January 22, 2021

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

RE: **Notice of Exempt Modification for T-Mobile:**
Crown Site ID: 876353 - T-Mobile Site ID: CT11216B
352 South Main St, Newtown, CT 06470
Latitude: 41° 21′ 20.64″/ Longitude: -73° 15′ 47.57″

Dear Ms. Bachman:

T-Mobile currently maintains six (6) antennas at the 135-foot mount on the existing 150-foot monopole tower located at 352 South Main Street in Newtown. The property and tower are owned by Crown Castle. T-Mobile now intends to replace six (6) antennas and add three (3) new antennas and ancillary equipment at the 135-ft level. This modification/proposal includes hardware that is both 4G(LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

Planned Modifications:
Tower:

Remove and Replace:
(3) LNX-6515DS-A1M antenna **(REMOVE)** - (3) AIR6449 B41 2500 MHz antenna **(REPLACE)**

(3) RFS-APX18-206513-C-A20 antenna **(REMOVE)** - (3) RFS-APX16DWV-16DWV-S-E-A20 antenna **(REPLACE)**

Install New:
(3) APXVAALL24_43-U-NA20 antenna
(3) Radio 4424 B25
(3) Radio 4449 B71+B85
(3) Radio 4415 B66A
(3) HCS 1.5" feedline

Remove:
(3) TMAs
(6) 1 5/8" coax cables

Ground:

Install New:
(1) 6160 equipment cabinet
(1) B160 battery cabinet
(2) BB 6630
(1) BB 6648
(1) PSU 4813 voltage booster
(1) IXRE router

Remove:
(1) DUL 20
(3) PCS/700 Diplexers

This facility was approved by the Connecticut Siting Council on October 8, 1999. Subject tower was first approved by the Town of Newtown Zoning Board, Docket Decision 96-38 on November 12, 1996. These approvals were given with conditions, namely "a landscaping of evergreens, which must be properly maintained. shall be planted around the fenced area which surrounds the equipment." T-Mobile's proposed installation complies with this condition.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Daniel C. Rosenthal, First Selectman for the Town of Newtown, as well as George Benson, Director of Planning for the Town of Newtown.

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

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

3. The proposed modification 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 Communication 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-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Richard Zajac
Site Acquisition Specialist
4545 East River Road, Suite 320
West Henrietta, NY 14586
(585) 445-5896
richard.zajac@crowncastle.com

cc:

Town of Newtown
Attn: Daniel C. Rosenthal - First Selectman
3 Primrose Street
Newtown Municipal Center
Newtown, CT 06470
203-270-4201

Town of Newtown
Attn: George Benson - Director of Planning
3 Primrose Street
Newtown Municipal Center
Newtown, CT 06470
203-270-4276

ORIGIN ID:ONHA (585) 445-5896
RICHARD ZAJAC
CROWN CASTLE
629 KAYLEIGH DR

WEBSTER, NY 14580
UNITED STATES US

SHIP DATE: 22JAN21
ACTWGT: 1.00 LB
CAD: 112911364/INET4340

BILL SENDER

TO **GEORGE BENSON - DIR. OF PLANNING**
TOWN OF NEWTOWN
3 PRIMROSE STREET
NEWTOWN MUNICIPAL CENTER
NEWTOWN CT 06470
(203) 270-4276

REF: 799001.7680
INV:
PO:
DEPT:

56DJ1/1136/FE4A

J211121011901uv

FedEx Express

MON - 25 JAN 4:30P
STANDARD OVERNIGHT

TRK# 0201 **7727 0517 4173**

XH DXRA

06470
CT-US **SWF**

After printing this label:
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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Exhibit A

Original Facility Approval

TOWN OF NEWTOWN

ZONING BOARD OF APPEALS

DOCKET DECISION 96-38

Application of Sprint Spectrum, L. P. for a variance of Section 4.18 of the Zoning Regulations. The property is located at 352 South Main Street in the Town of Newtown in a M-5 Zone.

Having considered the documentation and testimony presented at a public hearing held on November 6, 1996, the Board voted to APPROVE the application as presented with the following stipulation:

A landscaping screen of evergreens, which must be properly maintained, shall be planted around the fenced area which surrounds the equipment.

The Board therefore APPROVES the variance with the above-stated stipulation.

The Board orders further that the effective date of this decision shall be November 15, 1996, and that a certified copy hereof shall be filed in the office of the Town Clerk of the Town of Newtown and that public notice of such filing shall be published in the November 15, 1996 issue of the Newtown Bee.

ZONING BOARD OF APPEALS OF THE TOWN OF NEWTOWN

Charles E. Annett, III, Chairman

I hereby certify that the adoption of the foregoing decision is recorded in the minutes of the Zoning Board of Appeals of the Town of Newtown in the form of a resolution, the vote of which was as follows:

Charles E. Annett....."Yes"
Richard H. Kessler....."Yes"
Timothy Cronin....."Yes"
Sally J. O'Neil....."Yes"
Alan Clavette....."Yes"

Richard H. Kessler, Secretary

November 12, 1996

Newtown, CT

TOWN OF NEWTOWN

ZONING BOARD OF APPEALS

DOCKET DECISION 96-39

Application of Sprint Spectrum, L. P. for a special permit as required by Section 4.18.511 of the Zoning Regulations. The property is located at 352 South Main Street in the Town of Newtown in a M-5 Zone.

Having considered the documentation and testimony presented at a public hearing held on November 6, 1996, the Board voted to APPROVE the application as presented with the following stipulation:

A landscaping screen of evergreens, which must be properly maintained, shall be planted around the fenced area which surrounds the equipment.

The Board therefore APPROVES the special permit with the above-stated stipulation.

The Board orders further that the effective date of this decision shall be November 15, 1996, and that a certified copy hereof shall be filed in the office of the Town Clerk of the Town of Newtown and that public notice of such filing shall be published in the November 15, 1996 issue of the Newtown Bee.

ZONING BOARD OF APPEALS OF THE TOWN OF NEWTOWN

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Richard H. Kessler....."Yes"
Timothy Cronin....."Yes"
Sally J. O'Neil....."Yes"
Alan Clavette....."Yes"

Richard H. Kessler, Secretary

November 12, 1996

Newtown, CT

TOWN HALL SOUTH • THREE MAIN STREET • NEWTOWN, CONNECTICUT 06470
TEL. (203) 270-4260 • FAX (203) 270-1528

VOL 546 PAGE 128

NOTICE OF GRANT OF VARIANCE

SPECIAL EXCEPTION, OR SPECIAL PERMIT

7381

Pursuant to Chapter 124 (PA-75-317) of the General Statutes of the State of Connecticut, notice is hereby given that on November 6, 1996 the Zoning Board of Appeals of the Town of Newtown, Connecticut, granted or granted conditionally a variance, special exception, special permit for property located at 352 South Main Street in the Town of Newtown

DESCRIPTION OF PROPERTY (lot size) 8.73 acres

Rec'd. for Record 12-13-1996
Town Clerk of Newtown
9:20a.m.
Cynthia Curtis Sinn

PROPERTY OWNED BY Maureen A. Julian

NATURE OF VARIANCE, SPECIAL EXCEPTION, SPECIAL PERMIT

Chapter _____ Section 4.18.511 ; Chapter _____ Section _____
Chapter _____ Section _____ ; Chapter _____ Section _____
Chapter _____ Section _____ ; Chapter _____ Section _____

ZONING REGULATIONS - TOWN OF NEWTOWN, CONNECTICUT

USE PERMITTED Construction, operation and maintenance of a monopole structure over thirty (30) feet in height.

Dated and Certified by the Zoning Board of Appeals of the Town of Newtown this 13th day of December, 1996.

BY _____
Chairman ____ Secretary ____ Clerk X

VOL 546 PAGE 119

NOTICE OF GRANT OF VARIANCE

7382

SPECIAL EXCEPTION, OR SPECIAL PERMIT

Pursuant to Chapter 124 (PA-75-317) of the General Statutes of the State of Connecticut, notice is hereby given that on November 6,...1996 . . . . the Zoning Board of Appeals of the Town of Newtown, Connecticut, granted or granted conditionally a variance, special exception, special permit for property located at 352 South Main Street in the Town of Newtown

DESCRIPTION OF PROPERTY (lot size) 8.73

Rec'd. for Record 12-13 1996
Town Clerk of Newtown
9:21 a.m.
Cynthia Kurtz Sinn

PROPERTY OWNED BY Maureen A. Julian

NATURE OF VARIANCE, SPECIAL EXCEPTION, SPECIAL PERMIT

Chapter _____ Section 4.18 ; Chapter _____ Section _____
Chapter _____ Section _____ ; Chapter _____ Section _____
Chapter _____ Section _____ ; Chapter _____ Section _____

ZONING REGULATIONS - TOWN OF NEWTOWN, CONNECTICUT

USE PERMITTED Installation operation and maintenance of a monopole for the operation of communication antenna in addition to the principal industrial use on the site, concrete operations.

Dated and Certified by the Zoning Board of Appeals of the Town of Newtown this 13th day of December, 1996.

By _____
Chairman ____ Secretary ____ Clerk X

CACACE
TUSCH &
SANTAGATA

Attorneys at Law

777 Summer Street
P.O. Box 15859
Stamford, Connecticut 06901-0859

(203) 327-2000
Facsimile (203) 353-3392

MICHAEL J. CACACE*
MARK P. SANTAGATA
PAUL T. TUSCH
EDWARD F. NEMCHEK*
ALICE ANN FITZPATRICK
RONALD E. KOWALSKI, II
PIERRETTE A. NEWMAN
RUSSELL A. GREEN*
AAMINA AHMAD

LEGAL ASSISTANTS
SONJA WALTON
JANE E. BARUCCI
CAROLINE A. TOMAC
KELLEY R. ADAMS

*ALSO ADMITTED IN NEW YORK

November 18, 1996

Larry Woods
Sprint Spectrum L.P.
9 Barnes Industrial Road
Wallingford, CT 06492

Re: Sprint Spectrum/352 South Main Street, Newtown, CT

Dear Larry:

Enclosed you will find copies of the decisions granting unanimous approval of our applications for a variance and a special permit in the above-referenced site. As you can see, the board's concern about the screening of the fenced area has been made into a condition of the approval. SSLP must ensure that the fenced area surrounding the equipment is screened by evergreens which are to be properly maintained.

Note that there is a fifteen day appeal period. After the appeal period runs on November 30, 1996, a building permit can be issued.

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

Very truly yours,

Paul T. Tusch

PTT/clg
Enclosures
cc: Stephen Howard
Neil McAuliffe
Russell A. Green

Exhibit B

Property Card

352 SOUTH MAIN STREET

Location	352 SOUTH MAIN STREET	**M/B/L**	47/ 6/ 2/C /
Acct#	00662100C	**Owner**	KNOWLTON ASSOCIATES LLC
Assessment	$319,590	**Appraisal**	$456,550
PID	15219	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$96,550	$360,000	$456,550
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$67,590	$252,000	$319,590

Owner of Record

Owner	KNOWLTON ASSOCIATES LLC	**Sale Price**	$0
Co-Owner	C/O CROWN CASTLE	**Book & Page**	935/ 12
Address	PMB 331 4017 WASHINGTON ROAD MCMURRAY, PA 15317	**Sale Date**	10/08/2008

Ownership History

Ownership History			
Owner	**Sale Price**	**Book & Page**	**Sale Date**
KNOWLTON ASSOCIATES LLC	$0	935/ 12	10/08/2008

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0

Building Attributes	
Field	**Description**
Style	Outbuildings

Model	
Grade:	
Stories	
Occupancy	
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:	
Full Bthrms:	
Half Baths:	
Extra Fixtures	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Extra Kitchens	
Fireplace(s)	
Extra Opening(s)	
Gas Fireplace(s)	
Blocked FPL(s)	
Woodstove(s)	
SF Fin Bsmt	
Fin Bsmt Qual	
Bsmt Garage	
Int Millwork	
Ext. Millwork	
Foundation	
MH Park	

Building Photo

(http://images.vgsi.com/photos/NewtownCTPhotos//\00\01\94/21.jpg)

Building Layout

Building Layout
(http://images.vgsi.com/photos/NewtownCTPhotos//Sketches/15219_2056

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	4310
Description	CELL SITE
Zone	M-5
Neighborhood	
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	0
Frontage	
Depth	
Assessed Value	$252,000
Appraised Value	$360,000

Outbuildings

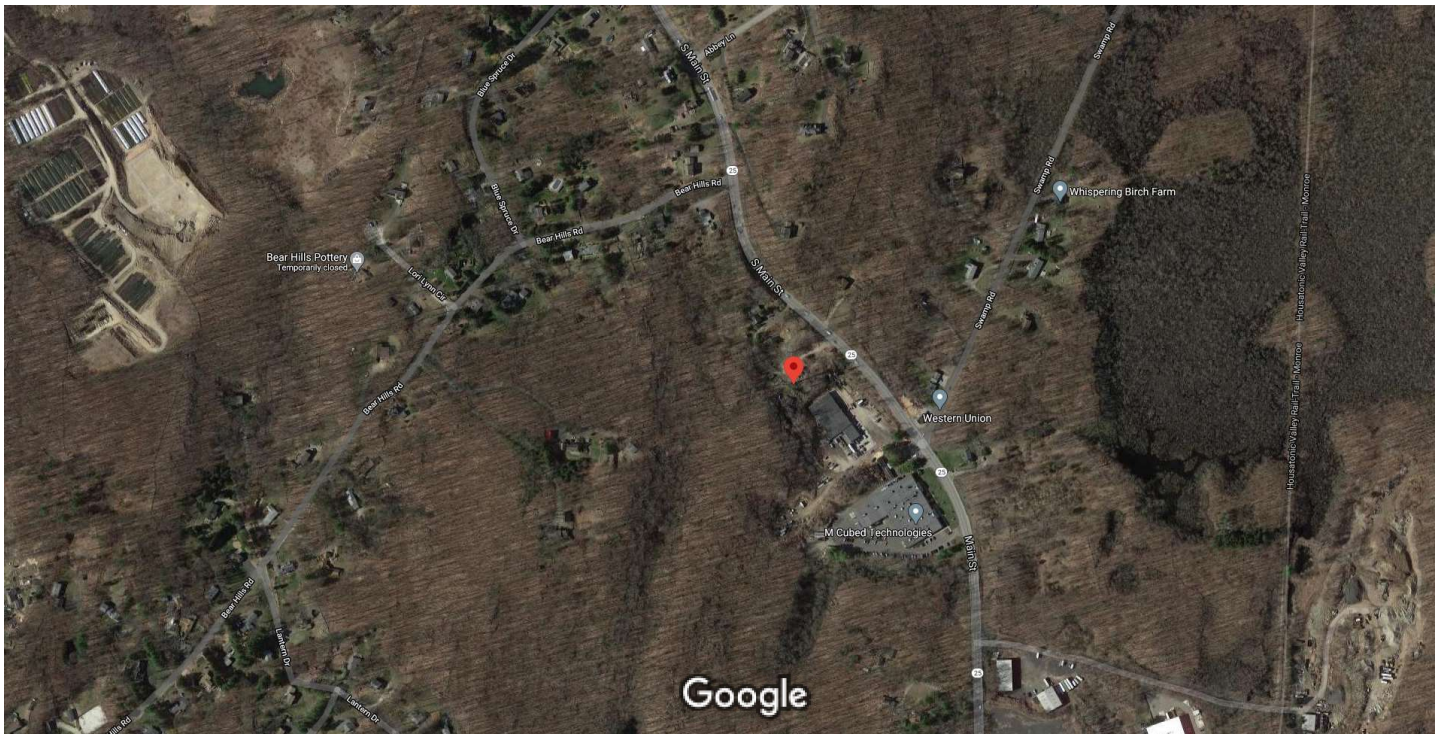
Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
CELL	Cell Tower			1 Units	$96,000	1
FN1	Fence			154 L.F.	$550	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2019	$96,550	$360,000	$456,550
2018	$96,550	$360,000	$456,550
2017	$96,550	$360,000	$456,550

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2019	$67,590	$252,000	$319,590
2018	$67,590	$252,000	$319,590
2017	$67,590	$252,000	$319,590

Google Maps 41°21'20.6"N 73°15'47.6"W



Imagery ©2021 Maxar Technologies, USDA Farm Service Agency, Map data ©2021 200 ft

41°21'20.6"N 73°15'47.6"W

41.355733, -73.263214

Directions Save Nearby Send to your phone Share

Newtown School District, Newtown, CT

9P4P+7P Newtown, Connecticut

Exhibit C

Construction Drawings

T-Mobile

T-MOBILE SITE NUMBER: CT11216B
T-MOBILE SITE NAME: MONROE-2/RT-25
SITE TYPE: MONOPOLE
TOWER HEIGHT: 150'-0"

BUSINESS UNIT #: 876353
SITE ADDRESS: 352 S. MAIN ST, NEW TOWN, CT 06470
COUNTY: FAIRFIELD
JURISDICTION: TOWN OF NEWTOWN

T-MOBILE ANCHOR SITE CONFIGURATION: 67D5A998C ODE+6160

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	352 S. MAIN ST, NEW TOWN, CT
SITE ADDRESS:	352 S. MAIN ST NEW TOWN, CT 06470
COUNTY:	FAIRFIELD
MAP/PARCEL #:	47-6-2
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41.355733
LONGITUDE:	-73.263214
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	488'
CURRENT ZONING:	M-5
JURISDICTION:	TOWN OF NEWTOWN
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	KNOWLTON ASSOCIATES LLC P.O BOX 26161 WEST HAVEN, CT 06516
TOWER OWNER:	CROWN CASTLE USA INC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	T-MOBILE 4 SYLVAN WAY PARSIPPANY, NJ 07054
ELECTRIC PROVIDER:	NOT PROVIDED
TELCO PROVIDER:	NOT PROVIDED

PROJECT TEAM

A&E FIRM:	CROWN CASTLE USA INC. 2000 CORPORATE DRIVE CANONSBURG, PA 15317 CROWNAE.APPROVAL@CROWNCASTLE.COM
CROWN CASTLE USA INC. DISTRICT CONTACTS:	3530 TORINGDON WAY, SUITE 300 CHARLOTTE, NC 28277

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	OVERALL SITE PLAN
C-1.2	SITE PLAN & ENLARGED SITE PLAN
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	ANTENNA & CABLE SCHEDULE
C-4	PLUMBING DIAGRAM
C-5	EQUIPMENT SPECS
E-1	AC PANEL SCHEDULES & ONE LINE DIAGRAM
G-1	ANTENNA GROUNDING DIAGRAM
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 24X36. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

PROJECT DESCRIPTION

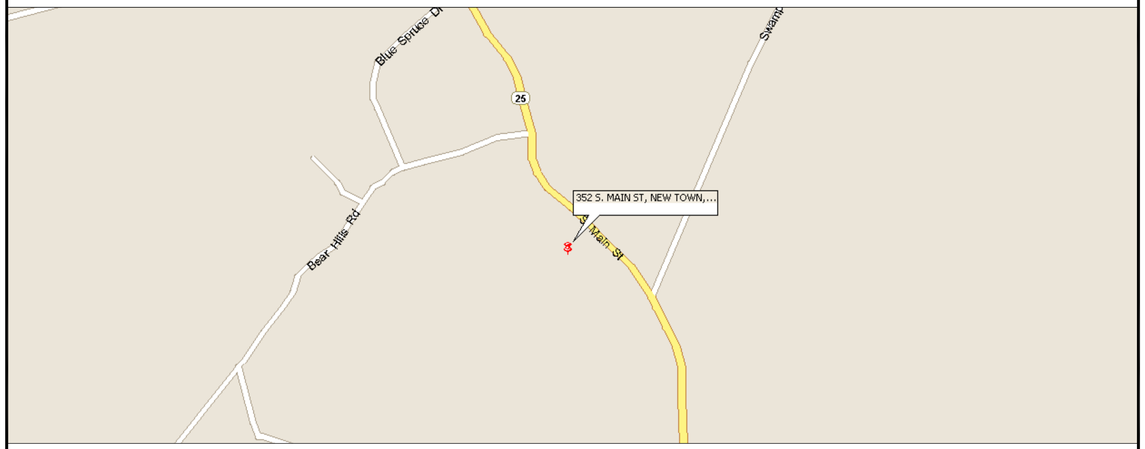
THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

TOWER SCOPE OF WORK:
- REMOVE (6) ANTENNAS
- REMOVE (3) TMAs
- REMOVE (6) 1 5/8" COAX CABLES
- INSTALL (9) ANTENNAS
- INSTALL (9) RADIOs
- INSTALL (3) 6X12 HYBRID CABLE
- INSTALL (3) NEW MOUNT SUPPORT RAIL KIT

GROUND SCOPE OF WORK:
- REMOVE (1) DUL 20
- REMOVE (3) GENERIC PCS/700 DIPLEXERS
- INSTALL (1) 6160 CABINET
- INSTALL (1) B160 BATTERY CABINET
- INSTALL (2) BB 6630
- INSTALL (1) BB 6648
- INSTALL (1) PSU 4813 VOLTAGE BOOSTER
- INSTALL (1) iXRe ROUTER

NOTE:
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER

LOCATION MAP



NO SCALE

APPLICABLE CODES/REFERENCE DOCUMENTS

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

CODE TYPE	CODE
BUILDING	2015/2018 IBC
MECHANICAL	2015/2018 IMC
ELECTRICAL	2017/2018 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	BY OTHERS
DATED:	BY OTHERS
MOUNT ANALYSIS:	B+T GROUP
DATED:	11/16/20
RFDS REVISION:	4
DATED:	9/23/20
ORDER ID:	529716
REVISION:	0

CALL CONNECTICUT ONE CALL
(800) 922-4455 CBYD.COM
CALL 2 WORKING DAYS
BEFORE YOU DIG!

APPROVALS

APPROVAL	SIGNATURE	DATE
PROPERTY OWNER OR REP.		
LAND USE PLANNER		
T-MOBILE		
OPERATIONS		
RF		
NETWORK		
BACKHAUL		
CONSTRUCTION MANAGER		

THE PARTIES ABOVE HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE SITE NUMBER:
CT11216B

BU #: **876353**
352 S. MAIN ST, NEW TOWN, CT

352 S. MAIN ST
NEW TOWN, CT 06470

EXISTING
150'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	12/11/20	LHT	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
No. 23924
LICENSED
PROFESSIONAL ENGINEER
12/11/20

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: T-1
REVISION: 0

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED– NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800–788–7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
2. "LOOK UP" – CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT:
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED–STD–10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH QAS–STD–10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED–STD–10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
   CARRIER: T–MOBILE
   TOWER OWNER: CROWN CASTLE USA INC.
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST–IN–PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE–THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER–TO–CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
   #4 BARS AND SMALLER 40 ksi
   #5 BARS AND LARGER 60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 BARS AND LARGER 2"
   #5 BARS AND SMALLER 1–1/2"
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
   SLAB AND WALLS 3/4"
   BEAMS AND COLUMNS 1–1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL–OF–POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON–ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON–METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON–METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD–WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
   4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
   4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERYIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI–CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT) OR METAL–CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON–PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER–ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY–COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY–COATED OR NON–CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "T–MOBILE".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
	GROUND	GREEN
277/480V, 3Ø	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
	GROUND	GREEN
DC VOLTAGE	POS (+)	RED**
	NEG (–)	BLACK**

* SEE NEC 210.5(C)(1) AND (2)
** POLARITY MARKED AT TERMINATION

APWA UNIFORM COLOR CODE:

WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

ABBREVIATIONS:

ANT	ANTENNA
(E)	EXISTING
FIF	FACILITY INTERFACE FRAME
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GSM	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND BAR
MW	MICROWAVE
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
(P)	PROPOSED
PP	POWER PLANT
QTY	QUANTITY
RECT	RECTIFIER
RBS	RADIO BASE STATION
RET	REMOTE ELECTRIC TILT
RFDS	RADIO FREQUENCY DATA SHEET
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
SIAD	SMART INTEGRATED DEVICE
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
W.P.	WORK POINT

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE SITE NUMBER:
CT11216B

BU #: **876353**
352 S. MAIN ST, NEW TOWN, CT

352 S. MAIN ST
NEW TOWN, CT 06470

EXISTING
150'-0" MONOPOLE

ISSUED FOR:

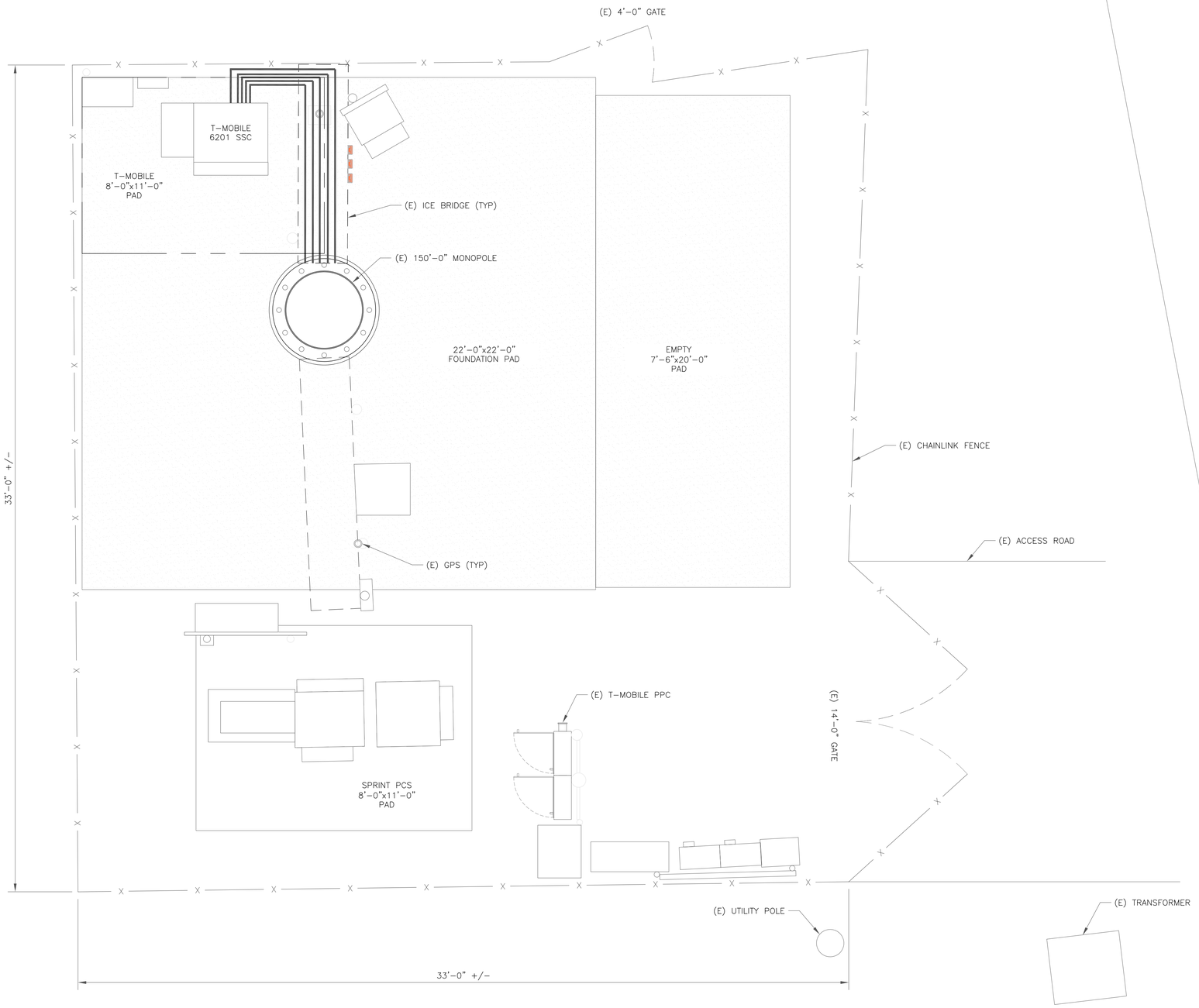
REV	DATE	DRWN	DESCRIPTION	DES./QA
0	12/11/20	LHT	CONSTRUCTION	MTJ

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

111217.004.01_352 S. MAIN ST_CC_TMO_NE_CD Upgrades.dwg — Sheet:T-2 — User: mjones — Dec 11, 2020 — 8:08am

SITE PLAN DISCLAIMER:

PROPERTY LINES AND STRUCTURES HAVE BEEN DIGITIZED FROM PREVIOUS PLAN SETS OR FROM ASSESSORS MAPS. CROWN CASTLE USA INC. HAS NOT COMPLETED A SITE SURVEY AND THEREFORE MAKES NO CLAIMS AS TO THE ACCURACY OF INFORMATION DEPICTED ON THIS SHEET



APN: 47-6-2
ZONING: M-5

1 OVERALL SITE PLAN
SCALE: 2' 1' 0 2' 3/8"=1'-0" (FULL SIZE) 3/16"=1'-0" (11x17)

N

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE SITE NUMBER:
CT11216B

BU #: **876353**
352 S. MAIN ST, NEW TOWN, CT

352 S. MAIN ST
NEW TOWN, CT 06470

EXISTING
150'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	12/11/20	LHT	CONSTRUCTION	MTJ

STEVEN C. GRAY CONNECTICUT No. 23924 LICENSED PROFESSIONAL ENGINEER
12/11/20

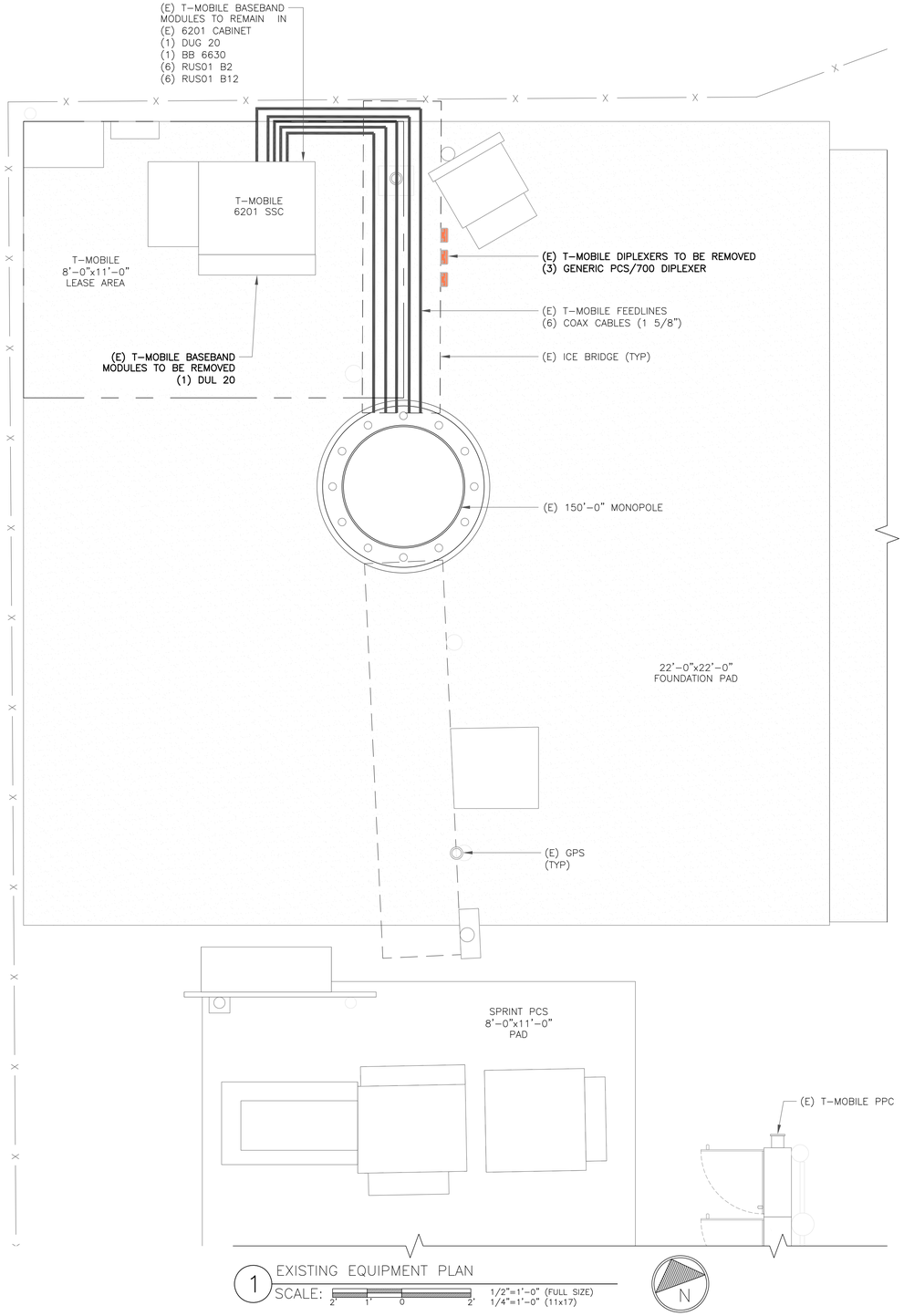
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: C-1.1
REVISION: 0

