SAI Group
12 Industrial Way
Salem, NH 03079
603-421-0470

March 28, 2023

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

Notice of Exempt Modification – New Cingular Wireless PCS, LLC (AT&T) – CT2132
10 Willard Road, Norwalk, CT 06851
N 41.128288
W 73.390181

Dear Ms. Bachman:

AT&T currently maintains twelve (12) antennas at the 347-foot level of the existing 350-foot Self-Support Tower at 10 Willard Road, Norwalk, CT. The property is owned by Ten Willard Apartments LLC and the tower is owned by CCT-4 LLC. AT&T now intends to replace twelve (12) antennas. The new antennas will be installed at the 347-foot level of the tower. This modification may include B2, B5, B17, B14, B29, B30, B66 & n77 hardware that is 4G (LTE) and/or 5GNR capable through remote software configuration and either or both services may be turned on or off at various times.

AT&T Planned Modifications:

Remove:
(6) TMAs
(6) Diplexers
(12) Triplexers
(6) Coax (1-5/8")

Remove and Replace:
(3) POWERWAVE Antennas (REMOVE) - (3) Ericsson AIR 6419 B77G Antennas (REPLACE)
(3) POWERWAVE Antennas (REMOVE) - (3) Ericsson AIR 6449 B77D Antennas (REPLACE)
(3) QUINTEL Antennas (REMOVE) - (3) QUINTEL QD4616-7 Antennas (REPLACE)
(3) CCI Antennas (REMOVE) - (3) CCI DMP65R-BU4DA Antennas (REPLACE)

Install New: None

Existing to Remain:
(3) Ericsson RRUS-32-B30
(3) Ericsson 4478-B14
(3) Ericsson 8843 B2/B66A
(3) Ericsson 4449 B5/B12
(3) Raycap Surge Units
(6) Coax (1-5/8")
(6) DC Lines
(3) Fiber Lines

The facility was originally approved by the City of Norwalk and AT&T's use of the facility was first approved by the Connecticut Siting Council on April 25, 19988. The approval included no conditions that could feasibly be violated by this proposed modification, including total facility height and mounting restrictions. This modification therefore complies with the aforementioned approvals.

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 Mayor Harry Rilling, as elected official and to Steven Kleppin, Director of Planning & Zoning for the City of Norwalk, as well as the tower and property owners.

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

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

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

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

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

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

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

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

Please feel free to call me at (860) 670-9068 with any questions regarding this matter. Thank you for your consideration.

Sincerely,

Mark Roberts

Mark Roberts
Consultant for SAI
Mark.Roberts@QCDevelopment.net

Attachments

Cc: Mayor Harry Rilling - Elected Official
Steven Kleppin – Director of Planning & Zoning
Ten Willard Apartments LLC - Property Owner
CCT-4 LLC - Tower Owner

Exhibit A

Original Facility Approval

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

136 Main Street, Suite 401
New Britain, Connecticut 06051
Phone : 827-7682

April 25, 1988

Mr. Peter J. Tyrrell
Senior Attorney
SNET Cellular, Inc.
227 Church Street
Room 1021
New Haven, CT 06506

RE: Notice of Intent to Modify an Exempt Tower and Associated Equipment by SNET in Norwalk, Connecticut.

Dear Mr. Tyrrell:

At a meeting held on April 19, 1988, the Connecticut Siting Council acknowledged your Notice of Intent to Modify an Exempt Tower and Associated Equipment owned by the Southern New England Telephone Company located in Norwalk, Connecticut, pursuant to Section 16-50j-73 of the Regulations of State Agencies (RSA).

Your notice is in compliance with the exception criteria for changes to an existing facility site, pursuant to RSA 16-50j-72.

Very truly yours,

Gloria Dibble Pond

Gloria Dibble Pond
Chairperson

GDP/JMR/cp

1349E

Southern New England Telephone
227 Church Street
New Haven, Connecticut 06510
Phone (203) 771-7381

SNET

Peter J. Tyrrell
Senior Attorney

March 24, 1988

Gloria Dibble Pond, Chairperson
Connecticut Siting Council
136 Main Street, Suite 401
New Britain, CT 06051

Dear Honorable Chairperson Pond:

Enclosed please find a Notice of Intent to Modify an Exempt Tower and Associated Equipment owned by The Southern New England Telephone Company located in Norwalk, Connecticut by SNET Cellular, Inc. Fifteen (15) copies are included.

Please record my name as counsel for the SNET Cellular, Inc. and The Southern New England Telephone Company in this matter and in correspondence from the Council.

Thank you for your kind cooperation.

Very truly yours,

Peter J Tyrrell

Enclosures

55581

STATE OF CONNECTICUT
SITING COUNCIL

NOTICE OF INTENT TO MODIFY AN EXEMPT TOWER
AND ASSOCIATED EQUIPMENT

Pursuant to Section 16-50i(a)(5) of the Connecticut General Statutes and pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies, SNET Cellular, Inc. (SNET) a company which provides cellular radio telecommunications service in the State of Connecticut hereby notifies the Connecticut Siting Council that it intends to modify an existing telecommunications tower. The site is located at Willard Road, Norwalk, Connecticut.

The location will be leased in part from its current owner and operator, The Southern New England Telephone Company (Owner) and will be used in part as a cell site to provide cellular mobile telecommunications service in Fairfield County. The proposed modification would contain both transmit and receive antennas located as shown on the attached tower profile.

DISCUSSION

The Norwalk tower has been in continuous use by the Owner as a telecommunications tower for twenty (20) years. The tower is located on the Owner's Garage on Willard Road in Norwalk. The proposed addition is needed to supply additional channel capacity and improved transmission for cellular service to the Norwalk/Westport area by SNET Cellular. This cell site has been designed to properly interface with the adjacent cell sites in

Westport and Norwalk and has been frequency coordinated with the NYNEX cellular system.

The proposed antenna addition consists of up to six (6) antennas (see sketch). The antennas to be used will be mounted on brackets near the top of the tower. From ground level they will appear smaller and will be very difficult to see. There presently exists on said tower two fourteen (14) foot horn reflectors and two twelve (12) dishes.

The maximum power density of the cellular facility is set forth below. It has been calculated in milliwatts per square centimeter.[a]

Location	Power Density
Tower Base	0.0103
Fence	0.0103
Nearest Building[b]	0.00921

In 1984 the Connecticut Legislature adopted the safety levels of the American National Standards Institute ("ANSI") in CGS Section 22a-162. The current ANSI power density level standard (for the cellular service band) for non-ionizing radiation is 2.933 milliwatts/cm^2. (See ANSI Standard C95.1-1982). In this case the cellular power density figures are more than two hundred times lower than the applicable standard.

---

a The levels shown indicate the total power density in milliwatts per sq. cm. from all cellular antennas measured simultaneously.

b The nearest building is the SNET garage.

The proposed addition does not constitute a "modification" of an existing facility as that term is defined in Connecticut General Statutes, Section 16-50i(d). This is because there is no significant change or alteration in the general physical characteristics of the tower. The additional antennas do not change materially the nature or appearance of the facility. This addition will not have a substantially adverse environmental effect. (CGS Section 16-50k.) As shown by the attached sketch, there will be no changes on the existing tower site that extend the boundaries of the fence or the enclosed areas of the tower site. There will be no increase in noise levels at the tower's boundary by six decibels or more.

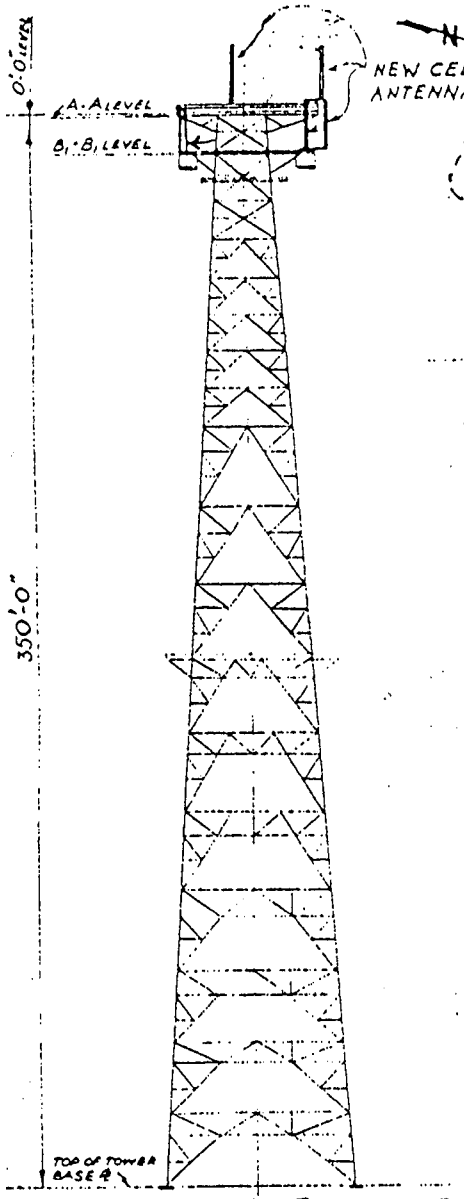
For all the above reasons SNET Cellular, Inc. requests the Council to acknowledge that the Notice of modification meets the Council's exemption criteria.

Sincerely,

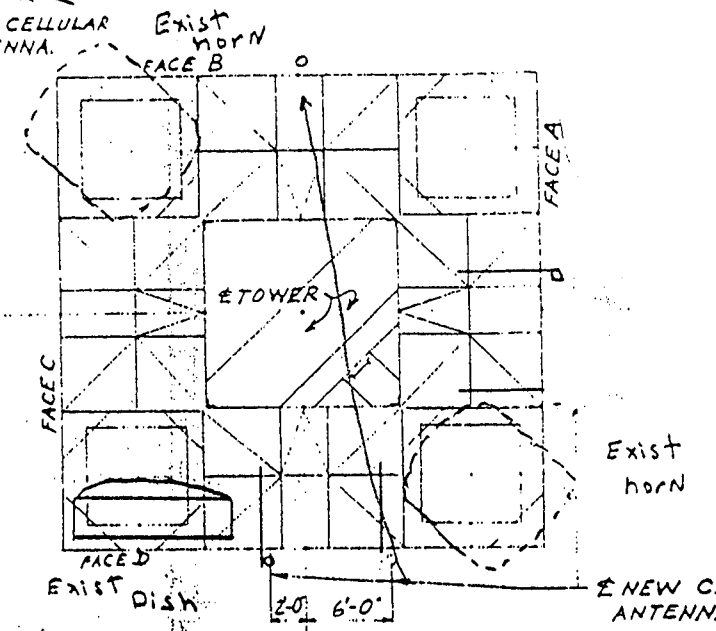
Peter J. Tyrrell

Peter J. Tyrrell

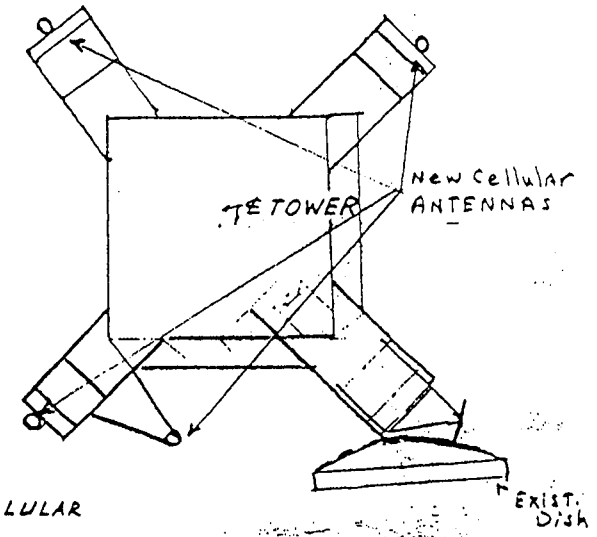
55581



TOWER ELEVATION ~ FACE D



PLAN AT A-A LEVEL



PART PLAN AT B,-B, LEVEL

ISSUE

DATE	DESCRIPTION	ENGR	NO

GENERAL ARRANGEMENT

EXISTING 350'-0" STEEL TOWER TYPE L

NORWALK, CT.

BAYAR & ASSOCIATES
STRUCTURAL ENGINEERS
100 MONTGOMERY AVENUE, SCARSDALE, N.Y. 10583

SK - 178

Exhibit B

Property Card

10 WILLARD RD

Location	10 WILLARD RD	**Mblu**	5/ 17/ 2/ 1/
Acct#	51721	**Owner**	TEN WILLARD APARTMENTS LLC
Assessment	$31,997,670	**Appraisal**	$45,710,950
PID	50956	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$45,710,950	$0	$45,710,950
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$31,997,670	$0	$31,997,670

Owner of Record

Owner	TEN WILLARD APARTMENTS LLC	**Sale Price**	$8,486,668
Co-Owner		**Certificate**	
Address	230 PARK AVE 3RD FLR WEST NEW YORK, NY 10169-0000	**Book & Page**	9057/56
		Sale Date	08/24/2020
		Instrument	0

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
TEN WILLARD APARTMENTS LLC	$8,486,668		9057/56	0	08/24/2020
FDSPIN WILLARD LLC	$0		8711/260		07/18/2018

Building Information

Building 1 : Section 1

Year Built:	
Living Area:	252,316
Replacement Cost:	$32,188,311
Building Percent Good:	30

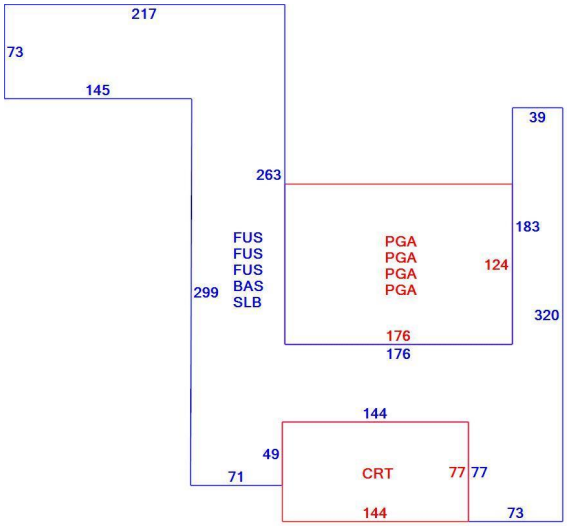
Replacement Cost
Less Depreciation: $9,656,490

Building Attributes	
Field	**Description**
Style	Condominium
Model:	Com Condo
Stories	
Grade	A+
Occupancy	
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	
Heat Fuel	Gas
Heat Type	Forced Air
AC Type	
Bedrooms	
Full Baths	55
Half Baths	
Extra Fixtures	
Total Rooms	
Bath Style	
Kitchen Style	
Central Vac	
Frame	
Foundation	
Bsmt Garage	0
Floor	
Fireplaces	
Location	
FBM Area	
FBM Quality	
# of Heat Systems	
Insulation	
Electric	
Heat Percent	
Grade	B+
Stories	
Exterior Wall 1:	Single Siding
Exterior Wall 2:	
Roof Structure	Gable

Building Photo

(https://images.vgsi.com/photos/NorwalkCTPhotos//default.jpg)

Building Layout



(ParcelSketch.ashx?pid=50956&bid=58382)

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
FUS	Finished Upper Story	189,237	189,237
BAS	First Floor	63,079	63,079
CRT	Court Yard	11,088	0
PGA	Parking Garage above Grade	87,296	0
SLB	SLAB	63,079	0
		413,779	252,316

Roof Cover	Wood Shingle
Commercial Units:	0
Residential Units	0
Foundation	
Parking	
Complex Cond.	
Grade	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	206V
Description	Commercial Condo
Zone	
Neighborhood	

Land Line Valuation

Size (Acres)	0
Frontage	
Depth	
Assessed Value	$0
Appraised Value	$0

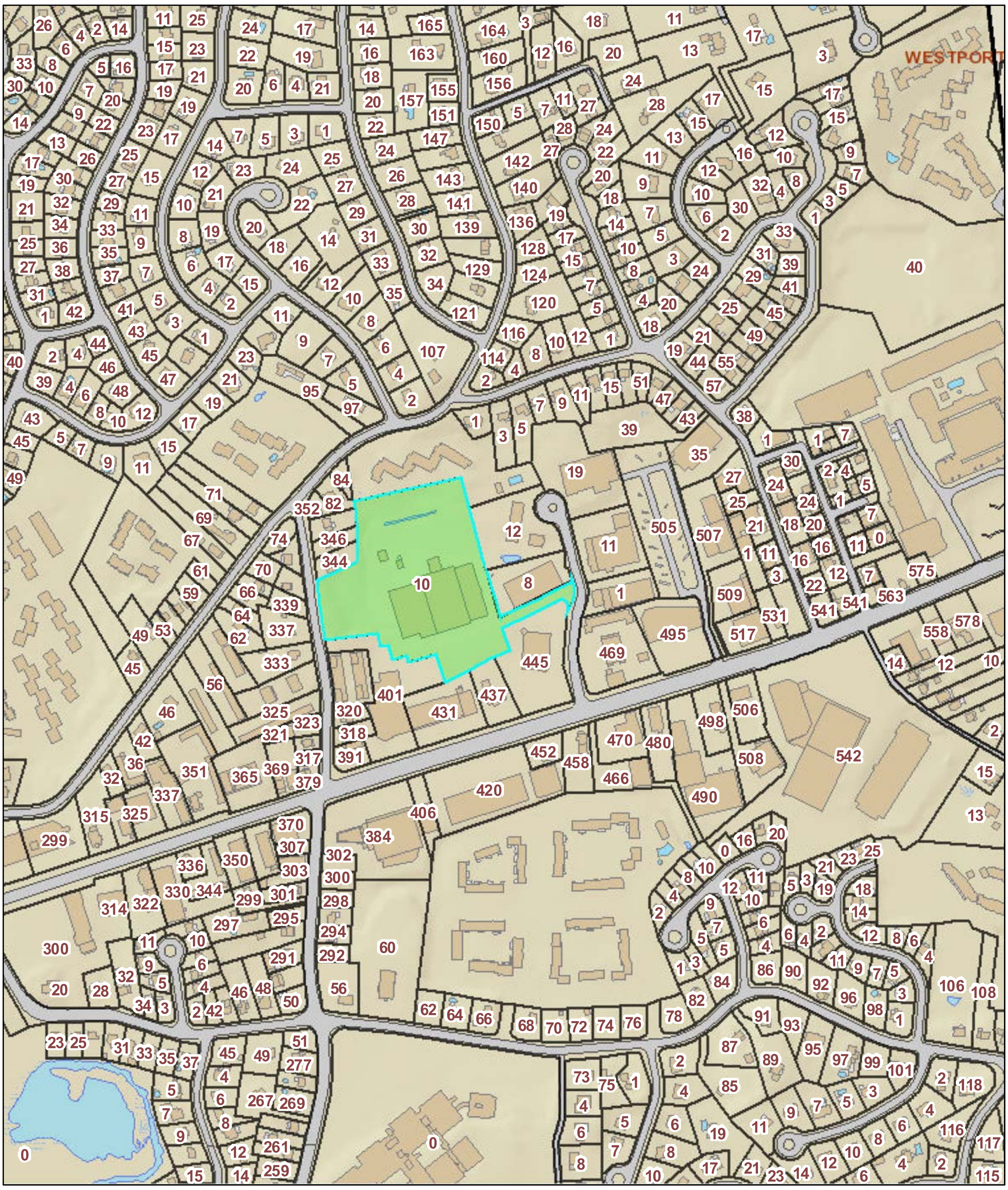
Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2022	$45,710,950	$0	$45,710,950
2021	$29,920,000	$0	$29,920,000
2020	$8,945,960	$0	$8,945,960

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2022	$31,997,670	$0	$31,997,670
2021	$20,944,000	$0	$20,944,000
2020	$6,262,172	$0	$6,262,172



10 WILLARD ROAD

Feet
0 425 850 1,700
1 inch = 625 feet

Exhibit C

Construction Drawings

PROJECT INFORMATION

SCOPE OF WORK:

ITEMS TO BE MOUNTED ON THE EXISTING SELF SUPPORT:
- NEW AT&T ANTENNAS: AIR6419 B77G (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T ANTENNAS: AIR6449 B77D (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T ANTENNAS: QD4616-7 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T ANTENNAS: DMP65R-BU4DA (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T RRUS:4478 B14 (700/PCS) (TYP. OF 1 PER SECTOR, TOTAL OF 3) (TO BE RELOCATED TO POS. 2)
- EXISTING AT&T RRUS:8843 B2/B66A (AWS) (TYP. OF 1 PER SECTOR, TOTAL OF 3) (TO BE RELOCATED TO POS. 2)
- EXISTING AT&T RRUS:RRUS-32 B30 (WCS) (TYP. OF 1 PER SECTOR, TOTAL OF 3) (TO BE RELOCATED TO POS. 4)
- NEW AT&T (6) Y-CABLES.

ITEMS TO BE MOUNTED AT EQUIPMENT LOCATION:
- ADD (4) RECTIFIERS
- ADD (1) 6648 WITH XCEDE CABLE.

ITEMS TO BE REMOVED:
- EXISTING AT&T ANTENNAS: 7770 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T ANTENNAS: OPA-65R-LCUU-H4 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T ANTENNAS: 800-10964 (TYP. OF 2 PER SECTOR, TOTAL OF 6).
- EXISTING AT&T TMA'S: LGP21401 (TYP. OF 2 PER SECTOR, TOTAL OF 6).
- EXISTING AT&T DIPLEXER: LGP21901 (TYP. OF 2 PER SECTOR, TOTAL OF 6).
- EXISTING AT&T TRIPLEXERS: TPX-070821 (TYP. OF 4 PER SECTOR, TOTAL OF 12).
- EXISTING AT&T (6) COAX-CABLES.

ITEMS TO REMAIN:
- (15) RRU'S, (3) SURGE ARRESTOR, (6) COAX CABLES, (6) DC POWER, (3) FIBER

SITE ADDRESS:	WILLARD ROAD NORWALK, CT 06851
LATITUDE:	41.1282700° N, 41° 7' 41.77" N
LONGITUDE:	73.3901661° W, 73° 23' 24.59" W
TYPE OF SITE:	SELF SUPPORT / INDOOR EQUIPMENT
STRUCTURE HEIGHT:	350'-0"±
RAD CENTER:	347'-0"± (LTE), 347'-8"± (DOD), 344'-0"± (C-BAND)
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
A-1	COMPOUND & EQUIPMENT PLANS	1
A-2	ANTENNA LAYOUT PLANS	1
A-3	ELEVATION	1
SN-1	STRUCTURAL NOTES	1
G-1	GROUNDING DETAILS	1
RF-1	RF PLUMBING DIAGRAM	1

SITE NUMBER: CTL02132

SITE NAME: NORWALK EAST-WILLARD RD

FA CODE: 10034993

PACE ID: MRCTB052104,MRCTB051544,MRCTB051682

PROJECT: 5G NR 1SR CBAND_BBU RECONFIGURATION UPGRADE

VICINITY MAP

DIRECTIONS TO SITE:

START OUT GOING NORTHEAST ON ENTERPRISE DR TOWARD CAPITOL BLVD. 0.4 MI. TURN LEFT ONTO CAPITOL BLVD. 0.3 MI. TURN LEFT ONTO WEST ST. 0.3 MI. MERGE ONTO I-91S VIA THE RAMP ON THE LEFT TOWARD NEW HAVEN. 9.7 MI. MERGE ONTO CT-15 S VIA EXIT 17. 43.3 MI. TAKE THE CT-57 EXIT, EXIT 42, TOWARD WESTPORT / WESTON. 0.1 MI. TURN RIGHT ONTO CT-57 / WESTON RD. 0.2 MI. KEEP RIGHT AT THE FORK TO GO ON CT-57. 0.9 MI. TURN SLIGHT RIGHT ONTO CANAL ST / CT-57. CONTINUE TO FOLLOW CANAL ST. 0.5 MI. CANAL ST BECOMES KINGS HWY N. 0.6 MI. TURN SLIGHT RIGHT ONTO POST RD W / US-1. CONTINUE TO FOLLOW US-1. 1.1 MI. TURN RIGHT ONTO WILLARD RD. 10 WILLARD RD IS ON THE LEFT.

GENERAL NOTES

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.
5. NOTE TO GENERAL CONTRACTOR: (PRIOR TO CONSTRUCTION COMPLETION)

   TEP NORTHEAST (TEP OPCO, LLC.) TO PERFORM POST/CLIMB AND INSPECTION TO CONFIRM PROPOSED INSTALLATION COMPLIES WITH THE RECORD STAMPED DRAWINGS AND STRUCTURAL REPORTS PRIOR TO SUBMITTING FCCA (FINAL CONSTRUCTION CONTROL AFFIDAVIT). GC IS RESPONSIBLE FOR COORDINATING INSPECTIONS WITH TEP NORTHEAST (TEP OPCO, LLC.) PRIOR TO CONSTRUCTION BEING COMPLETED.

72 HOURS

CALL
BEFORE YOU DIG
CALL TOLL FREE 1-800-922-4455
OR CALL 811

UNDERGROUND SERVICE ALERT

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

TEP NORTHEAST
TEP OPCO, LLC.
45 BEECHWOOD DRIVE, NORTH ANDOVER, MA 01845
TEL: (978) 557-5553

SAI
12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CTL02132
SITE NAME: NORWALK EAST-WILLARD RD

WILLARD ROAD
NORWALK, CT 06851
FAIRFIELD COUNTY

at&t
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	03/24/23	ISSUED FOR CONSTRUCTION	PS	HC	DPH
A	03/11/22	ISSUED FOR REVIEW	PS	HC	DPH

SCALE: AS SHOWN | DESIGNED BY: HC | DRAWN BY: PS

AT&T

TITLE SHEET

5G NR 1SR CBAND_BBU RECONFIGURATION UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL02132	T-1	1

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE–SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. 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.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL–OF–POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81 STANDARDS) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. 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.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS AND #2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON–ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

   CONTRACTOR – SAI
   SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER – AT&T MOBILITY

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR 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 CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR 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.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR 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.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR–ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCH UP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T SITES."
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. **APPLICABLE BUILDING CODES:**
    SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

    BUILDING CODE: IBC 2021 WITH 2022 CT STATE BUILDING CODE AMENDMENTS
    ELECTRICAL CODE: 2020 NATIONAL ELECTRICAL CODE (NFPA 70–2020)

    SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

    AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

    AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

    TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222–H, STRUCTURAL STANDARDS FOR STEEL

    FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		

TEP NORTHEAST
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SITE NUMBER: CTL02132
SITE NAME: NORWALK EAST-WILLARD RD

WILLARD ROAD
NORWALK, CT 06851
FAIRFIELD COUNTY

at&t
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
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A	03/11/22	ISSUED FOR REVIEW	PS	HC	DPH

SCALE: AS SHOWN | DESIGNED BY: HC | DRAWN BY: PS

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

AT&T
GENERAL NOTES
5G NR 1SR CBAND_BBU RECONFIGURATION UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL02132	GN–1	1

NOTE TO GENERAL CONTRACTOR: (PRIOR TO CONSTRUCTION COMPLETION)

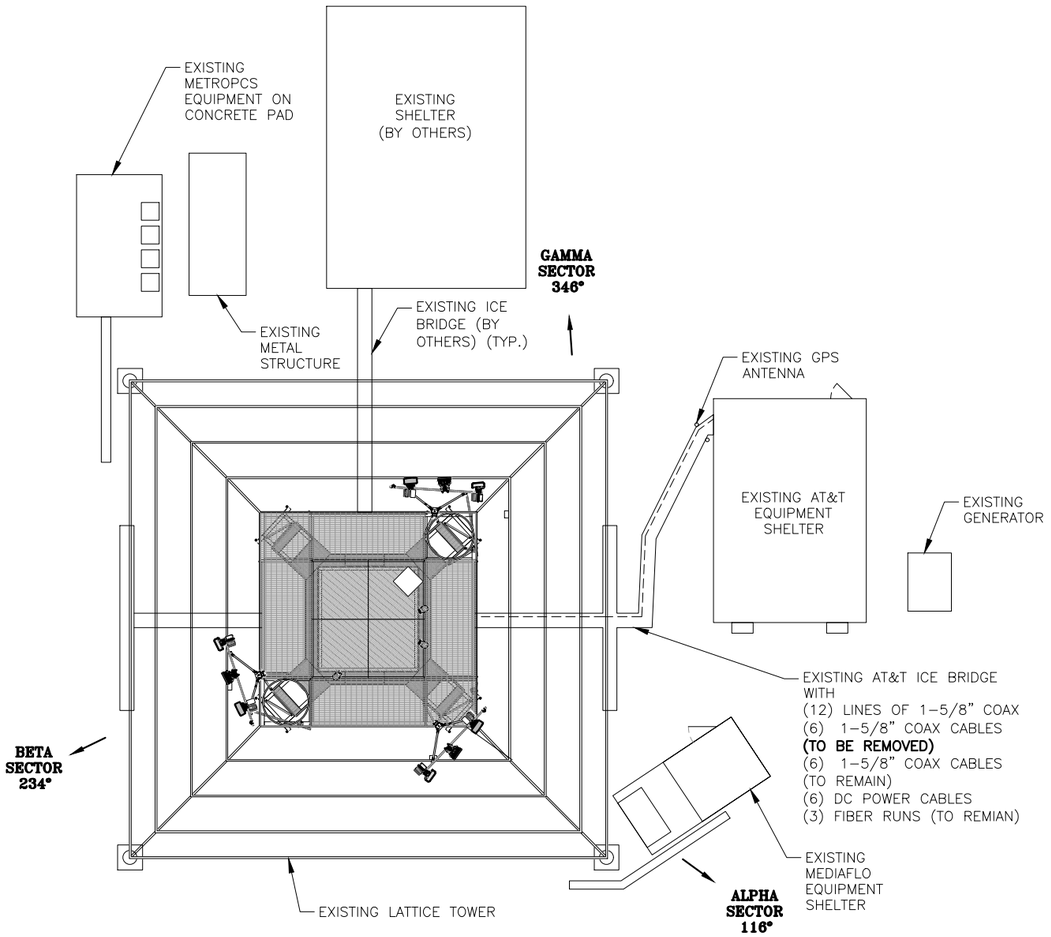
TEP NORTHEAST (TEP OPCO, LLC.) TO PERFORM POST/CLIMB AND INSPECTION TO CONFIRM PROPOSED INSTALLATION COMPLIES WITH THE RECORD STAMPED DRAWINGS AND STRUCTURAL REPORTS PRIOR TO SUBMITTING FCCA (FINAL CONSTRUCTION CONTROL AFFIDAVIT). GC IS RESPONSIBLE FOR COORDINATING INSPECTIONS WITH TEP NORTHEAST (TEP OPCO, LLC.) PRIOR TO CONSTRUCTION BEING COMPLETED.

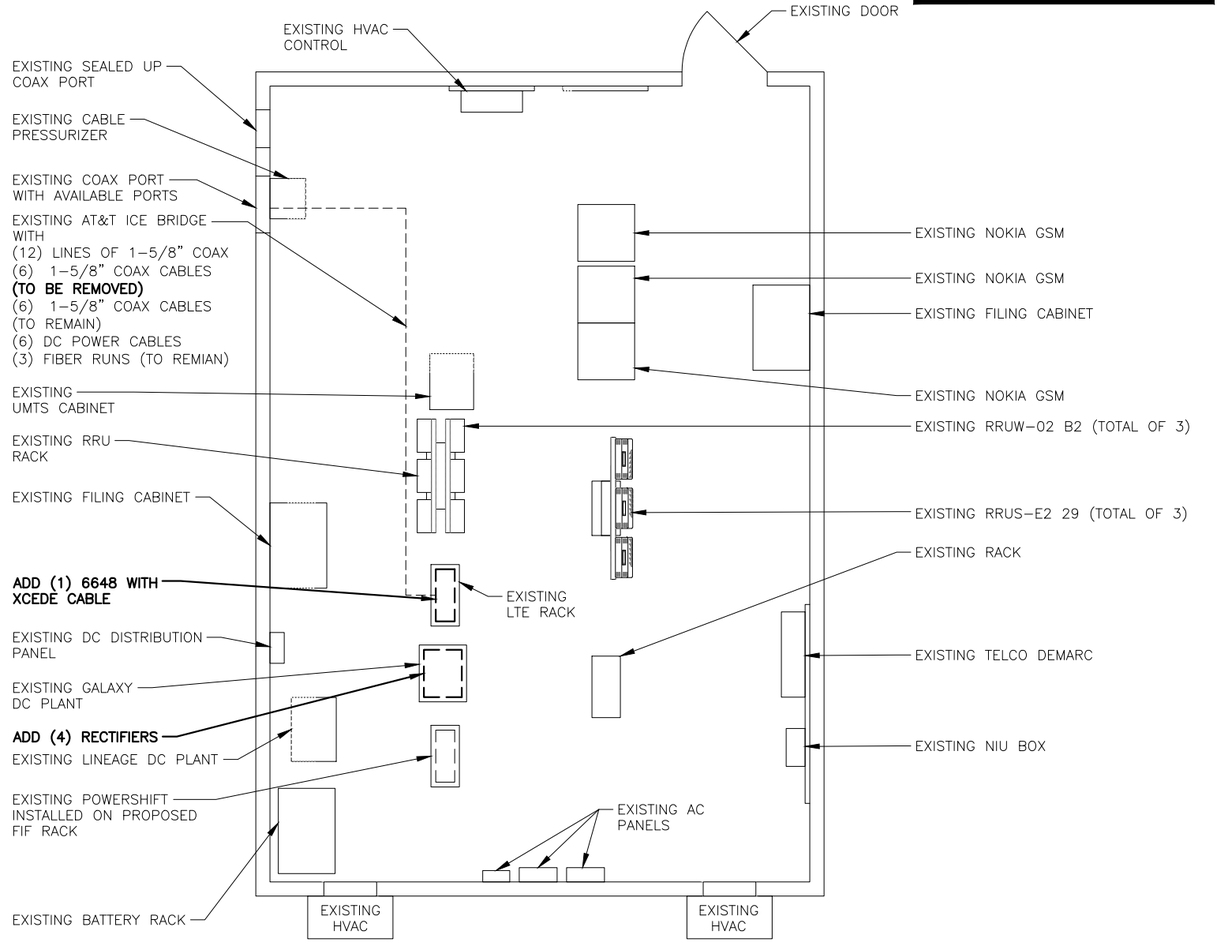
NOTE:

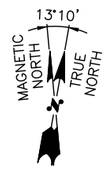
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:

REFER TO **STRUCTURAL ANALYSIS** BY: GPD DATED: NOVEMBER 4, 2022 FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

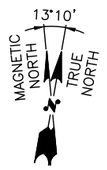






COMPOUND PLAN (1 / A-1)
22x34 SCALE: 3/32"=1'-0"
11x17 SCALE: 3/64"=1'-0"

0 5'-4" 10'-8" 21'-4" 32'-0"



EQUIPMENT PLAN (2 / A-1)
22x34 SCALE: 3/8"=1'-0"
11x17 SCALE: 3/16"=1'-0"

0 2'-8" 5'-4" 8'-0"

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STATE OF CONNECTICUT
DANIEL P. HAMM
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LICENSED PROFESSIONAL ENGINEER

AT&T

COMPOUND & EQUIPMENT PLANS

5G NR 1SR CBAND_BBU RECONFIGURATION UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL02132	A-1	1

NOTE TO GENERAL CONTRACTOR: (PRIOR TO CONSTRUCTION COMPLETION)

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NOTE:

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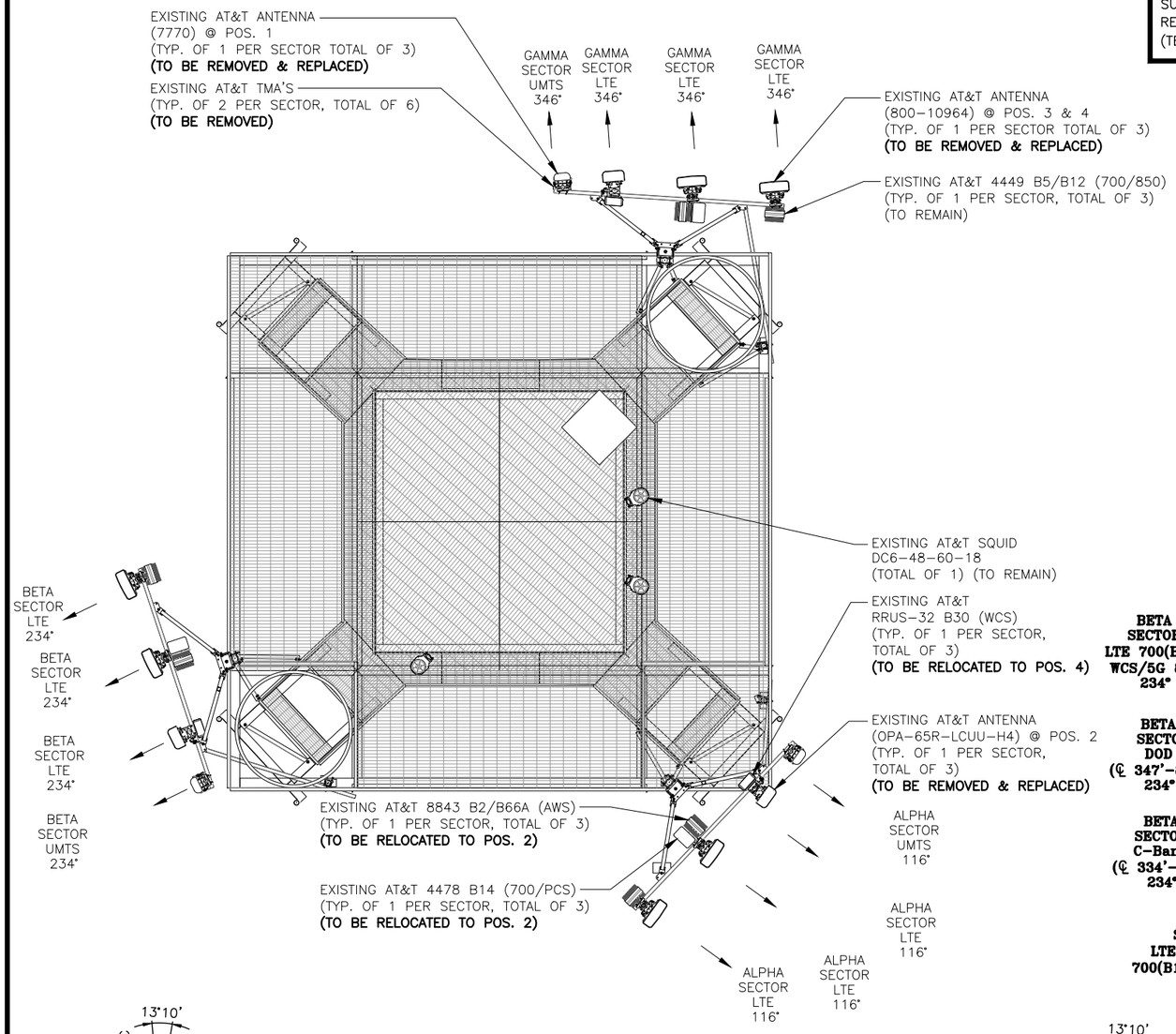
NOTE:

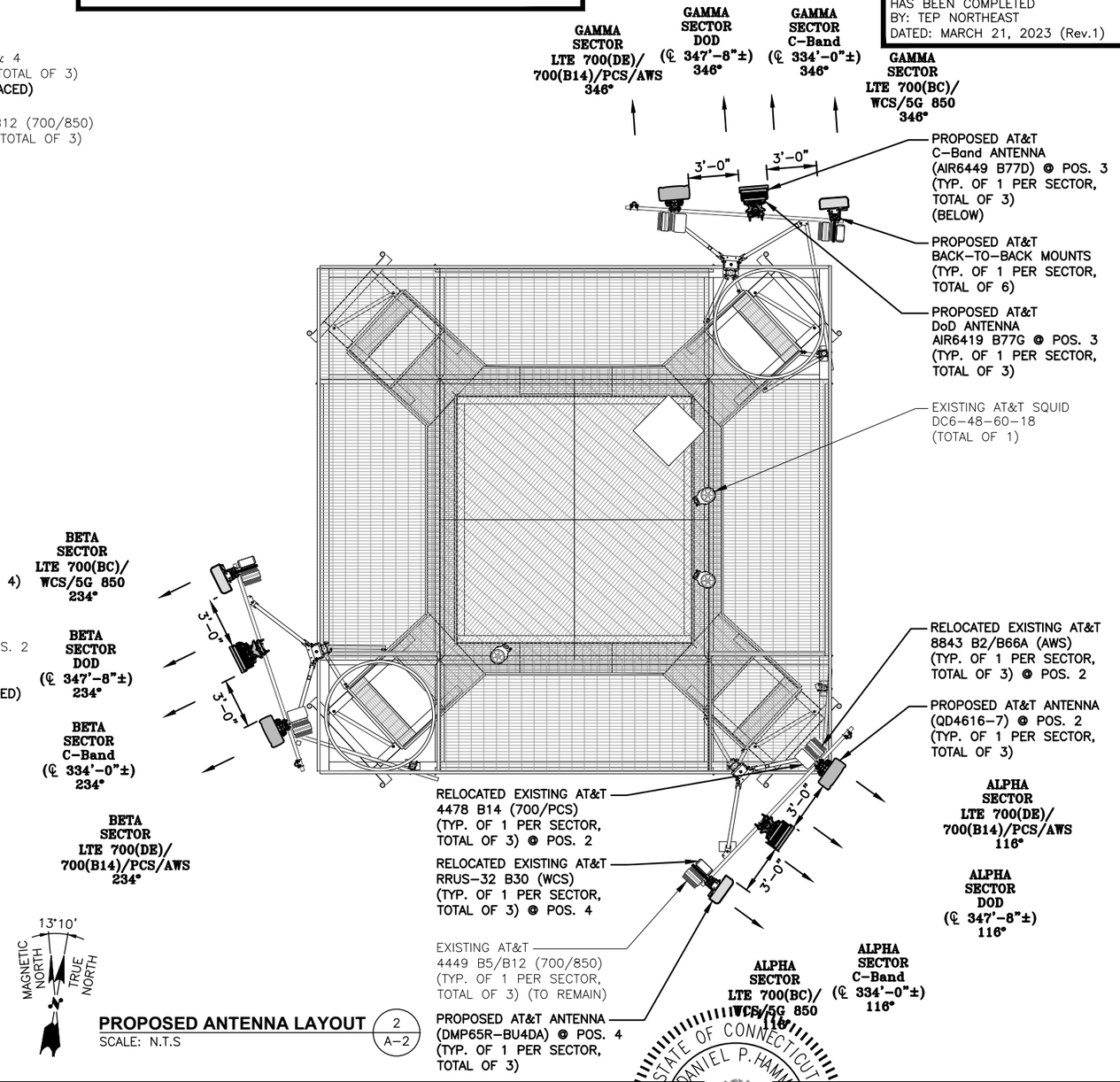
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED
BY: TEP NORTHEAST
DATED: MARCH 21, 2023 (Rev.1)



EXISTING ANTENNA LAYOUT (1 / A-2)
SCALE: N.T.S



PROPOSED ANTENNA LAYOUT (2 / A-2)
SCALE: N.T.S

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TEP OPCO, LLC.
45 BEECHWOOD DRIVE, NORTH ANDOVER, MA 01845
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SCALE: AS SHOWN | DESIGNED BY: HC | DRAWN BY: PS

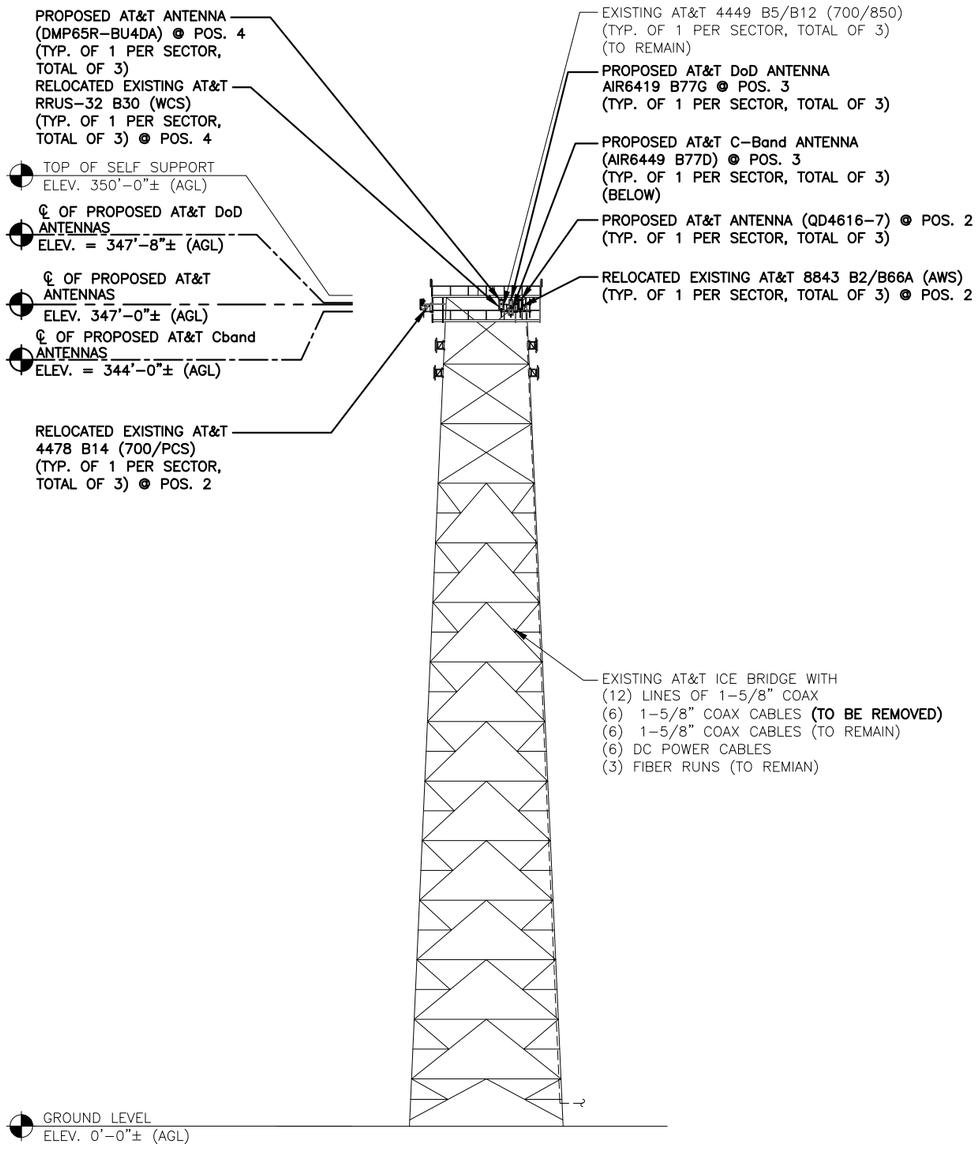
STATE OF CONNECTICUT
DANIEL P. HAMM
No. 24178
LICENSED PROFESSIONAL ENGINEER

AT&T

ANTENNA LAYOUTS PLAN

5GS NR 1SR CBAND_BBU RECONFIGURATION UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL02132	A-2	1



ELEVATION 1 / A-3
22x34 SCALE: 1/32"=1'-0"
11x17 SCALE: 1/64"=1'-0"

0 16'-0" 32'-0" 64'-0" 96'-0"

NOTE:

REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED
BY: TEP NORTHEAST
DATED: MARCH 21, 2023 (Rev.1)

NOTE:

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A	03/11/22	ISSUED FOR REVIEW	DPS	HC	DPH

SCALE: AS SHOWN | DESIGNED BY: HC | DRAWN BY: PS

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

AT&T

ELEVATION

SG NR 1SR CBAND_BBU RECONFIGURATION UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL02132	A-3	1

ANTENNA SCHEDULE

SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA ℄ HEIGHT	ANTENNA TIP HEIGHT	AZIMUTH	TMA/ DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	–	–	–	–	–	–	–	–	–	–	(2)1–5/8 COAX	(E) (1) RAYCAP DC6–48–60–18
A2	PROPOSED	LTE 700(DE)/700(B14)/PCS/AWS	QD4616–7	51.5"X22X9.6"	347'–0"±	349'–0"±	116°	–	(E)(1) 4478 B14 (700/PCS) (E)(1) 8843 B2/B66A (AWS) (G)(E)(1) RRUS–E2 B29 (700)	–	(E)(2) DC POWER & (1) FIBER **(P)(1) Y–CABLE**	
A3	PROPOSED	DoD C–BAND	AIR6419 B77G AIR6449 B77D (STACKED)	31.1"X16.1X7.3" 30.4"X15.9"X8.1"	347'–8"± 344'–0"±	349'–0"± 345'–5"±	116°	–	–	–	–	
A4	PROPOSED	LTE 700(BC)/WCS/5G 850	DMP65R–BU4DA	48.0"X20.7X7.7"	347'–0"±	349'–0"±	116°	–	(E)(1) 4449 B5/B12 (700/850) (E)(1) RRUS–32 B30(WCS)	–	**(P)(1) Y–CABLE**	
B1	–	–	–	–	–	–	–	–	–	–	(2)1–5/8 COAX	(E) (1) RAYCAP DC6–48–60–18
B2	PROPOSED	LTE 700(DE)/700(B14)/PCS/AWS	QD4616–7	51.5"X22X9.6"	347'–0"±	349'–0"±	234°	–	(E)(1) 4478 B14 (700/PCS) (E)(1) 8843 B2/B66A (AWS) (G)(E)(1) RRUS–E2 B29 (700)	–	(E)(2) DC POWER & (1) FIBER **(P)(1) Y–CABLE**	
B3	PROPOSED	DoD C–BAND	AIR6419 B77G AIR6449 B77D (STACKED)	31.1"X16.1X7.3" 30.4"X15.9"X8.1"	347'–8"± 344'–0"±	349'–0"± 345'–5"±	234°	–	–	–	–	
B4	PROPOSED	LTE 700(BC)/WCS/5G 850	DMP65R–BU4DA	48.0"X20.7X7.7"	347'–0"±	349'–0"±	234°	–	(E)(1) 4449 B5/B12 (700/850) (E)(1) RRUS–32 B30(WCS)	–	**(P)(1) Y–CABLE**	
C1	–	–	–	–	–	–	–	–	–	–	(2)1–5/8 COAX	(E) (1) RAYCAP DC6–48–60–18
C2	PROPOSED	LTE 700(DE)/700(B14)/PCS/AWS	QD4616–7	51.5"X22X9.6"	347'–0"±	349'–0"±	346°	–	(E)(1) 4478 B14 (700/PCS) (E)(1) 8843 B2/B66A (AWS) (G)(E)(1) RRUS–E2 B29 (700)	–	(E)(2) DC POWER & (1) FIBER **(P)(1) Y–CABLE**	
C3	PROPOSED	DoD C–BAND	AIR6419 B77G AIR6449 B77D (STACKED)	31.1"X16.1X7.3" 30.4"X15.9"X8.1"	347'–8"± 344'–0"±	349'–0"± 345'–5"±	346°	–	–	–	–	
C4	PROPOSED	LTE 700(BC)/WCS/5G 850	DMP65R–BU4DA	48.0"X20.7X7.7"	347'–0"±	349'–0"±	346°	–	(E)(1) 4449 B5/B12 (700/850) (E)(1) RRUS–32 B30(WCS)	–	**(P)(1) Y–CABLE**	

