Lm6 + 1.0Wm (30 ...	Yes	Y		1	1.2	44	1.5	3	.058	175	1.2	177	.058										
100	1.2D + 1.5Lm6 + 1.0Wm (60 ...	Yes	Y		1	1.2	44	1.5	4	.058	175	1.2	178	.058										
101	1.2D + 1.5Lm6 + 1.0Wm (90 ...	Yes	Y		1	1.2	44	1.5	5	.058	175	1.2	179	.058										
102	1.2D + 1.5Lm6 + 1.0Wm (120..	Yes	Y		1	1.2	44	1.5	6	.058	175	1.2	180	.058										
103	1.2D + 1.5Lm6 + 1.0Wm (150..	Yes	Y		1	1.2	44	1.5	7	.058	175	1.2	181	.058										
104	1.2D + 1.5Lm6 + 1.0Wm (180..	Yes	Y		1	1.2	44	1.5	8	.058	175	1.2	182	.058										
105	1.2D + 1.5Lm6 + 1.0Wm (210..	Yes	Y		1	1.2	44	1.5	9	.058	175	1.2	183	.058										
106	1.2D + 1.5Lm6 + 1.0Wm (240..	Yes	Y		1	1.2	44	1.5	10	.058	175	1.2	184	.058										
107	1.2D + 1.5Lm6 + 1.0Wm (270..	Yes	Y		1	1.2	44	1.5	11	.058	175	1.2	185	.058										
108	1.2D + 1.5Lm6 + 1.0Wm (300..	Yes	Y		1	1.2	44	1.5	12	.058	175	1.2	186	.058										
109	1.2D + 1.5Lm6 + 1.0Wm (330..	Yes	Y		1	1.2	44	1.5	13	.058	175	1.2	187	.058										
110	1.2D + 1.5Lm7 + 1.0Wm (0 d...	Yes	Y		1	1.2	45	1.5	2	.058	175	1.2	176	.058										
111	1.2D + 1.5Lm7 + 1.0Wm (30 ...	Yes	Y		1	1.2	45	1.5	3	.058	175	1.2	177	.058										
112	1.2D + 1.5Lm7 + 1.0Wm (60 ...	Yes	Y		1	1.2	45	1.5	4	.058	175	1.2	178	.058										
113	1.2D + 1.5Lm7 + 1.0Wm (90 ...	Yes	Y		1	1.2	45	1.5	5	.058	175	1.2	179	.058										
114	1.2D + 1.5Lm7 + 1.0Wm (120..	Yes	Y		1	1.2	45	1.5	6	.058	175	1.2	180	.058										
115	1.2D + 1.5Lm7 + 1.0Wm (150..	Yes	Y		1	1.2	45	1.5	7	.058	175	1.2	181	.058										
116	1.2D + 1.5Lm7 + 1.0Wm (180..	Yes	Y		1	1.2	45	1.5	8	.058	175	1.2	182	.058										
117	1.2D + 1.5Lm7 + 1.0Wm (210..	Yes	Y		1	1.2	45	1.5	9	.058	175	1.2	183	.058										
118	1.2D + 1.5Lm7 + 1.0Wm (240..	Yes	Y		1	1.2	45	1.5	10	.058	175	1.2	184	.058										
119	1.2D + 1.5Lm7 + 1.0Wm (270..	Yes	Y		1	1.2	45	1.5	11	.058	175	1.2	185	.058										
120	1.2D + 1.5Lm7 + 1.0Wm (300..	Yes	Y		1	1.2	45	1.5	12	.058	175	1.2	186	.058										
121	1.2D + 1.5Lm7 + 1.0Wm (330..	Yes	Y		1	1.2	45	1.5	13	.058	175	1.2	187	.058										
122	1.2D + 1.5Lm8 + 1.0Wm (0 d...	Yes	Y		1	1.2	46	1.5	2	.058	175	1.2	176	.058										

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
123	1.2D + 1.5Lm8 + 1.0Wm (30 ...	Yes	Y		1	1.2	46	1.5	3	.058	175	1.2	177	.058										
124	1.2D + 1.5Lm8 + 1.0Wm (60 ...	Yes	Y		1	1.2	46	1.5	4	.058	175	1.2	178	.058										
125	1.2D + 1.5Lm8 + 1.0Wm (90 ...	Yes	Y		1	1.2	46	1.5	5	.058	175	1.2	179	.058										
126	1.2D + 1.5Lm8 + 1.0Wm (120...	Yes	Y		1	1.2	46	1.5	6	.058	175	1.2	180	.058										
127	1.2D + 1.5Lm8 + 1.0Wm (150...	Yes	Y		1	1.2	46	1.5	7	.058	175	1.2	181	.058										
128	1.2D + 1.5Lm8 + 1.0Wm (180...	Yes	Y		1	1.2	46	1.5	8	.058	175	1.2	182	.058										
129	1.2D + 1.5Lm8 + 1.0Wm (210...	Yes	Y		1	1.2	46	1.5	9	.058	175	1.2	183	.058										
130	1.2D + 1.5Lm8 + 1.0Wm (240...	Yes	Y		1	1.2	46	1.5	10	.058	175	1.2	184	.058										
131	1.2D + 1.5Lm8 + 1.0Wm (270...	Yes	Y		1	1.2	46	1.5	11	.058	175	1.2	185	.058										
132	1.2D + 1.5Lm8 + 1.0Wm (300...	Yes	Y		1	1.2	46	1.5	12	.058	175	1.2	186	.058										
133	1.2D + 1.5Lm8 + 1.0Wm (330...	Yes	Y		1	1.2	46	1.5	13	.058	175	1.2	187	.058										
134	1.2D + 1.5Lm9 + 1.0Wm (0 d...	Yes	Y		1	1.2	47	1.5	2	.058	175	1.2	176	.058										
135	1.2D + 1.5Lm9 + 1.0Wm (30 ...	Yes	Y		1	1.2	47	1.5	3	.058	175	1.2	177	.058										
136	1.2D + 1.5Lm9 + 1.0Wm (60 ...	Yes	Y		1	1.2	47	1.5	4	.058	175	1.2	178	.058										
137	1.2D + 1.5Lm9 + 1.0Wm (90 ...	Yes	Y		1	1.2	47	1.5	5	.058	175	1.2	179	.058										
138	1.2D + 1.5Lm9 + 1.0Wm (120...	Yes	Y		1	1.2	47	1.5	6	.058	175	1.2	180	.058										
139	1.2D + 1.5Lm9 + 1.0Wm (150...	Yes	Y		1	1.2	47	1.5	7	.058	175	1.2	181	.058										
140	1.2D + 1.5Lm9 + 1.0Wm (180...	Yes	Y		1	1.2	47	1.5	8	.058	175	1.2	182	.058										
141	1.2D + 1.5Lm9 + 1.0Wm (210...	Yes	Y		1	1.2	47	1.5	9	.058	175	1.2	183	.058										
142	1.2D + 1.5Lm9 + 1.0Wm (240...	Yes	Y		1	1.2	47	1.5	10	.058	175	1.2	184	.058										
143	1.2D + 1.5Lm9 + 1.0Wm (270...	Yes	Y		1	1.2	47	1.5	11	.058	175	1.2	185	.058										
144	1.2D + 1.5Lm9 + 1.0Wm (300...	Yes	Y		1	1.2	47	1.5	12	.058	175	1.2	186	.058										
145	1.2D + 1.5Lm9 + 1.0Wm (330...	Yes	Y		1	1.2	47	1.5	13	.058	175	1.2	187	.058										
146	1.2D + 1.5Lm10 + 1.0Wm (0 ...	Yes	Y		1	1.2	48	1.5	2	.058	175	1.2	176	.058										
147	1.2D + 1.5Lm10 + 1.0Wm (30...	Yes	Y		1	1.2	48	1.5	3	.058	175	1.2	177	.058										
148	1.2D + 1.5Lm10 + 1.0Wm (60...	Yes	Y		1	1.2	48	1.5	4	.058	175	1.2	178	.058										
149	1.2D + 1.5Lm10 + 1.0Wm (90...	Yes	Y		1	1.2	48	1.5	5	.058	175	1.2	179	.058										
150	1.2D + 1.5Lm10 + 1.0Wm (12...	Yes	Y		1	1.2	48	1.5	6	.058	175	1.2	180	.058										
151	1.2D + 1.5Lm10 + 1.0Wm (15...	Yes	Y		1	1.2	48	1.5	7	.058	175	1.2	181	.058										
152	1.2D + 1.5Lm10 + 1.0Wm (18...	Yes	Y		1	1.2	48	1.5	8	.058	175	1.2	182	.058										
153	1.2D + 1.5Lm10 + 1.0Wm (21...	Yes	Y		1	1.2	48	1.5	9	.058	175	1.2	183	.058										
154	1.2D + 1.5Lm10 + 1.0Wm (24...	Yes	Y		1	1.2	48	1.5	10	.058	175	1.2	184	.058										
155	1.2D + 1.5Lm10 + 1.0Wm (27...	Yes	Y		1	1.2	48	1.5	11	.058	175	1.2	185	.058										
156	1.2D + 1.5Lm10 + 1.0Wm (30...	Yes	Y		1	1.2	48	1.5	12	.058	175	1.2	186	.058										
157	1.2D + 1.5Lm10 + 1.0Wm (33...	Yes	Y		1	1.2	48	1.5	13	.058	175	1.2	187	.058										
158	1.2D + 1.5Lm11 + 1.0Wm (0 ...	Yes	Y		1	1.2	49	1.5	2	.058	175	1.2	176	.058										
159	1.2D + 1.5Lm11 + 1.0Wm (30...	Yes	Y		1	1.2	49	1.5	3	.058	175	1.2	177	.058										
160	1.2D + 1.5Lm11 + 1.0Wm (60...	Yes	Y		1	1.2	49	1.5	4	.058	175	1.2	178	.058										
161	1.2D + 1.5Lm11 + 1.0Wm (90...	Yes	Y		1	1.2	49	1.5	5	.058	175	1.2	179	.058										
162	1.2D + 1.5Lm11 + 1.0Wm (12...	Yes	Y		1	1.2	49	1.5	6	.058	175	1.2	180	.058										
163	1.2D + 1.5Lm11 + 1.0Wm (15...	Yes	Y		1	1.2	49	1.5	7	.058	175	1.2	181	.058										
164	1.2D + 1.5Lm11 + 1.0Wm (18...	Yes	Y		1	1.2	49	1.5	8	.058	175	1.2	182	.058										
165	1.2D + 1.5Lm11 + 1.0Wm (21...	Yes	Y		1	1.2	49	1.5	9	.058	175	1.2	183	.058										
166	1.2D + 1.5Lm11 + 1.0Wm (24...	Yes	Y		1	1.2	49	1.5	10	.058	175	1.2	184	.058										
167	1.2D + 1.5Lm11 + 1.0Wm (27...	Yes	Y		1	1.2	49	1.5	11	.058	175	1.2	185	.058										
168	1.2D + 1.5Lm11 + 1.0Wm (30...	Yes	Y		1	1.2	49	1.5	12	.058	175	1.2	186	.058										
169	1.2D + 1.5Lm11 + 1.0Wm (33...	Yes	Y		1	1.2	49	1.5	13	.058	175	1.2	187	.058										
170	1.2D + 1.5Lm12 + 1.0Wm (0 ...	Yes	Y		1	1.2	50	1.5	2	.058	175	1.2	176	.058										
171	1.2D + 1.5Lm12 + 1.0Wm (30...	Yes	Y		1	1.2	50	1.5	3	.058	175	1.2	177	.058										
172	1.2D + 1.5Lm12 + 1.0Wm (60...	Yes	Y		1	1.2	50	1.5	4	.058	175	1.2	178	.058										
173	1.2D + 1.5Lm12 + 1.0Wm (90...	Yes	Y		1	1.2	50	1.5	5	.058	175	1.2	179	.058										
174	1.2D + 1.5Lm12 + 1.0Wm (12...	Yes	Y		1	1.2	50	1.5	6	.058	175	1.2	180	.058										
175	1.2D + 1.5Lm12 + 1.0Wm (15...	Yes	Y		1	1.2	50	1.5	7	.058	175	1.2	181	.058										
176	1.2D + 1.5Lm12 + 1.0Wm (18...	Yes	Y		1	1.2	50	1.5	8	.058	175	1.2	182	.058										
177	1.2D + 1.5Lm12 + 1.0Wm (21...	Yes	Y		1	1.2	50	1.5	9	.058	175	1.2	183	.058										
178	1.2D + 1.5Lm12 + 1.0Wm (24...	Yes	Y		1	1.2	50	1.5	10	.058	175	1.2	184	.058										
179	1.2D + 1.5Lm12 + 1.0Wm (27...	Yes	Y		1	1.2	50	1.5	11	.058	175	1.2	185	.058										