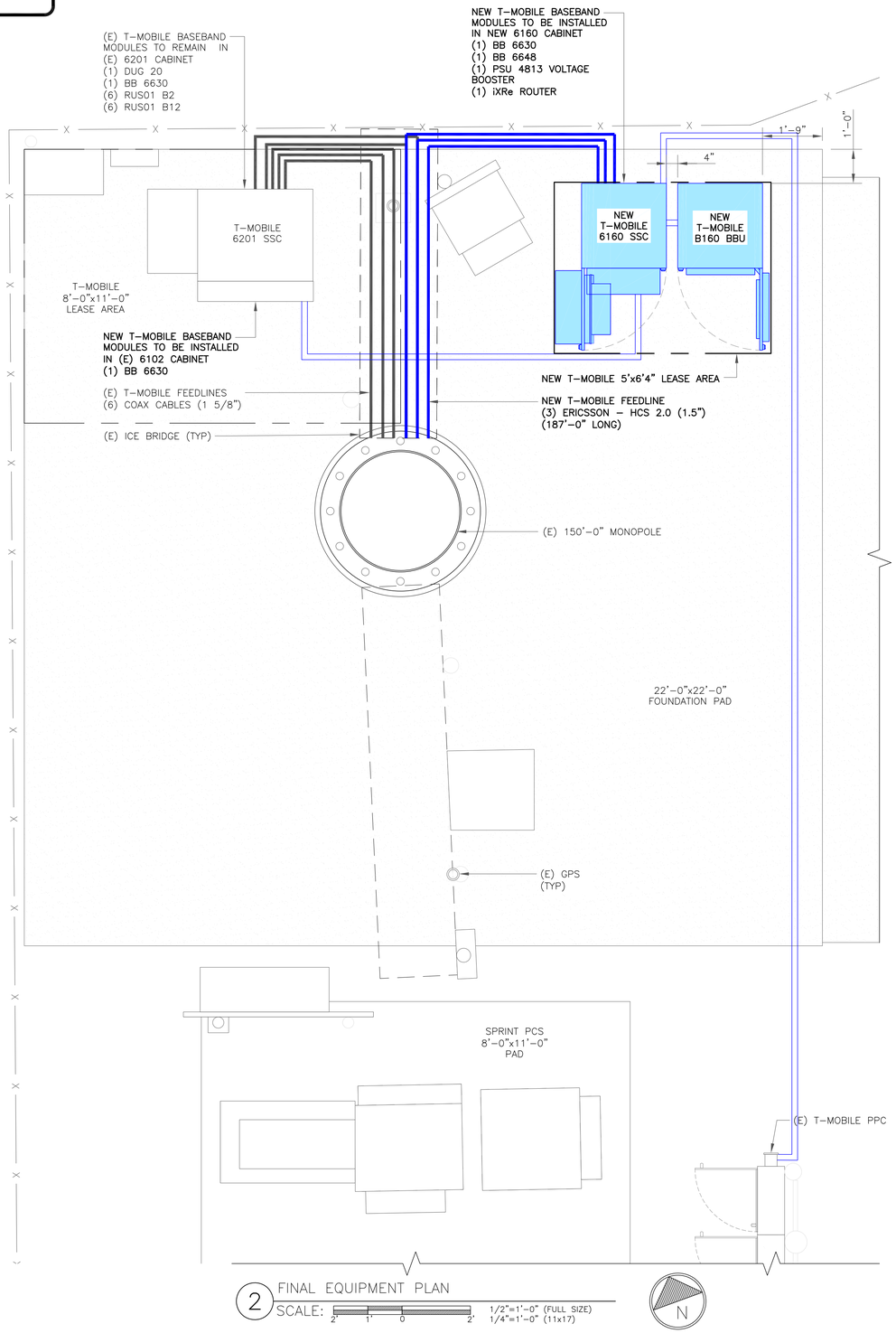
111217.004.01_352 S. MAIN ST_CC_TMO_NE_CD Upgrades.dwg – Sheet:C-1.1 – User: mjones – Dec 11, 2020 – 8:09am

EQUIPMENT LEGEND:

- EXISTING
- TO BE RELOCATED/REMOVED
- NEW



1 EXISTING EQUIPMENT PLAN
SCALE: 2' 1' 0 2' 1/2"=1'-0" (FULL SIZE) 1/4"=1'-0" (11x17)



2 FINAL EQUIPMENT PLAN
SCALE: 2' 1' 0 2' 1/2"=1'-0" (FULL SIZE) 1/4"=1'-0" (11x17)

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
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CHARLOTTE, NC 28277

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NEW TOWN, CT 06470

EXISTING
150'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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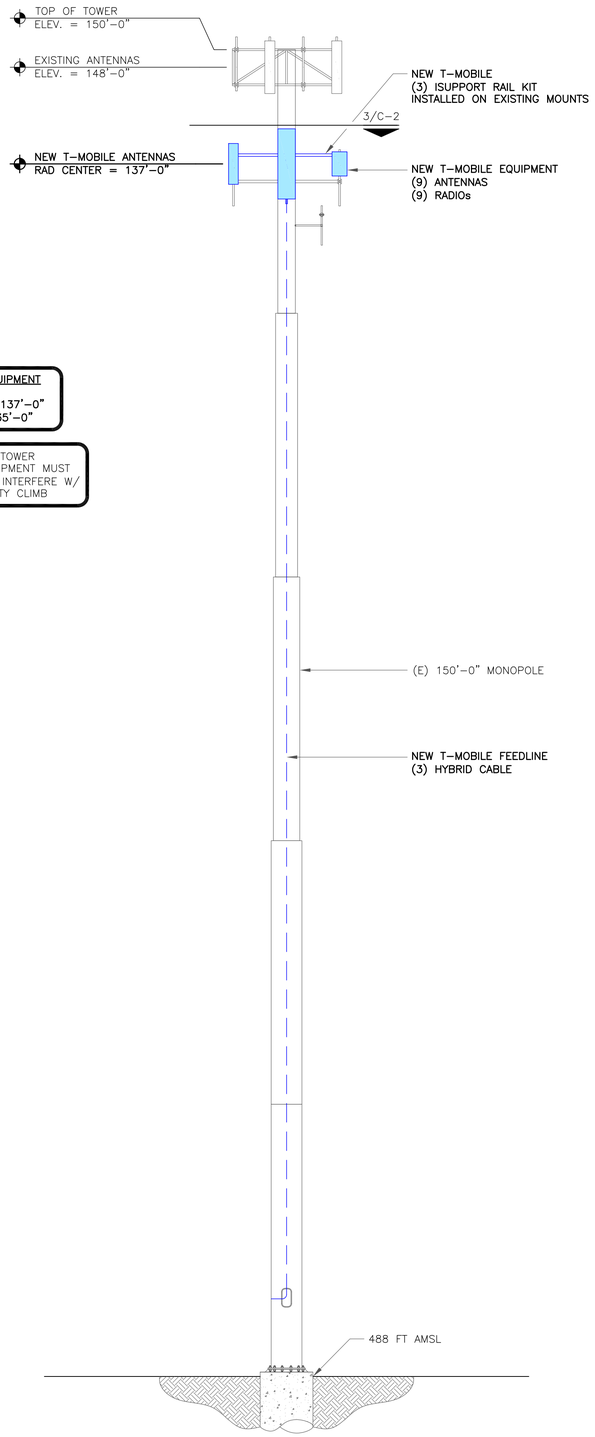
STATE OF CONNECTICUT
MICHAEL T. JONES
No. 23924
LICENSED
PROFESSIONAL ENGINEER
12/11/20

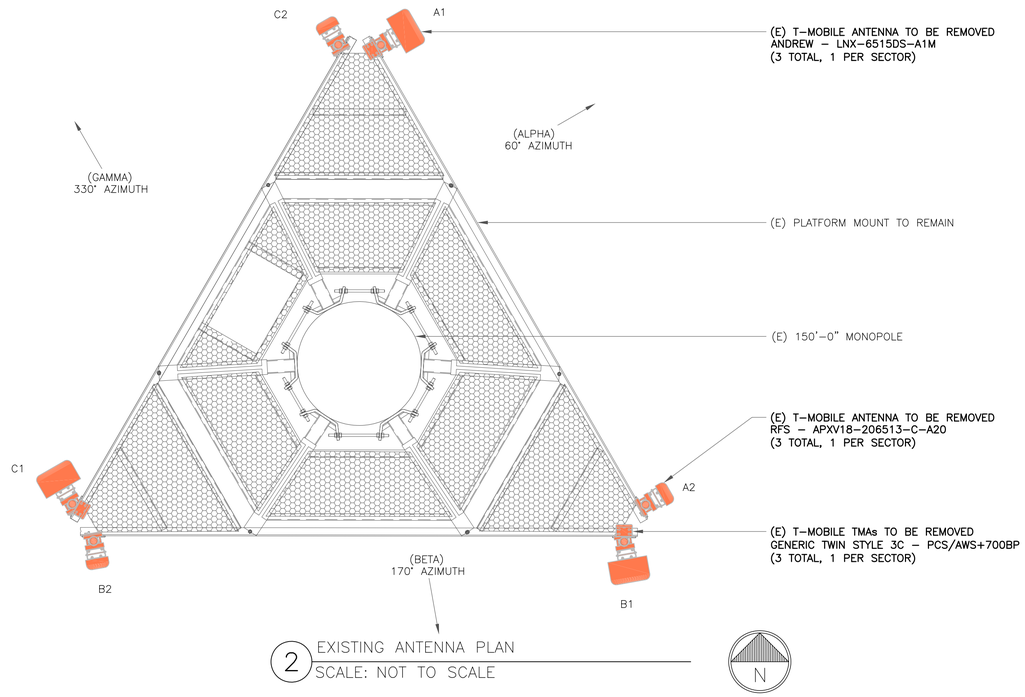
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: C-1.2

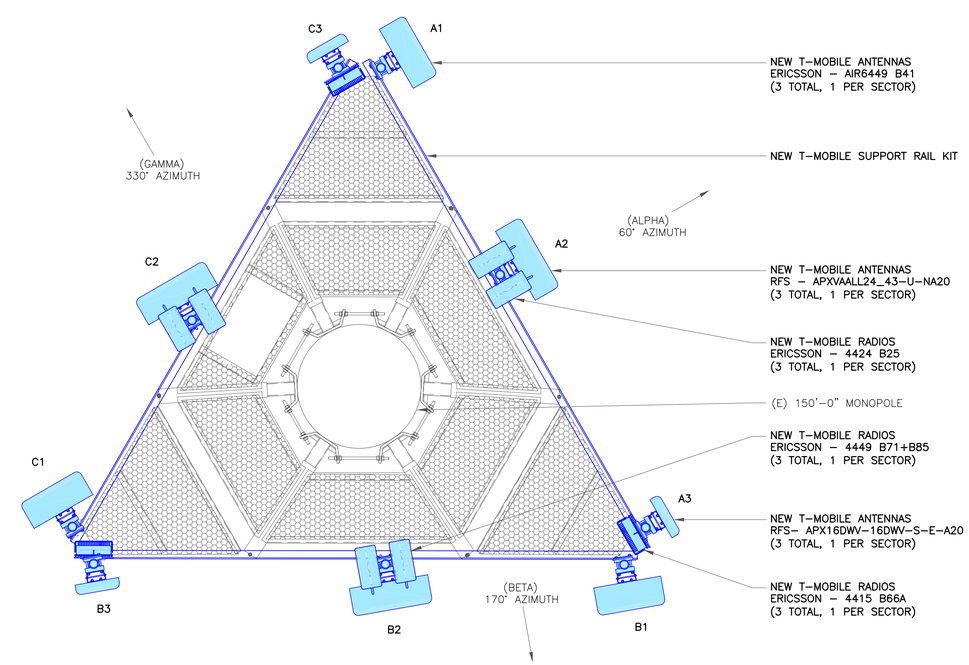
REVISION: 0



1 FINAL ELEVATION
SCALE: NOT TO SCALE



2 EXISTING ANTENNA PLAN
SCALE: NOT TO SCALE



3 FINAL ANTENNA PLAN
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
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T-MOBILE SITE NUMBER:
CT11216B

BU #: **876353**
352 S. MAIN ST, NEW TOWN, CT

352 S. MAIN ST
NEW TOWN, CT 06470

EXISTING
150'-0" MONOPOLE

ISSUED FOR:

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STATE OF CONNECTICUT
No. 23924
LICENSED
PROFESSIONAL ENGINEER
12/11/20

B&T ENGINEERING, INC.
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Expires 2/10/21

SHEET NUMBER: C-2

REVISION: 0

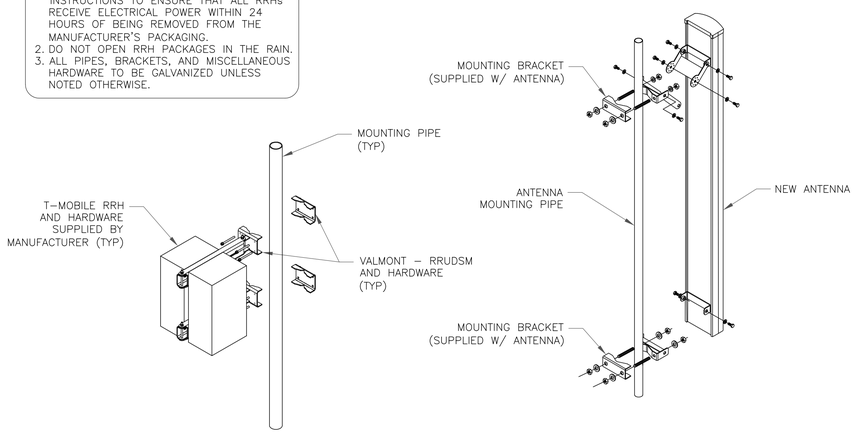
RF SYSTEM SCHEDULE

SECTOR	ANTENNA	TECH	MANUFACTURER	ANTENNA MODEL	AZIMUTH	M-TILT	E-TILT	RAD CENTER	TMA/RRU	CABLE TYPE	CABLE DIAMETER	CABLE LENGTH
ALPHA	A-1	L2500/N2500	ERICSSON	AIR6449 B41	60°	0°	–	137'-0"	–	–	–	–
	A-2	L700/L600/N600/ L1900/G1900	RFS	APXVAARR24_43-U-NA20	60°	0°	–	137'-0"	(1) RADIO 4449 B71+B85 (1) RADIO 4424 B25	(3) FIBER	6x12 HYBRID	187'
	A-3	L2100	RFS	APX16DWV-16DWV-S-E-A20	60°	0°	–	137'-0"	(1) RADIO 4415 B66A	–	–	–
BETA	B-1	L2500/N2500	ERICSSON	AIR6449 B41	170°	0°	–	137'-0"	–	–	–	–
	B-2	L700/L600/N600/ L1900/G1900	RFS	APXVAARR24_43-U-NA20	170°	0°	–	137'-0"	(1) RADIO 4449 B71+B85 (1) RADIO 4424 B25			
	B-3	L2100	RFS	APX16DWV-16DWV-S-E-A20	170°	0°	–	137'-0"	(1) RADIO 4415 B66A	–	–	–
GAMMA	C-1	L2500/N2500	ERICSSON	AIR6449 B41	330°	0°	–	137'-0"	–			
	C-2	L700/L600/N600/ L1900/G1900	RFS	APXVAARR24_43-U-NA20	330°	0°	–	137'-0"	(1) RADIO 4449 B71+B85 (1) RADIO 4424 B25	–	–	–
	B-3	L2100	RFS	APX16DWV-16DWV-S-E-A20	330°	0°	–	137'-0"	(1) RADIO 4415 B66A			

1 ANTENNA & FEEDLINE SCHEDULE
SCALE: NOT TO SCALE

INSTALLER NOTES:

1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



2 ANTENNA WITH RRHs MOUNTING DETAIL
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

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T-MOBILE SITE NUMBER:
CT11216B

BU #: **876353**
352 S. MAIN ST, NEW TOWN, CT

352 S. MAIN ST
NEW TOWN, CT 06470

EXISTING
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STATE OF CONNECTICUT
No. 23924
LICENSED
PROFESSIONAL ENGINEER
12/11/20

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: C-3

REVISION: 0

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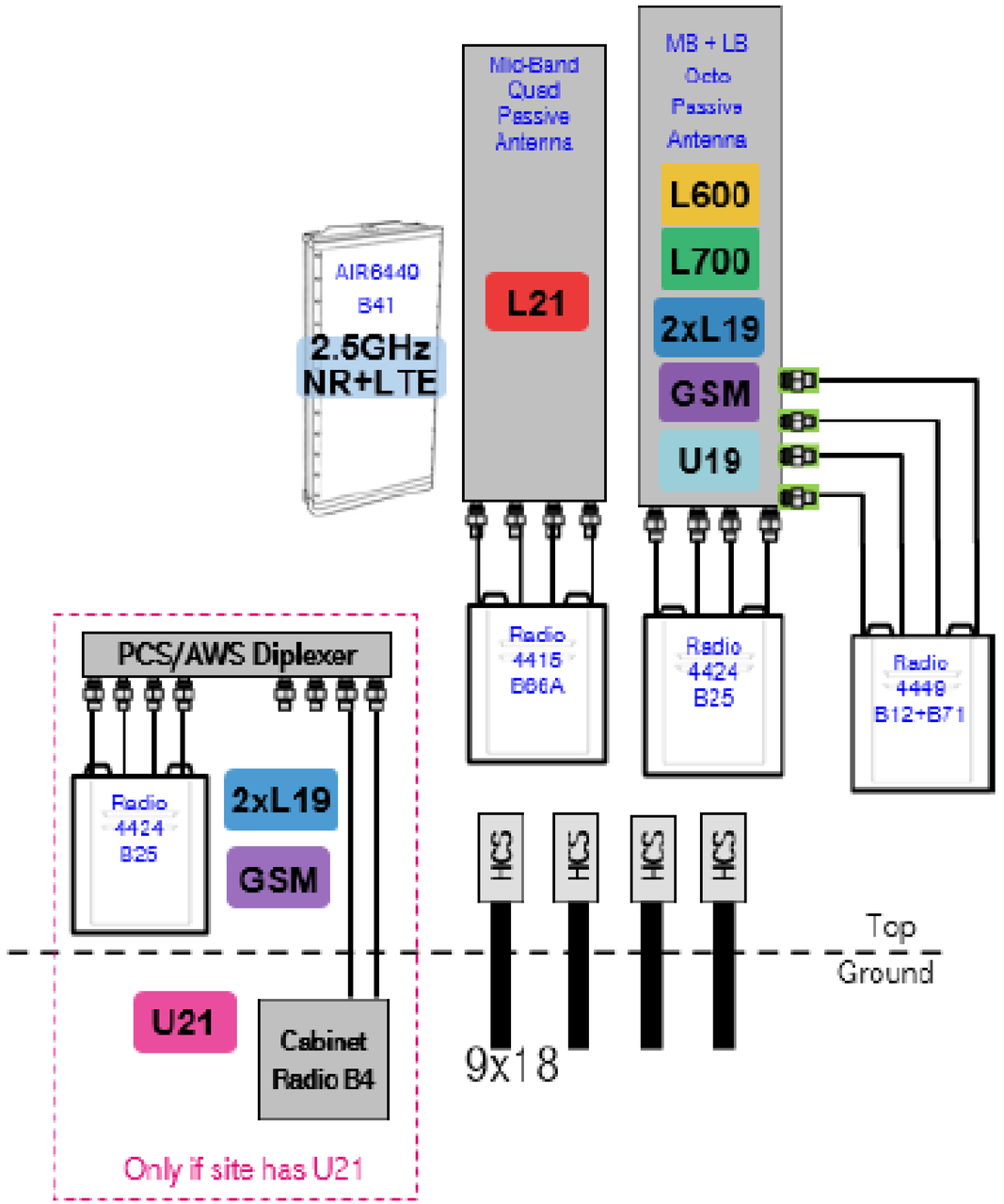

1 PLUMBING DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

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T-MOBILE SITE NUMBER:
CT11216B

BU #: **876353**
352 S. MAIN ST, NEW TOWN, CT

352 S. MAIN ST
NEW TOWN, CT 06470

EXISTING
150'-0" MONOPOLE

ISSUED FOR:

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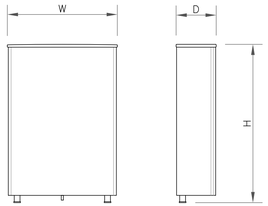
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

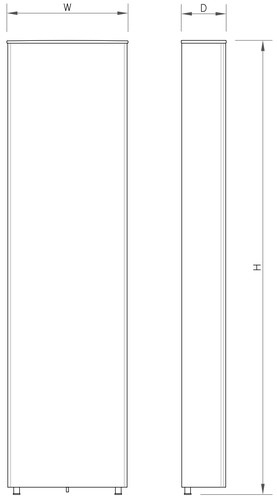
SHEET NUMBER: C-4

REVISION: 0



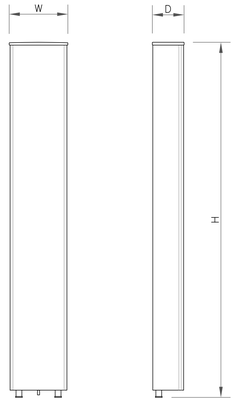
ANTENNA SPECS	
MANUFACTURER	ERICSSON
MODEL #	AIR6449 B41
WIDTH	20.51"
DEPTH	8.54"
HEIGHT	33.11"
WEIGHT	114.63 LBS

1 ANTENNA SPECS
SCALE: NOT TO SCALE



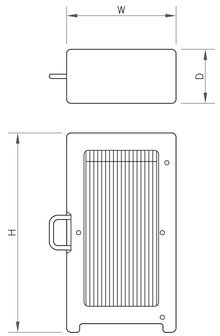
ANTENNA SPECS	
MANUFACTURER	RFS/CELWAVE
MODEL #	APXVAALL24_43-U-NA20
WIDTH	24.00"
DEPTH	8.50"
HEIGHT	95.90"
WEIGHT	149 LBS

2 ANTENNA SPECS
SCALE: NOT TO SCALE



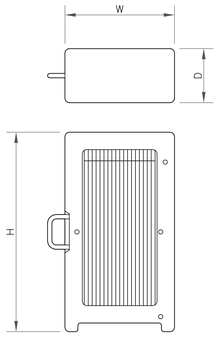
ANTENNA SPECS	
MANUFACTURER	RFS/CELWAVE
MODEL #	APX16DWV-16DWVS-E-A20
WIDTH	13.30"
DEPTH	3.15"
HEIGHT	55.90"
WEIGHT	40.70 LBS

3 ANTENNA SPECS
SCALE: NOT TO SCALE



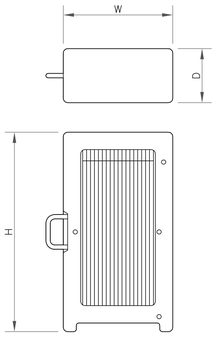
RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL #	RADIO 4415 B66A
WIDTH	13.20"
DEPTH	5.40"
HEIGHT	14.90"
WEIGHT	46.30.8 LBS

4 RRU SPECS
SCALE: NOT TO SCALE



RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL #	RADIO 4424 B25
WIDTH	14.40"
DEPTH	11.30"
HEIGHT	17.10"
WEIGHT	86.00 LBS

5 RRU SPECS
SCALE: NOT TO SCALE



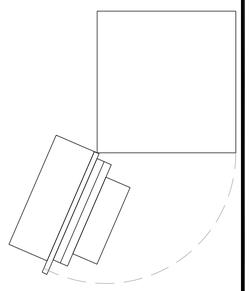
RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL #	RADIO 4449 B71+B85
WIDTH	13.20"
DEPTH	10.63"
HEIGHT	17.91"
WEIGHT	73.21 LBS

6 RRU SPECS
SCALE: NOT TO SCALE

BATTERY CABINET SPECIFICATIONS	
MODEL #	B160
MANUF.	ERICSSON
HEIGHT	63"
WIDTH	26"
DEPTH	26"
WEIGHT	

3 ERICSSON B160 BATTERY CABINET
SCALE: NOT TO SCALE

ERICSSON 6160 SSC
WEIGHT: 60.0 LBS
SIZE (HxWxD): 63"x25.6"x33.5" IN.



4 ERICSSON 6160 SSC
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

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3530 TORINGDON WAY, SUITE 300
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T-MOBILE SITE NUMBER:
CT11216B

BU #: **876353**
352 S. MAIN ST, NEW TOWN, CT

352 S. MAIN ST
NEW TOWN, CT 06470

EXISTING
150'-0" MONOPOLE

ISSUED FOR:

REV.	DATE	DRWN	DESCRIPTION	DES./QA
0	12/11/20	LHT	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
No. 23924
LICENSED
PROFESSIONAL ENGINEER
12/11/20

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: C-5

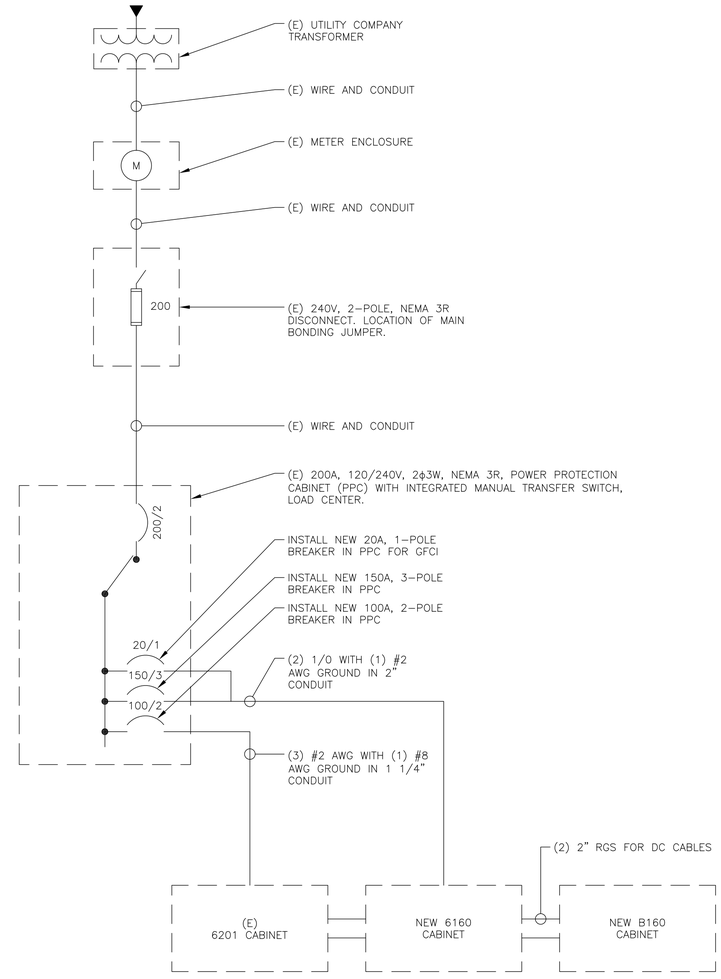
REVISION: 0

FINAL PANEL SCHEDULE							
LOAD	POLES	AMPS	BUS L1	BUS L2	AMPS	POLES	LOAD
6201 ODE	**2**	**100A**	1	2	20A	1	EQUIPMENT
			3	4			
CABNIT	1	20A	5	6	**150A**	**3**	**6160 CABINET**
EQUIPMENT	1	20A	7	8			
			9	10	**20A**	**1**	**B160**
			11	12			
			13	14			
			15	16			
			17	18			
			19	20			
			21	22			
			23	24			
			25	26			
			27	28			
			29	30			

RATED VOLTAGE: ■120/240 □_____, 1 PHASE, 3 WIRE	BRANCH POLES: □12 □24 ■30 □42		APPROVED MF'RS
RATED AMPS: □100 ■200 □400 □_____,	CABINET: ■SURFACE □FLUSH		NEMA □1 ■3R □4X
□MAIN LUGS ONLY / MAIN 200 AMPS ■BREAKER □FUSED SWITCH	■HINGED DOOR		■KEYED DOOR LATCH
□FUSED ■CIRCUIT BREAKER BRANCH DEVICES	□_____ TO BE GFCI BREAKERS	FULL NEUTRAL BUS	GROUND BAR
ALL BREAKERS MUST BE RATED TO INTERRUPT A SHORT CIRCUIT ISC OF 10,000 AMPS SYMMETRICAL			

EXISTING 100A BREAKER PANEL TO BE REPLACED W/ NEW 200A BREAKER PANEL. SQUARE D P/N: QO12040M200RB (OR APPROVED EQUAL)
REPLACE EXISTING BREAKERS W/ NEW BREAKERS OF SAME AMPERAGE INSIDE NEW PANEL
UPGRADE FEEDER WIRES TO MEET AMPACITY.
FINAL PANEL DESIGN AND CALCULATIONS FOR WIRE SIZE WERE BASED OFF OF EXISTING DOCUMENTS AND PHOTOS

1 AC PANEL SCHEDULE
SCALE: NOT TO SCALE



NOTES:

1. ALL NEW CONDUCTORS TO BE INSTALLED SHALL BE COPPER. ALL CONDUCTORS SHALL BE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 UNLESS NOTED OTHERWISE.
2. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. ALL GROUNDING AND BONDING PER THE NEC.

2 ONE LINE DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
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T-MOBILE SITE NUMBER:
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BU #: **876353**
352 S. MAIN ST, NEW TOWN, CT

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B&T ENGINEERING, INC.
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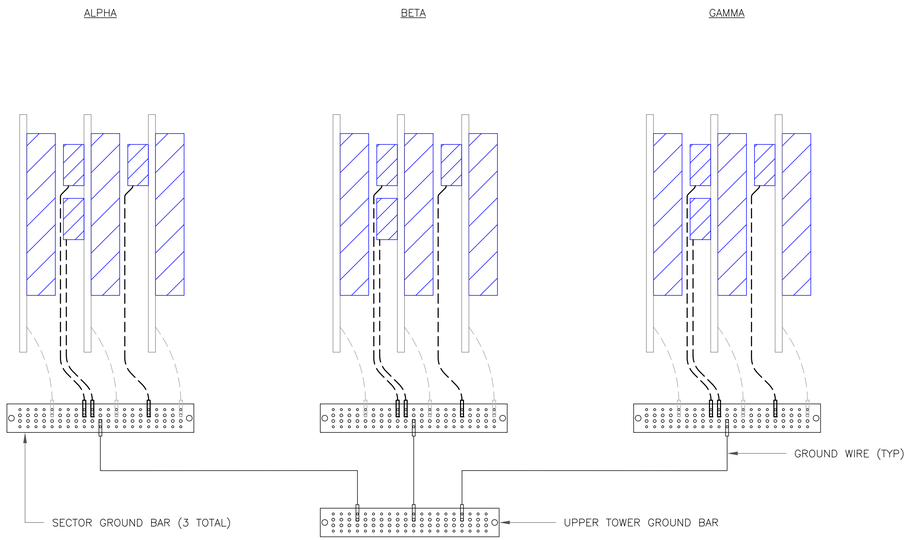
Expires 2/10/21

SHEET NUMBER: E-1
REVISION: 0



NOTE:

ALL NEW GROUNDS TO BE #6 STRANDED COPPER WITH GREEN INSULATION UNLESS NOTED OTHERWISE.