NOTE:

REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED
BY: TEP NORTHEAST
DATED: MARCH 21, 2023 (Rev.1)

NOTE:

REFER TO **STRUCTURAL ANALYSIS**
BY: GPD DATED: NOVEMBER 4, 2022
FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

NOTE TO GENERAL CONTRACTOR: (PRIOR TO CONSTRUCTION COMPLETION)

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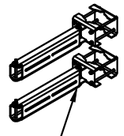
RRU CHART

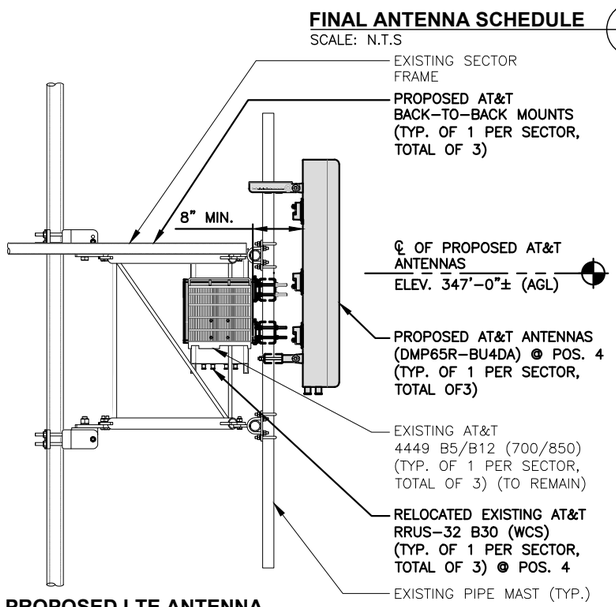
QUANTITY	MODEL	SIZE (L x W x D)
E(3)	4449 B5/B12 (700/850)	14.9"x13.2"x10.4"
E(3)	8843 B2/B66A (AWS)	14.9"x13.2"x10.9"
E(3)	4478 B14 (700/PCS)	18.1"x13.4"x8.3"
E(3)	RRUS–32 B30 (WCS)	27.2"x12.1"x7.0"
E(3)	RRUS–E2 B29 (700)	20.4"x18.5"x7.5"

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS

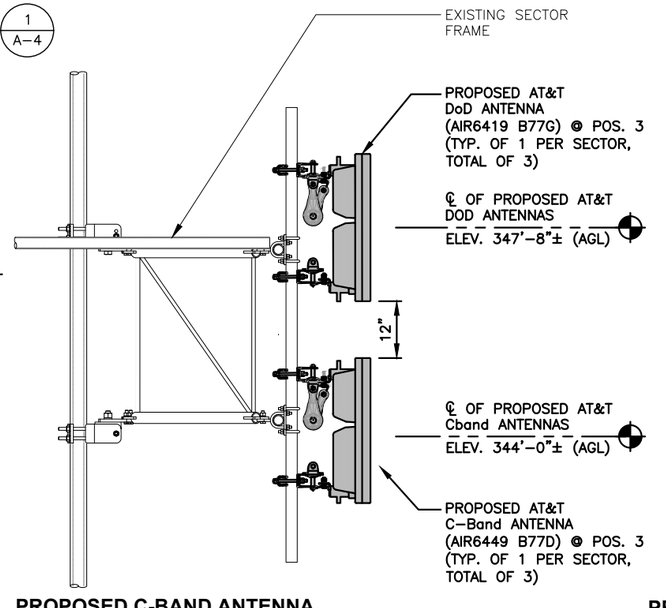


DUAL RRU MOUNT DETAIL (2 / A–4)
SCALE: N.T.S

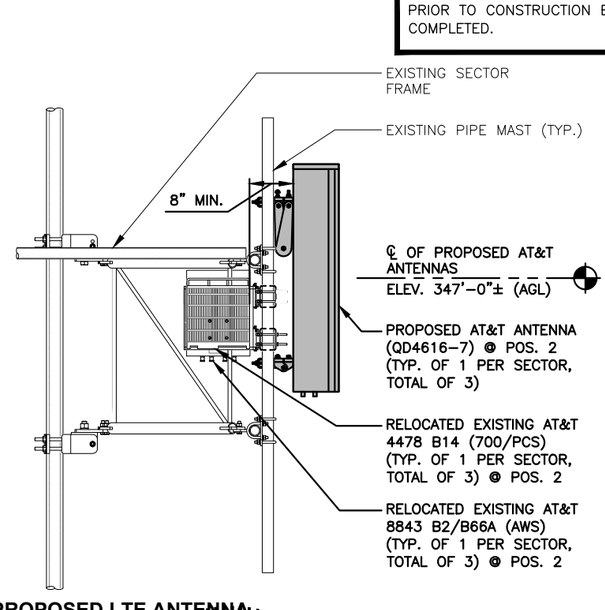
FINAL ANTENNA SCHEDULE (1 / A–4)
SCALE: N.T.S



PROPOSED LTE ANTENNA MOUNTING DETAIL (3 / A–4)
22x34 SCALE: 3/4"=1'–0"
11x17 SCALE: 3/8"=1'–0"
0 8" 1'–4" 2'–8" 4'–0"



PROPOSED C-BAND ANTENNA MOUNTING DETAIL (4 / A–4)
22x34 SCALE: 3/4"=1'–0"
11x17 SCALE: 3/8"=1'–0"
0 8" 1'–4" 2'–8" 4'–0"



PROPOSED LTE ANTENNA MOUNTING DETAIL (5 / A–4)
22x34 SCALE: 3/4"=1'–0"
11x17 SCALE: 3/8"=1'–0"
0 8" 1'–4" 2'–8" 4'–0"

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SCALE: AS SHOWN | DESIGNED BY: HC | DRAWN BY: PS

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

AT&T

ELEVATION

5G NR 1SR CBAND_BBU RECONFIGURATION UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL02132	A–4	1

STRUCTURAL NOTES:

1. DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD.
3. DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
4. STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
5. STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
6. STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 TYPE-X "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 3/4" DIA UON.
7. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
8. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
9. FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
10. CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL". 14TH EDITION.
11. INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
12. UNISTRUT SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP., WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
13. EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS. AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-270 AND OR HY-200 SYSTEMS (AS SPECIFIED IN DWG.) OR ENGINEERS APPROVED EQUAL.
14. EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
15. LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
16. WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE BUILDING OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY. ROOF SHALL BE WATERTIGHT.
17. ALL FIBERGLASS MEMBERS USED ARE AS MANUFACTURED BY STRONGWELL COMPANY OF BRISTOL, VA 24203. ALL DESIGN CRITERIA FOR THESE MEMBERS IS BASED ON INFORMATION PROVIDED IN THE DESIGN MANUAL. ALL REQUIREMENTS PUBLISHED IN SAID MANUAL MUST BE STRICTLY ADHERED TO.
18. NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
19. SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):

GENERAL: WHERE APPLICATION IS MADE FOR CONSTRUCTION, THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE INSPECTION CHECKLIST ABOVE.

THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.

STATEMENT OF SPECIAL INSPECTIONS: THE APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 107.1 AS A CONDITION FOR ISSUANCE. THIS STATEMENT SHALL BE IN ACCORDANCE WITH SECTION 1705.

REPORT REQUIREMENT: SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS SHALL BE SUBMITTED.

SPECIAL INSPECTION CHECKLIST	
BEFORE CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
N/A	ENGINEER OF RECORD APPROVED SHOP DRAWINGS [1]
N/A	MATERIAL SPECIFICATIONS REPORT [2]
N/A	FABRICATOR NDE INSPECTION
REQUIRED	PACKING SLIPS [3]
ADDITIONAL TESTING AND INSPECTIONS:	
DURING CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS [4]
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION [5]
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT
ADDITIONAL TESTING AND INSPECTIONS:	
AFTER CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS [6]
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

TEP NORTHEAST
TEP OPCO, LLC.
45 BEECHWOOD DRIVE, NORTH ANDOVER, MA 01845
TEL: (978) 557-5553

SAI
12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CTL02132
SITE NAME: NORWALK EAST-WILLARD RD

WILLARD ROAD
NORWALK, CT 06851
FAIRFIELD COUNTY

at&t
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	03/24/23	ISSUED FOR CONSTRUCTION	PS	HC	DPH
A	03/11/22	ISSUED FOR REVIEW	PS	HC	DPH

SCALE: AS SHOWN | DESIGNED BY: HC | DRAWN BY: PS

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

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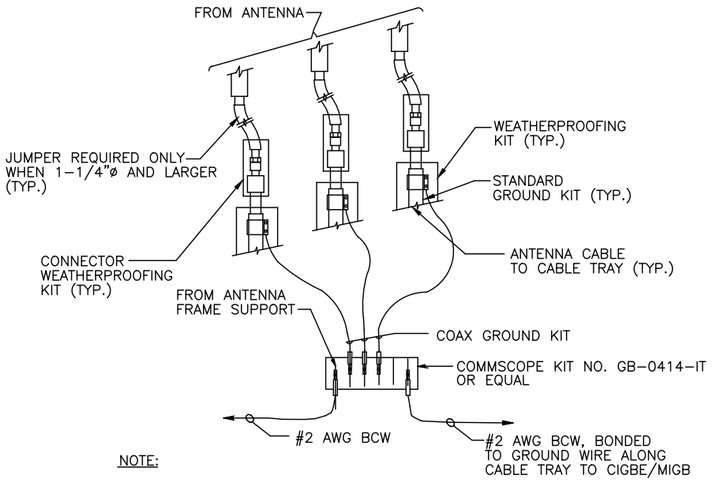
STRUCTURAL NOTES

5G NR 1SR CBAND_BBU RECONFIGURATION UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL02132	SN-1	1

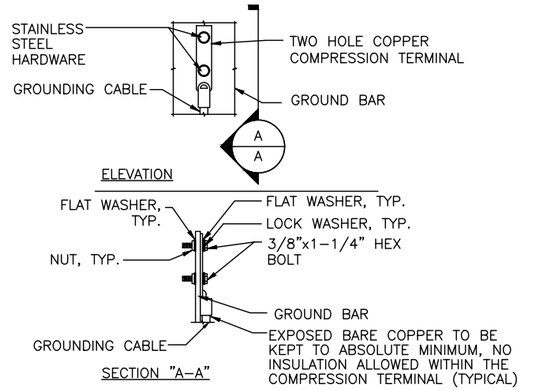


NOTE:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

GROUND WIRE TO GROUND BAR CONNECTION DETAIL (1 / G-1)

SCALE: N.T.S

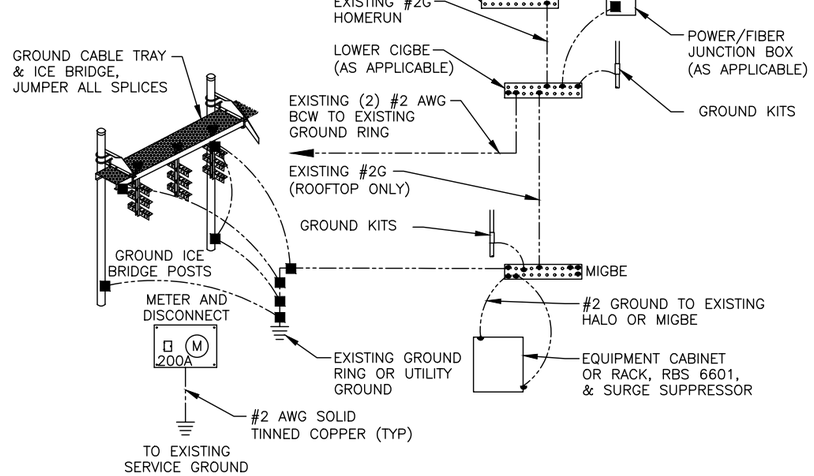


NOTES:

1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATION.
3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB

TYPICAL GROUND BAR CONNECTION DETAIL (3 / G-1)

SCALE: N.T.S



GROUNDING RISER DIAGRAM (2 / G-1)

SCALE: N.T.S

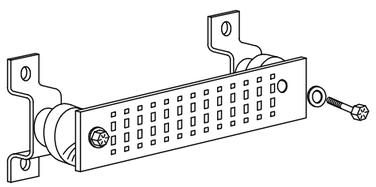
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" – SURGE PRODUCERS

CABLE ENTRY PORTS (HATCH PLATES) (#2 AWG)
GENERATOR FRAMEWORK (IF AVAILABLE) (#2 AWG)
TELCO GROUND BAR
COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2 AWG)
+24V POWER SUPPLY RETURN BAR (#2 AWG)
-48V POWER SUPPLY RETURN BAR (#2 AWG)
RECTIFIER FRAMES.

SECTION "A" – SURGE ABSORBERS

INTERIOR GROUND RING (#2 AWG)
EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2 AWG)
METALLIC COLD WATER PIPE (IF AVAILABLE) (#2 AWG)
BUILDING STEEL (IF AVAILABLE) (#2 AWG)



GROUND BAR - DETAIL (AS REQUIRED)

SCALE: N.T.S

TEP NORTHEAST
TEP OPCO, LLC.
45 BEECHWOOD DRIVE, NORTH ANDOVER, MA 01845
TEL: (978) 557-5553

SAI
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SITE NUMBER: CTL02132
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WILLARD ROAD
NORWALK, CT 06851
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at&t
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	03/24/23	ISSUED FOR CONSTRUCTION	CA	HC	DPH
A	03/11/22	ISSUED FOR REVIEW	DPS	HC	DPH

SCALE: AS SHOWN | DESIGNED BY: HC | DRAWN BY: PS

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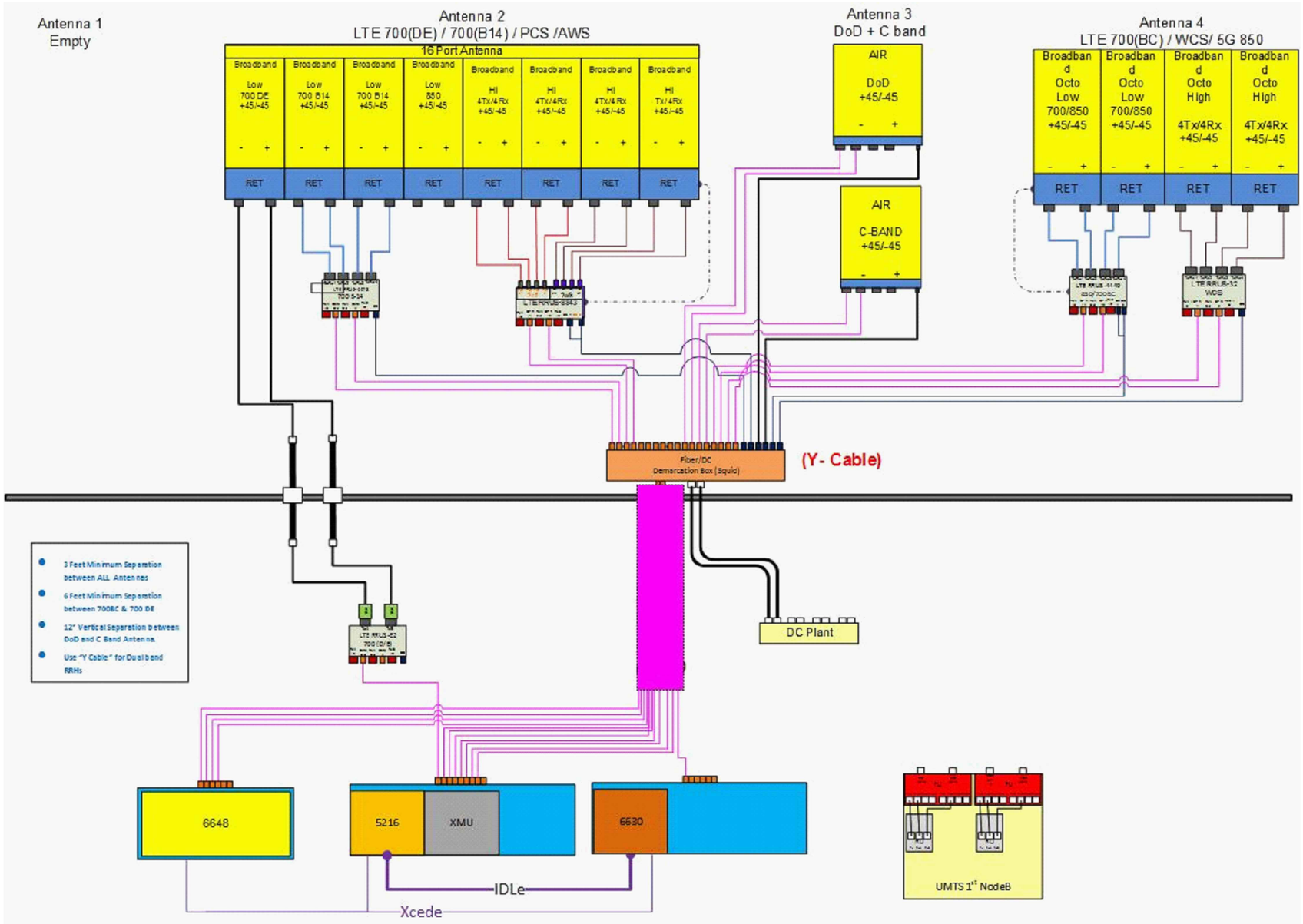
GROUNDING DETAILS

5G NR 1SR CBAND_BBU RECONFIGURATION UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL02132	G-1	1

NOTE:

REV: 4
DATED: 09/12/2022
RFDS ID: 4705807



RF PLUMBING DIAGRAM (1 / RF–1)
SCALE: N.T.S

NOTE:
1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS.
3. RFDS USED FOR REFERENCE.

NOTE:

REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

TEP NORTHEAST
TEP OPCO, LLC.
45 BEECHWOOD DRIVE, NORTH ANDOVER, MA 01845
TEL: (978) 557-5553

SAI
12 INDUSTRIAL WAY
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SITE NUMBER: CTL02132
SITE NAME: NORWALK EAST-WILLARD RD

WILLARD ROAD
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NO.	DATE	REVISIONS	BY	CHK	APP'D
1	03/24/23	ISSUED FOR CONSTRUCTION	PS	HC	DPH
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SCALE: AS SHOWN | DESIGNED BY: HC | DRAWN BY: PS

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RF PLUMBING DIAGRAM

5G NR 1SR CBAND_BBU RECONFIGURATION UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CTL02132	RF–1	1

Exhibit D

Structural Analysis Report

SAI
12 Industrial Way
Salem, NH 03079

GPD Engineering and Architecture Professional Corporation
Chad Burton
520 South Main Street, Suite 2531
Akron, OH 44311
(614) 859-1623
cburton@gpdgroup.com

GPD# 2022703.73
November 4, 2022

STRUCTURAL ANALYSIS REPORT

AT&T DESIGNATION:	**USID #:**	**SNET021**
	Dual USID #:	**60416**
	Site FA #:	**10034993**
	Client #:	**CT2132**
	Site Name:	**NORWALK**
ANALYSIS CRITERIA:	**Codes:**	**TIA-222-H & 2022 Connecticut State Building Code** **118 mph (3-second gust) w/ 0" ice** **50 mph (3-second gust) w/ 1.0" ice**
SITE DATA:		**10 Willard Rd, Norwalk, CT 06851, Fairfield County** **Latitude 41° 07' 41.77" N, Longitude 73° 23' 24.59" W** **Market: NEW ENGLAND** **350' Modified Wireline Tower**

To whom it may concern,

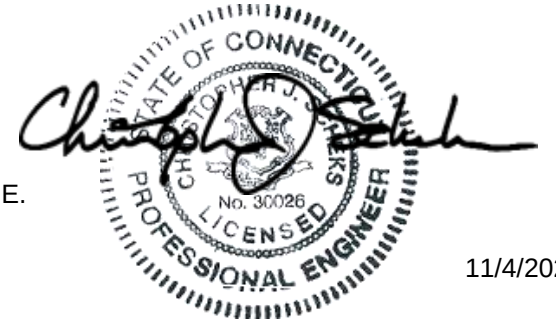
GPD is pleased to submit this Structural Analysis Report to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the existing and proposed loading configuration detailed in the analysis report.

Analysis Results

Tower Stress Level with Proposed Equipment:	96.8%	Pass
Foundation Ratio with Proposed Equipment:	86.5%	Pass

We at GPD appreciate the opportunity of providing our continuing professional services to you and SAI. If you have any questions or need further assistance on this or any other projects please do not hesitate to call.

Respectfully submitted,



Christopher J. Scheks, P.E.
Connecticut #: 0030026

11/4/2022

SUMMARY & RESULTS

The purpose of this analysis was to verify whether the existing structure is capable of carrying the proposed loading configuration as specified by AT&T Mobility and commissioned by SAI.

This analysis utilizes an ultimate 3-second gust wind speed of 118 mph as required by the 2022 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Appendices A & B.

The proposed feedlines shall be installed as shown in Appendix B for the analysis results to be valid.

TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Legs	66.3%	Pass
Diagonals	73.6%	Pass
Horizontals	90.1%	Pass
Redundant Members	96.8%	Pass
Inner Bracing	33.5%	Pass
Member Bolts	93.4%	Pass
Anchor Rods	47.0%	Pass
Foundation	86.5%	Pass

*

RECOMMENDATIONS

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

ANALYSIS METHOD

tnxTower (Version 8.1.1.0) and RISA-3D (Version 17.0.4), commercially available software programs, were used to create a three-dimensional model of the tower and calculate primary member stresses for various load cases. Selected output from the analysis is included the report appendices. The following table details the information provided to complete this structural analysis. This analysis is solely based on this information.

DOCUMENTS PROVIDED

Document	Remarks	Source
RF Data Sheet	RFDS Name: CT2132 Rev. 2, updated 1/25/2022	SAI
Construction Drawings	Hudson Site #: CT2132, Rev A, dated 3/11/2022	SAI
Tower Design	Not Provided	N/A
Foundation Design	Not Provided	N/A
Foundation NDT	WEI Project #: 2010-1161, dated 7/21/2010	GPD
Geotechnical Report	WEI Project #: 2010-1161, dated 7/21/2010	GPD
Previous Tower Analysis	MEI Project #: CT04761S-21V0, dated 9/3/2021	GPD
Previous Tower Analysis	CSEI, dated 7/7/2009	GPD
Tower Mapping	GPD & MSTI Northeast, dated 6/30/2010	GPD
Tower Sketch	AT&T Sketch Issue #: 8, dated 10/21/2010	GPD
Modification Design Drawings	MEI Project #: CT04761S-16V0, dated 7/1/2016	GPD
Modification Design Drawings	GPD Job #: 2012766.02, dated 6/27/2012	GPD
Post Modification Inspection	Centek Project #: 12120.000, dated 6/2/2014	GPD

ASSUMPTIONS

This structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the tower. This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. GPD has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The tower member sizes and shapes are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The appurtenance configuration is as supplied, determined from available photos, and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
3. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed. This analysis is limited to analyzing the tower only.
4. The soil parameters are as per data supplied or as assumed and stated in the calculations.
5. Foundations are properly designed and constructed to resist the original design loads indicated in the documents provided.
6. The tower and structures have been properly maintained in accordance with TIA Standards and/or with manufacturer's specifications.
7. All welds and connections are assumed to develop at least the member capacity unless determined otherwise and explicitly stated in this report.
8. All prior structural modifications, if applicable, are assumed to be as per data supplied/available and to have been properly installed.
9. Loading interpreted from photos is accurate to ±5' AGL, antenna size accurate to ±3.3 sf, and coax equal to the number of existing antennas without reserve.
10. All existing and proposed loading has been taken from the available site photos as well as documents supplied to GPD at the time of generating this report. All such documents are listed in the Documents Provided Table and are assumed to be accurate. GPD is not responsible for loading scenarios outside those conveyed in the supplied documentation.
11. Member material grades have been taken from the previous structural analysis by CSEI, dated 7/7/2009.
12. Modifications by MEI (Project #: CT04761S-16V0, dated 7/1/2016), have been installed as designed.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD should be allowed to review any new information to determine its effect on the structural integrity of the tower.

DISCLAIMER OF WARRANTIES

GPD has not performed a recent site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD in connection with this Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

This analysis is limited to the designated maximum wind and seismic conditions per the governing tower standards and code. Wind forces resulting in tower vibrations near the structure's resonant frequencies were not considered in this analysis and are outside the scope of this analysis. Lateral loading from any dynamic response was not evaluated under a time-domain based fatigue analysis.

GPD does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the capability of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner's responsibility to determine the amount of ice accumulation in excess of the code specified amount, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD, but are beyond the scope of this report.

Miscellaneous items such as antenna mounts, etc., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

Towers are designed to carry gravity, wind, and ice loads. All members, legs, diagonals, struts, and redundant members provide structural stability to the tower with little redundancy. Absence or removal of a member can trigger catastrophic failure unless a substitute is provided before any removal. Legs carry axial loads and derive their strength from shorter unbraced lengths by the presence of redundant members and their connection to the diagonals with bolts or welds. If the bolts or welds are removed without providing any substitute to the frame, the leg is subjected to a higher unbraced length that immediately reduces its load carrying capacity. If a diagonal is also removed in addition to the connection, the unbraced length of the leg is greatly increased, jeopardizing its load carrying capacity. Failure of one leg can result in a tower collapse because there is no redundancy. Redundant members and diagonals are critical to the stability of the tower.

GPD makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Tower Analysis Summary Form

Tower Analysis Summary Form

General Info

Site Name	NORWALK (CT2132)
Site Number	SNET021
FA Number	10034893
Date of Analysis	11/4/2022
Company Performing Analysis	GPD

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Tower Info	Description	Date
Tower Type (G, SST, MP)	Wireline	
Tower Height (top of steel AGL)	350'	
Tower Manufacturer	Modified	
Tower Model	n/a	
Tower Design	n/a	
Foundation NDT	WEI Project #: 2010-1161	7/21/2010
Geotechnical Report	WEI Project #: 2010-1161	7/21/2010
Previous Tower Analysis	MEI Project #: CT64761S-21V0	9/3/2021
Previous Tower Analysis	CSEI	7/7/2009
Tower Mapping	GPD & MSTI Northeast	6/30/2010
Tower Sketch	AT&T Sketch Issue #: 8	10/21/2010

Design Parameters

Design Code Used	TIA-222-H & 2022 Conecticut State Building Code
Location of Tower (County, State)	Fairfield, CT
Wind Speed (mph)	118 (3-second gust)
Ice Thickness (in)	1
Risk Category (I, II, III)	II
Exposure Category (B, C, D)	B
Topographic Category (1 to 5)	1

Analysis Results (% Maximum Usage)

Existing/Reserved + Future + Proposed Condition	
Tower (%)	96.8%
Tower Base (%)	47.0%
Foundation (%)	86.5%
Foundation Adequate?	Yes

Existing / Reserved Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Face/Leg
Unknown	355	370	1	Omni	Unknown	Whip Antenna		1	Unknown	15' Pipe Mount w/ Guys	1	Unknown	1/2"	
Unknown	355	365	1	Omni	Unknown	12' Omni		1	Unknown	10' Pipe Mount	1	Unknown	7/8"	
Unknown	355	362	1	Light	Unknown	Beacon		1	Unknown	14' Pipe Mount	1	Unknown	0.6"	
Unknown	355	357	1	Omni	Unknown	15' Omni		1	Unknown	4' Pipe Mount				
Unknown	350	356	1	Omni	Unknown	4' Omni		1	Unknown	8' Pipe Mount	2	Unknown	1-5/8"	
Unknown	350	355	1	Omni	Unknown	15' Omni		1	Unknown	8' Pipe Mount	4	Unknown	7/8"	
Unknown	350	355	1	Dipole	Unknown	10' Dipole		1	Unknown	8' Pipe Mount	2	Unknown	1/4"	
Unknown	350	351						1	Unknown	3' Sidearm Mount	1	Unknown	0.6"	
Unknown	350	350	1	Omni	Unknown	8' Omni				Rail Mounted				
Unknown	350	350	1	Omni	Unknown	21' Whip Antenna				Rail Mounted				
Unknown	350	349						1	Unknown	8' Pipe Mount				
Unknown	350	348	1	Dipole	Unknown	20' Dipole		1	Unknown	8' Pipe Mount				
AT&T Mobility	**347**	**347**	**3***	**Panel**	**Powerwave**	**7770**		3	Sabre	C10857001C	6	Unknown	1-5/8"	
AT&T Mobility	**347**	**347**	**3***	**Panel**	**CCI**	**OPA-65R-LCUU-H4**				on the same mounts	**18***	**Unknown**	**1-5/8"**	
AT&T Mobility	**347**	**347**	**6***	**Panel**	**Kathrein**	**800-10964**				on the same mounts	6	DC Power	3/4"	
AT&T Mobility	347	347	3	RRH	Ericsson	4449 B5/B12				on the same mounts	2	Fiber	5/8"	
AT&T Mobility	347	347	3	RRH	Ericsson	RRUS-32 B30				on the same mounts				
AT&T Mobility	347	347	3	RRH	Ericsson	4478 B14				on the same mounts				
AT&T Mobility	347	347	3	RRH	Ericsson	8843 B2/B66A				on the same mounts				
AT&T Mobility	**347**	**347**	**6***	**TMA**	**Powerwave**	**LGP 21401**				on the same mounts				
AT&T Mobility	**347**	**347**	**6***	**Diplexer**	**Powerwave**	**LGP 21901**				on the same mounts				
Unknown	344	344	1	Yagi	Unknown	3' Yagi		1	Unknown	8' Pipe Mount	1	Unknown	1/2"	
Unknown	343	343	3	Panel	Unknown	TA-2335-DAB Panel Antennas		1	Unknown	8' Pipe Mount	1	Unknown	Eliptical	
Unknown	340	340						1	Unknown	Platform w/ handrails	1	Unknown	3/4"	
Unknown	325	325						4	Unknown	Sector Frames				
Unknown	306	306						4	Unknown	14' Pipe Mount	1	Unknown	1-1/4"	
Unknown	269	269	2	Light	Unkown	Light					1	Unknown	0.6"	
T-Mobile	262	262	3	Panel	Ericsson	AIR6449 B41	0/120/240	3	Unknown	13' T-Frames	6	Unknown	1-5/8"	
T-Mobile	262	262	3	Panel	Ericsson	AIR-3246 B66	0/120/240			on the same mounts	6	Hybrid	40 mm	
T-Mobile	262	262	3	Panel	RFS	APXVAARR24_43-U-NA20				on the same mounts				
T-Mobile	262	262	3	RRH	Ericsson	4424 B25				on the same mounts				
T-Mobile	262	262	3	RRH	Ericsson	Radio 4449 B71 + B12				on the same mounts				
T-Mobile	262	262	3	TMA	Ericsson	KRY 112 144/2				on the same mounts				
T-Mobile	262	262	3	Diplexer	Commscope	SDX1926Q-43				on the same mounts				
Unknown	256	256	1	Panel	Unknown	12" Sq. Panel				Pipe Mount	1	Unknown	7/8"	
Unknown	253	253						2	Unknown	25' platform w/ handrails				
Sprint	244	244	3	Panel	RFS	APXVSPP18-C-A20	0/100/220	3	Unknown	Sector Mounts	3	Unknown	1-1/4"	
Sprint	244	244	3	RRH	Nokia	AAHC				on the same mounts	1	Unknown	1/2"	
Sprint	244	244	3	RRH	Alcatel - Lucent	1900 MHz RRH				on the same mounts	1	Unknown	1.55"	
Sprint	244	244	3	RRH	Alcatel - Lucent	800 MHz RRH				on the same mounts				
Unknown	209	209	1	Yagi	Unknown	7' Yagi				5' Pipe Mount	1	Unknown	1/2"	
Dish Wireless	200	200	3	Panel	JMA	MX08FRO665-21		3	Commscope	MTC3975083	3	Hybrid	1-3/4"	
Dish Wireless	200	200	3	RRH	Fujitsu	TA08025-B605				on the same mounts				
Dish Wireless	200	200	3	RRH	Fujitsu	TA08025-B604				on the same mounts				
Dish Wireless	200	200	3	Squid	Raycap	RDIDC-3045-PF-48				on the same mounts				
Unknown	183	183	2	Light	Unknown	Side Lights				Leg Mounted	2	Unknown	0.6"	
Verizon Wireless	140	140	3	Panel	Commscope	JAHH-65B-R3B		3	Unknown	12 Arch Boom Mount	3	Unknown	1-5/8"	
Verizon Wireless	140	140	6	Panel	Commscope	JAHH-45B-R3B				on the same mounts				
Verizon Wireless	140	140	3	RRH	Alcatel Lucent	B13 RRH4x30				on the same mounts				
Verizon Wireless	140	140	3	RRH	Alcatel Lucent	B66A RRH4x45W				on the same mounts				
Verizon Wireless	140	140	3	RRH	Alcatel Lucent	B25 RRH4x30W				on the same mounts				
Verizon Wireless	140	140	3	RRH	Alcatel Lucent	B5 RRH4x40W				on the same mounts				
Verizon Wireless	140	140	3	Squid	Raycap	RVZDC-6627-PF-48				on the same mounts				
Unknown	125	125						2	Unknown	41' platform w/ handrails	1	Unknown	0.95"	
Unknown	100	100						1	Uknown	4' Platform w/ handrails	2	Conduit	1"	
Unknown	93	93	2	Light	Unkown	Light								
Unknown	50	50						1	Uknown	4' Platform w/ handrails	1	Unknown	1/2"	
Unknown	48	48	1	Dish	Unknown	3' Dish	220			4' Sidearm	1	Unknown	7/8"	
Unknown	31	31	1	Dish	Unknown	4' Dish	220			10' Pipe Mount	1	Conduit	1/2"	
Unknown	26	26	1	GPS	Unknown	GPS	225			Pipe Mount	1	Conduit	1/2"	

***Indicates equipment/feedline quantity to be removed.**

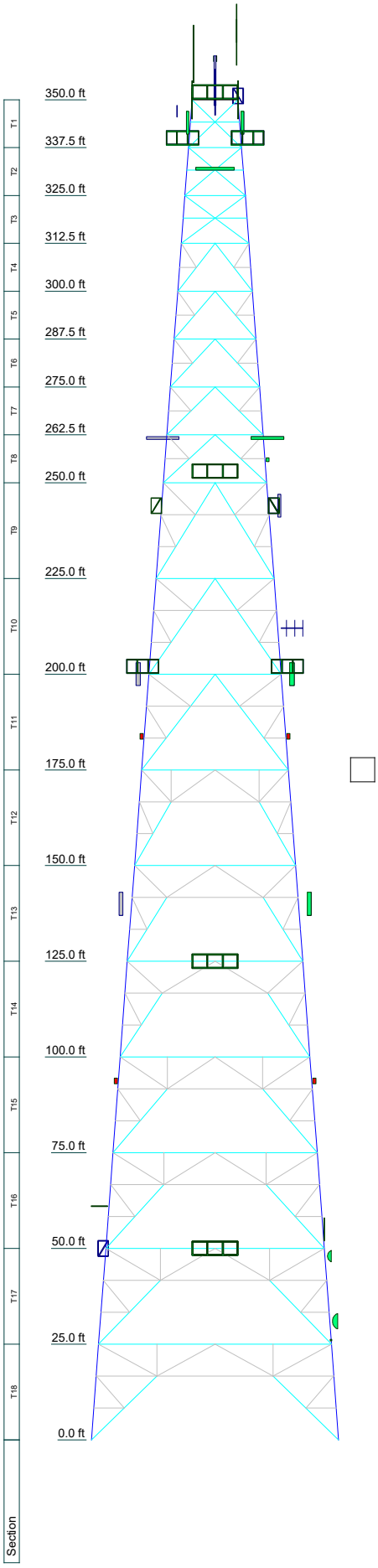
Proposed Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Face/Leg
AT&T Mobility	347	347	3	Panel	Quintel	QD4616-7				On the existing mount				
AT&T Mobility	347	347	3	Panel	Ericsson	AIR6449 B77D+AIR6419 B77G STACKED				On the existing mount				
AT&T Mobility	347	347	3	Panel	CCI	DMP65R-BU4DA				On the existing mount				
AT&T Mobility	347	347	3	Squid	Raycap	DC6-48-60-18-8F				On the existing mount				

Note: The proposed loading shall be in addition to the remaining existing equipment at the same elevation.

APPENDIX B

Tower Analysis Output File



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A36	36 ksi	58 ksi	A572-50	50 ksi	65 ksi
A500-46	46 ksi	62 ksi			

TOWER DESIGN NOTES

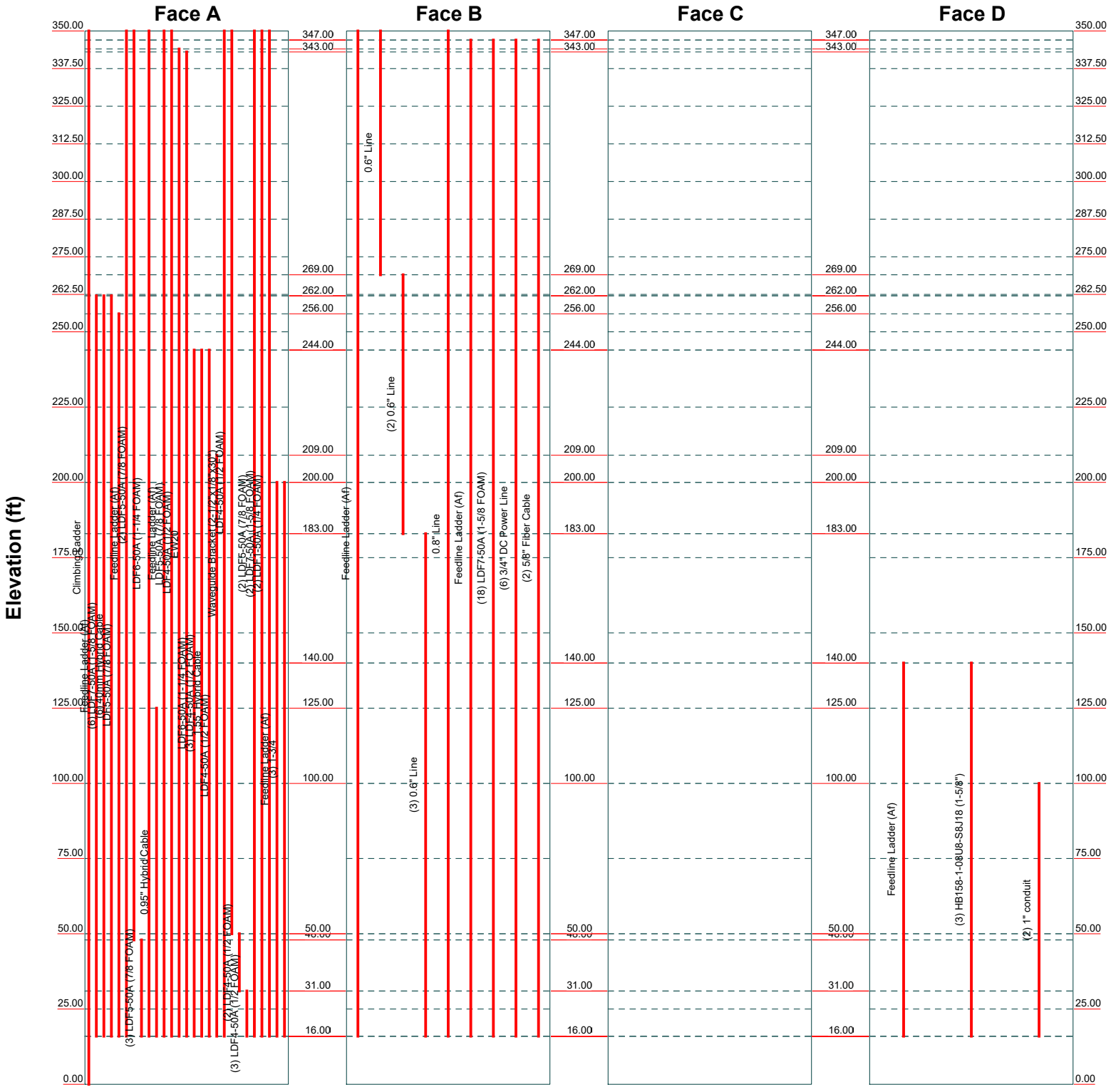
1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 118 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in 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 0.00 ft

GPD
520 South Main Street Suite 2531
Akron, Ohio 44311
Phone: (330) 572-2100
FAX: (330) 572-2101

Job: ***SNET021 NORWALK***			
Project: ***2022703.73***			
Client: Empire Telecom LLC	Drawn by: msteward		App'd:
Code: TIA-222-H	Date: 11/04/22		Scale: NTS
Path: T:\AT and T\SNET021\15 2022703.73 - SAI tower SA\5_Structural\00_Structure\00_Rev 0\03_Modeling\Norwalk.eri			Dwg No. E-1

Feed Line Distribution Chart
0' - 350'

Round | Flat | App In Face | App Out Face | Truss Leg



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Akron, Ohio 44311
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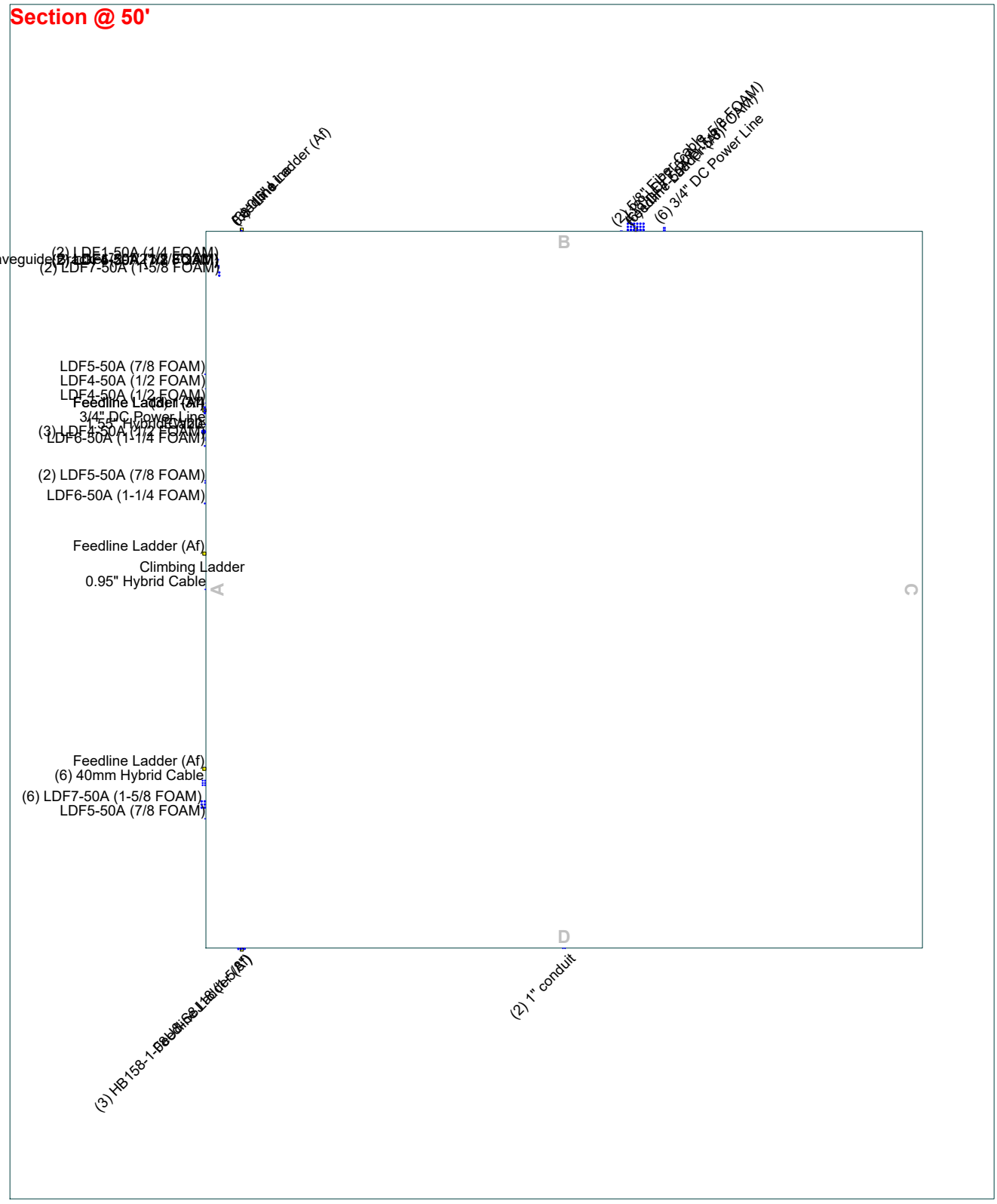
Job: ***SNET021 NORWALK***			
Project: ***2022703.73***			
Client: Empire Telecom LLC	Drawn by: msteward	App'd:	
Code: TIA-222-H	Date: 11/04/22	Scale: NTS	
Path: T:\ATandT\SNET021\15 2022703.73 - SAI tower SA\5_Structural\00_Structure\00_Rev 0\03_Modeling\Norwalk.eri		Dwg No. E-7	

Feed Line Plan
50'

Round Flat App In Face App Out Face

Section @ 50'



GPD
520 South Main Street Suite 2531
Akron, Ohio 44311
Phone: (330) 572-2100
FAX: (330) 572-2101

Job: ***SNET021 NORWALK***			
Project: ***2022703.73***			
Client: Empire Telecom LLC	Drawn by: msteward	App'd:	
Code: TIA-222-H	Date: 11/04/22	Scale: NTS	
Path: T:\ATandT\SNET021\15 2022703.73 - SAI tower SA\5_Structural\00_Structure\00_Rev 0\03_Modeling\Norwalk.eri		Dwg No. E-7	

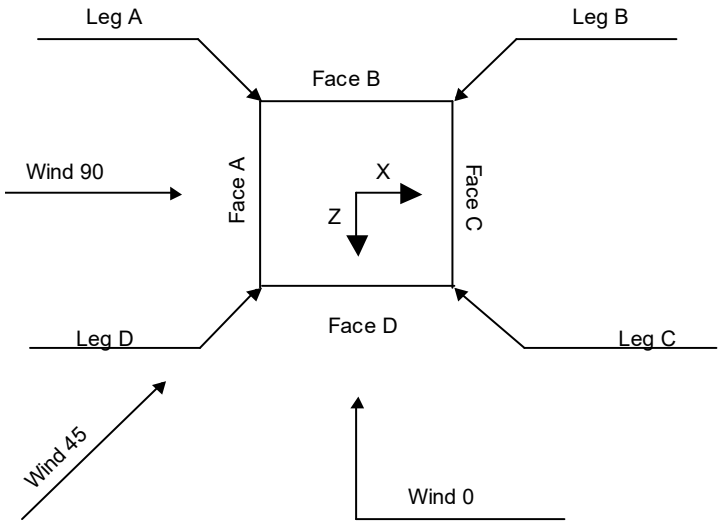
Tower Input Data

The main tower is a 4x free standing tower with an overall height of 350.00 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 12.00 ft at the top and 64.50 ft at the base.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower is located in Fairfield County, Connecticut.
Tower base elevation above sea level: 63.00 ft.
Basic wind speed of 118 mph.
Risk Category II.
Exposure Category B.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.00 ft.
Nominal ice thickness of 1.0000 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
Pressures are calculated at each section.
Stress ratio used in tower member design is 1.
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