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
180	1.2D + 1.5Lm12 + 1.0Wm (30..	Yes	Y		1	1.2	50	1.5	12	.058	175	1.2	186	.058										
181	1.2D + 1.5Lm12 + 1.0Wm (33..	Yes	Y		1	1.2	50	1.5	13	.058	175	1.2	187	.058										
182	1.2D + 1.5Lm13 + 1.0Wm (0 ...		Y		1	1.2	51	1.5	2	.058	175	1.2	176	.058										
183	1.2D + 1.5Lm13 + 1.0Wm (30..		Y		1	1.2	51	1.5	3	.058	175	1.2	177	.058										
184	1.2D + 1.5Lm13 + 1.0Wm (60..		Y		1	1.2	51	1.5	4	.058	175	1.2	178	.058										
185	1.2D + 1.5Lm13 + 1.0Wm (90..		Y		1	1.2	51	1.5	5	.058	175	1.2	179	.058										
186	1.2D + 1.5Lm13 + 1.0Wm (12..		Y		1	1.2	51	1.5	6	.058	175	1.2	180	.058										
187	1.2D + 1.5Lm13 + 1.0Wm (15..		Y		1	1.2	51	1.5	7	.058	175	1.2	181	.058										
188	1.2D + 1.5Lm13 + 1.0Wm (18..		Y		1	1.2	51	1.5	8	.058	175	1.2	182	.058										
189	1.2D + 1.5Lm13 + 1.0Wm (21..		Y		1	1.2	51	1.5	9	.058	175	1.2	183	.058										
190	1.2D + 1.5Lm13 + 1.0Wm (24..		Y		1	1.2	51	1.5	10	.058	175	1.2	184	.058										
191	1.2D + 1.5Lm13 + 1.0Wm (27..		Y		1	1.2	51	1.5	11	.058	175	1.2	185	.058										
192	1.2D + 1.5Lm13 + 1.0Wm (30..		Y		1	1.2	51	1.5	12	.058	175	1.2	186	.058										
193	1.2D + 1.5Lm13 + 1.0Wm (33..		Y		1	1.2	51	1.5	13	.058	175	1.2	187	.058										
194	1.2D + 1.5Lm14 + 1.0Wm (0 ...		Y		1	1.2	52	1.5	2	.058	175	1.2	176	.058										
195	1.2D + 1.5Lm14 + 1.0Wm (30..		Y		1	1.2	52	1.5	3	.058	175	1.2	177	.058										
196	1.2D + 1.5Lm14 + 1.0Wm (60..		Y		1	1.2	52	1.5	4	.058	175	1.2	178	.058										
197	1.2D + 1.5Lm14 + 1.0Wm (90..		Y		1	1.2	52	1.5	5	.058	175	1.2	179	.058										
198	1.2D + 1.5Lm14 + 1.0Wm (12..		Y		1	1.2	52	1.5	6	.058	175	1.2	180	.058										
199	1.2D + 1.5Lm14 + 1.0Wm (15..		Y		1	1.2	52	1.5	7	.058	175	1.2	181	.058										
200	1.2D + 1.5Lm14 + 1.0Wm (18..		Y		1	1.2	52	1.5	8	.058	175	1.2	182	.058										
201	1.2D + 1.5Lm14 + 1.0Wm (21..		Y		1	1.2	52	1.5	9	.058	175	1.2	183	.058										
202	1.2D + 1.5Lm14 + 1.0Wm (24..		Y		1	1.2	52	1.5	10	.058	175	1.2	184	.058										
203	1.2D + 1.5Lm14 + 1.0Wm (27..		Y		1	1.2	52	1.5	11	.058	175	1.2	185	.058										
204	1.2D + 1.5Lm14 + 1.0Wm (30..		Y		1	1.2	52	1.5	12	.058	175	1.2	186	.058										
205	1.2D + 1.5Lm14 + 1.0Wm (33..		Y		1	1.2	52	1.5	13	.058	175	1.2	187	.058										
206	1.2D + 1.5Lm15 + 1.0Wm (0 ...		Y		1	1.2	53	1.5	2	.058	175	1.2	176	.058										
207	1.2D + 1.5Lm15 + 1.0Wm (30..		Y		1	1.2	53	1.5	3	.058	175	1.2	177	.058										
208	1.2D + 1.5Lm15 + 1.0Wm (60..		Y		1	1.2	53	1.5	4	.058	175	1.2	178	.058										
209	1.2D + 1.5Lm15 + 1.0Wm (90..		Y		1	1.2	53	1.5	5	.058	175	1.2	179	.058										
210	1.2D + 1.5Lm15 + 1.0Wm (12..		Y		1	1.2	53	1.5	6	.058	175	1.2	180	.058										
211	1.2D + 1.5Lm15 + 1.0Wm (15..		Y		1	1.2	53	1.5	7	.058	175	1.2	181	.058										
212	1.2D + 1.5Lm15 + 1.0Wm (18..		Y		1	1.2	53	1.5	8	.058	175	1.2	182	.058										
213	1.2D + 1.5Lm15 + 1.0Wm (21..		Y		1	1.2	53	1.5	9	.058	175	1.2	183	.058										
214	1.2D + 1.5Lm15 + 1.0Wm (24..		Y		1	1.2	53	1.5	10	.058	175	1.2	184	.058										
215	1.2D + 1.5Lm15 + 1.0Wm (27..		Y		1	1.2	53	1.5	11	.058	175	1.2	185	.058										
216	1.2D + 1.5Lm15 + 1.0Wm (30..		Y		1	1.2	53	1.5	12	.058	175	1.2	186	.058										
217	1.2D + 1.5Lm15 + 1.0Wm (33..		Y		1	1.2	53	1.5	13	.058	175	1.2	187	.058										
218	1.2D + 1.5Lm16 + 1.0Wm (0 ...		Y		1	1.2	54	1.5	2	.058	175	1.2	176	.058										
219	1.2D + 1.5Lm16 + 1.0Wm (30..		Y		1	1.2	54	1.5	3	.058	175	1.2	177	.058										
220	1.2D + 1.5Lm16 + 1.0Wm (60..		Y		1	1.2	54	1.5	4	.058	175	1.2	178	.058										
221	1.2D + 1.5Lm16 + 1.0Wm (90..		Y		1	1.2	54	1.5	5	.058	175	1.2	179	.058										
222	1.2D + 1.5Lm16 + 1.0Wm (12..		Y		1	1.2	54	1.5	6	.058	175	1.2	180	.058										
223	1.2D + 1.5Lm16 + 1.0Wm (15..		Y		1	1.2	54	1.5	7	.058	175	1.2	181	.058										
224	1.2D + 1.5Lm16 + 1.0Wm (18..		Y		1	1.2	54	1.5	8	.058	175	1.2	182	.058										
225	1.2D + 1.5Lm16 + 1.0Wm (21..		Y		1	1.2	54	1.5	9	.058	175	1.2	183	.058										
226	1.2D + 1.5Lm16 + 1.0Wm (24..		Y		1	1.2	54	1.5	10	.058	175	1.2	184	.058										
227	1.2D + 1.5Lm16 + 1.0Wm (27..		Y		1	1.2	54	1.5	11	.058	175	1.2	185	.058										
228	1.2D + 1.5Lm16 + 1.0Wm (30..		Y		1	1.2	54	1.5	12	.058	175	1.2	186	.058										
229	1.2D + 1.5Lm16 + 1.0Wm (33..		Y		1	1.2	54	1.5	13	.058	175	1.2	187	.058										
230	1.2D + 1.5Lm17 + 1.0Wm (0 ...		Y		1	1.2	55	1.5	2	.058	175	1.2	176	.058										
231	1.2D + 1.5Lm17 + 1.0Wm (30..		Y		1	1.2	55	1.5	3	.058	175	1.2	177	.058										
232	1.2D + 1.5Lm17 + 1.0Wm (60..		Y		1	1.2	55	1.5	4	.058	175	1.2	178	.058										
233	1.2D + 1.5Lm17 + 1.0Wm (90..		Y		1	1.2	55	1.5	5	.058	175	1.2	179	.058										
234	1.2D + 1.5Lm17 + 1.0Wm (12..		Y		1	1.2	55	1.5	6	.058	175	1.2	180	.058										
235	1.2D + 1.5Lm17 + 1.0Wm (15..		Y		1	1.2	55	1.5	7	.058	175	1.2	181	.058										
236	1.2D + 1.5Lm17 + 1.0Wm (18..		Y		1	1.2	55	1.5	8	.058	175	1.2	182	.058										

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
237	1.2D + 1.5Lm17 + 1.0Wm (21...		Y		1	1.2	55	1.5	9	.058	175	1.2	183	.058										
238	1.2D + 1.5Lm17 + 1.0Wm (24...		Y		1	1.2	55	1.5	10	.058	175	1.2	184	.058										
239	1.2D + 1.5Lm17 + 1.0Wm (27...		Y		1	1.2	55	1.5	11	.058	175	1.2	185	.058										
240	1.2D + 1.5Lm17 + 1.0Wm (30...		Y		1	1.2	55	1.5	12	.058	175	1.2	186	.058										
241	1.2D + 1.5Lm17 + 1.0Wm (33...		Y		1	1.2	55	1.5	13	.058	175	1.2	187	.058										
242	1.2D + 1.5Lm18 + 1.0Wm (0 ...		Y		1	1.2	56	1.5	2	.058	175	1.2	176	.058										
243	1.2D + 1.5Lm18 + 1.0Wm (30...		Y		1	1.2	56	1.5	3	.058	175	1.2	177	.058										
244	1.2D + 1.5Lm18 + 1.0Wm (60...		Y		1	1.2	56	1.5	4	.058	175	1.2	178	.058										
245	1.2D + 1.5Lm18 + 1.0Wm (90...		Y		1	1.2	56	1.5	5	.058	175	1.2	179	.058										
246	1.2D + 1.5Lm18 + 1.0Wm (12...		Y		1	1.2	56	1.5	6	.058	175	1.2	180	.058										
247	1.2D + 1.5Lm18 + 1.0Wm (15...		Y		1	1.2	56	1.5	7	.058	175	1.2	181	.058										
248	1.2D + 1.5Lm18 + 1.0Wm (18...		Y		1	1.2	56	1.5	8	.058	175	1.2	182	.058										
249	1.2D + 1.5Lm18 + 1.0Wm (21...		Y		1	1.2	56	1.5	9	.058	175	1.2	183	.058										
250	1.2D + 1.5Lm18 + 1.0Wm (24...		Y		1	1.2	56	1.5	10	.058	175	1.2	184	.058										
251	1.2D + 1.5Lm18 + 1.0Wm (27...		Y		1	1.2	56	1.5	11	.058	175	1.2	185	.058										
252	1.2D + 1.5Lm18 + 1.0Wm (30...		Y		1	1.2	56	1.5	12	.058	175	1.2	186	.058										
253	1.2D + 1.5Lm18 + 1.0Wm (33...		Y		1	1.2	56	1.5	13	.058	175	1.2	187	.058										
254	1.2D + 1.5Lm19 + 1.0Wm (0 ...		Y		1	1.2	57	1.5	2	.058	175	1.2	176	.058										
255	1.2D + 1.5Lm19 + 1.0Wm (30...		Y		1	1.2	57	1.5	3	.058	175	1.2	177	.058										
256	1.2D + 1.5Lm19 + 1.0Wm (60...		Y		1	1.2	57	1.5	4	.058	175	1.2	178	.058										
257	1.2D + 1.5Lm19 + 1.0Wm (90...		Y		1	1.2	57	1.5	5	.058	175	1.2	179	.058										
258	1.2D + 1.5Lm19 + 1.0Wm (12...		Y		1	1.2	57	1.5	6	.058	175	1.2	180	.058										
259	1.2D + 1.5Lm19 + 1.0Wm (15...		Y		1	1.2	57	1.5	7	.058	175	1.2	181	.058										
260	1.2D + 1.5Lm19 + 1.0Wm (18...		Y		1	1.2	57	1.5	8	.058	175	1.2	182	.058										
261	1.2D + 1.5Lm19 + 1.0Wm (21...		Y		1	1.2	57	1.5	9	.058	175	1.2	183	.058										
262	1.2D + 1.5Lm19 + 1.0Wm (24...		Y		1	1.2	57	1.5	10	.058	175	1.2	184	.058										
263	1.2D + 1.5Lm19 + 1.0Wm (27...		Y		1	1.2	57	1.5	11	.058	175	1.2	185	.058										
264	1.2D + 1.5Lm19 + 1.0Wm (30...		Y		1	1.2	57	1.5	12	.058	175	1.2	186	.058										
265	1.2D + 1.5Lm19 + 1.0Wm (33...		Y		1	1.2	57	1.5	13	.058	175	1.2	187	.058										
266	1.2D + 1.5Lm20 + 1.0Wm (0 ...		Y		1	1.2	58	1.5	2	.058	175	1.2	176	.058										
267	1.2D + 1.5Lm20 + 1.0Wm (30...		Y		1	1.2	58	1.5	3	.058	175	1.2	177	.058										
268	1.2D + 1.5Lm20 + 1.0Wm (60...		Y		1	1.2	58	1.5	4	.058	175	1.2	178	.058										
269	1.2D + 1.5Lm20 + 1.0Wm (90...		Y		1	1.2	58	1.5	5	.058	175	1.2	179	.058										
270	1.2D + 1.5Lm20 + 1.0Wm (12...		Y		1	1.2	58	1.5	6	.058	175	1.2	180	.058										
271	1.2D + 1.5Lm20 + 1.0Wm (15...		Y		1	1.2	58	1.5	7	.058	175	1.2	181	.058										
272	1.2D + 1.5Lm20 + 1.0Wm (18...		Y		1	1.2	58	1.5	8	.058	175	1.2	182	.058										
273	1.2D + 1.5Lm20 + 1.0Wm (21...		Y		1	1.2	58	1.5	9	.058	175	1.2	183	.058										
274	1.2D + 1.5Lm20 + 1.0Wm (24...		Y		1	1.2	58	1.5	10	.058	175	1.2	184	.058										
275	1.2D + 1.5Lm20 + 1.0Wm (27...		Y		1	1.2	58	1.5	11	.058	175	1.2	185	.058										
276	1.2D + 1.5Lm20 + 1.0Wm (30...		Y		1	1.2	58	1.5	12	.058	175	1.2	186	.058										
277	1.2D + 1.5Lm20 + 1.0Wm (33...		Y		1	1.2	58	1.5	13	.058	175	1.2	187	.058										
278	1.2D + 1.5Lm21 + 1.0Wm (0 ...		Y		1	1.2	59	1.5	2	.058	175	1.2	176	.058										
279	1.2D + 1.5Lm21 + 1.0Wm (30...		Y		1	1.2	59	1.5	3	.058	175	1.2	177	.058										
280	1.2D + 1.5Lm21 + 1.0Wm (60...		Y		1	1.2	59	1.5	4	.058	175	1.2	178	.058										
281	1.2D + 1.5Lm21 + 1.0Wm (90...		Y		1	1.2	59	1.5	5	.058	175	1.2	179	.058										
282	1.2D + 1.5Lm21 + 1.0Wm (12...		Y		1	1.2	59	1.5	6	.058	175	1.2	180	.058										
283	1.2D + 1.5Lm21 + 1.0Wm (15...		Y		1	1.2	59	1.5	7	.058	175	1.2	181	.058										
284	1.2D + 1.5Lm21 + 1.0Wm (18...		Y		1	1.2	59	1.5	8	.058	175	1.2	182	.058										
285	1.2D + 1.5Lm21 + 1.0Wm (21...		Y		1	1.2	59	1.5	9	.058	175	1.2	183	.058										
286	1.2D + 1.5Lm21 + 1.0Wm (24...		Y		1	1.2	59	1.5	10	.058	175	1.2	184	.058										
287	1.2D + 1.5Lm21 + 1.0Wm (27...		Y		1	1.2	59	1.5	11	.058	175	1.2	185	.058										
288	1.2D + 1.5Lm21 + 1.0Wm (30...		Y		1	1.2	59	1.5	12	.058	175	1.2	186	.058										
289	1.2D + 1.5Lm21 + 1.0Wm (33...		Y		1	1.2	59	1.5	13	.058	175	1.2	187	.058										
290	1.2D + 1.5Lm22 + 1.0Wm (0 ...		Y		1	1.2	60	1.5	2	.058	175	1.2	176	.058										
291	1.2D + 1.5Lm22 + 1.0Wm (30...		Y		1	1.2	60	1.5	3	.058	175	1.2	177	.058										
292	1.2D + 1.5Lm22 + 1.0Wm (60...		Y		1	1.2	60	1.5	4	.058	175	1.2	178	.058										
293	1.2D + 1.5Lm22 + 1.0Wm (90...		Y		1	1.2	60	1.5	5	.058	175	1.2	179	.058										