1 ANTENNA GROUNDING DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
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BU #: **876353**
352 S. MAIN ST, NEW TOWN, CT

352 S. MAIN ST
NEW TOWN, CT 06470

EXISTING
150'-0" MONOPOLE

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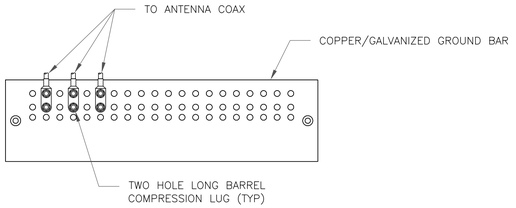
STATE OF CONNECTICUT
MICHAEL T. JONES
No. 23924
LICENSED
PROFESSIONAL ENGINEER
12/11/20

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

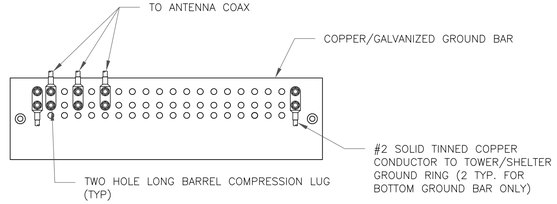
SHEET NUMBER: G-1
REVISION: 0



NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

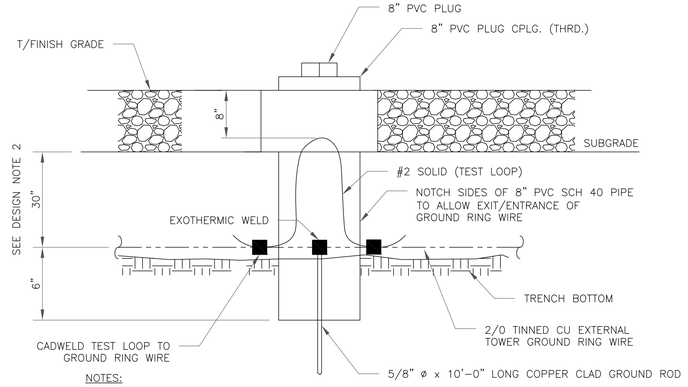
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

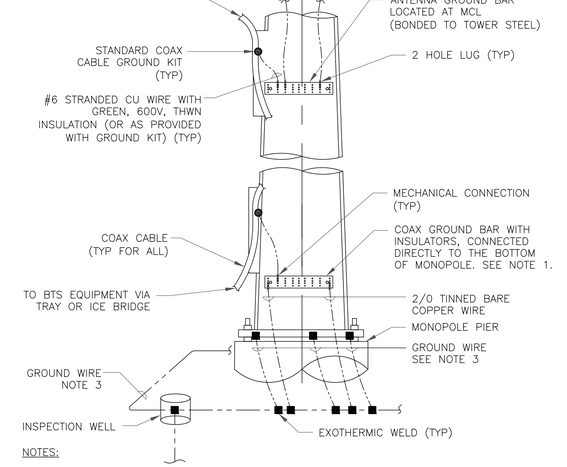
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

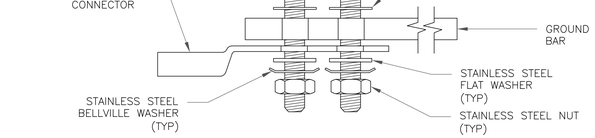
3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE



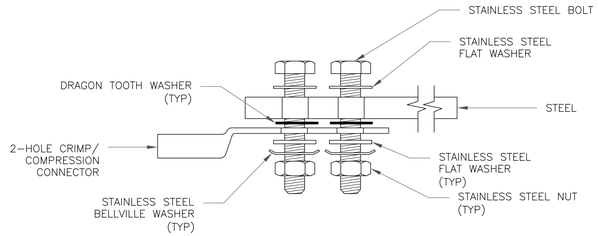
NOTES:

1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

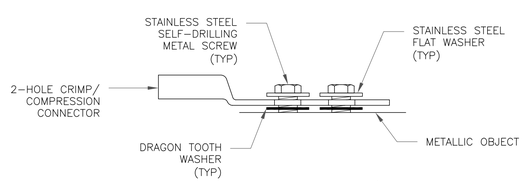
4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

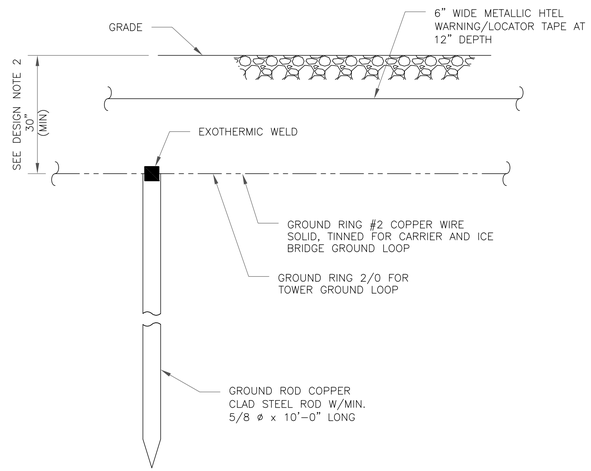


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

6 GROUND ROD DETAIL
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE SITE NUMBER:
CT11216B

BU #: **876353**
352 S. MAIN ST, NEW TOWN, CT

352 S. MAIN ST
NEW TOWN, CT 06470

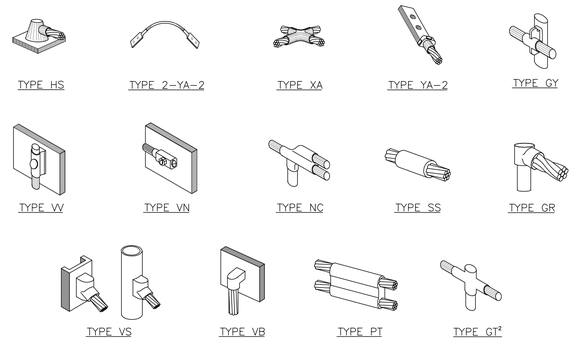
EXISTING
150'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	12/11/20	LHT	CONSTRUCTION	MTJ

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: G-2
REVISION: 0

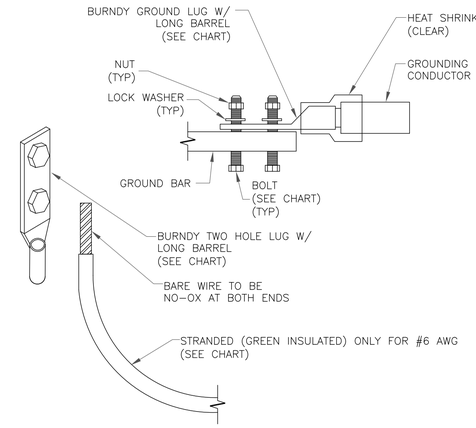


NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE

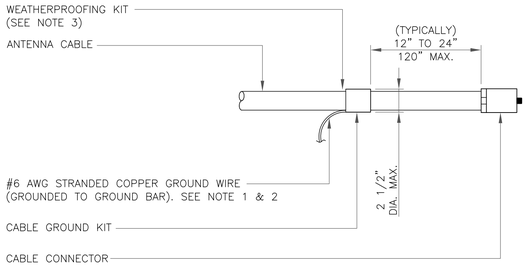
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER,GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

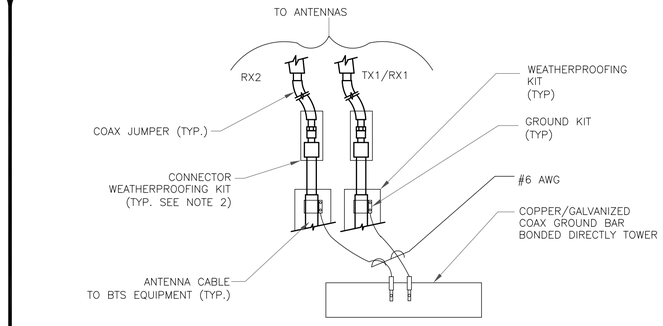
2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

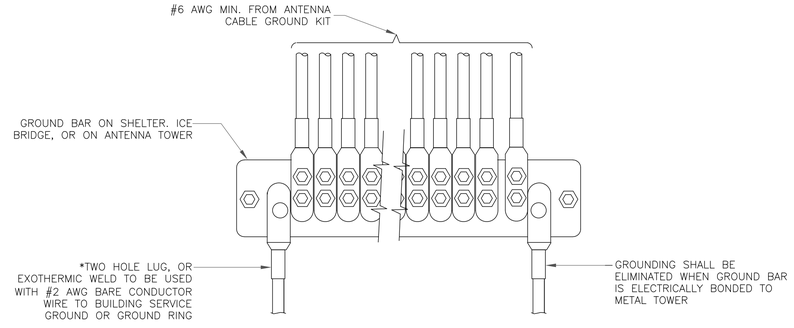
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



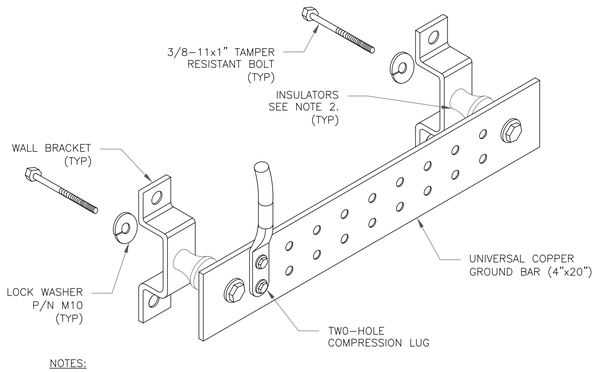
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



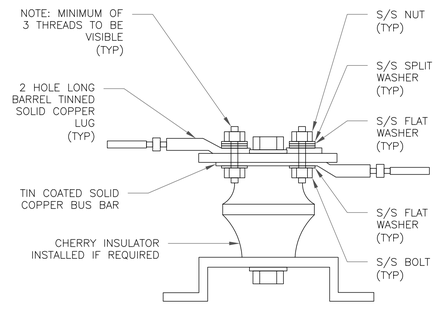
5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



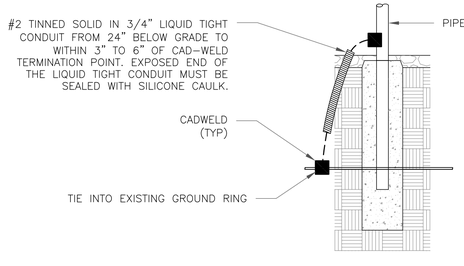
NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE SITE NUMBER:
CT11216B

BU #: **876353**
352 S. MAIN ST, NEW TOWN, CT

352 S. MAIN ST
NEW TOWN, CT 06470

EXISTING
150'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	12/11/20	LHT	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
No. 23924
LICENSED PROFESSIONAL ENGINEER
12/11/20

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: G-3
REVISION: 0

Exhibit D

Structural Analysis Report

Date: **November 18, 2020**

Stephanie Lipscomb
Crown Castle
370 Mallory Station Rd
Franklin, TN 37067

Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
(724) 416-2000

Subject:	**Structural Analysis Report**	
Carrier Designation:	***T-Mobile* Co-Locate**	
	Carrier Site Number:	CT11216B
	Carrier Site Name:	Monroe-2/RT-25
Crown Castle Designation:	**Crown Castle BU Number:**	876353
	Crown Castle SIte Name:	352 S. MAIN ST, NEW TOWN, CT
	Crown Castle JDE Job Number:	620161
	Crown Castle Work Order Number:	1890941
	Crown Castle Order Number:	529716 Rev. 0
Engineering Firm Designation:	**Crown Castle Project Number:**	1890941
Site Data:	**352 S. Main Street, NEWTOWN, Fairfield County, CT** **Latitude *41° 21' 20.64"*, Longitude *-73° 15' 47.57"*** **150 Foot - Monopole Tower**	

Dear Stephanie Lipscomb,

Crown Castle is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower.

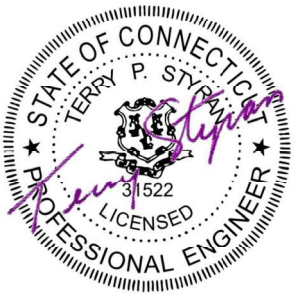
The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC5: Proposed Equipment Configuration **Sufficient Capacity - 60.6%**

This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - ''Analysis Criteria''.

Structural analysis prepared by: Carol Ng, E.I.T.

Respectfully submitted by:



Terry P Styran
2020.11.19
19:32:50 -05'00'

Terry P. Styran, P.E.
Senior Project Engineer

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 150 ft Monopole tower designed by ROHN.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	120 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
135.0	137.0	3	ericsson	AIR6449 B41_T-MOBILE w/ Mount Pipe	3	1-5/8
		3	ericsson	RADIO 4415 B66A_CCIV3		
		3	ericsson	RADIO 4424 B25_TMO		
		3	ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		3	rfs celwave	APX16DWV-16DWV-S-E-A20 w/ Mount Pipe		
		3	rfs celwave	APXVAALL24_43-U-NA20_TMO w/ Mount Pipe		
	135.0	1	tower mounts	Miscellaneous [NA 507-1] Support Rail Kit		
		1	tower mounts	Platform Mount [LP 712-1]		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
148.0	153.0	1	decibel	DB222-A	4	1-1/4
	150.0	3	alcatel lucent	1900MHZ RRH (65MHZ)		
		3	alcatel lucent	800MHZ RRH		
		3	alcatel lucent	RRH2X50-800		
		3	alcatel lucent	TD-RRH8X20-25		
		3	commscope	DT465B-2XR w/ Mount Pipe		
		3	rfs celwave	APXVSPP18-C-A20 w/ Mount Pipe		
	148.0	1	tower mounts	Platform Mount [LP 502-1]		
130.0	131.0	1	gps	GPS_A	1	1/2
	130.0	1	tower mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	Goodkind & O'Dea, Inc.	1531889	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	Rohn	1619496	CCISITES
4-TOWER MANUFACTURER DRAWINGS	Rohn	2047929	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.7.5), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

3.2) Assumptions

1) Tower and structures were maintained in accordance with the TIA-222 Standard.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. Crown Castle should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	150 - 120	Pole	P24x1/4	1	-8.988	695.378	43.6	Pass
L2	120 - 90	Pole	P30x3/8	2	-13.594	1376.613	46.1	Pass
L3	90 - 60	Pole	P36x3/8	3	-19.111	1564.605	55.5	Pass
L4	60 - 30	Pole	P42x3/8	4	-25.528	1752.313	60.6	Pass
L5	30 - 0	Pole	P42x1/2	5	-33.967	2530.920	59.3	Pass
							Summary	
						Pole (L4)	60.6	Pass
						Rating =	60.6	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Flange Bolts	120	16.5	Pass
1,2	Flange Plates		43.6	Pass
1	Flange Bolts	90	27.4	Pass
1,2	Flange Plates		46.1	Pass
1	Flange Bolts	60	36.2	Pass
1,2	Flange Plates		55.5	Pass
1	Flange Bolts	30	53.0	Pass
1,2	Flange Plates		60.6	Pass
1	Anchor Rods	0	47.7	Pass
1,3	Base Plate		59.3	Pass
1	Base Foundation (Structure)	0	59.5	Pass
1	Base Foundation (Soil Interaction)		12.0	Pass

Structure Rating (max from all components) =	60.6%

Notes:
1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
2) Flange plates are assumed to have the same capacity as their respective shaft.
3) Base plate is assumed to have the same capacity as the anchor rods.

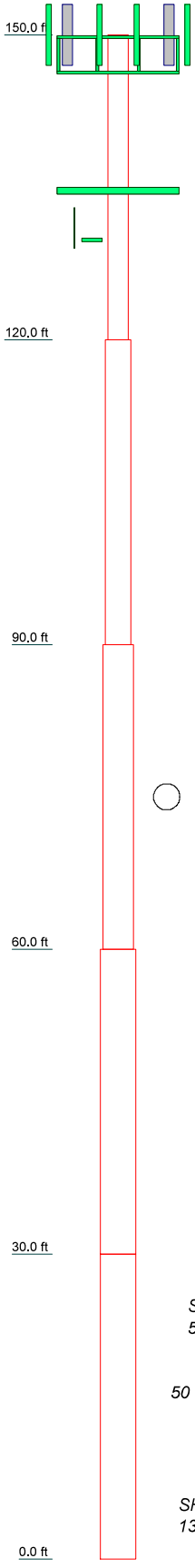
4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT

Section	Size	Length (ft)	Grade	Weight (K)
1	P24x1/4	30.000	A53-B-42	1.9
2	P30x3/8	30.000		3.6
3	P36x3/8	30.000		4.3
4	P42x3/8	30.000		5.0
5	P42x1/2	30.000		6.7
				21.4



ALL REACTIONS ARE FACTORED

AXIAL 53 K

SHEAR 5 K

MOMENT 529 kip-ft

TORQUE 1 kip-ft

50 mph WIND - 1.500 in ICE

AXIAL 34 K

SHEAR 13 K

MOMENT 1499 kip-ft

TORQUE 1 kip-ft

REACTIONS - 120 mph WIND

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-B-42	42 ksi	63 ksi			

TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. TOWER RATING: 60.6%

CROWN CASTLE
The Pathway to Possible

Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
Phone: (724) 416-2000
FAX:

Job: ***BU# 876353***			
Project:			
Client: Crown Castle	Drawn by: Carol Ng		App'd:
Code: TIA-222-H	Date: 11/18/20		Scale: NTS
Path: C:\Users\cng\Desktop\Working from Home 2020\876353\WO 1890941 - SA\Prod\876353_RPA.dri			Dwg No. E-1

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

3) Tower is located in Fairfield County, Connecticut.
4) Tower base elevation above sea level: 486.000 ft.
5) Basic wind speed of 120 mph.
6) Risk Category II.
7) Exposure Category B.
8) Simplified Topographic Factor Procedure for wind speed-up calculations is used.
9) Topographic Category: 1.
10) Crest Height: 0.000 ft.
11) Nominal ice thickness of 1.500 in.
12) Ice thickness is considered to increase with height.
13) Ice density of 56.000 pcf.
14) A wind speed of 50 mph is used in combination with ice.
15) Temperature drop of 50.000 °F.
16) Deflections calculated using a wind speed of 60 mph.
17) A non-linear (P-delta) analysis was used.
18) Pressures are calculated at each section.
19) Stress ratio used in pole design is 1.05.
20) Tower analysis based on target reliabilities in accordance with Annex S.
21) Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
22) Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	Calculate Redundant Bracing Forces
Consider Moments - Diagonals	√ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	√ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
Use Code Stress Ratios	Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
√ Use Code Safety Factors - Guys	Retension Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	√ Bypass Mast Stability Checks	√ Consider Feed Line Torque
Always Use Max Kz	√ Use Azimuth Dish Coefficients	Include Angle Block Shear Check
Use Special Wind Profile	√ Project Wind Area of Appurt.	Use TIA-222-H Bracing Resist. Exemption
Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Use TIA-222-H Tension Splice Exemption
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	Poles
Secondary Horizontal Braces Leg	√ Sort Capacity Reports By Component	√ Include Shear-Torsion Interaction
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Always Use Sub-Critical Flow
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Use Top Mounted Sockets
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	√ Pole Without Linear Attachments
		Pole With Shroud Or No Appurtenances
		Outside and Inside Corner Radii Are Known

Pole Section Geometry

Section	Elevation ft	Section Length ft	Pole Size	Pole Grade	Socket Length ft
L1	150.000-120.000	30.000	P24x1/4	A53-B-42 (42 ksi)	

Section	Elevation ft	Section Length ft	Pole Size	Pole Grade	Socket Length ft
L2	120.000-90.000	30.000	P30x3/8	A53-B-42 (42 ksi)	
L3	90.000-60.000	30.000	P36x3/8	A53-B-42 (42 ksi)	
L4	60.000-30.000	30.000	P42x3/8	A53-B-42 (42 ksi)	
L5	30.000-0.000	30.000	P42x1/2	A53-B-42 (42 ksi)	

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 150.000-120.000				1	1	1			
L2 120.000-90.000				1	1	1			
L3 90.000-60.000				1	1	1			
L4 60.000-30.000				1	1	1			
L5 30.000-0.000				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
***											

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight klf
*** 148 ft ***									
HB114-1-0813U4-M5J(1-1/4)	C	No	No	Inside Pole	148.000 - 0.000	3	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
							2" Ice	0.000	0.001
HB114-21U3M12-XXXF(1-1/4)	C	No	No	Inside Pole	148.000 - 0.000	1	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
							2" Ice	0.000	0.001
*** 135 ft ***									
LDF7-50A(1-5/8)	A	No	No	Inside Pole	135.000 - 0.000	3	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
							2" Ice	0.000	0.001
*** 130ft ***									
LDF4-50A(1/2)	C	No	No	Inside Pole	130.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
							2" Ice	0.000	0.000
*********									
5/8 rod/step	C	No	No	CaAa (Out	150.000 -	1	No Ice	0.020	0.000

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight klf
				Of Face)	0.000		1/2" Ice	0.120	0.001
							1" Ice	0.220	0.002
							2" Ice	0.420	0.006
Safety Line 3/8	C	No	No	CaAa (Out	150.000 -	1	No Ice	0.037	0.000
				Of Face)	0.000		1/2" Ice	0.137	0.001
							1" Ice	0.238	0.001
							2" Ice	0.437	0.002
***									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	150.000-120.000	A	0.000	0.000	0.000	0.000	0.037
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	1.725	0.151
L2	120.000-90.000	A	0.000	0.000	0.000	0.000	0.074
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	1.725	0.164
L3	90.000-60.000	A	0.000	0.000	0.000	0.000	0.074
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	1.725	0.164
L4	60.000-30.000	A	0.000	0.000	0.000	0.000	0.074
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	1.725	0.164
L5	30.000-0.000	A	0.000	0.000	0.000	0.000	0.074
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	1.725	0.164

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	150.000-120.000	A	1.468	0.000	0.000	0.000	0.000	0.037
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	19.340	0.297
L2	120.000-90.000	A	1.431	0.000	0.000	0.000	0.000	0.074
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	18.902	0.304
L3	90.000-60.000	A	1.384	0.000	0.000	0.000	0.000	0.074
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	18.334	0.297
L4	60.000-30.000	A	1.315	0.000	0.000	0.000	0.000	0.074
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	17.507	0.287
L5	30.000-0.000	A	1.178	0.000	0.000	0.000	0.000	0.074
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	15.865	0.266

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L1	150.000-120.000	-0.624	0.360	-2.152	1.242
L2	120.000-90.000	-0.632	0.365	-2.247	1.297
L3	90.000-60.000	-0.637	0.368	-2.287	1.321
L4	60.000-30.000	-0.641	0.370	-2.270	1.311
L5	30.000-0.000	-0.641	0.370	-2.093	1.208

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
*** 148 ft ***									
APXVSPP18-C-A20 w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.600 5.050 5.500 6.440	4.010 4.450 4.890 5.820	0.095 0.160 0.235 0.419
APXVSPP18-C-A20 w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.600 5.050 5.500 6.440	4.010 4.450 4.890 5.820	0.095 0.160 0.235 0.419
APXVSPP18-C-A20 w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.600 5.050 5.500 6.440	4.010 4.450 4.890 5.820	0.095 0.160 0.235 0.419
1900MHZ RRH (65MHZ)	A	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.313 2.517 2.728 3.174	2.375 2.581 2.794 3.243	0.060 0.084 0.111 0.176
1900MHZ RRH (65MHZ)	B	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.313 2.517 2.728 3.174	2.375 2.581 2.794 3.243	0.060 0.084 0.111 0.176
1900MHZ RRH (65MHZ)	C	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.313 2.517 2.728 3.174	2.375 2.581 2.794 3.243	0.060 0.084 0.111 0.176
DT465B-2XR w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	5.500 5.970 6.450 7.440	4.380 4.840 5.300 6.260	0.091 0.164 0.248 0.451
DT465B-2XR w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	5.500 5.970 6.450 7.440	4.380 4.840 5.300 6.260	0.091 0.164 0.248 0.451
DT465B-2XR w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	5.500 5.970 6.450 7.440	4.380 4.840 5.300 6.260	0.091 0.164 0.248 0.451

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
RRH2X50-800	A	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.701 1.864 2.035 2.398	1.282 1.428 1.580 1.908	0.053 0.070 0.090 0.138
RRH2X50-800	B	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.701 1.864 2.035 2.398	1.282 1.428 1.580 1.908	0.053 0.070 0.090 0.138
RRH2X50-800	C	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.701 1.864 2.035 2.398	1.282 1.428 1.580 1.908	0.053 0.070 0.090 0.138
800MHZ RRH	A	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.134 2.320 2.512 2.920	1.773 1.946 2.127 2.510	0.053 0.074 0.098 0.157
800MHZ RRH	B	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.134 2.320 2.512 2.920	1.773 1.946 2.127 2.510	0.053 0.074 0.098 0.157
800MHZ RRH	C	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.134 2.320 2.512 2.920	1.773 1.946 2.127 2.510	0.053 0.074 0.098 0.157
TD-RRH8X20-25	A	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.045 4.298 4.557 5.098	1.535 1.714 1.901 2.295	0.070 0.097 0.128 0.201
TD-RRH8X20-25	B	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.045 4.298 4.557 5.098	1.535 1.714 1.901 2.295	0.070 0.097 0.128 0.201
TD-RRH8X20-25	C	From Leg	4.000 0.000 2.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.045 4.298 4.557 5.098	1.535 1.714 1.901 2.295	0.070 0.097 0.128 0.201
DB222-A	B	From Leg	4.000 0.000 5.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.600 2.880 4.160 6.720	1.600 2.880 4.160 6.720	0.016 0.021 0.026 0.035
(2) 4' x 2" Pipe Mount	A	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.785 1.028 1.281 1.814	0.785 1.028 1.281 1.814	0.029 0.035 0.044 0.072
(2) 4' x 2" Pipe Mount	B	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.785 1.028 1.281 1.814	0.785 1.028 1.281 1.814	0.029 0.035 0.044 0.072
(2) 4' x 2" Pipe Mount	C	From Leg	4.000 0.000 0.000	0.000	148.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.785 1.028 1.281 1.814	0.785 1.028 1.281 1.814	0.029 0.035 0.044 0.072

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Platform Mount [LP 502-1]	C	None			0.000	148.000	No Ice	18.280	18.280	0.925
							1/2" Ice	23.540	23.540	1.435
							1" Ice	28.530	28.530	2.070
							2" Ice	38.850	38.850	3.714
*** 135 ft ***										
AIR6449 B41_T-MOBILE w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	135.000	No Ice	5.870	3.270	0.128
			0.000				1/2" Ice	6.233	3.728	0.177
			2.000				1" Ice	6.606	4.203	0.232
							2" Ice	7.382	5.200	0.359
AIR6449 B41_T-MOBILE w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	135.000	No Ice	5.870	3.270	0.128
			0.000				1/2" Ice	6.233	3.728	0.177
			2.000				1" Ice	6.606	4.203	0.232
							2" Ice	7.382	5.200	0.359
AIR6449 B41_T-MOBILE w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	135.000	No Ice	5.870	3.270	0.128
			0.000				1/2" Ice	6.233	3.728	0.177
			2.000				1" Ice	6.606	4.203	0.232
							2" Ice	7.382	5.200	0.359
APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	135.000	No Ice	20.480	10.869	0.183
			0.000				1/2" Ice	21.231	12.393	0.318
			2.000				1" Ice	21.990	13.942	0.465
							2" Ice	23.444	16.291	0.794
APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	135.000	No Ice	20.480	10.869	0.183
			0.000				1/2" Ice	21.231	12.393	0.318
			2.000				1" Ice	21.990	13.942	0.465
							2" Ice	23.444	16.291	0.794
APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	135.000	No Ice	20.480	10.869	0.183
			0.000				1/2" Ice	21.231	12.393	0.318
			2.000				1" Ice	21.990	13.942	0.465
							2" Ice	23.444	16.291	0.794
APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	135.000	No Ice	6.290	2.760	0.061
			0.000				1/2" Ice	6.860	3.270	0.105
			2.000				1" Ice	7.450	3.790	0.157
							2" Ice	8.680	4.900	0.290
APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	135.000	No Ice	6.290	2.760	0.061
			0.000				1/2" Ice	6.860	3.270	0.105
			2.000				1" Ice	7.450	3.790	0.157
							2" Ice	8.680	4.900	0.290
APX16DWV-16DWV-S-E-A20 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	135.000	No Ice	6.290	2.760	0.061
			0.000				1/2" Ice	6.860	3.270	0.105
			2.000				1" Ice	7.450	3.790	0.157
							2" Ice	8.680	4.900	0.290
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.000	0.000	0.000	135.000	No Ice	1.970	1.587	0.073
			0.000				1/2" Ice	2.147	1.749	0.093
			2.000				1" Ice	2.331	1.918	0.116
							2" Ice	2.721	2.280	0.170
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.000	0.000	0.000	135.000	No Ice	1.970	1.587	0.073
			0.000				1/2" Ice	2.147	1.749	0.093
			2.000				1" Ice	2.331	1.918	0.116
							2" Ice	2.721	2.280	0.170
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.000	0.000	0.000	135.000	No Ice	1.970	1.587	0.073
			0.000				1/2" Ice	2.147	1.749	0.093
			2.000				1" Ice	2.331	1.918	0.116
							2" Ice	2.721	2.280	0.170

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice			
RADIO 4415 B66A_CCIV3	A	From Leg	4.000 0.000 2.000	0.000	135.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.639 1.799 1.966 2.323	0.677 0.789 0.911 1.181	0.046 0.059 0.073 0.111
RADIO 4415 B66A_CCIV3	B	From Leg	4.000 0.000 2.000	0.000	135.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.639 1.799 1.966 2.323	0.677 0.789 0.911 1.181	0.046 0.059 0.073 0.111
RADIO 4415 B66A_CCIV3	C	From Leg	4.000 0.000 2.000	0.000	135.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.639 1.799 1.966 2.323	0.677 0.789 0.911 1.181	0.046 0.059 0.073 0.111
RADIO 4424 B25_TMO	A	From Leg	4.000 0.000 2.000	0.000	135.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.052 2.231 2.417 2.811	1.610 1.772 1.941 2.301	0.086 0.107 0.131 0.188
RADIO 4424 B25_TMO	B	From Leg	4.000 0.000 2.000	0.000	135.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.052 2.231 2.417 2.811	1.610 1.772 1.941 2.301	0.086 0.107 0.131 0.188
RADIO 4424 B25_TMO	C	From Leg	4.000 0.000 2.000	0.000	135.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.052 2.231 2.417 2.811	1.610 1.772 1.941 2.301	0.086 0.107 0.131 0.188
Platform Mount [LP 712-1]	C	None		0.000	135.000	No Ice 1/2" Ice 1" Ice 2" Ice	24.560 27.920 31.270 37.980	24.560 27.920 31.270 37.980	1.335 1.915 2.548 3.971
Miscellaneous [NA 507-1]	C	None		0.000	135.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.560 6.390 8.180 11.660	4.560 6.390 8.180 11.660	0.245 0.311 0.402 0.657
*** 130 ft *** GPS_A	C	From Leg	4.000 0.000 1.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.255 0.320 0.393 0.561	0.255 0.320 0.393 0.561	0.001 0.005 0.010 0.025
Side Arm Mount [SO 701-1] **********	C	From Leg	2.000 0.000 0.000	0.000	130.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.850 1.140 1.430 2.010	1.670 2.340 3.010 4.350	0.065 0.079 0.093 0.121

Load Combinations

Comb. No.	Description
1	Dead Only

Comb. No.	Description
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	150 - 120	Pole	Max Tension	14	0.000	0.000	0.000
			Max. Compression	26	-20.480	0.378	-0.386
			Max. Mx	20	-8.991	175.234	-0.023
			Max. My	14	-8.989	-0.003	-175.442
			Max. Vy	20	-8.393	175.234	-0.023
			Max. Vx	14	8.410	-0.003	-175.442
			Max. Torque	17			0.316
L2	120 - 90	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-26.830	0.549	-0.485
			Max. Mx	20	-13.596	447.777	0.385
			Max. My	14	-13.594	-0.409	-448.471
			Max. Vy	20	-9.748	447.777	0.385

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	14	9.764	-0.409	-448.471
			Max. Torque	21			0.350
L3	90 - 60	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-34.286	0.745	-0.598
			Max. Mx	20	-19.112	760.856	0.795
			Max. My	14	-19.112	-0.813	-762.036
			Max. Vy	20	-11.094	760.856	0.795
			Max. Vx	14	11.110	-0.813	-762.036
			Max. Torque	37			0.450
L4	60 - 30	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-42.790	0.958	-0.721
			Max. Mx	20	-25.529	1112.448	1.201
			Max. My	14	-25.528	-1.209	-1114.108
			Max. Vy	20	-12.317	1112.448	1.201
			Max. Vx	14	12.333	-1.209	-1114.108
			Max. Torque	37			0.580
L5	30 - 0	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-53.028	1.140	-0.826
			Max. Mx	20	-33.966	1495.726	1.601
			Max. My	14	-33.966	-1.598	-1497.855
			Max. Vy	20	-13.199	1495.726	1.601
			Max. Vx	14	13.214	-1.598	-1497.855
			Max. Torque	32			-0.697

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	33	53.028	-0.006	-4.983
	Max. H_x	20	33.972	13.185	0.014
	Max. H_z	2	33.972	0.014	13.201
	Max. M_x	2	1497.359	0.014	13.201
	Max. M_z	8	1495.226	-13.185	-0.014
	Max. Torsion	38	0.697	2.493	4.318
	Min. Vert	7	25.479	-11.412	6.589
	Min. H_x	8	33.972	-13.185	-0.014
	Min. H_z	14	33.972	-0.014	-13.201
	Min. M_x	14	-1497.855	-0.014	-13.201
	Min. M_z	20	-1495.726	13.185	0.014
	Min. Torsion	32	-0.697	-2.493	-4.318