Square Tower

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	*Face or Leg*	*Allow Shield*	*Exclude From Torque Calculation*	*Component Type*	*Placement ft*	*Face Offset in*	*Lateral Offset (Frac FW)*	*#*	*# Per Row*	*Clear Spacing in*	*Width or Diameter in*	*Perimeter in*	*Weight plf*
Climbing Ladder	A	No	No	Af (CaAa)	350.00 - 0.00	-36.0000	0.02	1	1	0.2500	0.0000		7.90
Feedline Ladder (Af)	A	No	No	Af (CaAa)	262.00 - 16.00	0.0000	-0.25	1	1	3.0000	3.0000		8.40
LDF7-50A (1-5/8 FOAM)	A	No	No	Ar (CaAa)	262.00 - 16.00	0.0000	-0.3	6	3	1.0000	1.9800		0.82
40mm Hybrid Cable	A	No	No	Ar (CaAa)	262.00 - 16.00	0.0000	-0.27	6	3	1.0000	1.2500		1.00
LDF5-50A (7/8 FOAM)	A	No	No	Ar (CaAa)	256.00 - 16.00	0.0000	-0.32	1	1	1.0000	1.0900		0.33
Feedline Ladder (Af)	A	No	No	Af (CaAa)	350.00 - 16.00	0.0000	0.05	1	1	3.0000	3.0000		8.40
LDF5-50A (7/8 FOAM)	A	No	No	Ar (CaAa)	350.00 - 48.00	0.0000	0.15	2	2	1.0000	1.0900		0.33
LDF5-50A (7/8 FOAM)	A	No	No	Ar (CaAa)	48.00 - 16.00	0.0000	0.15	3	3	1.0000	1.0900		0.33
LDF6-50A (1-1/4 FOAM)	A	No	No	Ar (CaAa)	350.00 - 16.00	0.0000	0.12	1	1	1.0000	1.5500		0.66
0.95" Hybrid Cable	A	No	No	Ar (CaAa)	125.00 - 16.00	0.0000	0	1	1	0.9100	0.9100		0.33
Feedline Ladder (Af)	A	No	No	Af (CaAa)	350.00 - 16.00	0.0000	0.25	1	1	3.0000	3.0000		8.40
LDF5-50A (7/8 FOAM)	A	No	No	Ar (CaAa)	350.00 - 16.00	0.0000	0.3	1	1	1.0000	1.0900		0.33
LDF4-50A (1/2 FOAM)	A	No	No	Ar (CaAa)	344.00 - 16.00	0.0000	0.28	1	1	0.6300	0.6300		0.15
EW20	A	No	No	Ar (CaAa)	343.00 - 16.00	0.0000	0.22	1	1	1.0000	3.9832		1.85
LDF6-50A (1-1/4 FOAM)	A	No	No	Ar (CaAa)	244.00 - 16.00	0.0000	0.2	1	1	1.0000	1.5500		0.66
LDF4-50A	A	No	No	Ar (CaAa)	244.00 -	0.0000	0.21	3	3	0.6300	0.6300		0.15

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
(1/2 FOAM)					16.00								
1.55" Hybrid Cable	A	No	No	Ar (CaAa)	244.00 - 16.00	0.0000	0.22	1	1	1.0000	1.5400		0.80
LDF4-50A (1/2 FOAM)	A	No	No	Ar (CaAa)	209.00 - 16.00	0.0000	0.26	1	1	0.6300	0.6300		0.15
Waveguide Bracket (2-1/2"x1/8"x30")	A	No	No	Af (CaAa)	350.00 - 16.00	-12.0000	0.45	1	1	1.8750	1.8750		0.80
LDF4-50A (1/2 FOAM)	A	No	No	Ar (CaAa)	350.00 - 50.00	-12.0000	0.45	1	1	0.6300	0.6300		0.15
LDF4-50A (1/2 FOAM)	A	No	No	Ar (CaAa)	50.00 - 31.00	-12.0000	0.45	2	2	0.6300	0.6300		0.15
LDF4-50A (1/2 FOAM)	A	No	No	Ar (CaAa)	31.00 - 16.00	-12.0000	0.45	3	2	0.6300	0.6300		0.15
LDF5-50A (7/8 FOAM)	A	No	No	Ar (CaAa)	350.00 - 16.00	-12.0000	0.45	2	2	1.0000	1.0900		0.33
LDF7-50A (1-5/8 FOAM)	A	No	No	Ar (CaAa)	350.00 - 16.00	-12.0000	0.44	2	2	1.0000	1.9800		0.82
LDF1-50A (1/4 FOAM)	A	No	No	Ar (CaAa)	350.00 - 16.00	-12.0000	0.46	2	2	0.3500	0.3500		0.06
Feedline Ladder (Af)	A	No	No	Af (CaAa)	200.00 - 16.00	0.0000	0.25	1	1	3.0000	3.0000		8.40
1-3/4	A	No	No	Ar (CaAa)	200.00 - 16.00	0.0000	0.25	3	3	1.0000	1.7500		0.87
Feedline Ladder (Af)	B	No	No	Af (CaAa)	350.00 - 16.00	0.0000	-0.45	1	1	3.0000	3.0000		8.40
0.6" Line	B	No	No	Ar (CaAa)	350.00 - 269.00	0.0000	-0.45	1	1	0.6200	0.6200		0.18
0.6" Line	B	No	No	Ar (CaAa)	269.00 - 183.00	0.0000	-0.45	2	2	0.6200	0.6200		0.18
0.6" Line	B	No	No	Ar (CaAa)	183.00 - 16.00	0.0000	-0.45	3	2	0.6200	0.6200		0.18
0.8" Line	B	No	No	Ar (CaAa)	350.00 - 16.00	0.0000	-0.45	1	1	0.7950	0.7950		0.33
Feedline Ladder (Af)	B	No	No	Af (CaAa)	347.00 - 16.00	0.0000	0.1	1	1	3.0000	3.0000		8.40
LDF7-50A (1-5/8 FOAM)	B	No	No	Ar (CaAa)	347.00 - 16.00	0.0000	0.1	6	6	1.0000	1.9800		0.82
3/4" DC Power Line	B	No	No	Ar (CaAa)	347.00 - 16.00	0.0000	0.14	6	2	0.7500	0.7500		0.33
5/8" Fiber Cable	B	No	No	Ar (CaAa)	347.00 - 16.00	0.0000	0.08	2	2	0.6250	0.6250		0.50
Feedline Ladder (Af)	D	No	No	Af (CaAa)	140.00 - 16.00	0.0000	0.45	1	1	3.0000	3.0000		8.40
HB158-1-08U8-S8J18 (1-5/8")	D	No	No	Ar (CaAa)	140.00 - 16.00	0.0000	0.45	3	3	1.0000	1.9800		1.30
1" conduit	D	No	No	Ar (CaAa)	100.00 - 16.00	0.0000	0	2	2	1.0000	1.0000		0.50

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
Whip Antenna	C	From Leg	0.00	0.0000	355.00	No Ice	2.00	2.00	0.03
			0.00			1/2" Ice	3.02	3.02	0.04
			15.00			1" Ice	4.07	4.07	0.06
10' Lattice Mount	C	From Leg	0.00	0.0000	350.00	No Ice	7.50	7.50	0.09
			0.00			1/2" Ice	9.50	9.50	0.13
			5.00			1" Ice	11.00	11.00	0.16
12' Omni	C	From Leg	0.00	0.0000	355.00	No Ice	3.00	3.00	0.02
			0.00			1/2" Ice	4.23	4.23	0.04
			10.00			1" Ice	5.47	5.47	0.07
10' P2 STD	C	From Leg	0.00	0.0000	350.00	No Ice	2.38	2.38	0.04
			0.00			1/2" Ice	3.40	3.40	0.05
			0.00			1" Ice	4.45	4.45	0.08
Flash Beacon Lighting	B	From Face	0.00	0.0000	355.00	No Ice	2.70	2.70	0.05
			0.00			1/2" Ice	3.10	3.10	0.07
			5.00			1" Ice	3.50	3.50	0.09
W6 x 13' I-BEAM mount pipe	B	From Face	0.00	0.0000	350.00	No Ice	13.00	13.00	0.20
			0.00			1/2" Ice	14.14	14.14	0.26
			5.00			1" Ice	15.08	15.08	0.34
15' Omni	D	From Leg	0.00	0.0000	355.00	No Ice	5.00	5.00	0.06
			0.00			1/2" Ice	6.73	6.73	0.09
			7.00			1" Ice	8.28	8.28	0.14
4' mount pipe	D	From Leg	0.00	0.0000	350.00	No Ice	0.79	0.79	0.01
			0.00			1/2" Ice	1.03	1.03	0.02
			0.00			1" Ice	1.28	1.28	0.03
4' Omni	B	From Face	0.00	0.0000	350.00	No Ice	0.60	0.60	0.02
			0.00			1/2" Ice	0.92	0.92	0.02
			6.00			1" Ice	1.17	1.17	0.03
8' P2 STD	B	From Face	0.00	0.0000	350.00	No Ice	1.90	1.90	0.03
			0.00			1/2" Ice	2.73	2.73	0.04
			0.00			1" Ice	3.40	3.40	0.06
15' Omni	A	From Face	6.00	0.0000	350.00	No Ice	5.01	5.01	0.06
			0.00			1/2" Ice	6.73	6.73	0.09
			4.00			1" Ice	8.28	8.28	0.14
8' P2 STD	A	From Face	0.00	0.0000	350.00	No Ice	1.90	1.90	0.03
			0.00			1/2" Ice	2.73	2.73	0.04
			0.00			1" Ice	3.40	3.40	0.06
10' Dipole	B	From Face	6.00	0.0000	350.00	No Ice	2.00	2.00	0.02
			0.00			1/2" Ice	3.02	3.02	0.04
			4.00			1" Ice	4.07	4.07	0.06
8' P2 STD	B	From Face	0.00	0.0000	350.00	No Ice	1.90	1.90	0.03
			0.00			1/2" Ice	2.73	2.73	0.04
			0.00			1" Ice	3.40	3.40	0.06
3' Standoff	B	From Leg	0.00	0.0000	350.00	No Ice	2.28	2.00	0.04
			0.00			1/2" Ice	2.70	2.70	0.06
			1.00			1" Ice	3.12	3.40	0.08
8' Omni	B	From Face	0.00	0.0000	350.00	No Ice	1.60	1.60	0.02
			0.00			1/2" Ice	2.42	2.42	0.03
			4.00			1" Ice	3.24	3.24	0.05
Whip Antenna	D	From Leg	0.00	0.0000	350.00	No Ice	2.00	2.00	0.03
			0.00			1/2" Ice	3.02	3.02	0.04
			0.00			1" Ice	4.07	4.07	0.06
8' P2 STD	D	From Leg	0.00	0.0000	350.00	No Ice	1.90	1.90	0.03
			0.00			1/2" Ice	2.73	2.73	0.04
			-1.00			1" Ice	3.40	3.40	0.06

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
20' Dipole	A	From Face	0.00 0.00 -2.00	0.0000	350.00	No Ice 1/2" Ice 1" Ice	4.00 6.03 8.07	4.00 6.03 8.07	0.04 0.07 0.11
6' x 2" Mount Pipe	A	From Face	0.00 0.00 0.00	0.0000	350.00	No Ice 1/2" Ice 1" Ice	1.43 1.92 2.29	1.43 1.92 2.29	0.02 0.03 0.05
25' Square Platform	C	None		0.0000	352.00	No Ice 1/2" Ice 1" Ice	77.30 83.40 89.50	77.30 83.40 89.50	9.88 12.89 15.90
SABRE C10-857-001C (3)	C	None		0.0000	347.00	No Ice 1/2" Ice 1" Ice	16.14 23.23 30.32	16.14 23.23 30.32	1.34 1.74 2.14
QD4616-7 w/ Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	9.44 9.85 10.27	5.42 6.00 6.59	0.12 0.20 0.28
QD4616-7 w/ Mount Pipe	C	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	9.44 9.85 10.27	5.42 6.00 6.59	0.12 0.20 0.28
QD4616-7 w/ Mount Pipe	D	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	9.44 9.85 10.27	5.42 6.00 6.59	0.12 0.20 0.28
AIR6449 B77D+AIR6419 B77G STACKED w/ Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	11.76 12.47 13.14	9.94 11.21 12.34	0.23 0.33 0.44
AIR6449 B77D+AIR6419 B77G STACKED w/ Mount Pipe	C	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	11.76 12.47 13.14	9.94 11.21 12.34	0.23 0.33 0.44
AIR6449 B77D+AIR6419 B77G STACKED w/ Mount Pipe	D	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	11.76 12.47 13.14	9.94 11.21 12.34	0.23 0.33 0.44
DMP65R-BU4DA w/ Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	8.52 8.96 9.42	4.69 5.31 5.93	0.09 0.15 0.22
DMP65R-BU4DA w/ Mount Pipe	C	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	8.52 8.96 9.42	4.69 5.31 5.93	0.09 0.15 0.22
DMP65R-BU4DA w/ Mount Pipe	D	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	8.52 8.96 9.42	4.69 5.31 5.93	0.09 0.15 0.22
RRUS-E2 B29	B	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	3.15 3.36 3.59	1.29 1.44 1.60	0.06 0.08 0.11
RRUS-E2 B29	C	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	3.15 3.36 3.59	1.29 1.44 1.60	0.06 0.08 0.11
RRUS-E2 B29	D	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	3.15 3.36 3.59	1.29 1.44 1.60	0.06 0.08 0.11
RRUS-32 B30	B	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	3.31 3.56 3.81	2.42 2.64 2.86	0.08 0.10 0.14
RRUS-32 B30	C	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	3.31 3.56 3.81	2.42 2.64 2.86	0.08 0.10 0.14
RRUS-32 B30	D	From Leg	3.00 0.00 0.00	0.0000	347.00	No Ice 1/2" Ice 1" Ice	3.31 3.56 3.81	2.42 2.64 2.86	0.08 0.10 0.14

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
4478 B14	B	From Leg	3.00	0.0000	347.00	No Ice	1.96	1.25	0.06
			0.00			1/2" Ice	2.14	1.40	0.08
			0.00			1" Ice	2.32	1.55	0.10
4478 B14	C	From Leg	3.00	0.0000	347.00	No Ice	1.96	1.25	0.06
			0.00			1/2" Ice	2.14	1.40	0.08
			0.00			1" Ice	2.32	1.55	0.10
4478 B14	D	From Leg	3.00	0.0000	347.00	No Ice	1.96	1.25	0.06
			0.00			1/2" Ice	2.14	1.40	0.08
			0.00			1" Ice	2.32	1.55	0.10
8843 B2/B66A	B	From Leg	3.00	0.0000	347.00	No Ice	1.98	1.70	0.08
			0.00			1/2" Ice	2.16	1.86	0.10
			0.00			1" Ice	2.34	2.04	0.12
8843 B2/B66A	C	From Leg	3.00	0.0000	347.00	No Ice	1.98	1.70	0.08
			0.00			1/2" Ice	2.16	1.86	0.10
			0.00			1" Ice	2.34	2.04	0.12
8843 B2/B66A	D	From Leg	3.00	0.0000	347.00	No Ice	1.98	1.70	0.08
			0.00			1/2" Ice	2.16	1.86	0.10
			0.00			1" Ice	2.34	2.04	0.12
4449 B5/B12	B	From Leg	3.00	0.0000	347.00	No Ice	1.97	1.41	0.07
			0.00			1/2" Ice	2.14	1.56	0.09
			0.00			1" Ice	2.33	1.73	0.11
4449 B5/B12	C	From Leg	3.00	0.0000	347.00	No Ice	1.97	1.41	0.07
			0.00			1/2" Ice	2.14	1.56	0.09
			0.00			1" Ice	2.33	1.73	0.11
4449 B5/B12	D	From Leg	3.00	0.0000	347.00	No Ice	1.97	1.41	0.07
			0.00			1/2" Ice	2.14	1.56	0.09
			0.00			1" Ice	2.33	1.73	0.11
DC6-48-60-18-8F	B	From Leg	3.00	0.0000	347.00	No Ice	2.20	2.20	0.02
			0.00			1/2" Ice	2.40	2.40	0.04
			0.00			1" Ice	2.60	2.60	0.07
DC6-48-60-18-8F	C	From Leg	3.00	0.0000	347.00	No Ice	2.20	2.20	0.02
			0.00			1/2" Ice	2.40	2.40	0.04
			0.00			1" Ice	2.60	2.60	0.07
DC6-48-60-18-8F	D	From Leg	3.00	0.0000	347.00	No Ice	2.20	2.20	0.02
			0.00			1/2" Ice	2.40	2.40	0.04
			0.00			1" Ice	2.60	2.60	0.07
3' Yagi	A	From Leg	5.00	0.0000	345.00	No Ice	0.52	0.52	0.02
			0.00			1/2" Ice	0.71	0.71	0.02
			2.00			1" Ice	0.90	0.90	0.03
TA-2335-DAB Panel	B	From Leg	1.00	0.0000	344.00	No Ice	7.20	2.03	0.02
			0.00			1/2" Ice	7.54	2.26	0.06
			0.00			1" Ice	7.88	2.50	0.10
TA-2335-DAB Panel	C	From Leg	1.00	0.0000	344.00	No Ice	7.20	2.03	0.02
			0.00			1/2" Ice	7.54	2.26	0.06
			0.00			1" Ice	7.88	2.50	0.10
TA-2335-DAB Panel	D	From Leg	1.00	0.0000	344.00	No Ice	7.20	2.03	0.02
			0.00			1/2" Ice	7.54	2.26	0.06
			0.00			1" Ice	7.88	2.50	0.10
Pipe Mount 12.5'x4.5"	A	From Leg	3.00	0.0000	345.00	No Ice	4.18	4.18	0.14
			0.00			1/2" Ice	6.92	6.92	0.18
			0.00			1" Ice	7.99	7.99	0.23
Pipe Mount 12.5'x4.5"	B	From Leg	3.00	0.0000	345.00	No Ice	4.18	4.18	0.14
			0.00			1/2" Ice	6.92	6.92	0.18
			0.00			1" Ice	7.99	7.99	0.23
Pipe Mount 12.5'x4.5"	C	From Leg	3.00	0.0000	345.00	No Ice	4.18	4.18	0.14
			0.00			1/2" Ice	6.92	6.92	0.18
			0.00			1" Ice	7.99	7.99	0.23

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Pipe Mount 12.5'x4.5"	D	From Leg	3.00	0.0000	345.00	No Ice	4.18	4.18	0.14
			0.00			1/2" Ice	6.92	6.92	0.18
			0.00			1" Ice	7.99	7.99	0.23
Catwalk	A	From Face	0.00	0.0000	340.00	No Ice	22.70	4.08	0.49
			0.00			1/2" Ice	28.37	5.09	0.61
			0.00			1" Ice	34.04	6.11	0.73
Catwalk	B	From Face	0.00	0.0000	340.00	No Ice	22.70	4.08	0.49
			0.00			1/2" Ice	28.37	5.09	0.61
			0.00			1" Ice	34.04	6.11	0.73
Catwalk	C	From Face	0.00	0.0000	340.00	No Ice	22.70	4.08	0.49
			0.00			1/2" Ice	28.37	5.09	0.61
			0.00			1" Ice	34.04	6.11	0.73
Catwalk	D	From Face	0.00	0.0000	340.00	No Ice	22.70	4.08	0.49
			0.00			1/2" Ice	28.37	5.09	0.61
			0.00			1" Ice	34.04	6.11	0.73
5' x 5' Corner Service Platform	A	From Leg	2.50	0.0000	340.00	No Ice	4.00	8.75	0.25
			0.00			1/2" Ice	4.80	10.50	0.48
			0.00			1" Ice	5.60	12.25	0.71
5' x 5' Corner Service Platform	B	From Leg	2.50	0.0000	340.00	No Ice	4.00	8.75	0.25
			0.00			1/2" Ice	4.80	10.50	0.48
			0.00			1" Ice	5.60	12.25	0.71
5' x 5' Corner Service Platform	C	From Leg	2.50	0.0000	340.00	No Ice	4.00	8.75	0.25
			0.00			1/2" Ice	4.80	10.50	0.48
			0.00			1" Ice	5.60	12.25	0.71
5' x 5' Corner Service Platform	D	From Leg	2.50	0.0000	340.00	No Ice	4.00	8.75	0.25
			0.00			1/2" Ice	4.80	10.50	0.48
			0.00			1" Ice	5.60	12.25	0.71
W8 x 10'	A	From Face	4.00	0.0000	332.00	No Ice	8.00	0.40	0.20
			0.00			1/2" Ice	8.71	0.48	0.26
			0.00			1" Ice	9.44	0.57	0.33
W8 x 10'	B	From Face	4.00	0.0000	332.00	No Ice	8.00	0.40	0.20
			0.00			1/2" Ice	8.71	0.48	0.26
			0.00			1" Ice	9.44	0.57	0.33
W8 x 10'	C	From Face	4.00	0.0000	332.00	No Ice	8.00	0.40	0.20
			0.00			1/2" Ice	8.71	0.48	0.26
			0.00			1" Ice	9.44	0.57	0.33
W8 x 10'	D	From Face	4.00	0.0000	332.00	No Ice	8.00	0.40	0.20
			0.00			1/2" Ice	8.71	0.48	0.26
			0.00			1" Ice	9.44	0.57	0.33
10' Lattice Mount	A	From Leg	2.50	0.0000	325.00	No Ice	7.50	7.50	0.09
			0.00			1/2" Ice	9.50	9.50	0.13
			0.00			1" Ice	11.00	11.00	0.16
(3) Pipe Mount 14.5'x3.5"	A	From Face	0.00	0.0000	306.00	No Ice	4.94	4.94	0.11
			0.00			1/2" Ice	6.56	6.56	0.15
			0.00			1" Ice	8.07	8.07	0.20
AIR6449 B41 w/ Mount Pipe	A	From Leg	3.00	0.0000	262.00	No Ice	6.45	3.92	0.13
			0.00			1/2" Ice	7.02	4.64	0.18
			0.00			1" Ice	7.53	5.25	0.24
AIR6449 B41 w/ Mount Pipe	B	From Leg	3.00	0.0000	262.00	No Ice	6.45	3.92	0.13
			0.00			1/2" Ice	7.02	4.64	0.18
			0.00			1" Ice	7.53	5.25	0.24
AIR6449 B41 w/ Mount Pipe	C	From Leg	3.00	0.0000	262.00	No Ice	6.45	3.92	0.13
			0.00			1/2" Ice	7.02	4.64	0.18
			0.00			1" Ice	7.53	5.25	0.24
AIR3246-B66 w/ Mount Pipe	A	From Leg	3.00	0.0000	262.00	No Ice	7.98	6.36	0.20
			0.00			1/2" Ice	8.39	7.03	0.27
			0.00			1" Ice	8.80	7.72	0.34

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
AIR3246-B66 w/ Mount Pipe	B	From Leg	3.00	0.0000	262.00	No Ice	7.98	6.36	0.20
			0.00			1/2" Ice	8.39	7.03	0.27
			0.00			1" Ice	8.80	7.72	0.34
AIR3246-B66 w/ Mount Pipe	C	From Leg	3.00	0.0000	262.00	No Ice	7.98	6.36	0.20
			0.00			1/2" Ice	8.39	7.03	0.27
			0.00			1" Ice	8.80	7.72	0.34
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	3.00	0.0000	262.00	No Ice	20.24	10.79	0.16
			0.00			1/2" Ice	20.89	12.21	0.29
			0.00			1" Ice	21.55	13.49	0.44
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	3.00	0.0000	262.00	No Ice	20.24	10.79	0.16
			0.00			1/2" Ice	20.89	12.21	0.29
			0.00			1" Ice	21.55	13.49	0.44
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	3.00	0.0000	262.00	No Ice	20.24	10.79	0.16
			0.00			1/2" Ice	20.89	12.21	0.29
			0.00			1" Ice	21.55	13.49	0.44
4424 B25	A	From Leg	3.00	0.0000	262.00	No Ice	1.86	1.32	0.09
			0.00			1/2" Ice	2.03	1.47	0.11
			0.00			1" Ice	2.20	1.62	0.13
4424 B25	B	From Leg	3.00	0.0000	262.00	No Ice	1.86	1.32	0.09
			0.00			1/2" Ice	2.03	1.47	0.11
			0.00			1" Ice	2.20	1.62	0.13
4424 B25	C	From Leg	3.00	0.0000	262.00	No Ice	1.86	1.32	0.09
			0.00			1/2" Ice	2.03	1.47	0.11
			0.00			1" Ice	2.20	1.62	0.13
RADIO 4449 B71+B12	A	From Leg	3.00	0.0000	262.00	No Ice	1.63	1.01	0.07
			0.00			1/2" Ice	1.79	1.14	0.09
			0.00			1" Ice	1.95	1.27	0.11
RADIO 4449 B71+B12	B	From Leg	3.00	0.0000	262.00	No Ice	1.63	1.01	0.07
			0.00			1/2" Ice	1.79	1.14	0.09
			0.00			1" Ice	1.95	1.27	0.11
RADIO 4449 B71+B12	C	From Leg	3.00	0.0000	262.00	No Ice	1.63	1.01	0.07
			0.00			1/2" Ice	1.79	1.14	0.09
			0.00			1" Ice	1.95	1.27	0.11
KRY 112 144/2	A	From Leg	3.00	0.0000	262.00	No Ice	0.48	0.23	0.01
			0.00			1/2" Ice	0.57	0.30	0.01
			0.00			1" Ice	0.66	0.38	0.02
KRY 112 144/2	B	From Leg	3.00	0.0000	262.00	No Ice	0.48	0.23	0.01
			0.00			1/2" Ice	0.57	0.30	0.01
			0.00			1" Ice	0.66	0.38	0.02
KRY 112 144/2	C	From Leg	3.00	0.0000	262.00	No Ice	0.48	0.23	0.01
			0.00			1/2" Ice	0.57	0.30	0.01
			0.00			1" Ice	0.66	0.38	0.02
SDX1926Q-43	A	From Leg	3.00	0.0000	262.00	No Ice	0.24	0.10	0.01
			0.00			1/2" Ice	0.31	0.14	0.01
			0.00			1" Ice	0.38	0.19	0.01
SDX1926Q-43	B	From Leg	3.00	0.0000	262.00	No Ice	0.24	0.10	0.01
			0.00			1/2" Ice	0.31	0.14	0.01
			0.00			1" Ice	0.38	0.19	0.01
SDX1926Q-43	C	From Leg	3.00	0.0000	262.00	No Ice	0.24	0.10	0.01
			0.00			1/2" Ice	0.31	0.14	0.01
			0.00			1" Ice	0.38	0.19	0.01
Pirod 13' T-Frame	A	From Leg	1.50	0.0000	262.00	No Ice	8.76	11.22	0.34
			0.00			1/2" Ice	12.74	15.70	0.50
			0.00			1" Ice	16.72	20.18	0.66
Pirod 13' T-Frame	B	From Leg	1.50	0.0000	262.00	No Ice	8.76	11.22	0.34
			0.00			1/2" Ice	12.74	15.70	0.50
			0.00			1" Ice	16.72	20.18	0.66

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Pirod 13' T-Frame	C	From Leg	1.50	0.0000	262.00	No Ice	8.76	11.22	0.34
			0.00			1/2" Ice	12.74	15.70	0.50
			0.00			1" Ice	16.72	20.18	0.66
1' x 1' x 1" Square Panel	C	From Leg	1.00	0.0000	256.00	No Ice	1.20	0.13	0.01
			0.00			1/2" Ice	1.34	0.21	0.02
			0.00			1" Ice	1.48	0.29	0.02
36" Service Platform	A	From Face	0.00	0.0000	253.00	No Ice	59.74	4.08	1.01
			0.00			1/2" Ice	74.67	5.09	1.27
			0.00			1" Ice	89.61	6.11	1.52
36" Service Platform	B	From Face	0.00	0.0000	253.00	No Ice	59.74	4.08	1.01
			0.00			1/2" Ice	74.67	5.09	1.27
			0.00			1" Ice	89.61	6.11	1.52
APXVSPP18-C-A20 w/ Mount Pipe	B	From Leg	4.00	0.0000	244.00	No Ice	8.02	6.71	0.08
			0.00			1/2" Ice	8.48	7.66	0.14
			0.00			1" Ice	8.94	8.49	0.22
APXVSPP18-C-A20 w/ Mount Pipe	C	From Leg	4.00	0.0000	244.00	No Ice	8.26	5.28	0.06
			0.00			1/2" Ice	8.81	5.74	0.11
			0.00			1" Ice	9.36	6.20	0.16
APXVSPP18-C-A20 w/ Mount Pipe	D	From Leg	4.00	0.0000	244.00	No Ice	8.26	5.28	0.06
			0.00			1/2" Ice	8.81	5.74	0.11
			0.00			1" Ice	9.36	6.20	0.16
AAHC	B	From Leg	4.00	0.0000	244.00	No Ice	4.21	2.07	0.10
			0.00			1/2" Ice	4.47	2.26	0.14
			0.00			1" Ice	4.73	2.47	0.17
AAHC	C	From Leg	4.00	0.0000	244.00	No Ice	4.21	2.07	0.10
			0.00			1/2" Ice	4.47	2.26	0.14
			0.00			1" Ice	4.73	2.47	0.17
AAHC	D	From Leg	4.00	0.0000	244.00	No Ice	4.21	2.07	0.10
			0.00			1/2" Ice	4.47	2.26	0.14
			0.00			1" Ice	4.73	2.47	0.17
1900 MHz RRH	B	From Leg	4.00	0.0000	244.00	No Ice	2.97	2.63	0.05
			0.00			1/2" Ice	3.21	2.86	0.07
			0.00			1" Ice	3.46	3.11	0.10
1900 MHz RRH	C	From Leg	4.00	0.0000	244.00	No Ice	2.97	2.63	0.05
			0.00			1/2" Ice	3.21	2.86	0.07
			0.00			1" Ice	3.46	3.11	0.10
1900 MHz RRH	D	From Leg	4.00	0.0000	244.00	No Ice	2.97	2.63	0.05
			0.00			1/2" Ice	3.21	2.86	0.07
			0.00			1" Ice	3.46	3.11	0.10
800 MHz RRH	B	From Leg	4.00	0.0000	244.00	No Ice	2.97	2.63	0.05
			0.00			1/2" Ice	3.21	2.86	0.07
			0.00			1" Ice	3.46	3.11	0.10
800 MHz RRH	C	From Leg	4.00	0.0000	244.00	No Ice	2.97	2.63	0.05
			0.00			1/2" Ice	3.21	2.86	0.07
			0.00			1" Ice	3.46	3.11	0.10
800 MHz RRH	D	From Leg	4.00	0.0000	244.00	No Ice	2.97	2.63	0.05
			0.00			1/2" Ice	3.21	2.86	0.07
			0.00			1" Ice	3.46	3.11	0.10
Valmont 13' Standoff Boom Gate	B	From Leg	2.00	0.0000	244.00	No Ice	20.60	12.90	0.52
			0.00			1/2" Ice	28.80	19.40	0.78
			0.00			1" Ice	37.00	25.90	1.05
Valmont 13' Standoff Boom Gate	C	From Leg	2.00	0.0000	244.00	No Ice	20.60	12.90	0.52
			0.00			1/2" Ice	28.80	19.40	0.78
			0.00			1" Ice	37.00	25.90	1.05
Valmont 13' Standoff Boom Gate	D	From Leg	2.00	0.0000	244.00	No Ice	20.60	12.90	0.52
			0.00			1/2" Ice	28.80	19.40	0.78
			0.00			1" Ice	37.00	25.90	1.05

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
7' Yagi	B	From Leg	1.00		0.0000	209.00	No Ice	1.20	1.20	0.00
			0.00				1/2" Ice	1.80	1.80	0.00
			3.00				1" Ice	2.40	2.40	0.01
5' x 5' Corner Service Platform	A	From Leg	2.50		0.0000	202.00	No Ice	4.00	8.75	0.25
			0.00				1/2" Ice	4.80	10.50	0.48
			0.00				1" Ice	5.60	12.25	0.71
5' x 5' Corner Service Platform	B	From Leg	2.50		0.0000	202.00	No Ice	4.00	8.75	0.25
			0.00				1/2" Ice	4.80	10.50	0.48
			0.00				1" Ice	5.60	12.25	0.71
5' x 5' Corner Service Platform	C	From Leg	2.50		0.0000	202.00	No Ice	4.00	8.75	0.25
			0.00				1/2" Ice	4.80	10.50	0.48
			0.00				1" Ice	5.60	12.25	0.71
5' x 5' Corner Service Platform	D	From Leg	2.50		0.0000	202.00	No Ice	4.00	8.75	0.25
			0.00				1/2" Ice	4.80	10.50	0.48
			0.00				1" Ice	5.60	12.25	0.71
MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.00		0.0000	200.00	No Ice	12.49	7.29	0.09
			0.00				1/2" Ice	12.99	8.25	0.18
			0.00				1" Ice	13.49	9.08	0.27
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.00		0.0000	200.00	No Ice	12.49	7.29	0.09
			0.00				1/2" Ice	12.99	8.25	0.18
			0.00				1" Ice	13.49	9.08	0.27
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.00		0.0000	200.00	No Ice	12.49	7.29	0.09
			0.00				1/2" Ice	12.99	8.25	0.18
			0.00				1" Ice	13.49	9.08	0.27
TA08025-B604	A	From Leg	4.00		0.0000	200.00	No Ice	1.96	0.98	0.06
			0.00				1/2" Ice	2.14	1.11	0.08
			0.00				1" Ice	2.32	1.25	0.10
TA08025-B604	B	From Leg	4.00		0.0000	200.00	No Ice	1.96	0.98	0.06
			0.00				1/2" Ice	2.14	1.11	0.08
			0.00				1" Ice	2.32	1.25	0.10
TA08025-B604	C	From Leg	4.00		0.0000	200.00	No Ice	1.96	0.98	0.06
			0.00				1/2" Ice	2.14	1.11	0.08
			0.00				1" Ice	2.32	1.25	0.10
TA08025-B605	A	From Leg	4.00		0.0000	200.00	No Ice	1.96	1.13	0.08
			0.00				1/2" Ice	2.14	1.27	0.09
			0.00				1" Ice	2.32	1.41	0.11
TA08025-B605	B	From Leg	4.00		0.0000	200.00	No Ice	1.96	1.13	0.08
			0.00				1/2" Ice	2.14	1.27	0.09
			0.00				1" Ice	2.32	1.41	0.11
TA08025-B605	C	From Leg	4.00		0.0000	200.00	No Ice	1.96	1.13	0.08
			0.00				1/2" Ice	2.14	1.27	0.09
			0.00				1" Ice	2.32	1.41	0.11
RDIDC-3045-PF-48	C	From Leg	4.00		0.0000	200.00	No Ice	1.87	0.93	0.02
			0.00				1/2" Ice	2.04	1.06	0.04
			0.00				1" Ice	2.21	1.19	0.06
MTC3975083	A	From Leg	2.00		0.0000	200.00	No Ice	10.60	8.10	0.41
			0.00				1/2" Ice	16.40	12.60	0.41
			0.00				1" Ice	22.20	17.10	0.41
MTC3975083	B	From Leg	2.00		0.0000	200.00	No Ice	10.60	8.10	0.41
			0.00				1/2" Ice	16.40	12.60	0.41
			0.00				1" Ice	22.20	17.10	0.41
MTC3975083	C	From Leg	2.00		0.0000	200.00	No Ice	10.60	8.10	0.41
			0.00				1/2" Ice	16.40	12.60	0.41
			0.00				1" Ice	22.20	17.10	0.41
Flash Beacon	A	From Leg	1.00		0.0000	183.00	No Ice	3.00	3.00	0.10
			0.00				1/2" Ice	4.50	4.50	0.15
			0.00				1" Ice	6.00	6.00	0.20

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Flash Beacon	C	From Leg	1.00	0.0000	183.00	No Ice	3.00	3.00	0.10
			0.00			1/2" Ice	4.50	4.50	0.15
			0.00			1" Ice	6.00	6.00	0.20
JAHH-65B-R3B w/ Mount Pipe	A	From Leg	4.00	0.0000	140.00	No Ice	9.35	7.65	0.09
			0.00			1/2" Ice	9.92	8.83	0.16
			0.00			1" Ice	10.46	9.73	0.25
JAHH-65B-R3B w/ Mount Pipe	B	From Leg	4.00	0.0000	140.00	No Ice	9.35	7.65	0.09
			0.00			1/2" Ice	9.92	8.83	0.16
			0.00			1" Ice	10.46	9.73	0.25
JAHH-65B-R3B w/ Mount Pipe	C	From Leg	4.00	0.0000	140.00	No Ice	9.35	7.65	0.09
			0.00			1/2" Ice	9.92	8.83	0.16
			0.00			1" Ice	10.46	9.73	0.25
JAHH-45B-R3B w/ Mount Pipe	A	From Leg	4.00	0.0000	140.00	No Ice	11.64	6.95	0.11
			0.00			1/2" Ice	12.23	8.13	0.19
			0.00			1" Ice	12.78	9.02	0.29
JAHH-45B-R3B w/ Mount Pipe	B	From Leg	4.00	0.0000	140.00	No Ice	11.64	6.95	0.11
			0.00			1/2" Ice	12.23	8.13	0.19
			0.00			1" Ice	12.78	9.02	0.29
JAHH-45B-R3B w/ Mount Pipe	C	From Leg	4.00	0.0000	140.00	No Ice	11.64	6.95	0.11
			0.00			1/2" Ice	12.23	8.13	0.19
			0.00			1" Ice	12.78	9.02	0.29
B13 RRH4X30-4R	A	From Leg	4.00	0.0000	140.00	No Ice	2.16	1.62	0.06
			0.00			1/2" Ice	2.35	1.79	0.08
			0.00			1" Ice	2.55	1.97	0.10
B13 RRH4X30-4R	B	From Leg	4.00	0.0000	140.00	No Ice	2.16	1.62	0.06
			0.00			1/2" Ice	2.35	1.79	0.08
			0.00			1" Ice	2.55	1.97	0.10
B13 RRH4X30-4R	C	From Leg	4.00	0.0000	140.00	No Ice	2.16	1.62	0.06
			0.00			1/2" Ice	2.35	1.79	0.08
			0.00			1" Ice	2.55	1.97	0.10
B66A RRH4X45W	A	From Leg	4.00	0.0000	140.00	No Ice	2.54	1.61	0.06
			0.00			1/2" Ice	2.75	1.79	0.08
			0.00			1" Ice	2.97	1.98	0.10
B66A RRH4X45W	B	From Leg	4.00	0.0000	140.00	No Ice	2.54	1.61	0.06
			0.00			1/2" Ice	2.75	1.79	0.08
			0.00			1" Ice	2.97	1.98	0.10
B66A RRH4X45W	C	From Leg	4.00	0.0000	140.00	No Ice	2.54	1.61	0.06
			0.00			1/2" Ice	2.75	1.79	0.08
			0.00			1" Ice	2.97	1.98	0.10
B25 RRH4X30W	A	From Leg	4.00	0.0000	140.00	No Ice	0.00	0.00	0.00
			0.00			1/2" Ice	0.00	0.00	0.00
			0.00			1" Ice	0.00	0.00	0.00
B25 RRH4X30W	B	From Leg	4.00	0.0000	140.00	No Ice	0.00	0.00	0.00
			0.00			1/2" Ice	0.00	0.00	0.00
			0.00			1" Ice	0.00	0.00	0.00
B25 RRH4X30W	C	From Leg	4.00	0.0000	140.00	No Ice	0.00	0.00	0.00
			0.00			1/2" Ice	0.00	0.00	0.00
			0.00			1" Ice	0.00	0.00	0.00
B5 RRH4X40W	A	From Leg	4.00	0.0000	140.00	No Ice	2.54	1.61	0.06
			0.00			1/2" Ice	2.75	1.79	0.08
			0.00			1" Ice	2.97	1.98	0.10
B5 RRH4X40W	B	From Leg	4.00	0.0000	140.00	No Ice	2.54	1.61	0.06
			0.00			1/2" Ice	2.75	1.79	0.08
			0.00			1" Ice	2.97	1.98	0.10
B5 RRH4X40W	C	From Leg	4.00	0.0000	140.00	No Ice	2.54	1.61	0.06
			0.00			1/2" Ice	2.75	1.79	0.08
			0.00			1" Ice	2.97	1.98	0.10

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
(3) 12' Arch Frame	C	None			0.0000	140.00	No Ice	30.50	30.50	1.01
							1/2" Ice	42.80	42.80	1.31
							1" Ice	55.10	55.10	1.61
36" Service Platform	B	From Face	0.00		0.0000	125.00	No Ice	103.50	4.08	1.73
			0.00				1/2" Ice	129.38	5.09	2.16
			0.00				1" Ice	155.25	6.11	2.59
36" Service Platform	C	From Face	0.00		0.0000	125.00	No Ice	103.50	4.08	1.73
			0.00				1/2" Ice	129.38	5.09	2.16
			0.00				1" Ice	155.25	6.11	2.59
Flash Beacon	A	From Leg	1.00		0.0000	93.00	No Ice	3.00	3.00	0.10
			0.00				1/2" Ice	4.50	4.50	0.15
			0.00				1" Ice	6.00	6.00	0.20
Flash Beacon	C	From Leg	1.00		0.0000	93.00	No Ice	3.00	3.00	0.10
			0.00				1/2" Ice	4.50	4.50	0.15
			0.00				1" Ice	6.00	6.00	0.20
48" Service Platform	C	From Face	0.00		0.0000	50.00	No Ice	103.50	4.08	1.73
			0.00				1/2" Ice	129.38	5.09	2.16
			0.00				1" Ice	155.25	6.11	2.59
48" Service Platform	D	From Face	0.00		0.0000	50.00	No Ice	103.50	4.08	1.73
			0.00				1/2" Ice	129.38	5.09	2.16
			0.00				1" Ice	155.25	6.11	2.59
6' Ice Shield	D	From Leg	3.00		0.0000	55.00	No Ice	1.80	1.20	0.40
			0.00				1/2" Ice	2.22	1.49	0.53
			6.00				1" Ice	2.65	1.78	0.66
2' Standoff	A	From Leg	1.00		0.0000	50.00	No Ice	1.36	1.36	0.05
			0.00				1/2" Ice	2.45	2.45	0.07
			0.00				1" Ice	3.50	3.50	0.10
GPS	C	From Leg	0.00		0.0000	26.00	No Ice	0.13	0.13	0.00
			0.00				1/2" Ice	0.21	0.21	0.00
			0.00				1" Ice	0.28	0.28	0.01
Pipe Mount 6'x2.375"	C	From Leg	0.50		0.0000	55.00	No Ice	1.43	1.43	0.03
			0.00				1/2" Ice	1.92	1.92	0.04
			0.00				1" Ice	2.29	2.29	0.05
Redundant Verticals (T18)	A	From Face	0.00		0.0000	20.83	No Ice	4.89	9.77	0.07
			0.00				1/2" Ice	4.89	9.77	0.07
			0.00				1" Ice	4.89	9.77	0.07
Redundant Verticals (T18)	B	From Face	0.00		0.0000	20.83	No Ice	4.89	9.77	0.07
			0.00				1/2" Ice	4.89	9.77	0.07
			0.00				1" Ice	4.89	9.77	0.07
Redundant Verticals (T18)	C	From Face	0.00		0.0000	20.83	No Ice	4.89	9.77	0.07
			0.00				1/2" Ice	4.89	9.77	0.07
			0.00				1" Ice	4.89	9.77	0.07
Redundant Verticals (T18)	D	From Face	0.00		0.0000	20.83	No Ice	4.89	9.77	0.07
			0.00				1/2" Ice	4.89	9.77	0.07
			0.00				1" Ice	4.89	9.77	0.07
Kicker Brace (T17)	A	From Face	0.00		0.0000	45.83	No Ice	4.17	5.69	0.06
			0.00				1/2" Ice	4.17	5.69	0.06
			0.00				1" Ice	4.17	5.69	0.06
Kicker Brace (T17)	B	From Face	0.00		0.0000	45.83	No Ice	4.17	5.69	0.06
			0.00				1/2" Ice	4.17	5.69	0.06
			0.00				1" Ice	4.17	5.69	0.06
Kicker Brace (T17)	C	From Face	0.00		0.0000	45.83	No Ice	4.17	5.69	0.06
			0.00				1/2" Ice	4.17	5.69	0.06
			0.00				1" Ice	4.17	5.69	0.06
Kicker Brace (T17)	D	From Face	0.00		0.0000	45.83	No Ice	4.17	5.69	0.06
			0.00				1/2" Ice	4.17	5.69	0.06
			0.00				1" Ice	4.17	5.69	0.06

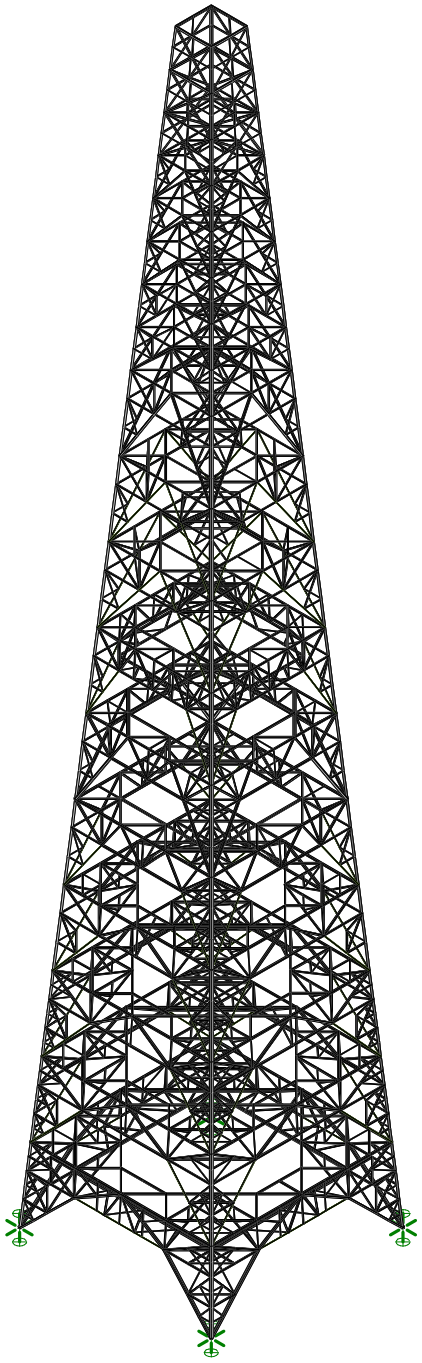
Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Kicker Brace (T16)	A	From Face	0.00	0.0000	70.83	No Ice	4.17	5.53	0.05
			0.00			1/2" Ice	4.17	5.53	0.05
			0.00			1" Ice	4.17	5.53	0.05
Kicker Brace (T16)	B	From Face	0.00	0.0000	70.83	No Ice	4.17	5.53	0.05
			0.00			1/2" Ice	4.17	5.53	0.05
			0.00			1" Ice	4.17	5.53	0.05
Kicker Brace (T16)	C	From Face	0.00	0.0000	70.83	No Ice	4.17	5.53	0.05
			0.00			1/2" Ice	4.17	5.53	0.05
			0.00			1" Ice	4.17	5.53	0.05
Kicker Brace (T16)	D	From Face	0.00	0.0000	70.83	No Ice	4.17	5.53	0.05
			0.00			1/2" Ice	4.17	5.53	0.05
			0.00			1" Ice	4.17	5.53	0.05
Sub Braces (T16)	A	From Face	0.00	0.0000	62.50	No Ice	27.69	27.69	0.27
			0.00			1/2" Ice	27.69	27.69	0.27
			0.00			1" Ice	27.69	27.69	0.27
Sub Braces (T16)	B	From Face	0.00	0.0000	62.50	No Ice	27.69	27.69	0.27
			0.00			1/2" Ice	27.69	27.69	0.27
			0.00			1" Ice	27.69	27.69	0.27
Sub Braces (T16)	C	From Face	0.00	0.0000	62.50	No Ice	27.69	27.69	0.27
			0.00			1/2" Ice	27.69	27.69	0.27
			0.00			1" Ice	27.69	27.69	0.27
Sub Braces (T16)	D	From Face	0.00	0.0000	62.50	No Ice	27.69	27.69	0.27
			0.00			1/2" Ice	27.69	27.69	0.27
			0.00			1" Ice	27.69	27.69	0.27
Kicker Brace (T15)	A	From Face	0.00	0.0000	95.83	No Ice	5.38	5.38	0.05
			0.00			1/2" Ice	5.38	5.38	0.05
			0.00			1" Ice	5.38	5.38	0.05
Kicker Brace (T15)	B	From Face	0.00	0.0000	95.83	No Ice	5.38	5.38	0.05
			0.00			1/2" Ice	5.38	5.38	0.05
			0.00			1" Ice	5.38	5.38	0.05
Kicker Brace (T15)	C	From Face	0.00	0.0000	95.83	No Ice	5.38	5.38	0.05
			0.00			1/2" Ice	5.38	5.38	0.05
			0.00			1" Ice	5.38	5.38	0.05
Kicker Brace (T15)	D	From Face	0.00	0.0000	95.83	No Ice	5.38	5.38	0.05
			0.00			1/2" Ice	5.38	5.38	0.05
			0.00			1" Ice	5.38	5.38	0.05
Kicker Brace (T14)	A	From Face	0.00	0.0000	120.83	No Ice	5.86	5.86	0.06
			0.00			1/2" Ice	5.86	5.86	0.06
			0.00			1" Ice	5.86	5.86	0.06
Kicker Brace (T14)	B	From Face	0.00	0.0000	120.83	No Ice	5.86	5.86	0.06
			0.00			1/2" Ice	5.86	5.86	0.06
			0.00			1" Ice	5.86	5.86	0.06
Kicker Brace (T14)	C	From Face	0.00	0.0000	120.83	No Ice	5.86	5.86	0.06
			0.00			1/2" Ice	5.86	5.86	0.06
			0.00			1" Ice	5.86	5.86	0.06
Kicker Brace (T14)	D	From Face	0.00	0.0000	120.83	No Ice	5.86	5.86	0.06
			0.00			1/2" Ice	5.86	5.86	0.06
			0.00			1" Ice	5.86	5.86	0.06
Subhorizontals (T14)	A	From Face	0.00	0.0000	125.00	No Ice	0.00	11.44	0.11
			0.00			1/2" Ice	0.00	11.44	0.11
			0.00			1" Ice	0.00	11.44	0.11
Subhorizontals (T14)	B	From Face	0.00	0.0000	125.00	No Ice	0.00	11.44	0.11
			0.00			1/2" Ice	0.00	11.44	0.11
			0.00			1" Ice	0.00	11.44	0.11
Subhorizontals (T14)	C	From Face	0.00	0.0000	125.00	No Ice	0.00	11.44	0.11
			0.00			1/2" Ice	0.00	11.44	0.11
			0.00			1" Ice	0.00	11.44	0.11