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
294	1.2D + 1.5Lm22 + 1.0Wm (12..		Y		1	1.2	60	1.5	6	.058	175	1.2	180	.058										
295	1.2D + 1.5Lm22 + 1.0Wm (15..		Y		1	1.2	60	1.5	7	.058	175	1.2	181	.058										
296	1.2D + 1.5Lm22 + 1.0Wm (18..		Y		1	1.2	60	1.5	8	.058	175	1.2	182	.058										
297	1.2D + 1.5Lm22 + 1.0Wm (21..		Y		1	1.2	60	1.5	9	.058	175	1.2	183	.058										
298	1.2D + 1.5Lm22 + 1.0Wm (24..		Y		1	1.2	60	1.5	10	.058	175	1.2	184	.058										
299	1.2D + 1.5Lm22 + 1.0Wm (27..		Y		1	1.2	60	1.5	11	.058	175	1.2	185	.058										
300	1.2D + 1.5Lm22 + 1.0Wm (30..		Y		1	1.2	60	1.5	12	.058	175	1.2	186	.058										
301	1.2D + 1.5Lm22 + 1.0Wm (33..		Y		1	1.2	60	1.5	13	.058	175	1.2	187	.058										
302	1.2D + 1.5Lm23 + 1.0Wm (0 ...		Y		1	1.2	61	1.5	2	.058	175	1.2	176	.058										
303	1.2D + 1.5Lm23 + 1.0Wm (30..		Y		1	1.2	61	1.5	3	.058	175	1.2	177	.058										
304	1.2D + 1.5Lm23 + 1.0Wm (60..		Y		1	1.2	61	1.5	4	.058	175	1.2	178	.058										
305	1.2D + 1.5Lm23 + 1.0Wm (90..		Y		1	1.2	61	1.5	5	.058	175	1.2	179	.058										
306	1.2D + 1.5Lm23 + 1.0Wm (12..		Y		1	1.2	61	1.5	6	.058	175	1.2	180	.058										
307	1.2D + 1.5Lm23 + 1.0Wm (15..		Y		1	1.2	61	1.5	7	.058	175	1.2	181	.058										
308	1.2D + 1.5Lm23 + 1.0Wm (18..		Y		1	1.2	61	1.5	8	.058	175	1.2	182	.058										
309	1.2D + 1.5Lm23 + 1.0Wm (21..		Y		1	1.2	61	1.5	9	.058	175	1.2	183	.058										
310	1.2D + 1.5Lm23 + 1.0Wm (24..		Y		1	1.2	61	1.5	10	.058	175	1.2	184	.058										
311	1.2D + 1.5Lm23 + 1.0Wm (27..		Y		1	1.2	61	1.5	11	.058	175	1.2	185	.058										
312	1.2D + 1.5Lm23 + 1.0Wm (30..		Y		1	1.2	61	1.5	12	.058	175	1.2	186	.058										
313	1.2D + 1.5Lm23 + 1.0Wm (33..		Y		1	1.2	61	1.5	13	.058	175	1.2	187	.058										
314	1.2D + 1.5Lm24 + 1.0Wm (0 ...		Y		1	1.2	62	1.5	2	.058	175	1.2	176	.058										
315	1.2D + 1.5Lm24 + 1.0Wm (30..		Y		1	1.2	62	1.5	3	.058	175	1.2	177	.058										
316	1.2D + 1.5Lm24 + 1.0Wm (60..		Y		1	1.2	62	1.5	4	.058	175	1.2	178	.058										
317	1.2D + 1.5Lm24 + 1.0Wm (90..		Y		1	1.2	62	1.5	5	.058	175	1.2	179	.058										
318	1.2D + 1.5Lm24 + 1.0Wm (12..		Y		1	1.2	62	1.5	6	.058	175	1.2	180	.058										
319	1.2D + 1.5Lm24 + 1.0Wm (15..		Y		1	1.2	62	1.5	7	.058	175	1.2	181	.058										
320	1.2D + 1.5Lm24 + 1.0Wm (18..		Y		1	1.2	62	1.5	8	.058	175	1.2	182	.058										
321	1.2D + 1.5Lm24 + 1.0Wm (21..		Y		1	1.2	62	1.5	9	.058	175	1.2	183	.058										
322	1.2D + 1.5Lm24 + 1.0Wm (24..		Y		1	1.2	62	1.5	10	.058	175	1.2	184	.058										
323	1.2D + 1.5Lm24 + 1.0Wm (27..		Y		1	1.2	62	1.5	11	.058	175	1.2	185	.058										
324	1.2D + 1.5Lm24 + 1.0Wm (30..		Y		1	1.2	62	1.5	12	.058	175	1.2	186	.058										
325	1.2D + 1.5Lm24 + 1.0Wm (33..		Y		1	1.2	62	1.5	13	.058	175	1.2	187	.058										
326	1.2D + 1.5Lm25 + 1.0Wm (0 ...		Y		1	1.2	63	1.5	2	.058	175	1.2	176	.058										
327	1.2D + 1.5Lm25 + 1.0Wm (30..		Y		1	1.2	63	1.5	3	.058	175	1.2	177	.058										
328	1.2D + 1.5Lm25 + 1.0Wm (60..		Y		1	1.2	63	1.5	4	.058	175	1.2	178	.058										
329	1.2D + 1.5Lm25 + 1.0Wm (90..		Y		1	1.2	63	1.5	5	.058	175	1.2	179	.058										
330	1.2D + 1.5Lm25 + 1.0Wm (12..		Y		1	1.2	63	1.5	6	.058	175	1.2	180	.058										
331	1.2D + 1.5Lm25 + 1.0Wm (15..		Y		1	1.2	63	1.5	7	.058	175	1.2	181	.058										
332	1.2D + 1.5Lm25 + 1.0Wm (18..		Y		1	1.2	63	1.5	8	.058	175	1.2	182	.058										
333	1.2D + 1.5Lm25 + 1.0Wm (21..		Y		1	1.2	63	1.5	9	.058	175	1.2	183	.058										
334	1.2D + 1.5Lm25 + 1.0Wm (24..		Y		1	1.2	63	1.5	10	.058	175	1.2	184	.058										
335	1.2D + 1.5Lm25 + 1.0Wm (27..		Y		1	1.2	63	1.5	11	.058	175	1.2	185	.058										
336	1.2D + 1.5Lm25 + 1.0Wm (30..		Y		1	1.2	63	1.5	12	.058	175	1.2	186	.058										
337	1.2D + 1.5Lm25 + 1.0Wm (33..		Y		1	1.2	63	1.5	13	.058	175	1.2	187	.058										
338	1.2D + 1.5Lm26 + 1.0Wm (0 ...		Y		1	1.2	64	1.5	2	.058	175	1.2	176	.058										
339	1.2D + 1.5Lm26 + 1.0Wm (30..		Y		1	1.2	64	1.5	3	.058	175	1.2	177	.058										
340	1.2D + 1.5Lm26 + 1.0Wm (60..		Y		1	1.2	64	1.5	4	.058	175	1.2	178	.058										
341	1.2D + 1.5Lm26 + 1.0Wm (90..		Y		1	1.2	64	1.5	5	.058	175	1.2	179	.058										
342	1.2D + 1.5Lm26 + 1.0Wm (12..		Y		1	1.2	64	1.5	6	.058	175	1.2	180	.058										
343	1.2D + 1.5Lm26 + 1.0Wm (15..		Y		1	1.2	64	1.5	7	.058	175	1.2	181	.058										
344	1.2D + 1.5Lm26 + 1.0Wm (18..		Y		1	1.2	64	1.5	8	.058	175	1.2	182	.058										
345	1.2D + 1.5Lm26 + 1.0Wm (21..		Y		1	1.2	64	1.5	9	.058	175	1.2	183	.058										
346	1.2D + 1.5Lm26 + 1.0Wm (24..		Y		1	1.2	64	1.5	10	.058	175	1.2	184	.058										
347	1.2D + 1.5Lm26 + 1.0Wm (27..		Y		1	1.2	64	1.5	11	.058	175	1.2	185	.058										
348	1.2D + 1.5Lm26 + 1.0Wm (30..		Y		1	1.2	64	1.5	12	.058	175	1.2	186	.058										
349	1.2D + 1.5Lm26 + 1.0Wm (33..		Y		1	1.2	64	1.5	13	.058	175	1.2	187	.058										
350	1.2D + 1.5Lm27 + 1.0Wm (0 ...		Y		1	1.2	65	1.5	2	.058	175	1.2	176	.058										

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
351	1.2D + 1.5Lm27 + 1.0Wm (30..		Y		1	1.2	65	1.5	3	.058	175	1.2	177	.058										
352	1.2D + 1.5Lm27 + 1.0Wm (60..		Y		1	1.2	65	1.5	4	.058	175	1.2	178	.058										
353	1.2D + 1.5Lm27 + 1.0Wm (90..		Y		1	1.2	65	1.5	5	.058	175	1.2	179	.058										
354	1.2D + 1.5Lm27 + 1.0Wm (12..		Y		1	1.2	65	1.5	6	.058	175	1.2	180	.058										
355	1.2D + 1.5Lm27 + 1.0Wm (15..		Y		1	1.2	65	1.5	7	.058	175	1.2	181	.058										
356	1.2D + 1.5Lm27 + 1.0Wm (18..		Y		1	1.2	65	1.5	8	.058	175	1.2	182	.058										
357	1.2D + 1.5Lm27 + 1.0Wm (21..		Y		1	1.2	65	1.5	9	.058	175	1.2	183	.058										
358	1.2D + 1.5Lm27 + 1.0Wm (24..		Y		1	1.2	65	1.5	10	.058	175	1.2	184	.058										
359	1.2D + 1.5Lm27 + 1.0Wm (27..		Y		1	1.2	65	1.5	11	.058	175	1.2	185	.058										
360	1.2D + 1.5Lm27 + 1.0Wm (30..		Y		1	1.2	65	1.5	12	.058	175	1.2	186	.058										
361	1.2D + 1.5Lm27 + 1.0Wm (33..		Y		1	1.2	65	1.5	13	.058	175	1.2	187	.058										
362	1.2D + 1.5Lm28 + 1.0Wm (0 ...		Y		1	1.2	66	1.5	2	.058	175	1.2	176	.058										
363	1.2D + 1.5Lm28 + 1.0Wm (30..		Y		1	1.2	66	1.5	3	.058	175	1.2	177	.058										
364	1.2D + 1.5Lm28 + 1.0Wm (60..		Y		1	1.2	66	1.5	4	.058	175	1.2	178	.058										
365	1.2D + 1.5Lm28 + 1.0Wm (90..		Y		1	1.2	66	1.5	5	.058	175	1.2	179	.058										
366	1.2D + 1.5Lm28 + 1.0Wm (12..		Y		1	1.2	66	1.5	6	.058	175	1.2	180	.058										
367	1.2D + 1.5Lm28 + 1.0Wm (15..		Y		1	1.2	66	1.5	7	.058	175	1.2	181	.058										
368	1.2D + 1.5Lm28 + 1.0Wm (18..		Y		1	1.2	66	1.5	8	.058	175	1.2	182	.058										
369	1.2D + 1.5Lm28 + 1.0Wm (21..		Y		1	1.2	66	1.5	9	.058	175	1.2	183	.058										
370	1.2D + 1.5Lm28 + 1.0Wm (24..		Y		1	1.2	66	1.5	10	.058	175	1.2	184	.058										
371	1.2D + 1.5Lm28 + 1.0Wm (27..		Y		1	1.2	66	1.5	11	.058	175	1.2	185	.058										
372	1.2D + 1.5Lm28 + 1.0Wm (30..		Y		1	1.2	66	1.5	12	.058	175	1.2	186	.058										
373	1.2D + 1.5Lm28 + 1.0Wm (33..		Y		1	1.2	66	1.5	13	.058	175	1.2	187	.058										
374	1.2D + 1.5Lm29 + 1.0Wm (0 ...		Y		1	1.2	67	1.5	2	.058	175	1.2	176	.058										
375	1.2D + 1.5Lm29 + 1.0Wm (30..		Y		1	1.2	67	1.5	3	.058	175	1.2	177	.058										
376	1.2D + 1.5Lm29 + 1.0Wm (60..		Y		1	1.2	67	1.5	4	.058	175	1.2	178	.058										
377	1.2D + 1.5Lm29 + 1.0Wm (90..		Y		1	1.2	67	1.5	5	.058	175	1.2	179	.058										
378	1.2D + 1.5Lm29 + 1.0Wm (12..		Y		1	1.2	67	1.5	6	.058	175	1.2	180	.058										
379	1.2D + 1.5Lm29 + 1.0Wm (15..		Y		1	1.2	67	1.5	7	.058	175	1.2	181	.058										
380	1.2D + 1.5Lm29 + 1.0Wm (18..		Y		1	1.2	67	1.5	8	.058	175	1.2	182	.058										
381	1.2D + 1.5Lm29 + 1.0Wm (21..		Y		1	1.2	67	1.5	9	.058	175	1.2	183	.058										
382	1.2D + 1.5Lm29 + 1.0Wm (24..		Y		1	1.2	67	1.5	10	.058	175	1.2	184	.058										
383	1.2D + 1.5Lm29 + 1.0Wm (27..		Y		1	1.2	67	1.5	11	.058	175	1.2	185	.058										
384	1.2D + 1.5Lm29 + 1.0Wm (30..		Y		1	1.2	67	1.5	12	.058	175	1.2	186	.058										
385	1.2D + 1.5Lm29 + 1.0Wm (33..		Y		1	1.2	67	1.5	13	.058	175	1.2	187	.058										
386	1.2D + 1.5Lm30 + 1.0Wm (0 ...		Y		1	1.2	68	1.5	2	.058	175	1.2	176	.058										
387	1.2D + 1.5Lm30 + 1.0Wm (30..		Y		1	1.2	68	1.5	3	.058	175	1.2	177	.058										
388	1.2D + 1.5Lm30 + 1.0Wm (60..		Y		1	1.2	68	1.5	4	.058	175	1.2	178	.058										
389	1.2D + 1.5Lm30 + 1.0Wm (90..		Y		1	1.2	68	1.5	5	.058	175	1.2	179	.058										
390	1.2D + 1.5Lm30 + 1.0Wm (12..		Y		1	1.2	68	1.5	6	.058	175	1.2	180	.058										
391	1.2D + 1.5Lm30 + 1.0Wm (15..		Y		1	1.2	68	1.5	7	.058	175	1.2	181	.058										
392	1.2D + 1.5Lm30 + 1.0Wm (18..		Y		1	1.2	68	1.5	8	.058	175	1.2	182	.058										
393	1.2D + 1.5Lm30 + 1.0Wm (21..		Y		1	1.2	68	1.5	9	.058	175	1.2	183	.058										
394	1.2D + 1.5Lm30 + 1.0Wm (24..		Y		1	1.2	68	1.5	10	.058	175	1.2	184	.058										
395	1.2D + 1.5Lm30 + 1.0Wm (27..		Y		1	1.2	68	1.5	11	.058	175	1.2	185	.058										
396	1.2D + 1.5Lm30 + 1.0Wm (30..		Y		1	1.2	68	1.5	12	.058	175	1.2	186	.058										
397	1.2D + 1.5Lm30 + 1.0Wm (33..		Y		1	1.2	68	1.5	13	.058	175	1.2	187	.058										
398	1.2D + 1.5Lm31 + 1.0Wm (0 ...		Y		1	1.2	69	1.5	2	.058	175	1.2	176	.058										
399	1.2D + 1.5Lm31 + 1.0Wm (30..		Y		1	1.2	69	1.5	3	.058	175	1.2	177	.058										
400	1.2D + 1.5Lm31 + 1.0Wm (60..		Y		1	1.2	69	1.5	4	.058	175	1.2	178	.058										
401	1.2D + 1.5Lm31 + 1.0Wm (90..		Y		1	1.2	69	1.5	5	.058	175	1.2	179	.058										
402	1.2D + 1.5Lm31 + 1.0Wm (12..		Y		1	1.2	69	1.5	6	.058	175	1.2	180	.058										
403	1.2D + 1.5Lm31 + 1.0Wm (15..		Y		1	1.2	69	1.5	7	.058	175	1.2	181	.058										
404	1.2D + 1.5Lm31 + 1.0Wm (18..		Y		1	1.2	69	1.5	8	.058	175	1.2	182	.058										
405	1.2D + 1.5Lm31 + 1.0Wm (21..		Y		1	1.2	69	1.5	9	.058	175	1.2	183	.058										
406	1.2D + 1.5Lm31 + 1.0Wm (24..		Y		1	1.2	69	1.5	10	.058	175	1.2	184	.058										
407	1.2D + 1.5Lm31 + 1.0Wm (27..		Y		1	1.2	69	1.5	11	.058	175	1.2	185	.058										