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	28.310	0.000	0.000	0.193	0.196	0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	33.972	-0.014	-13.201	-1497.359	2.097	-0.266
0.9 Dead+1.0 Wind 0 deg - No Ice	25.479	-0.014	-13.201	-1480.895	2.011	-0.266
1.2 Dead+1.0 Wind 30 deg - No Ice	33.972	6.581	-11.425	-1295.803	-745.891	0.006
0.9 Dead+1.0 Wind 30 deg - No Ice	25.479	6.581	-11.425	-1281.559	-737.720	0.005
1.2 Dead+1.0 Wind 60 deg - No Ice	33.972	11.412	-6.589	-746.963	-1293.954	0.275
0.9 Dead+1.0 Wind 60 deg - No Ice	25.479	11.412	-6.589	-738.778	-1279.731	0.275
1.2 Dead+1.0 Wind 90 deg -	33.972	13.185	0.014	2.094	-1495.226	0.471

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
No Ice						
0.9 Dead+1.0 Wind 90 deg - No Ice	25.479	13.185	0.014	2.008	-1478.786	0.472
1.2 Dead+1.0 Wind 120 deg - No Ice	33.972	11.425	6.612	750.654	-1295.799	0.541
0.9 Dead+1.0 Wind 120 deg - No Ice	25.479	11.425	6.612	742.303	-1281.555	0.542
1.2 Dead+1.0 Wind 150 deg - No Ice	33.972	6.604	11.439	1298.142	-749.091	0.466
0.9 Dead+1.0 Wind 150 deg - No Ice	25.479	6.604	11.439	1283.747	-740.883	0.467
1.2 Dead+1.0 Wind 180 deg - No Ice	33.972	0.014	13.201	1497.855	-1.598	0.266
0.9 Dead+1.0 Wind 180 deg - No Ice	25.479	0.014	13.201	1481.260	-1.642	0.267
1.2 Dead+1.0 Wind 210 deg - No Ice	33.972	-6.581	11.425	1296.298	746.392	-0.005
0.9 Dead+1.0 Wind 210 deg - No Ice	25.479	-6.581	11.425	1281.924	738.090	-0.005
1.2 Dead+1.0 Wind 240 deg - No Ice	33.972	-11.412	6.589	747.456	1294.455	-0.275
0.9 Dead+1.0 Wind 240 deg - No Ice	25.479	-11.412	6.589	739.141	1280.101	-0.275
1.2 Dead+1.0 Wind 270 deg - No Ice	33.972	-13.185	-0.014	-1.601	1495.726	-0.472
0.9 Dead+1.0 Wind 270 deg - No Ice	25.479	-13.185	-0.014	-1.645	1479.155	-0.472
1.2 Dead+1.0 Wind 300 deg - No Ice	33.972	-11.425	-6.612	-750.161	1296.298	-0.541
0.9 Dead+1.0 Wind 300 deg - No Ice	25.479	-11.425	-6.612	-741.940	1281.923	-0.542
1.2 Dead+1.0 Wind 330 deg - No Ice	33.972	-6.604	-11.439	-1297.648	749.589	-0.466
0.9 Dead+1.0 Wind 330 deg - No Ice	25.479	-6.604	-11.439	-1283.383	741.250	-0.467
1.2 Dead+1.0 Ice+1.0 Temp	53.028	0.000	0.000	0.826	1.140	0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	53.028	-0.006	-4.983	-527.535	2.057	-0.523
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	53.028	2.484	-4.313	-456.339	-261.824	-0.208
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	53.028	4.307	-2.487	-262.620	-455.211	0.162
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	53.028	4.977	0.006	1.718	-526.284	0.489
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	53.028	4.313	2.496	265.844	-456.001	0.685
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	53.028	2.493	4.318	458.987	-263.192	0.697
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	53.028	0.006	4.983	529.394	0.479	0.523
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	53.028	-2.484	4.313	458.199	264.362	0.208
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	53.028	-4.307	2.487	264.478	457.749	-0.162
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	53.028	-4.977	-0.006	0.139	528.822	-0.489
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	53.028	-4.313	-2.496	-263.987	458.537	-0.685
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	53.028	-2.493	-4.318	-457.129	265.728	-0.697
Dead+Wind 0 deg - Service	28.310	-0.003	-3.108	-349.997	0.639	-0.063
Dead+Wind 30 deg - Service	28.310	1.549	-2.690	-302.863	-174.271	0.001
Dead+Wind 60 deg - Service	28.310	2.687	-1.551	-174.522	-302.429	0.065
Dead+Wind 90 deg - Service	28.310	3.105	0.003	0.637	-349.497	0.111
Dead+Wind 120 deg - Service	28.310	2.690	1.557	175.680	-302.861	0.128
Dead+Wind 150 deg - Service	28.310	1.555	2.693	303.705	-175.019	0.110
Dead+Wind 180 deg -	28.310	0.003	3.108	350.407	-0.225	0.063

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Service						
Dead+Wind 210 deg - Service	28.310	-1.549	2.690	303.273	174.684	-0.001
Dead+Wind 240 deg - Service	28.310	-2.687	1.551	174.932	302.843	-0.065
Dead+Wind 270 deg - Service	28.310	-3.105	-0.003	-0.227	349.910	-0.111
Dead+Wind 300 deg - Service	28.310	-2.690	-1.557	-175.270	303.275	-0.128
Dead+Wind 330 deg - Service	28.310	-1.555	-2.693	-303.295	175.433	-0.110

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
1	0.000	-28.310	0.000	0.000	28.310	0.000	0.000%
2	-0.014	-33.972	-13.201	0.014	33.972	13.201	0.000%
3	-0.014	-25.479	-13.201	0.014	25.479	13.201	0.000%
4	6.581	-33.972	-11.425	-6.581	33.972	11.425	0.000%
5	6.581	-25.479	-11.425	-6.581	25.479	11.425	0.000%
6	11.412	-33.972	-6.589	-11.412	33.972	6.589	0.000%
7	11.412	-25.479	-6.589	-11.412	25.479	6.589	0.000%
8	13.185	-33.972	0.014	-13.185	33.972	-0.014	0.000%
9	13.185	-25.479	0.014	-13.185	25.479	-0.014	0.000%
10	11.425	-33.972	6.612	-11.425	33.972	-6.612	0.000%
11	11.425	-25.479	6.612	-11.425	25.479	-6.612	0.000%
12	6.604	-33.972	11.439	-6.604	33.972	-11.439	0.000%
13	6.604	-25.479	11.439	-6.604	25.479	-11.439	0.000%
14	0.014	-33.972	13.201	-0.014	33.972	-13.201	0.000%
15	0.014	-25.479	13.201	-0.014	25.479	-13.201	0.000%
16	-6.581	-33.972	11.425	6.581	33.972	-11.425	0.000%
17	-6.581	-25.479	11.425	6.581	25.479	-11.425	0.000%
18	-11.412	-33.972	6.589	11.412	33.972	-6.589	0.000%
19	-11.412	-25.479	6.589	11.412	25.479	-6.589	0.000%
20	-13.185	-33.972	-0.014	13.185	33.972	0.014	0.000%
21	-13.185	-25.479	-0.014	13.185	25.479	0.014	0.000%
22	-11.425	-33.972	-6.612	11.425	33.972	6.612	0.000%
23	-11.425	-25.479	-6.612	11.425	25.479	6.612	0.000%
24	-6.604	-33.972	-11.439	6.604	33.972	11.439	0.000%
25	-6.604	-25.479	-11.439	6.604	25.479	11.439	0.000%
26	0.000	-53.028	0.000	0.000	53.028	0.000	0.000%
27	-0.006	-53.028	-4.983	0.006	53.028	4.983	0.000%
28	2.483	-53.028	-4.313	-2.484	53.028	4.313	0.000%
29	4.307	-53.028	-2.487	-4.307	53.028	2.487	0.000%
30	4.977	-53.028	0.006	-4.977	53.028	-0.006	0.000%
31	4.313	-53.028	2.496	-4.313	53.028	-2.496	0.000%
32	2.493	-53.028	4.318	-2.493	53.028	-4.318	0.000%
33	0.006	-53.028	4.983	-0.006	53.028	-4.983	0.000%
34	-2.483	-53.028	4.313	2.484	53.028	-4.313	0.000%
35	-4.307	-53.028	2.487	4.307	53.028	-2.487	0.000%
36	-4.977	-53.028	-0.006	4.977	53.028	0.006	0.000%
37	-4.313	-53.028	-2.496	4.313	53.028	2.496	0.000%
38	-2.493	-53.028	-4.318	2.493	53.028	4.318	0.000%
39	-0.003	-28.310	-3.108	0.003	28.310	3.108	0.000%
40	1.549	-28.310	-2.690	-1.549	28.310	2.690	0.000%
41	2.687	-28.310	-1.551	-2.687	28.310	1.551	0.000%
42	3.105	-28.310	0.003	-3.105	28.310	-0.003	0.000%
43	2.690	-28.310	1.557	-2.690	28.310	-1.557	0.000%
44	1.555	-28.310	2.693	-1.555	28.310	-2.693	0.000%
45	0.003	-28.310	3.108	-0.003	28.310	-3.108	0.000%
46	-1.549	-28.310	2.690	1.549	28.310	-2.690	0.000%
47	-2.687	-28.310	1.551	2.687	28.310	-1.551	0.000%
48	-3.105	-28.310	-0.003	3.105	28.310	0.003	0.000%
49	-2.690	-28.310	-1.557	2.690	28.310	1.557	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
50	-1.555	-28.310	-2.693	1.555	28.310	2.693	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00035932
3	Yes	4	0.00000001	0.00019034
4	Yes	5	0.00000001	0.00069636
5	Yes	5	0.00000001	0.00034567
6	Yes	5	0.00000001	0.00068263
7	Yes	5	0.00000001	0.00033851
8	Yes	4	0.00000001	0.00063185
9	Yes	4	0.00000001	0.00040853
10	Yes	5	0.00000001	0.00071135
11	Yes	5	0.00000001	0.00035318
12	Yes	5	0.00000001	0.00068891
13	Yes	5	0.00000001	0.00034134
14	Yes	4	0.00000001	0.00032827
15	Yes	4	0.00000001	0.00016176
16	Yes	5	0.00000001	0.00069038
17	Yes	5	0.00000001	0.00034228
18	Yes	5	0.00000001	0.00070377
19	Yes	5	0.00000001	0.00034936
20	Yes	4	0.00000001	0.00056323
21	Yes	4	0.00000001	0.00035792
22	Yes	5	0.00000001	0.00068506
23	Yes	5	0.00000001	0.00033938
24	Yes	5	0.00000001	0.00070785
25	Yes	5	0.00000001	0.00035131
26	Yes	4	0.00000001	0.00000001
27	Yes	5	0.00000001	0.00059562
28	Yes	5	0.00000001	0.00069489
29	Yes	5	0.00000001	0.00069327
30	Yes	5	0.00000001	0.00059473
31	Yes	5	0.00000001	0.00070720
32	Yes	5	0.00000001	0.00069912
33	Yes	5	0.00000001	0.00059881
34	Yes	5	0.00000001	0.00070380
35	Yes	5	0.00000001	0.00070491
36	Yes	5	0.00000001	0.00059857
37	Yes	5	0.00000001	0.00069926
38	Yes	5	0.00000001	0.00070790
39	Yes	4	0.00000001	0.00004518
40	Yes	4	0.00000001	0.00020336
41	Yes	4	0.00000001	0.00019209
42	Yes	4	0.00000001	0.00005245
43	Yes	4	0.00000001	0.00021496
44	Yes	4	0.00000001	0.00019459
45	Yes	4	0.00000001	0.00004535
46	Yes	4	0.00000001	0.00019834
47	Yes	4	0.00000001	0.00021079
48	Yes	4	0.00000001	0.00005201
49	Yes	4	0.00000001	0.00019196
50	Yes	4	0.00000001	0.00021119

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 120	14.101	44	0.805	0.001
L2	120 - 90	9.224	44	0.702	0.001
L3	90 - 60	5.245	44	0.541	0.000
L4	60 - 30	2.362	44	0.361	0.000
L5	30 - 0	0.611	44	0.185	0.000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
148.000	APXVSPP18-C-A20 w/ Mount Pipe	44	13.764	0.799	0.001	60546
135.000	AIR6449 B41_T-MOBILE w/ Mount Pipe	44	11.595	0.759	0.001	20182
130.000	GPS_A	44	10.783	0.741	0.001	15136

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 120	60.335	12	3.446	0.004
L2	120 - 90	39.475	12	3.005	0.002
L3	90 - 60	22.447	12	2.317	0.002
L4	60 - 30	10.108	12	1.545	0.001
L5	30 - 0	2.614	12	0.793	0.001

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
148.000	APXVSPP18-C-A20 w/ Mount Pipe	12	58.894	3.421	0.004	14271
135.000	AIR6449 B41_T-MOBILE w/ Mount Pipe	12	49.620	3.248	0.003	4756
130.000	GPS_A	12	46.146	3.174	0.003	3566

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	150 - 120 (1)	P24x1/4	30.000	0.000	0.0	18.653	-8.988	662.265	0.014
L2	120 - 90 (2)	P30x3/8	30.000	0.000	0.0	34.901	-13.594	1311.060	0.010
L3	90 - 60 (3)	P36x3/8	30.000	0.000	0.0	41.970	-19.111	1490.100	0.013
L4	60 - 30 (4)	P42x3/8	30.000	0.000	0.0	49.038	-25.528	1668.870	0.015

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L5	30 - 0 (5)	P42x1/2	30.000	0.000	0.0	65.188	-33.967	2410.400	0.014

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	150 - 120 (1)	P24x1/4	175.433	396.683	0.442	0.000	396.683	0.000
L2	120 - 90 (2)	P30x3/8	448.698	947.858	0.473	0.000	947.858	0.000
L3	90 - 60 (3)	P36x3/8	762.497	1338.808	0.570	0.000	1338.808	0.000
L4	60 - 30 (4)	P42x3/8	1114.800	1796.558	0.621	0.000	1796.558	0.000
L5	30 - 0 (5)	P42x1/2	1498.767	2463.608	0.608	0.000	2463.608	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	150 - 120 (1)	P24x1/4	8.418	201.861	0.042	0.143	324.229	0.000
L2	120 - 90 (2)	P30x3/8	9.773	395.779	0.025	0.221	994.725	0.000
L3	90 - 60 (3)	P36x3/8	11.118	454.187	0.024	0.305	1094.275	0.000
L4	60 - 30 (4)	P42x3/8	12.341	429.271	0.029	0.390	1207.675	0.000
L5	30 - 0 (5)	P42x1/2	13.222	739.232	0.018	0.466	2419.017	0.000

Pole Interaction Design Data

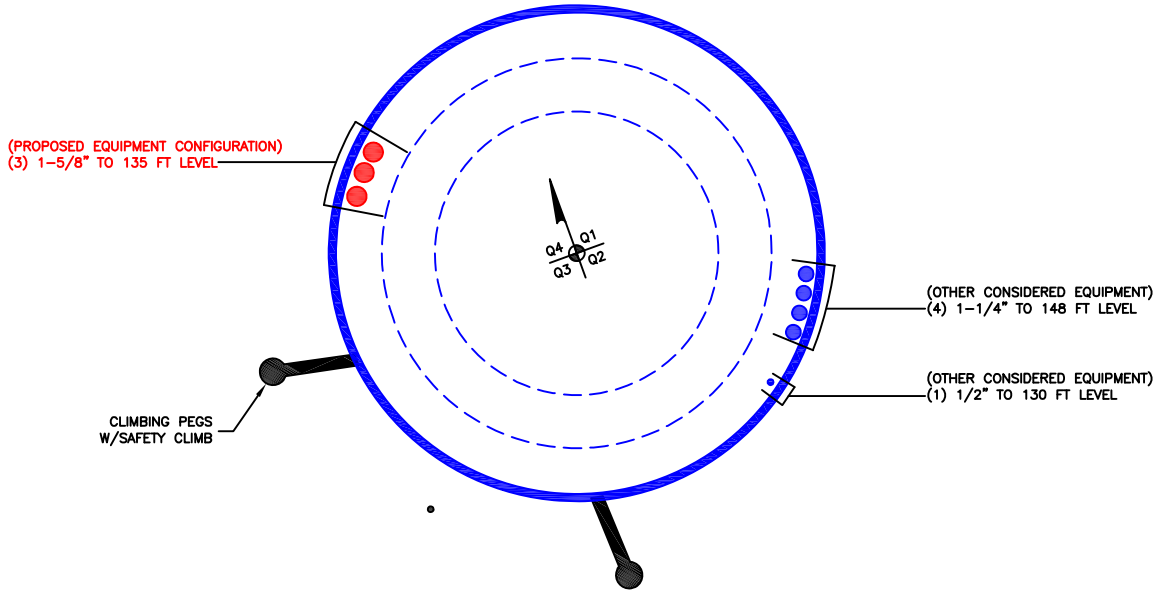
Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	150 - 120 (1)	0.014	0.442	0.000	0.042	0.000	0.458	1.050	4.8.2
L2	120 - 90 (2)	0.010	0.473	0.000	0.025	0.000	0.484	1.050	4.8.2
L3	90 - 60 (3)	0.013	0.570	0.000	0.024	0.000	0.583	1.050	4.8.2
L4	60 - 30 (4)	0.015	0.621	0.000	0.029	0.000	0.637	1.050	4.8.2
L5	30 - 0 (5)	0.014	0.608	0.000	0.018	0.000	0.623	1.050	4.8.2

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	150 - 120	Pole	P24x1/4	1	-8.988	695.378	43.6	Pass
L2	120 - 90	Pole	P30x3/8	2	-13.594	1376.613	46.1	Pass
L3	90 - 60	Pole	P36x3/8	3	-19.111	1564.605	55.5	Pass
L4	60 - 30	Pole	P42x3/8	4	-25.528	1752.313	60.6	Pass
L5	30 - 0	Pole	P42x1/2	5	-33.967	2530.920	59.3	Pass
							Summary	
						Pole (L4)	60.6	Pass
						RATING =	**60.6**	**Pass**

APPENDIX B

BASE LEVEL DRAWING


(PROPOSED EQUIPMENT CONFIGURATION)
(3) 1-5/8" TO 135 FT LEVEL
Q4
Q1
Q3
Q2
(OTHER CONSIDERED EQUIPMENT)
(4) 1-1/4" TO 148 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(1) 1/2" TO 130 FT LEVEL
CLIMBING PEGS
W/SAFETY CLIMB

APPENDIX C

ADDITIONAL CALCULATIONS

Monopole Flange Plate Connection

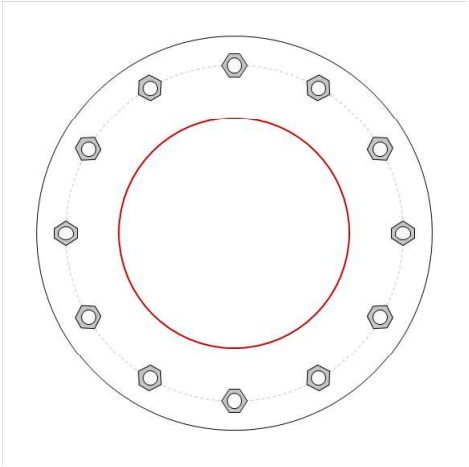
Elevation = 120 ft.

BU #	876353
Site Name	. MAIN ST, NEW TOWN
Order #	529716 Rev. 0
TIA-222 Revision	H

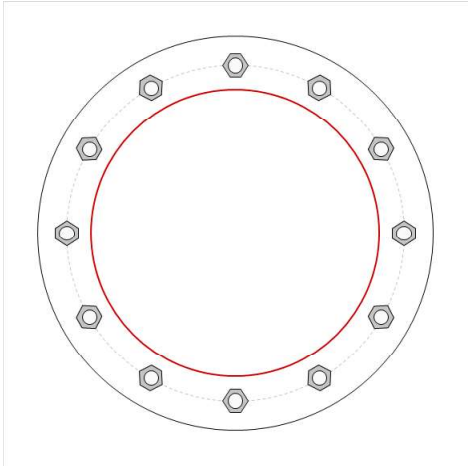
Applied Loads	
Moment (kip-ft)	175.44
Axial Force (kips)	8.99
Shear Force (kips)	8.41

**TIA-222-H Section 15.5 Applied*

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(12) 1-1/2" ø bolts (A325 N; Fy=81 ksi, Fu=105 ksi) on 35" BC

Top Plate Data

41" OD x 2" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Plate Data

41" OD x 2" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

24" x 0.25" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Bottom Pole Data

30" x 0.375" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	19.29	
Allowable (kips)	111.03	
Stress Rating:	**16.5%**	Pass

Top Plate Capacity

Max Stress (ksi):	-
Allowable Stress (ksi):	-
Stress Rating:	**Rohn OK**
Tension Side Stress Rating:	**Rohn OK**

Bottom Plate Capacity

Max Stress (ksi):	-
Allowable Stress (ksi):	-
Stress Rating:	**Rohn OK**
Tension Side Stress Rating:	**Rohn OK**

Monopole Flange Plate Connection

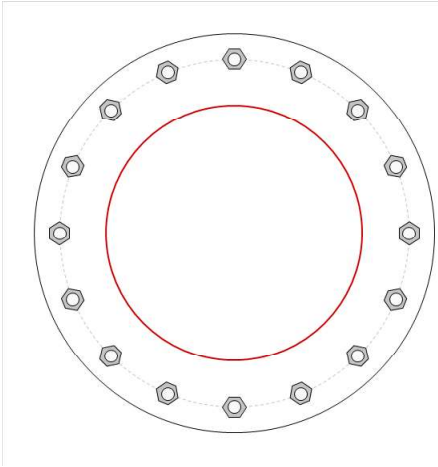
Elevation = 90 ft.

BU #	876353
Site Name	. MAIN ST, NEW TOWN
Order #	529716 Rev. 0
TIA-222 Revision	H

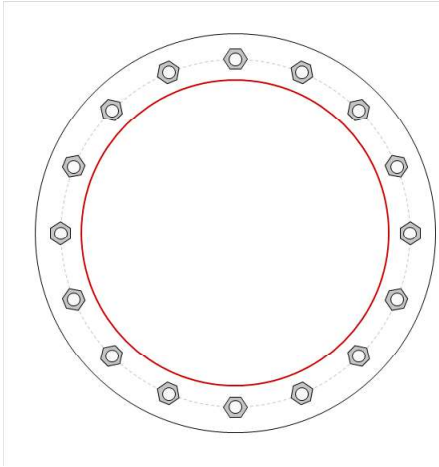
Applied Loads	
Moment (kip-ft)	448.70
Axial Force (kips)	13.59
Shear Force (kips)	9.77

**TIA-222-H Section 15.5 Applied*

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(16) 1-1/2" ø bolts (A325 N; Fy=81 ksi, Fu=105 ksi) on 41" BC

Top Plate Data

47" OD x 2" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Plate Data

47" OD x 2" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

30" x 0.375" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Bottom Pole Data

36" x 0.375" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	31.96	
Allowable (kips)	111.03	
Stress Rating:	**27.4%**	**Pass**

Top Plate Capacity

Max Stress (ksi):	-
Allowable Stress (ksi):	-
Stress Rating:	**Rohn OK**
Tension Side Stress Rating:	**Rohn OK**

Bottom Plate Capacity

Max Stress (ksi):	-
Allowable Stress (ksi):	-
Stress Rating:	**Rohn OK**
Tension Side Stress Rating:	**Rohn OK**

Monopole Flange Plate Connection

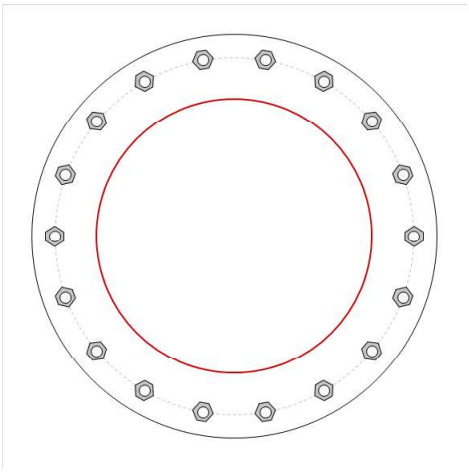
Elevation = 60 ft.

BU #	876353
Site Name	. MAIN ST, NEW TOWN
Order #	529716 Rev. 0
TIA-222 Revision	H

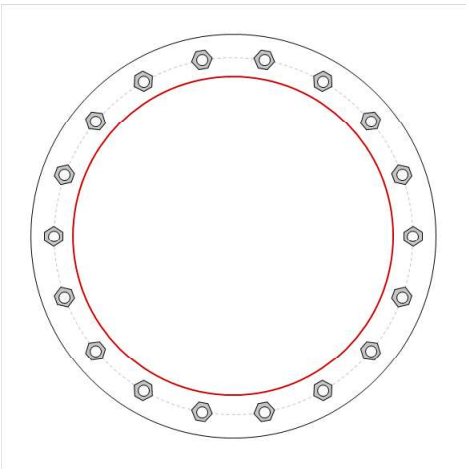
Applied Loads	
Moment (kip-ft)	762.50
Axial Force (kips)	19.11
Shear Force (kips)	11.12

**TIA-222-H Section 15.5 Applied*

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(18) 1-1/2" ø bolts (A325 N; Fy=81 ksi, Fu=105 ksi) on 47" BC

Top Plate Data

53" OD x 2" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Plate Data

53" OD x 2" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

36" x 0.375" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Bottom Pole Data

42" x 0.375" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	42.18	
Allowable (kips)	111.03	
Stress Rating:	**36.2%**	**Pass**

Top Plate Capacity

Max Stress (ksi):	-
Allowable Stress (ksi):	-
Stress Rating:	**Rohn OK**
Tension Side Stress Rating:	**Rohn OK**

Bottom Plate Capacity

Max Stress (ksi):	-
Allowable Stress (ksi):	-
Stress Rating:	**Rohn OK**
Tension Side Stress Rating:	**Rohn OK**

Monopole Flange Plate Connection

Elevation = 30 ft.

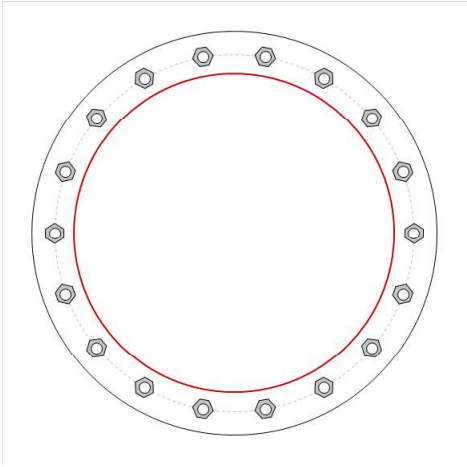
BU #	876353
Site Name	. MAIN ST, NEW TOWN
Order #	529716 Rev. 0

TIA-222 Revision	H

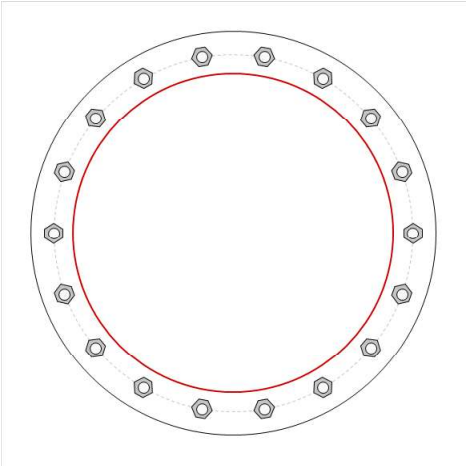
Applied Loads	
Moment (kip-ft)	1114.80
Axial Force (kips)	25.53
Shear Force (kips)	12.34

**TIA-222-H Section 15.5 Applied*

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(18) 1-1/2" ø bolts (A325 N; Fy=81 ksi, Fu=105 ksi) on 47" BC

Top Plate Data

53" OD x 2" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Plate Data

53" OD x 2" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

42" x 0.375" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Bottom Pole Data

42" x 0.5" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	61.81	
Allowable (kips)	111.03	
Stress Rating:	**53.0%**	**Pass**

Top Plate Capacity

Max Stress (ksi):	-
Allowable Stress (ksi):	-
Stress Rating:	**Rohn OK**
Tension Side Stress Rating:	**Rohn OK**

Bottom Plate Capacity

Max Stress (ksi):	-
Allowable Stress (ksi):	-
Stress Rating:	**Rohn OK**
Tension Side Stress Rating:	**Rohn OK**

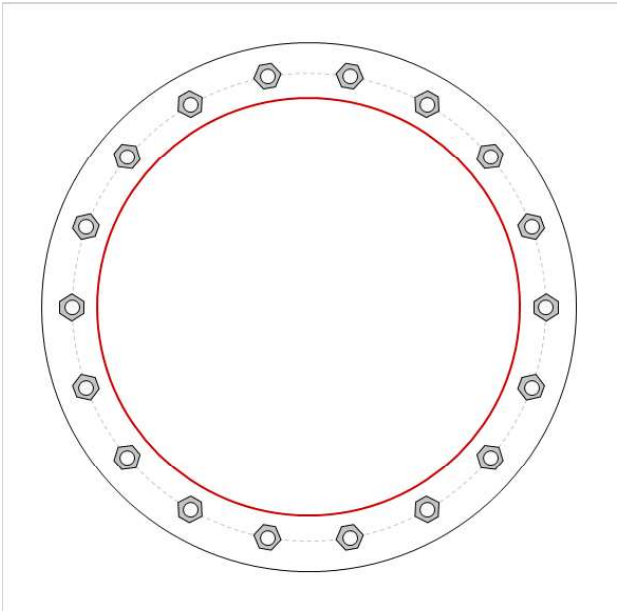
Monopole Base Plate Connection

Site Info	
BU #	876353
Site Name	S. MAIN ST, NEW TOWN
Order #	529716 Rev. 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	1.5

Applied Loads	
Moment (kip-ft)	1498.77
Axial Force (kips)	33.97
Shear Force (kips)	13.22

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

(18) 1-1/2" ø bolts (A354-BC N; Fy=109 ksi, Fu=125 ksi) on 47" BC

Base Plate Data

53" OD x 2" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Stiffener Data

N/A

Pole Data

42" x 0.5" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

Pu_c = 86.89	ϕPn_c = 173.36	**Stress Rating**
Vu = 0.73	ϕVn = 78.01	**47.7%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	-
Allowable Stress (ksi):	-
Stress Rating:	**Rohn OK**

Pier and Pad Foundation

BU # :	876353
Site Name:	352 S. MAIN ST, N
App. Number:	

TIA-222 Revision:	H
Tower Type:	Monopole

Top & Bot. Pad Rein. Different?:	☐
Block Foundation?:	☑
Rectangular Pad?:	☐

Superstructure Analysis Reactions		
Compression, P_{comp}:	33.97	kips
Base Shear, Vu_comp:	13.21	kips
Moment, M_u:	1498.77	ft-kips
Tower Height, **H**:	150	ft
BP Dist. Above Fdn, bp_{dist}:	3	in
Bolt Circle / Bearing Plate Width, **BC**:	47	in

Foundation Analysis Checks	Capacity	Demand	Rating	Check
Lateral (Sliding) (kips)	91.57	13.21	**14.4%**	**Pass**
Bearing Pressure (ksf)	3.00	1.52	**50.5%**	**Pass**
*Overturning (kip*ft)*	2659.27	1581.33	**59.5%**	**Pass**
*Pad Flexure (kip*ft)*	5452.93	652.16	**12.0%**	**Pass**
Pad Shear - 1-way (kips)	1464.06	63.11	**4.3%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.164	0.001	**0.7%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	8769.35	0.00	**0.0%**	**Pass**

Soil Rating:	**59.5%**
Structural Rating:	**12.0%**

Pad Properties		
Depth, **D**:	5.5	ft
Pad Width, W_1:	22	ft
Pad Thickness, **T**:	6	ft
Pad Rebar Size (Bottom dir. 2), Sp_2:	8	
Pad Rebar Quantity (Bottom dir. 2), mp_2:	23	
Pad Clear Cover, cc_{pad}:	3	in

Material Properties		
Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	3	ksi
Dry Concrete Density, δ**c**:	150	pcf

Soil Properties		
Total Soil Unit Weight, γ:	80	pcf
Ultimate Gross Bearing, Qult:	4.000	ksf
Cohesion, **Cu**:	0.000	ksf
Friction Angle, φ:	35	degrees
SPT Blow Count, N_{blows}:		
Base Friction, μ:	0.3	
Neglected Depth, **N**:	4.00	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	2	ft

<--Toggle between Gross and Net

Version 4.0.0

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 486.15 ft (NAVD 88)
Latitude: 41.355733
Longitude: -73.263214

Wind

Results:

Wind Speed:	120 Vmph
10-year MRI	76 Vmph
25-year MRI	86 Vmph
50-year MRI	91 Vmph
100-year MRI	98 Vmph
Data Source:	ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014
Date Accessed:	Tue Nov 17 2020

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

Ice

Results:

Ice Thickness:	0.75 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Tue Nov 17 2020

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

BU:	876353	Structure:	A
WO:	1890941		
Order:	529716	Rev:	0

Location

	Decimal Degrees		Deg	Min	Sec
Lat:	41.355733	+	41	21	20.64
Long:	-73.263214	-	73	15	47.57

Code and Site Parameters

Seismic Design Code:	ASCE 7-10	
Site Soil:	D	Stiff Soil (Default)
Risk Category:	II	

USGS Seismic Reference			
	S_S:	0.2080	g
	S_1:	0.0660	g
	T_L:	6	s

Seismic Design Category Determination

Importance Factor, I_e:	1
Acceleration-based site coefficient, F_a:	1.6000
Velocity-based site coefficient, F_v:	2.4000

Design spectral response acceleration short period, S_{DS}:	0.2219	g
Design spectral response acceleration 1 s period, S_{D1}:	0.1056	g

Seismic Design Category Based on S_{DS}:	B
Seismic Design Category Based on S_{D1}:	B
Seismic Design Category Based on S_1:	N/A

Controlling Seismic Design Category:	B

Exhibit E

Mount Analysis

Date: November 16, 2020

Darcy Tarr
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277
(704) 405-6589

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630
towersupport@btgrp.com

Subject:	**Mount Analysis Report**	
Carrier Designation:	**T-Mobile Equipment Change-Out**	
	Carrier Site Number:	CT11216B
	Carrier Site Name:	Monroe-2/RT-25
Crown Castle Designation:	**Crown Castle BU Number:**	876353
	Crown Castle Site Name:	352 S. Main St, New Town, CT
	Crown Castle JDE Job Number:	620161
	Crown Castle Order Number:	529716, rev.0
Engineering Firm Designation:	**B+T Group Report Designation:**	111217.006.01
Site Data:	**352 S. Main Street, Newtown, CT, Fairfield County, 06470. Latitude 41° 21' 20.64" Longitude -73° 15' 47.57"**	
Structure Information:	**Tower Height & Type:**	**150 ft. Monopole**
	Mount Elevation:	**135 ft.**
	Mount Type:	**13 ft. Platform Mount**

Dear Ms. Tarr,

B+T Group is pleased to submit this **"Mount Analysis Report"** to determine the structural integrity of T-Mobile's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

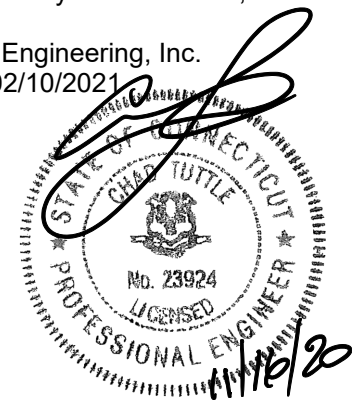
The purpose of the analysis is to determine acceptability of the mount's stress level. Based on our analysis we have determined the stress level to be:

Platform Mount **Sufficient**
***The capacities listed are based on recommendations listed in Sec.4.1 being installed.**

This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Suman Rana, E.I.T

Respectfully submitted by: B&T Engineering, Inc.
COA: PEC.0001564 Expires: 02/10/2021



Chad Tuttle, P.E.