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Subhorizontals (T14)	D	From Face	0.00	0.00	0.0000	125.00	No Ice	0.00	11.44	0.11
			0.00	0.00			1/2" Ice	0.00	11.44	0.11
			0.00	0.00			1" Ice	0.00	11.44	0.11
Kicker Brace (T13)	A	From Face	0.00	0.00	0.0000	145.83	No Ice	5.65	5.65	0.06
			0.00	0.00			1/2" Ice	5.65	5.65	0.06
			0.00	0.00			1" Ice	5.65	5.65	0.06
Kicker Brace (T13)	B	From Face	0.00	0.00	0.0000	145.83	No Ice	5.65	5.65	0.06
			0.00	0.00			1/2" Ice	5.65	5.65	0.06
			0.00	0.00			1" Ice	5.65	5.65	0.06
Kicker Brace (T13)	C	From Face	0.00	0.00	0.0000	145.83	No Ice	5.65	5.65	0.06
			0.00	0.00			1/2" Ice	5.65	5.65	0.06
			0.00	0.00			1" Ice	5.65	5.65	0.06
Kicker Brace (T13)	D	From Face	0.00	0.00	0.0000	145.83	No Ice	5.65	5.65	0.06
			0.00	0.00			1/2" Ice	5.65	5.65	0.06
			0.00	0.00			1" Ice	5.65	5.65	0.06
Subhorizontals (T13)	A	From Face	0.00	0.00	0.0000	150.00	No Ice	0.00	8.75	0.09
			0.00	0.00			1/2" Ice	0.00	8.75	0.09
			0.00	0.00			1" Ice	0.00	8.75	0.09
Subhorizontals (T13)	B	From Face	0.00	0.00	0.0000	150.00	No Ice	0.00	8.75	0.09
			0.00	0.00			1/2" Ice	0.00	8.75	0.09
			0.00	0.00			1" Ice	0.00	8.75	0.09
Subhorizontals (T13)	C	From Face	0.00	0.00	0.0000	150.00	No Ice	0.00	8.75	0.09
			0.00	0.00			1/2" Ice	0.00	8.75	0.09
			0.00	0.00			1" Ice	0.00	8.75	0.09
Subhorizontals (T13)	D	From Face	0.00	0.00	0.0000	150.00	No Ice	0.00	8.75	0.09
			0.00	0.00			1/2" Ice	0.00	8.75	0.09
			0.00	0.00			1" Ice	0.00	8.75	0.09
Subverticals (T12)	A	From Face	0.00	0.00	0.0000	170.83	No Ice	10.45	10.45	0.10
			0.00	0.00			1/2" Ice	10.45	10.45	0.10
			0.00	0.00			1" Ice	10.45	10.45	0.10
Subverticals (T12)	B	From Face	0.00	0.00	0.0000	170.83	No Ice	10.45	10.45	0.10
			0.00	0.00			1/2" Ice	10.45	10.45	0.10
			0.00	0.00			1" Ice	10.45	10.45	0.10
Subverticals (T12)	C	From Face	0.00	0.00	0.0000	170.83	No Ice	10.45	10.45	0.10
			0.00	0.00			1/2" Ice	10.45	10.45	0.10
			0.00	0.00			1" Ice	10.45	10.45	0.10
Subverticals (T12)	D	From Face	0.00	0.00	0.0000	170.83	No Ice	10.45	10.45	0.10
			0.00	0.00			1/2" Ice	10.45	10.45	0.10
			0.00	0.00			1" Ice	10.45	10.45	0.10
Subhorizontals (T12)	A	From Face	0.00	0.00	0.0000	175.00	No Ice	0.00	7.97	0.08
			0.00	0.00			1/2" Ice	0.00	7.97	0.08
			0.00	0.00			1" Ice	0.00	7.97	0.08
Subhorizontals (T12)	B	From Face	0.00	0.00	0.0000	175.00	No Ice	0.00	7.97	0.08
			0.00	0.00			1/2" Ice	0.00	7.97	0.08
			0.00	0.00			1" Ice	0.00	7.97	0.08
Subhorizontals (T12)	C	From Face	0.00	0.00	0.0000	175.00	No Ice	0.00	7.97	0.08
			0.00	0.00			1/2" Ice	0.00	7.97	0.08
			0.00	0.00			1" Ice	0.00	7.97	0.08
Subhorizontals (T12)	D	From Face	0.00	0.00	0.0000	175.00	No Ice	0.00	7.97	0.08
			0.00	0.00			1/2" Ice	0.00	7.97	0.08
			0.00	0.00			1" Ice	0.00	7.97	0.08
Inner Brace (T11)	A	From Face	0.00	0.00	0.0000	200.00	No Ice	3.59	3.59	0.03
			0.00	0.00			1/2" Ice	3.59	3.59	0.03
			0.00	0.00			1" Ice	3.59	3.59	0.03
Inner Brace (T11)	B	From Face	0.00	0.00	0.0000	200.00	No Ice	3.59	3.59	0.03
			0.00	0.00			1/2" Ice	3.59	3.59	0.03
			0.00	0.00			1" Ice	3.59	3.59	0.03

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Offsets: Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Inner Brace (T11)	C	From Face	0.00	0.00	0.0000	200.00	No Ice	3.59	3.59	0.03
			0.00	0.00			1/2" Ice	3.59	3.59	0.03
			0.00	0.00			1" Ice	3.59	3.59	0.03
Inner Brace (T11)	D	From Face	0.00	0.00	0.0000	200.00	No Ice	3.59	3.59	0.03
			0.00	0.00			1/2" Ice	3.59	3.59	0.03
			0.00	0.00			1" Ice	3.59	3.59	0.03
Subverticals (T10)	A	From Face	0.00	0.00	0.0000	220.83	No Ice	10.16	10.16	0.10
			0.00	0.00			1/2" Ice	10.16	10.16	0.10
			0.00	0.00			1" Ice	10.16	10.16	0.10
Subverticals (T10)	B	From Face	0.00	0.00	0.0000	220.83	No Ice	10.16	10.16	0.10
			0.00	0.00			1/2" Ice	10.16	10.16	0.10
			0.00	0.00			1" Ice	10.16	10.16	0.10
Subverticals (T10)	C	From Face	0.00	0.00	0.0000	220.83	No Ice	10.16	10.16	0.10
			0.00	0.00			1/2" Ice	10.16	10.16	0.10
			0.00	0.00			1" Ice	10.16	10.16	0.10
Subverticals (T10)	D	From Face	0.00	0.00	0.0000	220.83	No Ice	10.16	10.16	0.10
			0.00	0.00			1/2" Ice	10.16	10.16	0.10
			0.00	0.00			1" Ice	10.16	10.16	0.10
Inner Brace (T10)	A	From Face	0.00	0.00	0.0000	225.00	No Ice	4.01	4.01	0.06
			0.00	0.00			1/2" Ice	4.01	4.01	0.06
			0.00	0.00			1" Ice	4.01	4.01	0.06
Inner Brace (T10)	B	From Face	0.00	0.00	0.0000	225.00	No Ice	4.01	4.01	0.06
			0.00	0.00			1/2" Ice	4.01	4.01	0.06
			0.00	0.00			1" Ice	4.01	4.01	0.06
Inner Brace (T10)	C	From Face	0.00	0.00	0.0000	225.00	No Ice	4.01	4.01	0.06
			0.00	0.00			1/2" Ice	4.01	4.01	0.06
			0.00	0.00			1" Ice	4.01	4.01	0.06
Inner Brace (T10)	D	From Face	0.00	0.00	0.0000	225.00	No Ice	4.01	4.01	0.06
			0.00	0.00			1/2" Ice	4.01	4.01	0.06
			0.00	0.00			1" Ice	4.01	4.01	0.06
Hip Diagonals (T8)	A	From Leg	0.00	0.00	0.0000	253.13	No Ice	13.82	13.82	0.14
			0.00	0.00			1/2" Ice	13.82	13.82	0.14
			0.00	0.00			1" Ice	13.82	13.82	0.14
Hip Diagonals (T8)	B	From Leg	0.00	0.00	0.0000	253.13	No Ice	13.82	13.82	0.14
			0.00	0.00			1/2" Ice	13.82	13.82	0.14
			0.00	0.00			1" Ice	13.82	13.82	0.14
Hip Diagonals (T8)	C	From Leg	0.00	0.00	0.0000	253.13	No Ice	13.82	13.82	0.14
			0.00	0.00			1/2" Ice	13.82	13.82	0.14
			0.00	0.00			1" Ice	13.82	13.82	0.14
Hip Diagonals (T8)	D	From Leg	0.00	0.00	0.0000	253.13	No Ice	13.82	13.82	0.14
			0.00	0.00			1/2" Ice	13.82	13.82	0.14
			0.00	0.00			1" Ice	13.82	13.82	0.14
Hip Diagonals (T9)	A	From Leg	0.00	0.00	0.0000	278.13	No Ice	13.31	13.31	0.13
			0.00	0.00			1/2" Ice	13.31	13.31	0.13
			0.00	0.00			1" Ice	13.31	13.31	0.13
Hip Diagonals (T9)	B	From Leg	0.00	0.00	0.0000	278.13	No Ice	13.31	13.31	0.13
			0.00	0.00			1/2" Ice	13.31	13.31	0.13
			0.00	0.00			1" Ice	13.31	13.31	0.13
Hip Diagonals (T9)	C	From Leg	0.00	0.00	0.0000	278.13	No Ice	13.31	13.31	0.13
			0.00	0.00			1/2" Ice	13.31	13.31	0.13
			0.00	0.00			1" Ice	13.31	13.31	0.13
Hip Diagonals (T9)	D	From Leg	0.00	0.00	0.0000	278.13	No Ice	13.31	13.31	0.13
			0.00	0.00			1/2" Ice	13.31	13.31	0.13
			0.00	0.00			1" Ice	13.31	13.31	0.13

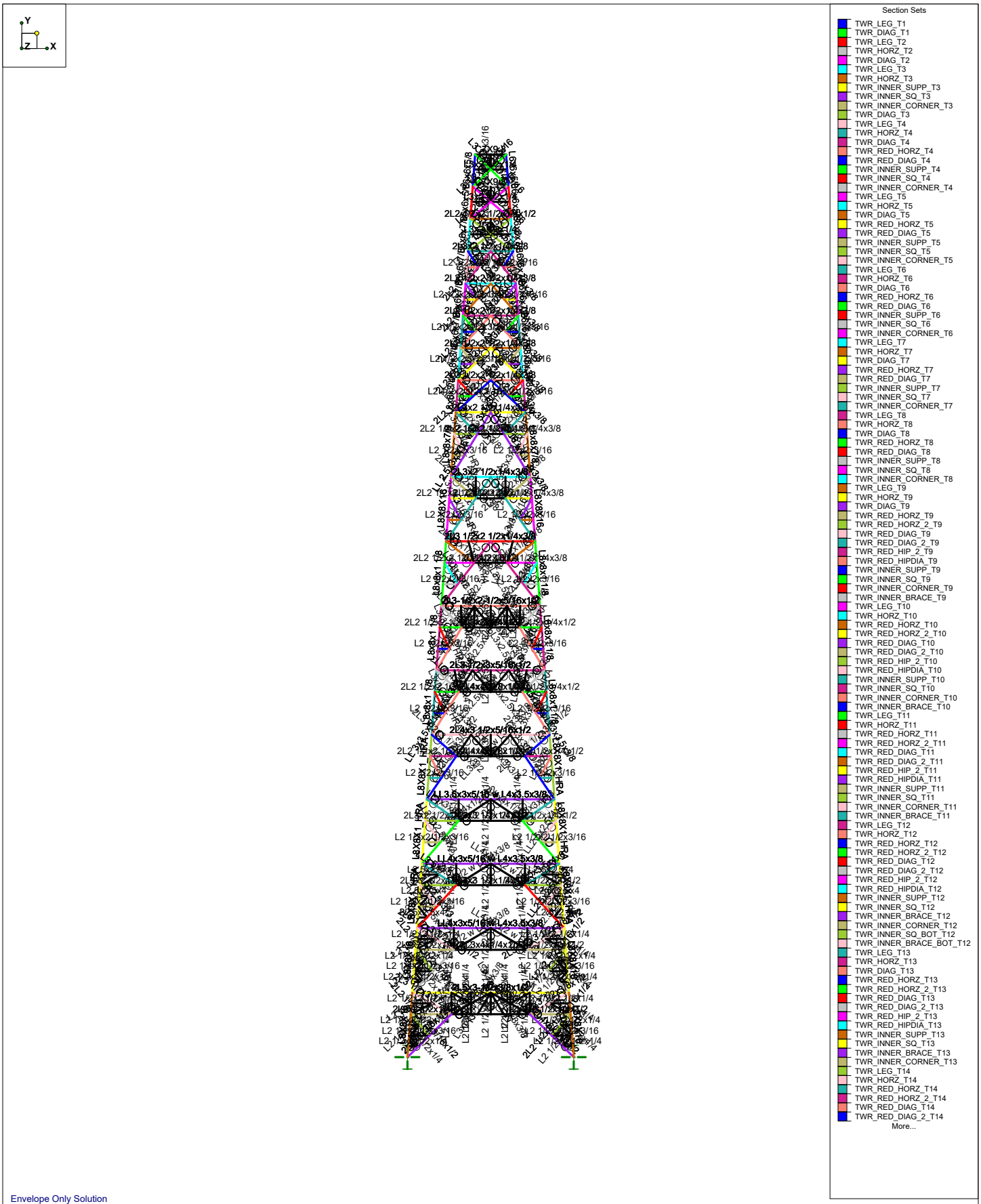
Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
3' Dish w/ Radome	C	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	0.0000		48.00	3.00	No Ice 1/2" Ice 1" Ice	7.07 7.46 7.88	0.04 0.06 0.08
4' Dish w/o Radome	C	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	0.0000		31.00	4.00	No Ice 1/2" Ice 1" Ice	12.57 13.10 13.62	0.08 0.09 0.10



Envelope Only Solution

GPD Group		SK - 1
MKS	SNET021 NORWALK	Nov 3, 2022 at 4:19 PM
2022703.73	3D Rendered View	SNET021.rt3



Envelope Only Solution

GPD Group		SK - 2
MKS	SNET021 NORWALK	Nov 3, 2022 at 4:20 PM
2022703.73	Section Sets	SNET021.rt3

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36	29000	11200	.295	.65	.49	36	1.5	58	1.2
2	A500-46	29000	11200	.295	.65	.49	46	1.2	58	1.1
3	100 KSI	29000	11200	.295	.65	.49	100	1.1	110	1.2

General Material Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5 F)	Density[k/ft^3]
1	Rigid	1e+10	1e+9	.3	.65	0
2	A36_1	29000	11200	.3	.65	.49

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	TWR_LEG_T1	L6x6x5/8	None	None	A36	Typical	7.109	24.158	24.158	.926
2	TWR_TOP_GIRT_T1	C7X9.8	None	None	A36	Typical	2.87	.957	21.2	.1
3	TWR_DIAG_T1	L3 1/2x3 1/2x5/16	None	None	A36	Typical	2.09	2.45	2.45	.073
4	TWR_STEP_T1	L3x2 1/2x1/4	None	None	A36	Typical	1.31	.74	1.17	.03
5	TWR_RED_VERT_T1	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
6	TWR_LEG_T2	L6x6x5/8	None	None	A36	Typical	7.109	24.158	24.158	.926
7	TWR_HORZ_T2	C7X9.8	None	None	A36	Typical	2.87	.957	21.2	.1
8	TWR_DIAG_T2	L3 1/2x3 1/2x5/16	None	None	A36	Typical	2.09	2.45	2.45	.073
9	TWR_STEP_T2	L3x2 1/2x1/4	None	None	A36	Typical	1.31	.74	1.17	.03
10	TWR_RED_VERT_T2	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
11	TWR_LEG_T3	L6x6x7/8	None	None	A36	Typical	9.73	31.9	31.9	2.51
12	TWR_HORZ_T3	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.375	3.628	1.406	.049
13	TWR_INNER_SUPP_T3	2L2x2 1/2x3/16x...	None	None	A36	Typical	1.62	2.48	.58	.019
14	TWR_INNER_SQ_T3	L3x2 1/2x1/4	None	None	A36	Typical	1.31	.74	1.17	.03
15	TWR_INNER_CORNER_T3	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
16	TWR_DIAG_T3	L3 1/2x4x5/16	None	None	A36	Typical	2.25	3.56	2.55	.078
17	TWR_STEP_T3	L3x2 1/2x1/4	None	None	A36	Typical	1.31	.74	1.17	.03
18	TWR_RED_VERT_T3	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
19	TWR_LEG_T4	L6x6x7/8	None	None	A36	Typical	9.73	31.9	31.9	2.51
20	TWR_HORZ_T4	2L3x2 1/2x1/4x3...	None	None	A36	Typical	2.63	3.373	2.35	.055
21	TWR_DIAG_T4	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
22	TWR_RED_HORZ_T4	L2 1/2x2x3/16	None	None	A36	Typical	.809	.291	.509	.01
23	TWR_RED_DIAG_T4	L2 1/2x2x3/16	None	None	A36	Typical	.809	.291	.509	.01
24	TWR_INNER_SUPP_T4	2L2x2 1/2x3/16x...	None	None	A36	Typical	1.62	2.48	.58	.019
25	TWR_INNER_SQ_T4	L3x2 1/2x1/4	None	None	A36	Typical	1.31	.74	1.17	.03
26	TWR_INNER_CORNER_T4	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
27	TWR_LEG_T5	L6x6x7/8	None	None	A36	Typical	9.73	31.9	31.9	2.51
28	TWR_HORZ_T5	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
29	TWR_DIAG_T5	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
30	TWR_RED_HORZ_T5	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
31	TWR_RED_DIAG_T5	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
32	TWR_INNER_SUPP_T5	2L2 1/2x2 1/2x3...	None	None	A36	Typical	1.8	1.966	1.09	.021
33	TWR_INNER_SQ_T5	2L2x2 1/2x1/4x3...	None	None	A36	Typical	2.13	3.321	.74	.044
34	TWR_INNER_CORNER_T5	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
35	TWR_LEG_T6	L6x6x7/8	None	None	A36	Typical	9.73	31.9	31.9	2.51
36	TWR_HORZ_T6	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
37	TWR_DIAG_T6	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
38	TWR_RED_HORZ_T6	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
39	TWR_RED_DIAG_T6	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
40	TWR_INNER_SUPP_T6	2L2 1/2x2 1/2x3...	None	None	A36	Typical	1.8	1.966	1.09	.021
41	TWR_INNER_SQ_T6	2L2x2 1/2x1/4x3...	None	None	A36	Typical	2.13	3.321	.74	.044
42	TWR_INNER_CORNER_T6	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
43	TWR_LEG_T7	L8x8x3/4	None	None	A36	Typical	11.438	69.738	69.738	2.145
44	TWR_HORZ_T7	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
45	TWR_DIAG_T7	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
46	TWR_RED_HORZ_T7	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
47	TWR_RED_DIAG_T7	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
48	TWR_INNER_SUPP_T7	2L2 1/2x2 1/2x3...	None	None	A36	Typical	1.8	1.966	1.09	.021
49	TWR_INNER_SUPP_2_T7	L3X3X4	None	None	A36	Typical	1.44	1.23	1.23	.031
50	TWR_INNER_SQ_T7	2L2x2 1/2x1/4x3...	None	None	A36	Typical	2.13	3.321	.74	.044
51	TWR_INNER_CORNER_T7	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
52	TWR_LEG_T8	L8x8x3/4	None	None	A36	Typical	11.438	69.738	69.738	2.145
53	TWR_HORZ_T8	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
54	TWR_DIAG_T8	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
55	TWR_RED_HORZ_T8	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
56	TWR_RED_DIAG_T8	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
57	TWR_INNER_SUPP_T8	2L2 1/2x2 1/2x3...	None	None	A36	Typical	1.8	1.966	1.09	.021
58	TWR_INNER_SUPP_2_T8	L3X3X4	None	None	A36	Typical	1.44	1.23	1.23	.031
59	TWR_INNER_SQ_T8	2L2x2 1/2x1/4x3...	None	None	A36	Typical	2.13	3.321	.74	.044
60	TWR_INNER_CORNER_T8	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
61	TWR_LEG_T9	L8x8x7/8	None	None	A36	Typical	13.2	79.6	79.6	3.46
62	TWR_HORZ_T9	2L3x2 1/2x1/4x3...	None	None	A36	Typical	2.63	3.373	2.35	.055
63	TWR_DIAG_T9	LL 2.5x3x5/16 w...	None	None	A36	Typical	7.47	15.223	10.957	.314
64	TWR_RED_HORZ_T9	L2 1/2x2x3/16	None	None	A36	Typical	.809	.291	.509	.01
65	TWR_RED_HORZ_2_T9	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
66	TWR_RED_DIAG_T9	L3x3x3/16_HRA	None	None	A36	Typical	1.09	.96	.96	.014
67	TWR_RED_DIAG_2_T9	2L2 1/2x2x3/16x...	None	None	A36	Typical	1.617	1.379	1.017	.019
68	TWR_RED_SUBHOR_T9	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
69	TWR_RED_HIP_2_T9	L3 1/2x3 1/2x3/8	None	None	A36	Typical	2.48	2.87	2.87	.123
70	TWR_RED_HIPDIA_T9	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
71	TWR_INNER_SUPP_T9	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
72	TWR_INNER_SQ_T9	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
73	TWR_INNER_CORNER_T9	L2 1/2x2 1/2x1/4	None	None	A36	Typical	1.19	.703	.703	.025
74	TWR_INNER_BRACE_T9	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
75	TWR_LEG_T10	L8X8X16	None	None	A36	Typical	15.1	89.1	89.1	5.08
76	TWR_HORZ_T10	2L3x2 1/2x1/4x3...	None	None	A36	Typical	2.63	3.373	2.35	.055
77	TWR_RED_HORZ_T10	L2 1/2x2x3/16	None	None	A36	Typical	.809	.291	.509	.01
78	TWR_RED_HORZ_2_T10	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
79	TWR_RED_DIAG_T10	L3x3x3/16_HRA	None	None	A36	Typical	1.09	.96	.96	.014
80	TWR_RED_DIAG_2_T10	2L2 1/2x2x3/16x...	None	None	A36	Typical	1.617	1.379	1.017	.019
81	TWR_RED_VERT_T10	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
82	TWR_RED_SUBHOR_T10	2L2 1/2x2 1/2x1/4	None	None	A36	Typical	2.38	2.625	1.41	.049
83	TWR_RED_HIP_2_T10	L4x4x3/8	None	None	A36	Typical	2.859	4.359	4.359	.134
84	TWR_RED_HIPDIA_T10	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
85	TWR_INNER_SUPP_T10	2L3x2 1/2x1/4x3...	None	None	A36	Typical	2.63	3.373	2.35	.055
86	TWR_INNER_SQ_T10	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
87	TWR_INNER_CORNER_T10	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
88	TWR_INNER_BRACE_T10	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
89	TWR_INNER_BRACE_2_T...	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
90	TWR_LEG_T11	L8x8x1 1/8	None	None	A500-46	Typical	16.7	98	98	7.13
91	TWR_HORZ_T11	2L3 1/2x2 1/2x1...	None	None	A36	Typical	2.88	3.4	3.6	.06
92	TWR_RED_HORZ_T11	L2 1/2x2x3/16	None	None	A36	Typical	.809	.291	.509	.01
93	TWR_RED_HORZ_2_T11	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
94	TWR_RED_DIAG_T11	L3x3x3/16	None	None	A36	Typical	1.09	.962	.962	.013
95	TWR_RED_DIAG_2_T11	2L3x2x1/4x3/8	None	None	A36	Typical	2.38	1.884	2.17	.049
96	TWR_RED_SUBHOR_T11	2L2 1/2x3x1/4	None	None	A36	Typical	2.63	4.519	1.49	.055
97	TWR_RED_VERT_T11	L2 1/2x2 1/2x1/4	None	None	A36	Typical	1.19	.703	.703	.025
98	TWR_RED_HIP_2_T11	L4x4x3/8	None	None	A36	Typical	2.859	4.359	4.359	.134
99	TWR_RED_HIPDIA_T11	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
100	TWR_INNER_SUPP_T11	2L3x2 1/2x1/4x3...	None	None	A36	Typical	2.63	3.373	2.35	.055
101	TWR_INNER_SQ_T11	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
102	TWR_INNER_CORNER_T11	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
103	TWR_INNER_BRACE_T11	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
104	TWR_INNER_BRACE_2_T11	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
105	TWR_LEG_T12	L8x8x1 1/8	None	None	A500-46	Typical	16.7	98	98	7.13
106	TWR_HORZ_T12	2L3-1/2x2-1/2x5...	None	None	A36	Typical	3.555	4.674	4.381	.116
107	TWR_RED_HORZ_T12	L2 1/2x2x3/16	None	None	A36	Typical	.809	.291	.509	.01
108	TWR_RED_HORZ_2_T12	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.375	3.628	1.406	.049
109	TWR_RED_DIAG_T12	L3x3x3/16_HRA	None	None	A36	Typical	1.09	.96	.96	.014
110	TWR_RED_DIAG_2_T12	2L3x3x3/8x1/2	None	None	A36	Typical	4.219	8.978	3.519	.181
111	TWR_RED_SUBHOR_T12	2L3x3x1/4x1/2	None	None	A36	Typical	2.875	5.919	2.488	.06
112	TWR_RED_SUBHOR_2_T12	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
113	TWR_RED_SUBDIA_T12	LL3x2.5x1/4 w L...	None	None	A36	Typical	4.75	4.663	8.092	.162
114	TWR_RED_VERT_T12	L3x3x1/4	None	None	A36	Typical	1.438	1.244	1.244	.03
115	TWR_RED_VERT_2_T12	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
116	TWR_RED_HIP_T12	Remove_HRB	None	None	A36	Typical	5.719	18.77	8.717	.268
117	TWR_RED_HIP_2_T12	2L3x4x1/4	None	None	A36	Typical	3.38	10.688	2.71	.07
118	TWR_RED_HIPDIA_T12	2L2 1/2x2 1/2x1/4	None	None	A36	Typical	2.38	2.625	1.41	.049
119	TWR_INNER_SUPP_T12	L3x3x1/4	None	None	A36	Typical	1.438	1.244	1.244	.03
120	TWR_INNER_SQ_T12	2L4x3x1/4x3/8	None	None	A36	Typical	3.38	5.587	5.54	.07
121	TWR_INNER_BRACE_T12	L3x3x1/4	None	None	A36	Typical	1.438	1.244	1.244	.03
122	TWR_INNER_CORNER_T12	L3x2 1/2x1/4	None	None	A36	Typical	1.31	.74	1.17	.03
123	TWR_INNER_SQ_BOT_T12	2L4x3x1/4x3/8	None	None	A36	Typical	3.38	5.587	5.54	.07
124	TWR_INNER_BRACE_BOT...	L3x3x1/4	None	None	A36	Typical	1.438	1.244	1.244	.03
125	TWR_LEG_T13	L8x8x1 1/8	None	None	A500-46	Typical	16.7	98	98	7.13
126	TWR_HORZ_T13	2L3 1/2x3x5/16x...	None	None	A36	Typical	3.867	7.493	4.66	.126
127	TWR_DIAG_T13	LL 3x3.5x5/16 w...	None	None	A36	Typical	8.54	23.403	13.915	.364
128	TWR_RED_HORZ_T13	L2 1/2x2x3/16	None	None	A36	Typical	.809	.291	.509	.01
129	TWR_RED_HORZ_2_T13	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.375	3.628	1.406	.049
130	TWR_RED_DIAG_T13	L3x3x3/16_HRA	None	None	A36	Typical	1.09	.96	.96	.014
131	TWR_RED_DIAG_2_T13	LL4x4x6x3	None	None	A36	Typical	5.72	18.5	8.64	.282
132	TWR_RED_DIAG_3_T13	L3X3X4	None	None	A36	Typical	1.44	1.23	1.23	.031
133	TWR_RED_VERT_T13	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
134	TWR_RED_SUBHOR_T13	2L4x4x3/8x1/2	None	None	A36	Typical	5.719	19.74	8.717	.268
135	TWR_RED_SUBHOR_2_T13	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
136	TWR_RED_SUBDIA_T13	LL3x2.5x1/4 w L...	None	None	A36	Typical	4.75	4.663	8.092	.162
137	TWR_RED_HIP_T13	Remove_HRB	None	None	A36	Typical	5.719	18.77	8.717	.268
138	TWR_RED_HIP_2_T13	L3x2 1/2x1/4	None	None	A36	Typical	1.31	.74	1.17	.03
139	TWR_RED_HIPDIA_T13	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
140	TWR_INNER_SUPP_T13	2L3x4x1/4x3/8	None	None	A36	Typical	3.38	12.371	2.71	.07
141	TWR_INNER_SQ_T13	2L3x4x1/4x3/8	None	None	A36	Typical	3.38	12.371	2.71	.07
142	TWR_INNER_BRACE_T13	L3x3 1/2x1/4	None	None	A36	Typical	1.56	1.91	1.3	.036
143	TWR_INNER_CORNER_T13	L3x2 1/2x1/4	None	None	A36	Typical	1.31	.74	1.17	.03
144	TWR_LEG_T14	L8X8X1_HRA	None	None	100 KSI	Typical	15	89	89	5.08
145	TWR_HORZ_T14	2L4x3 1/2x5/16x...	None	None	A36	Typical	4.492	11.382	7.118	.146
146	TWR_RED_HORZ_T14	L2 1/2x2x3/16	None	None	A36	Typical	.809	.291	.509	.01
147	TWR_RED_HORZ_2_T14	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.375	3.628	1.406	.049
148	TWR_RED_DIAG_T14	L3X3X3	None	None	A36	Typical	1.09	.948	.948	.014
149	TWR_RED_DIAG_2_T14	2L3 1/2x3 1/2x3...	None	None	A36	Typical	4.969	13.656	5.73	.216
150	TWR_RED_DIAG_3_T14	L3X3X4	None	None	A36	Typical	1.44	1.23	1.23	.031
151	TWR_RED_VERT_T14	L3X3X4	None	None	A36	Typical	1.44	1.23	1.23	.031
152	TWR_RED_SUBHOR_T14	2L4x4x3/8x1/2	None	None	A36	Typical	5.719	19.74	8.717	.268
153	TWR_RED_SUBHOR_2_T14	L3X3X4	None	None	A36	Typical	1.44	1.23	1.23	.031
154	TWR_RED_SUBDIA_T14	LL3x3x3/8 w L3...	None	None	A36	Typical	6.52	10.845	11.031	.316
155	TWR_RED_SUBDIA_2_T14	2L3x3x3/8x1/2	None	None	A36	Typical	4.219	8.978	3.519	.181
156	TWR_RED_HIP_T14	Remove_HRB	None	None	A36	Typical	5.719	18.77	8.717	.268

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
157	TWR_RED_HIP_2_T14	2L3x2 1/2x1/4x3...	None	None	A36	Typical	2.63	3.373	2.35	.055
158	TWR_RED_HIPDIA_T14	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
159	TWR_INNER_SUPP_T14	L3 1/2x3 1/2x1/4	None	None	A36	Typical	1.69	2.01	2.01	.039
160	TWR_INNER_SQ_T14	2L3 1/2x4x1/4x3...	None	None	A36	Typical	3.63	12.398	4.19	.076
161	TWR_INNER_BRACE_T14	L3 1/2x3 1/2x1/4	None	None	A36	Typical	1.69	2.01	2.01	.039
162	TWR_INNER_CORNER_T14	L3x3x3/16_HRA	None	None	A36	Typical	1.09	.96	.96	.014
163	TWR_LEG_T15	L8X8X1_HRA	None	None	100 KSI	Typical	15	89	89	5.08
164	TWR_HORZ_T15	LL3.5x3x5/16 w ...	None	None	A36	Typical	6.58	14.54	14.088	.268
165	TWR_RED_HORZ_T15	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
166	TWR_RED_HORZ_2_T15	2L3x2 1/2x1/4x1...	None	None	A36	Typical	2.625	3.664	2.346	.055
167	TWR_RED_DIAG_T15	LL2.5x2.5x4x3	None	None	A36	Typical	2.38	3.31	1.38	.052
168	TWR_RED_DIAG_2_T15	LL3x3x6x3	None	None	A36	Typical	4.22	8.39	3.5	.202
169	TWR_RED_SUBHOR_T15	2L3x3 1/2x1/4x1...	None	None	A36	Typical	3.125	8.987	2.608	.062
170	TWR_RED_SUBDIA_T15	2L4x4x1/2x1/2	None	None	A36	Typical	7.5	26.531	11.123	.625
171	TWR_RED_SUBDIA2_T15	L3X3X4	None	None	A36	Typical	1.44	1.23	1.23	.031
172	TWR_RED_VERT_T15	L2 1/2x2 1/2x1/4	None	None	A36	Typical	1.19	.703	.703	.025
173	TWR_RED_HIP_T15	L3x3x3/16_HRA	None	None	A36	Typical	1.09	.96	.96	.014
174	TWR_RED_HIP_2_T15	2L2 1/2x3 1/2x5...	None	None	A36	Typical	3.55	10.623	1.88	.116
175	TWR_RED_HIPDIA_T15	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
176	TWR_RED_HIPBRACE_T15	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
177	TWR_INNER_SUPP_T15	2L2 1/2x3x1/4x3...	None	None	A36	Typical	2.63	5.508	1.49	.055
178	TWR_INNER_CORNER_T15	2L2 1/2x3x1/4x3...	None	None	A36	Typical	2.63	5.508	1.49	.055
179	TWR_INNER_TRI_T15	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
180	TWR_INNER_GIRT_T15	2L3x3x3/16x3/8	None	None	A36	Typical	2.18	4.134	1.92	.026
181	TWR_INNER_GIRT_2_T15	2L2 1/2x3x1/4x3...	None	None	A36	Typical	2.63	5.508	1.49	.055
182	TWR_LEG_T16	L8X8X1_HRA	None	None	100 KSI	Typical	15	89	89	5.08
183	TWR_HORZ_T16	LL4x3x5/16 w L...	None	None	A36	Typical	6.86	10.893	19.78	.278
184	TWR_RED_HORZ_T16	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
185	TWR_RED_HORZ_2_T16	2L3x2 1/2x1/4x1...	None	None	A36	Typical	2.625	3.664	2.346	.055
186	TWR_RED_DIAG_T16	LL2.5x2.5x3x3	None	None	A36	Typical	1.8	2.46	1.07	.023
187	TWR_RED_DIAG_2_T16	LL3.5x3.5x4x6	None	None	A36	Typical	3.4	10.1	4	.077
188	TWR_RED_SUBHOR_T16	2L3x3 1/2x1/4x1...	None	None	A36	Typical	3.125	8.987	2.608	.062
189	TWR_RED_SUBDIA_T16	LL4x4x1/2 w L4...	None	None	A36	Typical	10.35	31.274	27.552	.785
190	TWR_RED_KICKER_T16	L3X3X4	None	None	A36	Typical	1.44	1.23	1.23	.031
191	TWR_RED_VERT_T16	L2 1/2x2 1/2x1/4	None	None	A36	Typical	1.19	.703	.703	.025
192	TWR_RED_HIP_T16	L3x3x3/16_HRA	None	None	A36	Typical	1.09	.96	.96	.014
193	TWR_RED_HIP_2_T16	2L2 1/2x3 1/2x5...	None	None	A36	Typical	3.55	10.623	1.88	.116
194	TWR_RED_HIPDIA_T16	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
195	TWR_RED_HIPBRACE_T16	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
196	TWR_SUBRED_HORZ1_T16	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
197	TWR_SUBRED_HORZ2_T16	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
198	TWR_SUBRED_HORZ3_T16	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
199	TWR_SUBRED_DIAG1_T16	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
200	TWR_SUBRED_DIAG2_T16	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
201	TWR_SUBRED_DIAG3_T16	L2.5x2.5x4	None	None	A36	Typical	1.19	.692	.692	.026
202	TWR_INNER_SUPP_T16	2L2 1/2x3x1/4x3...	None	None	A36	Typical	2.63	5.508	1.49	.055
203	TWR_INNER_CORNER_T16	2L2 1/2x3x1/4x3...	None	None	A36	Typical	2.63	5.508	1.49	.055
204	TWR_INNER_TRI_T16	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
205	TWR_INNER_GIRT_T16	2L3x3x3/16x3/8	None	None	A36	Typical	2.18	4.134	1.92	.026
206	TWR_INNER_GIRT_2_T16	2L2 1/2x3x1/4x3...	None	None	A36	Typical	2.63	5.508	1.49	.055
207	TWR_LEG_T17	L8X8X16	None	None	100 KSI	Typical	15.1	89.1	89.1	5.08
208	TWR_HORZ_T17	LL4x3x5/16 w L...	None	None	A36	Typical	6.86	10.893	19.78	.278
209	TWR_RED_HORZ_T17	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
210	TWR_RED_HORZ_2_T17	2L3x2 1/2x1/4x1...	None	None	A36	Typical	2.625	3.664	2.346	.055
211	TWR_RED_DIAG_T17	2L2 1/2x2 1/2x3...	None	None	A36	Typical	1.805	2.703	1.093	.021
212	TWR_RED_DIAG_2_T17	2L3 1/2x3 1/2x3...	None	None	A36	Typical	4.969	13.656	5.73	.216
213	TWR_RED_SUBHOR_T17	2L3x4x1/4x1/2	None	None	A36	Typical	3.375	12.992	2.71	.07

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
214	TWR_RED_SUBDIA_T17	LL4x4x1/2 w L4...	None	None	A36	Typical	10.35	31.274	27.552	.785
215	TWR_RED_KICKER_T17	L2 1/2x2 1/2x1/4	None	None	A36	Typical	1.19	.703	.703	.025
216	TWR_RED_KICKER2_T17	L3X3X4	None	None	A36	Typical	1.44	1.23	1.23	.031
217	TWR_RED_VERT_T17	L2 1/2x2 1/2x1/4	None	None	A36	Typical	1.19	.703	.703	.025
218	TWR_RED_HIP_T17	L4x4x3/8	None	None	A36	Typical	2.859	4.359	4.359	.134
219	TWR_RED_HIP_2_T17	2L2 1/2x3 1/2x5...	None	None	A36	Typical	3.55	10.623	1.88	.116
220	TWR_RED_HIPDIA_T17	2L2 1/2x2 1/2x1/4	None	None	A36	Typical	2.38	2.625	1.41	.049
221	TWR_RED_HIPBRACE_T17	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
222	TWR_INNER_SUPP_T17	2L2 1/2x3x1/4x3...	None	None	A36	Typical	2.63	5.508	1.49	.055
223	TWR_INNER_CORNER_T17	2L2 1/2x3x1/4x3...	None	None	A36	Typical	2.63	5.508	1.49	.055
224	TWR_INNER_TRI_T17	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
225	TWR_INNER_GIRT_T17	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
226	TWR_INNER_GIRT_2_T17	2L2 1/2x3x1/4x3...	None	None	A36	Typical	2.63	5.508	1.49	.055
227	TWR_LEG_T18	L8X8X16	None	None	100 KSI	Typical	15.1	89.1	89.1	5.08
228	TWR_HORZ_T18	2L5x3-1/2x3/8x...	None	None	A36	Typical	6.094	13.884	15.553	.286
229	TWR_DIAG_T18	2L4x6x3/8x1/2	None	None	A36	Typical	7.219	61.583	9.809	.338
230	TWR_RED_HORZ_T18	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
231	TWR_RED_HORZ_2_T18	2L3x2 1/2x1/4x1...	None	None	A36	Typical	2.625	3.664	2.346	.055
232	TWR_RED_DIAG_T18	2L2 1/2x2 1/2x3...	None	None	A36	Typical	1.805	2.703	1.093	.021
233	TWR_RED_DIAG_2_T18	2L3 1/2x3 1/2x3...	None	None	A36	Typical	4.969	13.656	5.73	.216
234	TWR_RED_SUBDIA_T18	2L5x5x3/8x1/2	None	None	A36	Typical	7.219	36.876	17.489	.338
235	TWR_RED_KICKER_T18	L2 1/2x2 1/2x1/4	None	None	A36	Typical	1.19	.703	.703	.025
236	TWR_RED_KICKER_2_T18	L2 1/2x2 1/2x1/4	None	None	A36	Typical	1.19	.703	.703	.025
237	TWR_RED_VERT_T18	L2 1/2x2 1/2x1/4	None	None	A36	Typical	1.19	.703	.703	.025
238	TWR_RED_VERT2_T18	L3x3x1/4 w L3x...	None	None	A36	Typical	3.55	6.127	2.982	.132
239	TWR_RED_HIP_T18	L4x4x3/8	None	None	A36	Typical	2.859	4.359	4.359	.134
240	TWR_RED_HIP_2_T18	2L2 1/2x3 1/2x5...	None	None	A36	Typical	3.55	8.983	1.88	.116
241	TWR_RED_HIPDIA_T18	L2 1/2x2 1/2x1/4	None	None	A36	Typical	1.19	.703	.703	.025
242	TWR_RED_HIPDIA2_T18	2L2 1/2x2 1/2x1...	None	None	A36	Typical	2.38	3.347	1.41	.049
243	TWR_RED_HIPBRACE_T18	L2 1/2x2 1/2x3/16	None	None	A36	Typical	.902	.547	.547	.011
244	TWR_INNER_SUPP_T18	2L2 1/2x3 1/2x5...	None	None	A36	Typical	3.55	10.623	1.88	.116
245	TWR_INNER_CORNER_T18	2L2 1/2x3x1/4x3...	None	None	A36	Typical	2.63	5.508	1.49	.055
246	TWR_INNER_TRI_T18	L3x3x1/4	None	None	A36	Typical	1.438	1.244	1.244	.03
247	TWR_INNER_GIRT_T18	2L2 1/2x2 1/2x3...	None	None	A36	Typical	1.8	2.499	1.09	.021
248	TWR_INNER_GIRT_2_T18	2L2 1/2x3x1/4x3...	None	None	A36	Typical	2.63	5.508	1.49	.055
249	TWR_INNER_BRACE_T18	2L3x3x3/16x3/8	None	None	A36	Typical	2.18	4.134	1.92	.026
250	TWR_INNER_SQ_BOT_T18	2L3 1/2x6x1/4x3...	None	None	A36	Typical	4.625	39.648	4.674	.093
251	TWR_INNER_BRACE_BOT...	L3x3x1/4	None	None	A36	Typical	1.438	1.244	1.244	.03
252	TWR_INNER_CORNER_B...	L2 1/2x2 1/2x3/...	None	None	A36	Typical	2.09	1.227	2.537	.037
253	TWR_INNER_CORNER_B...	L3x3x1/4	None	None	A36	Typical	1.438	1.244	1.244	.03

General Section Sets

	Label	Shape	Type	Material	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	TWR_DIAG_T10		Column	A36_1	3.34	15.299	10.105	10
2	TWR_DIAG_T11		Column	A36_1	3.34	19.688	10.102	10
3	TWR_DIAG_T12		Column	A36_1	3.86	23.305	12.414	10
4	TWR_DIAG_T14		Column	A36_1	4.6	25.468	13.591	10
5	TWR_DIAG_T15		Column	A36_1	4.6	25.468	13.591	10
6	TWR_DIAG_T16		Column	A36_1	4.96	36.833	13.518	10
7	TWR_DIAG_T17		Column	A36_1	4.96	36.833	13.518	10
8	TWR_RED_SUBHOR...		Beam	A36_1	3.38	58.331	7.61	10
9	Rigid		None	A36_1	1e+8	1e+8	1e+8	1e+9

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1	M9	N2	N3		84.038	TWR_DIAG_T1	None	None	A36	Typical
2	M10	N4	N1		95.962	TWR_DIAG_T1	None	None	A36	Typical
3	M11	N4	N5		84.038	TWR_DIAG_T1	None	None	A36	Typical
4	M12	N6	N3		95.962	TWR_DIAG_T1	None	None	A36	Typical
5	M13	N6	N7		84.038	TWR_DIAG_T1	None	None	A36	Typical
6	M14	N8	N5		95.962	TWR_DIAG_T1	None	None	A36	Typical
7	M15	N8	N1		84.038	TWR_DIAG_T1	None	None	A36	Typical
8	M16	N2	N7		95.962	TWR_DIAG_T1	None	None	A36	Typical
9	M29	N17	N4		84.389	TWR_DIAG_T2	None	None	A36	Typical
10	M30	N18	N2		95.611	TWR_DIAG_T2	None	None	A36	Typical
11	M31	N18	N6		84.389	TWR_DIAG_T2	None	None	A36	Typical
12	M32	N19	N4		95.611	TWR_DIAG_T2	None	None	A36	Typical
13	M33	N19	N8		84.389	TWR_DIAG_T2	None	None	A36	Typical
14	M34	N20	N6		95.611	TWR_DIAG_T2	None	None	A36	Typical
15	M35	N20	N2		84.389	TWR_DIAG_T2	None	None	A36	Typical
16	M36	N17	N8		95.611	TWR_DIAG_T2	None	None	A36	Typical
17	M54	N29	N18		84.641	TWR_DIAG_T3	None	None	A36	Typical
18	M55	N30	N17		95.359	TWR_DIAG_T3	None	None	A36	Typical
19	M56	N30	N19		84.641	TWR_DIAG_T3	None	None	A36	Typical
20	M57	N31	N18		95.359	TWR_DIAG_T3	None	None	A36	Typical
21	M58	N31	N20		84.641	TWR_DIAG_T3	None	None	A36	Typical
22	M59	N32	N19		95.359	TWR_DIAG_T3	None	None	A36	Typical
23	M60	N32	N17		84.641	TWR_DIAG_T3	None	None	A36	Typical
24	M61	N29	N20		95.359	TWR_DIAG_T3	None	None	A36	Typical
25	M71	N45	N49		353.035	TWR_DIAG_T4	None	None	A36	Typical
26	M74	N46	N49		6.965	TWR_DIAG_T4	None	None	A36	Typical
27	M78	N46	N54		353.035	TWR_DIAG_T4	None	None	A36	Typical
28	M81	N47	N54		6.965	TWR_DIAG_T4	None	None	A36	Typical
29	M85	N47	N58		353.035	TWR_DIAG_T4	None	None	A36	Typical
30	M88	N48	N58		6.965	TWR_DIAG_T4	None	None	A36	Typical
31	M92	N48	N62		353.035	TWR_DIAG_T4	None	None	A36	Typical
32	M95	N45	N62		6.965	TWR_DIAG_T4	None	None	A36	Typical
33	M108	N65	N69		353.406	TWR_DIAG_T5	None	None	A36	Typical
34	M111	N66	N69		6.594	TWR_DIAG_T5	None	None	A36	Typical
35	M115	N66	N74		353.406	TWR_DIAG_T5	None	None	A36	Typical
36	M118	N67	N74		6.594	TWR_DIAG_T5	None	None	A36	Typical
37	M122	N67	N78		353.406	TWR_DIAG_T5	None	None	A36	Typical
38	M125	N68	N78		6.594	TWR_DIAG_T5	None	None	A36	Typical
39	M129	N68	N82		353.406	TWR_DIAG_T5	None	None	A36	Typical
40	M132	N65	N82		6.594	TWR_DIAG_T5	None	None	A36	Typical
41	M145	N85	N89		353.706	TWR_DIAG_T6	None	None	A36	Typical
42	M148	N86	N89		6.294	TWR_DIAG_T6	None	None	A36	Typical
43	M152	N86	N94		353.706	TWR_DIAG_T6	None	None	A36	Typical
44	M155	N87	N94		6.294	TWR_DIAG_T6	None	None	A36	Typical
45	M159	N87	N98		353.706	TWR_DIAG_T6	None	None	A36	Typical
46	M162	N88	N98		6.294	TWR_DIAG_T6	None	None	A36	Typical
47	M166	N88	N102		353.706	TWR_DIAG_T6	None	None	A36	Typical
48	M169	N85	N102		6.294	TWR_DIAG_T6	None	None	A36	Typical
49	M182	N105	N109		353.952	TWR_DIAG_T7	None	None	A36	Typical
50	M185	N106	N109		6.048	TWR_DIAG_T7	None	None	A36	Typical
51	M189	N106	N114		353.952	TWR_DIAG_T7	None	None	A36	Typical
52	M192	N107	N114		6.048	TWR_DIAG_T7	None	None	A36	Typical
53	M196	N107	N118		353.952	TWR_DIAG_T7	None	None	A36	Typical
54	M199	N108	N118		6.048	TWR_DIAG_T7	None	None	A36	Typical
55	M203	N108	N122		353.952	TWR_DIAG_T7	None	None	A36	Typical
56	M206	N105	N122		6.048	TWR_DIAG_T7	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
57	M219	N125	N129		354.156	TWR_DIAG_T8	None	None	A36	Typical
58	M222	N126	N129		5.844	TWR_DIAG_T8	None	None	A36	Typical
59	M226	N126	N134		354.156	TWR_DIAG_T8	None	None	A36	Typical
60	M229	N127	N134		5.844	TWR_DIAG_T8	None	None	A36	Typical
61	M233	N127	N138		354.156	TWR_DIAG_T8	None	None	A36	Typical
62	M236	N128	N138		5.844	TWR_DIAG_T8	None	None	A36	Typical
63	M240	N128	N142		354.156	TWR_DIAG_T8	None	None	A36	Typical
64	M243	N125	N142		5.844	TWR_DIAG_T8	None	None	A36	Typical
65	M256	N145	N149		351.836	TWR_DIAG_T9	None	None	A36	Typical
66	M261	N146	N149		8.164	TWR_DIAG_T9	None	None	A36	Typical
67	M268	N146	N158		351.836	TWR_DIAG_T9	None	None	A36	Typical
68	M273	N147	N158		8.164	TWR_DIAG_T9	None	None	A36	Typical
69	M281	N147	N165		351.836	TWR_DIAG_T9	None	None	A36	Typical
70	M286	N148	N165		8.164	TWR_DIAG_T9	None	None	A36	Typical
71	M294	N148	N172		351.836	TWR_DIAG_T9	None	None	A36	Typical
72	M299	N145	N172		8.164	TWR_DIAG_T9	None	None	A36	Typical
73	M317	N177	N181		352.463	TWR_DIAG_T10	Colu...	None	A36_1	DR1_2
74	M322	N178	N181		7.537	TWR_DIAG_T10	Colu...	None	A36_1	DR1_2
75	M329	N178	N190		352.463	TWR_DIAG_T10	Colu...	None	A36_1	DR1_2
76	M334	N179	N190		7.537	TWR_DIAG_T10	Colu...	None	A36_1	DR1_2
77	M342	N179	N197		352.463	TWR_DIAG_T10	Colu...	None	A36_1	DR1_2
78	M347	N180	N197		7.537	TWR_DIAG_T10	Colu...	None	A36_1	DR1_2
79	M355	N180	N204		352.463	TWR_DIAG_T10	Colu...	None	A36_1	DR1_2
80	M360	N177	N204		7.537	TWR_DIAG_T10	Colu...	None	A36_1	DR1_2
81	M378	N209	N213		352.951	TWR_DIAG_T11	Colu...	None	A36_1	DR1_2
82	M383	N210	N213		7.049	TWR_DIAG_T11	Colu...	None	A36_1	DR1_2
83	M390	N210	N222		352.951	TWR_DIAG_T11	Colu...	None	A36_1	DR1_2
84	M395	N211	N222		7.049	TWR_DIAG_T11	Colu...	None	A36_1	DR1_2
85	M403	N211	N229		352.951	TWR_DIAG_T11	Colu...	None	A36_1	DR1_2
86	M408	N212	N229		7.049	TWR_DIAG_T11	Colu...	None	A36_1	DR1_2
87	M416	N212	N236		352.951	TWR_DIAG_T11	Colu...	None	A36_1	DR1_2
88	M421	N209	N236		7.049	TWR_DIAG_T11	Colu...	None	A36_1	DR1_2
89	M439	N241	N245		351.387	TWR_DIAG_T12	Colu...	None	A36_1	DR1_2
90	M444	N242	N249		8.613	TWR_DIAG_T12	Colu...	None	A36_1	DR1_2
91	M455	N242	N256		351.387	TWR_DIAG_T12	Colu...	None	A36_1	DR1_2
92	M460	N243	N258		8.613	TWR_DIAG_T12	Colu...	None	A36_1	DR1_2
93	M474	N243	N265		351.387	TWR_DIAG_T12	Colu...	None	A36_1	DR1_2
94	M479	N244	N267		8.613	TWR_DIAG_T12	Colu...	None	A36_1	DR1_2
95	M493	N244	N274		351.387	TWR_DIAG_T12	Colu...	None	A36_1	DR1_2
96	M498	N241	N276		8.613	TWR_DIAG_T12	Colu...	None	A36_1	DR1_2
97	M524	N281	N285		351.85	TWR_DIAG_T13	None	None	A36	Typical
98	M529	N282	N289		8.15	TWR_DIAG_T13	None	None	A36	Typical
99	M538	N282	N294		351.85	TWR_DIAG_T13	None	None	A36	Typical
100	M543	N283	N296		8.15	TWR_DIAG_T13	None	None	A36	Typical
101	M555	N283	N301		351.85	TWR_DIAG_T13	None	None	A36	Typical
102	M560	N284	N303		8.15	TWR_DIAG_T13	None	None	A36	Typical
103	M572	N284	N308		351.85	TWR_DIAG_T13	None	None	A36	Typical
104	M577	N281	N310		8.15	TWR_DIAG_T13	None	None	A36	Typical
105	M601	N313	N317		352.244	TWR_DIAG_T14	Colu...	None	A36_1	DR1_2
106	M606	N314	N321		7.756	TWR_DIAG_T14	Colu...	None	A36_1	DR1_2
107	M615	N314	N326		352.244	TWR_DIAG_T14	Colu...	None	A36_1	DR1_2
108	M620	N315	N328		7.756	TWR_DIAG_T14	Colu...	None	A36_1	DR1_2
109	M632	N315	N333		352.244	TWR_DIAG_T14	Colu...	None	A36_1	DR1_2
110	M637	N316	N335		7.756	TWR_DIAG_T14	Colu...	None	A36_1	DR1_2
111	M649	N316	N340		352.244	TWR_DIAG_T14	Colu...	None	A36_1	DR1_2
112	M654	N313	N342		7.756	TWR_DIAG_T14	Colu...	None	A36_1	DR1_2
113	M678	N345	N349		353.406	TWR_DIAG_T15	Colu...	None	A36_1	DR1_2