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
408	1.2D + 1.5Lm31 + 1.0Wm (30..		Y		1	1.2	69	1.5	12	.058	175	1.2	186	.058										
409	1.2D + 1.5Lm31 + 1.0Wm (33..		Y		1	1.2	69	1.5	13	.058	175	1.2	187	.058										
410	1.2D + 1.5Lm32 + 1.0Wm (0 ...		Y		1	1.2	70	1.5	2	.058	175	1.2	176	.058										
411	1.2D + 1.5Lm32 + 1.0Wm (30..		Y		1	1.2	70	1.5	3	.058	175	1.2	177	.058										
412	1.2D + 1.5Lm32 + 1.0Wm (60..		Y		1	1.2	70	1.5	4	.058	175	1.2	178	.058										
413	1.2D + 1.5Lm32 + 1.0Wm (90..		Y		1	1.2	70	1.5	5	.058	175	1.2	179	.058										
414	1.2D + 1.5Lm32 + 1.0Wm (12..		Y		1	1.2	70	1.5	6	.058	175	1.2	180	.058										
415	1.2D + 1.5Lm32 + 1.0Wm (15..		Y		1	1.2	70	1.5	7	.058	175	1.2	181	.058										
416	1.2D + 1.5Lm32 + 1.0Wm (18..		Y		1	1.2	70	1.5	8	.058	175	1.2	182	.058										
417	1.2D + 1.5Lm32 + 1.0Wm (21..		Y		1	1.2	70	1.5	9	.058	175	1.2	183	.058										
418	1.2D + 1.5Lm32 + 1.0Wm (24..		Y		1	1.2	70	1.5	10	.058	175	1.2	184	.058										
419	1.2D + 1.5Lm32 + 1.0Wm (27..		Y		1	1.2	70	1.5	11	.058	175	1.2	185	.058										
420	1.2D + 1.5Lm32 + 1.0Wm (30..		Y		1	1.2	70	1.5	12	.058	175	1.2	186	.058										
421	1.2D + 1.5Lm32 + 1.0Wm (33..		Y		1	1.2	70	1.5	13	.058	175	1.2	187	.058										
422	1.2D + 1.5Lm33 + 1.0Wm (0 ...		Y		1	1.2	71	1.5	2	.058	175	1.2	176	.058										
423	1.2D + 1.5Lm33 + 1.0Wm (30..		Y		1	1.2	71	1.5	3	.058	175	1.2	177	.058										
424	1.2D + 1.5Lm33 + 1.0Wm (60..		Y		1	1.2	71	1.5	4	.058	175	1.2	178	.058										
425	1.2D + 1.5Lm33 + 1.0Wm (90..		Y		1	1.2	71	1.5	5	.058	175	1.2	179	.058										
426	1.2D + 1.5Lm33 + 1.0Wm (12..		Y		1	1.2	71	1.5	6	.058	175	1.2	180	.058										
427	1.2D + 1.5Lm33 + 1.0Wm (15..		Y		1	1.2	71	1.5	7	.058	175	1.2	181	.058										
428	1.2D + 1.5Lm33 + 1.0Wm (18..		Y		1	1.2	71	1.5	8	.058	175	1.2	182	.058										
429	1.2D + 1.5Lm33 + 1.0Wm (21..		Y		1	1.2	71	1.5	9	.058	175	1.2	183	.058										
430	1.2D + 1.5Lm33 + 1.0Wm (24..		Y		1	1.2	71	1.5	10	.058	175	1.2	184	.058										
431	1.2D + 1.5Lm33 + 1.0Wm (27..		Y		1	1.2	71	1.5	11	.058	175	1.2	185	.058										
432	1.2D + 1.5Lm33 + 1.0Wm (30..		Y		1	1.2	71	1.5	12	.058	175	1.2	186	.058										
433	1.2D + 1.5Lm33 + 1.0Wm (33..		Y		1	1.2	71	1.5	13	.058	175	1.2	187	.058										
434	1.2D + 1.5Lm34 + 1.0Wm (0 ...		Y		1	1.2	72	1.5	2	.058	175	1.2	176	.058										
435	1.2D + 1.5Lm34 + 1.0Wm (30..		Y		1	1.2	72	1.5	3	.058	175	1.2	177	.058										
436	1.2D + 1.5Lm34 + 1.0Wm (60..		Y		1	1.2	72	1.5	4	.058	175	1.2	178	.058										
437	1.2D + 1.5Lm34 + 1.0Wm (90..		Y		1	1.2	72	1.5	5	.058	175	1.2	179	.058										
438	1.2D + 1.5Lm34 + 1.0Wm (12..		Y		1	1.2	72	1.5	6	.058	175	1.2	180	.058										
439	1.2D + 1.5Lm34 + 1.0Wm (15..		Y		1	1.2	72	1.5	7	.058	175	1.2	181	.058										
440	1.2D + 1.5Lm34 + 1.0Wm (18..		Y		1	1.2	72	1.5	8	.058	175	1.2	182	.058										
441	1.2D + 1.5Lm34 + 1.0Wm (21..		Y		1	1.2	72	1.5	9	.058	175	1.2	183	.058										
442	1.2D + 1.5Lm34 + 1.0Wm (24..		Y		1	1.2	72	1.5	10	.058	175	1.2	184	.058										
443	1.2D + 1.5Lm34 + 1.0Wm (27..		Y		1	1.2	72	1.5	11	.058	175	1.2	185	.058										
444	1.2D + 1.5Lm34 + 1.0Wm (30..		Y		1	1.2	72	1.5	12	.058	175	1.2	186	.058										
445	1.2D + 1.5Lm34 + 1.0Wm (33..		Y		1	1.2	72	1.5	13	.058	175	1.2	187	.058										
446	1.2D + 1.5Lm35 + 1.0Wm (0 ...		Y		1	1.2	73	1.5	2	.058	175	1.2	176	.058										
447	1.2D + 1.5Lm35 + 1.0Wm (30..		Y		1	1.2	73	1.5	3	.058	175	1.2	177	.058										
448	1.2D + 1.5Lm35 + 1.0Wm (60..		Y		1	1.2	73	1.5	4	.058	175	1.2	178	.058										
449	1.2D + 1.5Lm35 + 1.0Wm (90..		Y		1	1.2	73	1.5	5	.058	175	1.2	179	.058										
450	1.2D + 1.5Lm35 + 1.0Wm (12..		Y		1	1.2	73	1.5	6	.058	175	1.2	180	.058										
451	1.2D + 1.5Lm35 + 1.0Wm (15..		Y		1	1.2	73	1.5	7	.058	175	1.2	181	.058										
452	1.2D + 1.5Lm35 + 1.0Wm (18..		Y		1	1.2	73	1.5	8	.058	175	1.2	182	.058										
453	1.2D + 1.5Lm35 + 1.0Wm (21..		Y		1	1.2	73	1.5	9	.058	175	1.2	183	.058										
454	1.2D + 1.5Lm35 + 1.0Wm (24..		Y		1	1.2	73	1.5	10	.058	175	1.2	184	.058										
455	1.2D + 1.5Lm35 + 1.0Wm (27..		Y		1	1.2	73	1.5	11	.058	175	1.2	185	.058										
456	1.2D + 1.5Lm35 + 1.0Wm (30..		Y		1	1.2	73	1.5	12	.058	175	1.2	186	.058										
457	1.2D + 1.5Lm35 + 1.0Wm (33..		Y		1	1.2	73	1.5	13	.058	175	1.2	187	.058										
458	1.2D + 1.5Lm36 + 1.0Wm (0 ...		Y		1	1.2	74	1.5	2	.058	175	1.2	176	.058										
459	1.2D + 1.5Lm36 + 1.0Wm (30..		Y		1	1.2	74	1.5	3	.058	175	1.2	177	.058										
460	1.2D + 1.5Lm36 + 1.0Wm (60..		Y		1	1.2	74	1.5	4	.058	175	1.2	178	.058										
461	1.2D + 1.5Lm36 + 1.0Wm (90..		Y		1	1.2	74	1.5	5	.058	175	1.2	179	.058										
462	1.2D + 1.5Lm36 + 1.0Wm (12..		Y		1	1.2	74	1.5	6	.058	175	1.2	180	.058										
463	1.2D + 1.5Lm36 + 1.0Wm (15..		Y		1	1.2	74	1.5	7	.058	175	1.2	181	.058										
464	1.2D + 1.5Lm36 + 1.0Wm (18..		Y		1	1.2	74	1.5	8	.058	175	1.2	182	.058										

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
465	1.2D + 1.5Lm36 + 1.0Wm (21...		Y		1	1.2	74	1.5	9	.058	175	1.2	183	.058										
466	1.2D + 1.5Lm36 + 1.0Wm (24...		Y		1	1.2	74	1.5	10	.058	175	1.2	184	.058										
467	1.2D + 1.5Lm36 + 1.0Wm (27...		Y		1	1.2	74	1.5	11	.058	175	1.2	185	.058										
468	1.2D + 1.5Lm36 + 1.0Wm (30...		Y		1	1.2	74	1.5	12	.058	175	1.2	186	.058										
469	1.2D + 1.5Lm36 + 1.0Wm (33...		Y		1	1.2	74	1.5	13	.058	175	1.2	187	.058										
470	1.2D + 1.5Lv (Position 1)	Yes	Y		1	1.2	75	1.5	175	1.2														
471	1.2D + 1.5Lv (Position 2)	Yes	Y		1	1.2	76	1.5	175	1.2														
472	1.2D + 1.5Lv (Position 3)	Yes	Y		1	1.2	77	1.5	175	1.2														
473	1.2D + 1.5Lv (Position 4)	Yes	Y		1	1.2	78	1.5	175	1.2														
474	1.2D + 1.5Lv (Position 5)	Yes	Y		1	1.2	79	1.5	175	1.2														
475	1.2D + 1.5Lv (Position 6)	Yes	Y		1	1.2	80	1.5	175	1.2														
476	1.2D + 1.5Lv (Position 7)	Yes	Y		1	1.2	81	1.5	175	1.2														
477	1.2D + 1.5Lv (Position 8)	Yes	Y		1	1.2	82	1.5	175	1.2														
478	1.2D + 1.5Lv (Position 9)	Yes	Y		1	1.2	83	1.5	175	1.2														
479	1.2D + 1.5Lv (Position 10)	Yes	Y		1	1.2	84	1.5	175	1.2														
480	1.2D + 1.5Lv (Position 11)	Yes	Y		1	1.2	85	1.5	175	1.2														
481	1.2D + 1.5Lv (Position 12)	Yes	Y		1	1.2	86	1.5	175	1.2														
482	1.2D + 1.5Lv (Position 13)	Yes	Y		1	1.2	87	1.5	175	1.2														
483	1.2D + 1.5Lv (Position 14)	Yes	Y		1	1.2	88	1.5	175	1.2														
484	1.2D + 1.5Lv (Position 15)	Yes	Y		1	1.2	89	1.5	175	1.2														
485	1.2D + 1.5Lv (Position 16)	Yes	Y		1	1.2	90	1.5	175	1.2														
486	1.2D + 1.5Lv (Position 17)	Yes	Y		1	1.2	91	1.5	175	1.2														
487	1.2D + 1.5Lv (Position 18)	Yes	Y		1	1.2	92	1.5	175	1.2														
488	1.2D + 1.5Lv (Position 19)	Yes	Y		1	1.2	93	1.5	175	1.2														
489	1.2D + 1.5Lv (Position 20)	Yes	Y		1	1.2	94	1.5	175	1.2														
490	1.2D + 1.5Lv (Position 21)	Yes	Y		1	1.2	95	1.5	175	1.2														
491	1.2D + 1.5Lv (Position 22)	Yes	Y		1	1.2	96	1.5	175	1.2														
492	1.2D + 1.5Lv (Position 23)	Yes	Y		1	1.2	97	1.5	175	1.2														
493	1.2D + 1.5Lv (Position 24)	Yes	Y		1	1.2	98	1.5	175	1.2														
494	1.2D + 1.5Lv (Position 25)		Y		1	1.2	99	1.5	175	1.2														
495	1.2D + 1.5Lv (Position 26)		Y		1	1.2	100	1.5	175	1.2														
496	1.2D + 1.5Lv (Position 27)		Y		1	1.2	101	1.5	175	1.2														
497	1.2D + 1.5Lv (Position 28)		Y		1	1.2	102	1.5	175	1.2														
498	1.2D + 1.5Lv (Position 29)		Y		1	1.2	103	1.5	175	1.2														
499	1.2D + 1.5Lv (Position 30)		Y		1	1.2	104	1.5	175	1.2														
500	1.2D + 1.5Lv (Position 31)		Y		1	1.2	105	1.5	175	1.2														
501	1.2D + 1.5Lv (Position 32)		Y		1	1.2	106	1.5	175	1.2														
502	1.2D + 1.5Lv (Position 33)		Y		1	1.2	107	1.5	175	1.2														
503	1.2D + 1.5Lv (Position 34)		Y		1	1.2	108	1.5	175	1.2														
504	1.2D + 1.5Lv (Position 35)		Y		1	1.2	109	1.5	175	1.2														
505	1.2D + 1.5Lv (Position 36)		Y		1	1.2	110	1.5	175	1.2														
506	1.2D + 1.5Lv (Position 37)		Y		1	1.2	111	1.5	175	1.2														
507	1.2D + 1.5Lv (Position 38)		Y		1	1.2	112	1.5	175	1.2														
508	1.2D + 1.5Lv (Position 39)		Y		1	1.2	113	1.5	175	1.2														
509	1.2D + 1.5Lv (Position 40)		Y		1	1.2	114	1.5	175	1.2														
510	1.2D + 1.5Lv (Position 41)		Y		1	1.2	115	1.5	175	1.2														
511	1.2D + 1.5Lv (Position 42)		Y		1	1.2	116	1.5	175	1.2														
512	1.2D + 1.5Lv (Position 43)		Y		1	1.2	117	1.5	175	1.2														
513	1.2D + 1.5Lv (Position 44)		Y		1	1.2	118	1.5	175	1.2														
514	1.2D + 1.5Lv (Position 45)		Y		1	1.2	119	1.5	175	1.2														
515	1.2D + 1.5Lv (Position 46)		Y		1	1.2	120	1.5	175	1.2														
516	1.2D + 1.5Lv (Position 47)		Y		1	1.2	121	1.5	175	1.2														
517	1.2D + 1.5Lv (Position 48)		Y		1	1.2	122	1.5	175	1.2														
518	1.2D + 1.5Lv (Position 49)		Y		1	1.2	123	1.5	175	1.2														
519	1.2D + 1.5Lv (Position 50)		Y		1	1.2	124	1.5	175	1.2														
520	1.2D + 1.5Lv (Position 51)		Y		1	1.2	125	1.5	175	1.2														
521	1.2D + 1.5Lv (Position 52)		Y		1	1.2	126	1.5	175	1.2														