TABLE OF CONTENTS

1) INTRODUCTION

This is an existing 13' Platform Mount, mapped by B+T Group.

2) ANALYSIS CRITERIA

Building Code:	2015 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	125 mph
Exposure Category:	B
Topographic Factor at Base:	1
Topographic Factor at Mount:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.207
Seismic S_1:	0.065
Live Loading Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lb
Man Live Load at Mount Pipes:	500 lb

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft.)	Antenna Centerline (ft.)	Qty.	Manufacturer	Model / Type	Mount / Modification Details
135	137	3	Ericsson	AIR6449 B41_T-Mobile	13' Platform Mount
		3	RFS/Celwave	APX16DWV-16DWV-S-E-A20	
		3	RFS/Celwave	APXVAALL24_43-U-NA20_TMO	
		3	Ericsson	Radio 4415 B66A_CCIV3	
		3	Ericsson	Radio 4424 B25_TMO	
		3	Ericsson	Radio 4449 B71 B85A_T-Mobile	

Table 2 - Documents Provided

Document	Remarks	Reference	Source
CCI Order	Existing Loading Proposed Loading	Date: 10/05/2020	Crown Castle
RFDS		Date: 09/22/2020	
Mount Mapping	B+T Group	Date: 11/12/2020	On File

3) ANALYSIS PROCEDURE

3.1) Analysis Method

RISA-3D (Version 18.0.5), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

A tool internally developed by B+T Group, was used to calculate wind loading on all appurtenances, dishes and mount members for various loading cases. Selected output from the analysis is included in Appendix B "Software Input Calculations".

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 *Tower Mount Analysis* (Revision D). In addition, this analysis is in accordance with OTHER SOW.

3.2) Assumptions

1. The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design, TIA Standards, and/or manufacturer's specifications.
2. The mount has been maintained in accordance with the manufacturer's specifications and is free of damage.
3. The configuration of antennas, mounts, and other appurtenances are as specified in Table-1.
4. All mount components have been assumed to be in sufficient condition to carry their full design capacity for the analysis.
5. Mount areas and weights are determined from field measurements, standard material properties, and/or manufacturer product data.
   The following assumptions have been included in the analysis of the mount

Component	Section	Length	Note
Proposed Mount Pipe for New Antenna	2" Std. Pipe	9'-0"	In Pos.3 In All Sectors.

6. Serviceability with respect to antenna twist, tilt, roll or lateral translation is not checked and is left to the carrier or tower owner to ensure conformance.
7. All prior structural modifications, if any are assumed to be correctly installed and fully effective.
8. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
9. The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
10. The following material grades were assumed (Unless Noted Otherwise):
    (a) Connection Bolts : ASTM A325
    (b) Steel Pipe : ASTM A53 (GR. 35)
    (c) HSS (Round) : ASTM 500 (GR. B-42)
    (d) HSS (Rectangular) : ASTM 500 (GR. B-46)
    (e) Channel : ASTM A36 (GR. 36)
    (f) Steel Solid Rod : ASTM A36 (GR. 36)
    (g) Steel Plate : ASTM A36 (GR. 36)
    (h) Steel Angle : ASTM A36 (GR. 36)
    (i) UNISTRUT : ASTM A570 (GR. 33)

This analysis may be affected if any assumptions are not valid or have been made in error. B+T Group should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (Platform Mount)

Notes	Component	Centerline (ft.)	Critical Member	% Capacity	Pass / Fail
1,2,3	Additional Support Rails	135	61	61.4	Pass
	Main Horizontals	135	2	58.9	Pass
	Supporting Tubes	135	9	64.2	Pass
	Supporting Angles	135	79	49.0	Pass
	Mount Pipes	135	69	60.1	Pass
	Additional Support Rail Angles	135	73	37.2	Pass
4	Connection Bolts	135	-	25.03	Pass

Structure Rating with Recommendations (max from all components) =	64.2%

Notes:
1) Capacities listed are based on recommendations listed in Sec.4.1 being installed.
2) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
3) All sectors are typical
4) See additional documentation in "Appendix D - Additional Calculations" for calculations supporting the % capacity reported.

4.1) Recommendations

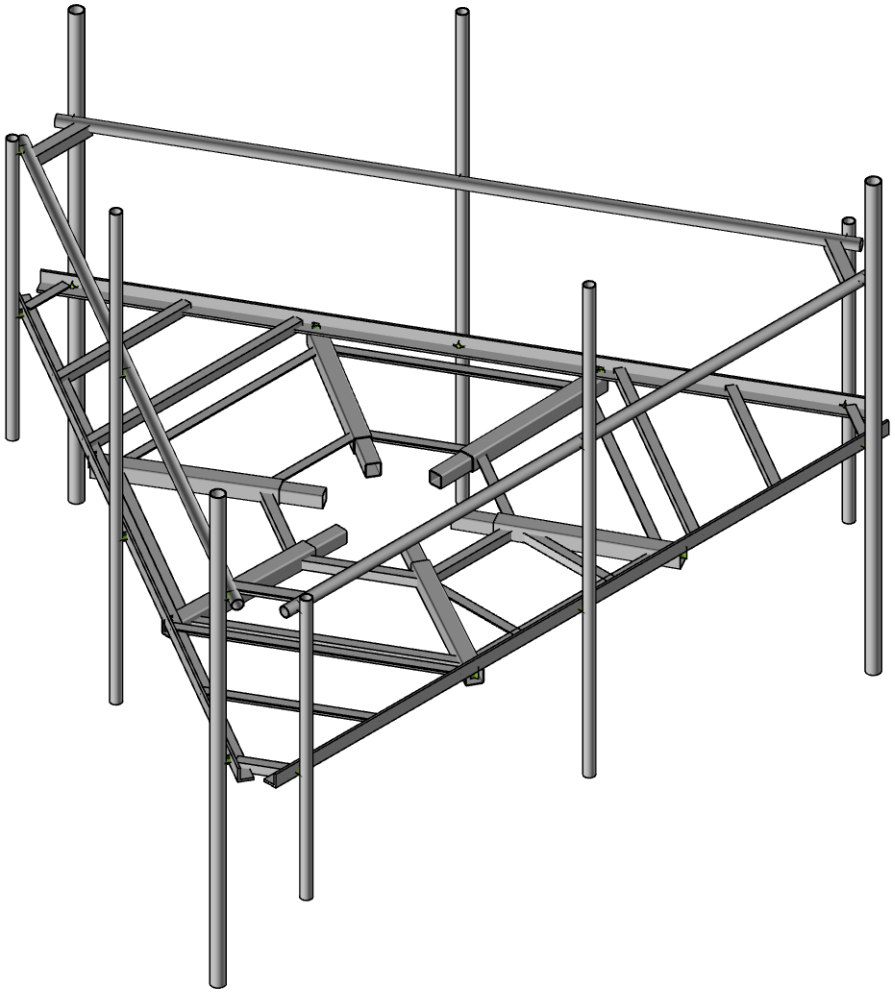
The mount has sufficient capacity to carry the proposed loading configuration. In order for the results of the analysis to be considered valid, the loading modification listed below must be completed.

1. Install new Support Rail Kit, 3’-0” above the main horizontals.

No structural modifications are required at this time, provided that the above-listed changes are implemented.

APPENDIX A

WIRE FRAME AND RENDERED MODELS



Envelope Only Solution

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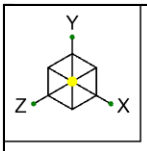
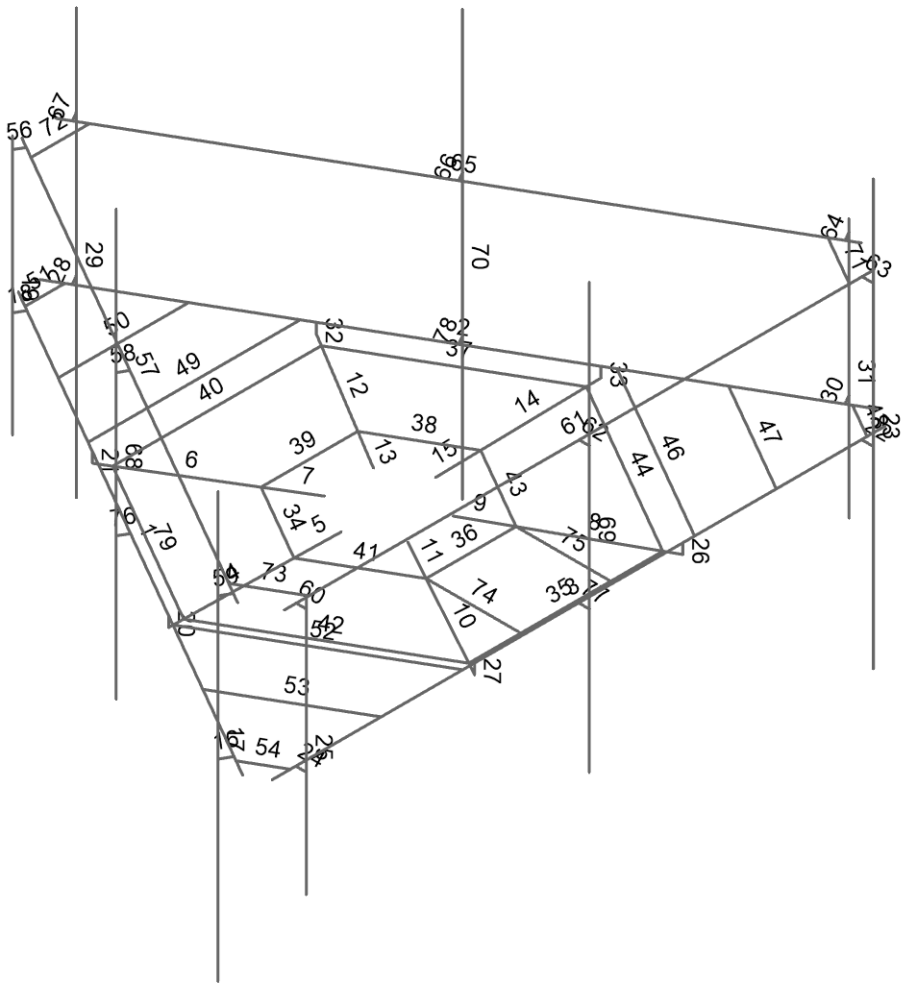
AA		Nov 15, 2020
111217.006.01		111217_006_01_352 S. Main St, …





Envelope Only Solution

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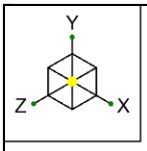
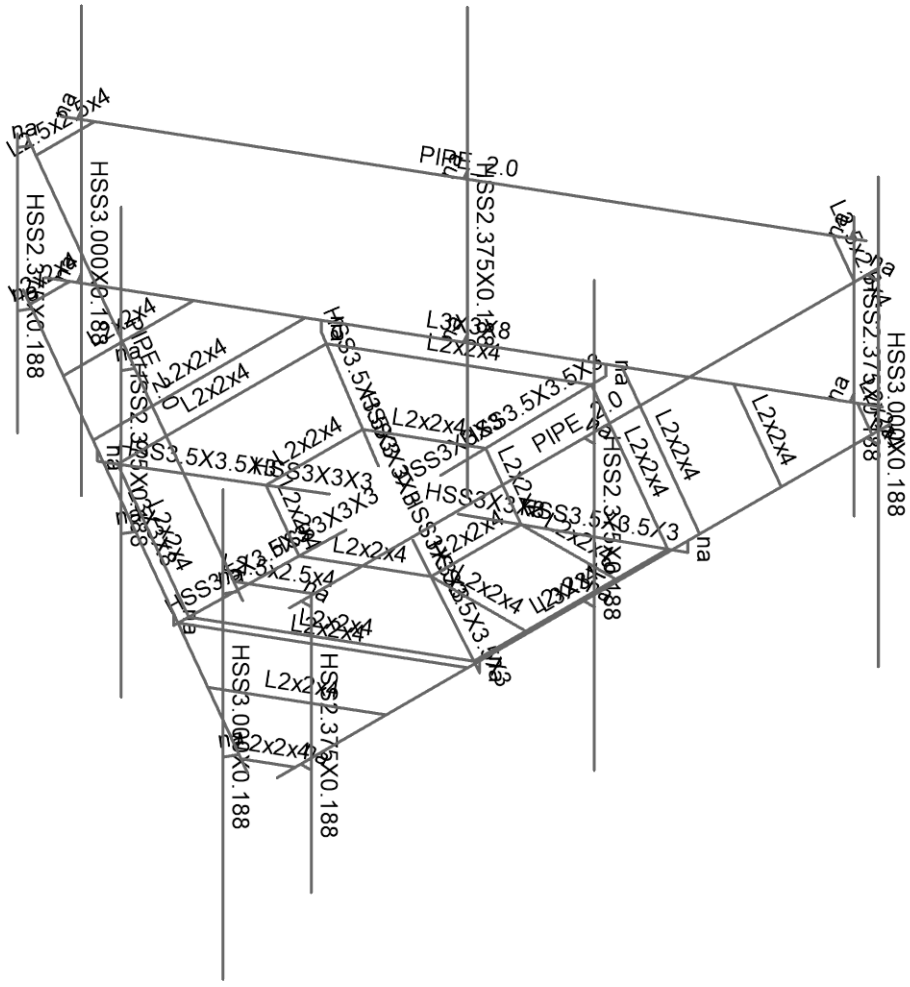




Envelope Only Solution

B+T Group	876353 - 352 S. Main St, New Town, CT	SK-5
AA		Nov 15, 2020
111217.006.01		111217_006_01_352 S. Main St, …

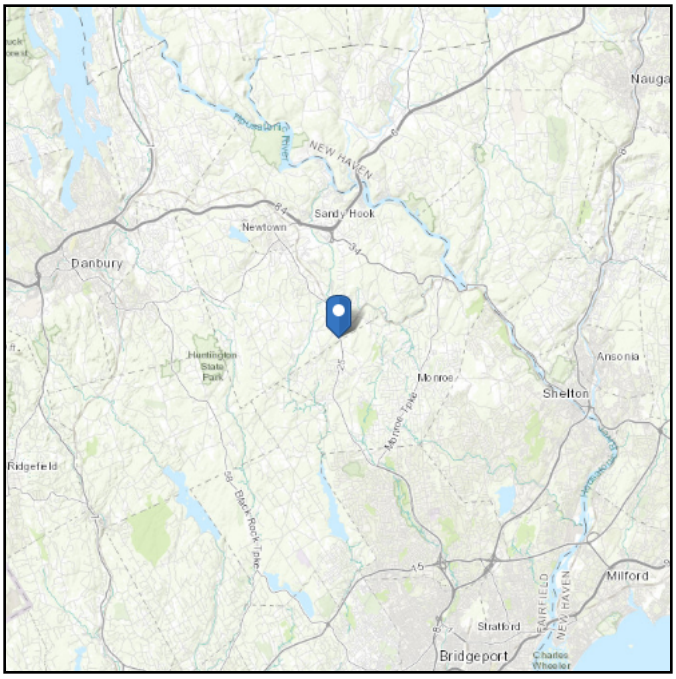
APPENDIX B

SOFTWARE INPUT CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-10	**Elevation:**	486.15 ft (NAVD 88)
Risk Category:	II	**Latitude:**	41.355733
Soil Class:	D - Stiff Soil	**Longitude:**	-73.263214



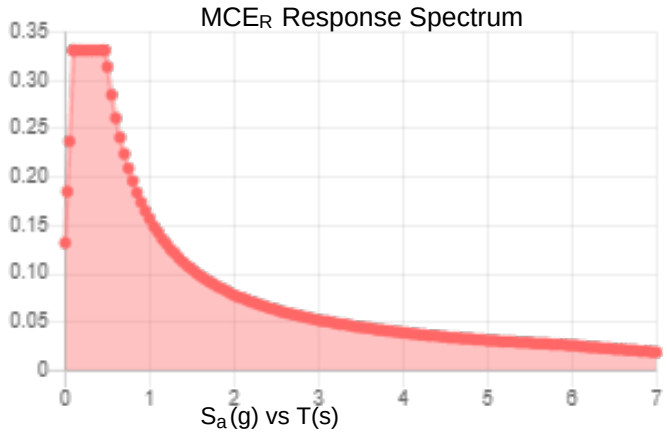
Seismic

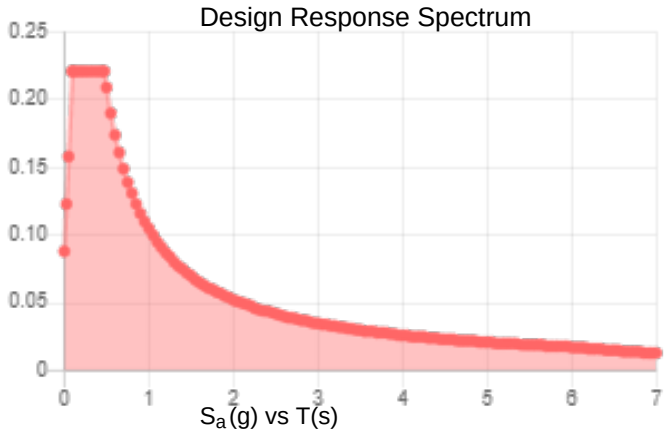
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.207	S_{DS} :	0.221
S_1 :	0.065	S_{D1} :	0.105
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.111
S_{MS} :	0.331	PGA_M :	0.176
S_{M1} :	0.157	F_{PGA} :	1.577
		I_e :	1

Seismic Design Category B





Data Accessed: Sat Nov 14 2020

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	0.75 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Sat Nov 14 2020

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

PROJECT	**111217.006.01 - 352 S. MAIN**		**SR**
SUBJECT	**Platform Mount Mount Analysis**		
DATE	**11/16/20**	PAGE	OF

B+T GRP
1717 S. Boulder, Suite 300
Tulsa, OK 74159
(918) 587-4630

Tower Type		:	Monopole		
Ground Elevation	z_s	:	486	ft	[ASCE7 Hazard Tool]
Tower Height		:	150.00	ft	
Mount Elevation		:	135.00	ft	
Antenna Elevation		:	137.00	ft	
Crest Height		:	0	ft	
Risk Category		:	II		[Table 2-1]
Exposure Category		:	B		[Sec. 2.6.5.1.2]
Topography Category		:	1.00		[Sec. 2.6.6.2]
Wind Velocity	V	:	125	mph	[ASCE7 Hazard Tool]
Ice wind Velocity	V_i	:	50	mph	[ASCE7 Hazard Tool]
Service Velocity	V_s	:	30	mph	[ASCE7 Hazard Tool]
Base Ice thickness	t_i	:	1.50	in	[ASCE7 Hazard Tool]
Seismic Design Cat.		:	B		[ASCE7 Hazard Tool]
	S_S	:	0.21		
	S_1	:	0.07		
	S_{DS}	:	0.22		
	S_{D1}	:	0.11		
Gust Factor	G_h	:	1.00		[Sec. 16.6]
Pressure Coefficient	K_z	:	1.08		[Sec. 2.6.5.2]
Topography Factor	K_{zt}	:	1.00		[Sec. 2.6.6]
Elevation Factor	K_e	:	0.98		[Sec. 2.6.8]
Directionality Factor	K_d	:	0.95		[Sec. 16.6]
Shielding Factor	K_a	:	0.90		[Sec. 16.6]
Design Ice Thickness	t_{iz}	:	1.73	in	[Sec. 2.6.10]
Importance Factor	I_e	:	1		[Table 2-3]
Response Coefficient	C_s	:	0.111		[Sec. 2.7.7.1]
Amplification	A_s	:	2.6		[Sec. 16.7]
	q_z	:	40.20	psf	

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Tulsa, OK 74159
(918) 587-4630

Manufacturer	Model	Qty	Aspect Ratio	C_a flat/round	EPA_N (ft^2)	EPA_T (ft^2)	$EPA_{N\text{-}Ice}$ (ft^2)	$EPA_{T\text{-}Ice}$ (ft^2)	$F_{A\ No\ Ice\ (N)}$	$F_{A\ No\ Ice\ (T)}$	$F_{A\ Ice\ (N)}$	$F_{A\ Ice\ (T)}$
RFS/CELWAVE	APX16DWV-16DWV-S-E-A20	0.5	4.20	4.05	2.58	0.61	3.45	1.36	0.13	0.03	0.03	0.01
RFS/CELWAVE	APX16DWV-16DWV-S-E-A20	0.5	4.20	1.28	2.58	0.61	3.45	1.36	0.13	0.03	0.03	0.01
ERICSSON	RADIO 4415 B66A_CCIV3	1	1.13	1.20	1.37	0.56	2.12	1.13	0.06	0.02	0.01	0.00
RFS/CELWAVE	APXVAALL24_43-U-NA20_TMC	0.5	4.00	1.27	7.99	2.83	9.47	4.12	0.37	0.13	0.06	0.02
RFS/CELWAVE	APXVAALL24_43-U-NA20_TMC	0.5	4.00	1.27	7.99	2.83	9.47	4.12	0.37	0.13	0.06	0.02
ERICSSON	RADIO 4424 B25_TMO	1	1.19	1.20	1.71	1.34	2.55	2.11	0.07	0.06	0.01	0.01
ERICSSON	ADIO 4449 B71 B85A_T-MOBI	1	1.36	1.20	1.64	1.32	2.47	2.09	0.07	0.06	0.01	0.01
ERICSSON	AIR6449 B41_T-MOBILE	0.5	1.61	1.20	2.36	0.98	3.04	1.52	0.10	0.04	0.02	0.01
ERICSSON	AIR6449 B41_T-MOBILE	0.5	1.61	1.20	2.36	0.98	3.04	1.52	0.10	0.04	0.02	0.01
RFS/CELWAVE	APX16DWV-16DWV-S-E-A20	0.5	4.20	1.28	2.58	0.61	3.45	1.36	0.13	0.03	0.03	0.01
RFS/CELWAVE	APX16DWV-16DWV-S-E-A20	0.5	4.20	1.28	2.58	0.61	3.45	1.36	0.13	0.03	0.03	0.01
ERICSSON	RADIO 4415 B66A_CCIV3	1	1.13	1.20	1.37	0.56	2.12	1.13	0.06	0.02	0.01	0.00
RFS/CELWAVE	APXVAALL24_43-U-NA20_TMC	0.5	4.00	1.27	7.99	2.83	9.47	4.12	0.37	0.13	0.06	0.02
RFS/CELWAVE	APXVAALL24_43-U-NA20_TMC	0.5	4.00	1.27	7.99	2.83	9.47	4.12	0.37	0.13	0.06	0.02
ERICSSON	RADIO 4424 B25_TMO	1	1.19	1.20	1.71	1.34	2.55	2.11	0.07	0.06	0.01	0.01
ERICSSON	ADIO 4449 B71 B85A_T-MOBI	1	1.36	1.20	1.64	1.32	2.47	2.09	0.07	0.06	0.01	0.01
ERICSSON	AIR6449 B41_T-MOBILE	0.5	1.61	1.20	2.36	0.98	3.04	1.52	0.10	0.04	0.02	0.01
ERICSSON	AIR6449 B41_T-MOBILE	0.5	1.61	1.20	2.36	0.98	3.04	1.52	0.10	0.04	0.02	0.01

PROJECT	**111217.006.01 - 352 S. MAIN**		**SR**
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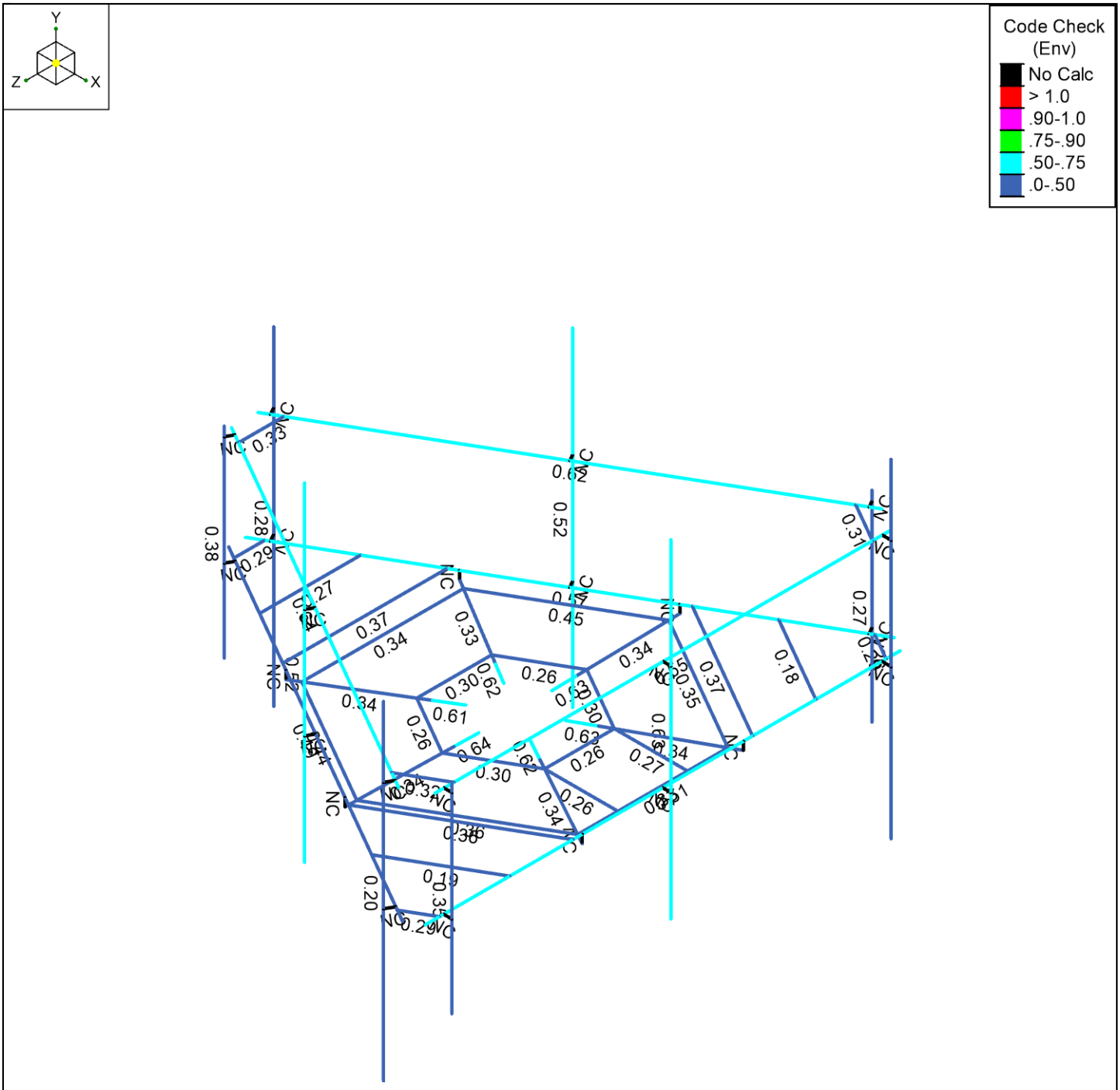
Manufacturer	Model	Qty	Aspect Ratio	C_a flat/round	EPA_N (ft^2)	EPA_T (ft^2)	$EPA_{N\text{-}Ice}$ (ft^2)	$EPA_{T\text{-}Ice}$ (ft^2)	$F_{A\ No\ Ice\ (N)}$	$F_{A\ No\ Ice\ (T)}$	$F_{A\ Ice\ (N)}$	$F_{A\ Ice\ (T)}$
RFS/CELWAVE	APX16DWV-16DWV-S-E-A20	0.5	4.20	1.28	2.58	0.61	3.45	1.36	0.00	0.03	0.03	0.01
RFS/CELWAVE	APX16DWV-16DWV-S-E-A20	0.5	4.20	1.28	2.58	0.61	3.45	1.36	0.00	0.03	0.03	0.01
ERICSSON	RADIO 4415 B66A_CCIV3	1	1.13	1.20	1.37	0.56	2.12	1.13	0.00	0.02	0.01	0.00
RFS/CELWAVE	APXVAALL24_43-U-NA20_TMO	0.5	4.00	1.27	7.99	2.83	9.47	4.12	0.00	0.13	0.06	0.02
RFS/CELWAVE	APXVAALL24_43-U-NA20_TMO	0.5	4.00	1.27	7.99	2.83	9.47	4.12	0.00	0.13	0.06	0.02
ERICSSON	RADIO 4424 B25_TMO	1	1.19	1.20	1.71	1.34	2.55	2.11	0.00	0.06	0.01	0.01
ERICSSON	RADIO 4449 B71 B85A_T-MOBI	1	1.36	1.20	1.64	1.32	2.47	2.09	0.00	0.06	0.01	0.01
ERICSSON	AIR6449 B41_T-MOBILE	0.5	1.61	1.20	2.36	0.98	3.04	1.52	0.00	0.04	0.02	0.01
ERICSSON	AIR6449 B41_T-MOBILE	0.5	1.61	1.20	2.36	0.98	3.04	1.52	0.00	0.04	0.02	0.01