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
114	M683	N346	N353		6.594	TWR_DIAG_T15	Colu...	None	A36_1	DR1_2
115	M694	N346	N360		353.406	TWR_DIAG_T15	Colu...	None	A36_1	DR1_2
116	M699	N347	N362		6.594	TWR_DIAG_T15	Colu...	None	A36_1	DR1_2
117	M713	N347	N369		353.406	TWR_DIAG_T15	Colu...	None	A36_1	DR1_2
118	M718	N348	N371		6.594	TWR_DIAG_T15	Colu...	None	A36_1	DR1_2
119	M732	N348	N378		353.406	TWR_DIAG_T15	Colu...	None	A36_1	DR1_2
120	M737	N345	N380		6.594	TWR_DIAG_T15	Colu...	None	A36_1	DR1_2
121	M763	N385	N389		353.637	TWR_DIAG_T16	Colu...	None	A36_1	DR1_2
122	M768	N386	N393		6.363	TWR_DIAG_T16	Colu...	None	A36_1	DR1_2
123	M779	N386	N400		353.637	TWR_DIAG_T16	Colu...	None	A36_1	DR1_2
124	M784	N387	N402		6.363	TWR_DIAG_T16	Colu...	None	A36_1	DR1_2
125	M798	N387	N409		353.637	TWR_DIAG_T16	Colu...	None	A36_1	DR1_2
126	M803	N388	N411		6.363	TWR_DIAG_T16	Colu...	None	A36_1	DR1_2
127	M817	N388	N418		353.637	TWR_DIAG_T16	Colu...	None	A36_1	DR1_2
128	M822	N385	N420		6.363	TWR_DIAG_T16	Colu...	None	A36_1	DR1_2
129	M848	N425	N429		353.835	TWR_DIAG_T17	Colu...	None	A36_1	DR1_2
130	M853	N426	N433		6.165	TWR_DIAG_T17	Colu...	None	A36_1	DR1_2
131	M864	N426	N440		353.835	TWR_DIAG_T17	Colu...	None	A36_1	DR1_2
132	M869	N427	N442		6.165	TWR_DIAG_T17	Colu...	None	A36_1	DR1_2
133	M883	N427	N449		353.835	TWR_DIAG_T17	Colu...	None	A36_1	DR1_2
134	M888	N428	N451		6.165	TWR_DIAG_T17	Colu...	None	A36_1	DR1_2
135	M902	N428	N458		353.835	TWR_DIAG_T17	Colu...	None	A36_1	DR1_2
136	M907	N425	N460		6.165	TWR_DIAG_T17	Colu...	None	A36_1	DR1_2
137	M933	N465	N469		354.007	TWR_DIAG_T18	None	None	A36	Typical
138	M938	N466	N473		5.993	TWR_DIAG_T18	None	None	A36	Typical
139	M949	N466	N480		354.007	TWR_DIAG_T18	None	None	A36	Typical
140	M954	N467	N482		5.993	TWR_DIAG_T18	None	None	A36	Typical
141	M968	N467	N489		354.007	TWR_DIAG_T18	None	None	A36	Typical
142	M973	N468	N491		5.993	TWR_DIAG_T18	None	None	A36	Typical
143	M987	N468	N498		354.007	TWR_DIAG_T18	None	None	A36	Typical
144	M992	N465	N500		5.993	TWR_DIAG_T18	None	None	A36	Typical
145	M25	N2	N4		175.711	TWR_HORZ_T2	None	None	A36	Typical
146	M26	N4	N6		175.711	TWR_HORZ_T2	None	None	A36	Typical
147	M27	N6	N8		175.711	TWR_HORZ_T2	None	None	A36	Typical
148	M28	N8	N2		175.711	TWR_HORZ_T2	None	None	A36	Typical
149	M45	N17	N18		355.711	TWR_HORZ_T3	None	None	A36	Typical
150	M46	N18	N19		355.711	TWR_HORZ_T3	None	None	A36	Typical
151	M47	N19	N20		355.711	TWR_HORZ_T3	None	None	A36	Typical
152	M48	N20	N17		355.711	TWR_HORZ_T3	None	None	A36	Typical
153	M70	N29	N30		355.711	TWR_HORZ_T4	None	None	A36	Typical
154	M77	N30	N31		355.711	TWR_HORZ_T4	None	None	A36	Typical
155	M84	N31	N32		355.711	TWR_HORZ_T4	None	None	A36	Typical
156	M91	N32	N29		355.711	TWR_HORZ_T4	None	None	A36	Typical
157	M107	N45	N46		355.711	TWR_HORZ_T5	None	None	A36	Typical
158	M114	N46	N47		355.711	TWR_HORZ_T5	None	None	A36	Typical
159	M121	N47	N48		355.711	TWR_HORZ_T5	None	None	A36	Typical
160	M128	N48	N45		355.711	TWR_HORZ_T5	None	None	A36	Typical
161	M144	N65	N66		355.711	TWR_HORZ_T6	None	None	A36	Typical
162	M151	N66	N67		355.711	TWR_HORZ_T6	None	None	A36	Typical
163	M158	N67	N68		355.711	TWR_HORZ_T6	None	None	A36	Typical
164	M165	N68	N65		355.711	TWR_HORZ_T6	None	None	A36	Typical
165	M181	N85	N86		355.711	TWR_HORZ_T7	None	None	A36	Typical
166	M188	N86	N87		355.711	TWR_HORZ_T7	None	None	A36	Typical
167	M195	N87	N88		355.711	TWR_HORZ_T7	None	None	A36	Typical
168	M202	N88	N85		355.711	TWR_HORZ_T7	None	None	A36	Typical
169	M218	N105	N106		355.711	TWR_HORZ_T8	None	None	A36	Typical
170	M225	N106	N107		355.711	TWR_HORZ_T8	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
171	M232	N107	N108		355.711	TWR_HORZ_T8	None	None	A36	Typical
172	M239	N108	N105		355.711	TWR_HORZ_T8	None	None	A36	Typical
173	M255	N125	N126		355.711	TWR_HORZ_T9	None	None	A36	Typical
174	M267	N126	N127		355.711	TWR_HORZ_T9	None	None	A36	Typical
175	M280	N127	N128		355.711	TWR_HORZ_T9	None	None	A36	Typical
176	M293	N128	N125		355.711	TWR_HORZ_T9	None	None	A36	Typical
177	M316	N145	N146		355.711	TWR_HORZ_T10	None	None	A36	Typical
178	M328	N146	N147		355.711	TWR_HORZ_T10	None	None	A36	Typical
179	M341	N147	N148		355.711	TWR_HORZ_T10	None	None	A36	Typical
180	M354	N148	N145		355.711	TWR_HORZ_T10	None	None	A36	Typical
181	M377	N177	N178		355.711	TWR_HORZ_T11	None	None	A36	Typical
182	M389	N178	N179		355.711	TWR_HORZ_T11	None	None	A36	Typical
183	M402	N179	N180		355.711	TWR_HORZ_T11	None	None	A36	Typical
184	M415	N180	N177		355.711	TWR_HORZ_T11	None	None	A36	Typical
185	M438	N209	N210		355.711	TWR_HORZ_T12	None	None	A36	Typical
186	M454	N210	N211		355.711	TWR_HORZ_T12	None	None	A36	Typical
187	M473	N211	N212		355.711	TWR_HORZ_T12	None	None	A36	Typical
188	M492	N212	N209		355.711	TWR_HORZ_T12	None	None	A36	Typical
189	M523	N241	N242		355.711	TWR_HORZ_T13	None	None	A36	Typical
190	M537	N242	N243		355.711	TWR_HORZ_T13	None	None	A36	Typical
191	M554	N243	N244		355.711	TWR_HORZ_T13	None	None	A36	Typical
192	M571	N244	N241		355.711	TWR_HORZ_T13	None	None	A36	Typical
193	M600	N281	N282		355.711	TWR_HORZ_T14	None	None	A36	Typical
194	M614	N282	N283		355.711	TWR_HORZ_T14	None	None	A36	Typical
195	M631	N283	N284		355.711	TWR_HORZ_T14	None	None	A36	Typical
196	M648	N284	N281		355.711	TWR_HORZ_T14	None	None	A36	Typical
197	M677	N313	N314		355.711	TWR_HORZ_T15	None	None	A36	Typical
198	M693	N314	N315		355.711	TWR_HORZ_T15	None	None	A36	Typical
199	M712	N315	N316		355.711	TWR_HORZ_T15	None	None	A36	Typical
200	M731	N316	N313		355.711	TWR_HORZ_T15	None	None	A36	Typical
201	M762	N345	N346		355.711	TWR_HORZ_T16	None	None	A36	Typical
202	M778	N346	N347		355.711	TWR_HORZ_T16	None	None	A36	Typical
203	M797	N347	N348		355.711	TWR_HORZ_T16	None	None	A36	Typical
204	M816	N348	N345		355.711	TWR_HORZ_T16	None	None	A36	Typical
205	M847	N385	N386		355.711	TWR_HORZ_T17	None	None	A36	Typical
206	M863	N386	N387		355.711	TWR_HORZ_T17	None	None	A36	Typical
207	M882	N387	N388		355.711	TWR_HORZ_T17	None	None	A36	Typical
208	M901	N388	N385		355.711	TWR_HORZ_T17	None	None	A36	Typical
209	M932	N425	N426		355.711	TWR_HORZ_T18	None	None	A36	Typical
210	M948	N426	N427		355.711	TWR_HORZ_T18	None	None	A36	Typical
211	M967	N427	N428		355.711	TWR_HORZ_T18	None	None	A36	Typical
212	M986	N428	N425		355.711	TWR_HORZ_T18	None	None	A36	Typical
213	M1549	N265	N893			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
214	M1550	N893	N877			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
215	M1551	N876	N894			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
216	M1552	N894	N267			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
217	M1553	N258	N895			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
218	M1554	N895	N873			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
219	M1555	N874	N896			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
220	M1556	N896	N256			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
221	M1557	N249	N897			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
222	M1558	N897	N871			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
223	M1559	N870	N898			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
224	M1560	N898	N245			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
225	M1561	N276	N899			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
226	M1562	N899	N880			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
227	M1563	N879	N900			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
228	M1564	N900	N274			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
229	M1565	N879	N901			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
230	M1566	N901	N880			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
231	M1567	N877	N902			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
232	M1568	N902	N876			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
233	M1569	N874	N903			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
234	M1570	N903	N873			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
235	M1571	N870	N904			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
236	M1572	N904	N871			TWR_INNER_BRACE_BOT_T12	None	None	A36	Typical
237	M1037	N473	N529			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
238	M1038	N529	N530			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
239	M1039	N530	N531			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
240	M1040	N531	N532			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
241	M1041	N532	N533			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
242	M1042	N533	N469			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
243	M1043	N500	N534			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
244	M1044	N534	N535			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
245	M1045	N535	N536			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
246	M1046	N536	N537			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
247	M1047	N537	N538			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
248	M1048	N538	N498			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
249	M1049	N491	N539			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
250	M1050	N539	N540			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
251	M1051	N540	N541			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
252	M1052	N541	N542			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
253	M1053	N542	N543			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
254	M1054	N543	N489			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
255	M1055	N482	N544			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
256	M1056	N544	N545			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
257	M1057	N545	N546			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
258	M1058	N546	N547			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
259	M1059	N547	N548			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
260	M1060	N548	N480			TWR_INNER_BRACE_BOT_T18	None	None	A36	Typical
261	M1630	N158	N926			TWR_INNER_BRACE_T9	None	None	A36	Typical
262	M1631	N172	N927			TWR_INNER_BRACE_T9	None	None	A36	Typical
263	M1610	N190	N918			TWR_INNER_BRACE_T10	None	None	A36	Typical
264	M1612	N204	N920			TWR_INNER_BRACE_T10	None	None	A36	Typical
265	M1589	N222	N909			TWR_INNER_BRACE_T11	None	None	A36	Typical
266	M1591	N236	N911			TWR_INNER_BRACE_T11	None	None	A36	Typical
267	M1533	N861	N885			TWR_INNER_BRACE_T12	None	None	A36	Typical
268	M1534	N885	N862			TWR_INNER_BRACE_T12	None	None	A36	Typical
269	M1535	N863	N886			TWR_INNER_BRACE_T12	None	None	A36	Typical
270	M1536	N886	N864			TWR_INNER_BRACE_T12	None	None	A36	Typical
271	M1537	N865	N887			TWR_INNER_BRACE_T12	None	None	A36	Typical
272	M1538	N887	N866			TWR_INNER_BRACE_T12	None	None	A36	Typical
273	M1539	N867	N888			TWR_INNER_BRACE_T12	None	None	A36	Typical
274	M1540	N888	N868			TWR_INNER_BRACE_T12	None	None	A36	Typical
275	M1493	N833	N849			TWR_INNER_BRACE_T13	None	None	A36	Typical
276	M1494	N849	N834			TWR_INNER_BRACE_T13	None	None	A36	Typical
277	M1495	N835	N850			TWR_INNER_BRACE_T13	None	None	A36	Typical
278	M1496	N850	N836			TWR_INNER_BRACE_T13	None	None	A36	Typical
279	M1497	N837	N851			TWR_INNER_BRACE_T13	None	None	A36	Typical
280	M1498	N851	N838			TWR_INNER_BRACE_T13	None	None	A36	Typical
281	M1499	N839	N852			TWR_INNER_BRACE_T13	None	None	A36	Typical
282	M1500	N852	N840			TWR_INNER_BRACE_T13	None	None	A36	Typical
283	M1453	N805	N821			TWR_INNER_BRACE_T14	None	None	A36	Typical
284	M1454	N821	N806			TWR_INNER_BRACE_T14	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
285	M1455	N807	N822			TWR_INNER_BRACE_T14	None	None	A36	Typical
286	M1456	N822	N808			TWR_INNER_BRACE_T14	None	None	A36	Typical
287	M1457	N809	N823			TWR_INNER_BRACE_T14	None	None	A36	Typical
288	M1458	N823	N810			TWR_INNER_BRACE_T14	None	None	A36	Typical
289	M1459	N811	N824			TWR_INNER_BRACE_T14	None	None	A36	Typical
290	M1460	N824	N812			TWR_INNER_BRACE_T14	None	None	A36	Typical
291	M1126	N502	N582			TWR_INNER_BRACE_T18	None	None	A36	Typical
292	M1128	N486	N584			TWR_INNER_BRACE_T18	None	None	A36	Typical
293	M1061	N549	N525			TWR_INNER_CORNER_BOT_T18	None	None	A36	Typical
294	M1062	N525	N550			TWR_INNER_CORNER_BOT_T18	None	None	A36	Typical
295	M1063	N551	N528			TWR_INNER_CORNER_BOT_T18	None	None	A36	Typical
296	M1064	N528	N552			TWR_INNER_CORNER_BOT_T18	None	None	A36	Typical
297	M1065	N553	N527			TWR_INNER_CORNER_BOT_T18	None	None	A36	Typical
298	M1066	N527	N554			TWR_INNER_CORNER_BOT_T18	None	None	A36	Typical
299	M1067	N555	N526			TWR_INNER_CORNER_BOT_T18	None	None	A36	Typical
300	M1068	N526	N556			TWR_INNER_CORNER_BOT_T18	None	None	A36	Typical
301	M1069	N556	N555			TWR_INNER_CORNER_BOT2_T18	None	None	A36	Typical
302	M1070	N549	N550			TWR_INNER_CORNER_BOT2_T18	None	None	A36	Typical
303	M1071	N551	N552			TWR_INNER_CORNER_BOT2_T18	None	None	A36	Typical
304	M1072	N553	N554			TWR_INNER_CORNER_BOT2_T18	None	None	A36	Typical
305	M1677	N17	N950			TWR_INNER_CORNER_T3	None	None	A36	Typical
306	M1678	N951	N20			TWR_INNER_CORNER_T3	None	None	A36	Typical
307	M1679	N952	N19			TWR_INNER_CORNER_T3	None	None	A36	Typical
308	M1680	N949	N18			TWR_INNER_CORNER_T3	None	None	A36	Typical
309	M1669	N29	N946			TWR_INNER_CORNER_T4	None	None	A36	Typical
310	M1670	N948	N31			TWR_INNER_CORNER_T4	None	None	A36	Typical
311	M1671	N30	N945			TWR_INNER_CORNER_T4	None	None	A36	Typical
312	M1672	N947	N32			TWR_INNER_CORNER_T4	None	None	A36	Typical
313	M1661	N45	N941			TWR_INNER_CORNER_T5	None	None	A36	Typical
314	M1662	N942	N48			TWR_INNER_CORNER_T5	None	None	A36	Typical
315	M1663	N943	N47			TWR_INNER_CORNER_T5	None	None	A36	Typical
316	M1664	N46	N944			TWR_INNER_CORNER_T5	None	None	A36	Typical
317	M1653	N65	N938			TWR_INNER_CORNER_T6	None	None	A36	Typical
318	M1654	N939	N68			TWR_INNER_CORNER_T6	None	None	A36	Typical
319	M1655	N67	N940			TWR_INNER_CORNER_T6	None	None	A36	Typical
320	M1656	N66	N937			TWR_INNER_CORNER_T6	None	None	A36	Typical
321	M1645	N85	N934			TWR_INNER_CORNER_T7	None	None	A36	Typical
322	M1646	N936	N87			TWR_INNER_CORNER_T7	None	None	A36	Typical
323	M1647	N86	N933			TWR_INNER_CORNER_T7	None	None	A36	Typical
324	M1648	N935	N88			TWR_INNER_CORNER_T7	None	None	A36	Typical
325	M1637	N105	N930			TWR_INNER_CORNER_T8	None	None	A36	Typical
326	M1638	N932	N107			TWR_INNER_CORNER_T8	None	None	A36	Typical
327	M1639	N931	N108			TWR_INNER_CORNER_T8	None	None	A36	Typical
328	M1640	N106	N929			TWR_INNER_CORNER_T8	None	None	A36	Typical
329	M1625	N125	N921			TWR_INNER_CORNER_T9	None	None	A36	Typical
330	M1626	N922	N126			TWR_INNER_CORNER_T9	None	None	A36	Typical
331	M1627	N923	N127			TWR_INNER_CORNER_T9	None	None	A36	Typical
332	M1628	N924	N128			TWR_INNER_CORNER_T9	None	None	A36	Typical
333	M1605	N145	N913			TWR_INNER_CORNER_T10	None	None	A36	Typical
334	M1606	N146	N914			TWR_INNER_CORNER_T10	None	None	A36	Typical
335	M1607	N915	N147			TWR_INNER_CORNER_T10	None	None	A36	Typical
336	M1608	N916	N148			TWR_INNER_CORNER_T10	None	None	A36	Typical
337	M1585	N178	N905			TWR_INNER_CORNER_T11	None	None	A36	Typical
338	M1586	N906	N177			TWR_INNER_CORNER_T11	None	None	A36	Typical
339	M1587	N908	N180			TWR_INNER_CORNER_T11	None	None	A36	Typical
340	M1588	N179	N907			TWR_INNER_CORNER_T11	None	None	A36	Typical
341	M1541	N211	N883			TWR_INNER_CORNER_T12	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
342	M1542	N212	N884			TWR_INNER_CORNER_T12	None	None	A36	Typical
343	M1543	N209	N881			TWR_INNER_CORNER_T12	None	None	A36	Typical
344	M1544	N882	N210			TWR_INNER_CORNER_T12	None	None	A36	Typical
345	M1501	N241	N841			TWR_INNER_CORNER_T13	None	None	A36	Typical
346	M1504	N842	N242			TWR_INNER_CORNER_T13	None	None	A36	Typical
347	M1506	N843	N243			TWR_INNER_CORNER_T13	None	None	A36	Typical
348	M1507	N244	N844			TWR_INNER_CORNER_T13	None	None	A36	Typical
349	M1461	N281	N818			TWR_INNER_CORNER_T14	None	None	A36	Typical
350	M1463	N284	N820			TWR_INNER_CORNER_T14	None	None	A36	Typical
351	M1466	N817	N282			TWR_INNER_CORNER_T14	None	None	A36	Typical
352	M1468	N819	N283			TWR_INNER_CORNER_T14	None	None	A36	Typical
353	M1381	N358	N765		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
354	M1382	N765	N384		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
355	M1383	N359	N766		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
356	M1384	N766	N367		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
357	M1385	N368	N767		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
358	M1386	N767	N376		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
359	M1387	N377	N768		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
360	M1388	N768	N383		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
361	M1389	N383	N377		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
362	M1390	N358	N384		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
363	M1391	N359	N367		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
364	M1392	N368	N376		90	TWR_INNER_CORNER_T15	None	None	A36	Typical
365	M1317	N407	N721		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
366	M1318	N721	N399		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
367	M1319	N408	N724		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
368	M1320	N724	N416		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
369	M1321	N417	N723		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
370	M1322	N723	N423		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
371	M1323	N424	N722		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
372	M1324	N722	N398		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
373	M1325	N398	N424		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
374	M1326	N423	N417		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
375	M1327	N416	N408		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
376	M1328	N407	N399		90	TWR_INNER_CORNER_T16	None	None	A36	Typical
377	M1253	N447	N625		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
378	M1254	N625	N439		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
379	M1255	N438	N626		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
380	M1256	N626	N464		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
381	M1257	N463	N628		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
382	M1258	N628	N457		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
383	M1259	N456	N627		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
384	M1260	N627	N448		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
385	M1261	N448	N456		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
386	M1262	N439	N447		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
387	M1263	N464	N438		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
388	M1264	N457	N463		90	TWR_INNER_CORNER_T17	None	None	A36	Typical
389	M1081	N487	N557		90	TWR_INNER_CORNER_T18	None	None	A36	Typical
390	M1082	N557	N479		90	TWR_INNER_CORNER_T18	None	None	A36	Typical
391	M1083	N478	N558		90	TWR_INNER_CORNER_T18	None	None	A36	Typical
392	M1084	N558	N504		90	TWR_INNER_CORNER_T18	None	None	A36	Typical
393	M1085	N503	N559		90	TWR_INNER_CORNER_T18	None	None	A36	Typical
394	M1086	N559	N497		90	TWR_INNER_CORNER_T18	None	None	A36	Typical
395	M1087	N496	N560		90	TWR_INNER_CORNER_T18	None	None	A36	Typical
396	M1088	N560	N488		90	TWR_INNER_CORNER_T18	None	None	A36	Typical
397	M1089	N488	N496		90	TWR_INNER_CORNER_T18	None	None	A36	Typical
398	M1090	N479	N487		90	TWR_INNER_CORNER_T18	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
399	M1091	N504	N478		90	TWR_INNER_CORNER_T18	None	None	A36	Typical
400	M1092	N497	N503		90	TWR_INNER_CORNER_T18	None	None	A36	Typical
401	M1413	N781	N783		90	TWR_INNER_GIRT_2_T15	None	None	A36	Typical
402	M1414	N784	N785		90	TWR_INNER_GIRT_2_T15	None	None	A36	Typical
403	M1415	N786	N787		90	TWR_INNER_GIRT_2_T15	None	None	A36	Typical
404	M1416	N782	N788		90	TWR_INNER_GIRT_2_T15	None	None	A36	Typical
405	M1349	N737	N738		90	TWR_INNER_GIRT_2_T16	None	None	A36	Typical
406	M1350	N739	N744		90	TWR_INNER_GIRT_2_T16	None	None	A36	Typical
407	M1351	N743	N742		90	TWR_INNER_GIRT_2_T16	None	None	A36	Typical
408	M1352	N741	N740		90	TWR_INNER_GIRT_2_T16	None	None	A36	Typical
409	M1285	N700	N696		90	TWR_INNER_GIRT_2_T17	None	None	A36	Typical
410	M1286	N695	N693		90	TWR_INNER_GIRT_2_T17	None	None	A36	Typical
411	M1287	N694	N697		90	TWR_INNER_GIRT_2_T17	None	None	A36	Typical
412	M1288	N698	N699		90	TWR_INNER_GIRT_2_T17	None	None	A36	Typical
413	M1121	N580	N573		90	TWR_INNER_GIRT_2_T18	None	None	A36	Typical
414	M1122	N574	N575		90	TWR_INNER_GIRT_2_T18	None	None	A36	Typical
415	M1123	N576	N577		90	TWR_INNER_GIRT_2_T18	None	None	A36	Typical
416	M1124	N578	N579		90	TWR_INNER_GIRT_2_T18	None	None	A36	Typical
417	M1405	N358	N781		90	TWR_INNER_GIRT_T15	None	None	A36	Typical
418	M1406	N384	N782		90	TWR_INNER_GIRT_T15	None	None	A36	Typical
419	M1407	N359	N783		90	TWR_INNER_GIRT_T15	None	None	A36	Typical
420	M1408	N367	N784		90	TWR_INNER_GIRT_T15	None	None	A36	Typical
421	M1409	N368	N785		90	TWR_INNER_GIRT_T15	None	None	A36	Typical
422	M1410	N376	N786		90	TWR_INNER_GIRT_T15	None	None	A36	Typical
423	M1411	N377	N787		90	TWR_INNER_GIRT_T15	None	None	A36	Typical
424	M1412	N383	N788		90	TWR_INNER_GIRT_T15	None	None	A36	Typical
425	M1341	N408	N737		90	TWR_INNER_GIRT_T16	None	None	A36	Typical
426	M1342	N407	N738		90	TWR_INNER_GIRT_T16	None	None	A36	Typical
427	M1343	N399	N739		90	TWR_INNER_GIRT_T16	None	None	A36	Typical
428	M1344	N416	N740		90	TWR_INNER_GIRT_T16	None	None	A36	Typical
429	M1345	N417	N741		90	TWR_INNER_GIRT_T16	None	None	A36	Typical
430	M1346	N423	N742		90	TWR_INNER_GIRT_T16	None	None	A36	Typical
431	M1347	N424	N743		90	TWR_INNER_GIRT_T16	None	None	A36	Typical
432	M1348	N398	N744		90	TWR_INNER_GIRT_T16	None	None	A36	Typical
433	M1277	N439	N693		90	TWR_INNER_GIRT_T17	None	None	A36	Typical
434	M1278	N447	N694		90	TWR_INNER_GIRT_T17	None	None	A36	Typical
435	M1279	N438	N695		90	TWR_INNER_GIRT_T17	None	None	A36	Typical
436	M1280	N464	N696		90	TWR_INNER_GIRT_T17	None	None	A36	Typical
437	M1281	N448	N697		90	TWR_INNER_GIRT_T17	None	None	A36	Typical
438	M1282	N456	N698		90	TWR_INNER_GIRT_T17	None	None	A36	Typical
439	M1283	N457	N699		90	TWR_INNER_GIRT_T17	None	None	A36	Typical
440	M1284	N463	N700		90	TWR_INNER_GIRT_T17	None	None	A36	Typical
441	M1113	N503	N573		90	TWR_INNER_GIRT_T18	None	None	A36	Typical
442	M1114	N497	N574		90	TWR_INNER_GIRT_T18	None	None	A36	Typical
443	M1115	N496	N575		90	TWR_INNER_GIRT_T18	None	None	A36	Typical
444	M1116	N488	N576		90	TWR_INNER_GIRT_T18	None	None	A36	Typical
445	M1117	N487	N577		90	TWR_INNER_GIRT_T18	None	None	A36	Typical
446	M1118	N479	N578		90	TWR_INNER_GIRT_T18	None	None	A36	Typical
447	M1119	N478	N579		90	TWR_INNER_GIRT_T18	None	None	A36	Typical
448	M1120	N504	N580		90	TWR_INNER_GIRT_T18	None	None	A36	Typical
449	M1545	N889	N890		90	TWR_INNER_SQ_BOT_T12	None	None	A36	Typical
450	M1546	N890	N891		90	TWR_INNER_SQ_BOT_T12	None	None	A36	Typical
451	M1547	N891	N892		90	TWR_INNER_SQ_BOT_T12	None	None	A36	Typical
452	M1548	N892	N889		90	TWR_INNER_SQ_BOT_T12	None	None	A36	Typical
453	M1033	N525	N526		90	TWR_INNER_SQ_BOT_T18	None	None	A36	Typical
454	M1034	N526	N527		90	TWR_INNER_SQ_BOT_T18	None	None	A36	Typical
455	M1035	N527	N528		90	TWR_INNER_SQ_BOT_T18	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
456	M1036	N528	N525		90	TWR_INNER_SQ_BOT_T18	None	None	A36	Typical
457	M1673	N949	N950			TWR_INNER_SQ_T3	None	None	A36	Typical
458	M1674	N950	N951			TWR_INNER_SQ_T3	None	None	A36	Typical
459	M1675	N951	N952			TWR_INNER_SQ_T3	None	None	A36	Typical
460	M1676	N952	N949			TWR_INNER_SQ_T3	None	None	A36	Typical
461	M1665	N945	N946			TWR_INNER_SQ_T4	None	None	A36	Typical
462	M1666	N946	N947			TWR_INNER_SQ_T4	None	None	A36	Typical
463	M1667	N947	N948			TWR_INNER_SQ_T4	None	None	A36	Typical
464	M1668	N948	N945			TWR_INNER_SQ_T4	None	None	A36	Typical
465	M1657	N941	N942		90	TWR_INNER_SQ_T5	None	None	A36	Typical
466	M1658	N942	N943		90	TWR_INNER_SQ_T5	None	None	A36	Typical
467	M1659	N943	N944		90	TWR_INNER_SQ_T5	None	None	A36	Typical
468	M1660	N944	N941		90	TWR_INNER_SQ_T5	None	None	A36	Typical
469	M1649	N937	N938		90	TWR_INNER_SQ_T6	None	None	A36	Typical
470	M1650	N938	N939		90	TWR_INNER_SQ_T6	None	None	A36	Typical
471	M1651	N939	N940		90	TWR_INNER_SQ_T6	None	None	A36	Typical
472	M1652	N940	N937		90	TWR_INNER_SQ_T6	None	None	A36	Typical
473	M1641	N933	N934		90	TWR_INNER_SQ_T7	None	None	A36	Typical
474	M1642	N934	N935		90	TWR_INNER_SQ_T7	None	None	A36	Typical
475	M1643	N935	N936		90	TWR_INNER_SQ_T7	None	None	A36	Typical
476	M1644	N936	N933		90	TWR_INNER_SQ_T7	None	None	A36	Typical
477	M1633	N929	N930		90	TWR_INNER_SQ_T8	None	None	A36	Typical
478	M1634	N930	N931		90	TWR_INNER_SQ_T8	None	None	A36	Typical
479	M1635	N931	N932		90	TWR_INNER_SQ_T8	None	None	A36	Typical
480	M1636	N932	N929		90	TWR_INNER_SQ_T8	None	None	A36	Typical
481	M1621	N922	N921		90	TWR_INNER_SQ_T9	None	None	A36	Typical
482	M1622	N921	N924		90	TWR_INNER_SQ_T9	None	None	A36	Typical
483	M1623	N924	N923		90	TWR_INNER_SQ_T9	None	None	A36	Typical
484	M1624	N923	N922		90	TWR_INNER_SQ_T9	None	None	A36	Typical
485	M1601	N914	N913		90	TWR_INNER_SQ_T10	None	None	A36	Typical
486	M1602	N913	N916		90	TWR_INNER_SQ_T10	None	None	A36	Typical
487	M1603	N916	N915		90	TWR_INNER_SQ_T10	None	None	A36	Typical
488	M1604	N915	N914		90	TWR_INNER_SQ_T10	None	None	A36	Typical
489	M1581	N907	N905		90	TWR_INNER_SQ_T11	None	None	A36	Typical
490	M1582	N905	N906		90	TWR_INNER_SQ_T11	None	None	A36	Typical
491	M1583	N906	N908		90	TWR_INNER_SQ_T11	None	None	A36	Typical
492	M1584	N908	N907		90	TWR_INNER_SQ_T11	None	None	A36	Typical
493	M1529	N882	N881		90	TWR_INNER_SQ_T12	None	None	A36	Typical
494	M1530	N881	N884		90	TWR_INNER_SQ_T12	None	None	A36	Typical
495	M1531	N884	N883		90	TWR_INNER_SQ_T12	None	None	A36	Typical
496	M1532	N883	N882		90	TWR_INNER_SQ_T12	None	None	A36	Typical
497	M1481	N842	N843		90	TWR_INNER_SQ_T13	None	None	A36	Typical
498	M1482	N843	N844		90	TWR_INNER_SQ_T13	None	None	A36	Typical
499	M1483	N844	N841		90	TWR_INNER_SQ_T13	None	None	A36	Typical
500	M1484	N841	N842		90	TWR_INNER_SQ_T13	None	None	A36	Typical
501	M1449	N817	N818		90	TWR_INNER_SQ_T14	None	None	A36	Typical
502	M1450	N818	N820		90	TWR_INNER_SQ_T14	None	None	A36	Typical
503	M1451	N820	N819		90	TWR_INNER_SQ_T14	None	None	A36	Typical
504	M1452	N819	N817		90	TWR_INNER_SQ_T14	None	None	A36	Typical
505	M49	N33	N34		90	TWR_INNER_SUPP_T3	None	None	A36	Typical
506	M50	N34	N35		90	TWR_INNER_SUPP_T3	None	None	A36	Typical
507	M51	N35	N36		90	TWR_INNER_SUPP_T3	None	None	A36	Typical
508	M52	N36	N33		90	TWR_INNER_SUPP_T3	None	None	A36	Typical
509	M98	N49	N54		90	TWR_INNER_SUPP_T4	None	None	A36	Typical
510	M99	N54	N58		90	TWR_INNER_SUPP_T4	None	None	A36	Typical
511	M100	N58	N62		90	TWR_INNER_SUPP_T4	None	None	A36	Typical
512	M101	N62	N49		90	TWR_INNER_SUPP_T4	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
513	M135	N69	N74		90	TWR_INNER_SUPP_T5	None	None	A36	Typical
514	M136	N74	N78		90	TWR_INNER_SUPP_T5	None	None	A36	Typical
515	M137	N78	N82		90	TWR_INNER_SUPP_T5	None	None	A36	Typical
516	M138	N82	N69		90	TWR_INNER_SUPP_T5	None	None	A36	Typical
517	M172	N89	N94		90	TWR_INNER_SUPP_T6	None	None	A36	Typical
518	M173	N94	N98		90	TWR_INNER_SUPP_T6	None	None	A36	Typical
519	M174	N98	N102		90	TWR_INNER_SUPP_T6	None	None	A36	Typical
520	M175	N102	N89		90	TWR_INNER_SUPP_T6	None	None	A36	Typical
521	M209	N109	N114		90	TWR_INNER_SUPP_T7	None	None	A36	Typical
522	M210	N114	N118		90	TWR_INNER_SUPP_T7	None	None	A36	Typical
523	M211	N118	N122		90	TWR_INNER_SUPP_T7	None	None	A36	Typical
524	M212	N122	N109		90	TWR_INNER_SUPP_T7	None	None	A36	Typical
525	M246	N129	N134		90	TWR_INNER_SUPP_T8	None	None	A36	Typical
526	M247	N134	N138		90	TWR_INNER_SUPP_T8	None	None	A36	Typical
527	M248	N138	N142		90	TWR_INNER_SUPP_T8	None	None	A36	Typical
528	M249	N142	N129		90	TWR_INNER_SUPP_T8	None	None	A36	Typical
529	M307	N149	N158		90	TWR_INNER_SUPP_T9	None	None	A36	Typical
530	M308	N158	N165		90	TWR_INNER_SUPP_T9	None	None	A36	Typical
531	M309	N165	N172		90	TWR_INNER_SUPP_T9	None	None	A36	Typical
532	M310	N172	N149		90	TWR_INNER_SUPP_T9	None	None	A36	Typical
533	M368	N181	N190		90	TWR_INNER_SUPP_T10	None	None	A36	Typical
534	M369	N190	N197		90	TWR_INNER_SUPP_T10	None	None	A36	Typical
535	M370	N197	N204		90	TWR_INNER_SUPP_T10	None	None	A36	Typical
536	M371	N204	N181		90	TWR_INNER_SUPP_T10	None	None	A36	Typical
537	M429	N213	N222		90	TWR_INNER_SUPP_T11	None	None	A36	Typical
538	M430	N222	N229		90	TWR_INNER_SUPP_T11	None	None	A36	Typical
539	M431	N229	N236		90	TWR_INNER_SUPP_T11	None	None	A36	Typical
540	M432	N236	N213		90	TWR_INNER_SUPP_T11	None	None	A36	Typical
541	M514	N862	N863		90	TWR_INNER_SUPP_T12	None	None	A36	Typical
542	M515	N864	N865		90	TWR_INNER_SUPP_T12	None	None	A36	Typical
543	M516	N866	N867		90	TWR_INNER_SUPP_T12	None	None	A36	Typical
544	M517	N868	N861		90	TWR_INNER_SUPP_T12	None	None	A36	Typical
545	M591	N834	N835			TWR_INNER_SUPP_T13	None	None	A36	Typical
546	M592	N836	N837			TWR_INNER_SUPP_T13	None	None	A36	Typical
547	M593	N838	N839			TWR_INNER_SUPP_T13	None	None	A36	Typical
548	M594	N840	N833			TWR_INNER_SUPP_T13	None	None	A36	Typical
549	M668	N806	N807			TWR_INNER_SUPP_T14	None	None	A36	Typical
550	M669	N808	N809			TWR_INNER_SUPP_T14	None	None	A36	Typical
551	M670	N810	N811			TWR_INNER_SUPP_T14	None	None	A36	Typical
552	M671	N812	N805			TWR_INNER_SUPP_T14	None	None	A36	Typical
553	M753	N357	N366		270	TWR_INNER_SUPP_T15	None	None	A36	Typical
554	M754	N366	N375		270	TWR_INNER_SUPP_T15	None	None	A36	Typical
555	M755	N375	N382		270	TWR_INNER_SUPP_T15	None	None	A36	Typical
556	M756	N382	N357		270	TWR_INNER_SUPP_T15	None	None	A36	Typical
557	M838	N397	N406		270	TWR_INNER_SUPP_T16	None	None	A36	Typical
558	M839	N406	N415		270	TWR_INNER_SUPP_T16	None	None	A36	Typical
559	M840	N415	N422		270	TWR_INNER_SUPP_T16	None	None	A36	Typical
560	M841	N422	N397		270	TWR_INNER_SUPP_T16	None	None	A36	Typical
561	M923	N437	N446		270	TWR_INNER_SUPP_T17	None	None	A36	Typical
562	M924	N446	N455		270	TWR_INNER_SUPP_T17	None	None	A36	Typical
563	M925	N455	N462		270	TWR_INNER_SUPP_T17	None	None	A36	Typical
564	M926	N462	N437		270	TWR_INNER_SUPP_T17	None	None	A36	Typical
565	M1008	N477	N486		270	TWR_INNER_SUPP_T18	None	None	A36	Typical
566	M1009	N486	N495		270	TWR_INNER_SUPP_T18	None	None	A36	Typical
567	M1010	N495	N502		270	TWR_INNER_SUPP_T18	None	None	A36	Typical
568	M1011	N502	N477		270	TWR_INNER_SUPP_T18	None	None	A36	Typical
569	M1393	N769	N770			TWR_INNER_TRI_T15	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
570	M1394	N770	N771			TWR_INNER_TRI_T15	None	None	A36	Typical
571	M1395	N772	N773			TWR_INNER_TRI_T15	None	None	A36	Typical
572	M1396	N773	N774			TWR_INNER_TRI_T15	None	None	A36	Typical
573	M1397	N775	N776			TWR_INNER_TRI_T15	None	None	A36	Typical
574	M1398	N776	N777			TWR_INNER_TRI_T15	None	None	A36	Typical
575	M1399	N778	N779			TWR_INNER_TRI_T15	None	None	A36	Typical
576	M1400	N779	N780			TWR_INNER_TRI_T15	None	None	A36	Typical
577	M1401	N769	N771			TWR_INNER_TRI_T15	None	None	A36	Typical
578	M1402	N780	N778			TWR_INNER_TRI_T15	None	None	A36	Typical
579	M1403	N777	N775			TWR_INNER_TRI_T15	None	None	A36	Typical
580	M1404	N774	N772			TWR_INNER_TRI_T15	None	None	A36	Typical
581	M1329	N725	N726			TWR_INNER_TRI_T16	None	None	A36	Typical
582	M1330	N726	N727			TWR_INNER_TRI_T16	None	None	A36	Typical
583	M1331	N728	N729			TWR_INNER_TRI_T16	None	None	A36	Typical
584	M1332	N729	N730			TWR_INNER_TRI_T16	None	None	A36	Typical
585	M1333	N731	N732			TWR_INNER_TRI_T16	None	None	A36	Typical
586	M1334	N732	N733			TWR_INNER_TRI_T16	None	None	A36	Typical
587	M1335	N734	N735			TWR_INNER_TRI_T16	None	None	A36	Typical
588	M1336	N735	N736			TWR_INNER_TRI_T16	None	None	A36	Typical
589	M1337	N725	N727			TWR_INNER_TRI_T16	None	None	A36	Typical
590	M1338	N728	N730			TWR_INNER_TRI_T16	None	None	A36	Typical
591	M1339	N731	N733			TWR_INNER_TRI_T16	None	None	A36	Typical
592	M1340	N734	N736			TWR_INNER_TRI_T16	None	None	A36	Typical
593	M1265	N681	N682			TWR_INNER_TRI_T17	None	None	A36	Typical
594	M1266	N682	N683			TWR_INNER_TRI_T17	None	None	A36	Typical
595	M1267	N684	N685			TWR_INNER_TRI_T17	None	None	A36	Typical
596	M1268	N685	N686			TWR_INNER_TRI_T17	None	None	A36	Typical
597	M1269	N687	N688			TWR_INNER_TRI_T17	None	None	A36	Typical
598	M1270	N688	N689			TWR_INNER_TRI_T17	None	None	A36	Typical
599	M1271	N690	N691			TWR_INNER_TRI_T17	None	None	A36	Typical
600	M1272	N691	N692			TWR_INNER_TRI_T17	None	None	A36	Typical
601	M1273	N690	N692			TWR_INNER_TRI_T17	None	None	A36	Typical
602	M1274	N681	N683			TWR_INNER_TRI_T17	None	None	A36	Typical
603	M1275	N684	N686			TWR_INNER_TRI_T17	None	None	A36	Typical
604	M1276	N687	N689			TWR_INNER_TRI_T17	None	None	A36	Typical
605	M1093	N561	N562			TWR_INNER_TRI_T18	None	None	A36	Typical
606	M1094	N562	N563			TWR_INNER_TRI_T18	None	None	A36	Typical
607	M1095	N564	N565			TWR_INNER_TRI_T18	None	None	A36	Typical
608	M1096	N565	N566			TWR_INNER_TRI_T18	None	None	A36	Typical
609	M1097	N567	N568			TWR_INNER_TRI_T18	None	None	A36	Typical
610	M1098	N568	N569			TWR_INNER_TRI_T18	None	None	A36	Typical
611	M1099	N570	N571			TWR_INNER_TRI_T18	None	None	A36	Typical
612	M1100	N571	N572			TWR_INNER_TRI_T18	None	None	A36	Typical
613	M1101	N561	N563			TWR_INNER_TRI_T18	None	None	A36	Typical
614	M1102	N564	N566			TWR_INNER_TRI_T18	None	None	A36	Typical
615	M1103	N567	N569			TWR_INNER_TRI_T18	None	None	A36	Typical
616	M1104	N572	N570			TWR_INNER_TRI_T18	None	None	A36	Typical
617	M1	N2	N1		135	TWR_LEG_T1	None	None	A36	Typical
618	M2	N4	N3		135	TWR_LEG_T1	None	None	A36	Typical
619	M3	N6	N5		135	TWR_LEG_T1	None	None	A36	Typical
620	M4	N8	N7		135	TWR_LEG_T1	None	None	A36	Typical
621	M21	N17	N2		135	TWR_LEG_T2	None	None	A36	Typical
622	M22	N18	N4		135	TWR_LEG_T2	None	None	A36	Typical
623	M23	N19	N6		135	TWR_LEG_T2	None	None	A36	Typical
624	M24	N20	N8		135	TWR_LEG_T2	None	None	A36	Typical
625	M41	N29	N17		135	TWR_LEG_T3	None	None	A36	Typical
626	M42	N30	N18		135	TWR_LEG_T3	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
627	M43	N31	N19		135	TWR_LEG_T3	None	None	A36	Typical
628	M44	N32	N20		135	TWR_LEG_T3	None	None	A36	Typical
629	M66	N45	N29		135	TWR_LEG_T4	None	None	A36	Typical
630	M67	N46	N30		135	TWR_LEG_T4	None	None	A36	Typical
631	M68	N47	N31		135	TWR_LEG_T4	None	None	A36	Typical
632	M69	N48	N32		135	TWR_LEG_T4	None	None	A36	Typical
633	M103	N65	N45		135	TWR_LEG_T5	None	None	A36	Typical
634	M104	N66	N46		135	TWR_LEG_T5	None	None	A36	Typical
635	M105	N67	N47		135	TWR_LEG_T5	None	None	A36	Typical
636	M106	N68	N48		135	TWR_LEG_T5	None	None	A36	Typical
637	M140	N85	N65		135	TWR_LEG_T6	None	None	A36	Typical
638	M141	N86	N66		135	TWR_LEG_T6	None	None	A36	Typical
639	M142	N87	N67		135	TWR_LEG_T6	None	None	A36	Typical
640	M143	N88	N68		135	TWR_LEG_T6	None	None	A36	Typical
641	M177	N105	N85		135	TWR_LEG_T7	None	None	A36	Typical
642	M178	N106	N86		135	TWR_LEG_T7	None	None	A36	Typical
643	M179	N107	N87		135	TWR_LEG_T7	None	None	A36	Typical
644	M180	N108	N88		135	TWR_LEG_T7	None	None	A36	Typical
645	M214	N125	N105		135	TWR_LEG_T8	None	None	A36	Typical
646	M215	N126	N106		135	TWR_LEG_T8	None	None	A36	Typical
647	M216	N127	N107		135	TWR_LEG_T8	None	None	A36	Typical
648	M217	N128	N108		135	TWR_LEG_T8	None	None	A36	Typical
649	M251	N145	N125		135	TWR_LEG_T9	None	None	A36	Typical
650	M252	N146	N126		135	TWR_LEG_T9	None	None	A36	Typical
651	M253	N147	N127		135	TWR_LEG_T9	None	None	A36	Typical
652	M254	N148	N128		135	TWR_LEG_T9	None	None	A36	Typical
653	M312	N177	N145		135	TWR_LEG_T10	None	None	A36	Typical
654	M313	N178	N146		135	TWR_LEG_T10	None	None	A36	Typical
655	M314	N179	N147		135	TWR_LEG_T10	None	None	A36	Typical
656	M315	N180	N148		135	TWR_LEG_T10	None	None	A36	Typical
657	M373	N209	N177		135	TWR_LEG_T11	None	None	A500-46	Typical
658	M374	N210	N178		135	TWR_LEG_T11	None	None	A500-46	Typical
659	M375	N211	N179		135	TWR_LEG_T11	None	None	A500-46	Typical
660	M376	N212	N180		135	TWR_LEG_T11	None	None	A500-46	Typical
661	M434	N241	N209		135	TWR_LEG_T12	None	None	A500-46	Typical
662	M435	N242	N210		135	TWR_LEG_T12	None	None	A500-46	Typical
663	M436	N243	N211		135	TWR_LEG_T12	None	None	A500-46	Typical