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
522	1.2D + 1.5Lv (Position 53)		Y		1	1.2	127	1.5	175	1.2																
523	1.2D + 1.5Lv (Position 54)		Y		1	1.2	128	1.5	175	1.2																
524	1.2D + 1.5Lv (Position 55)		Y		1	1.2	129	1.5	175	1.2																
525	1.2D + 1.5Lv (Position 56)		Y		1	1.2	130	1.5	175	1.2																
526	1.2D + 1.5Lv (Position 57)		Y		1	1.2	131	1.5	175	1.2																
527	1.2D + 1.5Lv (Position 58)		Y		1	1.2	132	1.5	175	1.2																
528	1.2D + 1.5Lv (Position 59)		Y		1	1.2	133	1.5	175	1.2																
529	1.2D + 1.5Lv (Position 60)		Y		1	1.2	134	1.5	175	1.2																
530	1.2D + 1.5Lv (Position 61)		Y		1	1.2	135	1.5	175	1.2																
531	1.2D + 1.5Lv (Position 62)		Y		1	1.2	136	1.5	175	1.2																
532	1.2D + 1.5Lv (Position 63)		Y		1	1.2	137	1.5	175	1.2																
533	1.2D + 1.5Lv (Position 64)		Y		1	1.2	138	1.5	175	1.2																
534	1.2D + 1.5Lv (Position 65)		Y		1	1.2	139	1.5	175	1.2																
535	1.2D + 1.5Lv (Position 66)		Y		1	1.2	140	1.5	175	1.2																
536	1.2D + 1.5Lv (Position 67)		Y		1	1.2	141	1.5	175	1.2																
537	1.2D + 1.5Lv (Position 68)		Y		1	1.2	142	1.5	175	1.2																
538	1.2D + 1.5Lv (Position 69)		Y		1	1.2	143	1.5	175	1.2																
539	1.2D + 1.5Lv (Position 70)		Y		1	1.2	144	1.5	175	1.2																
540	1.2D + 1.5Lv (Position 71)		Y		1	1.2	145	1.5	175	1.2																
541	1.2D + 1.5Lv (Position 72)		Y		1	1.2	146	1.5	175	1.2																
542	1.2D + 1.5Lv (Position 73)		Y		1	1.2	147	1.5	175	1.2																
543	1.2D + 1.5Lv (Position 74)		Y		1	1.2	148	1.5	175	1.2																
544	1.2D + 1.5Lv (Position 75)		Y		1	1.2	149	1.5	175	1.2																
545	1.2D + 1.5Lv (Position 76)		Y		1	1.2	150	1.5	175	1.2																
546	1.2D + 1.5Lv (Position 77)		Y		1	1.2	151	1.5	175	1.2																
547	1.2D + 1.5Lv (Position 78)		Y		1	1.2	152	1.5	175	1.2																
548	1.2D + 1.5Lv (Position 79)		Y		1	1.2	153	1.5	175	1.2																
549	1.2D + 1.5Lv (Position 80)		Y		1	1.2	154	1.5	175	1.2																
550	1.2D + 1.5Lv (Position 81)		Y		1	1.2	155	1.5	175	1.2																
551	1.2D + 1.5Lv (Position 82)		Y		1	1.2	156	1.5	175	1.2																
552	1.2D + 1.5Lv (Position 83)		Y		1	1.2	157	1.5	175	1.2																
553	1.2D + 1.5Lv (Position 84)		Y		1	1.2	158	1.5	175	1.2																
554	1.2D + 1.5Lv (Position 85)		Y		1	1.2	159	1.5	175	1.2																
555	1.2D + 1.5Lv (Position 86)		Y		1	1.2	160	1.5	175	1.2																
556	1.2D + 1.5Lv (Position 87)		Y		1	1.2	161	1.5	175	1.2																
557	1.2D + 1.5Lv (Position 88)		Y		1	1.2	162	1.5	175	1.2																
558	1.2D + 1.5Lv (Position 89)		Y		1	1.2	163	1.5	175	1.2																
559	1.2D + 1.5Lv (Position 90)		Y		1	1.2	164	1.5	175	1.2																
560	1.2D + 1.5Lv (Position 91)		Y		1	1.2	165	1.5	175	1.2																
561	1.2D + 1.5Lv (Position 92)		Y		1	1.2	166	1.5	175	1.2																
562	1.2D + 1.5Lv (Position 93)		Y		1	1.2	167	1.5	175	1.2																
563	1.2D + 1.5Lv (Position 94)		Y		1	1.2	168	1.5	175	1.2																
564	1.2D + 1.5Lv (Position 95)		Y		1	1.2	169	1.5	175	1.2																
565	1.2D + 1.5Lv (Position 96)		Y		1	1.2	170	1.5	175	1.2																
566	1.2D + 1.5Lv (Position 97)		Y		1	1.2	171	1.5	175	1.2																
567	1.2D + 1.5Lv (Position 98)		Y		1	1.2	172	1.5	175	1.2																
568	1.2D + 1.5Lv (Position 99)		Y		1	1.2	173	1.5	175	1.2																
569	1.2D + 1.5Lv (Position 100)		Y		1	1.2	174	1.5	175	1.2																

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
1	BRACE-1	N137	N138			HSS4X4X4	Beam	SquareTube	Q235	Typical
2	BRACE-2	N115	N116			HSS4X4X4	Beam	SquareTube	Q235	Typical
3	BRACE-3	N11	N12			HSS4X4X4	Beam	SquareTube	Q235	Typical
4	CONN-PL-60-1	N116	N123			PL_3/8x6	Beam	BAR	Q235	DR1

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
5	CONN-PL-60-2	N115	N120			PL_3/8x6	Beam	BAR	Q235	DR1
6	CONN-PL-90-1	N142	N143			PL_3/8x6	Beam	BAR	Q235	Typical
7	CONN-PL-90-2	N123	N124			PL_3/8x6	Beam	BAR	Q235	Typical
8	CONN-PL-180-1	N12	N69			PL_3/8x6	Beam	BAR	Q235	DR1
9	CONN-PL-180-2	N11	N66			PL_3/8x6	Beam	BAR	Q235	DR1
10	CONN-PL-210-1	N120	N121			PL_3/8x6	Beam	BAR	Q235	Typical
11	CONN-PL-210-2	N69	N70			PL_3/8x6	Beam	BAR	Q235	Typical
12	CONN-PL-300-1	N138	N145			PL_3/8x6	Beam	BAR	Q235	DR1
13	CONN-PL-300-2	N137	N142			PL_3/8x6	Beam	BAR	Q235	DR1
14	CONN-PL-330-1	N66	N67			PL_3/8x6	Beam	BAR	Q235	Typical
15	CONN-PL-330-2	N145	N146			PL_3/8x6	Beam	BAR	Q235	Typical
16	COR-1	N162A	N169		90	L2.5x2.5x4	Beam	Single Angle	Q235	Typical
17	COR-2	N166	N161		90	L2.5x2.5x4	Beam	Single Angle	Q235	Typical
18	COR-3	N170	N165		90	L2.5x2.5x4	Beam	Single Angle	Q235	Typical
19	COR-PL-90-1	N13	N6			PL_1/2x6	Beam	BAR	Q235	Typical
20	COR-PL-90-2	N13	N5			PL_1/2x6	Beam	BAR	Q235	Typical
21	COR-PL-90-3	N133	N148			PL_1/2x6	Beam	BAR	Q235	Typical
22	COR-PL-90-4	N112	N128			PL_1/2x6	Beam	BAR	Q235	Typical
23	COR-PL-210-1	N139	N134			PL_1/2x6	Beam	BAR	Q235	Typical
24	COR-PL-210-2	N139	N133			PL_1/2x6	Beam	BAR	Q235	Typical
25	COR-PL-210-3	N111	N126			PL_1/2x6	Beam	BAR	Q235	Typical
26	COR-PL-210-4	N6	N74			PL_1/2x6	Beam	BAR	Q235	Typical
27	COR-PL-330-1	N117	N112			PL_1/2x6	Beam	BAR	Q235	Typical
28	COR-PL-330-2	N117	N111			PL_1/2x6	Beam	BAR	Q235	Typical
29	COR-PL-330-3	N5	N72			PL_1/2x6	Beam	BAR	Q235	Typical
30	COR-PL-330-4	N134	N150			PL_1/2x6	Beam	BAR	Q235	Typical
31	FM-0	N1	N2			PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical
32	FM-120	N3	N4			PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical
33	FM-240	N7	N8			PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical
34	GRATE-H-90-1	N139	N140			L2x2x3	Beam	Single Angle	Q235	Typical
35	GRATE-H-90-2	N117	N113		270	L2x2x3	Beam	Single Angle	Q235	Typical
36	GRATE-H-210-1	N117	N118			L2x2x3	Beam	Single Angle	Q235	Typical
37	GRATE-H-210-2	N13	N9		270	L2x2x3	Beam	Single Angle	Q235	Typical
38	GRATE-H-330-1	N13	N14			L2x2x3	Beam	Single Angle	Q235	Typical
39	GRATE-H-330-2	N139	N135		270	L2x2x3	Beam	Single Angle	Q235	Typical
40	HR-0	N76	N77			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
41	HR-120	N98	N99			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
42	HR-240	N86	N87			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
43	KICK-1	N108	N21			LL2.5x2.5x3x8	Beam	Double Angl...	Q235	Typical
44	KICK-2	N152	N141			LL2.5x2.5x3x8	Beam	Double Angl...	Q235	Typical
45	KICK-3	N130	N119			LL2.5x2.5x3x8	Beam	Double Angl...	Q235	Typical
46	KICK-PL-1	N154	N152			PL_1/2x8	Beam	BAR	Q235	Typical
47	KICK-PL-2	N141	N153		60	PL_1/2x8	Beam	BAR	Q235	Typical
48	KICK-PL-3	N132	N130			PL_1/2x8	Beam	BAR	Q235	Typical
49	KICK-PL-4	N119	N131		300	PL_1/2x8	Beam	BAR	Q235	Typical
50	KICK-PL-5	N110	N108			PL_1/2x8	Beam	BAR	Q235	Typical
51	KICK-PL-6	N21	N109			PL_1/2x8	Beam	BAR	Q235	Typical
52	MP1	N19	N18			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
53	MP2	N25	N24			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
54	MP3	N29	N28			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
55	MP4	N33	N32			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
56	MP5	N53	N52			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
57	MP6	N57	N56			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
58	MP7	N61	N60			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
59	MP8	N65	N64			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
60	MP9	N37	N36			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
61	MP10	N41	N40			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
62	MP11	N45	N44			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
63	MP12	N49	N48			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
64	RL1	N16	N17			RIGID	None	None	RIGID	Typical
65	RL2	N22	N23			RIGID	None	None	RIGID	Typical
66	RL3	N26	N27			RIGID	None	None	RIGID	Typical
67	RL4	N30	N31			RIGID	None	None	RIGID	Typical
68	RL5	N34	N35			RIGID	None	None	RIGID	Typical
69	RL6	N38	N39			RIGID	None	None	RIGID	Typical
70	RL7	N42	N43			RIGID	None	None	RIGID	Typical
71	RL8	N46	N47			RIGID	None	None	RIGID	Typical
72	RL9	N50	N51			RIGID	None	None	RIGID	Typical
73	RL10	N54	N55			RIGID	None	None	RIGID	Typical
74	RL11	N58	N59			RIGID	None	None	RIGID	Typical
75	RL12	N62	N63			RIGID	None	None	RIGID	Typical
76	RL13	N67	N68			RIGID	None	None	RIGID	Typical
77	RL14	N70	N71			RIGID	None	None	RIGID	Typical
78	RL15	N72	N73			RIGID	None	None	RIGID	Typical
79	RL16	N74	N75			RIGID	None	None	RIGID	Typical
80	RL17	N78	N79			RIGID	None	None	RIGID	Typical
81	RL18	N80	N81			RIGID	None	None	RIGID	Typical
82	RL19	N82	N83			RIGID	None	None	RIGID	Typical
83	RL20	N84	N85			RIGID	None	None	RIGID	Typical
84	RL21	N90	N91			RIGID	None	None	RIGID	Typical
85	RL22	N92	N93			RIGID	None	None	RIGID	Typical
86	RL23	N94	N95			RIGID	None	None	RIGID	Typical
87	RL24	N96	N97			RIGID	None	None	RIGID	Typical
88	RL25	N100	N101			RIGID	None	None	RIGID	Typical
89	RL26	N102	N103			RIGID	None	None	RIGID	Typical
90	RL27	N104	N105			RIGID	None	None	RIGID	Typical
91	RL28	N106	N107			RIGID	None	None	RIGID	Typical
92	RL29	N121	N122			RIGID	None	None	RIGID	Typical
93	RL30	N124	N125			RIGID	None	None	RIGID	Typical
94	RL31	N126	N127			RIGID	None	None	RIGID	Typical
95	RL32	N128	N129			RIGID	None	None	RIGID	Typical
96	RL33	N143	N144			RIGID	None	None	RIGID	Typical
97	RL34	N146	N147			RIGID	None	None	RIGID	Typical
98	RL35	N148	N149			RIGID	None	None	RIGID	Typical
99	RL36	N150	N151			RIGID	None	None	RIGID	Typical
100	SA-1	N139	N136			HSS4X4X4	Beam	SquareTube	Q235	Typical
101	SA-2	N117	N114			HSS4X4X4	Beam	SquareTube	Q235	Typical
102	SA-3	N13	N10			HSS4X4X4	Beam	SquareTube	Q235	Typical
103	PL-0-1	N162A	N164			PL3/8x6	None	None	A36 Gr.36	Typical
104	PL-0-2	N163	N161			PL3/8x6	None	None	A36 Gr.36	Typical
105	PL-120-1	N166	N168			PL3/8x6	None	None	A36 Gr.36	Typical
106	PL-120-2	N167	N165			PL3/8x6	None	None	A36 Gr.36	Typical
107	PL-240-1	N170	N172			PL3/8x6	None	None	A36 Gr.36	Typical
108	PL-240-2	N171	N169			PL3/8x6	None	None	A36 Gr.36	Typical
109	M109	N166	N155			RIGID	None	None	RIGID	Typical
110	M110	N165	N89			RIGID	None	None	RIGID	Typical
111	M111	N170	N88			RIGID	None	None	RIGID	Typical
112	M112	N169	N158			RIGID	None	None	RIGID	Typical
113	M113	N162A	N157			RIGID	None	None	RIGID	Typical
114	M114	N161	N156			RIGID	None	None	RIGID	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length[i...	Lbyy[in]	Lbzz[in]	Lcomp top[...	Lcomp bot[...	L-torq...	Kyy	Kzz	Cb	Functi...
1	BRACE-1	HSS4X4X4	59.831	23.4	25.9							Lateral
2	BRACE-2	HSS4X4X4	59.831	23.4	25.9							Lateral
3	BRACE-3	HSS4X4X4	59.831	23.4	25.9							Lateral
4	CONN-PL-60-1	PL_3/8x6	2.5									Lateral
5	CONN-PL-60-2	PL_3/8x6	2.5									Lateral
6	CONN-PL-90-1	PL_3/8x6	2									Lateral
7	CONN-PL-90-2	PL_3/8x6	2									Lateral
8	CONN-PL-18...	PL_3/8x6	2.5									Lateral
9	CONN-PL-18...	PL_3/8x6	2.5									Lateral
10	CONN-PL-21...	PL_3/8x6	2									Lateral
11	CONN-PL-21...	PL_3/8x6	2									Lateral
12	CONN-PL-30...	PL_3/8x6	2.5									Lateral
13	CONN-PL-30...	PL_3/8x6	2.5									Lateral
14	CONN-PL-33...	PL_3/8x6	2									Lateral
15	CONN-PL-33...	PL_3/8x6	2									Lateral
16	COR-1	L2.5x2.5x4	14.268									Lateral
17	COR-2	L2.5x2.5x4	14.268									Lateral
18	COR-3	L2.5x2.5x4	14.268									Lateral
19	COR-PL-90-1	PL_1/2x6	6									Lateral
20	COR-PL-90-2	PL_1/2x6	6									Lateral
21	COR-PL-90-3	PL_1/2x6	1.5									Lateral
22	COR-PL-90-4	PL_1/2x6	1.5									Lateral
23	COR-PL-210-1	PL_1/2x6	6									Lateral
24	COR-PL-210-2	PL_1/2x6	6									Lateral
25	COR-PL-210-3	PL_1/2x6	1.5									Lateral
26	COR-PL-210-4	PL_1/2x6	1.5									Lateral
27	COR-PL-330-1	PL_1/2x6	6									Lateral
28	COR-PL-330-2	PL_1/2x6	6									Lateral
29	COR-PL-330-3	PL_1/2x6	1.5									Lateral
30	COR-PL-330-4	PL_1/2x6	1.5									Lateral
31	FM-0	PIPE_3.0	150	49.4	49.4							Lateral
32	FM-120	PIPE_3.0	150	49.4	49.4							Lateral
33	FM-240	PIPE_3.0	150	49.4	49.4							Lateral
34	GRATE-H-90-1	L2x2x3	50.717									Lateral
35	GRATE-H-90-2	L2x2x3	50.717									Lateral
36	GRATE-H-21...	L2x2x3	50.717									Lateral
37	GRATE-H-21...	L2x2x3	50.717									Lateral
38	GRATE-H-33...	L2x2x3	50.717									Lateral
39	GRATE-H-33...	L2x2x3	50.717									Lateral
40	HR-0	PIPE_2.0	150		38							Lateral
41	HR-120	PIPE_2.0	150		38							Lateral
42	HR-240	PIPE_2.0	150		38							Lateral
43	KICK-1	LL2.5x2.5x3x8	50.56									Lateral
44	KICK-2	LL2.5x2.5x3x8	50.56									Lateral
45	KICK-3	LL2.5x2.5x3x8	50.56									Lateral
46	KICK-PL-1	PL_1/2x8	2.875									Lateral
47	KICK-PL-2	PL_1/2x8	4.875									Lateral
48	KICK-PL-3	PL_1/2x8	2.875									Lateral
49	KICK-PL-4	PL_1/2x8	4.875									Lateral
50	KICK-PL-5	PL_1/2x8	2.875									Lateral
51	KICK-PL-6	PL_1/2x8	4.875									Lateral
52	MP1	PIPE_2.0	96									Lateral
53	MP2	PIPE_2.0	96									Lateral
54	MP3	PIPE_2.0	96									Lateral
55	MP4	PIPE_2.0	96									Lateral
56	MP5	PIPE_2.0	96									Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[i...	Lbyy[in]	Lbzz[in]	Lcomp top[...	Lcomp bot[...	L-torq...	Kyy	Kzz	Cb	Functi...
57	MP6	PIPE_2.0	96									Lateral
58	MP7	PIPE_2.0	96									Lateral
59	MP8	PIPE_2.0	96									Lateral
60	MP9	PIPE_2.0	96									Lateral
61	MP10	PIPE_2.0	96									Lateral
62	MP11	PIPE_2.0	96									Lateral
63	MP12	PIPE_2.0	96									Lateral
64	SA-1	HSS4X4X4	62.25	41.9	46.75							Lateral
65	SA-2	HSS4X4X4	62.25	41.9	46.75							Lateral
66	SA-3	HSS4X4X4	62.25	41.9	46.75							Lateral
67	PL-0-1	PL3/8x6	2									Lateral
68	PL-0-2	PL3/8x6	2									Lateral
69	PL-120-1	PL3/8x6	2									Lateral
70	PL-120-2	PL3/8x6	2									Lateral
71	PL-240-1	PL3/8x6	2									Lateral
72	PL-240-2	PL3/8x6	2									Lateral