APPENDIX C

SOFTWARE ANALYSIS OUTPUT



Member Code Checks Displayed (Enveloped)
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AA		Nov 15, 2020
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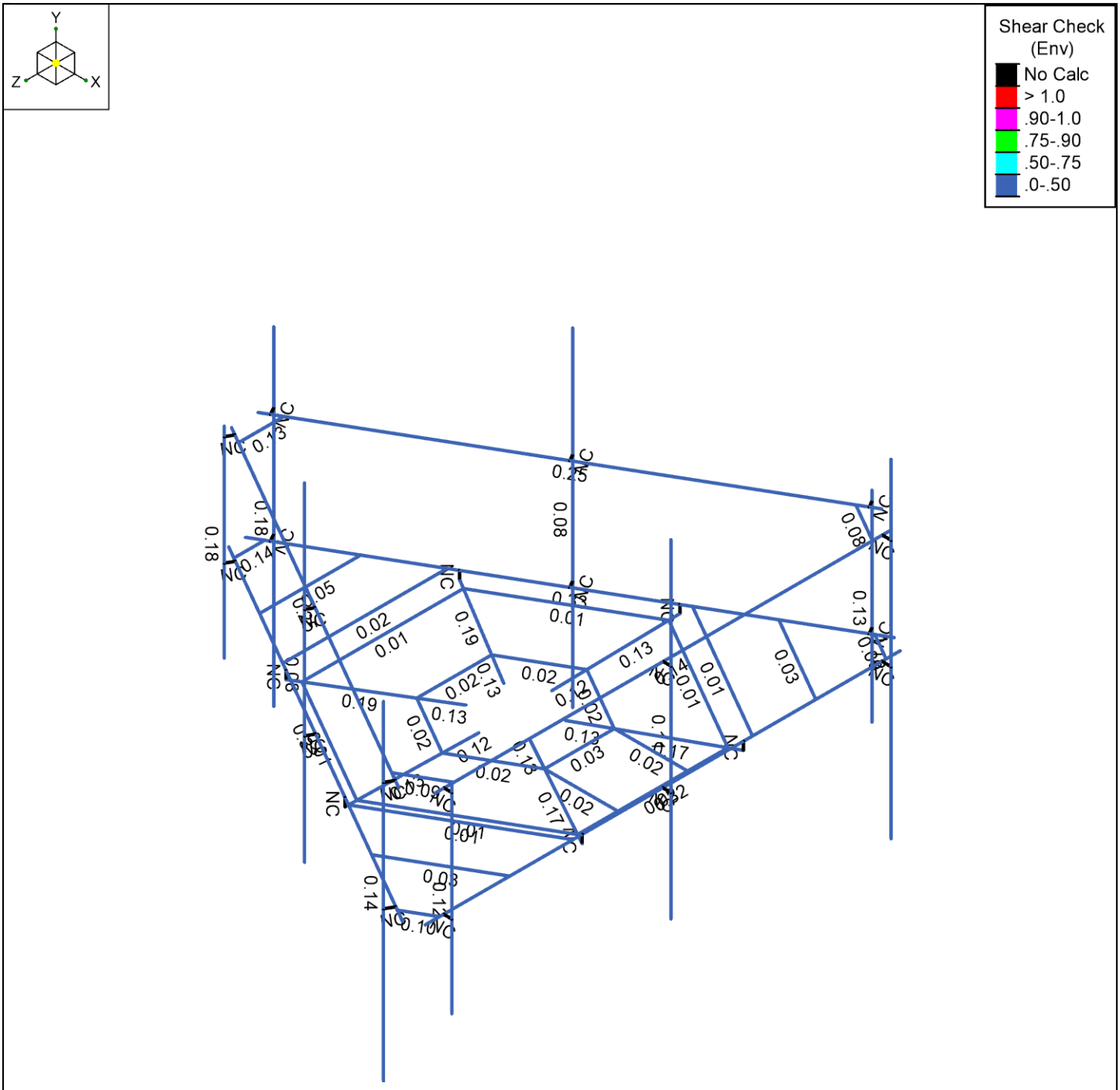

Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

B+T Group	876353 - 352 S. Main St, New Town, CT	SK-7
AA		Nov 15, 2020
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Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	Support Rail	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
2	MF-H1	L3X3X8	Beam	Single Angle	A36 Gr.36	Typical	2.76	2.2	2.2	0.23
3	F1-ST1	HSS3.5X3.5X3	Beam	Tube	A500 Gr.B Rect	Typical	2.24	4.05	4.05	6.56
4	F1-ST2	HSS3X3X3	Beam	Tube	A500 Gr.B Rect	Typical	1.89	2.46	2.46	4.03
5	F1-SA1	L2x2x4	Beam	Single Angle	A36 Gr.36	Typical	0.944	0.346	0.346	0.021
6	MF-P1	HSS2.375X0.188	Column	HSS Pipe	A500 Gr.B RND	Typical	1.2	0.733	0.733	1.47
7	F1-CA1	L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical	1.19	0.692	0.692	0.026
8	MF-P2	HSS3.000X0.188	Column	HSS Pipe	A500 Gr.B RND	Typical	1.54	1.55	1.55	3.1

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	1	2	3	270	MF-H1	Beam	Single Angle	A36 Gr.36	Typical
2	2	4	5		MF-H1	Beam	Single Angle	A36 Gr.36	Typical
3	3	6	7	270	MF-H1	Beam	Single Angle	A36 Gr.36	Typical
4	4	28	8		F1-ST1	Beam	Tube	A500 Gr.B Rect	Typical
5	5	8	9		F1-ST2	Beam	Tube	A500 Gr.B Rect	Typical
6	6	30	10		F1-ST1	Beam	Tube	A500 Gr.B Rect	Typical
7	7	10	11		F1-ST2	Beam	Tube	A500 Gr.B Rect	Typical
8	8	39	12		F1-ST1	Beam	Tube	A500 Gr.B Rect	Typical
9	9	12	13		F1-ST2	Beam	Tube	A500 Gr.B Rect	Typical
10	10	41	14		F1-ST1	Beam	Tube	A500 Gr.B Rect	Typical
11	11	14	15		F1-ST2	Beam	Tube	A500 Gr.B Rect	Typical
12	12	51	16		F1-ST1	Beam	Tube	A500 Gr.B Rect	Typical
13	13	16	17		F1-ST2	Beam	Tube	A500 Gr.B Rect	Typical
14	14	53	18		F1-ST1	Beam	Tube	A500 Gr.B Rect	Typical
15	15	18	19		F1-ST2	Beam	Tube	A500 Gr.B Rect	Typical
16	16	20	21		RIGID	None	None	RIGID	Typical
17	17	22	23	270	MF-P2	Column	HSS Pipe	A500 Gr.B RND	Typical
18	18	24	83		RIGID	None	None	RIGID	Typical
19	19	25	26	270	MF-P1	Column	HSS Pipe	A500 Gr.B RND	Typical
20	20	27	28	270	RIGID	None	None	RIGID	Typical
21	21	29	30	270	RIGID	None	None	RIGID	Typical
22	22	31	32		RIGID	None	None	RIGID	Typical
23	23	33	34	270	MF-P2	Column	HSS Pipe	A500 Gr.B RND	Typical
24	24	35	36		RIGID	None	None	RIGID	Typical
25	25	37	38	270	MF-P1	Column	HSS Pipe	A500 Gr.B RND	Typical
26	26	64	39	270	RIGID	None	None	RIGID	Typical
27	27	40	41	270	RIGID	None	None	RIGID	Typical
28	28	42	43		RIGID	None	None	RIGID	Typical
29	29	44	45	270	MF-P2	Column	HSS Pipe	A500 Gr.B RND	Typical
30	30	46	47		RIGID	None	None	RIGID	Typical
31	31	48	49	270	MF-P1	Column	HSS Pipe	A500 Gr.B RND	Typical
32	32	50	51	270	RIGID	None	None	RIGID	Typical
33	33	52	53	270	RIGID	None	None	RIGID	Typical
34	34	58	54	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
35	35	63	59	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
36	36	122	120	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
37	37	57	62	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
38	38	55	61	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
39	39	54	55	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
40	40	56	57	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
41	41	120	58	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
42	42	59	60	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
43	43	61	122	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
44	44	62	63	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
45	46	65	66	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
46	47	67	68	180	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
47	48	69	70	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
48	49	71	72	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
49	50	73	74	180	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
50	51	75	76	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
51	52	77	78	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
52	53	79	80	180	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
53	54	81	82	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
54	56	84	85		RIGID	None	None	RIGID	Typical
55	57	86	87		Support Rail	Beam	Pipe	A53 Gr.B	Typical
56	58	88	89		RIGID	None	None	RIGID	Typical
57	59	90	91		RIGID	None	None	RIGID	Typical
58	60	92	93		RIGID	None	None	RIGID	Typical
59	61	130	131		Support Rail	Beam	Pipe	A53 Gr.B	Typical
60	62	96	97		RIGID	None	None	RIGID	Typical
61	63	98	99		RIGID	None	None	RIGID	Typical
62	64	100	101		RIGID	None	None	RIGID	Typical
63	65	132	133		Support Rail	Beam	Pipe	A53 Gr.B	Typical
64	66	104	105		RIGID	None	None	RIGID	Typical
65	67	106	107		RIGID	None	None	RIGID	Typical
66	68	108	109	270	MF-P1	Column	HSS Pipe	A500 Gr.B RND	Typical
67	69	110	111	270	MF-P1	Column	HSS Pipe	A500 Gr.B RND	Typical
68	70	112	113	270	MF-P1	Column	HSS Pipe	A500 Gr.B RND	Typical
69	71	114	115	180	F1-CA1	Beam	Single Angle	A36 Gr.36	Typical
70	72	116	117	180	F1-CA1	Beam	Single Angle	A36 Gr.36	Typical
71	73	118	119	180	F1-CA1	Beam	Single Angle	A36 Gr.36	Typical
72	74	120	121	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
73	75	122	123	180	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical
74	76	124	125		RIGID	None	None	RIGID	Typical
75	77	126	127		RIGID	None	None	RIGID	Typical
76	78	128	129		RIGID	None	None	RIGID	Typical
77	79	60	56	90	F1-SA1	Beam	Single Angle	A36 Gr.36	Typical

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
1	Dead	DL	-1		45		9
2	0 Wind - No Ice	WLZ			45	53	
3	90 Wind - No Ice	WLX			45	53	
4	0 Wind - Ice	WLZ			45	53	
5	90 Wind - Ice	WLX			45	53	
6	0 Wind - Service	WLZ			45	53	
7	90 Wind - Service	WLX			45	53	
8	Ice	OL1			45	53	9
9	0 Seismic	ELZ			45	53	
10	90 Seismic	ELX			45	53	
11	Live Load a	LL		3			
12	Live Load b	LL		3			
13	Live Load c	LL		3			
14	Live Load d	LL					
15	Maint LL 1	LL			1		
16	Maint LL 2	LL			1		
17	Maint LL 3	LL			1		
18	Maint LL 4	LL			1		
19	Maint LL 5	LL			1		
20	Maint LL 6	LL			1		
21	Maint LL 7	LL			1		
22	Maint LL 8	LL			1		
23	Maint LL 9	LL			1		
24	Maint LL 10	LL			1		
25	Maint LL 11	LL			1		

Basic Load Cases (Continued)

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
26	Maint LL 12	LL			1		
27	Maint LL 13	LL			1		
28	Maint LL 14	LL			1		
29	Maint LL 15	LL			1		
30	Maint LL 16	LL			1		
31	Maint LL 17	LL			1		
32	Maint LL 18	LL			1		
33	Maint LL 19	LL					
34	Maint LL 20	LL					
36	BLC 1 Transient Area Loads	None				93	
37	BLC 8 Transient Area Loads	None				93	

Load Combinations

	Description	Solve	PDelta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4 Dead	Yes	Y	1	1.4						
2	1.2 D + 1.0 - 0 W	Yes	Y	1	1.2	2	1				
3	1.2 D + 1.0 - 30 W	Yes	Y	1	1.2	2	0.866	3	0.5		
4	1.2 D + 1.0 - 60 W	Yes	Y	1	1.2	3	0.866	2	0.5		
5	1.2 D + 1.0 - 90 W	Yes	Y	1	1.2	3	1				
6	1.2 D + 1.0 - 120 W	Yes	Y	1	1.2	3	0.866	2	-0.5		
7	1.2 D + 1.0 - 150 W	Yes	Y	1	1.2	2	-0.866	3	0.5		
8	1.2 D + 1.0 - 180 W	Yes	Y	1	1.2	2	-1				
9	1.2 D + 1.0 - 210 W	Yes	Y	1	1.2	2	-0.866	3	-0.5		
10	1.2 D + 1.0 - 240 W	Yes	Y	1	1.2	3	-0.866	2	-0.5		
11	1.2 D + 1.0 - 270 W	Yes	Y	1	1.2	3	-1				
12	1.2 D + 1.0 - 300 W	Yes	Y	1	1.2	3	-0.866	2	0.5		
13	1.2 D + 1.0 - 330 W	Yes	Y	1	1.2	2	0.866	3	-0.5		
14	1.2 D + 1.0 - 0 W/Ice	Yes	Y	1	1.2	4	1			8	1
15	1.2 D + 1.0 - 30 W/Ice	Yes	Y	1	1.2	4	0.866	5	0.5	8	1
16	1.2 D + 1.0 - 60 W/Ice	Yes	Y	1	1.2	5	0.866	4	0.5	8	1
17	1.2 D + 1.0 - 90 W/Ice	Yes	Y	1	1.2	5	1			8	1
18	1.2 D + 1.0 - 120 W/Ice	Yes	Y	1	1.2	5	0.866	4	-0.5	8	1
19	1.2 D + 1.0 - 150 W/Ice	Yes	Y	1	1.2	4	-0.866	5	0.5	8	1
20	1.2 D + 1.0 - 180 W/Ice	Yes	Y	1	1.2	4	-1			8	1
21	1.2 D + 1.0 - 210 W/Ice	Yes	Y	1	1.2	4	-0.866	5	-0.5	8	1
22	1.2 D + 1.0 - 240 W/Ice	Yes	Y	1	1.2	5	-0.866	4	-0.5	8	1
23	1.2 D + 1.0 - 270 W/Ice	Yes	Y	1	1.2	5	-1			8	1
24	1.2 D + 1.0 - 300 W/Ice	Yes	Y	1	1.2	5	-0.866	4	0.5	8	1
25	1.2 D + 1.0 - 330 W/Ice	Yes	Y	1	1.2	4	0.866	5	-0.5	8	1
26	1.2 D + 1.0 E - 0	Yes	Y	1	1.2	9	1				
27	1.2 D + 1.0 E - 30	Yes	Y	1	1.2	9	0.866	10	0.5		
28	1.2 D + 1.0 E - 60	Yes	Y	1	1.2	10	0.866	9	0.5		
29	1.2 D + 1.0 E - 90	Yes	Y	1	1.2	10	1				
30	1.2 D + 1.0 E - 120	Yes	Y	1	1.2	10	0.866	9	-0.5		
31	1.2 D + 1.0 E - 150	Yes	Y	1	1.2	9	-0.866	10	0.5		
32	1.2 D + 1.0 E - 180	Yes	Y	1	1.2	9	-1				
33	1.2 D + 1.0 E - 210	Yes	Y	1	1.2	9	-0.866	10	-0.5		
34	1.2 D + 1.0 E - 240	Yes	Y	1	1.2	10	-0.866	9	-0.5		
35	1.2 D + 1.0 E - 270	Yes	Y	1	1.2	10	-1				
36	1.2 D + 1.0 E - 300	Yes	Y	1	1.2	10	-0.866	9	0.5		
37	1.2 D + 1.0 E - 330	Yes	Y	1	1.2	9	0.866	10	-0.5		
38	1.2 D + 1.5 LL a + Service - 0 W	Yes	Y	1	1.2	6	1			11	1.5
39	1.2 D + 1.5 LL a + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	11	1.5
40	1.2 D + 1.5 LL a + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	11	1.5
41	1.2 D + 1.5 LL a + Service - 90 W	Yes	Y	1	1.2	7	1			11	1.5
42	1.2 D + 1.5 LL a + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	11	1.5
43	1.2 D + 1.5 LL a + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	11	1.5
44	1.2 D + 1.5 LL a + Service - 180 W	Yes	Y	1	1.2	6	-1			11	1.5

Load Combinations (Continued)

	Description	Solve	PDelta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
45	1.2 D + 1.5 LL a + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	11	1.5
46	1.2 D + 1.5 LL a + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	11	1.5
47	1.2 D + 1.5 LL a + Service - 270 W	Yes	Y	1	1.2	7	-1			11	1.5
48	1.2 D + 1.5 LL a + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	11	1.5
49	1.2 D + 1.5 LL a + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	11	1.5
50	1.2 D + 1.5 LL b + Service - 0 W	Yes	Y	1	1.2	6	1			12	1.5
51	1.2 D + 1.5 LL b + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	12	1.5
52	1.2 D + 1.5 LL b + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	12	1.5
53	1.2 D + 1.5 LL b + Service - 90 W	Yes	Y	1	1.2	7	1			12	1.5
54	1.2 D + 1.5 LL b + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	12	1.5
55	1.2 D + 1.5 LL b + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	12	1.5
56	1.2 D + 1.5 LL b + Service - 180 W	Yes	Y	1	1.2	6	-1			12	1.5
57	1.2 D + 1.5 LL b + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	12	1.5
58	1.2 D + 1.5 LL b + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	12	1.5
59	1.2 D + 1.5 LL b + Service - 270 W	Yes	Y	1	1.2	7	-1			12	1.5
60	1.2 D + 1.5 LL b + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	12	1.5
61	1.2 D + 1.5 LL b + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	12	1.5
62	1.2 D + 1.5 LL c + Service - 0 W	Yes	Y	1	1.2	6	1			13	1.5
63	1.2 D + 1.5 LL c + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	13	1.5
64	1.2 D + 1.5 LL c + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	13	1.5
65	1.2 D + 1.5 LL c + Service - 90 W	Yes	Y	1	1.2	7	1			13	1.5
66	1.2 D + 1.5 LL c + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	13	1.5
67	1.2 D + 1.5 LL c + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	13	1.5
68	1.2 D + 1.5 LL c + Service - 180 W	Yes	Y	1	1.2	6	-1			13	1.5
69	1.2 D + 1.5 LL c + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	13	1.5
70	1.2 D + 1.5 LL c + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	13	1.5
71	1.2 D + 1.5 LL c + Service - 270 W	Yes	Y	1	1.2	7	-1			13	1.5
72	1.2 D + 1.5 LL c + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	13	1.5
73	1.2 D + 1.5 LL c + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	13	1.5
74	1.2 D + 1.5 LL d + Service - 0 W	Yes	Y	1	1.2	6	1			14	1.5
75	1.2 D + 1.5 LL d + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	14	1.5
76	1.2 D + 1.5 LL d + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	14	1.5
77	1.2 D + 1.5 LL d + Service - 90 W	Yes	Y	1	1.2	7	1			14	1.5
78	1.2 D + 1.5 LL d + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	14	1.5
79	1.2 D + 1.5 LL d + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	14	1.5
80	1.2 D + 1.5 LL d + Service - 180 W	Yes	Y	1	1.2	6	-1			14	1.5
81	1.2 D + 1.5 LL d + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	14	1.5
82	1.2 D + 1.5 LL d + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	14	1.5
83	1.2 D + 1.5 LL d + Service - 270 W	Yes	Y	1	1.2	7	-1			14	1.5
84	1.2 D + 1.5 LL d + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	14	1.5
85	1.2 D + 1.5 LL d + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	14	1.5
86	1.2 D + 1.5 LL Maint (1)	Yes	Y	1	1.2					15	1.5
87	1.2 D + 1.5 LL Maint (2)	Yes	Y	1	1.2					16	1.5
88	1.2 D + 1.5 LL Maint (3)	Yes	Y	1	1.2					17	1.5
89	1.2 D + 1.5 LL Maint (4)	Yes	Y	1	1.2					18	1.5
90	1.2 D + 1.5 LL Maint (5)	Yes	Y	1	1.2					19	1.5
91	1.2 D + 1.5 LL Maint (6)	Yes	Y	1	1.2					20	1.5
92	1.2 D + 1.5 LL Maint (7)	Yes	Y	1	1.2					21	1.5
93	1.2 D + 1.5 LL Maint (8)	Yes	Y	1	1.2					22	1.5
94	1.2 D + 1.5 LL Maint (9)	Yes	Y	1	1.2					23	1.5
95	1.2 D + 1.5 LL Maint (10)	Yes	Y	1	1.2					24	1.5
96	1.2 D + 1.5 LL Maint (11)	Yes	Y	1	1.2					25	1.5
97	1.2 D + 1.5 LL Maint (12)	Yes	Y	1	1.2					26	1.5
98	1.2 D + 1.5 LL Maint (13)	Yes	Y	1	1.2					27	1.5
99	1.2 D + 1.5 LL Maint (14)	Yes	Y	1	1.2					28	1.5
100	1.2 D + 1.5 LL Maint (15)	Yes	Y	1	1.2					29	1.5
101	1.2 D + 1.5 LL Maint (16)	Yes	Y	1	1.2					30	1.5
102	1.2 D + 1.5 LL Maint (17)	Yes	Y	1	1.2					31	1.5

Load Combinations (Continued)

	Description	Solve	PDelta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
103	1.2 D + 1.5 LL Maint (18)	Yes	Y	1	1.2					32	1.5
104	1.2 D + 1.5 LL Maint (19)	Yes	Y	1	1.2					33	1.5
105	1.2 D + 1.5 LL Maint (20)	Yes	Y	1	1.2					34	1.5
106	1.2 D + 1.5 LL Maint (21)	Yes	Y	1	1.2					35	1.5

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	17	Y	-0.02	%5	Active
2	17	Y	-0.02	%55	Active
3	17	Y	-0.046	%35	Active
4	17	Y	0	0	Active
5	17	Y	0	0	Active
6	68	Y	-0.075	%5	Active
7	68	Y	-0.075	%90	Active
8	68	Y	-0.086	%50	Active
9	68	Y	-0.073	%15	Active
10	68	Y	0	0	Active
11	19	Y	-0.057	%5	Active
12	19	Y	-0.057	%55	Active
13	19	Y	0	0	Active
14	19	Y	0	0	Active
15	19	Y	0	0	Active
16	29	Y	-0.02	%5	Active
17	29	Y	-0.02	%55	Active
18	29	Y	-0.046	%35	Active
19	29	Y	0	0	Active
20	29	Y	0	0	Active
21	70	Y	-0.075	%5	Active
22	70	Y	-0.075	%90	Active
23	70	Y	-0.086	%50	Active
24	70	Y	-0.073	%15	Active
25	70	Y	0	0	Active
26	31	Y	-0.057	%5	Active
27	31	Y	-0.057	%55	Active
28	31	Y	0	0	Active
29	31	Y	0	0	Active
30	31	Y	0	0	Active
31	23	Y	-0.02	%5	Active
32	23	Y	-0.02	%55	Active
33	23	Y	-0.046	%35	Active
34	23	Y	0	0	Active
35	23	Y	0	0	Active
36	69	Y	-0.075	%5	Active
37	69	Y	-0.075	%90	Active
38	69	Y	-0.086	%50	Active
39	69	Y	-0.073	%15	Active
40	69	Y	0	0	Active
41	25	Y	-0.057	%5	Active
42	25	Y	-0.057	%55	Active
43	25	Y	0	0	Active
44	25	Y	0	0	Active
45	25	Y	0	0	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	17	Z	-0.126	%5	Active
2	17	Z	-0.126	%55	Active

Member Point Loads (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
3	17	Z	-0.06	%35	Active
4	17	Z	0	0	Active
5	17	Z	0	0	Active
6	68	Z	-0.368	%5	Active
7	68	Z	-0.368	%90	Active
8	68	Z	-0.075	%50	Active
9	68	Z	-0.072	%15	Active
10	68	Z	0	0	Active
11	19	Z	-0.103	%5	Active
12	19	Z	-0.103	%55	Active
13	19	Z	0	0	Active
14	19	Z	0	0	Active
15	19	Z	0	0	Active
16	29	Z	-0.126	%5	Active
17	29	Z	-0.126	%55	Active
18	29	Z	-0.06	%35	Active
19	29	Z	0	0	Active
20	29	Z	0	0	Active
21	70	Z	-0.368	%5	Active
22	70	Z	-0.368	%90	Active
23	70	Z	-0.075	%50	Active
24	70	Z	-0.072	%15	Active
25	70	Z	0	0	Active
26	31	Z	-0.103	%5	Active
27	31	Z	-0.103	%55	Active
28	31	Z	0	0	Active
29	31	Z	0	0	Active
30	31	Z	0	0	Active
31	23	Z	-0.126	%5	Active
32	23	Z	-0.126	%55	Active
33	23	Z	-0.06	%35	Active
34	23	Z	0	0	Active
35	23	Z	0	0	Active
36	69	Z	-0.368	%5	Active
37	69	Z	-0.368	%90	Active
38	69	Z	-0.075	%50	Active
39	69	Z	-0.072	%15	Active
40	69	Z	0	0	Active
41	25	Z	-0.103	%5	Active
42	25	Z	-0.103	%55	Active
43	25	Z	0	0	Active
44	25	Z	0	0	Active
45	25	Z	0	0	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	17	X	-0.03	%5	Active
2	17	X	-0.03	%55	Active
3	17	X	-0.024	%35	Active
4	17	X	0	0	Active
5	17	X	0	0	Active
6	68	X	-0.13	%5	Active
7	68	X	-0.13	%90	Active
8	68	X	-0.059	%50	Active
9	68	X	-0.058	%15	Active
10	68	X	0	0	Active
11	19	X	-0.043	%5	Active
12	19	X	-0.043	%55	Active

Member Point Loads (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
13	19	X	0	0	Active
14	19	X	0	0	Active
15	19	X	0	0	Active
16	29	X	-0.03	%5	Active
17	29	X	-0.03	%55	Active
18	29	X	-0.024	%35	Active
19	29	X	0	0	Active
20	29	X	0	0	Active
21	70	X	-0.13	%5	Active
22	70	X	-0.13	%90	Active
23	70	X	-0.059	%50	Active
24	70	X	-0.058	%15	Active
25	70	X	0	0	Active
26	31	X	-0.043	%5	Active
27	31	X	-0.043	%55	Active
28	31	X	0	0	Active
29	31	X	0	0	Active
30	31	X	0	0	Active
31	23	X	-0.03	%5	Active
32	23	X	-0.03	%55	Active
33	23	X	-0.024	%35	Active
34	23	X	0	0	Active
35	23	X	0	0	Active
36	69	X	-0.13	%5	Active
37	69	X	-0.13	%90	Active
38	69	X	-0.059	%50	Active
39	69	X	-0.058	%15	Active
40	69	X	0	0	Active
41	25	X	-0.043	%5	Active
42	25	X	-0.043	%55	Active
43	25	X	0	0	Active
44	25	X	0	0	Active
45	25	X	0	0	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	17	Z	-0.026	%5	Active
2	17	Z	-0.026	%55	Active
3	17	Z	-0.01	%35	Active
4	17	Z	0	0	Active
5	17	Z	0	0	Active
6	68	Z	-0.059	%5	Active
7	68	Z	-0.059	%90	Active
8	68	Z	-0.012	%50	Active
9	68	Z	-0.012	%15	Active
10	68	Z	0	0	Active
11	19	Z	-0.016	%5	Active
12	19	Z	-0.016	%55	Active
13	19	Z	0	0	Active
14	19	Z	0	0	Active
15	19	Z	0	0	Active
16	29	Z	-0.026	%5	Active
17	29	Z	-0.026	%55	Active
18	29	Z	-0.01	%35	Active
19	29	Z	0	0	Active
20	29	Z	0	0	Active
21	70	Z	-0.059	%5	Active
22	70	Z	-0.059	%90	Active

Member Point Loads (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
23	70	Z	-0.012	%50	Active
24	70	Z	-0.012	%15	Active
25	70	Z	0	0	Active
26	31	Z	-0.016	%5	Active
27	31	Z	-0.016	%55	Active
28	31	Z	0	0	Active
29	31	Z	0	0	Active
30	31	Z	0	0	Active
31	23	Z	-0.026	%5	Active
32	23	Z	-0.026	%55	Active
33	23	Z	-0.01	%35	Active
34	23	Z	0	0	Active
35	23	Z	0	0	Active
36	69	Z	-0.059	%5	Active
37	69	Z	-0.059	%90	Active
38	69	Z	-0.012	%50	Active
39	69	Z	-0.012	%15	Active
40	69	Z	0	0	Active
41	25	Z	-0.016	%5	Active
42	25	Z	-0.016	%55	Active
43	25	Z	0	0	Active
44	25	Z	0	0	Active
45	25	Z	0	0	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	17	X	-0.01	%5	Active
2	17	X	-0.01	%55	Active
3	17	X	-0.004	%35	Active
4	17	X	0	0	Active
5	17	X	0	0	Active
6	68	X	-0.021	%5	Active
7	68	X	-0.021	%90	Active
8	68	X	-0.009	%50	Active
9	68	X	-0.009	%15	Active
10	68	X	0	0	Active
11	19	X	-0.007	%5	Active
12	19	X	-0.007	%55	Active
13	19	X	0	0	Active
14	19	X	0	0	Active
15	19	X	0	0	Active
16	29	X	-0.01	%5	Active
17	29	X	-0.01	%55	Active
18	29	X	-0.004	%35	Active
19	29	X	0	0	Active
20	29	X	0	0	Active
21	70	X	-0.021	%5	Active
22	70	X	-0.021	%90	Active
23	70	X	-0.009	%50	Active
24	70	X	-0.009	%15	Active
25	70	X	0	0	Active
26	31	X	-0.007	%5	Active
27	31	X	-0.007	%55	Active
28	31	X	0	0	Active
29	31	X	0	0	Active
30	31	X	0	0	Active
31	23	X	-0.01	%5	Active
32	23	X	-0.01	%55	Active

Member Point Loads (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
33	23	X	-0.004	%35	Active
34	23	X	0	0	Active
35	23	X	0	0	Active
36	69	X	-0.021	%5	Active
37	69	X	-0.021	%90	Active
38	69	X	-0.009	%50	Active
39	69	X	-0.009	%15	Active
40	69	X	0	0	Active
41	25	X	-0.007	%5	Active
42	25	X	-0.007	%55	Active
43	25	X	0	0	Active
44	25	X	0	0	Active
45	25	X	0	0	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	17	Z	-0.007	%5	Active
2	17	Z	-0.007	%55	Active
3	17	Z	-0.003	%35	Active
4	17	Z	0	0	Active
5	17	Z	0	0	Active
6	68	Z	-0.021	%5	Active
7	68	Z	-0.021	%90	Active
8	68	Z	-0.004	%50	Active
9	68	Z	-0.004	%15	Active
10	68	Z	0	0	Active
11	19	Z	-0.006	%5	Active
12	19	Z	-0.006	%55	Active
13	19	Z	0	0	Active
14	19	Z	0	0	Active
15	19	Z	0	0	Active
16	29	Z	-0.007	%5	Active
17	29	Z	-0.007	%55	Active
18	29	Z	-0.003	%35	Active
19	29	Z	0	0	Active
20	29	Z	0	0	Active
21	70	Z	-0.021	%5	Active
22	70	Z	-0.021	%90	Active
23	70	Z	-0.004	%50	Active
24	70	Z	-0.004	%15	Active
25	70	Z	0	0	Active
26	31	Z	-0.006	%5	Active
27	31	Z	-0.006	%55	Active
28	31	Z	0	0	Active
29	31	Z	0	0	Active
30	31	Z	0	0	Active
31	23	Z	-0.007	%5	Active
32	23	Z	-0.007	%55	Active
33	23	Z	-0.003	%35	Active
34	23	Z	0	0	Active
35	23	Z	0	0	Active
36	69	Z	-0.021	%5	Active
37	69	Z	-0.021	%90	Active
38	69	Z	-0.004	%50	Active
39	69	Z	-0.004	%15	Active
40	69	Z	0	0	Active
41	25	Z	-0.006	%5	Active
42	25	Z	-0.006	%55	Active

Member Point Loads (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
43	25	Z	0	0	Active
44	25	Z	0	0	Active
45	25	Z	0	0	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	17	X	-0.002	%5	Active
2	17	X	-0.002	%55	Active
3	17	X	-0.001	%35	Active
4	17	X	0	0	Active
5	17	X	0	0	Active
6	68	X	-0.008	%5	Active
7	68	X	-0.008	%90	Active
8	68	X	-0.003	%50	Active
9	68	X	-0.003	%15	Active
10	68	X	0	0	Active
11	19	X	-0.003	%5	Active
12	19	X	-0.003	%55	Active
13	19	X	0	0	Active
14	19	X	0	0	Active
15	19	X	0	0	Active
16	29	X	-0.002	%5	Active
17	29	X	-0.002	%55	Active
18	29	X	-0.001	%35	Active
19	29	X	0	0	Active
20	29	X	0	0	Active
21	70	X	-0.008	%5	Active
22	70	X	-0.008	%90	Active
23	70	X	-0.003	%50	Active
24	70	X	-0.003	%15	Active
25	70	X	0	0	Active
26	31	X	-0.003	%5	Active
27	31	X	-0.003	%55	Active
28	31	X	0	0	Active
29	31	X	0	0	Active
30	31	X	0	0	Active
31	23	X	-0.002	%5	Active
32	23	X	-0.002	%55	Active
33	23	X	-0.001	%35	Active
34	23	X	0	0	Active
35	23	X	0	0	Active
36	69	X	-0.008	%5	Active
37	69	X	-0.008	%90	Active
38	69	X	-0.003	%50	Active
39	69	X	-0.003	%15	Active
40	69	X	0	0	Active
41	25	X	-0.003	%5	Active
42	25	X	-0.003	%55	Active
43	25	X	0	0	Active
44	25	X	0	0	Active
45	25	X	0	0	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	17	Y	-0.079	%5	Active
2	17	Y	-0.079	%55	Active
3	17	Y	-0.042	%35	Active