664	M437	N244	N212		135	TWR_LEG_T12	None	None	A500-46	Typical
665	M519	N281	N241		135	TWR_LEG_T13	None	None	A500-46	Typical
666	M520	N282	N242		135	TWR_LEG_T13	None	None	A500-46	Typical
667	M521	N283	N243		135	TWR_LEG_T13	None	None	A500-46	Typical
668	M522	N284	N244		135	TWR_LEG_T13	None	None	A500-46	Typical
669	M596	N313	N281		135	TWR_LEG_T14	None	None	100 KSI	Typical
670	M597	N314	N282		135	TWR_LEG_T14	None	None	100 KSI	Typical
671	M598	N315	N283		135	TWR_LEG_T14	None	None	100 KSI	Typical
672	M599	N316	N284		135	TWR_LEG_T14	None	None	100 KSI	Typical
673	M673	N345	N313		135	TWR_LEG_T15	None	None	100 KSI	Typical
674	M674	N346	N314		135	TWR_LEG_T15	None	None	100 KSI	Typical
675	M675	N347	N315		135	TWR_LEG_T15	None	None	100 KSI	Typical
676	M676	N348	N316		135	TWR_LEG_T15	None	None	100 KSI	Typical
677	M758	N385	N345		135	TWR_LEG_T16	None	None	100 KSI	Typical
678	M759	N386	N346		135	TWR_LEG_T16	None	None	100 KSI	Typical
679	M760	N387	N347		135	TWR_LEG_T16	None	None	100 KSI	Typical
680	M761	N388	N348		135	TWR_LEG_T16	None	None	100 KSI	Typical
681	M843	N425	N385		135	TWR_LEG_T17	None	None	100 KSI	Typical
682	M844	N426	N386		135	TWR_LEG_T17	None	None	100 KSI	Typical
683	M845	N427	N387		135	TWR_LEG_T17	None	None	100 KSI	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
684	M846	N428	N388		135	TWR_LEG_T17	None	None	100 KSI	Typical
685	M928	N465	N425		135	TWR_LEG_T18	None	None	100 KSI	Typical
686	M929	N466	N426		135	TWR_LEG_T18	None	None	100 KSI	Typical
687	M930	N467	N427		135	TWR_LEG_T18	None	None	100 KSI	Typical
688	M931	N468	N428		135	TWR_LEG_T18	None	None	100 KSI	Typical
689	M260	N153	N125		6.048	TWR_RED_DIAG_2_T9	None	None	A36	Typical
690	M265	N156	N126		353.952	TWR_RED_DIAG_2_T9	None	None	A36	Typical
691	M272	N160	N126		6.048	TWR_RED_DIAG_2_T9	None	None	A36	Typical
692	M277	N163	N127		353.952	TWR_RED_DIAG_2_T9	None	None	A36	Typical
693	M285	N167	N127		6.048	TWR_RED_DIAG_2_T9	None	None	A36	Typical
694	M290	N170	N128		353.952	TWR_RED_DIAG_2_T9	None	None	A36	Typical
695	M298	N174	N128		6.048	TWR_RED_DIAG_2_T9	None	None	A36	Typical
696	M303	N176	N125		353.952	TWR_RED_DIAG_2_T9	None	None	A36	Typical
697	M321	N185	N145		5.672	TWR_RED_DIAG_2_T10	None	None	A36	Typical
698	M326	N188	N146		354.328	TWR_RED_DIAG_2_T10	None	None	A36	Typical
699	M333	N192	N146		5.672	TWR_RED_DIAG_2_T10	None	None	A36	Typical
700	M338	N195	N147		354.328	TWR_RED_DIAG_2_T10	None	None	A36	Typical
701	M346	N199	N147		5.672	TWR_RED_DIAG_2_T10	None	None	A36	Typical
702	M351	N202	N148		354.328	TWR_RED_DIAG_2_T10	None	None	A36	Typical
703	M359	N206	N148		5.672	TWR_RED_DIAG_2_T10	None	None	A36	Typical
704	M364	N208	N145		354.328	TWR_RED_DIAG_2_T10	None	None	A36	Typical
705	M382	N217	N177		5.403	TWR_RED_DIAG_2_T11	None	None	A36	Typical
706	M387	N220	N178		354.597	TWR_RED_DIAG_2_T11	None	None	A36	Typical
707	M394	N224	N178		5.403	TWR_RED_DIAG_2_T11	None	None	A36	Typical
708	M399	N227	N179		354.597	TWR_RED_DIAG_2_T11	None	None	A36	Typical
709	M407	N231	N179		5.403	TWR_RED_DIAG_2_T11	None	None	A36	Typical
710	M412	N234	N180		354.597	TWR_RED_DIAG_2_T11	None	None	A36	Typical
711	M420	N238	N180		5.403	TWR_RED_DIAG_2_T11	None	None	A36	Typical
712	M425	N240	N177		354.597	TWR_RED_DIAG_2_T11	None	None	A36	Typical
713	M443	N245	N209		6.338	TWR_RED_DIAG_2_T12	None	None	A36	Typical
714	M448	N249	N210		353.662	TWR_RED_DIAG_2_T12	None	None	A36	Typical
715	M459	N256	N210		6.338	TWR_RED_DIAG_2_T12	None	None	A36	Typical
716	M464	N258	N211		353.662	TWR_RED_DIAG_2_T12	None	None	A36	Typical
717	M478	N265	N211		6.338	TWR_RED_DIAG_2_T12	None	None	A36	Typical
718	M483	N267	N212		353.662	TWR_RED_DIAG_2_T12	None	None	A36	Typical
719	M497	N274	N212		6.338	TWR_RED_DIAG_2_T12	None	None	A36	Typical
720	M502	N276	N209		353.662	TWR_RED_DIAG_2_T12	None	None	A36	Typical
721	M528	N285	N241		6.039	TWR_RED_DIAG_2_T13	None	None	A36	Typical
722	M533	N289	N242		353.961	TWR_RED_DIAG_2_T13	None	None	A36	Typical
723	M542	N294	N242		6.039	TWR_RED_DIAG_2_T13	None	None	A36	Typical
724	M547	N296	N243		353.961	TWR_RED_DIAG_2_T13	None	None	A36	Typical
725	M559	N301	N243		6.039	TWR_RED_DIAG_2_T13	None	None	A36	Typical
726	M564	N303	N244		353.961	TWR_RED_DIAG_2_T13	None	None	A36	Typical
727	M576	N308	N244		6.039	TWR_RED_DIAG_2_T13	None	None	A36	Typical
728	M581	N310	N241		353.961	TWR_RED_DIAG_2_T13	None	None	A36	Typical
729	M605	N317	N281		5.8	TWR_RED_DIAG_2_T14	None	None	A36	Typical
730	M610	N321	N282		354.2	TWR_RED_DIAG_2_T14	None	None	A36	Typical
731	M619	N326	N282		5.8	TWR_RED_DIAG_2_T14	None	None	A36	Typical
732	M624	N328	N283		354.2	TWR_RED_DIAG_2_T14	None	None	A36	Typical
733	M636	N333	N283		5.8	TWR_RED_DIAG_2_T14	None	None	A36	Typical
734	M641	N335	N284		354.2	TWR_RED_DIAG_2_T14	None	None	A36	Typical
735	M653	N340	N284		5.8	TWR_RED_DIAG_2_T14	None	None	A36	Typical
736	M658	N342	N281		354.2	TWR_RED_DIAG_2_T14	None	None	A36	Typical
737	M682	N349	N313		5.171	TWR_RED_DIAG_2_T15	None	None	A36	Typical
738	M687	N353	N314		354.829	TWR_RED_DIAG_2_T15	None	None	A36	Typical
739	M698	N360	N314		5.171	TWR_RED_DIAG_2_T15	None	None	A36	Typical
740	M703	N362	N315		354.829	TWR_RED_DIAG_2_T15	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
741	M717	N369	N315		5.171	TWR_RED_DIAG_2_T15	None	None	A36	Typical
742	M722	N371	N316		354.829	TWR_RED_DIAG_2_T15	None	None	A36	Typical
743	M736	N378	N316		5.171	TWR_RED_DIAG_2_T15	None	None	A36	Typical
744	M741	N380	N313		354.829	TWR_RED_DIAG_2_T15	None	None	A36	Typical
745	M767	N389	N345		5.06	TWR_RED_DIAG_2_T16	None	None	A36	Typical
746	M772	N393	N346		354.94	TWR_RED_DIAG_2_T16	None	None	A36	Typical
747	M783	N400	N346		5.06	TWR_RED_DIAG_2_T16	None	None	A36	Typical
748	M788	N402	N347		354.94	TWR_RED_DIAG_2_T16	None	None	A36	Typical
749	M802	N409	N347		5.06	TWR_RED_DIAG_2_T16	None	None	A36	Typical
750	M807	N411	N348		354.94	TWR_RED_DIAG_2_T16	None	None	A36	Typical
751	M821	N418	N348		5.06	TWR_RED_DIAG_2_T16	None	None	A36	Typical
752	M826	N420	N345		354.94	TWR_RED_DIAG_2_T16	None	None	A36	Typical
753	M852	N429	N385		4.969	TWR_RED_DIAG_2_T17	None	None	A36	Typical
754	M857	N433	N386		355.031	TWR_RED_DIAG_2_T17	None	None	A36	Typical
755	M868	N440	N386		4.969	TWR_RED_DIAG_2_T17	None	None	A36	Typical
756	M873	N442	N387		355.031	TWR_RED_DIAG_2_T17	None	None	A36	Typical
757	M887	N449	N387		4.969	TWR_RED_DIAG_2_T17	None	None	A36	Typical
758	M892	N451	N388		355.031	TWR_RED_DIAG_2_T17	None	None	A36	Typical
759	M906	N458	N388		4.969	TWR_RED_DIAG_2_T17	None	None	A36	Typical
760	M911	N460	N385		355.031	TWR_RED_DIAG_2_T17	None	None	A36	Typical
761	M937	N469	N425		4.893	TWR_RED_DIAG_2_T18	None	None	A36	Typical
762	M942	N473	N426		355.107	TWR_RED_DIAG_2_T18	None	None	A36	Typical
763	M953	N480	N426		4.893	TWR_RED_DIAG_2_T18	None	None	A36	Typical
764	M958	N482	N427		355.107	TWR_RED_DIAG_2_T18	None	None	A36	Typical
765	M972	N489	N427		4.893	TWR_RED_DIAG_2_T18	None	None	A36	Typical
766	M977	N491	N428		355.107	TWR_RED_DIAG_2_T18	None	None	A36	Typical
767	M991	N498	N428		4.893	TWR_RED_DIAG_2_T18	None	None	A36	Typical
768	M996	N500	N425		355.107	TWR_RED_DIAG_2_T18	None	None	A36	Typical
769	M73	N51	N29		98.025	TWR_RED_DIAG_T4	None	None	A36	Typical
770	M76	N52	N30		81.975	TWR_RED_DIAG_T4	None	None	A36	Typical
771	M80	N55	N30		98.025	TWR_RED_DIAG_T4	None	None	A36	Typical
772	M83	N56	N31		81.975	TWR_RED_DIAG_T4	None	None	A36	Typical
773	M87	N59	N31		98.025	TWR_RED_DIAG_T4	None	None	A36	Typical
774	M90	N60	N32		81.975	TWR_RED_DIAG_T4	None	None	A36	Typical
775	M94	N63	N32		98.025	TWR_RED_DIAG_T4	None	None	A36	Typical
776	M97	N64	N29		81.975	TWR_RED_DIAG_T4	None	None	A36	Typical
777	M110	N71	N45		97.43	TWR_RED_DIAG_T5	None	None	A36	Typical
778	M113	N72	N46		82.57	TWR_RED_DIAG_T5	None	None	A36	Typical
779	M117	N75	N46		97.43	TWR_RED_DIAG_T5	None	None	A36	Typical
780	M120	N76	N47		82.57	TWR_RED_DIAG_T5	None	None	A36	Typical
781	M124	N79	N47		97.43	TWR_RED_DIAG_T5	None	None	A36	Typical
782	M127	N80	N48		82.57	TWR_RED_DIAG_T5	None	None	A36	Typical
783	M131	N83	N48		97.43	TWR_RED_DIAG_T5	None	None	A36	Typical
784	M134	N84	N45		82.57	TWR_RED_DIAG_T5	None	None	A36	Typical
785	M147	N91	N65		96.965	TWR_RED_DIAG_T6	None	None	A36	Typical
786	M150	N92	N66		83.035	TWR_RED_DIAG_T6	None	None	A36	Typical
787	M154	N95	N66		96.965	TWR_RED_DIAG_T6	None	None	A36	Typical
788	M157	N96	N67		83.035	TWR_RED_DIAG_T6	None	None	A36	Typical
789	M161	N99	N67		96.965	TWR_RED_DIAG_T6	None	None	A36	Typical
790	M164	N100	N68		83.035	TWR_RED_DIAG_T6	None	None	A36	Typical
791	M168	N103	N68		96.965	TWR_RED_DIAG_T6	None	None	A36	Typical
792	M171	N104	N65		83.035	TWR_RED_DIAG_T6	None	None	A36	Typical
793	M184	N111	N85		96.594	TWR_RED_DIAG_T7	None	None	A36	Typical
794	M187	N112	N86		83.406	TWR_RED_DIAG_T7	None	None	A36	Typical
795	M191	N115	N86		96.594	TWR_RED_DIAG_T7	None	None	A36	Typical
796	M194	N116	N87		83.406	TWR_RED_DIAG_T7	None	None	A36	Typical
797	M198	N119	N87		96.594	TWR_RED_DIAG_T7	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
798	M201	N120	N88		83.406	TWR_RED_DIAG_T7	None	None	A36	Typical
799	M205	N123	N88		96.594	TWR_RED_DIAG_T7	None	None	A36	Typical
800	M208	N124	N85		83.406	TWR_RED_DIAG_T7	None	None	A36	Typical
801	M221	N131	N105		96.294	TWR_RED_DIAG_T8	None	None	A36	Typical
802	M224	N132	N106		83.706	TWR_RED_DIAG_T8	None	None	A36	Typical
803	M228	N135	N106		96.294	TWR_RED_DIAG_T8	None	None	A36	Typical
804	M231	N136	N107		83.706	TWR_RED_DIAG_T8	None	None	A36	Typical
805	M235	N139	N107		96.294	TWR_RED_DIAG_T8	None	None	A36	Typical
806	M238	N140	N108		83.706	TWR_RED_DIAG_T8	None	None	A36	Typical
807	M242	N143	N108		96.294	TWR_RED_DIAG_T8	None	None	A36	Typical
808	M245	N144	N105		83.706	TWR_RED_DIAG_T8	None	None	A36	Typical
809	M259	N151	N152		10.109	TWR_RED_DIAG_T9	None	None	A36	Typical
810	M264	N154	N157		349.891	TWR_RED_DIAG_T9	None	None	A36	Typical
811	M271	N159	N157		10.109	TWR_RED_DIAG_T9	None	None	A36	Typical
812	M276	N161	N164		349.891	TWR_RED_DIAG_T9	None	None	A36	Typical
813	M284	N166	N164		10.109	TWR_RED_DIAG_T9	None	None	A36	Typical
814	M289	N168	N171		349.891	TWR_RED_DIAG_T9	None	None	A36	Typical
815	M297	N173	N171		10.109	TWR_RED_DIAG_T9	None	None	A36	Typical
816	M302	N175	N152		349.891	TWR_RED_DIAG_T9	None	None	A36	Typical
817	M320	N183	N184		8.989	TWR_RED_DIAG_T10	None	None	A36	Typical
818	M325	N186	N189		351.011	TWR_RED_DIAG_T10	None	None	A36	Typical
819	M332	N191	N189		8.989	TWR_RED_DIAG_T10	None	None	A36	Typical
820	M337	N193	N196		351.011	TWR_RED_DIAG_T10	None	None	A36	Typical
821	M345	N198	N196		8.989	TWR_RED_DIAG_T10	None	None	A36	Typical
822	M350	N200	N203		351.011	TWR_RED_DIAG_T10	None	None	A36	Typical
823	M358	N205	N203		8.989	TWR_RED_DIAG_T10	None	None	A36	Typical
824	M363	N207	N184		351.011	TWR_RED_DIAG_T10	None	None	A36	Typical
825	M381	N215	N216		8.164	TWR_RED_DIAG_T11	None	None	A36	Typical
826	M386	N218	N221		351.836	TWR_RED_DIAG_T11	None	None	A36	Typical
827	M393	N223	N221		8.164	TWR_RED_DIAG_T11	None	None	A36	Typical
828	M398	N225	N228		351.836	TWR_RED_DIAG_T11	None	None	A36	Typical
829	M406	N230	N228		8.164	TWR_RED_DIAG_T11	None	None	A36	Typical
830	M411	N232	N235		351.836	TWR_RED_DIAG_T11	None	None	A36	Typical
831	M419	N237	N235		8.164	TWR_RED_DIAG_T11	None	None	A36	Typical
832	M424	N239	N216		351.836	TWR_RED_DIAG_T11	None	None	A36	Typical
833	M442	N247	N248		10.955	TWR_RED_DIAG_T12	None	None	A36	Typical
834	M447	N250	N252		349.045	TWR_RED_DIAG_T12	None	None	A36	Typical
835	M458	N257	N252		10.955	TWR_RED_DIAG_T12	None	None	A36	Typical
836	M463	N259	N261		349.045	TWR_RED_DIAG_T12	None	None	A36	Typical
837	M477	N266	N261		10.955	TWR_RED_DIAG_T12	None	None	A36	Typical
838	M482	N268	N270		349.045	TWR_RED_DIAG_T12	None	None	A36	Typical
839	M496	N275	N270		10.955	TWR_RED_DIAG_T12	None	None	A36	Typical
840	M501	N277	N248		349.045	TWR_RED_DIAG_T12	None	None	A36	Typical
841	M527	N287	N288		10.083	TWR_RED_DIAG_T13	None	None	A36	Typical
842	M532	N290	N292		349.917	TWR_RED_DIAG_T13	None	None	A36	Typical
843	M541	N295	N292		10.083	TWR_RED_DIAG_T13	None	None	A36	Typical
844	M546	N297	N299		349.917	TWR_RED_DIAG_T13	None	None	A36	Typical
845	M558	N302	N299		10.083	TWR_RED_DIAG_T13	None	None	A36	Typical
846	M563	N304	N306		349.917	TWR_RED_DIAG_T13	None	None	A36	Typical
847	M575	N309	N306		10.083	TWR_RED_DIAG_T13	None	None	A36	Typical
848	M580	N311	N288		349.917	TWR_RED_DIAG_T13	None	None	A36	Typical
849	M604	N319	N320		9.373	TWR_RED_DIAG_T14	None	None	A36	Typical
850	M609	N322	N324		350.627	TWR_RED_DIAG_T14	None	None	A36	Typical
851	M618	N327	N324		9.373	TWR_RED_DIAG_T14	None	None	A36	Typical
852	M623	N329	N331		350.627	TWR_RED_DIAG_T14	None	None	A36	Typical
853	M635	N334	N331		9.373	TWR_RED_DIAG_T14	None	None	A36	Typical
854	M640	N336	N338		350.627	TWR_RED_DIAG_T14	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
855	M652	N341	N338		9.373	TWR_RED_DIAG_T14	None	None	A36	Typical
856	M657	N343	N320		350.627	TWR_RED_DIAG_T14	None	None	A36	Typical
857	M681	N351	N352		7.43	TWR_RED_DIAG_T15	None	None	A36	Typical
858	M686	N354	N356		352.57	TWR_RED_DIAG_T15	None	None	A36	Typical
859	M697	N361	N356		7.43	TWR_RED_DIAG_T15	None	None	A36	Typical
860	M702	N363	N365		352.57	TWR_RED_DIAG_T15	None	None	A36	Typical
861	M716	N370	N365		7.43	TWR_RED_DIAG_T15	None	None	A36	Typical
862	M721	N372	N374		352.57	TWR_RED_DIAG_T15	None	None	A36	Typical
863	M735	N379	N374		7.43	TWR_RED_DIAG_T15	None	None	A36	Typical
864	M740	N381	N352		352.57	TWR_RED_DIAG_T15	None	None	A36	Typical
865	M766	N391	N392		7.071	TWR_RED_DIAG_T16	None	None	A36	Typical
866	M771	N394	N396		352.929	TWR_RED_DIAG_T16	None	None	A36	Typical
867	M782	N401	N396		7.071	TWR_RED_DIAG_T16	None	None	A36	Typical
868	M787	N403	N405		352.929	TWR_RED_DIAG_T16	None	None	A36	Typical
869	M801	N410	N405		7.071	TWR_RED_DIAG_T16	None	None	A36	Typical
870	M806	N412	N414		352.929	TWR_RED_DIAG_T16	None	None	A36	Typical
871	M820	N419	N414		7.071	TWR_RED_DIAG_T16	None	None	A36	Typical
872	M825	N421	N392		352.929	TWR_RED_DIAG_T16	None	None	A36	Typical
873	M851	N431	N432		6.769	TWR_RED_DIAG_T17	None	None	A36	Typical
874	M856	N434	N436		353.231	TWR_RED_DIAG_T17	None	None	A36	Typical
875	M867	N441	N436		6.769	TWR_RED_DIAG_T17	None	None	A36	Typical
876	M872	N443	N445		353.231	TWR_RED_DIAG_T17	None	None	A36	Typical
877	M886	N450	N445		6.769	TWR_RED_DIAG_T17	None	None	A36	Typical
878	M891	N452	N454		353.231	TWR_RED_DIAG_T17	None	None	A36	Typical
879	M905	N459	N454		6.769	TWR_RED_DIAG_T17	None	None	A36	Typical
880	M910	N461	N432		353.231	TWR_RED_DIAG_T17	None	None	A36	Typical
881	M936	N471	N472		6.513	TWR_RED_DIAG_T18	None	None	A36	Typical
882	M941	N474	N476		353.487	TWR_RED_DIAG_T18	None	None	A36	Typical
883	M952	N481	N476		6.513	TWR_RED_DIAG_T18	None	None	A36	Typical
884	M957	N483	N485		353.487	TWR_RED_DIAG_T18	None	None	A36	Typical
885	M971	N490	N485		6.513	TWR_RED_DIAG_T18	None	None	A36	Typical
886	M976	N492	N494		353.487	TWR_RED_DIAG_T18	None	None	A36	Typical
887	M990	N499	N494		6.513	TWR_RED_DIAG_T18	None	None	A36	Typical
888	M995	N501	N472		353.487	TWR_RED_DIAG_T18	None	None	A36	Typical
889	M1417	N358	N789			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
890	M1418	N789	N790			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
891	M1419	N384	N791			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
892	M1420	N791	N792			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
893	M1421	N383	N793			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
894	M1422	N793	N794			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
895	M1423	N377	N795			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
896	M1424	N795	N796			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
897	M1425	N376	N797			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
898	M1426	N797	N798			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
899	M1427	N368	N799			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
900	M1428	N799	N800			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
901	M1429	N367	N801			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
902	M1430	N801	N802			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
903	M1431	N359	N803			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
904	M1432	N803	N804			TWR_RED_HIPBRACE_T15	None	None	A36	Typical
905	M1353	N408	N745			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
906	M1354	N745	N746			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
907	M1355	N416	N747			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
908	M1356	N747	N748			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
909	M1357	N407	N749			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
910	M1358	N749	N750			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
911	M1359	N399	N751			TWR_RED_HIPBRACE_T16	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
912	M1360	N751	N752			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
913	M1361	N398	N753			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
914	M1362	N753	N754			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
915	M1363	N424	N755			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
916	M1364	N755	N756			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
917	M1365	N423	N757			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
918	M1366	N757	N758			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
919	M1367	N417	N759			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
920	M1368	N759	N760			TWR_RED_HIPBRACE_T16	None	None	A36	Typical
921	M1289	N464	N701			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
922	M1290	N701	N702			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
923	M1291	N438	N703			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
924	M1292	N703	N704			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
925	M1293	N463	N705			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
926	M1294	N705	N706			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
927	M1295	N457	N707			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
928	M1296	N707	N708			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
929	M1297	N456	N709			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
930	M1298	N709	N710			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
931	M1299	N448	N711			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
932	M1300	N711	N712			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
933	M1301	N447	N713			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
934	M1302	N713	N714			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
935	M1303	N439	N715			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
936	M1304	N715	N716			TWR_RED_HIPBRACE_T17	None	None	A36	Typical
937	M1237	N487	N665			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
938	M1238	N665	N666			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
939	M1239	N479	N667			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
940	M1240	N667	N668			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
941	M1241	N478	N669			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
942	M1242	N669	N670			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
943	M1243	N504	N671			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
944	M1244	N671	N672			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
945	M1245	N503	N673			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
946	M1246	N673	N674			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
947	M1247	N497	N675			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
948	M1248	N675	N676			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
949	M1249	N496	N677			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
950	M1250	N677	N678			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
951	M1251	N488	N679			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
952	M1252	N679	N680			TWR_RED_HIPBRACE_T18	None	None	A36	Typical
953	M1105	N491	N559			TWR_RED_HIPDIA2_T18	None	None	A36	Typical
954	M1106	N559	N498			TWR_RED_HIPDIA2_T18	None	None	A36	Typical
955	M1107	N489	N560			TWR_RED_HIPDIA2_T18	None	None	A36	Typical
956	M1108	N560	N482			TWR_RED_HIPDIA2_T18	None	None	A36	Typical
957	M1109	N480	N557			TWR_RED_HIPDIA2_T18	None	None	A36	Typical
958	M1110	N557	N473			TWR_RED_HIPDIA2_T18	None	None	A36	Typical
959	M1111	N469	N558			TWR_RED_HIPDIA2_T18	None	None	A36	Typical
960	M1112	N558	N500			TWR_RED_HIPDIA2_T18	None	None	A36	Typical
961	M1613	N153	N921			TWR_RED_HIPDIA_T9	None	None	A36	Typical
962	M1614	N921	N176			TWR_RED_HIPDIA_T9	None	None	A36	Typical
963	M1615	N156	N922			TWR_RED_HIPDIA_T9	None	None	A36	Typical
964	M1616	N922	N160			TWR_RED_HIPDIA_T9	None	None	A36	Typical
965	M1617	N163	N923			TWR_RED_HIPDIA_T9	None	None	A36	Typical
966	M1618	N923	N167			TWR_RED_HIPDIA_T9	None	None	A36	Typical
967	M1619	N170	N924			TWR_RED_HIPDIA_T9	None	None	A36	Typical
968	M1620	N924	N174			TWR_RED_HIPDIA_T9	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
969	M1593	N185	N913			TWR_RED_HIPDIA_T10	None	None	A36	Typical
970	M1594	N913	N208			TWR_RED_HIPDIA_T10	None	None	A36	Typical
971	M1595	N188	N914			TWR_RED_HIPDIA_T10	None	None	A36	Typical
972	M1596	N914	N192			TWR_RED_HIPDIA_T10	None	None	A36	Typical
973	M1597	N195	N915			TWR_RED_HIPDIA_T10	None	None	A36	Typical
974	M1598	N915	N199			TWR_RED_HIPDIA_T10	None	None	A36	Typical
975	M1599	N202	N916			TWR_RED_HIPDIA_T10	None	None	A36	Typical
976	M1600	N916	N206			TWR_RED_HIPDIA_T10	None	None	A36	Typical
977	M1573	N220	N905			TWR_RED_HIPDIA_T11	None	None	A36	Typical
978	M1574	N905	N224			TWR_RED_HIPDIA_T11	None	None	A36	Typical
979	M1575	N217	N906			TWR_RED_HIPDIA_T11	None	None	A36	Typical
980	M1576	N906	N240			TWR_RED_HIPDIA_T11	None	None	A36	Typical
981	M1577	N227	N907			TWR_RED_HIPDIA_T11	None	None	A36	Typical
982	M1578	N907	N231			TWR_RED_HIPDIA_T11	None	None	A36	Typical
983	M1579	N234	N908			TWR_RED_HIPDIA_T11	None	None	A36	Typical
984	M1580	N908	N238			TWR_RED_HIPDIA_T11	None	None	A36	Typical
985	M1521	N245	N881			TWR_RED_HIPDIA_T12	None	None	A36	Typical
986	M1522	N881	N276			TWR_RED_HIPDIA_T12	None	None	A36	Typical
987	M1523	N249	N882			TWR_RED_HIPDIA_T12	None	None	A36	Typical
988	M1524	N882	N256			TWR_RED_HIPDIA_T12	None	None	A36	Typical
989	M1525	N258	N883			TWR_RED_HIPDIA_T12	None	None	A36	Typical
990	M1526	N883	N265			TWR_RED_HIPDIA_T12	None	None	A36	Typical
991	M1527	N267	N884			TWR_RED_HIPDIA_T12	None	None	A36	Typical
992	M1528	N884	N274			TWR_RED_HIPDIA_T12	None	None	A36	Typical
993	M1473	N285	N841			TWR_RED_HIPDIA_T13	None	None	A36	Typical
994	M1474	N841	N310			TWR_RED_HIPDIA_T13	None	None	A36	Typical
995	M1475	N289	N842			TWR_RED_HIPDIA_T13	None	None	A36	Typical
996	M1476	N842	N294			TWR_RED_HIPDIA_T13	None	None	A36	Typical
997	M1477	N296	N843			TWR_RED_HIPDIA_T13	None	None	A36	Typical
998	M1478	N843	N301			TWR_RED_HIPDIA_T13	None	None	A36	Typical
999	M1479	N303	N844			TWR_RED_HIPDIA_T13	None	None	A36	Typical
1000	M1480	N844	N308			TWR_RED_HIPDIA_T13	None	None	A36	Typical
1001	M1441	N321	N817			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1002	M1442	N817	N326			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1003	M1443	N317	N818			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1004	M1444	N818	N342			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1005	M1445	N328	N819			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1006	M1446	N819	N333			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1007	M1447	N335	N820			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1008	M1448	N820	N340			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1009	M1373	N349	N765			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1010	M1374	N765	N380			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1011	M1375	N353	N766			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1012	M1376	N766	N360			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1013	M1377	N362	N767			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1014	M1378	N767	N369			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1015	M1379	N371	N768			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1016	M1380	N768	N378			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1017	M1309	N400	N721			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1018	M1310	N721	N393			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1019	M1311	N389	N722			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1020	M1312	N722	N420			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1021	M1313	N418	N723			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1022	M1314	N723	N411			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1023	M1315	N409	N724			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1024	M1316	N724	N402			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1025	M1181	N433	N625			TWR_RED_HIPDIA_T17	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1026	M1182	N625	N440			TWR_RED_HIPDIA_T17	None	None	A36	Typical
1027	M1183	N429	N626			TWR_RED_HIPDIA_T17	None	None	A36	Typical
1028	M1184	N626	N460			TWR_RED_HIPDIA_T17	None	None	A36	Typical
1029	M1185	N442	N627			TWR_RED_HIPDIA_T17	None	None	A36	Typical
1030	M1186	N627	N449			TWR_RED_HIPDIA_T17	None	None	A36	Typical
1031	M1187	N451	N628			TWR_RED_HIPDIA_T17	None	None	A36	Typical
1032	M1188	N628	N458			TWR_RED_HIPDIA_T17	None	None	A36	Typical
1033	M1073	N499	N527			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1034	M1074	N527	N492			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1035	M1075	N490	N526			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1036	M1076	N526	N483			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1037	M1077	N481	N525			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1038	M1078	N525	N474			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1039	M1079	N471	N528			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1040	M1080	N528	N501			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1041	M279	N156	N160		90	TWR_RED_HIP_2_T9	None	None	A36	Typical
1042	M292	N163	N167		90	TWR_RED_HIP_2_T9	None	None	A36	Typical
1043	M305	N170	N174		90	TWR_RED_HIP_2_T9	None	None	A36	Typical
1044	M306	N153	N176		90	TWR_RED_HIP_2_T9	None	None	A36	Typical
1045	M340	N188	N192			TWR_RED_HIP_2_T10	None	None	A36	Typical
1046	M353	N195	N199			TWR_RED_HIP_2_T10	None	None	A36	Typical
1047	M366	N202	N206			TWR_RED_HIP_2_T10	None	None	A36	Typical
1048	M367	N185	N208			TWR_RED_HIP_2_T10	None	None	A36	Typical
1049	M401	N220	N224			TWR_RED_HIP_2_T11	None	None	A36	Typical
1050	M414	N227	N231			TWR_RED_HIP_2_T11	None	None	A36	Typical
1051	M427	N234	N238			TWR_RED_HIP_2_T11	None	None	A36	Typical
1052	M428	N217	N240			TWR_RED_HIP_2_T11	None	None	A36	Typical
1053	M467	N249	N256			TWR_RED_HIP_2_T12	None	None	A36	Typical
1054	M486	N258	N265			TWR_RED_HIP_2_T12	None	None	A36	Typical
1055	M505	N267	N274			TWR_RED_HIP_2_T12	None	None	A36	Typical
1056	M508	N245	N276			TWR_RED_HIP_2_T12	None	None	A36	Typical
1057	M550	N289	N294			TWR_RED_HIP_2_T13	None	None	A36	Typical
1058	M567	N296	N301			TWR_RED_HIP_2_T13	None	None	A36	Typical
1059	M584	N303	N308			TWR_RED_HIP_2_T13	None	None	A36	Typical
1060	M587	N285	N310			TWR_RED_HIP_2_T13	None	None	A36	Typical
1061	M627	N321	N326			TWR_RED_HIP_2_T14	None	None	A36	Typical
1062	M644	N328	N333			TWR_RED_HIP_2_T14	None	None	A36	Typical
1063	M661	N335	N340			TWR_RED_HIP_2_T14	None	None	A36	Typical
1064	M664	N317	N342			TWR_RED_HIP_2_T14	None	None	A36	Typical
1065	M706	N353	N360		90	TWR_RED_HIP_2_T15	None	None	A36	Typical
1066	M725	N362	N369		90	TWR_RED_HIP_2_T15	None	None	A36	Typical
1067	M744	N371	N378		90	TWR_RED_HIP_2_T15	None	None	A36	Typical
1068	M747	N349	N380		90	TWR_RED_HIP_2_T15	None	None	A36	Typical
1069	M791	N393	N400		90	TWR_RED_HIP_2_T16	None	None	A36	Typical
1070	M810	N402	N409		90	TWR_RED_HIP_2_T16	None	None	A36	Typical
1071	M829	N411	N418		90	TWR_RED_HIP_2_T16	None	None	A36	Typical
1072	M832	N389	N420		90	TWR_RED_HIP_2_T16	None	None	A36	Typical
1073	M876	N433	N440		90	TWR_RED_HIP_2_T17	None	None	A36	Typical
1074	M895	N442	N449		90	TWR_RED_HIP_2_T17	None	None	A36	Typical
1075	M914	N451	N458		90	TWR_RED_HIP_2_T17	None	None	A36	Typical
1076	M917	N429	N460		90	TWR_RED_HIP_2_T17	None	None	A36	Typical
1077	M961	N473	N480		90	TWR_RED_HIP_2_T18	None	None	A36	Typical
1078	M980	N482	N489		90	TWR_RED_HIP_2_T18	None	None	A36	Typical
1079	M999	N491	N498		90	TWR_RED_HIP_2_T18	None	None	A36	Typical
1080	M1002	N469	N500		90	TWR_RED_HIP_2_T18	None	None	A36	Typical
1081	M705	N354	N361			TWR_RED_HIP_T15	None	None	A36	Typical
1082	M724	N363	N370			TWR_RED_HIP_T15	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1083	M743	N372	N379			TWR_RED_HIP_T15	None	None	A36	Typical
1084	M746	N351	N381			TWR_RED_HIP_T15	None	None	A36	Typical
1085	M790	N394	N401			TWR_RED_HIP_T16	None	None	A36	Typical
1086	M809	N403	N410			TWR_RED_HIP_T16	None	None	A36	Typical
1087	M828	N412	N419			TWR_RED_HIP_T16	None	None	A36	Typical
1088	M831	N391	N421			TWR_RED_HIP_T16	None	None	A36	Typical
1089	M875	N434	N441			TWR_RED_HIP_T17	None	None	A36	Typical
1090	M894	N443	N450			TWR_RED_HIP_T17	None	None	A36	Typical
1091	M913	N452	N459			TWR_RED_HIP_T17	None	None	A36	Typical
1092	M916	N431	N461			TWR_RED_HIP_T17	None	None	A36	Typical
1093	M960	N474	N481		90	TWR_RED_HIP_T18	None	None	A36	Typical
1094	M979	N483	N490		90	TWR_RED_HIP_T18	None	None	A36	Typical
1095	M998	N492	N499		90	TWR_RED_HIP_T18	None	None	A36	Typical
1096	M1001	N471	N501		90	TWR_RED_HIP_T18	None	None	A36	Typical
1097	M258	N152	N153		355.711	TWR_RED_HORZ_2_T9	None	None	A36	Typical
1098	M263	N156	N157		355.711	TWR_RED_HORZ_2_T9	None	None	A36	Typical
1099	M270	N157	N160		355.711	TWR_RED_HORZ_2_T9	None	None	A36	Typical
1100	M275	N163	N164		355.711	TWR_RED_HORZ_2_T9	None	None	A36	Typical
1101	M283	N164	N167		355.711	TWR_RED_HORZ_2_T9	None	None	A36	Typical
1102	M288	N170	N171		355.711	TWR_RED_HORZ_2_T9	None	None	A36	Typical
1103	M296	N171	N174		355.711	TWR_RED_HORZ_2_T9	None	None	A36	Typical
1104	M301	N176	N152		355.711	TWR_RED_HORZ_2_T9	None	None	A36	Typical
1105	M319	N184	N185		355.711	TWR_RED_HORZ_2_T10	None	None	A36	Typical
1106	M324	N188	N189		355.711	TWR_RED_HORZ_2_T10	None	None	A36	Typical
1107	M331	N189	N192		355.711	TWR_RED_HORZ_2_T10	None	None	A36	Typical
1108	M336	N195	N196		355.711	TWR_RED_HORZ_2_T10	None	None	A36	Typical
1109	M344	N196	N199		355.711	TWR_RED_HORZ_2_T10	None	None	A36	Typical
1110	M349	N202	N203		355.711	TWR_RED_HORZ_2_T10	None	None	A36	Typical
1111	M357	N203	N206		355.711	TWR_RED_HORZ_2_T10	None	None	A36	Typical
1112	M362	N208	N184		355.711	TWR_RED_HORZ_2_T10	None	None	A36	Typical
1113	M380	N216	N217		355.711	TWR_RED_HORZ_2_T11	None	None	A36	Typical
1114	M385	N220	N221		355.711	TWR_RED_HORZ_2_T11	None	None	A36	Typical
1115	M392	N221	N224		355.711	TWR_RED_HORZ_2_T11	None	None	A36	Typical
1116	M397	N227	N228		355.711	TWR_RED_HORZ_2_T11	None	None	A36	Typical
1117	M405	N228	N231		355.711	TWR_RED_HORZ_2_T11	None	None	A36	Typical
1118	M410	N234	N235		355.711	TWR_RED_HORZ_2_T11	None	None	A36	Typical
1119	M418	N235	N238		355.711	TWR_RED_HORZ_2_T11	None	None	A36	Typical
1120	M423	N240	N216		355.711	TWR_RED_HORZ_2_T11	None	None	A36	Typical
1121	M441	N248	N245		355.711	TWR_RED_HORZ_2_T12	None	None	A36	Typical
1122	M446	N249	N252		355.711	TWR_RED_HORZ_2_T12	None	None	A36	Typical
1123	M457	N252	N256		355.711	TWR_RED_HORZ_2_T12	None	None	A36	Typical
1124	M462	N258	N261		355.711	TWR_RED_HORZ_2_T12	None	None	A36	Typical
1125	M476	N261	N265		355.711	TWR_RED_HORZ_2_T12	None	None	A36	Typical
1126	M481	N267	N270		355.711	TWR_RED_HORZ_2_T12	None	None	A36	Typical
1127	M495	N270	N274		355.711	TWR_RED_HORZ_2_T12	None	None	A36	Typical
1128	M500	N276	N248		355.711	TWR_RED_HORZ_2_T12	None	None	A36	Typical
1129	M526	N288	N285		355.711	TWR_RED_HORZ_2_T13	None	None	A36	Typical
1130	M531	N289	N292		355.711	TWR_RED_HORZ_2_T13	None	None	A36	Typical
1131	M540	N292	N294		355.711	TWR_RED_HORZ_2_T13	None	None	A36	Typical
1132	M545	N296	N299		355.711	TWR_RED_HORZ_2_T13	None	None	A36	Typical
1133	M557	N299	N301		355.711	TWR_RED_HORZ_2_T13	None	None	A36	Typical
1134	M562	N303	N306		355.711	TWR_RED_HORZ_2_T13	None	None	A36	Typical
1135	M574	N306	N308		355.711	TWR_RED_HORZ_2_T13	None	None	A36	Typical
1136	M579	N310	N288		355.711	TWR_RED_HORZ_2_T13	None	None	A36	Typical
1137	M603	N320	N317		355.711	TWR_RED_HORZ_2_T14	None	None	A36	Typical
1138	M608	N321	N324		355.711	TWR_RED_HORZ_2_T14	None	None	A36	Typical
1139	M617	N324	N326		355.711	TWR_RED_HORZ_2_T14	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1140	M622	N328	N331		355.711	TWR_RED_HORZ_2_T14	None	None	A36	Typical
1141	M634	N331	N333		355.711	TWR_RED_HORZ_2_T14	None	None	A36	Typical
1142	M639	N335	N338		355.711	TWR_RED_HORZ_2_T14	None	None	A36	Typical
1143	M651	N338	N340		355.711	TWR_RED_HORZ_2_T14	None	None	A36	Typical
1144	M656	N342	N320		355.711	TWR_RED_HORZ_2_T14	None	None	A36	Typical
1145	M680	N352	N349		355.711	TWR_RED_HORZ_2_T15	None	None	A36	Typical
1146	M685	N353	N356		355.711	TWR_RED_HORZ_2_T15	None	None	A36	Typical
1147	M696	N356	N360		355.711	TWR_RED_HORZ_2_T15	None	None	A36	Typical
1148	M701	N362	N365		355.711	TWR_RED_HORZ_2_T15	None	None	A36	Typical
1149	M715	N365	N369		355.711	TWR_RED_HORZ_2_T15	None	None	A36	Typical
1150	M720	N371	N374		355.711	TWR_RED_HORZ_2_T15	None	None	A36	Typical
1151	M734	N374	N378		355.711	TWR_RED_HORZ_2_T15	None	None	A36	Typical
1152	M739	N380	N352		355.711	TWR_RED_HORZ_2_T15	None	None	A36	Typical
1153	M765	N392	N389		355.711	TWR_RED_HORZ_2_T16	None	None	A36	Typical
1154	M770	N393	N396		355.711	TWR_RED_HORZ_2_T16	None	None	A36	Typical
1155	M781	N396	N400		355.711	TWR_RED_HORZ_2_T16	None	None	A36	Typical
1156	M786	N402	N405		355.711	TWR_RED_HORZ_2_T16	None	None	A36	Typical
1157	M800	N405	N409		355.711	TWR_RED_HORZ_2_T16	None	None	A36	Typical
1158	M805	N411	N414		355.711	TWR_RED_HORZ_2_T16	None	None	A36	Typical
1159	M819	N414	N418		355.711	TWR_RED_HORZ_2_T16	None	None	A36	Typical
1160	M824	N420	N392		355.711	TWR_RED_HORZ_2_T16	None	None	A36	Typical
1161	M850	N432	N429		355.711	TWR_RED_HORZ_2_T17	None	None	A36	Typical
1162	M855	N433	N436		355.711	TWR_RED_HORZ_2_T17	None	None	A36	Typical
1163	M866	N436	N440		355.711	TWR_RED_HORZ_2_T17	None	None	A36	Typical
1164	M871	N442	N445		355.711	TWR_RED_HORZ_2_T17	None	None	A36	Typical
1165	M885	N445	N449		355.711	TWR_RED_HORZ_2_T17	None	None	A36	Typical
1166	M890	N451	N454		355.711	TWR_RED_HORZ_2_T17	None	None	A36	Typical
1167	M904	N454	N458		355.711	TWR_RED_HORZ_2_T17	None	None	A36	Typical
1168	M909	N460	N432		355.711	TWR_RED_HORZ_2_T17	None	None	A36	Typical
1169	M935	N472	N469		355.711	TWR_RED_HORZ_2_T18	None	None	A36	Typical
1170	M940	N473	N476		355.711	TWR_RED_HORZ_2_T18	None	None	A36	Typical
1171	M951	N476	N480		355.711	TWR_RED_HORZ_2_T18	None	None	A36	Typical
1172	M956	N482	N485		355.711	TWR_RED_HORZ_2_T18	None	None	A36	Typical
1173	M970	N485	N489		355.711	TWR_RED_HORZ_2_T18	None	None	A36	Typical
1174	M975	N491	N494		355.711	TWR_RED_HORZ_2_T18	None	None	A36	Typical
1175	M989	N494	N498		355.711	TWR_RED_HORZ_2_T18	None	None	A36	Typical
1176	M994	N500	N472		355.711	TWR_RED_HORZ_2_T18	None	None	A36	Typical
1177	M72	N50	N51		85.711	TWR_RED_HORZ_T4	None	None	A36	Typical
1178	M75	N52	N53		85.711	TWR_RED_HORZ_T4	None	None	A36	Typical
1179	M79	N53	N55		85.711	TWR_RED_HORZ_T4	None	None	A36	Typical
1180	M82	N56	N57		85.711	TWR_RED_HORZ_T4	None	None	A36	Typical
1181	M86	N57	N59		85.711	TWR_RED_HORZ_T4	None	None	A36	Typical
1182	M89	N60	N61		85.711	TWR_RED_HORZ_T4	None	None	A36	Typical
1183	M93	N61	N63		85.711	TWR_RED_HORZ_T4	None	None	A36	Typical
1184	M96	N64	N50		85.711	TWR_RED_HORZ_T4	None	None	A36	Typical
1185	M109	N70	N71		85.711	TWR_RED_HORZ_T5	None	None	A36	Typical
1186	M112	N72	N73		85.711	TWR_RED_HORZ_T5	None	None	A36	Typical
1187	M116	N73	N75		85.711	TWR_RED_HORZ_T5	None	None	A36	Typical
1188	M119	N76	N77		85.711	TWR_RED_HORZ_T5	None	None	A36	Typical
1189	M123	N77	N79		85.711	TWR_RED_HORZ_T5	None	None	A36	Typical
1190	M126	N80	N81		85.711	TWR_RED_HORZ_T5	None	None	A36	Typical