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N10	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N108						
3	N110	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N114	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	N130						
6	N132	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
7	N136	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
8	N152						
9	N154	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati..	Analysi...	Inactive	Seismic ...
1	BRACE-1						Yes				None
2	BRACE-2						Yes				None
3	BRACE-3						Yes				None
4	CONN-PL-...			2			Yes				None
5	CONN-PL-...			2			Yes				None
6	CONN-PL-...						Yes				None
7	CONN-PL-...						Yes				None
8	CONN-PL-...			2			Yes				None
9	CONN-PL-...			2			Yes				None
10	CONN-PL-...						Yes				None
11	CONN-PL-...						Yes				None
12	CONN-PL-...			2			Yes				None
13	CONN-PL-...			2			Yes				None
14	CONN-PL-...						Yes				None
15	CONN-PL-...						Yes				None
16	COR-1						Yes				None
17	COR-2						Yes				None
18	COR-3						Yes				None
19	COR-PL-90...			2			Yes				None
20	COR-PL-90...			2			Yes				None
21	COR-PL-90...						Yes				None
22	COR-PL-90...						Yes				None
23	COR-PL-21...			2			Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati..	Analysi...	Inactive	Seismic ...
24	COR-PL-21...			2			Yes				None
25	COR-PL-21...						Yes				None
26	COR-PL-21...						Yes				None
27	COR-PL-33...			2			Yes				None
28	COR-PL-33...			2			Yes				None
29	COR-PL-33...						Yes				None
30	COR-PL-33...						Yes				None
31	FM-0						Yes				None
32	FM-120						Yes				None
33	FM-240						Yes				None
34	GRATE-H-...	BenPIN	BenPIN				Yes				None
35	GRATE-H-...	BenPIN	BenPIN				Yes				None
36	GRATE-H-...	BenPIN	BenPIN				Yes				None
37	GRATE-H-...	BenPIN	BenPIN				Yes				None
38	GRATE-H-...	BenPIN	BenPIN				Yes				None
39	GRATE-H-...	BenPIN	BenPIN				Yes				None
40	HR-0						Yes				None
41	HR-120						Yes				None
42	HR-240						Yes				None
43	KICK-1	BenPIN	BenPIN				Yes				None
44	KICK-2	BenPIN	BenPIN				Yes				None
45	KICK-3	BenPIN	BenPIN				Yes				None
46	KICK-PL-1						Yes				None
47	KICK-PL-2				2		Yes				None
48	KICK-PL-3						Yes				None
49	KICK-PL-4				2		Yes				None
50	KICK-PL-5						Yes				None
51	KICK-PL-6				2		Yes				None
52	MP1						Yes	** NA **			None
53	MP2						Yes	** NA **			None
54	MP3						Yes	** NA **			None
55	MP4						Yes	** NA **			None
56	MP5						Yes	** NA **			None
57	MP6						Yes	** NA **			None
58	MP7						Yes	** NA **			None
59	MP8						Yes	** NA **			None
60	MP9						Yes	** NA **			None
61	MP10						Yes	** NA **			None
62	MP11						Yes	** NA **			None
63	MP12						Yes	** NA **			None
64	RL1						Yes	** NA **			None
65	RL2						Yes	** NA **			None
66	RL3						Yes	** NA **			None
67	RL4						Yes	** NA **			None
68	RL5						Yes	** NA **			None
69	RL6						Yes	** NA **			None
70	RL7						Yes	** NA **			None
71	RL8						Yes	** NA **			None
72	RL9						Yes	** NA **			None
73	RL10						Yes	** NA **			None
74	RL11						Yes	** NA **			None
75	RL12						Yes	** NA **			None
76	RL13		OOOXOO				Yes	** NA **			None
77	RL14		OOOXOO				Yes	** NA **			None
78	RL15		OOOXOO				Yes	** NA **			None
79	RL16		OOOXOO				Yes	** NA **			None
80	RL17						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati..	Analysi...	Inactive	Seismic ...
81	RL18						Yes	** NA **			None
82	RL19						Yes	** NA **			None
83	RL20						Yes	** NA **			None
84	RL21						Yes	** NA **			None
85	RL22						Yes	** NA **			None
86	RL23						Yes	** NA **			None
87	RL24						Yes	** NA **			None
88	RL25						Yes	** NA **			None
89	RL26						Yes	** NA **			None
90	RL27						Yes	** NA **			None
91	RL28						Yes	** NA **			None
92	RL29		OOOXOO				Yes	** NA **			None
93	RL30		OOOXOO				Yes	** NA **			None
94	RL31		OOOXOO				Yes	** NA **			None
95	RL32		OOOXOO				Yes	** NA **			None
96	RL33		OOOXOO				Yes	** NA **			None
97	RL34		OOOXOO				Yes	** NA **			None
98	RL35		OOOXOO				Yes	** NA **			None
99	RL36		OOOXOO				Yes	** NA **			None
100	SA-1						Yes				None
101	SA-2						Yes				None
102	SA-3						Yes				None
103	PL-0-1						Yes	** NA **			None
104	PL-0-2						Yes	** NA **			None
105	PL-120-1						Yes	** NA **			None
106	PL-120-2						Yes	** NA **			None
107	PL-240-1						Yes	** NA **			None
108	PL-240-2						Yes	** NA **			None
109	M109						Yes	** NA **			None
110	M110						Yes	** NA **			None
111	M111						Yes	** NA **			None
112	M112						Yes	** NA **			None
113	M113						Yes	** NA **			None
114	M114						Yes	** NA **			None

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3
8	Q235	29000	11154	.3	.65	.49	35	1.5	58	1.2

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N10	max	1717.065	8	1259.035	23	1904.702	11	593.351	118	2174.052	5	1506.636	23
2		min	-3725.608	2	363.62	53	-1908.143	5	-695.717	148	-2173.844	11	432.407	53
3	N110	max	3283.273	14	1941.788	14	67.931	11	.336	129	15.228	5	464.226	14
4		min	900.025	8	500.053	8	-67.776	5	-.439	135	-15.319	11	119.339	8
5	N114	max	1840.285	8	1258.543	19	3310.471	10	1463.514	23	1726.999	13	167.985	108
6		min	-999.97	2	365.09	157	-1847.323	4	395.818	149	-1728.438	7	-946.687	66

Envelope Joint Reactions (Continued)

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
7	N132	max	-370.976	6	1731.353	22	-645.749	4	358.507	22	15.269	13	-49.079	4
8		min	-1458.189	22	411.694	4	-2524.648	22	85.019	4	-15.386	7	-206.646	22
9	N136	max	2425.364	8	1230.577	15	1573.372	12	-229.072	9	1804.611	9	2.75	158
10		min	-1583.216	2	354.654	105	-3025.005	6	-1137.743	15	-1769.371	3	-1107.213	56
11	N154	max	-360.75	12	1715.045	18	2500.277	18	-82.13	12	15.259	9	-47.474	12
12		min	-1443.346	18	397.899	12	624.879	12	-354.835	18	-15.38	3	-205.191	18
13	Totals:	max	5812.179	8	8921.416	14	6044.129	11						
14		min	-5850.675	2	3274.941	7	-6044.127	5						