Member Point Loads (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
4	17	Y	0	0	Active
5	17	Y	0	0	Active
6	68	Y	-0.23	%5	Active
7	68	Y	-0.23	%90	Active
8	68	Y	-0.06	%50	Active
9	68	Y	-0.059	%15	Active
10	68	Y	0	0	Active
11	19	Y	-0.07	%5	Active
12	19	Y	-0.07	%55	Active
13	19	Y	0	0	Active
14	19	Y	0	0	Active
15	19	Y	0	0	Active
16	29	Y	-0.079	%5	Active
17	29	Y	-0.079	%55	Active
18	29	Y	-0.042	%35	Active
19	29	Y	0	0	Active
20	29	Y	0	0	Active
21	70	Y	-0.23	%5	Active
22	70	Y	-0.23	%90	Active
23	70	Y	-0.06	%50	Active
24	70	Y	-0.059	%15	Active
25	70	Y	0	0	Active
26	31	Y	-0.07	%5	Active
27	31	Y	-0.07	%55	Active
28	31	Y	0	0	Active
29	31	Y	0	0	Active
30	31	Y	0	0	Active
31	23	Y	-0.079	%5	Active
32	23	Y	-0.079	%55	Active
33	23	Y	-0.042	%35	Active
34	23	Y	0	0	Active
35	23	Y	0	0	Active
36	69	Y	-0.23	%5	Active
37	69	Y	-0.23	%90	Active
38	69	Y	-0.06	%50	Active
39	69	Y	-0.059	%15	Active
40	69	Y	0	0	Active
41	25	Y	-0.07	%5	Active
42	25	Y	-0.07	%55	Active
43	25	Y	0	0	Active
44	25	Y	0	0	Active
45	25	Y	0	0	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	17	Z	-0.012	%5	Active
2	17	Z	-0.012	%55	Active
3	17	Z	-0.013	%35	Active
4	17	Z	0	0	Active
5	17	Z	0	0	Active
6	68	Z	-0.043	%5	Active
7	68	Z	-0.043	%90	Active
8	68	Z	-0.025	%50	Active
9	68	Z	-0.021	%15	Active
10	68	Z	0	0	Active
11	19	Z	-0.033	%5	Active
12	19	Z	-0.033	%55	Active
13	19	Z	0	0	Active

Member Point Loads (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
14	19	Z	0	0	Active
15	19	Z	0	0	Active
16	29	Z	-0.012	%5	Active
17	29	Z	-0.012	%55	Active
18	29	Z	-0.013	%35	Active
19	29	Z	0	0	Active
20	29	Z	0	0	Active
21	70	Z	-0.043	%5	Active
22	70	Z	-0.043	%90	Active
23	70	Z	-0.025	%50	Active
24	70	Z	-0.021	%15	Active
25	70	Z	0	0	Active
26	31	Z	-0.033	%5	Active
27	31	Z	-0.033	%55	Active
28	31	Z	0	0	Active
29	31	Z	0	0	Active
30	31	Z	0	0	Active
31	23	Z	-0.012	%5	Active
32	23	Z	-0.012	%55	Active
33	23	Z	-0.013	%35	Active
34	23	Z	0	0	Active
35	23	Z	0	0	Active
36	69	Z	-0.043	%5	Active
37	69	Z	-0.043	%90	Active
38	69	Z	-0.025	%50	Active
39	69	Z	-0.021	%15	Active
40	69	Z	0	0	Active
41	25	Z	-0.033	%5	Active
42	25	Z	-0.033	%55	Active
43	25	Z	0	0	Active
44	25	Z	0	0	Active
45	25	Z	0	0	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	17	X	-0.012	%5	Active
2	17	X	-0.012	%55	Active
3	17	X	-0.013	%35	Active
4	17	X	0	0	Active
5	17	X	0	0	Active
6	68	X	-0.043	%5	Active
7	68	X	-0.043	%90	Active
8	68	X	-0.025	%50	Active
9	68	X	-0.021	%15	Active
10	68	X	0	0	Active
11	19	X	-0.033	%5	Active
12	19	X	-0.033	%55	Active
13	19	X	0	0	Active
14	19	X	0	0	Active
15	19	X	0	0	Active
16	29	X	-0.012	%5	Active
17	29	X	-0.012	%55	Active
18	29	X	-0.013	%35	Active
19	29	X	0	0	Active
20	29	X	0	0	Active
21	70	X	-0.043	%5	Active
22	70	X	-0.043	%90	Active
23	70	X	-0.025	%50	Active

Member Point Loads (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
24	70	X	-0.021	%15	Active
25	70	X	0	0	Active
26	31	X	-0.033	%5	Active
27	31	X	-0.033	%55	Active
28	31	X	0	0	Active
29	31	X	0	0	Active
30	31	X	0	0	Active
31	23	X	-0.012	%5	Active
32	23	X	-0.012	%55	Active
33	23	X	-0.013	%35	Active
34	23	X	0	0	Active
35	23	X	0	0	Active
36	69	X	-0.043	%5	Active
37	69	X	-0.043	%90	Active
38	69	X	-0.025	%50	Active
39	69	X	-0.021	%15	Active
40	69	X	0	0	Active
41	25	X	-0.033	%5	Active
42	25	X	-0.033	%55	Active
43	25	X	0	0	Active
44	25	X	0	0	Active
45	25	X	0	0	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	57	Y	-0.25	%5	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	Y	-0.25	%5	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	57	Y	-0.25	%95	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	Y	-0.25	%95	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	65	Y	-0.25	%95	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	2	Y	-0.25	%95	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	65	Y	-0.25	%5	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	2	Y	-0.25	%5	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	61	Y	-0.25	%5	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	3	Y	-0.25	%5	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	61	Y	-0.25	%95	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	3	Y	-0.25	%95	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	14	Y	-0.25	%5	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	12	Y	-0.25	%5	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	6	Y	-0.25	%5	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	4	Y	-0.25	%5	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	10	Y	-0.25	%5	Active

Member Point Loads

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	8	Y	-0.25	%5	Active

Member Distributed Loads

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	Z	-0.018	-0.018	0	%100	Active
2	2	Z	-0.018	-0.018	0	%100	Active
3	3	Z	-0.018	-0.018	0	%100	Active
4	4	Z	-0.016	-0.016	0	%100	Active
5	5	Z	-0.011	-0.011	0	%100	Active
6	6	Z	-0.016	-0.016	0	%100	Active
7	7	Z	-0.011	-0.011	0	%100	Active
8	8	Z	-0.016	-0.016	0	%100	Active
9	9	Z	-0.011	-0.011	0	%100	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
10	10	Z	-0.016	-0.016	0	%100	Active
11	11	Z	-0.011	-0.011	0	%100	Active
12	12	Z	-0.016	-0.016	0	%100	Active
13	13	Z	-0.011	-0.011	0	%100	Active
14	14	Z	-0.016	-0.016	0	%100	Active
15	15	Z	-0.011	-0.011	0	%100	Active
16	17	Z	-0.011	-0.011	0	%100	Active
17	19	Z	-0.009	-0.009	0	%100	Active
18	23	Z	-0.011	-0.011	0	%100	Active
19	25	Z	-0.009	-0.009	0	%100	Active
20	29	Z	-0.011	-0.011	0	%100	Active
21	31	Z	-0.009	-0.009	0	%100	Active
22	34	Z	-0.009	-0.009	0	%100	Active
23	35	Z	-0.012	-0.012	0	%100	Active
24	36	Z	-0.009	-0.009	0	%100	Active
25	37	Z	-0.012	-0.012	0	%100	Active
26	38	Z	-0.009	-0.009	0	%100	Active
27	39	Z	-0.009	-0.009	0	%100	Active
28	40	Z	-0.012	-0.012	0	%100	Active
29	41	Z	-0.009	-0.009	0	%100	Active
30	42	Z	-0.012	-0.012	0	%100	Active
31	43	Z	-0.009	-0.009	0	%100	Active
32	44	Z	-0.012	-0.012	0	%100	Active
33	46	Z	-0.012	-0.012	0	%100	Active
34	47	Z	-0.01	-0.01	0	%100	Active
35	48	Z	-0.008	-0.008	0	%100	Active
36	49	Z	-0.012	-0.012	0	%100	Active
37	50	Z	-0.01	-0.01	0	%100	Active
38	51	Z	-0.008	-0.008	0	%100	Active
39	52	Z	-0.012	-0.012	0	%100	Active
40	53	Z	-0.01	-0.01	0	%100	Active
41	54	Z	-0.008	-0.008	0	%100	Active
42	57	Z	-0.009	-0.009	0	%100	Active
43	61	Z	-0.009	-0.009	0	%100	Active
44	65	Z	-0.009	-0.009	0	%100	Active
45	68	Z	-0.009	-0.009	0	%100	Active
46	69	Z	-0.009	-0.009	0	%100	Active
47	70	Z	-0.009	-0.009	0	%100	Active
48	71	Z	-0.01	-0.01	0	%100	Active
49	72	Z	-0.01	-0.01	0	%100	Active
50	73	Z	-0.01	-0.01	0	%100	Active
51	74	Z	-0.009	-0.009	0	%100	Active
52	75	Z	-0.009	-0.009	0	%100	Active
53	79	Z	-0.012	-0.012	0	%100	Active

Member Distributed Loads

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	X	-0.018	-0.018	0	%100	Active
2	2	X	-0.018	-0.018	0	%100	Active
3	3	X	-0.018	-0.018	0	%100	Active
4	4	X	-0.016	-0.016	0	%100	Active
5	5	X	-0.011	-0.011	0	%100	Active
6	6	X	-0.016	-0.016	0	%100	Active
7	7	X	-0.011	-0.011	0	%100	Active
8	8	X	-0.016	-0.016	0	%100	Active
9	9	X	-0.011	-0.011	0	%100	Active
10	10	X	-0.016	-0.016	0	%100	Active
11	11	X	-0.011	-0.011	0	%100	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
12	12	X	-0.016	-0.016	0	%100	Active
13	13	X	-0.011	-0.011	0	%100	Active
14	14	X	-0.016	-0.016	0	%100	Active
15	15	X	-0.011	-0.011	0	%100	Active
16	17	X	-0.011	-0.011	0	%100	Active
17	19	X	-0.009	-0.009	0	%100	Active
18	23	X	-0.011	-0.011	0	%100	Active
19	25	X	-0.009	-0.009	0	%100	Active
20	29	X	-0.011	-0.011	0	%100	Active
21	31	X	-0.009	-0.009	0	%100	Active
22	34	X	-0.009	-0.009	0	%100	Active
23	35	X	-0.012	-0.012	0	%100	Active
24	36	X	-0.009	-0.009	0	%100	Active
25	37	X	-0.012	-0.012	0	%100	Active
26	38	X	-0.009	-0.009	0	%100	Active
27	39	X	-0.009	-0.009	0	%100	Active
28	40	X	-0.012	-0.012	0	%100	Active
29	41	X	-0.009	-0.009	0	%100	Active
30	42	X	-0.012	-0.012	0	%100	Active
31	43	X	-0.009	-0.009	0	%100	Active
32	44	X	-0.012	-0.012	0	%100	Active
33	46	X	-0.012	-0.012	0	%100	Active
34	47	X	-0.01	-0.01	0	%100	Active
35	48	X	-0.008	-0.008	0	%100	Active
36	49	X	-0.012	-0.012	0	%100	Active
37	50	X	-0.01	-0.01	0	%100	Active
38	51	X	-0.008	-0.008	0	%100	Active
39	52	X	-0.012	-0.012	0	%100	Active
40	53	X	-0.01	-0.01	0	%100	Active
41	54	X	-0.008	-0.008	0	%100	Active
42	57	X	-0.009	-0.009	0	%100	Active
43	61	X	-0.009	-0.009	0	%100	Active
44	65	X	-0.009	-0.009	0	%100	Active
45	68	X	-0.009	-0.009	0	%100	Active
46	69	X	-0.009	-0.009	0	%100	Active
47	70	X	-0.009	-0.009	0	%100	Active
48	71	X	-0.01	-0.01	0	%100	Active
49	72	X	-0.01	-0.01	0	%100	Active
50	73	X	-0.01	-0.01	0	%100	Active
51	74	X	-0.009	-0.009	0	%100	Active
52	75	X	-0.009	-0.009	0	%100	Active
53	79	X	-0.012	-0.012	0	%100	Active

Member Distributed Loads

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	Z	-0.006	-0.006	0	%100	Active
2	2	Z	-0.006	-0.006	0	%100	Active
3	3	Z	-0.006	-0.006	0	%100	Active
4	4	Z	-0.005	-0.005	0	%100	Active
5	5	Z	-0.005	-0.005	0	%100	Active
6	6	Z	-0.005	-0.005	0	%100	Active
7	7	Z	-0.005	-0.005	0	%100	Active
8	8	Z	-0.005	-0.005	0	%100	Active
9	9	Z	-0.005	-0.005	0	%100	Active
10	10	Z	-0.005	-0.005	0	%100	Active
11	11	Z	-0.005	-0.005	0	%100	Active
12	12	Z	-0.005	-0.005	0	%100	Active
13	13	Z	-0.005	-0.005	0	%100	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
14	14	Z	-0.005	-0.005	0	%100	Active
15	15	Z	-0.005	-0.005	0	%100	Active
16	17	Z	-0.002	-0.002	0	%100	Active
17	19	Z	-0.002	-0.002	0	%100	Active
18	23	Z	-0.002	-0.002	0	%100	Active
19	25	Z	-0.002	-0.002	0	%100	Active
20	29	Z	-0.002	-0.002	0	%100	Active
21	31	Z	-0.002	-0.002	0	%100	Active
22	34	Z	-0.005	-0.005	0	%100	Active
23	35	Z	-0.006	-0.006	0	%100	Active
24	36	Z	-0.005	-0.005	0	%100	Active
25	37	Z	-0.006	-0.006	0	%100	Active
26	38	Z	-0.005	-0.005	0	%100	Active
27	39	Z	-0.005	-0.005	0	%100	Active
28	40	Z	-0.006	-0.006	0	%100	Active
29	41	Z	-0.005	-0.005	0	%100	Active
30	42	Z	-0.006	-0.006	0	%100	Active
31	43	Z	-0.005	-0.005	0	%100	Active
32	44	Z	-0.006	-0.006	0	%100	Active
33	46	Z	-0.006	-0.006	0	%100	Active
34	47	Z	-0.005	-0.005	0	%100	Active
35	48	Z	-0.005	-0.005	0	%100	Active
36	49	Z	-0.006	-0.006	0	%100	Active
37	50	Z	-0.005	-0.005	0	%100	Active
38	51	Z	-0.005	-0.005	0	%100	Active
39	52	Z	-0.006	-0.006	0	%100	Active
40	53	Z	-0.005	-0.005	0	%100	Active
41	54	Z	-0.005	-0.005	0	%100	Active
42	57	Z	-0.002	-0.002	0	%100	Active
43	61	Z	-0.002	-0.002	0	%100	Active
44	65	Z	-0.002	-0.002	0	%100	Active
45	68	Z	-0.002	-0.002	0	%100	Active
46	69	Z	-0.002	-0.002	0	%100	Active
47	70	Z	-0.002	-0.002	0	%100	Active
48	71	Z	-0.005	-0.005	0	%100	Active
49	72	Z	-0.005	-0.005	0	%100	Active
50	73	Z	-0.005	-0.005	0	%100	Active
51	74	Z	-0.005	-0.005	0	%100	Active
52	75	Z	-0.005	-0.005	0	%100	Active
53	79	Z	-0.006	-0.006	0	%100	Active

Member Distributed Loads

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	X	-0.006	-0.006	0	%100	Active
2	2	X	-0.006	-0.006	0	%100	Active
3	3	X	-0.006	-0.006	0	%100	Active
4	4	X	-0.005	-0.005	0	%100	Active
5	5	X	-0.005	-0.005	0	%100	Active
6	6	X	-0.005	-0.005	0	%100	Active
7	7	X	-0.005	-0.005	0	%100	Active
8	8	X	-0.005	-0.005	0	%100	Active
9	9	X	-0.005	-0.005	0	%100	Active
10	10	X	-0.005	-0.005	0	%100	Active
11	11	X	-0.005	-0.005	0	%100	Active
12	12	X	-0.005	-0.005	0	%100	Active
13	13	X	-0.005	-0.005	0	%100	Active
14	14	X	-0.005	-0.005	0	%100	Active
15	15	X	-0.005	-0.005	0	%100	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
16	17	X	-0.002	-0.002	0	%100	Active
17	19	X	-0.002	-0.002	0	%100	Active
18	23	X	-0.002	-0.002	0	%100	Active
19	25	X	-0.002	-0.002	0	%100	Active
20	29	X	-0.002	-0.002	0	%100	Active
21	31	X	-0.002	-0.002	0	%100	Active
22	34	X	-0.005	-0.005	0	%100	Active
23	35	X	-0.006	-0.006	0	%100	Active
24	36	X	-0.005	-0.005	0	%100	Active
25	37	X	-0.006	-0.006	0	%100	Active
26	38	X	-0.005	-0.005	0	%100	Active
27	39	X	-0.005	-0.005	0	%100	Active
28	40	X	-0.006	-0.006	0	%100	Active
29	41	X	-0.005	-0.005	0	%100	Active
30	42	X	-0.006	-0.006	0	%100	Active
31	43	X	-0.005	-0.005	0	%100	Active
32	44	X	-0.006	-0.006	0	%100	Active
33	46	X	-0.006	-0.006	0	%100	Active
34	47	X	-0.005	-0.005	0	%100	Active
35	48	X	-0.005	-0.005	0	%100	Active
36	49	X	-0.006	-0.006	0	%100	Active
37	50	X	-0.005	-0.005	0	%100	Active
38	51	X	-0.005	-0.005	0	%100	Active
39	52	X	-0.006	-0.006	0	%100	Active
40	53	X	-0.005	-0.005	0	%100	Active
41	54	X	-0.005	-0.005	0	%100	Active
42	57	X	-0.002	-0.002	0	%100	Active
43	61	X	-0.002	-0.002	0	%100	Active
44	65	X	-0.002	-0.002	0	%100	Active
45	68	X	-0.002	-0.002	0	%100	Active
46	69	X	-0.002	-0.002	0	%100	Active
47	70	X	-0.002	-0.002	0	%100	Active
48	71	X	-0.005	-0.005	0	%100	Active
49	72	X	-0.005	-0.005	0	%100	Active
50	73	X	-0.005	-0.005	0	%100	Active
51	74	X	-0.005	-0.005	0	%100	Active
52	75	X	-0.005	-0.005	0	%100	Active
53	79	X	-0.006	-0.006	0	%100	Active

Member Distributed Loads

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	Z	-0.001	-0.001	0	%100	Active
2	2	Z	-0.001	-0.001	0	%100	Active
3	3	Z	-0.001	-0.001	0	%100	Active
4	4	Z	-0.0009	-0.0009	0	%100	Active
5	5	Z	-0.0006	-0.0006	0	%100	Active
6	6	Z	-0.0009	-0.0009	0	%100	Active
7	7	Z	-0.0006	-0.0006	0	%100	Active
8	8	Z	-0.0009	-0.0009	0	%100	Active
9	9	Z	-0.0006	-0.0006	0	%100	Active
10	10	Z	-0.0009	-0.0009	0	%100	Active
11	11	Z	-0.0006	-0.0006	0	%100	Active
12	12	Z	-0.0009	-0.0009	0	%100	Active
13	13	Z	-0.0006	-0.0006	0	%100	Active
14	14	Z	-0.0009	-0.0009	0	%100	Active
15	15	Z	-0.0006	-0.0006	0	%100	Active
16	17	Z	-0.0003	-0.0003	0	%100	Active
17	19	Z	-0.0002	-0.0002	0	%100	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
18	23	Z	-0.0003	-0.0003	0	%100	Active
19	25	Z	-0.0002	-0.0002	0	%100	Active
20	29	Z	-0.0003	-0.0003	0	%100	Active
21	31	Z	-0.0002	-0.0002	0	%100	Active
22	34	Z	-0.0005	-0.0005	0	%100	Active
23	35	Z	-0.0007	-0.0007	0	%100	Active
24	36	Z	-0.0005	-0.0005	0	%100	Active
25	37	Z	-0.0007	-0.0007	0	%100	Active
26	38	Z	-0.0005	-0.0005	0	%100	Active
27	39	Z	-0.0005	-0.0005	0	%100	Active
28	40	Z	-0.0007	-0.0007	0	%100	Active
29	41	Z	-0.0005	-0.0005	0	%100	Active
30	42	Z	-0.0007	-0.0007	0	%100	Active
31	43	Z	-0.0005	-0.0005	0	%100	Active
32	44	Z	-0.0007	-0.0007	0	%100	Active
33	46	Z	-0.0007	-0.0007	0	%100	Active
34	47	Z	-0.0006	-0.0006	0	%100	Active
35	48	Z	-0.0005	-0.0005	0	%100	Active
36	49	Z	-0.0007	-0.0007	0	%100	Active
37	50	Z	-0.0006	-0.0006	0	%100	Active
38	51	Z	-0.0005	-0.0005	0	%100	Active
39	52	Z	-0.0007	-0.0007	0	%100	Active
40	53	Z	-0.0006	-0.0006	0	%100	Active
41	54	Z	-0.0005	-0.0005	0	%100	Active
42	57	Z	-0.0002	-0.0002	0	%100	Active
43	61	Z	-0.0002	-0.0002	0	%100	Active
44	65	Z	-0.0002	-0.0002	0	%100	Active
45	68	Z	-0.0002	-0.0002	0	%100	Active
46	69	Z	-0.0002	-0.0002	0	%100	Active
47	70	Z	-0.0002	-0.0002	0	%100	Active
48	71	Z	-0.0006	-0.0006	0	%100	Active
49	72	Z	-0.0006	-0.0006	0	%100	Active
50	73	Z	-0.0006	-0.0006	0	%100	Active
51	74	Z	-0.0005	-0.0005	0	%100	Active
52	75	Z	-0.0005	-0.0005	0	%100	Active
53	79	Z	-0.0007	-0.0007	0	%100	Active

Member Distributed Loads

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	X	-0.001	-0.001	0	%100	Active
2	2	X	-0.001	-0.001	0	%100	Active
3	3	X	-0.001	-0.001	0	%100	Active
4	4	X	-0.0009	-0.0009	0	%100	Active
5	5	X	-0.0006	-0.0006	0	%100	Active
6	6	X	-0.0009	-0.0009	0	%100	Active
7	7	X	-0.0006	-0.0006	0	%100	Active
8	8	X	-0.0009	-0.0009	0	%100	Active
9	9	X	-0.0006	-0.0006	0	%100	Active
10	10	X	-0.0009	-0.0009	0	%100	Active
11	11	X	-0.0006	-0.0006	0	%100	Active
12	12	X	-0.0009	-0.0009	0	%100	Active
13	13	X	-0.0006	-0.0006	0	%100	Active
14	14	X	-0.0009	-0.0009	0	%100	Active
15	15	X	-0.0006	-0.0006	0	%100	Active
16	17	X	-0.0003	-0.0003	0	%100	Active
17	19	X	-0.0002	-0.0002	0	%100	Active
18	23	X	-0.0003	-0.0003	0	%100	Active
19	25	X	-0.0002	-0.0002	0	%100	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
20	29	X	-0.0003	-0.0003	0	%100	Active
21	31	X	-0.0002	-0.0002	0	%100	Active
22	34	X	-0.0005	-0.0005	0	%100	Active
23	35	X	-0.0007	-0.0007	0	%100	Active
24	36	X	-0.0005	-0.0005	0	%100	Active
25	37	X	-0.0007	-0.0007	0	%100	Active
26	38	X	-0.0005	-0.0005	0	%100	Active
27	39	X	-0.0005	-0.0005	0	%100	Active
28	40	X	-0.0007	-0.0007	0	%100	Active
29	41	X	-0.0005	-0.0005	0	%100	Active
30	42	X	-0.0007	-0.0007	0	%100	Active
31	43	X	-0.0005	-0.0005	0	%100	Active
32	44	X	-0.0007	-0.0007	0	%100	Active
33	46	X	-0.0007	-0.0007	0	%100	Active
34	47	X	-0.0006	-0.0006	0	%100	Active
35	48	X	-0.0005	-0.0005	0	%100	Active
36	49	X	-0.0007	-0.0007	0	%100	Active
37	50	X	-0.0006	-0.0006	0	%100	Active
38	51	X	-0.0005	-0.0005	0	%100	Active
39	52	X	-0.0007	-0.0007	0	%100	Active
40	53	X	-0.0006	-0.0006	0	%100	Active
41	54	X	-0.0005	-0.0005	0	%100	Active
42	57	X	-0.0002	-0.0002	0	%100	Active
43	61	X	-0.0002	-0.0002	0	%100	Active
44	65	X	-0.0002	-0.0002	0	%100	Active
45	68	X	-0.0002	-0.0002	0	%100	Active
46	69	X	-0.0002	-0.0002	0	%100	Active
47	70	X	-0.0002	-0.0002	0	%100	Active
48	71	X	-0.0006	-0.0006	0	%100	Active
49	72	X	-0.0006	-0.0006	0	%100	Active
50	73	X	-0.0006	-0.0006	0	%100	Active
51	74	X	-0.0005	-0.0005	0	%100	Active
52	75	X	-0.0005	-0.0005	0	%100	Active
53	79	X	-0.0007	-0.0007	0	%100	Active

Member Distributed Loads

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	Y	-0.013	-0.013	0	%100	Active
2	2	Y	-0.013	-0.013	0	%100	Active
3	3	Y	-0.013	-0.013	0	%100	Active
4	4	Y	-0.014	-0.014	0	%100	Active
5	5	Y	-0.013	-0.013	0	%100	Active
6	6	Y	-0.014	-0.014	0	%100	Active
7	7	Y	-0.013	-0.013	0	%100	Active
8	8	Y	-0.014	-0.014	0	%100	Active
9	9	Y	-0.013	-0.013	0	%100	Active
10	10	Y	-0.014	-0.014	0	%100	Active
11	11	Y	-0.013	-0.013	0	%100	Active
12	12	Y	-0.014	-0.014	0	%100	Active
13	13	Y	-0.013	-0.013	0	%100	Active
14	14	Y	-0.014	-0.014	0	%100	Active
15	15	Y	-0.013	-0.013	0	%100	Active
16	17	Y	-0.01	-0.01	0	%100	Active
17	19	Y	-0.009	-0.009	0	%100	Active
18	23	Y	-0.01	-0.01	0	%100	Active
19	25	Y	-0.009	-0.009	0	%100	Active
20	29	Y	-0.01	-0.01	0	%100	Active
21	31	Y	-0.009	-0.009	0	%100	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
22	34	Y	-0.01	-0.01	0	%100	Active
23	35	Y	-0.01	-0.01	0	%100	Active
24	36	Y	-0.01	-0.01	0	%100	Active
25	37	Y	-0.01	-0.01	0	%100	Active
26	38	Y	-0.01	-0.01	0	%100	Active
27	39	Y	-0.01	-0.01	0	%100	Active
28	40	Y	-0.01	-0.01	0	%100	Active
29	41	Y	-0.01	-0.01	0	%100	Active
30	42	Y	-0.01	-0.01	0	%100	Active
31	43	Y	-0.01	-0.01	0	%100	Active
32	44	Y	-0.01	-0.01	0	%100	Active
33	46	Y	-0.01	-0.01	0	%100	Active
34	47	Y	-0.01	-0.01	0	%100	Active
35	48	Y	-0.01	-0.01	0	%100	Active
36	49	Y	-0.01	-0.01	0	%100	Active
37	50	Y	-0.01	-0.01	0	%100	Active
38	51	Y	-0.01	-0.01	0	%100	Active
39	52	Y	-0.01	-0.01	0	%100	Active
40	53	Y	-0.01	-0.01	0	%100	Active
41	54	Y	-0.01	-0.01	0	%100	Active
42	57	Y	-0.009	-0.009	0	%100	Active
43	61	Y	-0.009	-0.009	0	%100	Active
44	65	Y	-0.009	-0.009	0	%100	Active
45	68	Y	-0.009	-0.009	0	%100	Active
46	69	Y	-0.009	-0.009	0	%100	Active
47	70	Y	-0.009	-0.009	0	%100	Active
48	71	Y	-0.011	-0.011	0	%100	Active
49	72	Y	-0.011	-0.011	0	%100	Active
50	73	Y	-0.011	-0.011	0	%100	Active
51	74	Y	-0.01	-0.01	0	%100	Active
52	75	Y	-0.01	-0.01	0	%100	Active
53	79	Y	-0.01	-0.01	0	%100	Active

Member Distributed Loads

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	Z	-0.003	-0.003	0	%100	Active
2	2	Z	-0.003	-0.003	0	%100	Active
3	3	Z	-0.003	-0.003	0	%100	Active
4	4	Z	-0.002	-0.002	0	%100	Active
5	5	Z	-0.002	-0.002	0	%100	Active
6	6	Z	-0.002	-0.002	0	%100	Active
7	7	Z	-0.002	-0.002	0	%100	Active
8	8	Z	-0.002	-0.002	0	%100	Active
9	9	Z	-0.002	-0.002	0	%100	Active
10	10	Z	-0.002	-0.002	0	%100	Active
11	11	Z	-0.002	-0.002	0	%100	Active
12	12	Z	-0.002	-0.002	0	%100	Active
13	13	Z	-0.002	-0.002	0	%100	Active
14	14	Z	-0.002	-0.002	0	%100	Active
15	15	Z	-0.002	-0.002	0	%100	Active
16	17	Z	-0.002	-0.002	0	%100	Active
17	19	Z	-0.001	-0.001	0	%100	Active
18	23	Z	-0.002	-0.002	0	%100	Active
19	25	Z	-0.001	-0.001	0	%100	Active
20	29	Z	-0.002	-0.002	0	%100	Active
21	31	Z	-0.001	-0.001	0	%100	Active
22	34	Z	-0.0009	-0.0009	0	%100	Active
23	35	Z	-0.0009	-0.0009	0	%100	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
24	36	Z	-0.0009	-0.0009	0	%100	Active
25	37	Z	-0.0009	-0.0009	0	%100	Active
26	38	Z	-0.0009	-0.0009	0	%100	Active
27	39	Z	-0.0009	-0.0009	0	%100	Active
28	40	Z	-0.0009	-0.0009	0	%100	Active
29	41	Z	-0.0009	-0.0009	0	%100	Active
30	42	Z	-0.0009	-0.0009	0	%100	Active
31	43	Z	-0.0009	-0.0009	0	%100	Active
32	44	Z	-0.0009	-0.0009	0	%100	Active
33	46	Z	-0.0009	-0.0009	0	%100	Active
34	47	Z	-0.0009	-0.0009	0	%100	Active
35	48	Z	-0.0009	-0.0009	0	%100	Active
36	49	Z	-0.0009	-0.0009	0	%100	Active
37	50	Z	-0.0009	-0.0009	0	%100	Active
38	51	Z	-0.0009	-0.0009	0	%100	Active
39	52	Z	-0.0009	-0.0009	0	%100	Active
40	53	Z	-0.0009	-0.0009	0	%100	Active
41	54	Z	-0.0009	-0.0009	0	%100	Active
42	57	Z	-0.001	-0.001	0	%100	Active
43	61	Z	-0.001	-0.001	0	%100	Active
44	65	Z	-0.001	-0.001	0	%100	Active
45	68	Z	-0.001	-0.001	0	%100	Active
46	69	Z	-0.001	-0.001	0	%100	Active
47	70	Z	-0.001	-0.001	0	%100	Active
48	71	Z	-0.001	-0.001	0	%100	Active
49	72	Z	-0.001	-0.001	0	%100	Active
50	73	Z	-0.001	-0.001	0	%100	Active
51	74	Z	-0.0009	-0.0009	0	%100	Active
52	75	Z	-0.0009	-0.0009	0	%100	Active
53	79	Z	-0.0009	-0.0009	0	%100	Active