1191	M130	N81	N83		85.711	TWR_RED_HORZ_T5	None	None	A36	Typical
1192	M133	N84	N70		85.711	TWR_RED_HORZ_T5	None	None	A36	Typical
1193	M146	N90	N91		85.711	TWR_RED_HORZ_T6	None	None	A36	Typical
1194	M149	N92	N93		85.711	TWR_RED_HORZ_T6	None	None	A36	Typical
1195	M153	N93	N95		85.711	TWR_RED_HORZ_T6	None	None	A36	Typical
1196	M156	N96	N97		85.711	TWR_RED_HORZ_T6	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1197	M160	N97	N99		85.711	TWR_RED_HORZ_T6	None	None	A36	Typical
1198	M163	N100	N101		85.711	TWR_RED_HORZ_T6	None	None	A36	Typical
1199	M167	N101	N103		85.711	TWR_RED_HORZ_T6	None	None	A36	Typical
1200	M170	N104	N90		85.711	TWR_RED_HORZ_T6	None	None	A36	Typical
1201	M183	N110	N111		85.711	TWR_RED_HORZ_T7	None	None	A36	Typical
1202	M186	N112	N113		85.711	TWR_RED_HORZ_T7	None	None	A36	Typical
1203	M190	N113	N115		85.711	TWR_RED_HORZ_T7	None	None	A36	Typical
1204	M193	N116	N117		85.711	TWR_RED_HORZ_T7	None	None	A36	Typical
1205	M197	N117	N119		85.711	TWR_RED_HORZ_T7	None	None	A36	Typical
1206	M200	N120	N121		85.711	TWR_RED_HORZ_T7	None	None	A36	Typical
1207	M204	N121	N123		85.711	TWR_RED_HORZ_T7	None	None	A36	Typical
1208	M207	N124	N110		85.711	TWR_RED_HORZ_T7	None	None	A36	Typical
1209	M220	N130	N131		85.711	TWR_RED_HORZ_T8	None	None	A36	Typical
1210	M223	N132	N133		85.711	TWR_RED_HORZ_T8	None	None	A36	Typical
1211	M227	N133	N135		85.711	TWR_RED_HORZ_T8	None	None	A36	Typical
1212	M230	N136	N137		85.711	TWR_RED_HORZ_T8	None	None	A36	Typical
1213	M234	N137	N139		85.711	TWR_RED_HORZ_T8	None	None	A36	Typical
1214	M237	N140	N141		85.711	TWR_RED_HORZ_T8	None	None	A36	Typical
1215	M241	N141	N143		85.711	TWR_RED_HORZ_T8	None	None	A36	Typical
1216	M244	N144	N130		85.711	TWR_RED_HORZ_T8	None	None	A36	Typical
1217	M257	N150	N151		355.711	TWR_RED_HORZ_T9	None	None	A36	Typical
1218	M262	N154	N155		355.711	TWR_RED_HORZ_T9	None	None	A36	Typical
1219	M269	N155	N159		355.711	TWR_RED_HORZ_T9	None	None	A36	Typical
1220	M274	N161	N162		355.711	TWR_RED_HORZ_T9	None	None	A36	Typical
1221	M282	N162	N166		355.711	TWR_RED_HORZ_T9	None	None	A36	Typical
1222	M287	N168	N169		355.711	TWR_RED_HORZ_T9	None	None	A36	Typical
1223	M295	N169	N173		355.711	TWR_RED_HORZ_T9	None	None	A36	Typical
1224	M300	N175	N150		355.711	TWR_RED_HORZ_T9	None	None	A36	Typical
1225	M318	N182	N183		355.711	TWR_RED_HORZ_T10	None	None	A36	Typical
1226	M323	N186	N187		355.711	TWR_RED_HORZ_T10	None	None	A36	Typical
1227	M330	N187	N191		355.711	TWR_RED_HORZ_T10	None	None	A36	Typical
1228	M335	N193	N194		355.711	TWR_RED_HORZ_T10	None	None	A36	Typical
1229	M343	N194	N198		355.711	TWR_RED_HORZ_T10	None	None	A36	Typical
1230	M348	N200	N201		355.711	TWR_RED_HORZ_T10	None	None	A36	Typical
1231	M356	N201	N205		355.711	TWR_RED_HORZ_T10	None	None	A36	Typical
1232	M361	N207	N182		355.711	TWR_RED_HORZ_T10	None	None	A36	Typical
1233	M379	N214	N215		355.711	TWR_RED_HORZ_T11	None	None	A36	Typical
1234	M384	N218	N219		355.711	TWR_RED_HORZ_T11	None	None	A36	Typical
1235	M391	N219	N223		355.711	TWR_RED_HORZ_T11	None	None	A36	Typical
1236	M396	N225	N226		355.711	TWR_RED_HORZ_T11	None	None	A36	Typical
1237	M404	N226	N230		355.711	TWR_RED_HORZ_T11	None	None	A36	Typical
1238	M409	N232	N233		355.711	TWR_RED_HORZ_T11	None	None	A36	Typical
1239	M417	N233	N237		355.711	TWR_RED_HORZ_T11	None	None	A36	Typical
1240	M422	N239	N214		355.711	TWR_RED_HORZ_T11	None	None	A36	Typical
1241	M440	N246	N247		355.711	TWR_RED_HORZ_T12	None	None	A36	Typical
1242	M445	N250	N251		355.711	TWR_RED_HORZ_T12	None	None	A36	Typical
1243	M456	N251	N257		355.711	TWR_RED_HORZ_T12	None	None	A36	Typical
1244	M461	N259	N260		355.711	TWR_RED_HORZ_T12	None	None	A36	Typical
1245	M475	N260	N266		355.711	TWR_RED_HORZ_T12	None	None	A36	Typical
1246	M480	N268	N269		355.711	TWR_RED_HORZ_T12	None	None	A36	Typical
1247	M494	N269	N275		355.711	TWR_RED_HORZ_T12	None	None	A36	Typical
1248	M499	N277	N246		355.711	TWR_RED_HORZ_T12	None	None	A36	Typical
1249	M525	N286	N287		355.711	TWR_RED_HORZ_T13	None	None	A36	Typical
1250	M530	N290	N291		355.711	TWR_RED_HORZ_T13	None	None	A36	Typical
1251	M539	N291	N295		355.711	TWR_RED_HORZ_T13	None	None	A36	Typical
1252	M544	N297	N298		355.711	TWR_RED_HORZ_T13	None	None	A36	Typical
1253	M556	N298	N302		355.711	TWR_RED_HORZ_T13	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1254	M561	N304	N305		355.711	TWR_RED_HORZ_T13	None	None	A36	Typical
1255	M573	N305	N309		355.711	TWR_RED_HORZ_T13	None	None	A36	Typical
1256	M578	N311	N286		355.711	TWR_RED_HORZ_T13	None	None	A36	Typical
1257	M602	N318	N319		355.711	TWR_RED_HORZ_T14	None	None	A36	Typical
1258	M607	N322	N323		355.711	TWR_RED_HORZ_T14	None	None	A36	Typical
1259	M616	N323	N327		355.711	TWR_RED_HORZ_T14	None	None	A36	Typical
1260	M621	N329	N330		355.711	TWR_RED_HORZ_T14	None	None	A36	Typical
1261	M633	N330	N334		355.711	TWR_RED_HORZ_T14	None	None	A36	Typical
1262	M638	N336	N337		355.711	TWR_RED_HORZ_T14	None	None	A36	Typical
1263	M650	N337	N341		355.711	TWR_RED_HORZ_T14	None	None	A36	Typical
1264	M655	N343	N318		355.711	TWR_RED_HORZ_T14	None	None	A36	Typical
1265	M679	N350	N351		355.711	TWR_RED_HORZ_T15	None	None	A36	Typical
1266	M684	N354	N355		355.711	TWR_RED_HORZ_T15	None	None	A36	Typical
1267	M695	N355	N361		355.711	TWR_RED_HORZ_T15	None	None	A36	Typical
1268	M700	N363	N364		355.711	TWR_RED_HORZ_T15	None	None	A36	Typical
1269	M714	N364	N370		355.711	TWR_RED_HORZ_T15	None	None	A36	Typical
1270	M719	N372	N373		355.711	TWR_RED_HORZ_T15	None	None	A36	Typical
1271	M733	N373	N379		355.711	TWR_RED_HORZ_T15	None	None	A36	Typical
1272	M738	N381	N350		355.711	TWR_RED_HORZ_T15	None	None	A36	Typical
1273	M764	N390	N391		355.711	TWR_RED_HORZ_T16	None	None	A36	Typical
1274	M769	N394	N395		355.711	TWR_RED_HORZ_T16	None	None	A36	Typical
1275	M780	N395	N401		355.711	TWR_RED_HORZ_T16	None	None	A36	Typical
1276	M785	N403	N404		355.711	TWR_RED_HORZ_T16	None	None	A36	Typical
1277	M799	N404	N410		355.711	TWR_RED_HORZ_T16	None	None	A36	Typical
1278	M804	N412	N413		355.711	TWR_RED_HORZ_T16	None	None	A36	Typical
1279	M818	N413	N419		355.711	TWR_RED_HORZ_T16	None	None	A36	Typical
1280	M823	N421	N390		355.711	TWR_RED_HORZ_T16	None	None	A36	Typical
1281	M849	N430	N431		355.711	TWR_RED_HORZ_T17	None	None	A36	Typical
1282	M854	N434	N435		355.711	TWR_RED_HORZ_T17	None	None	A36	Typical
1283	M865	N435	N441		355.711	TWR_RED_HORZ_T17	None	None	A36	Typical
1284	M870	N443	N444		355.711	TWR_RED_HORZ_T17	None	None	A36	Typical
1285	M884	N444	N450		355.711	TWR_RED_HORZ_T17	None	None	A36	Typical
1286	M889	N452	N453		355.711	TWR_RED_HORZ_T17	None	None	A36	Typical
1287	M903	N453	N459		355.711	TWR_RED_HORZ_T17	None	None	A36	Typical
1288	M908	N461	N430		355.711	TWR_RED_HORZ_T17	None	None	A36	Typical
1289	M934	N470	N471		355.711	TWR_RED_HORZ_T18	None	None	A36	Typical
1290	M939	N474	N475		355.711	TWR_RED_HORZ_T18	None	None	A36	Typical
1291	M950	N475	N481		355.711	TWR_RED_HORZ_T18	None	None	A36	Typical
1292	M955	N483	N484		355.711	TWR_RED_HORZ_T18	None	None	A36	Typical
1293	M969	N484	N490		355.711	TWR_RED_HORZ_T18	None	None	A36	Typical
1294	M974	N492	N493		355.711	TWR_RED_HORZ_T18	None	None	A36	Typical
1295	M988	N493	N499		355.711	TWR_RED_HORZ_T18	None	None	A36	Typical
1296	M993	N501	N470		355.711	TWR_RED_HORZ_T18	None	None	A36	Typical
1297	M1129	N586	N585			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1298	M1130	N585	N587			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1299	M1131	N588	N589			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1300	M1132	N589	N591			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1301	M1133	N592	N593			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1302	M1134	N593	N594			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1303	M1135	N595	N596			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1304	M1136	N596	N597			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1305	M1137	N586	N475			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1306	M1138	N475	N587			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1307	M1139	N592	N470			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1308	M1140	N470	N594			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1309	M1141	N595	N493			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1310	M1142	N493	N597			TWR_RED_KICKER_2_T18	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1311	M1143	N591	N484			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1312	M1144	N484	N588			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1313	M1145	N597A	N484			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1314	M1146	N484	N598			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1315	M1147	N599	N475			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1316	M1148	N475	N600			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1317	M1149	N601	N470			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1318	M1150	N470	N602			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1319	M1151	N603	N493			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1320	M1152	N493	N604			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1321	M1153	N604	N605			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1322	M1154	N605	N603			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1323	M1155	N597A	N606			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1324	M1156	N606	N598			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1325	M1157	N599	N607			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1326	M1158	N607	N600			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1327	M1159	N601	N608			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1328	M1160	N608	N602			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1329	M1161	N609	N472			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1330	M1162	N472	N610			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1331	M1163	N611	N494			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1332	M1164	N494	N612			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1333	M1165	N613	N485			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1334	M1166	N485	N614			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1335	M1167	N615	N476			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1336	M1168	N476	N616			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1337	M1169	N616	N617			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1338	M1170	N617	N615			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1339	M1171	N610	N618			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1340	M1172	N618	N609			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1341	M1173	N612	N619			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1342	M1174	N619	N611			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1343	M1175	N614	N620			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1344	M1176	N620	N613			TWR_RED_KICKER_2_T18	None	None	A36	Typical
1345	M1189	N435	N629			TWR_RED_KICKER_T17	None	None	A36	Typical
1346	M1190	N435	N630			TWR_RED_KICKER_T17	None	None	A36	Typical
1347	M1191	N631	N430			TWR_RED_KICKER_T17	None	None	A36	Typical
1348	M1192	N430	N632			TWR_RED_KICKER_T17	None	None	A36	Typical
1349	M1193	N633	N453			TWR_RED_KICKER_T17	None	None	A36	Typical
1350	M1194	N453	N634			TWR_RED_KICKER_T17	None	None	A36	Typical
1351	M1195	N635	N444			TWR_RED_KICKER_T17	None	None	A36	Typical
1352	M1196	N444	N636			TWR_RED_KICKER_T17	None	None	A36	Typical
1353	M1197	N636	N637			TWR_RED_KICKER_T17	None	None	A36	Typical
1354	M1198	N637	N635			TWR_RED_KICKER_T17	None	None	A36	Typical
1355	M1199	N629	N638			TWR_RED_KICKER_T17	None	None	A36	Typical
1356	M1200	N638	N630			TWR_RED_KICKER_T17	None	None	A36	Typical
1357	M1201	N631	N639			TWR_RED_KICKER_T17	None	None	A36	Typical
1358	M1202	N639	N632			TWR_RED_KICKER_T17	None	None	A36	Typical
1359	M1203	N633	N640			TWR_RED_KICKER_T17	None	None	A36	Typical
1360	M1204	N640	N634			TWR_RED_KICKER_T17	None	None	A36	Typical
1361	M1205	N641	N453			TWR_RED_KICKER_T17	None	None	A36	Typical
1362	M1206	N453	N642			TWR_RED_KICKER_T17	None	None	A36	Typical
1363	M1207	N643	N444			TWR_RED_KICKER_T17	None	None	A36	Typical
1364	M1208	N444	N644			TWR_RED_KICKER_T17	None	None	A36	Typical
1365	M1209	N645	N435			TWR_RED_KICKER_T17	None	None	A36	Typical
1366	M1210	N435	N646			TWR_RED_KICKER_T17	None	None	A36	Typical
1367	M1211	N647	N430			TWR_RED_KICKER_T17	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1368	M1212	N430	N648			TWR_RED_KICKER_T17	None	None	A36	Typical
1369	M1213	N648	N649			TWR_RED_KICKER_T17	None	None	A36	Typical
1370	M1214	N649	N647			TWR_RED_KICKER_T17	None	None	A36	Typical
1371	M1215	N641	N650			TWR_RED_KICKER_T17	None	None	A36	Typical
1372	M1216	N650	N642			TWR_RED_KICKER_T17	None	None	A36	Typical
1373	M1217	N643	N651			TWR_RED_KICKER_T17	None	None	A36	Typical
1374	M1218	N651	N644			TWR_RED_KICKER_T17	None	None	A36	Typical
1375	M1219	N645	N652			TWR_RED_KICKER_T17	None	None	A36	Typical
1376	M1220	N652	N646			TWR_RED_KICKER_T17	None	None	A36	Typical
1377	M1221	N653	N436			TWR_RED_KICKER_T17	None	None	A36	Typical
1378	M1222	N436	N654			TWR_RED_KICKER_T17	None	None	A36	Typical
1379	M1223	N655	N432			TWR_RED_KICKER_T17	None	None	A36	Typical
1380	M1224	N432	N656			TWR_RED_KICKER_T17	None	None	A36	Typical
1381	M1225	N657	N454			TWR_RED_KICKER_T17	None	None	A36	Typical
1382	M1226	N454	N658			TWR_RED_KICKER_T17	None	None	A36	Typical
1383	M1227	N659	N445			TWR_RED_KICKER_T17	None	None	A36	Typical
1384	M1228	N445	N660			TWR_RED_KICKER_T17	None	None	A36	Typical
1385	M1229	N660	N661			TWR_RED_KICKER_T17	None	None	A36	Typical
1386	M1230	N661	N659			TWR_RED_KICKER_T17	None	None	A36	Typical
1387	M1231	N654	N662			TWR_RED_KICKER_T17	None	None	A36	Typical
1388	M1232	N662	N653			TWR_RED_KICKER_T17	None	None	A36	Typical
1389	M1233	N656	N663			TWR_RED_KICKER_T17	None	None	A36	Typical
1390	M1234	N663	N655			TWR_RED_KICKER_T17	None	None	A36	Typical
1391	M1235	N658	N664			TWR_RED_KICKER_T17	None	None	A36	Typical
1392	M1236	N664	N657			TWR_RED_KICKER_T17	None	None	A36	Typical
1393	M1017	N478	N509			TWR_RED_KICKER_T18	None	None	A36	Typical
1394	M1018	N479	N510			TWR_RED_KICKER_T18	None	None	A36	Typical
1395	M1019	N487	N511			TWR_RED_KICKER_T18	None	None	A36	Typical
1396	M1020	N488	N512			TWR_RED_KICKER_T18	None	None	A36	Typical
1397	M1021	N496	N513			TWR_RED_KICKER_T18	None	None	A36	Typical
1398	M1022	N497	N514			TWR_RED_KICKER_T18	None	None	A36	Typical
1399	M1023	N503	N515			TWR_RED_KICKER_T18	None	None	A36	Typical
1400	M1024	N504	N516			TWR_RED_KICKER_T18	None	None	A36	Typical
1401	M1025	N516	N517			TWR_RED_KICKER_T18	None	None	A36	Typical
1402	M1026	N515	N518			TWR_RED_KICKER_T18	None	None	A36	Typical
1403	M1027	N509	N519			TWR_RED_KICKER_T18	None	None	A36	Typical
1404	M1028	N510	N520			TWR_RED_KICKER_T18	None	None	A36	Typical
1405	M1029	N511	N521			TWR_RED_KICKER_T18	None	None	A36	Typical
1406	M1030	N512	N522			TWR_RED_KICKER_T18	None	None	A36	Typical
1407	M1031	N513	N523			TWR_RED_KICKER_T18	None	None	A36	Typical
1408	M1032	N514	N524			TWR_RED_KICKER_T18	None	None	A36	Typical
1409	M612	N317	N805		354.982	TWR_RED_SUBDIA_2_T14	None	None	A36	Typical
1410	M613	N321	N806		5.018	TWR_RED_SUBDIA_2_T14	None	None	A36	Typical
1411	M629	N326	N807		354.982	TWR_RED_SUBDIA_2_T14	None	None	A36	Typical
1412	M630	N328	N808		5.018	TWR_RED_SUBDIA_2_T14	None	None	A36	Typical
1413	M646	N333	N809		354.982	TWR_RED_SUBDIA_2_T14	None	None	A36	Typical
1414	M647	N335	N810		5.018	TWR_RED_SUBDIA_2_T14	None	None	A36	Typical
1415	M666	N340	N811		354.982	TWR_RED_SUBDIA_2_T14	None	None	A36	Typical
1416	M667	N342	N812		5.018	TWR_RED_SUBDIA_2_T14	None	None	A36	Typical
1417	M450	N245	N861		354.699	TWR_RED_SUBDIA_T12	None	None	A36	Typical
1418	M451	N249	N862		5.301	TWR_RED_SUBDIA_T12	None	None	A36	Typical
1419	M469	N256	N863		354.699	TWR_RED_SUBDIA_T12	None	None	A36	Typical
1420	M470	N258	N864		5.301	TWR_RED_SUBDIA_T12	None	None	A36	Typical
1421	M488	N265	N865		354.699	TWR_RED_SUBDIA_T12	None	None	A36	Typical
1422	M489	N267	N866		5.301	TWR_RED_SUBDIA_T12	None	None	A36	Typical
1423	M510	N274	N867		354.699	TWR_RED_SUBDIA_T12	None	None	A36	Typical
1424	M511	N276	N868		5.301	TWR_RED_SUBDIA_T12	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1425	M1513	N861	N869			TWR_RED_SUBDIA_T12	None	None	A36	Typical
1426	M1514	N869	N862			TWR_RED_SUBDIA_T12	None	None	A36	Typical
1427	M1515	N863	N872			TWR_RED_SUBDIA_T12	None	None	A36	Typical
1428	M1516	N872	N864			TWR_RED_SUBDIA_T12	None	None	A36	Typical
1429	M1517	N865	N875			TWR_RED_SUBDIA_T12	None	None	A36	Typical
1430	M1518	N875	N866			TWR_RED_SUBDIA_T12	None	None	A36	Typical
1431	M1519	N867	N878			TWR_RED_SUBDIA_T12	None	None	A36	Typical
1432	M1520	N878	N868			TWR_RED_SUBDIA_T12	None	None	A36	Typical
1433	M535	N285	N833		354.857	TWR_RED_SUBDIA_T13	None	None	A36	Typical
1434	M536	N289	N834		5.143	TWR_RED_SUBDIA_T13	None	None	A36	Typical
1435	M552	N294	N835		354.857	TWR_RED_SUBDIA_T13	None	None	A36	Typical
1436	M553	N296	N836		5.143	TWR_RED_SUBDIA_T13	None	None	A36	Typical
1437	M569	N301	N837		354.857	TWR_RED_SUBDIA_T13	None	None	A36	Typical
1438	M570	N303	N838		5.143	TWR_RED_SUBDIA_T13	None	None	A36	Typical
1439	M589	N308	N839		354.857	TWR_RED_SUBDIA_T13	None	None	A36	Typical
1440	M590	N310	N840		5.143	TWR_RED_SUBDIA_T13	None	None	A36	Typical
1441	M1485	N833	N845			TWR_RED_SUBDIA_T13	None	None	A36	Typical
1442	M1486	N845	N834			TWR_RED_SUBDIA_T13	None	None	A36	Typical
1443	M1487	N835	N846			TWR_RED_SUBDIA_T13	None	None	A36	Typical
1444	M1488	N846	N836			TWR_RED_SUBDIA_T13	None	None	A36	Typical
1445	M1489	N837	N847			TWR_RED_SUBDIA_T13	None	None	A36	Typical
1446	M1490	N847	N838			TWR_RED_SUBDIA_T13	None	None	A36	Typical
1447	M1491	N839	N848			TWR_RED_SUBDIA_T13	None	None	A36	Typical
1448	M1492	N848	N840			TWR_RED_SUBDIA_T13	None	None	A36	Typical
1449	M1433	N805	N813			TWR_RED_SUBDIA_T14	None	None	A36	Typical
1450	M1434	N813	N806			TWR_RED_SUBDIA_T14	None	None	A36	Typical
1451	M1435	N807	N814			TWR_RED_SUBDIA_T14	None	None	A36	Typical
1452	M1436	N814	N808			TWR_RED_SUBDIA_T14	None	None	A36	Typical
1453	M1437	N809	N815			TWR_RED_SUBDIA_T14	None	None	A36	Typical
1454	M1438	N815	N810			TWR_RED_SUBDIA_T14	None	None	A36	Typical
1455	M1439	N811	N816			TWR_RED_SUBDIA_T14	None	None	A36	Typical
1456	M1440	N816	N812			TWR_RED_SUBDIA_T14	None	None	A36	Typical
1457	M689	N349	N357		354.829	TWR_RED_SUBDIA_T15	None	None	A36	Typical
1458	M690	N353	N357		5.171	TWR_RED_SUBDIA_T15	None	None	A36	Typical
1459	M708	N360	N366		354.829	TWR_RED_SUBDIA_T15	None	None	A36	Typical
1460	M709	N362	N366		5.171	TWR_RED_SUBDIA_T15	None	None	A36	Typical
1461	M727	N369	N375		354.829	TWR_RED_SUBDIA_T15	None	None	A36	Typical
1462	M728	N371	N375		5.171	TWR_RED_SUBDIA_T15	None	None	A36	Typical
1463	M749	N378	N382		354.829	TWR_RED_SUBDIA_T15	None	None	A36	Typical
1464	M750	N380	N382		5.171	TWR_RED_SUBDIA_T15	None	None	A36	Typical
1465	M774	N389	N397		354.94	TWR_RED_SUBDIA_T16	None	None	A36	Typical
1466	M775	N393	N397		5.06	TWR_RED_SUBDIA_T16	None	None	A36	Typical
1467	M793	N400	N406		354.94	TWR_RED_SUBDIA_T16	None	None	A36	Typical
1468	M794	N402	N406		5.06	TWR_RED_SUBDIA_T16	None	None	A36	Typical
1469	M812	N409	N415		354.94	TWR_RED_SUBDIA_T16	None	None	A36	Typical
1470	M813	N411	N415		5.06	TWR_RED_SUBDIA_T16	None	None	A36	Typical
1471	M834	N418	N422		354.94	TWR_RED_SUBDIA_T16	None	None	A36	Typical
1472	M835	N420	N422		5.06	TWR_RED_SUBDIA_T16	None	None	A36	Typical
1473	M859	N429	N437		355.031	TWR_RED_SUBDIA_T17	None	None	A36	Typical
1474	M860	N433	N437		4.969	TWR_RED_SUBDIA_T17	None	None	A36	Typical
1475	M878	N440	N446		355.031	TWR_RED_SUBDIA_T17	None	None	A36	Typical
1476	M879	N442	N446		4.969	TWR_RED_SUBDIA_T17	None	None	A36	Typical
1477	M897	N449	N455		355.031	TWR_RED_SUBDIA_T17	None	None	A36	Typical
1478	M898	N451	N455		4.969	TWR_RED_SUBDIA_T17	None	None	A36	Typical
1479	M919	N458	N462		355.031	TWR_RED_SUBDIA_T17	None	None	A36	Typical
1480	M920	N460	N462		4.969	TWR_RED_SUBDIA_T17	None	None	A36	Typical
1481	M944	N469	N477		355.107	TWR_RED_SUBDIA_T18	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1482	M945	N473	N477		4.893	TWR_RED_SUBDIA_T18	None	None	A36	Typical
1483	M963	N480	N486		355.107	TWR_RED_SUBDIA_T18	None	None	A36	Typical
1484	M964	N482	N486		4.893	TWR_RED_SUBDIA_T18	None	None	A36	Typical
1485	M982	N489	N495		355.107	TWR_RED_SUBDIA_T18	None	None	A36	Typical
1486	M983	N491	N495		4.893	TWR_RED_SUBDIA_T18	None	None	A36	Typical
1487	M1004	N498	N502		355.107	TWR_RED_SUBDIA_T18	None	None	A36	Typical
1488	M1005	N500	N502		4.893	TWR_RED_SUBDIA_T18	None	None	A36	Typical
1489	M266	N153	N156		355.711	TWR_RED_SUBHOR_T9	None	None	A36	Typical
1490	M278	N160	N163		355.711	TWR_RED_SUBHOR_T9	None	None	A36	Typical
1491	M291	N167	N170		355.711	TWR_RED_SUBHOR_T9	None	None	A36	Typical
1492	M304	N174	N176		355.711	TWR_RED_SUBHOR_T9	None	None	A36	Typical
1493	M327	N185	N188		355.711	TWR_RED_SUBHOR_T10	None	None	A36	Typical
1494	M339	N192	N195		355.711	TWR_RED_SUBHOR_T10	None	None	A36	Typical
1495	M352	N199	N202		355.711	TWR_RED_SUBHOR_T10	None	None	A36	Typical
1496	M365	N206	N208		355.711	TWR_RED_SUBHOR_T10	None	None	A36	Typical
1497	M388	N217	N220		355.711	TWR_RED_SUBHOR_T11	None	None	A36	Typical
1498	M400	N224	N227		355.711	TWR_RED_SUBHOR_T11	None	None	A36	Typical
1499	M413	N231	N234		355.711	TWR_RED_SUBHOR_T11	None	None	A36	Typical
1500	M426	N238	N240		355.711	TWR_RED_SUBHOR_T11	None	None	A36	Typical
1501	M449	N245	N249		355.711	TWR_RED_SUBHOR_T12	None	None	A36	Typical
1502	M465	N256	N258		355.711	TWR_RED_SUBHOR_T12	None	None	A36	Typical
1503	M484	N265	N267		355.711	TWR_RED_SUBHOR_T12	None	None	A36	Typical
1504	M503	N274	N276		355.711	TWR_RED_SUBHOR_T12	None	None	A36	Typical
1505	M534	N285	N289		355.711	TWR_RED_SUBHOR_T13	None	None	A36	Typical
1506	M548	N294	N296		355.711	TWR_RED_SUBHOR_T13	None	None	A36	Typical
1507	M565	N301	N303		355.711	TWR_RED_SUBHOR_T13	None	None	A36	Typical
1508	M582	N308	N310		355.711	TWR_RED_SUBHOR_T13	None	None	A36	Typical
1509	M611	N317	N321		355.711	TWR_RED_SUBHOR_T14	None	None	A36	Typical
1510	M625	N326	N328		355.711	TWR_RED_SUBHOR_T14	None	None	A36	Typical
1511	M642	N333	N335		355.711	TWR_RED_SUBHOR_T14	None	None	A36	Typical
1512	M659	N340	N342		355.711	TWR_RED_SUBHOR_T14	None	None	A36	Typical
1513	M688	N349	N353		355.711	TWR_RED_SUBHOR_T15	None	None	A36	Typical
1514	M704	N360	N362		355.711	TWR_RED_SUBHOR_T15	None	None	A36	Typical
1515	M723	N369	N371		355.711	TWR_RED_SUBHOR_T15	None	None	A36	Typical
1516	M742	N378	N380		355.711	TWR_RED_SUBHOR_T15	None	None	A36	Typical
1517	M773	N389	N393		355.711	TWR_RED_SUBHOR_T16	None	None	A36	Typical
1518	M789	N400	N402		355.711	TWR_RED_SUBHOR_T16	None	None	A36	Typical
1519	M808	N409	N411		355.711	TWR_RED_SUBHOR_T16	None	None	A36	Typical
1520	M827	N418	N420		355.711	TWR_RED_SUBHOR_T16	None	None	A36	Typical
1521	M858	N429	N433		355.711	TWR_RED_SUBHOR_T17	None	None	A36	Typical
1522	M874	N440	N442		355.711	TWR_RED_SUBHOR_T17	None	None	A36	Typical
1523	M893	N449	N451		355.711	TWR_RED_SUBHOR_T17	None	None	A36	Typical
1524	M912	N458	N460		355.711	TWR_RED_SUBHOR_T17	None	None	A36	Typical
1525	M943	N469	N473		355.711	TWR_RED_SUBHOR_T18	Beam	None	A36_1	DR1_2
1526	M959	N480	N482		355.711	TWR_RED_SUBHOR_T18	Beam	None	A36_1	DR1_2
1527	M978	N489	N491		355.711	TWR_RED_SUBHOR_T18	Beam	None	A36_1	DR1_2
1528	M997	N498	N500		355.711	TWR_RED_SUBHOR_T18	Beam	None	A36_1	DR1_2
1529	M1689	N9	N957			TWR_RED_VERT_T1	None	None	A36	Typical
1530	M1690	N10	N958			TWR_RED_VERT_T1	None	None	A36	Typical
1531	M1691	N11	N959			TWR_RED_VERT_T1	None	None	A36	Typical
1532	M1692	N12	N960			TWR_RED_VERT_T1	None	None	A36	Typical
1533	M1685	N21	N953			TWR_RED_VERT_T2	None	None	A36	Typical
1534	M1686	N22	N954			TWR_RED_VERT_T2	None	None	A36	Typical
1535	M1687	N23	N955			TWR_RED_VERT_T2	None	None	A36	Typical
1536	M1688	N24	N956			TWR_RED_VERT_T2	None	None	A36	Typical
1537	M1681	N37	N33			TWR_RED_VERT_T3	None	None	A36	Typical
1538	M1682	N38	N34			TWR_RED_VERT_T3	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1539	M1683	N39	N35			TWR_RED_VERT_T3	None	None	A36	Typical
1540	M1684	N40	N36			TWR_RED_VERT_T3	None	None	A36	Typical
1541	M1693	N220	N961			TWR_RED_VERT_T11	None	None	A36	Typical
1542	M1694	N217	N962			TWR_RED_VERT_T11	None	None	A36	Typical
1543	M1695	N224	N963			TWR_RED_VERT_T11	None	None	A36	Typical
1544	M1696	N227	N964			TWR_RED_VERT_T11	None	None	A36	Typical
1545	M1697	N231	N965			TWR_RED_VERT_T11	None	None	A36	Typical
1546	M1698	N234	N966			TWR_RED_VERT_T11	None	None	A36	Typical
1547	M1699	N238	N967			TWR_RED_VERT_T11	None	None	A36	Typical
1548	M1700	N240	N968			TWR_RED_VERT_T11	None	None	A36	Typical
1549	M452	N870	N861			TWR_RED_VERT_T12	None	None	A36	Typical
1550	M453	N871	N862			TWR_RED_VERT_T12	None	None	A36	Typical
1551	M471	N874	N863			TWR_RED_VERT_T12	None	None	A36	Typical
1552	M472	N873	N864			TWR_RED_VERT_T12	None	None	A36	Typical
1553	M490	N877	N865			TWR_RED_VERT_T12	None	None	A36	Typical
1554	M491	N876	N866			TWR_RED_VERT_T12	None	None	A36	Typical
1555	M512	N879	N867			TWR_RED_VERT_T12	None	None	A36	Typical
1556	M513	N880	N868			TWR_RED_VERT_T12	None	None	A36	Typical
1557	M691	N349	N358			TWR_RED_VERT_T15	None	None	A36	Typical
1558	M692	N353	N359			TWR_RED_VERT_T15	None	None	A36	Typical
1559	M710	N360	N367			TWR_RED_VERT_T15	None	None	A36	Typical
1560	M711	N362	N368			TWR_RED_VERT_T15	None	None	A36	Typical
1561	M729	N369	N376			TWR_RED_VERT_T15	None	None	A36	Typical
1562	M730	N371	N377			TWR_RED_VERT_T15	None	None	A36	Typical
1563	M751	N378	N383			TWR_RED_VERT_T15	None	None	A36	Typical
1564	M752	N380	N384			TWR_RED_VERT_T15	None	None	A36	Typical
1565	M1369	N366	N761			TWR_RED_VERT_T15	None	None	A36	Typical
1566	M1370	N357	N762			TWR_RED_VERT_T15	None	None	A36	Typical
1567	M1371	N375	N763			TWR_RED_VERT_T15	None	None	A36	Typical
1568	M1372	N382	N764			TWR_RED_VERT_T15	None	None	A36	Typical
1569	M776	N389	N398			TWR_RED_VERT_T16	None	None	A36	Typical
1570	M777	N393	N399			TWR_RED_VERT_T16	None	None	A36	Typical
1571	M795	N400	N407			TWR_RED_VERT_T16	None	None	A36	Typical
1572	M796	N402	N408			TWR_RED_VERT_T16	None	None	A36	Typical
1573	M814	N409	N416			TWR_RED_VERT_T16	None	None	A36	Typical
1574	M815	N411	N417			TWR_RED_VERT_T16	None	None	A36	Typical
1575	M836	N418	N423			TWR_RED_VERT_T16	None	None	A36	Typical
1576	M837	N420	N424			TWR_RED_VERT_T16	None	None	A36	Typical
1577	M1305	N397	N717			TWR_RED_VERT_T16	None	None	A36	Typical
1578	M1306	N422	N718			TWR_RED_VERT_T16	None	None	A36	Typical
1579	M1307	N406	N719			TWR_RED_VERT_T16	None	None	A36	Typical
1580	M1308	N415	N720			TWR_RED_VERT_T16	None	None	A36	Typical
1581	M861	N429	N438			TWR_RED_VERT_T17	None	None	A36	Typical
1582	M862	N433	N439			TWR_RED_VERT_T17	None	None	A36	Typical
1583	M880	N440	N447			TWR_RED_VERT_T17	None	None	A36	Typical
1584	M881	N442	N448			TWR_RED_VERT_T17	None	None	A36	Typical
1585	M899	N449	N456			TWR_RED_VERT_T17	None	None	A36	Typical
1586	M900	N451	N457			TWR_RED_VERT_T17	None	None	A36	Typical
1587	M921	N458	N463			TWR_RED_VERT_T17	None	None	A36	Typical
1588	M922	N460	N464			TWR_RED_VERT_T17	None	None	A36	Typical
1589	M1177	N437	N621			TWR_RED_VERT_T17	None	None	A36	Typical
1590	M1178	N446	N622			TWR_RED_VERT_T17	None	None	A36	Typical
1591	M1179	N455	N623			TWR_RED_VERT_T17	None	None	A36	Typical
1592	M1180	N462	N624			TWR_RED_VERT_T17	None	None	A36	Typical
1593	M946	N469	N478			TWR_RED_VERT_T18	None	None	A36	Typical
1594	M947	N473	N479			TWR_RED_VERT_T18	None	None	A36	Typical
1595	M965	N480	N487			TWR_RED_VERT_T18	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1596	M966	N482	N488			TWR_RED_VERT_T18	None	None	A36	Typical
1597	M984	N489	N496			TWR_RED_VERT_T18	None	None	A36	Typical
1598	M985	N491	N497			TWR_RED_VERT_T18	None	None	A36	Typical
1599	M1006	N498	N503			TWR_RED_VERT_T18	None	None	A36	Typical
1600	M1007	N500	N504			TWR_RED_VERT_T18	None	None	A36	Typical
1601	M1013	N477	N505			TWR_RED_VERT_T18	None	None	A36	Typical
1602	M1014	N486	N506			TWR_RED_VERT_T18	None	None	A36	Typical
1603	M1015	N495	N507			TWR_RED_VERT_T18	None	None	A36	Typical
1604	M1016	N502	N508			TWR_RED_VERT_T18	None	None	A36	Typical
1605	M17	N13	N14		85.711	TWR_STEP_T1	None	None	A36	Typical
1606	M18	N14	N15		85.711	TWR_STEP_T1	None	None	A36	Typical
1607	M19	N15	N16		85.711	TWR_STEP_T1	None	None	A36	Typical
1608	M20	N16	N13		85.711	TWR_STEP_T1	None	None	A36	Typical
1609	M37	N25	N26		85.711	TWR_STEP_T2	None	None	A36	Typical
1610	M38	N26	N27		85.711	TWR_STEP_T2	None	None	A36	Typical
1611	M39	N27	N28		85.711	TWR_STEP_T2	None	None	A36	Typical
1612	M40	N28	N25		85.711	TWR_STEP_T2	None	None	A36	Typical
1613	M62	N41	N42		85.711	TWR_STEP_T3	None	None	A36	Typical
1614	M63	N42	N43		85.711	TWR_STEP_T3	None	None	A36	Typical
1615	M64	N43	N44		85.711	TWR_STEP_T3	None	None	A36	Typical
1616	M65	N44	N41		85.711	TWR_STEP_T3	None	None	A36	Typical
1617	M5	N1	N3		175.711	TWR_TOP_GIRT_T1	None	None	A36	Typical
1618	M6	N3	N5		175.711	TWR_TOP_GIRT_T1	None	None	A36	Typical
1619	M7	N5	N7		175.711	TWR_TOP_GIRT_T1	None	None	A36	Typical
1620	M8	N7	N1		175.711	TWR_TOP_GIRT_T1	None	None	A36	Typical
1621	M1502	N841	N854			TWR_INNER_CORNER_T13	None	None	A36	Typical
1622	M1503	N855	N842			TWR_INNER_CORNER_T13	None	None	A36	Typical
1623	M1505	N857	N843			TWR_INNER_CORNER_T13	None	None	A36	Typical
1624	M1508	N844	N860			TWR_INNER_CORNER_T13	None	None	A36	Typical
1625	M1509	N859	N860			TWR_INNER_CORNER_T13	None	None	A36	Typical
1626	M1510	N854	N853			TWR_INNER_CORNER_T13	None	None	A36	Typical
1627	M1511	N855	N856			TWR_INNER_CORNER_T13	None	None	A36	Typical
1628	M1512	N858	N857			TWR_INNER_CORNER_T13	None	None	A36	Typical
1629	M1462	N818	N826			TWR_INNER_CORNER_T14	None	None	A36	Typical
1630	M1464	N820	N828			TWR_INNER_CORNER_T14	None	None	A36	Typical
1631	M1465	N829	N817			TWR_INNER_CORNER_T14	None	None	A36	Typical
1632	M1467	N831	N819			TWR_INNER_CORNER_T14	None	None	A36	Typical
1633	M1469	N827	N828			TWR_INNER_CORNER_T14	None	None	A36	Typical
1634	M1470	N826	N825			TWR_INNER_CORNER_T14	None	None	A36	Typical
1635	M1471	N829	N830			TWR_INNER_CORNER_T14	None	None	A36	Typical
1636	M1472	N831	N832			TWR_INNER_CORNER_T14	None	None	A36	Typical
1637	M53	N33	N35		90	TWR_INNER_SUPP_T3	None	None	A36	Typical
1638	M102	N49	N58		90	TWR_INNER_SUPP_T4	None	None	A36	Typical
1639	M139	N69	N78			TWR_INNER_SUPP_T5	None	None	A36	Typical
1640	M176	N89	N98			TWR_INNER_SUPP_T6	None	None	A36	Typical
1641	M213	N109	N118			TWR_INNER_SUPP_T7	None	None	A36	Typical
1642	M250	N129	N138			TWR_INNER_SUPP_T8	None	None	A36	Typical
1643	M311	N149	N165			TWR_INNER_SUPP_T9	None	None	A36	Typical
1644	M372	N181	N197		90	TWR_INNER_SUPP_T10	None	None	A36	Typical
1645	M433	N213	N229		90	TWR_INNER_SUPP_T11	None	None	A36	Typical
1646	M518	N253	N271		90	TWR_INNER_SUPP_T12	None	None	A36	Typical
1647	M595	N293	N307			TWR_INNER_SUPP_T13	None	None	A36	Typical
1648	M672	N325	N339			TWR_INNER_SUPP_T14	None	None	A36	Typical
1649	M757	N357	N375			TWR_INNER_SUPP_T15	None	None	A36	Typical
1650	M842	N397	N415			TWR_INNER_SUPP_T16	None	None	A36	Typical
1651	M927	N437	N455			TWR_INNER_SUPP_T17	None	None	A36	Typical
1652	M1012	N477	N495			TWR_INNER_SUPP_T18	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1653	M468	N250	N256			TWR_RED_HIPDIA_T12	None	None	A36	Typical
1654	M487	N259	N265			TWR_RED_HIPDIA_T12	None	None	A36	Typical
1655	M506	N268	N274			TWR_RED_HIPDIA_T12	None	None	A36	Typical
1656	M509	N277	N245			TWR_RED_HIPDIA_T12	None	None	A36	Typical
1657	M551	N290	N294			TWR_RED_HIPDIA_T13	None	None	A36	Typical
1658	M568	N297	N301			TWR_RED_HIPDIA_T13	None	None	A36	Typical
1659	M585	N304	N308			TWR_RED_HIPDIA_T13	None	None	A36	Typical
1660	M588	N311	N285			TWR_RED_HIPDIA_T13	None	None	A36	Typical
1661	M628	N322	N326			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1662	M645	N329	N333			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1663	M662	N336	N340			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1664	M665	N343	N317			TWR_RED_HIPDIA_T14	None	None	A36	Typical
1665	M707	N354	N360			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1666	M726	N363	N369			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1667	M745	N372	N378			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1668	M748	N381	N349			TWR_RED_HIPDIA_T15	None	None	A36	Typical
1669	M792	N394	N400			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1670	M811	N403	N409			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1671	M830	N412	N418			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1672	M833	N421	N389			TWR_RED_HIPDIA_T16	None	None	A36	Typical
1673	M877	N434	N440			TWR_RED_HIPDIA_T17	None	None	A36	Typical
1674	M896	N443	N449			TWR_RED_HIPDIA_T17	None	None	A36	Typical
1675	M915	N452	N458			TWR_RED_HIPDIA_T17	None	None	A36	Typical
1676	M918	N461	N429			TWR_RED_HIPDIA_T17	None	None	A36	Typical
1677	M962	N474	N480			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1678	M981	N483	N489			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1679	M1000	N492	N498			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1680	M1003	N501	N469			TWR_RED_HIPDIA_T18	None	None	A36	Typical
1681	M466	N250	N257			TWR_RED_HIP_T12	None	None	A36	Typical
1682	M485	N259	N266			TWR_RED_HIP_T12	None	None	A36	Typical
1683	M504	N268	N275			TWR_RED_HIP_T12	None	None	A36	Typical
1684	M507	N247	N277			TWR_RED_HIP_T12	None	None	A36	Typical
1685	M549	N290	N295			TWR_RED_HIP_T13	None	None	A36	Typical
1686	M566	N297	N302			TWR_RED_HIP_T13	None	None	A36	Typical
1687	M583	N304	N309			TWR_RED_HIP_T13	None	None	A36	Typical
1688	M586	N287	N311			TWR_RED_HIP_T13	None	None	A36	Typical
1689	M626	N322	N327			TWR_RED_HIP_T14	None	None	A36	Typical
1690	M643	N329	N334			TWR_RED_HIP_T14	None	None	A36	Typical
1691	M660	N336	N341			TWR_RED_HIP_T14	None	None	A36	Typical
1692	M663	N319	N343			TWR_RED_HIP_T14	None	None	A36	Typical
1693	M1701	N971	N514			TWR_RED_KICKER_T18	None	None	A36	Typical
1694	M1702	N970	N513			TWR_RED_KICKER_T18	None	None	A36	Typical
1695	M1703	N495	N542			TWR_RED_VERT2_T18	None	None	A36	Typical
1696	M1704	N495	N540		90	TWR_RED_VERT2_T18	None	None	A36	Typical
1697	M1705	N502	N535		90	TWR_RED_VERT2_T18	None	None	A36	Typical
1698	M1706	N972	N515			TWR_RED_KICKER_T18	None	None	A36	Typical
1699	M1707	N973	N516			TWR_RED_KICKER_T18	None	None	A36	Typical
1700	M1708	N502	N537			TWR_RED_VERT2_T18	None	None	A36	Typical
1701	M1709	N477	N530		90	TWR_RED_VERT2_T18	None	None	A36	Typical
1702	M1710	N974	N509			TWR_RED_KICKER_T18	None	None	A36	Typical
1703	M1711	N975	N510			TWR_RED_KICKER_T18	None	None	A36	Typical
1704	M1712	N477	N532			TWR_RED_VERT2_T18	None	None	A36	Typical
1705	M1713	N486	N545		90	TWR_RED_VERT2_T18	None	None	A36	Typical
1706	M1714	N976	N511			TWR_RED_KICKER_T18	None	None	A36	Typical
1707	M1715	N977	N512			TWR_RED_KICKER_T18	None	None	A36	Typical
1708	M1716	N486	N547			TWR_RED_VERT2_T18	None	None	A36	Typical
1709	M1717	N978	N622		90	TWR_RED_KICKER2_T17	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1710	M1718	N979	N623		90	TWR_RED_KICKER2_T17	None	None	A36	Typical
1711	M1719	N980	N624		90	TWR_RED_KICKER2_T17	None	None	A36	Typical
1712	M1720	N981	N621		90	TWR_RED_KICKER2_T17	None	None	A36	Typical
1713	M1721	N982	N719		90	TWR_RED_KICKER_T16	None	None	A36	Typical
1714	M1722	N984	N983		90	TWR_SUBRED_HORZ1_T16	None	None	A36	Typical
1715	M1723	N985	N986		90	TWR_SUBRED_HORZ2_T16	None	None	A36	Typical
1716	M1724	N988	N987		90	TWR_SUBRED_HORZ3_T16	None	None	A36	Typical
1717	M1725	N404	N983		90	TWR_SUBRED_DIAG1_T16	None	None	A36	Typical
1718	M1726	N404	N986		90	TWR_SUBRED_DIAG2_T16	None	None	A36	Typical
1719	M1727	N405	N987		90	TWR_SUBRED_DIAG3_T16	None	None	A36	Typical
1720	M1728	N395	N989		90	TWR_SUBRED_DIAG1_T16	None	None	A36	Typical
1721	M1729	N396	N990		90	TWR_SUBRED_DIAG3_T16	None	None	A36	Typical
1722	M1730	N991	N989		90	TWR_SUBRED_HORZ1_T16	None	None	A36	Typical
1723	M1731	N992	N993		90	TWR_SUBRED_HORZ2_T16	None	None	A36	Typical
1724	M1732	N994	N990		90	TWR_SUBRED_HORZ3_T16	None	None	A36	Typical
1725	M1733	N395	N993		90	TWR_SUBRED_DIAG2_T16	None	None	A36	Typical