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

	Member	Shape	Code Ch...	Loc[in]	LC	Shear Ch...	Loc[in]	Dir	LC	phi*Pnc ...	phi*Pnt [...	phi*Mn y-y...	phi*Mn z-z...	Cb	Eqn
1	GRATE-H-21...	L2x2x3	.798	25.358	481	.028	50.7...	y	481	9528.13	22743	542.224	1081.413	1.3...	H2-1
2	GRATE-H-90...	L2x2x3	.798	25.358	479	.028	50.7...	y	479	9528.13	22743	542.224	1081.413	1.3...	H2-1
3	GRATE-H-33...	L2x2x3	.798	25.358	483	.028	50.7...	y	483	9528.13	22743	542.224	1081.413	1.3...	H2-1
4	GRATE-H-21...	L2x2x3	.798	25.359	482	.029	50.7...	z	482	9528.06	22743	542.224	1081.404	1.3...	H2-1
5	GRATE-H-33...	L2x2x3	.797	25.359	484	.029	50.7...	z	484	9528.06	22743	542.224	1081.404	1.3...	H2-1
6	GRATE-H-90...	L2x2x3	.797	25.359	480	.029	50.7...	z	480	9528.06	22743	542.224	1081.404	1.3...	H2-1
7	MP10	PIPE_2.0	.790	48	10	.062	48		3	14916.0...	32130	1871.625	1871.625	1.5...	H1-1b
8	MP6	PIPE_2.0	.790	48	12	.073	48		11	14916.0...	32130	1871.625	1871.625	1.5...	H1-1b
9	MP2	PIPE_2.0	.790	48	8	.061	48		8	14916.0...	32130	1871.625	1871.625	1.5...	H1-1b
10	MP9	PIPE_2.0	.280	48	11	.101	48		4	14916.0...	32130	1871.625	1871.625	2.7...	H1-1b
11	MP1	PIPE_2.0	.278	48	3	.100	48		8	14916.0...	32130	1871.625	1871.625	1.9...	H1-1b
12	MP7	PIPE_2.0	.268	48	5	.075	48		12	14916.0...	32130	1871.625	1871.625	2.8...	H1-1b
13	MP3	PIPE_2.0	.250	48	2	.076	48		9	14916.0...	32130	1871.625	1871.625	1.7...	H1-1b
14	MP11	PIPE_2.0	.248	48	10	.076	48		5	14916.0...	32130	1871.625	1871.625	1.7...	H1-1b
15	MP5	PIPE_2.0	.247	48	6	.102	48		12	14916.0...	32130	1871.625	1871.625	1.7...	H1-1b
16	SA-3	HSS4X4X4	.231	62.25	11	.095	62.25	z	5	101146....	106155	12311.25	12311.25	2.89	H1-1b
17	CONN-PL-18...	PL_3/8x6	.204	0	10	.096	0	y	23	70797.6...	70875	553.712	8859.375	1.0...	H1-1b
18	CONN-PL-30...	PL_3/8x6	.198	0	2	.092	0	y	16	70797.6...	70875	553.712	8859.375	1.0...	H1-1b
19	HR-240	PIPE_2.0	.197	132.8...	493	.139	17.1...		491	6295.422	32130	1871.625	1871.625	3.8...	H1-1b
20	HR-0	PIPE_2.0	.196	132.8...	487	.141	17.1...		485	6295.422	32130	1871.625	1871.625	3.7...	H1-1b
21	SA-1	HSS4X4X4	.195	62.25	3	.098	62.25	y	56	101146....	106155	12311.25	12311.25	2.9...	H1-1b
22	CONN-PL-33...	PL_3/8x6	.194	2	11	.267	0	y	14	69647.5...	70875	553.712	8859.375	1.6...	H1-1b
23	CONN-PL-60...	PL_3/8x6	.194	0	6	.094	0	y	22	70797.6...	70875	553.712	8859.375	1.0...	H1-1b
24	SA-2	HSS4X4X4	.193	62.25	7	.098	62.25	y	108	101146....	106155	12311.25	12311.25	2.9...	H1-1b
25	HR-120	PIPE_2.0	.192	132.8...	490	.141	17.1...		488	6295.422	32130	1871.625	1871.625	3.7...	H1-1b
26	COR-1	L2.5x2.5x4	.184	0	485	.066	14.2...	z	3	35841.09	37485	1082.622	2466.905	1.3...	H2-1
27	COR-2	L2.5x2.5x4	.183	0	488	.060	14.2...	z	7	35841.09	37485	1082.622	2466.905	1.3...	H2-1
28	COR-3	L2.5x2.5x4	.179	0	491	.068	14.2...	z	11	35841.09	37485	1082.622	2466.905	1.3...	H2-1
29	CONN-PL-90...	PL_3/8x6	.173	2	3	.255	0	y	16	69647.5...	70875	553.712	8859.375	1.6...	H1-1b
30	BRACE-3	HSS4X4X4	.168	29.292	16	.058	29.2...	y	14	104591....	106155	12311.25	12311.25	1.3...	H1-1b
31	BRACE-2	HSS4X4X4	.166	29.292	23	.057	29.2...	y	22	104591....	106155	12311.25	12311.25	1.3...	H1-1b
32	CONN-PL-21...	PL_3/8x6	.164	2	6	.263	0	y	22	69647.5...	70875	553.712	8859.375	1.6...	H1-1b
33	BRACE-1	HSS4X4X4	.162	29.292	20	.055	29.2...	y	16	104591....	106155	12311.25	12311.25	1.35	H1-1b
34	MP8	PIPE_2.0	.160	48	4	.067	48		11	14916.0...	32130	1871.625	1871.625	1.8...	H1-1b
35	MP4	PIPE_2.0	.142	48	10	.057	48		7	14916.0...	32130	1871.625	1871.625	1.7...	H1-1b
36	COR-PL-330-2	PL_1/2x6	.141	0	4	.058	0	y	96	90856.9...	94500	984.375	11812.5	1.35	H1-1b
37	CONN-PL-21...	PL_3/8x6	.141	2	5	.260	0	y	22	69647.5...	70875	553.712	8859.375	1.6...	H1-1b
38	MP12	PIPE_2.0	.139	48	6	.058	48		3	14916.0...	32130	1871.625	1871.625	1.8...	H1-1b
39	COR-PL-210-2	PL_1/2x6	.134	0	12	.058	0	y	44	90856.9...	94500	984.375	11812.5	1.35	H1-1b
40	COR-PL-330-1	PL_1/2x6	.131	0	4	.049	0	y	81	90856.9...	94500	984.375	11812.5	1.5...	H1-1b
41	COR-PL-90-2	PL_1/2x6	.126	0	8	.059	0	y	136	90856.9...	94500	984.375	11812.5	1.3...	H1-1b
42	COR-PL-90-1	PL_1/2x6	.126	0	8	.054	0	y	133	90856.9...	94500	984.375	11812.5	1.3...	H1-1b
43	COR-PL-210-1	PL_1/2x6	.123	0	12	.049	0	y	173	90856.9...	94500	984.375	11812.5	1.9...	H1-1b
44	CONN-PL-18...	PL_3/8x6	.119	0	5	.093	0	y	22	70797.6...	70875	553.712	8859.375	1.0...	H1-1b

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

	Member	Shape	Code Ch...	Loc[in]	LC	Shear Ch...	Loc[in]	Dir	LC	phi*Pnc ...	phi*Pnt [...	phi*Mn y-y...	phi*Mn z-z...	Cb	Eqn
45	CONN-PL-90...	PL_3/8x6	.111	2	13	.251	0	y	19	69647.5...	70875	553.712	8859.375	1.6...	H1-1b
46	CONN-PL-33...	PL_3/8x6	.109	2	9	.245	0	y	15	69647.5...	70875	553.712	8859.375	1.6...	H1-1b
47	CONN-PL-60...	PL_3/8x6	.102	0	2	.090	0	y	19	70797.6...	70875	553.712	8859.375	1.0...	H1-1b
48	CONN-PL-30...	PL_3/8x6	.097	0	10	.088	0	y	15	70797.6...	70875	553.712	8859.375	1.0...	H1-1b
49	KICK-1	LL2.5x2.5x...	.091	0	14	.004	50.56	z	5	41807.0...	56847.6...	4127.71	2542.618	1	H1-1...
50	FM-0	PIPE_3.0	.089	56.25	52	.090	54.6...		2	59550.0...	65205	5748.75	5748.75	2.27	H1-1b
51	FM-120	PIPE_3.0	.087	93.75	106	.088	95.3...		6	59550.0...	65205	5748.75	5748.75	2.3...	H1-1b
52	FM-240	PIPE_3.0	.086	56.25	156	.093	54.6...		11	59550.0...	65205	5748.75	5748.75	2.2...	H1-1b
53	KICK-3	LL2.5x2.5x...	.081	0	22	.004	50.56	z	12	41807.0...	56847.6...	4127.71	2542.618	1.1...	H1-1...
54	KICK-2	LL2.5x2.5x...	.080	0	18	.004	0	z	9	41807.0...	56847.6...	4127.71	2542.618	1.1...	H1-1...
55	COR-PL-90-4	PL_1/2x6	.069	0	4	.148	0	y	81	93978.8...	94500	984.375	11812.5	1.7...	H1-1b
56	COR-PL-330-4	PL_1/2x6	.062	0	12	.147	0	y	173	93978.8...	94500	984.375	11812.5	2.7...	H1-1b
57	COR-PL-90-3	PL_1/2x6	.062	0	12	.175	0	y	44	93978.8...	94500	984.375	11812.5	1.6...	H1-1b
58	COR-PL-210-3	PL_1/2x6	.062	1.5	4	.175	0	y	96	93978.8...	94500	984.375	11812.5	1.6...	H1-1b
59	COR-PL-330-3	PL_1/2x6	.060	1.5	10	.176	0	y	136	93978.8...	94500	984.375	11812.5	1.6...	H1-1b
60	COR-PL-210-4	PL_1/2x6	.059	1.5	8	.161	0	y	133	93978.8...	94500	984.375	11812.5	1.6...	H1-1b
61	KICK-PL-6	PL_1/2x8	.047	2.875	16	.066	2.875	y	14	123467....	126000	1312.5	21000	1.6...	H1-1b
62	KICK-PL-4	PL_1/2x8	.042	2.875	24	.059	2.875	y	22	123467....	126000	1312.5	21000	1.6...	H1-1b
63	KICK-PL-2	PL_1/2x8	.041	2.875	20	.058	2.875	y	18	123467....	126000	1312.5	21000	1.6...	H1-1b
64	KICK-PL-5	PL_1/2x8	.037	0	16	.039	0	y	14	123467....	126000	1312.5	21000	1.6...	H1-1b
65	KICK-PL-3	PL_1/2x8	.033	0	24	.035	0	y	22	123467....	126000	1312.5	21000	1.6...	H1-1b
66	KICK-PL-1	PL_1/2x8	.033	0	20	.034	0	y	18	123467....	126000	1312.5	21000	1.6...	H1-1b
67	PL-120-1	PL3/8x6	.001	0	12	.000	0	y	25	71583.5...	72900	569.7	9112.5	2.3...	H1-1b
68	PL-240-1	PL3/8x6	.001	0	10	.000	0	y	25	71583.5...	72900	569.7	9112.5	2.3...	H1-1b
69	PL-120-2	PL3/8x6	.001	2	12	.000	2	y	25	71583.5...	72900	569.7	9112.5	2.3...	H1-1b
70	PL-240-2	PL3/8x6	.001	2	10	.000	2	y	25	71583.5...	72900	569.7	9112.5	2.3...	H1-1b
71	PL-0-2	PL3/8x6	.001	2	8	.000	2	y	25	71583.5...	72900	569.7	9112.5	2.3...	H1-1b
72	PL-0-1	PL3/8x6	.001	0	8	.000	0	y	25	71583.5...	72900	569.7	9112.5	2.3...	H1-1b

TIA-222-H 4-Bolt Connection Check

Connection Details	
Bolt Diameter =	0.625 in
Bolt Quantity =	4
Bolt Threads/Inch, n =	11
Vertical Bolt Spacing =	6.000 in
Horizontal Bolt Spacing =	6.000 in
Bolt Grade =	A325
Plate Height =	8.250 in
Plate Width =	8.250 in
Plate Thickness =	0.75
Plate Grade =	Other
Standoff Member Type=	HSS
Member Height =	4.000 in
Member Width =	4.000 in
Member Thickness =	0.250 in
Use TIA-222-H Section 15.5?	No
Weld Size =	3/8 in

Connection Check (Bolts)			
Ø =	0.75		Strength Reduction Factor
A_n =	0.226	in^2	Net Bolt Area (AISC Table 7-17)
A_b =	0.307	in^2	Gross Bolt Area
Fu_{bolt} =	120	ksi	Bolt Ultimate Stress Capacity
$ØR_{nt}$ =	20.34	kip	Bolt Nominal Tensile Capacity (TIA-H 4.9.6.1)
$ØR_{nv}$ =	13.81	kip	Bolt Nominal Shear Capacity (TIA-H 4.9.6.3)
Vu_{bolt} =	0.911	kip	Shear Force Per Bolt
Tu_{bolt} =	2.963	kip	Tension Force Per Bolt
CSR =	14.6%	OK	(TIA 4.9.6.4)

Connection Check (Plate)			
Ø =	0.9		Strength Reduction Factor
F_y =	35	ksi	Plate Yield Capacity
YL_H =	7.48	in	Horizontal plate yield line
YL_V =	7.48	in	Vertical plate yield line
YL_D =	6.01	in	Diagonal plate yield line
M_{max} =	5.0	kip-in	Plate Bending Moment
F_b =	31.5	ksi	Nominal Plate Yield Capacity
f_b =	4.8	ksi	Plate Bending Stress Demand
CSR =	15.2%	OK	

Connection Check (Welds)			
Ø =	0.75		Strength Reduction Factor
F_{EXX} =	70	ksi	Filler Metal Strength (70 ksi assumed)
Fu_{bm} =	58	ksi	Base Metal Strength
$ØR_n$ =	8.4	k/in	Nominal Weld Capacity
R_u =	1.6	k/in	Weld Shear Demand
CSR =	19.5%	OK	

ENGINEERED
TOWER SOLUTIONS

RAN Template:	A&L Template:
67E5A998E 6160	67E5998E_1xAIR+1OP+1QP

CTNL184A_Coverage Strategy_1

Print Name: Standard (Rad changed)
PORs: Coverage Strategy_Regional Coverage

Section 1 - Site Information

Site ID: CTNL184A
Status: Final
Version: 1
Project Type: Coverage Strategy
Approved: 02/21/2022 11:32:38 AM
Approved By: Michael.Low1@T-Mobile.com
Last Modified: 02/21/2022 11:32:38 AM
Last Modified By: Michael.Low1@T-Mobile.com

Site Name: CTNL184A
Site Class: Monopole
Site Type: Structure Non Building
Plan Year: 2021
Market: CONNECTICUT CT
Vendor: Ericsson
Landlord: Not Specified

Latitude: 41.97865
Longitude: -72.09443
Address: 71 Sherman Rd
City, State: Woodstock, CT
Region: NORTHEAST

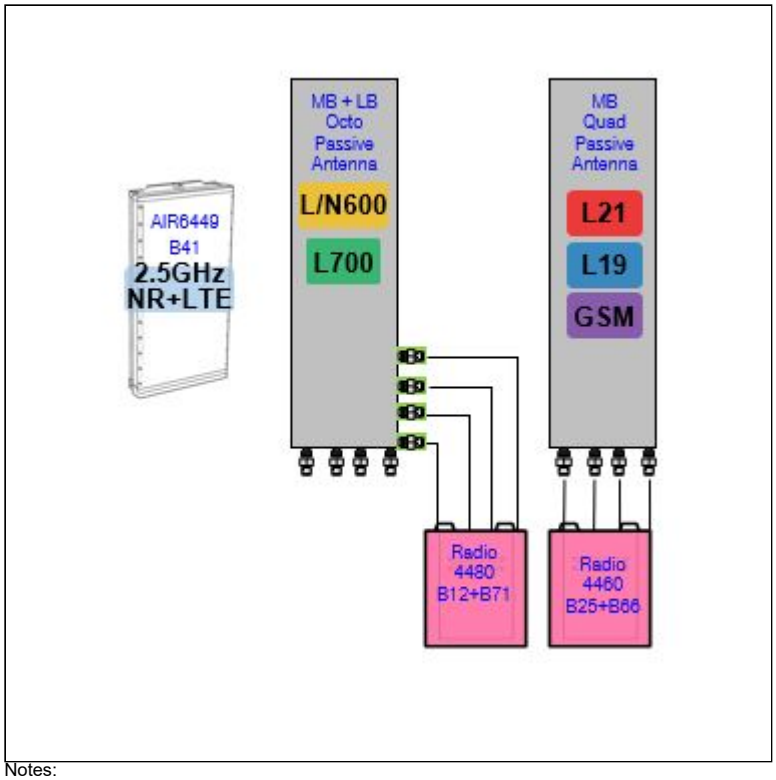
RAN Template: 67E5A998E 6160			AL Template: 67E5998E_1xAIR+1OP+1QP	
Sector Count: 3	**Antenna Count:** 9	**Coax Line Count:** 0	**TMA Count:** 0	**RRU Count:** 6

Section 2 - Existing Template Images

----- This section is intentionally blank. -----

Section 3 - Proposed Template Images

67E5A998E.JPG



Notes:

Section 4 - Siteplan Images

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RAN Template:	A&L Template:
67E5A998E 6160	67E5998E_1xAIR+1OP+1QP

CTNL184A_Coverage Strategy_1

Print Name: Standard (Rad changed)
PORs: Coverage Strategy_Regional Coverage

Section 5 - RAN Equipment

Existing RAN Equipment

----- This section is intentionally blank. -----

Proposed RAN Equipment

Template: 67E5A998E 6160

Enclosure	1	2	3
Enclosure Type	Enclosure 6160 AC V1	RBS 6601	B160
Baseband	BB 6648 (N600, L600, L700); BB 6648 (N2500, L2500); BB 6648 (L1900, L2100)	DUG20 (G1900)	
Transport System	CSR IXRe V2 (Gen2)		
Hybrid Cable System	Hybrid Trunk 6/24 4AWG 60m (x3); PSU 4813 vR4A (Kit) (x2)		

RAN Scope of Work:

RAD center at 105' not 117' due to another application with ACT to occupy 117'

RAN Template:	A&L Template:
67E5A998E 6160	67E5998E_1xAIR+1OP+1QP

CTNL184A_Coverage Strategy_1

Print Name: Standard (Rad changed)
PORs: Coverage Strategy_Regional Coverage

Section 6 - A&L Equipment

Existing Template: Custom
Proposed Template: 67E5998E_1xAIR+1OP+1QP

Sector 1 (Proposed) view from behind

Coverage Type	A - Outdoor Macro							
Antenna	1		2				3	
Antenna Model	Commscope_VV-65A-R1 (Quad)		RFS - APXVAALL24_43-U-NA20 (Octo)				Ericsson - AIR6449 B41 (Active Antenna - Massive MIMO)	
Azimuth	100		100				100	
M. Tilt	0		0				0	
Height	105		105				105	
Ports	P1	P2	P3	P4	P5	P6	P7	P8
Active Tech	L2100 L1900 G1900	L2100 L1900 G1900	L700 L600 N600	L700 L600 N600			L2500 N2500	L2500 N2500
Dark Tech								
Restricted Tech								
Decomm. Tech								
E. Tilt	2	2	2	2	2	2	2	2
Cables	Coax Jumper **(x2)**	Coax Jumper **(x2)**	Coax Jumper **(x2)**	Coax Jumper **(x2)**				
TMAs								
Diplexer / Combiners								
Radio	Radio 4460 B25+B66 (At Antenna)	Radio 4460 B25+B66 (At Antenna)	Radio 4480 B71+B85 (At Antenna)	Radio 4480 B71+B85 (At Antenna)				
Sector Equipment								

Unconnected Equipment:

Scope of Work:

*A dashed border indicates shared connected equipment. Any shared equipment, besides the first, is denoted with the SHARED keyword.