Member Distributed Loads

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	X	-0.003	-0.003	0	%100	Active
2	2	X	-0.003	-0.003	0	%100	Active
3	3	X	-0.003	-0.003	0	%100	Active
4	4	X	-0.002	-0.002	0	%100	Active
5	5	X	-0.002	-0.002	0	%100	Active
6	6	X	-0.002	-0.002	0	%100	Active
7	7	X	-0.002	-0.002	0	%100	Active
8	8	X	-0.002	-0.002	0	%100	Active
9	9	X	-0.002	-0.002	0	%100	Active
10	10	X	-0.002	-0.002	0	%100	Active
11	11	X	-0.002	-0.002	0	%100	Active
12	12	X	-0.002	-0.002	0	%100	Active
13	13	X	-0.002	-0.002	0	%100	Active
14	14	X	-0.002	-0.002	0	%100	Active
15	15	X	-0.002	-0.002	0	%100	Active
16	17	X	-0.002	-0.002	0	%100	Active
17	19	X	-0.001	-0.001	0	%100	Active
18	23	X	-0.002	-0.002	0	%100	Active
19	25	X	-0.001	-0.001	0	%100	Active
20	29	X	-0.002	-0.002	0	%100	Active
21	31	X	-0.001	-0.001	0	%100	Active
22	34	X	-0.0009	-0.0009	0	%100	Active
23	35	X	-0.0009	-0.0009	0	%100	Active
24	36	X	-0.0009	-0.0009	0	%100	Active
25	37	X	-0.0009	-0.0009	0	%100	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
26	38	X	-0.0009	-0.0009	0	%100	Active
27	39	X	-0.0009	-0.0009	0	%100	Active
28	40	X	-0.0009	-0.0009	0	%100	Active
29	41	X	-0.0009	-0.0009	0	%100	Active
30	42	X	-0.0009	-0.0009	0	%100	Active
31	43	X	-0.0009	-0.0009	0	%100	Active
32	44	X	-0.0009	-0.0009	0	%100	Active
33	46	X	-0.0009	-0.0009	0	%100	Active
34	47	X	-0.0009	-0.0009	0	%100	Active
35	48	X	-0.0009	-0.0009	0	%100	Active
36	49	X	-0.0009	-0.0009	0	%100	Active
37	50	X	-0.0009	-0.0009	0	%100	Active
38	51	X	-0.0009	-0.0009	0	%100	Active
39	52	X	-0.0009	-0.0009	0	%100	Active
40	53	X	-0.0009	-0.0009	0	%100	Active
41	54	X	-0.0009	-0.0009	0	%100	Active
42	57	X	-0.001	-0.001	0	%100	Active
43	61	X	-0.001	-0.001	0	%100	Active
44	65	X	-0.001	-0.001	0	%100	Active
45	68	X	-0.001	-0.001	0	%100	Active
46	69	X	-0.001	-0.001	0	%100	Active
47	70	X	-0.001	-0.001	0	%100	Active
48	71	X	-0.001	-0.001	0	%100	Active
49	72	X	-0.001	-0.001	0	%100	Active
50	73	X	-0.001	-0.001	0	%100	Active
51	74	X	-0.0009	-0.0009	0	%100	Active
52	75	X	-0.0009	-0.0009	0	%100	Active
53	79	X	-0.0009	-0.0009	0	%100	Active

Member Distributed Loads

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	Y	-0.0001968	-0.004	0	1.04	Active
2	1	Y	-0.004	-0.005	1.04	2.08	Active
3	1	Y	-0.005	-0.003	2.08	3.12	Active
4	1	Y	-0.003	-0.001	3.12	4.16	Active
5	1	Y	-0.001	-0.0001968	4.16	5.2	Active
6	2	Y	-0.007	-0.005	0	1.04	Active
7	2	Y	-0.005	-0.004	1.04	2.08	Active
8	2	Y	-0.004	-0.003	2.08	3.12	Active
9	2	Y	-0.003	-0.001	3.12	4.16	Active
10	2	Y	-0.001	8.801e-05	4.16	5.2	Active
11	49	Y	-0.003	-0.007	0	0.9	Active
12	49	Y	-0.007	-0.01	0.9	1.8	Active
13	49	Y	-0.01	-0.01	1.8	2.7	Active
14	49	Y	-0.01	-0.007	2.7	3.6	Active
15	49	Y	-0.007	-0.003	3.6	4.5	Active
16	50	Y	-0.006	-0.009	0	0.554	Active
17	50	Y	-0.009	-0.014	0.554	1.107	Active
18	50	Y	-0.014	-0.013	1.107	1.661	Active
19	50	Y	-0.013	-0.007	1.661	2.214	Active
20	50	Y	-0.007	-0.005	2.214	2.768	Active
21	51	Y	-0.003	-0.003	0	0.824	Active
22	1	Y	-0.0001953	-0.001	7.8	8.84	Active
23	1	Y	-0.001	-0.003	8.84	9.88	Active
24	1	Y	-0.003	-0.005	9.88	10.92	Active
25	1	Y	-0.005	-0.004	10.92	11.96	Active
26	1	Y	-0.004	-0.0001953	11.96	13	Active
27	3	Y	-0.007	-0.005	0	1.04	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
28	3	Y	-0.005	-0.004	1.04	2.08	Active
29	3	Y	-0.004	-0.003	2.08	3.12	Active
30	3	Y	-0.003	-0.001	3.12	4.16	Active
31	3	Y	-0.001	8.43e-05	4.16	5.2	Active
32	52	Y	-0.003	-0.007	0	0.9	Active
33	52	Y	-0.007	-0.01	0.9	1.8	Active
34	52	Y	-0.01	-0.009	1.8	2.7	Active
35	52	Y	-0.009	-0.007	2.7	3.6	Active
36	52	Y	-0.007	-0.003	3.6	4.5	Active
37	53	Y	-0.002	-0.008	0	0.554	Active
38	53	Y	-0.008	-0.015	0.554	1.107	Active
39	53	Y	-0.015	-0.014	1.107	1.661	Active
40	53	Y	-0.014	-0.009	1.661	2.214	Active
41	53	Y	-0.009	-0.006	2.214	2.768	Active
42	54	Y	-0.003	-0.003	0.022	0.843	Active
43	2	Y	-0.000159	-0.001	7.8	8.84	Active
44	2	Y	-0.001	-0.003	8.84	9.88	Active
45	2	Y	-0.003	-0.005	9.88	10.92	Active
46	2	Y	-0.005	-0.005	10.92	11.96	Active
47	2	Y	-0.005	-0.002	11.96	13	Active
48	3	Y	-9.253e-05	-0.001	7.8	8.84	Active
49	3	Y	-0.001	-0.003	8.84	9.88	Active
50	3	Y	-0.003	-0.004	9.88	10.92	Active
51	3	Y	-0.004	-0.004	10.92	11.96	Active
52	3	Y	-0.004	-0.003	11.96	13	Active
53	46	Y	-0.003	-0.007	0	0.9	Active
54	46	Y	-0.007	-0.01	0.9	1.8	Active
55	46	Y	-0.01	-0.01	1.8	2.7	Active
56	46	Y	-0.01	-0.007	2.7	3.6	Active
57	46	Y	-0.007	-0.003	3.6	4.5	Active
58	47	Y	-0.009	-0.008	0	0.554	Active
59	47	Y	-0.008	-0.013	0.554	1.107	Active
60	47	Y	-0.013	-0.014	1.107	1.661	Active
61	47	Y	-0.014	-0.008	1.661	2.214	Active
62	47	Y	-0.008	-0.006	2.214	2.768	Active
63	48	Y	-0.002	-0.002	0	0.843	Active
64	4	Y	-0.009	-0.009	0.505	2.779	Active
65	6	Y	-0.009	-0.009	0.505	2.779	Active
66	34	Y	-0.009	-0.009	0.454	1.454	Active
67	79	Y	-0.007	-0.007	1.235	2.88	Active
68	6	Y	-0.008	-0.008	1.365	2.365	Active
69	12	Y	-0.009	-0.009	0.594	2.863	Active
70	39	Y	-0.011	-0.011	0.313	1.313	Active
71	40	Y	-0.004	-0.011	0	3.098	Active
72	8	Y	-0.004	-0.002	0	1.458	Active
73	8	Y	-0.002	-0.0005	1.458	2.917	Active
74	10	Y	-0.004	-0.002	0	1.458	Active
75	10	Y	-0.002	-0.0004668	1.458	2.917	Active
76	35	Y	-0.005	-0.005	1.565	2.552	Active
77	36	Y	-0.005	-0.005	0.46	1.448	Active
78	74	Y	-0.006	-0.01	0	1.004	Active
79	74	Y	-0.01	-0.013	1.004	2.008	Active
80	75	Y	-0.006	-0.01	0	1.004	Active
81	75	Y	-0.01	-0.013	1.004	2.008	Active
82	4	Y	-0.008	-0.008	1.365	2.365	Active
83	10	Y	-0.009	-0.009	0.594	2.864	Active
84	41	Y	-0.011	-0.011	0.739	1.739	Active
85	42	Y	-0.004	-0.011	1.328	4.426	Active
86	12	Y	-0.009	-0.009	0.505	2.779	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
86	12	Y	-0.009	-0.009	0.505	2.779	Active
87	14	Y	-0.009	-0.009	0.505	2.779	Active
88	37	Y	-0.007	-0.007	1.235	2.88	Active
89	38	Y	-0.009	-0.009	0.454	1.454	Active
90	8	Y	-0.008	-0.008	1.365	2.365	Active
91	14	Y	-0.009	-0.009	0.594	2.864	Active
92	43	Y	-0.011	-0.011	0.739	1.739	Active
93	44	Y	-0.004	-0.011	1.328	4.426	Active

Member Distributed Loads

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	1	Y	-0.0001575	-0.003	0	1.04	Active
2	1	Y	-0.003	-0.004	1.04	2.08	Active
3	1	Y	-0.004	-0.003	2.08	3.12	Active
4	1	Y	-0.003	-0.001	3.12	4.16	Active
5	1	Y	-0.001	-0.0001575	4.16	5.2	Active
6	2	Y	-0.006	-0.004	0	1.04	Active
7	2	Y	-0.004	-0.003	1.04	2.08	Active
8	2	Y	-0.003	-0.003	2.08	3.12	Active
9	2	Y	-0.003	-0.0008791	3.12	4.16	Active
10	2	Y	-0.0008791	7.041e-05	4.16	5.2	Active
11	49	Y	-0.003	-0.006	0	0.9	Active
12	49	Y	-0.006	-0.008	0.9	1.8	Active
13	49	Y	-0.008	-0.008	1.8	2.7	Active
14	49	Y	-0.008	-0.006	2.7	3.6	Active
15	49	Y	-0.006	-0.002	3.6	4.5	Active
16	50	Y	-0.005	-0.007	0	0.554	Active
17	50	Y	-0.007	-0.011	0.554	1.107	Active
18	50	Y	-0.011	-0.011	1.107	1.661	Active
19	50	Y	-0.011	-0.006	1.661	2.214	Active
20	50	Y	-0.006	-0.004	2.214	2.768	Active
21	51	Y	-0.002	-0.002	0	0.824	Active
22	1	Y	-0.0001562	-0.001	7.8	8.84	Active
23	1	Y	-0.001	-0.003	8.84	9.88	Active
24	1	Y	-0.003	-0.004	9.88	10.92	Active
25	1	Y	-0.004	-0.003	10.92	11.96	Active
26	1	Y	-0.003	-0.0001562	11.96	13	Active
27	3	Y	-0.006	-0.004	0	1.04	Active
28	3	Y	-0.004	-0.003	1.04	2.08	Active
29	3	Y	-0.003	-0.003	2.08	3.12	Active
30	3	Y	-0.003	-0.0008807	3.12	4.16	Active
31	3	Y	-0.0008807	6.744e-05	4.16	5.2	Active
32	52	Y	-0.002	-0.006	0	0.9	Active
33	52	Y	-0.006	-0.008	0.9	1.8	Active
34	52	Y	-0.008	-0.008	1.8	2.7	Active
35	52	Y	-0.008	-0.006	2.7	3.6	Active
36	52	Y	-0.006	-0.003	3.6	4.5	Active
37	53	Y	-0.001	-0.007	0	0.554	Active
38	53	Y	-0.007	-0.012	0.554	1.107	Active
39	53	Y	-0.012	-0.011	1.107	1.661	Active
40	53	Y	-0.011	-0.007	1.661	2.214	Active
41	53	Y	-0.007	-0.005	2.214	2.768	Active
42	54	Y	-0.002	-0.002	0.022	0.843	Active
43	2	Y	-0.0001272	-0.001	7.8	8.84	Active
44	2	Y	-0.001	-0.003	8.84	9.88	Active
45	2	Y	-0.003	-0.004	9.88	10.92	Active
46	2	Y	-0.004	-0.004	10.92	11.96	Active
47	2	Y	-0.004	-0.002	11.96	13	Active

Member Distributed Loads (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf]	End Magnitude [k/ft, F, ksf]	Start Location [(ft, %)]	End Location [(ft, %)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
48	3	Y	-7.403e-05	-0.001	7.8	8.84	Active
49	3	Y	-0.001	-0.003	8.84	9.88	Active
50	3	Y	-0.003	-0.004	9.88	10.92	Active
51	3	Y	-0.004	-0.003	10.92	11.96	Active
52	3	Y	-0.003	-0.002	11.96	13	Active
53	46	Y	-0.002	-0.006	0	0.9	Active
54	46	Y	-0.006	-0.008	0.9	1.8	Active
55	46	Y	-0.008	-0.008	1.8	2.7	Active
56	46	Y	-0.008	-0.006	2.7	3.6	Active
57	46	Y	-0.006	-0.002	3.6	4.5	Active
58	47	Y	-0.008	-0.007	0	0.554	Active
59	47	Y	-0.007	-0.011	0.554	1.107	Active
60	47	Y	-0.011	-0.011	1.107	1.661	Active
61	47	Y	-0.011	-0.007	1.661	2.214	Active
62	47	Y	-0.007	-0.004	2.214	2.768	Active
63	48	Y	-0.002	-0.002	0	0.843	Active
64	4	Y	-0.007	-0.007	0.505	2.779	Active
65	6	Y	-0.007	-0.007	0.505	2.779	Active
66	34	Y	-0.007	-0.007	0.454	1.454	Active
67	79	Y	-0.006	-0.006	1.235	2.88	Active
68	6	Y	-0.007	-0.007	1.365	2.365	Active
69	12	Y	-0.007	-0.007	0.594	2.863	Active
70	39	Y	-0.009	-0.009	0.313	1.313	Active
71	40	Y	-0.003	-0.009	0	3.098	Active
72	8	Y	-0.003	-0.002	0	1.458	Active
73	8	Y	-0.002	-0.0004	1.458	2.917	Active
74	10	Y	-0.003	-0.002	0	1.458	Active
75	10	Y	-0.002	-0.0003734	1.458	2.917	Active
76	35	Y	-0.004	-0.004	1.565	2.552	Active
77	36	Y	-0.004	-0.004	0.46	1.448	Active
78	74	Y	-0.005	-0.008	0	1.004	Active
79	74	Y	-0.008	-0.01	1.004	2.008	Active
80	75	Y	-0.005	-0.008	0	1.004	Active
81	75	Y	-0.008	-0.01	1.004	2.008	Active
82	4	Y	-0.007	-0.007	1.365	2.365	Active
83	10	Y	-0.007	-0.007	0.594	2.864	Active
84	41	Y	-0.009	-0.009	0.739	1.739	Active
85	42	Y	-0.003	-0.009	1.328	4.426	Active
86	12	Y	-0.007	-0.007	0.505	2.779	Active
87	14	Y	-0.007	-0.007	0.505	2.779	Active
88	37	Y	-0.006	-0.006	1.235	2.88	Active
89	38	Y	-0.007	-0.007	0.454	1.454	Active
90	8	Y	-0.007	-0.007	1.365	2.365	Active
91	14	Y	-0.007	-0.007	0.594	2.864	Active
92	43	Y	-0.009	-0.009	0.739	1.739	Active
93	44	Y	-0.003	-0.009	1.328	4.426	Active

Member Area Loads

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	75	76	50	29	Y	Two Way	-0.01	Active
2	81	82	27	40	Y	Two Way	-0.01	Active
3	69	70	64	52	Y	Two Way	-0.01	Active
4	56	54	58	60	Y	Two Way	-0.01	Active
5	54	55	57	56	Y	Two Way	-0.01	Active
6	59	120	122	63	Y	Two Way	-0.01	Active
7	120	58	60	59	Y	Two Way	-0.01	Active
8	62	61	55	57	Y	Two Way	-0.01	Active
9	61	122	63	62	Y	Two Way	-0.01	Active

Member Area Loads

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	75	76	50	29	Y	Two Way	-0.008	Active
2	81	82	27	40	Y	Two Way	-0.008	Active
3	69	70	64	52	Y	Two Way	-0.008	Active
4	56	54	58	60	Y	Two Way	-0.008	Active
5	54	55	57	56	Y	Two Way	-0.008	Active
6	59	120	122	63	Y	Two Way	-0.008	Active
7	120	58	60	59	Y	Two Way	-0.008	Active
8	62	61	55	57	Y	Two Way	-0.008	Active
9	61	122	63	62	Y	Two Way	-0.008	Active

Nodal Loads and Enforced Displacements

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	24	L	Y	-0.5	Active
2	46	L	Y	-0.5	Active
3	35	L	Y	-0.5	Active

Nodal Loads and Enforced Displacements

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	124	L	Y	-0.5	Active
2	128	L	Y	-0.5	Active
3	126	L	Y	-0.5	Active

Nodal Loads and Enforced Displacements

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]	Inactive [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	42	L	Y	-0.5	Active
2	20	L	Y	-0.5	Active
3	31	L	Y	-0.5	Active

Envelope Node Reactions

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	9	max	-0.069	9	1.769	20	4.783	14	1.012	2	0.007	6	0.123	11
2		min	-0.328	14	-0.052	2	-0.7	8	-4.132	20	-0.049	24	-0.345	5
3	15	max	4.232	15	1.766	21	2.004	15	0.513	3	0.061	20	3.601	22
4		min	-0.098	9	0.161	3	-0.16	9	-1.763	9	-0.014	2	-0.038	3
5	13	max	4.225	19	1.768	25	0.172	13	1.792	25	0.014	8	3.651	24
6		min	-0.128	13	0.179	7	-1.998	18	-0.498	7	-0.06	14	0.013	7
7	19	max	-0.071	2	1.766	14	0.652	2	4.069	14	0.05	22	0.108	11
8		min	-0.328	20	-0.072	8	-4.788	20	-1.086	8	-0.007	4	-0.337	17
9	17	max	0.01	4	1.735	16	-0.125	4	2.27	15	0.002	12	0.089	10
10		min	-3.878	22	0.227	10	-2.594	22	-0.15	9	-0.039	18	-3.307	16
11	11	max	-0.016	6	1.724	18	2.598	24	0.161	13	0.041	16	0.141	12
12		min	-3.885	24	0.213	12	0.138	6	-2.241	19	-0.001	10	-3.252	18
13	Totals:	max	4.42	5	9.894	16	6.978	2						
14		min	-4.42	11	4.111	10	-6.978	8						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	1	L3X3X8	0.491	0.542	8	0.327	4.198	y	16	8.619	89.424	2.862	5.979	1.5	H2-1
2	2	L3X3X8	0.574	0.542	2	0.326	8.938	z	25	8.619	89.424	2.862	5.979	1.5	H2-1
3	3	L3X3X8	0.515	12.458	9	0.325	4.198	y	20	8.619	89.424	2.862	5.979	1.5	H2-1
4	4	HSS3.5X3.5X3	0.343	2.917	20	0.131	0.304	z	17	88.604	92.736	9.522	9.522	2.131	H1-1b
5	5	HSS3X3X3	0.637	0.667	20	0.122	0.667	y	18	77.988	78.246	6.796	6.796	1.129	H1-1b
6	6	HSS3.5X3.5X3	0.337	0	22	0.189	0.304	z	8	88.604	92.736	9.522	9.522	2.159	H1-1b
7	7	HSS3X3X3	0.609	0.667	18	0.127	0.667	y	20	77.988	78.246	6.796	6.796	1.133	H1-1b
8	8	HSS3.5X3.5X3	0.337	2.917	25	0.173	0.304	z	9	88.604	92.736	9.522	9.522	2.23	H1-1b
9	9	HSS3X3X3	0.63	0.667	25	0.134	0.667	y	21	77.988	78.246	6.796	6.796	1.132	H1-1b
10	10	HSS3.5X3.5X3	0.337	0	15	0.174	0.304	z	13	88.604	92.736	9.522	9.522	2.291	H1-1b
11	11	HSS3X3X3	0.621	0.667	21	0.135	0.667	y	25	77.988	78.246	6.796	6.796	1.134	H1-1b
12	12	HSS3.5X3.5X3	0.334	0	24	0.189	0.304	z	2	88.604	92.736	9.522	9.522	2.159	H1-1b
13	13	HSS3X3X3	0.617	0.667	16	0.127	0.667	y	14	77.988	78.246	6.796	6.796	1.132	H1-1b
14	14	HSS3.5X3.5X3	0.336	2.917	14	0.133	0.304	z	17	88.604	92.736	9.522	9.522	2.136	H1-1b
15	15	HSS3X3X3	0.629	0.667	14	0.122	0.667	y	16	77.988	78.246	6.796	6.796	1.131	H1-1b
16	17	HSS3.000X0.188	0.203	4.875	17	0.14	1.969		7	28.569	58.212	4.378	4.378	1.933	H1-1b
17	19	HSS2.375X0.188	0.385	3.208	8	0.185	3.208		8	29.272	45.36	2.662	2.662	2.152	H1-1b
18	23	HSS3.000X0.188	0.264	4.875	9	0.117	4.875		10	28.569	58.212	4.378	4.378	1.78	H1-1b
19	25	HSS2.375X0.188	0.355	3.208	13	0.123	3.208		12	29.272	45.36	2.662	2.662	2.178	H1-1b
20	29	HSS3.000X0.188	0.284	4.875	2	0.181	4.875		2	28.569	58.212	4.378	4.378	1.774	H1-1b
21	31	HSS2.375X0.188	0.265	3.208	40	0.132	0.286		3	29.272	45.36	2.662	2.662	2.246	H1-1b
22	34	L2x2x4	0.259	0	20	0.02	0	z	9	25.44	30.586	0.691	1.577	1.077	H2-1
23	35	L2x2x4	0.333	3.044	23	0.024	3.044	z	14	12.977	30.586	0.691	1.451	1.093	H2-1
24	36	L2x2x4	0.256	0	25	0.031	0	z	2	25.44	30.586	0.691	1.577	1.106	H2-1
25	37	L2x2x4	0.448	4.116	3	0.011	0	y	7	12.977	30.586	0.691	1.48	1.213	H2-1
26	38	L2x2x4	0.259	1.908	14	0.021	0	z	7	25.44	30.586	0.691	1.577	1.078	H2-1
27	39	L2x2x4	0.3	0	19	0.024	0	z	8	24.716	30.586	0.691	1.577	1.101	H2-1
28	40	L2x2x4	0.344	0	17	0.012	0	z	8	11.322	30.586	0.691	1.47	1.255	H2-1
29	41	L2x2x4	0.3	0	23	0.016	2.052	z	7	24.716	30.586	0.691	1.577	1.085	H2-1
30	42	L2x2x4	0.356	4.426	8	0.009	4.426	z	7	11.322	30.586	0.691	1.462	1.22	H2-1
31	43	L2x2x4	0.299	2.052	23	0.017	2.052	z	9	24.716	30.586	0.691	1.577	1.075	H2-1
32	44	L2x2x4	0.348	0	2	0.009	4.426	z	9	11.322	30.586	0.691	1.458	1.202	H2-1
33	46	L2x2x4	0.367	4.5	14	0.011	0	z	9	10.953	30.586	0.691	1.512	1.5	H2-1
34	47	L2x2x4	0.183	0	10	0.032	2.768	z	3	20.754	30.586	0.691	1.577	1.5	H2-1
35	48	L2x2x4	0.286	0	40	0.092	0.843	z	3	29.504	30.586	0.691	1.577	1.5	H2-1
36	49	L2x2x4	0.365	4.5	18	0.016	0	z	2	10.953	30.586	0.691	1.512	1.5	H2-1
37	50	L2x2x4	0.266	0	2	0.048	2.768	z	8	20.754	30.586	0.691	1.577	1.5	H2-1
38	51	L2x2x4	0.287	0	44	0.138	0.843	z	8	29.504	30.586	0.691	1.577	1.5	H2-1
39	52	L2x2x4	0.363	4.5	21	0.012	0	z	7	10.953	30.586	0.691	1.507	1.471	H2-1
40	53	L2x2x4	0.19	0	7	0.033	0	z	7	20.754	30.586	0.691	1.577	1.5	H2-1
41	54	L2x2x4	0.287	0	49	0.095	0.843	z	13	29.504	30.586	0.691	1.577	1.5	H2-1

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
42	57	PIPE_2.0	0.635	6.25	8	0.255	6.25		8	6.295	32.13	1.872	1.872	1.907	H3-6
43	61	PIPE_2.0	0.548	6.25	8	0.143	11.979		11	6.295	32.13	1.872	1.872	1.867	H1-1b
44	65	PIPE_2.0	0.622	6.25	2	0.25	6.25		2	6.295	32.13	1.872	1.872	1.899	H3-6
45	68	HSS2.375X0.188	0.519	6	2	0.076	6		9	14.197	45.36	2.662	2.662	1.74	H1-1b
46	69	HSS2.375X0.188	0.632	6	2	0.109	6		2	14.197	45.36	2.662	2.662	2.132	H1-1b
47	70	HSS2.375X0.188	0.516	6	7	0.076	6		7	14.197	45.36	2.662	2.662	1.815	H1-1b
48	71	L2.5x2.5x4	0.311	1.245	2	0.08	0	y	4	36.654	38.556	1.114	2.537	1.5	H2-1
49	72	L2.5x2.5x4	0.334	1.245	8	0.131	0	y	8	36.654	38.556	1.114	2.537	1.5	H2-1
50	73	L2.5x2.5x4	0.323	1.245	13	0.092	0	y	13	36.654	38.556	1.114	2.537	1.5	H2-1
51	74	L2x2x4	0.264	0	23	0.024	0	z	14	24.938	30.586	0.691	1.577	1.5	H2-1
52	75	L2x2x4	0.265	0	23	0.023	0	y	8	24.938	30.586	0.691	1.577	1.5	H2-1
53	79	L2x2x4	0.444	0	7	0.011	4.116	y	9	12.977	30.586	0.691	1.487	1.245	H2-1

APPENDIX D

ADDITIONAL CALCULATIONS

PROJECT	**111217.006.01 - 352 S. MAIN ST, NEV SR**				
SUBJECT	**Platform Mount Mount Analysis**				
DATE	**11/16/20**	PAGE	1	OF	1

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

[REF: AISC 360-05]

Reactions at Bolted Connection

Tension	:	4.783	k
Vertical Shear	:	1.773	k
Horizontal Shear	:	-0.069	k
Torsion	:	0.122	k.ft
Moment from Horizontal Forces	:	0.007	k.ft
Moment from Vertical Forces	:	1.012	k.ft

Bolt Parameters

Bolt Grade	:	A325	
Bolt Diameter	:	0.625	in
Nominal Bolt Area	:	0.307	in^2
Bolt spacing, Horizontal	:	6	in
Bolt spacing, Vertical	:	6	in
Bolt edge distance, plate height	:	1.5	in
Bolt edge distance, plate width	:	1.5	in
Total Number of Bolts	:	4	bolts

Summary of Forces

Shear Resultant Force	:	1.77	k
Force from Horz. Moment	:	0.01	k
Force from Vert. Moment	:	1.83	k
Shear Load / Bolt	:	0.44	k
Tension Load / Bolt	:	1.20	k
Resultant from Moments / Bolt	:	0.92	k

Bolt Checks

Nominal Tensile Stress, F_{nt}	:	90.00	ksi	[AISC Table J3.2]
Available Tensile Stress, ΦR_{nt}	:	20.72	k/bolt	[Eq. J3-1]
Unity Check, Bolt Tension	:	**10.19%**		**OKAY**
Nominal Shear Stress, F_{nv}	:	48.00	ksi	[AISC Table J3.2]
Available Shear Stress, ΦR_{nv}	:	11.05	k/bolt	[Eq. J3-1]
Unity Check, Bolt Shear	:	**14.83%**		**OKAY**
Unity Check, Combined	:	**25.03%**		**OKAY**
Available Bearing Strength, ΦR_n	:	34.66	k/bolt	
Unity Check, Bolt Bearing	:	**1.28%**		**OKAY**

Exhibit F

Power Density/RF Emissions Report

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: CT11216B

Monroe-2/RT-25
352 S Main Street (Monroe Landscaping)
Newtown, Connecticut 06470

December 1, 2020

EBI Project Number: 6220006071

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**14.14%**

December 1, 2020

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

Emissions Analysis for Site: CT11216B - Monroe-2/RT-25

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **352 S Main Street (Monroe Landscaping)** in **Newtown, 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 352 S Main Street (Monroe Landscaping) in Newtown, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. 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 all calculations, all equipment was calculated using the following assumptions:

1) 2 LTE channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 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) 2 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

4) 4 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

5) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

6) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

7) 1 LTE channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.

8) 1 NR channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.

9) 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.

10) 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.

11) The antennas used in this modeling are the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz channel(s), the RFS APX16DWV-16DWV-S-E-A20 for the 2100 MHz channel(s) in Sector A, the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz channel(s), the RFS APX16DWV-16DWV-S-E-A20 for the 2100 MHz channel(s) in Sector B, the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz channel(s), the RFS APX16DWV-16DWV-S-E-A20 for the 2100 MHz channel(s) in Sector C. 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.

12) The antenna mounting height centerline of the proposed antennas is 137 feet above ground level (AGL).

13) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz
Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd
Height (AGL):	137 feet	Height (AGL):	137 feet	Height (AGL):	137 feet
Channel Count:	2	Channel Count:	2	Channel Count:	2
Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts
ERP (W):	38,477.89	ERP (W):	38,477.89	ERP (W):	38,477.89
Antenna A1 MPE %:	**7.37%**	Antenna B1 MPE %:	**7.37%**	Antenna C1 MPE %:	**7.37%**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	RFS APXVAALL24_43-U-NA20	Make / Model:	RFS APXVAALL24_43-U-NA20	Make / Model:	RFS APXVAALL24_43-U-NA20
Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd
Height (AGL):	137 feet	Height (AGL):	137 feet	Height (AGL):	137 feet
Channel Count:	11	Channel Count:	11	Channel Count:	11
Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts
ERP (W):	12,569.87	ERP (W):	12,569.87	ERP (W):	12,569.87
Antenna A2 MPE %:	**3.51%**	Antenna B2 MPE %:	**3.51%**	Antenna C2 MPE %:	**3.51%**
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	RFS APX16DWV-16DWV-S-E-A20	Make / Model:	RFS APX16DWV-16DWV-S-E-A20	Make / Model:	RFS APX16DWV-16DWV-S-E-A20
Frequency Bands:	2100 MHz	Frequency Bands:	2100 MHz	Frequency Bands:	2100 MHz
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	137 feet	Height (AGL):	137 feet	Height (AGL):	137 feet
Channel Count:	2	Channel Count:	2	Channel Count:	2
Total TX Power (W):	120 Watts	Total TX Power (W):	120 Watts	Total TX Power (W):	120 Watts
ERP (W):	4,668.54	ERP (W):	4,668.54	ERP (W):	4,668.54
Antenna A3 MPE %:	**0.89%**	Antenna B3 MPE %:	**0.89%**	Antenna C3 MPE %:	**0.89%**

Site Composite MPE %	
Carrier	**MPE %**
T-Mobile (Max at Sector A):	11.77%
Sprint	2.37%
Town	0%
Site Total MPE % :	14.14%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	11.77%
T-Mobile Sector B Total:	11.77%
T-Mobile Sector C Total:	11.77%
Site Total MPE % :	14.14%

T-Mobile Maximum MPE Power Values (Sector A)

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 2500 MHz LTE	1	19238.94	137.0	36.85	2500 MHz LTE	1000	3.69%
T-Mobile 2500 MHz NR	1	19238.94	137.0	36.85	2500 MHz NR	1000	3.69%
T-Mobile 600 MHz LTE	2	591.73	137.0	2.27	600 MHz LTE	400	0.57%
T-Mobile 600 MHz NR	1	1577.94	137.0	3.02	600 MHz NR	400	0.76%
T-Mobile 700 MHz LTE	2	695.22	137.0	2.66	700 MHz LTE	467	0.57%
T-Mobile 1900 MHz GSM	4	1052.26	137.0	8.06	1900 MHz GSM	1000	0.81%
T-Mobile 1900 MHz LTE	2	2104.51	137.0	8.06	1900 MHz LTE	1000	0.81%
T-Mobile 2100 MHz LTE	2	2334.27	137.0	8.94	2100 MHz LTE	1000	0.89%
						Total:	**11.77%**

• 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:	11.77%
Sector B:	11.77%
Sector C:	11.77%
T-Mobile Maximum MPE % (Sector A):	11.77%
Site Total:	14.14%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **14.14%** 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.

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.