RAN Template:	A&L Template:
67E5A998E 6160	67E5998E_1xAIR+1OP+1QP

CTNL184A_Coverage Strategy_1

Print Name: Standard (Rad changed)
PORs: Coverage Strategy_Regional Coverage

Sector 2 (Proposed) view from behind

Coverage Type	A - Outdoor Macro							
Antenna	1		2				3	
Antenna Model	Commscope_VV-65A-R1 (Quad)		RFS - APXVAALL24_43-U-NA20 (Octo)				Ericsson - AIR6449 B41 (Active Antenna - Massive MIMO)	
Azimuth	200		200				200	
M. Tilt	0		0				0	
Height	105		105				105	
Ports	P1	P2	P3	P4	P5	P6	P7	P8
Active Tech	L2100 L1900 G1900	L2100 L1900 G1900	L700 L600 N600	L700 L600 N600			L2500 N2500	L2500 N2500
Dark Tech								
Restricted Tech								
Decomm. Tech								
E. Tilt	2	2	2	2	2	2	2	2
Cables	Coax Jumper **(x2)**	Coax Jumper **(x2)**	Coax Jumper **(x2)**	Coax Jumper **(x2)**				
TMAs								
Diplexer / Combiners								
Radio	Radio 4460 B25+B66 (At Antenna)	Radio 4460 B25+B66 (At Antenna)	Radio 4480 B71+B85 (At Antenna)	Radio 4480 B71+B85 (At Antenna)				
Sector Equipment								

Unconnected Equipment:

Scope of Work:

*A dashed border indicates shared connected equipment. Any shared equipment, besides the first, is denoted with the SHARED keyword.

RAN Template:	A&L Template:
67E5A998E 6160	67E5998E_1xAIR+1OP+1QP

CTNL184A_Coverage Strategy_1

Print Name: Standard (Rad changed)
PORs: Coverage Strategy_Regional Coverage

Sector 3 (Proposed) view from behind

Coverage Type	A - Outdoor Macro							
Antenna	1		2				3	
Antenna Model	Commscope_VV-65A-R1 (Quad)		RFS - APXVAALL24_43-U-NA20 (Octo)				Ericsson - AIR6449 B41 (Active Antenna - Massive MIMO)	
Azimuth	340		340				340	
M. Tilt	0		0				0	
Height	105		105				105	
Ports	P1	P2	P3	P4	P5	P6	P7	P8
Active Tech	L2100 L1900 G1900	L2100 L1900 G1900	L700 L600 N600	L700 L600 N600			L2500 N2500	L2500 N2500
Dark Tech								
Restricted Tech								
Decomm. Tech								
E. Tilt	2	2	2	2	2	2	2	2
Cables	Coax Jumper **(x2)**	Coax Jumper **(x2)**	Coax Jumper **(x2)**	Coax Jumper **(x2)**				
TMAs								
Diplexer / Combiners								
Radio	Radio 4460 B25+B66 (At Antenna)	Radio 4460 B25+B66 (At Antenna)	Radio 4480 B71+B85 (At Antenna)	Radio 4480 B71+B85 (At Antenna)				
Sector Equipment								

Unconnected Equipment:

Scope of Work:

*A dashed border indicates shared connected equipment. Any shared equipment, besides the first, is denoted with the SHARED keyword.

EBI Consulting

environmental | engineering | due diligence

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

T-Mobile Existing Facility

Site ID: CTNL184A

40 Sherman Road
Woodstock, Connecticut 06281

January 5, 2023

EBI Project Number: 6222007214

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**3.89%**

January 5, 2023

T-Mobile
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, Connecticut 06002

Emissions Analysis for Site: CTNL184A -

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **40 Sherman Road** in **Woodstock, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

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

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 40 Sherman Road in Woodstock, Connecticut using the equipment information listed below. Modeling of the antennas and associated equipment was completed using RoofMaster™ software, which is a widely-used predictive modeling program that has been developed to predict RF power density values for rooftop and tower telecommunications sites produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. Using the computational methods set forth in Federal Communications (FCC) Office of Engineering & Technology (OET) Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields" (OET-65), RoofMaster™ calculates predicted power density in a scalable grid based on the contributions of all RF sources characterized in the study scenario. At each grid location, the cumulative power density is expressed as a percentage of the FCC limits. Manufacturer antenna pattern data is utilized in these calculations. RoofMaster™ models consist of the Far Field model as specified in OET-65 and an implementation of the OET-65 Cylindrical Model (Sula9). The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit.

Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower. For power density calculations, the broadcast footprint of the AIR6449 or similar SON antenna has been considered. Due to the beamforming nature of these antennas, the actual beam locations vary depending on demand and are narrow in nature. Using the broadcast footprint accounts for the potential location of beams at any given time.

For all calculations, telecommunications equipment was modeled using the following assumptions:

1) 1 LTE channel (600 MHz Band) was considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

2) 1 NR channel (600 MHz Band) was considered for each sector of the proposed installation. This Channel has a transmit power of 80 Watts.

3) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

4) 1 GSM channel (PCS Band - 1900 MHz) was considered for each sector of the proposed installation. These Channels have a transmit power of 10 Watts per Channel.

5) 1 LTE channel (PCS Band - 1900 MHz) was considered for each sector of the proposed installation. These Channels have a transmit power of 120/160 Watts per Channel.

6) 1 LTE channel (AWS Band – 2100 MHz) was considered for each sector of the proposed installation. These Channels have a transmit power of 120/160 Watts per Channel.

7) 1 LTE Traffic channel (LTE 1C and 2C BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 45 Watts.

8) 1 LTE Broadcast channel (LTE 1C and 2C BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 15 Watts.

9) 1 NR Traffic channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 90 Watts.

10) 1 NR Broadcast channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 30 Watts.

11) 1 microwave backhaul channel (11 GHz) was considered for the proposed facility. This channel has a transmit power of 1.259 Watts.

12) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.

13) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

14) The antennas used in this modeling are the COMMSCOPE VV-65A-R1B 02DT 1900 for the 1900 MHz / 1900 MHz / 1900 MHz channel(s), the RFS APXVAALL24_43-U-NA20 02DT 600 for the 600 MHz / 600 MHz / 700 MHz channel(s), the ERICSSON SON_AIR6449 2500 LTE TB for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s) in Sector A, the COMMSCOPE VV-65A-R1B 02DT 1900 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the RFS APXVAALL24_43-U-NA20 02DT 600 for the 600 MHz / 600 MHz / 700 MHz channel(s), the ERICSSON SON_AIR6449 2500 LTE TB for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s), the COMMSCOPE VHLP2-11 11000 for the 11000 MHz channel(s) in Sector B, the COMMSCOPE VV-65A-R1B 02DT 1900 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the RFS APXVAALL24_43-U-NA20 02DT 600 for the 600 MHz / 600 MHz / 700 MHz channel(s), the ERICSSON SON_AIR6449 2500 LTE TB for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s) in Sector C. Modeling also included calculations for the proposed 11 GHz microwave backhaul antenna. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

15) The antenna mounting height centerline of the proposed antennas (both microwave and panel antennas) is 105 feet above ground level (AGL).

16) Emissions values for additional carriers were calculated in Far Field utilizing the antenna models provided in the structural analysis.

17) All calculations were done with respect to uncontrolled / general population threshold limits.

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T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	COMMSCOPE VV-65A-R1B 02DT 1900	Make / Model:	COMMSCOPE VV-65A-R1B 02DT 1900	Make / Model:	COMMSCOPE VV-65A-R1B 02DT 1900
Frequency Bands:	1900 MHz / 1900 MHz / 1900 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz
Gain:	15.25 dBd / 15.25 dBd / 15.87 dBd	Gain:	15.25 dBd / 15.25 dBd / 15.87 dBd	Gain:	15.25 dBd / 15.25 dBd / 15.87 dBd
Height (AGL):	105 feet	Height (AGL):	105 feet	Height (AGL):	105 feet
Channel Count:	3	Channel Count:	3	Channel Count:	3
Total TX Power (W):	330.00 Watts	Total TX Power (W):	330.00 Watts	Total TX Power (W):	330.00 Watts
ERP (W):	10,296.29	ERP (W):	10,296.29	ERP (W):	10,296.29
Antenna A1 MPE %:	**3.78%**	Antenna B1 MPE %:	**3.78%**	Antenna C1 MPE %:	**3.78%**
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	RFS APXVAALL24_43-U-NA20 02DT 600	Make / Model:	RFS APXVAALL24_43-U-NA20 02DT 600	Make / Model:	RFS APXVAALL24_43-U-NA20 02DT 600
Frequency Bands:	600 MHz / 600 MHz / 700 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd
Height (AGL):	105 feet	Height (AGL):	105 feet	Height (AGL):	105 feet
Channel Count:	3	Channel Count:	3	Channel Count:	3
Total TX Power (W):	160.00 Watts	Total TX Power (W):	160.00 Watts	Total TX Power (W):	160.00 Watts
ERP (W):	2,878.76	ERP (W):	2,878.76	ERP (W):	2,878.76
Antenna A2 MPE %:	**2.53%**	Antenna B2 MPE %:	**2.53%**	Antenna C2 MPE %:	**2.53%**
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	ERICSSON SON_AIR6449 2500 LTE TB	Make / Model:	ERICSSON SON_AIR6449 2500 LTE TB	Make / Model:	ERICSSON SON_AIR6449 2500 LTE TB
Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz
Gain:	22.35 dBd / 22.35 dBd / 17.3 dBd / 17.3 dBd	Gain:	22.35 dBd / 22.35 dBd / 17.3 dBd / 17.3 dBd	Gain:	22.35 dBd / 22.35 dBd / 17.3 dBd / 17.3 dBd
Height (AGL):	105 feet	Height (AGL):	105 feet	Height (AGL):	105 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	180.00 Watts	Total TX Power (W):	180.00 Watts	Total TX Power (W):	180.00 Watts
ERP (W):	25,608.41	ERP (W):	25,608.41	ERP (W):	25,608.41
Antenna A3 MPE %:	**9.39%**	Antenna B3 MPE %:	**9.39%**	Antenna C3 MPE %:	**9.39%**
Antenna #:	4	Antenna #:	4	Antenna #:	4
Make / Model:	N/A	Make / Model:	COMMSCOPE VHLP2-11 11000	Make / Model:	N/A
Frequency Bands:		Frequency Bands:	11000 MHz	Frequency Bands:	
Gain:		Gain:	32.35 dBd	Gain:	
Height (AGL):		Height (AGL):	105 feet	Height (AGL):	
Channel Count:		Channel Count:	1	Channel Count:	
Total TX Power (W):		Total TX Power (W):	1.26 Watts	Total TX Power (W):	
ERP (W):		ERP (W):	2,162.85	ERP (W):	
Antenna A4 MPE %:		Antenna B4 MPE %:	**0.79%**	Antenna C4 MPE %:	

Site Composite MPE %	
Carrier	**MPE %**
T-Mobile (Combined Sectors):	1.64%
Dish	0.45%
AT&T	0.59%
Verizon	1.21%
Site Total MPE % :	3.89%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	1.64%
T-Mobile Sector B Total:	1.59%
T-Mobile Sector C Total:	1.59%
T-Mobile Total MPE % :	1.64%

T-Mobile Maximum MPE Power Values (Sector B)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 1900 MHz GSM	1	290.4022654	105	1.065236778	1900 MHz GSM	1000.0	0.11%
T-Mobile 1900 MHz LTE	1	4646.436247	105	17.04378845	1900 MHz LTE	1000.0	1.70%
T-Mobile 2100 MHz LTE	1	5359.447027	105	19.65921331	2100 MHz LTE	1000.0	1.97%
T-Mobile 600 MHz LTE	1	689.5408364	105	2.529333777	600 MHz LTE	400.0	0.63%
T-Mobile 600 MHz NR	1	1379.081673	105	5.058667553	600 MHz NR	400.0	1.26%
T-Mobile 700 MHz LTE	1	810.1398427	105	2.97170807	700 MHz LTE	467.0	0.64%
T-Mobile 2500 MHz LTE	1	7730.587742	105	28.35689441	2500 MHz LTE	1000.0	2.84%
T-Mobile 2500 MHz NR	1	15461.17548	105	56.71378882	2500 MHz NR	1000.0	5.67%
T-Mobile 2500 MHz LTE	1	805.5476946	105	2.954863418	2500 MHz LTE	1000.0	0.30%
T-Mobile 2500 MHz NR	1	1611.095389	105	5.909726835	2500 MHz NR	1000.0	0.59%
T-Mobile 11000 MHz MW	1	2162.846659	105	7.933628903	11000 MHz MW	1000.0	0.79%

• NOTE: Total T-Mobile MPE values reflect all T-Mobile antennas as reported by RoofMaster™ combined modeling.
• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.

Summary

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

The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector A:	1.64%
Sector B:	1.59%
Sector C:	1.59%
T-Mobile Maximum MPE % (Sector A):	1.64%
T-Mobile Combined Sectors MPE %:	1.64%
Site Total:	3.89%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **3.89%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions or documents available on the Connecticut Siting Council website.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.