1726	M1734	N413	N995		90	TWR_SUBRED_DIAG1_T16	None	None	A36	Typical
1727	M1735	N404	N996		90	TWR_SUBRED_DIAG1_T16	None	None	A36	Typical
1728	M1736	N985	N997		90	TWR_SUBRED_HORZ2_T16	None	None	A36	Typical
1729	M1737	N414	N998		90	TWR_SUBRED_DIAG3_T16	None	None	A36	Typical
1730	M1738	N999	N995		90	TWR_SUBRED_HORZ1_T16	None	None	A36	Typical
1731	M1739	N404	N997		90	TWR_SUBRED_DIAG2_T16	None	None	A36	Typical
1732	M1740	N1000	N1001		90	TWR_SUBRED_HORZ2_T16	None	None	A36	Typical
1733	M1741	N413	N1001		90	TWR_SUBRED_DIAG2_T16	None	None	A36	Typical
1734	M1742	N405	N1002		90	TWR_SUBRED_DIAG3_T16	None	None	A36	Typical
1735	M1743	N1003	N998		90	TWR_SUBRED_HORZ3_T16	None	None	A36	Typical
1736	M1744	N984	N996		90	TWR_SUBRED_HORZ1_T16	None	None	A36	Typical
1737	M1745	N988	N1002		90	TWR_SUBRED_HORZ3_T16	None	None	A36	Typical
1738	M1746	N390	N1004		90	TWR_SUBRED_DIAG1_T16	None	None	A36	Typical
1739	M1747	N413	N1005		90	TWR_SUBRED_DIAG1_T16	None	None	A36	Typical
1740	M1748	N1000	N1006		90	TWR_SUBRED_HORZ2_T16	None	None	A36	Typical
1741	M1749	N392	N1007		90	TWR_SUBRED_DIAG3_T16	None	None	A36	Typical
1742	M1750	N1008	N1004		90	TWR_SUBRED_HORZ1_T16	None	None	A36	Typical
1743	M1751	N413	N1006		90	TWR_SUBRED_DIAG2_T16	None	None	A36	Typical
1744	M1752	N1009	N1010		90	TWR_SUBRED_HORZ2_T16	None	None	A36	Typical
1745	M1753	N390	N1010		90	TWR_SUBRED_DIAG2_T16	None	None	A36	Typical
1746	M1754	N414	N1011		90	TWR_SUBRED_DIAG3_T16	None	None	A36	Typical
1747	M1755	N1012	N1007		90	TWR_SUBRED_HORZ3_T16	None	None	A36	Typical
1748	M1756	N999	N1005		90	TWR_SUBRED_HORZ1_T16	None	None	A36	Typical
1749	M1757	N1003	N1011		90	TWR_SUBRED_HORZ3_T16	None	None	A36	Typical
1750	M1758	N395	N1013		90	TWR_SUBRED_DIAG1_T16	None	None	A36	Typical
1751	M1759	N390	N1014		90	TWR_SUBRED_DIAG1_T16	None	None	A36	Typical
1752	M1760	N1009	N1015		90	TWR_SUBRED_HORZ2_T16	None	None	A36	Typical
1753	M1761	N396	N1016		90	TWR_SUBRED_DIAG3_T16	None	None	A36	Typical
1754	M1762	N991	N1013		90	TWR_SUBRED_HORZ1_T16	None	None	A36	Typical
1755	M1763	N390	N1015		90	TWR_SUBRED_DIAG2_T16	None	None	A36	Typical
1756	M1764	N992	N1017		90	TWR_SUBRED_HORZ2_T16	None	None	A36	Typical
1757	M1765	N395	N1017		90	TWR_SUBRED_DIAG2_T16	None	None	A36	Typical
1758	M1766	N392	N1018		90	TWR_SUBRED_DIAG3_T16	None	None	A36	Typical
1759	M1767	N994	N1016		90	TWR_SUBRED_HORZ3_T16	None	None	A36	Typical
1760	M1768	N1008	N1014		90	TWR_SUBRED_HORZ1_T16	None	None	A36	Typical
1761	M1769	N1012	N1018		90	TWR_SUBRED_HORZ3_T16	None	None	A36	Typical
1762	M1770	N1019	N761		90	TWR_RED_SUBDIA2_T15	None	None	A36	Typical
1763	M1771	N1020	N763		90	TWR_RED_SUBDIA2_T15	None	None	A36	Typical
1764	M1772	N1021	N764		90	TWR_RED_SUBDIA2_T15	None	None	A36	Typical
1765	M1773	N1022	N762		90	TWR_RED_SUBDIA2_T15	None	None	A36	Typical
1766	M1774	N822	N814		90	TWR_RED_DIAG_3_T14	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1767	M1775	N823	N815		90	TWR_RED_DIAG_3_T14	None	None	A36	Typical
1768	M1776	N824	N816		90	TWR_RED_DIAG_3_T14	None	None	A36	Typical
1769	M1777	N821	N813		90	TWR_RED_DIAG_3_T14	None	None	A36	Typical
1770	M1778	N332	N814		90	TWR_RED_VERT_T14	None	None	A36	Typical
1771	M1779	N339	N815		90	TWR_RED_VERT_T14	None	None	A36	Typical
1772	M1780	N344	N816		90	TWR_RED_VERT_T14	None	None	A36	Typical
1773	M1781	N325	N813		90	TWR_RED_VERT_T14	None	None	A36	Typical
1774	M1782	N817	N830		90	TWR_RED_SUBHOR_2_T14	None	None	A36	Typical
1775	M1785	N819	N832		90	TWR_RED_VERT_T14	None	None	A36	Typical
1776	M1790	N824	N344		90	TWR_RED_VERT_T14	None	None	A36	Typical
1777	M1784	N856	N294		90	TWR_RED_VERT_T13	None	None	A36	Typical
1778	M1786	N300	N846		90	TWR_RED_VERT_T13	None	None	A36	Typical
1779	M1787	N857	N296		90	TWR_RED_VERT_T13	None	None	A36	Typical
1780	M1789	N850	N846		90	TWR_RED_DIAG_3_T13	None	None	A36	Typical
1781	M1792	N842	N856		90	TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1782	M1793	N850	N300		90	TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1783	M1795	N860	N303		90	TWR_RED_VERT_T13	None	None	A36	Typical
1784	M1796	N858	N301		90	TWR_RED_VERT_T13	None	None	A36	Typical
1785	M1799	N307	N847		90	TWR_RED_VERT_T13	None	None	A36	Typical
1786	M1800	N851	N847		90	TWR_RED_DIAG_3_T13	None	None	A36	Typical
1787	M1801	N843	N858		90	TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1788	M1802	N854	N310		90	TWR_RED_VERT_T13	None	None	A36	Typical
1789	M1803	N859	N308		90	TWR_RED_VERT_T13	None	None	A36	Typical
1790	M1805	N852	N312		90	TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1791	M1806	N312	N848		90	TWR_RED_VERT_T13	None	None	A36	Typical
1792	M1807	N852	N848		90	TWR_RED_DIAG_3_T13	None	None	A36	Typical
1793	M1808	N844	N859		90	TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1794	M1809	N855	N289		90	TWR_RED_VERT_T13	None	None	A36	Typical
1795	M1810	N853	N285		90	TWR_RED_VERT_T13	None	None	A36	Typical
1796	M1813	N293	N845		90	TWR_RED_VERT_T13	None	None	A36	Typical
1797	M1814	N849	N845		90	TWR_RED_DIAG_3_T13	None	None	A36	Typical
1798	M1815	N841	N853		90	TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1799	M1816	N263	N256		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1800	M1817	N262	N872		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1801	M1818	N264	N258		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1802	M1819	N882	N263		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1803	M1820	N886	N262		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1804	M1821	N883	N264		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1805	M1822	N273	N267		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1806	M1823	N883	N272		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1807	M1825	N272	N265		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1808	M1826	N271	N875		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1809	M1827	N884	N273		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1810	M1828	N280	N276		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1811	M1829	N884	N279		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1812	M1830	N888	N278		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1813	M1831	N279	N274		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1814	M1832	N278	N878		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1815	M1833	N881	N280		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1816	M1834	N255	N249		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1817	M1835	N881	N254		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1818	M1837	N254	N245		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1819	M1838	N253	N869		90	TWR_RED_VERT_2_T12	None	None	A36	Typical
1820	M1839	N882	N255		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1821	M1840	N965	N964		90	TWR_INNER BRACE_2_T11	None	None	A36	Typical
1822	M1841	N967	N966		90	TWR_INNER BRACE_2_T11	None	None	A36	Typical
1823	M1842	N962	N968		90	TWR_INNER BRACE_2_T11	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1824	M1843	N963	N961		90	TWR_INNER BRACE_2_T11	None	None	A36	Typical
1825	M1836	N1023	N192		90	TWR_RED_VERT_T10	None	None	A36	Typical
1826	M1844	N1024	N195		90	TWR_RED_VERT_T10	None	None	A36	Typical
1827	M1845	N1025	N202		90	TWR_RED_VERT_T10	None	None	A36	Typical
1828	M1846	N1026	N199		90	TWR_RED_VERT_T10	None	None	A36	Typical
1829	M1847	N1027	N208		90	TWR_RED_VERT_T10	None	None	A36	Typical
1830	M1848	N1028	N206		90	TWR_RED_VERT_T10	None	None	A36	Typical
1831	M1849	N1029	N188		90	TWR_RED_VERT_T10	None	None	A36	Typical
1832	M1850	N1030	N185		90	TWR_RED_VERT_T10	None	None	A36	Typical
1833	M1851	N1024	N1026		90	TWR_INNER_BRACE_2_T10	None	None	A36	Typical
1834	M1852	N1025	N1028		90	TWR_INNER_BRACE_2_T10	None	None	A36	Typical
1835	M1853	N1027	N1030		90	TWR_INNER_BRACE_2_T10	None	None	A36	Typical
1836	M1854	N1029	N1023		90	TWR_INNER_BRACE_2_T10	None	None	A36	Typical
1837	M1855	N136	N139		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1838	M1856	N139	N932		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1839	M1857	N136	N932		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1840	M1858	N140	N143		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1841	M1859	N140	N931		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1842	M1860	N143	N931		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1843	M1861	N144	N131		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1844	M1862	N144	N930		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1845	M1863	N131	N930		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1846	M1864	N132	N135		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1847	M1865	N132	N929		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1848	M1866	N135	N929		90	TWR_INNER_SUPP_2_T8	None	None	A36	Typical
1849	M1867	N116	N119		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1850	M1868	N119	N936		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1851	M1869	N116	N936		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1852	M1870	N120	N123		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1853	M1871	N123	N935		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1854	M1872	N120	N935		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1855	M1873	N124	N111		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1856	M1874	N111	N934		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1857	M1875	N124	N934		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1858	M1876	N112	N115		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1859	M1877	N115	N933		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1860	M1878	N112	N933		90	TWR_INNER_SUPP_2_T7	None	None	A36	Typical
1861	M1879	N822	N332		90	TWR_RED_SUBHOR_2_T14	None	None	A36	Typical
1862	M1880	N819	N831		90	TWR_RED_SUBHOR_2_T14	None	None	A36	Typical
1863	M1881	N823	N339		90	TWR_RED_SUBHOR_2_T14	None	None	A36	Typical
1864	M1883	N820	N828		90	TWR_RED_SUBHOR_2_T14	None	None	A36	Typical
1865	M1885	N820	N827		90	TWR_RED_SUBHOR_2_T14	None	None	A36	Typical
1866	M1886	N818	N826		90	TWR_RED_SUBHOR_2_T14	None	None	A36	Typical
1867	M1887	N821	N325		90	TWR_RED_SUBHOR_2_T14	None	None	A36	Typical
1868	M1888	N818	N825		90	TWR_RED_SUBHOR_2_T14	None	None	A36	Typical
1869	M1889	N817	N829		90	TWR_RED_SUBHOR_2_T14	None	None	A36	Typical
1870	M1872A	N843	N857			TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1871	M1873A	N844	N860			TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1872	M1874A	N841	N854			TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1873	M1875A	N842	N855			TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1874	M1875B	N887	N271		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1875	M1881A	N885	N253		90	TWR_RED_SUBHOR_2_T12	None	None	A36	Typical
1876	M1877A	N851	N307		90	TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1877	M1883A	N849	N293		90	TWR_RED_SUBHOR_2_T13	None	None	A36	Typical
1878	M1878A	N1032	N720		90	TWR_RED_KICKER_T16	None	None	A36	Typical
1879	M1879A	N1034	N718		90	TWR_RED_KICKER_T16	None	None	A36	Typical
1880	M1880A	N1036	N717		90	TWR_RED_KICKER_T16	None	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1881	M1881B	N830	N326		270	TWR_RED_VERT_T14	None	None	A36	Typical
1882	M1882	N831	N328			TWR_RED_VERT_T14	None	None	A36	Typical
1883	M1883B	N832	N333		270	TWR_RED_VERT_T14	None	None	A36	Typical
1884	M1884	N828	N335			TWR_RED_VERT_T14	None	None	A36	Typical
1885	M1885A	N827	N340		270	TWR_RED_VERT_T14	None	None	A36	Typical
1886	M1886A	N826	N342			TWR_RED_VERT_T14	None	None	A36	Typical
1887	M1887A	N825	N317		270	TWR_RED_VERT_T14	None	None	A36	Typical
1888	M1888A	N829	N321			TWR_RED_VERT_T14	None	None	A36	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1	M9	TWR_DIAG_T1	18.014	8.8	8.8	8.8	8.8	8.8	1.04	1.04		Lateral
2	M10	TWR_DIAG_T1	18.014	8.8	8.8	8.8	8.8	8.8	1.04	1.04		Lateral
3	M11	TWR_DIAG_T1	18.014	8.8	8.8	8.8	8.8	8.8	1.04	1.04		Lateral
4	M12	TWR_DIAG_T1	18.014	8.8	8.8	8.8	8.8	8.8	1.04	1.04		Lateral
5	M13	TWR_DIAG_T1	18.014	8.8	8.8	8.8	8.8	8.8	1.04	1.04		Lateral
6	M14	TWR_DIAG_T1	18.014	8.8	8.8	8.8	8.8	8.8	1.04	1.04		Lateral
7	M15	TWR_DIAG_T1	18.014	8.8	8.8	8.8	8.8	8.8	1.04	1.04		Lateral
8	M16	TWR_DIAG_T1	18.014	8.8	8.8	8.8	8.8	8.8	1.04	1.04		Lateral
9	M29	TWR_DIAG_T2	19.405	9.48	9.48	9.48	9.48	9.48	1.04	1.04		Lateral
10	M30	TWR_DIAG_T2	19.405	9.48	9.48	9.48	9.48	9.48	1.04	1.04		Lateral
11	M31	TWR_DIAG_T2	19.405	9.48	9.48	9.48	9.48	9.48	1.04	1.04		Lateral
12	M32	TWR_DIAG_T2	19.405	9.48	9.48	9.48	9.48	9.48	1.04	1.04		Lateral
13	M33	TWR_DIAG_T2	19.405	9.48	9.48	9.48	9.48	9.48	1.04	1.04		Lateral
14	M34	TWR_DIAG_T2	19.405	9.48	9.48	9.48	9.48	9.48	1.04	1.04		Lateral
15	M35	TWR_DIAG_T2	19.405	9.48	9.48	9.48	9.48	9.48	1.04	1.04		Lateral
16	M36	TWR_DIAG_T2	19.405	9.48	9.48	9.48	9.48	9.48	1.04	1.04		Lateral
17	M54	TWR_DIAG_T3	20.871	10.2	10.2	10.2	10.2	10.2	1.02	1.02		Lateral
18	M55	TWR_DIAG_T3	20.871	10.2	10.2	10.2	10.2	10.2	1.02	1.02		Lateral
19	M56	TWR_DIAG_T3	20.871	10.2	10.2	10.2	10.2	10.2	1.02	1.02		Lateral
20	M57	TWR_DIAG_T3	20.871	10.2	10.2	10.2	10.2	10.2	1.02	1.02		Lateral
21	M58	TWR_DIAG_T3	20.871	10.2	10.2	10.2	10.2	10.2	1.02	1.02		Lateral
22	M59	TWR_DIAG_T3	20.871	10.2	10.2	10.2	10.2	10.2	1.02	1.02		Lateral
23	M60	TWR_DIAG_T3	20.871	10.2	10.2	10.2	10.2	10.2	1.02	1.02		Lateral
24	M61	TWR_DIAG_T3	20.871	10.2	10.2	10.2	10.2	10.2	1.02	1.02		Lateral
25	M71	TWR_DIAG_T4	15.881	15.02	7.51	7.51	7.51	7.51	1.02	1		Lateral
26	M74	TWR_DIAG_T4	15.881	15.02	7.51	7.51	7.51	7.51	1.02	1		Lateral
27	M78	TWR_DIAG_T4	15.881	15.02	7.51	7.51	7.51	7.51	1.02	1		Lateral
28	M81	TWR_DIAG_T4	15.881	15.02	7.51	7.51	7.51	7.51	1.02	1		Lateral
29	M85	TWR_DIAG_T4	15.881	15.02	7.51	7.51	7.51	7.51	1.02	1		Lateral
30	M88	TWR_DIAG_T4	15.881	15.02	7.51	7.51	7.51	7.51	1.02	1		Lateral
31	M92	TWR_DIAG_T4	15.881	15.02	7.51	7.51	7.51	7.51	1.02	1		Lateral
32	M95	TWR_DIAG_T4	15.881	15.02	7.51	7.51	7.51	7.51	1.02	1		Lateral
33	M108	TWR_DIAG_T5	16.473	15.63	7.815	7.815	7.815	7.815	1.02	1		Lateral
34	M111	TWR_DIAG_T5	16.473	15.63	7.815	7.815	7.815	7.815	1.02	1		Lateral
35	M115	TWR_DIAG_T5	16.473	15.63	7.815	7.815	7.815	7.815	1.02	1		Lateral
36	M118	TWR_DIAG_T5	16.473	15.63	7.815	7.815	7.815	7.815	1.02	1		Lateral
37	M122	TWR_DIAG_T5	16.473	15.63	7.815	7.815	7.815	7.815	1.02	1		Lateral
38	M125	TWR_DIAG_T5	16.473	15.63	7.815	7.815	7.815	7.815	1.02	1		Lateral
39	M129	TWR_DIAG_T5	16.473	15.63	7.815	7.815	7.815	7.815	1.02	1		Lateral
40	M132	TWR_DIAG_T5	16.473	15.63	7.815	7.815	7.815	7.815	1.02	1		Lateral
41	M145	TWR_DIAG_T6	17.096	16.27	8.135	8.135	8.135	8.135	1.02	1		Lateral
42	M148	TWR_DIAG_T6	17.096	16.27	8.135	8.135	8.135	8.135	1.02	1		Lateral
43	M152	TWR_DIAG_T6	17.096	16.27	8.135	8.135	8.135	8.135	1.02	1		Lateral
44	M155	TWR_DIAG_T6	17.096	16.27	8.135	8.135	8.135	8.135	1.02	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
45	M159	TWR_DIAG_T6	17.096	16.27	8.135	8.135	8.135	8.135	1.02	1		Lateral
46	M162	TWR_DIAG_T6	17.096	16.27	8.135	8.135	8.135	8.135	1.02	1		Lateral
47	M166	TWR_DIAG_T6	17.096	16.27	8.135	8.135	8.135	8.135	1.02	1		Lateral
48	M169	TWR_DIAG_T6	17.096	16.27	8.135	8.135	8.135	8.135	1.02	1		Lateral
49	M182	TWR_DIAG_T7	17.747	8.41	8.41	8.41	8.41	8.41	1.02	1		Lateral
50	M185	TWR_DIAG_T7	17.747	8.41	8.41	8.41	8.41	8.41	1.02	1		Lateral
51	M189	TWR_DIAG_T7	17.747	8.41	8.41	8.41	8.41	8.41	1.02	1		Lateral
52	M192	TWR_DIAG_T7	17.747	8.41	8.41	8.41	8.41	8.41	1.02	1		Lateral
53	M196	TWR_DIAG_T7	17.747	8.41	8.41	8.41	8.41	8.41	1.02	1		Lateral
54	M199	TWR_DIAG_T7	17.747	8.41	8.41	8.41	8.41	8.41	1.02	1		Lateral
55	M203	TWR_DIAG_T7	17.747	8.41	8.41	8.41	8.41	8.41	1.02	1		Lateral
56	M206	TWR_DIAG_T7	17.747	8.41	8.41	8.41	8.41	8.41	1.02	1		Lateral
57	M219	TWR_DIAG_T8	18.422	8.755	8.755	8.755	8.755	8.755	1.02	1		Lateral
58	M222	TWR_DIAG_T8	18.422	8.755	8.755	8.755	8.755	8.755	1.02	1		Lateral
59	M226	TWR_DIAG_T8	18.422	8.755	8.755	8.755	8.755	8.755	1.02	1		Lateral
60	M229	TWR_DIAG_T8	18.422	8.755	8.755	8.755	8.755	8.755	1.02	1		Lateral
61	M233	TWR_DIAG_T8	18.422	8.755	8.755	8.755	8.755	8.755	1.02	1		Lateral
62	M236	TWR_DIAG_T8	18.422	8.755	8.755	8.755	8.755	8.755	1.02	1		Lateral
63	M240	TWR_DIAG_T8	18.422	8.755	8.755	8.755	8.755	8.755	1.02	1		Lateral
64	M243	TWR_DIAG_T8	18.422	8.755	8.755	8.755	8.755	8.755	1.02	1		Lateral
65	M256	TWR_DIAG_T9	29.409	19.606	9.803	9.803	9.803	9.803	1.01	1.01		Lateral
66	M261	TWR_DIAG_T9	29.409	19.606	9.803	9.803	9.803	9.803	1.01	1.01		Lateral
67	M268	TWR_DIAG_T9	29.409	19.606	9.803	9.803	9.803	9.803	1.01	1.01		Lateral
68	M273	TWR_DIAG_T9	29.409	19.606	9.803	9.803	9.803	9.803	1.01	1.01		Lateral
69	M281	TWR_DIAG_T9	29.409	19.606	9.803	9.803	9.803	9.803	1.01	1.01		Lateral
70	M286	TWR_DIAG_T9	29.409	19.606	9.803	9.803	9.803	9.803	1.01	1.01		Lateral
71	M294	TWR_DIAG_T9	29.409	19.606	9.803	9.803	9.803	9.803	1.01	1.01		Lateral
72	M299	TWR_DIAG_T9	29.409	19.606	9.803	9.803	9.803	9.803	1.01	1.01		Lateral
73	M524	TWR_DIAG_T13	19.782	18.762	9.381	9.381	9.381	9.381	1	1		Lateral
74	M529	TWR_DIAG_T13	19.782	18.762	9.381	9.381	9.381	9.381	1	1		Lateral
75	M538	TWR_DIAG_T13	19.782	18.762	9.381	9.381	9.381	9.381	1	1		Lateral
76	M543	TWR_DIAG_T13	19.782	18.762	9.381	9.381	9.381	9.381	1	1		Lateral
77	M555	TWR_DIAG_T13	19.782	18.762	9.381	9.381	9.381	9.381	1	1		Lateral
78	M560	TWR_DIAG_T13	19.782	18.762	9.381	9.381	9.381	9.381	1	1		Lateral
79	M572	TWR_DIAG_T13	19.782	18.762	9.381	9.381	9.381	9.381	1	1		Lateral
80	M577	TWR_DIAG_T13	19.782	18.762	9.381	9.381	9.381	9.381	1	1		Lateral
81	M933	TWR_DIAG_T18	23.884	22.86	11.43	11.43	11.43	11.43	1.04	1		Lateral
82	M938	TWR_DIAG_T18	23.884	22.86	11.43	11.43	11.43	11.43	1.04	1		Lateral
83	M949	TWR_DIAG_T18	23.884	22.86	11.43	11.43	11.43	11.43	1.04	1		Lateral
84	M954	TWR_DIAG_T18	23.884	22.86	11.43	11.43	11.43	11.43	1.04	1		Lateral
85	M968	TWR_DIAG_T18	23.884	22.86	11.43	11.43	11.43	11.43	1.04	1		Lateral
86	M973	TWR_DIAG_T18	23.884	22.86	11.43	11.43	11.43	11.43	1.04	1		Lateral
87	M987	TWR_DIAG_T18	23.884	22.86	11.43	11.43	11.43	11.43	1.04	1		Lateral
88	M992	TWR_DIAG_T18	23.884	22.86	11.43	11.43	11.43	11.43	1.04	1		Lateral
89	M25	TWR_HORZ_T2	13.875	13.38	6.69	6.69	6.69	6.69	1	1		Lateral
90	M26	TWR_HORZ_T2	13.875	13.38	6.69	6.69	6.69	6.69	1	1		Lateral
91	M27	TWR_HORZ_T2	13.875	13.38	6.69	6.69	6.69	6.69	1	1		Lateral
92	M28	TWR_HORZ_T2	13.875	13.38	6.69	6.69	6.69	6.69	1	1		Lateral
93	M45	TWR_HORZ_T3	15.75	7.3	7.3	7.3	7.3	7.3	1.09	1		Lateral
94	M46	TWR_HORZ_T3	15.75	7.3	7.3	7.3	7.3	7.3	1.09	1		Lateral
95	M47	TWR_HORZ_T3	15.75	7.3	7.3	7.3	7.3	7.3	1.09	1		Lateral
96	M48	TWR_HORZ_T3	15.75	7.3	7.3	7.3	7.3	7.3	1.09	1		Lateral
97	M70	TWR_HORZ_T4	17.625	8.24	8.24	8.24	8.24	8.24	1.13	1		Lateral
98	M77	TWR_HORZ_T4	17.625	8.24	8.24	8.24	8.24	8.24	1.13	1		Lateral
99	M84	TWR_HORZ_T4	17.625	8.24	8.24	8.24	8.24	8.24	1.13	1		Lateral
100	M91	TWR_HORZ_T4	17.625	8.24	8.24	8.24	8.24	8.24	1.13	1		Lateral
101	M107	TWR_HORZ_T5	19.5	9.18	9.18	9.18	9.18	9.18	1.06	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
102	M114	TWR_HORZ_T5	19.5	9.18	9.18	9.18	9.18	9.18	1.06	1		Lateral
103	M121	TWR_HORZ_T5	19.5	9.18	9.18	9.18	9.18	9.18	1.06	1		Lateral
104	M128	TWR_HORZ_T5	19.5	9.18	9.18	9.18	9.18	9.18	1.06	1		Lateral
105	M144	TWR_HORZ_T6	21.375	10.11	10.11	10.11	10.11	10.11	1.05	1		Lateral
106	M151	TWR_HORZ_T6	21.375	10.11	10.11	10.11	10.11	10.11	1.05	1		Lateral
107	M158	TWR_HORZ_T6	21.375	10.11	10.11	10.11	10.11	10.11	1.05	1		Lateral
108	M165	TWR_HORZ_T6	21.375	10.11	10.11	10.11	10.11	10.11	1.05	1		Lateral
109	M181	TWR_HORZ_T7	23.25	11.05	11.05	11.05	11.05	11.05	1.04	1		Lateral
110	M188	TWR_HORZ_T7	23.25	11.05	11.05	11.05	11.05	11.05	1.04	1		Lateral
111	M195	TWR_HORZ_T7	23.25	11.05	11.05	11.05	11.05	11.05	1.04	1		Lateral
112	M202	TWR_HORZ_T7	23.25	11.05	11.05	11.05	11.05	11.05	1.04	1		Lateral
113	M218	TWR_HORZ_T8	25.125	11.91	11.91	11.91	11.91	11.91	1.03	1		Lateral
114	M225	TWR_HORZ_T8	25.125	11.91	11.91	11.91	11.91	11.91	1.03	1		Lateral
115	M232	TWR_HORZ_T8	25.125	11.91	11.91	11.91	11.91	11.91	1.03	1		Lateral
116	M239	TWR_HORZ_T8	25.125	11.91	11.91	11.91	11.91	11.91	1.03	1		Lateral
117	M255	TWR_HORZ_T9	27	12.84	12.84	12.84	12.84	12.84	1.05	1		Lateral
118	M267	TWR_HORZ_T9	27	12.84	12.84	12.84	12.84	12.84	1.05	1		Lateral
119	M280	TWR_HORZ_T9	27	12.84	12.84	12.84	12.84	12.84	1.05	1		Lateral
120	M293	TWR_HORZ_T9	27	12.84	12.84	12.84	12.84	12.84	1.05	1		Lateral
121	M316	TWR_HORZ_T10	30.75	13.375	13.375	13.375	13.375	14.72	1.08	1.08		Lateral
122	M328	TWR_HORZ_T10	30.75	13.375	13.375	13.375	13.375	14.72	1.08	1.08		Lateral
123	M341	TWR_HORZ_T10	30.75	13.375	13.375	13.375	13.375	14.72	1.08	1.08		Lateral
124	M354	TWR_HORZ_T10	30.75	13.375	13.375	13.375	13.375	14.72	1.08	1.08		Lateral
125	M377	TWR_HORZ_T11	34.5	16.59	8.295	8.295	8.295	8.295	1.09	1.09		Lateral
126	M389	TWR_HORZ_T11	34.5	16.59	8.295	8.295	8.295	8.295	1.09	1.09		Lateral
127	M402	TWR_HORZ_T11	34.5	16.59	8.295	8.295	8.295	8.295	1.09	1.09		Lateral
128	M415	TWR_HORZ_T11	34.5	16.59	8.295	8.295	8.295	8.295	1.09	1.09		Lateral
129	M438	TWR_HORZ_T12	38.25	6.375	6.375	6.375	6.375	6.375	1.09	1.09		Lateral
130	M454	TWR_HORZ_T12	38.25	6.375	6.375	6.375	6.375	6.375	1.09	1.09		Lateral
131	M473	TWR_HORZ_T12	38.25	6.375	6.375	6.375	6.375	6.375	1.09	1.09		Lateral
132	M492	TWR_HORZ_T12	38.25	6.375	6.375	6.375	6.375	6.375	1.09	1.09		Lateral
133	M523	TWR_HORZ_T13	42	7	7	7	7	7	1.05	1		Lateral
134	M537	TWR_HORZ_T13	42	7	7	7	7	7	1.05	1		Lateral
135	M554	TWR_HORZ_T13	42	7	7	7	7	7	1.05	1		Lateral
136	M571	TWR_HORZ_T13	42	7	7	7	7	7	1.05	1		Lateral
137	M600	TWR_HORZ_T14	45.75	7.625	7.625	7.625	7.625	15.25	1.08	1.08		Lateral
138	M614	TWR_HORZ_T14	45.75	7.625	7.625	7.625	7.625	15.25	1.08	1.08		Lateral
139	M631	TWR_HORZ_T14	45.75	7.625	7.625	7.625	7.625	15.25	1.08	1.08		Lateral
140	M648	TWR_HORZ_T14	45.75	7.625	7.625	7.625	7.625	15.25	1.08	1.08		Lateral
141	M677	TWR_HORZ_T15	49.5	12.375	12.375	12.375	12.375	12.375	1.028	1.028		Lateral
142	M693	TWR_HORZ_T15	49.5	12.375	12.375	12.375	12.375	12.375	1.028	1.028		Lateral
143	M712	TWR_HORZ_T15	49.5	12.375	12.375	12.375	12.375	12.375	1.028	1.028		Lateral
144	M731	TWR_HORZ_T15	49.5	12.375	12.375	12.375	12.375	12.375	1.028	1.028		Lateral
145	M762	TWR_HORZ_T16	53.25	12.8	12.8	12.8	12.8	12.8	1.013	1.013		Lateral
146	M778	TWR_HORZ_T16	53.25	12.8	12.8	12.8	12.8	12.8	1.013	1.013		Lateral
147	M797	TWR_HORZ_T16	53.25	12.8	12.8	12.8	12.8	12.8	1.013	1.013		Lateral
148	M816	TWR_HORZ_T16	53.25	12.8	12.8	12.8	12.8	12.8	1.013	1.013		Lateral
149	M847	TWR_HORZ_T17	57	14.25	14.25	14.25	14.25	14.25	1.012	1.012		Lateral
150	M863	TWR_HORZ_T17	57	14.25	14.25	14.25	14.25	14.25	1.012	1.012		Lateral
151	M882	TWR_HORZ_T17	57	14.25	14.25	14.25	14.25	14.25	1.012	1.012		Lateral
152	M901	TWR_HORZ_T17	57	14.25	14.25	14.25	14.25	14.25	1.012	1.012		Lateral
153	M932	TWR_HORZ_T18	60.75	14.68	14.68	14.68	14.68	14.68	1.04	1		Lateral
154	M948	TWR_HORZ_T18	60.75	14.68	14.68	14.68	14.68	14.68	1.04	1		Lateral
155	M967	TWR_HORZ_T18	60.75	14.68	14.68	14.68	14.68	14.68	1.04	1		Lateral
156	M986	TWR_HORZ_T18	60.75	14.68	14.68	14.68	14.68	14.68	1.04	1		Lateral
157	M1549	TWR_INNER_BRACE_BOT_...	4.844	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
158	M1550	TWR_INNER_BRACE_BOT_...	4.956	4.86	4.86	4.86	4.86	4.86	1	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
159	M1551	TWR_INNER_BRACE_BOT_...	4.956	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
160	M1552	TWR_INNER_BRACE_BOT_...	4.844	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
161	M1553	TWR_INNER_BRACE_BOT_...	4.844	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
162	M1554	TWR_INNER_BRACE_BOT_...	4.956	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
163	M1555	TWR_INNER_BRACE_BOT_...	4.956	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
164	M1556	TWR_INNER_BRACE_BOT_...	4.844	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
165	M1557	TWR_INNER_BRACE_BOT_...	4.844	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
166	M1558	TWR_INNER_BRACE_BOT_...	4.956	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
167	M1559	TWR_INNER_BRACE_BOT_...	4.956	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
168	M1560	TWR_INNER_BRACE_BOT_...	4.844	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
169	M1561	TWR_INNER_BRACE_BOT_...	4.844	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
170	M1562	TWR_INNER_BRACE_BOT_...	4.956	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
171	M1563	TWR_INNER_BRACE_BOT_...	4.956	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
172	M1564	TWR_INNER_BRACE_BOT_...	4.844	4.86	4.86	4.86	4.86	4.86	1	1		Lateral
173	M1565	TWR_INNER_BRACE_BOT_...	7.662	7.6	7.6	7.6	7.6	7.6	1	1		Lateral
174	M1566	TWR_INNER_BRACE_BOT_...	7.662	7.6	7.6	7.6	7.6	7.6	1	1		Lateral
175	M1567	TWR_INNER_BRACE_BOT_...	7.662	7.6	7.6	7.6	7.6	7.6	1	1		Lateral
176	M1568	TWR_INNER_BRACE_BOT_...	7.662	7.6	7.6	7.6	7.6	7.6	1	1		Lateral
177	M1569	TWR_INNER_BRACE_BOT_...	7.662	7.6	7.6	7.6	7.6	7.6	1	1		Lateral
178	M1570	TWR_INNER_BRACE_BOT_...	7.662	7.6	7.6	7.6	7.6	7.6	1	1		Lateral
179	M1571	TWR_INNER_BRACE_BOT_...	7.662	7.6	7.6	7.6	7.6	7.6	1	1		Lateral
180	M1572	TWR_INNER_BRACE_BOT_...	7.662	7.6	7.6	7.6	7.6	7.6	1	1		Lateral
181	M1037	TWR_INNER_BRACE_BOT_...	8.704	8.704	8.704	8.704	8.704	8.704	1	1		Lateral
182	M1038	TWR_INNER_BRACE_BOT_...	10.225	10.225	10.225	10.225	10.225	10.225	1	1		Lateral
183	M1039	TWR_INNER_BRACE_BOT_...	9.388	9.388	9.388	9.388	9.388	9.388	1	1		Lateral
184	M1040	TWR_INNER_BRACE_BOT_...	9.388	9.388	9.388	9.388	9.388	9.388	1	1		Lateral
185	M1041	TWR_INNER_BRACE_BOT_...	10.225	10.225	10.225	10.225	10.225	10.225	1	1		Lateral
186	M1042	TWR_INNER_BRACE_BOT_...	8.704	8.704	8.704	8.704	8.704	8.704	1	1		Lateral
187	M1043	TWR_INNER_BRACE_BOT_...	8.704	8.704	8.704	8.704	8.704	8.704	1	1		Lateral
188	M1044	TWR_INNER_BRACE_BOT_...	10.225	10.225	10.225	10.225	10.225	10.225	1	1		Lateral
189	M1045	TWR_INNER_BRACE_BOT_...	9.388	9.388	9.388	9.388	9.388	9.388	1	1		Lateral
190	M1046	TWR_INNER_BRACE_BOT_...	9.388	9.388	9.388	9.388	9.388	9.388	1	1		Lateral
191	M1047	TWR_INNER_BRACE_BOT_...	10.225	10.225	10.225	10.225	10.225	10.225	1	1		Lateral
192	M1048	TWR_INNER_BRACE_BOT_...	8.704	8.704	8.704	8.704	8.704	8.704	1	1		Lateral
193	M1049	TWR_INNER_BRACE_BOT_...	8.704	8.704	8.704	8.704	8.704	8.704	1	1		Lateral
194	M1050	TWR_INNER_BRACE_BOT_...	10.225	10.225	10.225	10.225	10.225	10.225	1	1		Lateral
195	M1051	TWR_INNER_BRACE_BOT_...	9.388	9.388	9.388	9.388	9.388	9.388	1	1		Lateral
196	M1052	TWR_INNER_BRACE_BOT_...	9.388	9.388	9.388	9.388	9.388	9.388	1	1		Lateral
197	M1053	TWR_INNER_BRACE_BOT_...	10.225	10.225	10.225	10.225	10.225	10.225	1	1		Lateral
198	M1054	TWR_INNER_BRACE_BOT_...	8.704	8.704	8.704	8.704	8.704	8.704	1	1		Lateral
199	M1055	TWR_INNER_BRACE_BOT_...	8.704	8.704	8.704	8.704	8.704	8.704	1	1		Lateral
200	M1056	TWR_INNER_BRACE_BOT_...	10.225	10.225	10.225	10.225	10.225	10.225	1	1		Lateral
201	M1057	TWR_INNER_BRACE_BOT_...	9.388	9.388	9.388	9.388	9.388	9.388	1	1		Lateral
202	M1058	TWR_INNER_BRACE_BOT_...	9.388	9.388	9.388	9.388	9.388	9.388	1	1		Lateral
203	M1059	TWR_INNER_BRACE_BOT_...	10.225	10.225	10.225	10.225	10.225	10.225	1	1		Lateral
204	M1060	TWR_INNER_BRACE_BOT_...	8.704	8.704	8.704	8.704	8.704	8.704	1	1		Lateral
205	M1630	TWR_INNER_BRACE_T9	6.75	6.75	6.75	6.75	6.75	6.75	1.06	1.06		Lateral
206	M1631	TWR_INNER_BRACE_T9	6.75	6.75	6.75	6.75	6.75	6.75	1.06	1.06		Lateral
207	M1610	TWR_INNER_BRACE_T10	7.688	7.688	7.688	7.688	7.688	7.688	1.02	1.02		Lateral
208	M1612	TWR_INNER_BRACE_T10	7.688	7.688	7.688	7.688	7.688	7.688	1.02	1.02		Lateral
209	M1589	TWR_INNER_BRACE_T11	8.625	8.625	8.625	8.625	8.625	8.625	.99	.99		Lateral
210	M1591	TWR_INNER_BRACE_T11	8.625	8.625	8.625	8.625	8.625	8.625	.99	.99		Lateral
211	M1533	TWR_INNER_BRACE_T12	9.016	9.016	9.016	9.016	9.016	9.016	1	1		Lateral
212	M1534	TWR_INNER_BRACE_T12	9.016	9.016	9.016	9.016	9.016	9.016	1	1		Lateral
213	M1535	TWR_INNER_BRACE_T12	9.016	9.016	9.016	9.016	9.016	9.016	1	1		Lateral
214	M1536	TWR_INNER_BRACE_T12	9.016	9.016	9.016	9.016	9.016	9.016	1	1		Lateral
215	M1537	TWR_INNER_BRACE_T12	9.016	9.016	9.016	9.016	9.016	9.016	1	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
216	M1538	TWR_INNER_BRACE_T12	9.016	9.016	9.016	9.016	9.016	9.016	1	1		Lateral
217	M1539	TWR_INNER_BRACE_T12	9.016	9.016	9.016	9.016	9.016	9.016	1	1		Lateral
218	M1540	TWR_INNER_BRACE_T12	9.016	9.016	9.016	9.016	9.016	9.016	1	1		Lateral
219	M1493	TWR_INNER_BRACE_T13	9.899	9.899	9.899	9.899	9.899	9.899	1.04	1.04		Lateral
220	M1494	TWR_INNER_BRACE_T13	9.899	9.899	9.899	9.899	9.899	9.899	1.04	1.04		Lateral
221	M1495	TWR_INNER_BRACE_T13	9.899	9.899	9.899	9.899	9.899	9.899	1.04	1.04		Lateral
222	M1496	TWR_INNER_BRACE_T13	9.899	9.899	9.899	9.899	9.899	9.899	1.04	1.04		Lateral
223	M1497	TWR_INNER_BRACE_T13	9.899	9.899	9.899	9.899	9.899	9.899	1.04	1.04		Lateral
224	M1498	TWR_INNER_BRACE_T13	9.899	9.899	9.899	9.899	9.899	9.899	1.04	1.04		Lateral
225	M1499	TWR_INNER_BRACE_T13	9.899	9.899	9.899	9.899	9.899	9.899	1.04	1.04		Lateral
226	M1500	TWR_INNER_BRACE_T13	9.899	9.899	9.899	9.899	9.899	9.899	1.04	1.04		Lateral
227	M1453	TWR_INNER_BRACE_T14	10.783	10.783	10.783	10.783	10.783	10.783	1.01	1.01		Lateral
228	M1454	TWR_INNER_BRACE_T14	10.783	10.783	10.783	10.783	10.783	10.783	1.01	1.01		Lateral
229	M1455	TWR_INNER_BRACE_T14	10.783	10.783	10.783	10.783	10.783	10.783	1.01	1.01		Lateral
230	M1456	TWR_INNER_BRACE_T14	10.783	10.783	10.783	10.783	10.783	10.783	1.01	1.01		Lateral
231	M1457	TWR_INNER_BRACE_T14	10.783	10.783	10.783	10.783	10.783	10.783	1.01	1.01		Lateral
232	M1458	TWR_INNER_BRACE_T14	10.783	10.783	10.783	10.783	10.783	10.783	1.01	1.01		Lateral
233	M1459	TWR_INNER_BRACE_T14	10.783	10.783	10.783	10.783	10.783	10.783	1.01	1.01		Lateral
234	M1460	TWR_INNER_BRACE_T14	10.783	10.783	10.783	10.783	10.783	10.783	1.01	1.01		Lateral
235	M1126	TWR_INNER_BRACE_T18	7.594	7.594	7.594	7.594	7.594	7.594	1.07	1		Lateral
236	M1128	TWR_INNER_BRACE_T18	7.594	7.594	7.594	7.594	7.594	7.594	1.07	1		Lateral
237	M1061	TWR_INNER_CORNER_BO...	7.906	7.906	7.906	7.906	7.906	7.906	1.005	1.005		Lateral
238	M1062	TWR_INNER_CORNER_BO...	7.906	7.906	7.906	7.906	7.906	7.906	1.005	1.005		Lateral
239	M1063	TWR_INNER_CORNER_BO...	7.906	7.906	7.906	7.906	7.906	7.906	1.005	1.005		Lateral
240	M1064	TWR_INNER_CORNER_BO...	7.906	7.906	7.906	7.906	7.906	7.906	1.005	1.005		Lateral
241	M1065	TWR_INNER_CORNER_BO...	7.906	7.906	7.906	7.906	7.906	7.906	1.005	1.005		Lateral
242	M1066	TWR_INNER_CORNER_BO...	7.906	7.906	7.906	7.906	7.906	7.906	1.005	1.005		Lateral
243	M1067	TWR_INNER_CORNER_BO...	7.906	7.906	7.906	7.906	7.906	7.906	1.005	1.005		Lateral
244	M1068	TWR_INNER_CORNER_BO...	7.906	7.906	7.906	7.906	7.906	7.906	1.005	1.005		Lateral
245	M1069	TWR_INNER_CORNER_BO...	11.181	11.181	11.181	11.181	11.181	11.181	1	1		Lateral
246	M1070	TWR_INNER_CORNER_BO...	11.181	11.181	11.181	11.181	11.181	11.181	1	1		Lateral
247	M1071	TWR_INNER_CORNER_BO...	11.181	11.181	11.181	11.181	11.181	11.181	1	1		Lateral
248	M1072	TWR_INNER_CORNER_BO...	11.181	11.181	11.181	11.181	11.181	11.181	1	1		Lateral
249	M1677	TWR_INNER_CORNER_T3	5.568			Lbyy			1.13	1.13		Lateral
250	M1678	TWR_INNER_CORNER_T3	5.568			Lbyy			1.13	1.13		Lateral
251	M1679	TWR_INNER_CORNER_T3	5.568			Lbyy			1.13	1.13		Lateral
252	M1680	TWR_INNER_CORNER_T3	5.568			Lbyy			1.13	1.13		Lateral
253	M1669	TWR_INNER_CORNER_T4	6.231			Lbyy			1.09	1.09		Lateral
254	M1670	TWR_INNER_CORNER_T4	6.231			Lbyy			1.09	1.09		Lateral
255	M1671	TWR_INNER_CORNER_T4	6.231			Lbyy			1.09	1.09		Lateral
256	M1672	TWR_INNER_CORNER_T4	6.231			Lbyy			1.09	1.09		Lateral
257	M1661	TWR_INNER_CORNER_T5	6.894			Lbyy			1.05	1.05		Lateral
258	M1662	TWR_INNER_CORNER_T5	6.894			Lbyy			1.05	1.05		Lateral
259	M1663	TWR_INNER_CORNER_T5	6.894			Lbyy			1.05	1.05		Lateral
260	M1664	TWR_INNER_CORNER_T5	6.894			Lbyy			1.05	1.05		Lateral
261	M1653	TWR_INNER_CORNER_T6	7.557			Lbyy			1.02	1.02		Lateral
262	M1654	TWR_INNER_CORNER_T6	7.557			Lbyy			1.02	1.02		Lateral
263	M1655	TWR_INNER_CORNER_T6	7.557			Lbyy			1.02	1.02		Lateral
264	M1656	TWR_INNER_CORNER_T6	7.557			Lbyy			1.02	1.02		Lateral
265	M1645	TWR_INNER_CORNER_T7	8.22			Lbyy			1	1		Lateral
266	M1646	TWR_INNER_CORNER_T7	8.22			Lbyy			1	1		Lateral
267	M1647	TWR_INNER_CORNER_T7	8.22			Lbyy			1	1		Lateral
268	M1648	TWR_INNER_CORNER_T7	8.22			Lbyy			1	1		Lateral
269	M1637	TWR_INNER_CORNER_T8	8.883			Lbyy			.98	.98		Lateral
270	M1638	TWR_INNER_CORNER_T8	8.883			Lbyy			.98	.98		Lateral
271	M1639	TWR_INNER_CORNER_T8	8.883			Lbyy			.98	.98		Lateral
272	M1640	TWR_INNER_CORNER_T8	8.883			Lbyy			.98	.98		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
273	M1625	TWR_INNER_CORNER_T9	9.546			Lbyy			.97	.97		Lateral
274	M1626	TWR_INNER_CORNER_T9	9.546			Lbyy			.97	.97		Lateral
275	M1627	TWR_INNER_CORNER_T9	9.546			Lbyy			.97	.97		Lateral
276	M1628	TWR_INNER_CORNER_T9	9.546			Lbyy			.97	.97		Lateral
277	M1605	TWR_INNER_CORNER_T10	10.872			Lbyy			.94	.94		Lateral
278	M1606	TWR_INNER_CORNER_T10	10.872			Lbyy			.94	.94		Lateral
279	M1607	TWR_INNER_CORNER_T10	10.872			Lbyy			.94	.94		Lateral
280	M1608	TWR_INNER_CORNER_T10	10.872			Lbyy			.94	.94		Lateral
281	M1585	TWR_INNER_CORNER_T11	12.198			Lbyy			.92	.92		Lateral
282	M1586	TWR_INNER_CORNER_T11	12.198			Lbyy			.92	.92		Lateral
283	M1587	TWR_INNER_CORNER_T11	12.198			Lbyy			.92	.92		Lateral
284	M1588	TWR_INNER_CORNER_T11	12.198			Lbyy			.92	.92		Lateral
285	M1541	TWR_INNER_CORNER_T12	9.016			Lbyy			1.03	1.03		Lateral
286	M1542	TWR_INNER_CORNER_T12	9.016			Lbyy			1.03	1.03		Lateral
287	M1543	TWR_INNER_CORNER_T12	9.016			Lbyy			1.03	1.03		Lateral
288	M1544	TWR_INNER_CORNER_T12	9.016			Lbyy			1.03	1.03		Lateral
289	M1501	TWR_INNER_CORNER_T13	9.899			Lbyy			1	1		Lateral
290	M1504	TWR_INNER_CORNER_T13	9.899			Lbyy			1	1		Lateral
291	M1506	TWR_INNER_CORNER_T13	9.899			Lbyy			1	1		Lateral
292	M1507	TWR_INNER_CORNER_T13	9.899			Lbyy			1	1		Lateral
293	M1461	TWR_INNER_CORNER_T14	10.783			Lbyy			.98	.98		Lateral
294	M1463	TWR_INNER_CORNER_T14	10.783			Lbyy			.98	.98		Lateral
295	M1466	TWR_INNER_CORNER_T14	10.783			Lbyy			.98	.98		Lateral
296	M1468	TWR_INNER_CORNER_T14	10.783			Lbyy			.98	.98		Lateral
297	M1381	TWR_INNER_CORNER_T15	12.375	6.188	12.375	6.188	6.188	6.188	1.09	1.09		Lateral
298	M1382	TWR_INNER_CORNER_T15	12.375	6.188	12.375	6.188	6.188	6.188	1.09	1.09		Lateral
299	M1383	TWR_INNER_CORNER_T15	12.375	6.188	12.375	6.188	6.188	6.188	1.09	1.09		Lateral
300	M1384	TWR_INNER_CORNER_T15	12.375	6.188	12.375	6.188	6.188	6.188	1.09	1.09		Lateral
301	M1385	TWR_INNER_CORNER_T15	12.375	6.188	12.375	6.188	6.188	6.188	1.09	1.09		Lateral
302	M1386	TWR_INNER_CORNER_T15	12.375	6.188	12.375	6.188	6.188	6.188	1.09	1.09		Lateral
303	M1387	TWR_INNER_CORNER_T15	12.375	6.188	12.375	6.188	6.188	6.188	1.09	1.09		Lateral
304	M1388	TWR_INNER_CORNER_T15	12.375	6.188	12.375	6.188	6.188	6.188	1.09	1.09		Lateral
305	M1389	TWR_INNER_CORNER_T15	17.501	17.501	8.751	8.751	8.751	8.751	.98	.98		Lateral
306	M1390	TWR_INNER_CORNER_T15	17.501	17.501	8.751	8.751	8.751	8.751	.98	.98		Lateral
307	M1391	TWR_INNER_CORNER_T15	17.501	17.501	8.751	8.751	8.751	8.751	.98	.98		Lateral
308	M1392	TWR_INNER_CORNER_T15	17.501	17.501	8.751	8.751	8.751	8.751	.98	.98		Lateral
309	M1317	TWR_INNER_CORNER_T16	13.313	6.657	13.313	6.657	6.657	6.657	1.06	1.06		Lateral
310	M1318	TWR_INNER_CORNER_T16	13.313	6.657	13.313	6.657	6.657	6.657	1.06	1.06		Lateral
311	M1319	TWR_INNER_CORNER_T16	13.313	6.657	13.313	6.657	6.657	6.657	1.06	1.06		Lateral
312	M1320	TWR_INNER_CORNER_T16	13.313	6.657	13.313	6.657	6.657	6.657	1.06	1.06		Lateral
313	M1321	TWR_INNER_CORNER_T16	13.313	6.657	13.313	6.657	6.657	6.657	1.06	1.06		Lateral
314	M1322	TWR_INNER_CORNER_T16	13.313	6.657	13.313	6.657	6.657	6.657	1.06	1.06		Lateral
315	M1323	TWR_INNER_CORNER_T16	13.313	6.657	13.313	6.657	6.657	6.657	1.06	1.06		Lateral
316	M1324	TWR_INNER_CORNER_T16	13.313	6.657	13.313	6.657	6.657	6.657	1.06	1.06		Lateral
317	M1325	TWR_INNER_CORNER_T16	18.827	18.827	9.414	9.414	9.414	9.414	.97	.97		Lateral
318	M1326	TWR_INNER_CORNER_T16	18.827	18.827	9.414	9.414	9.414	9.414	.97	.97		Lateral
319	M1327	TWR_INNER_CORNER_T16	18.827	18.827	9.414	9.414	9.414	9.414	.97	.97		Lateral
320	M1328	TWR_INNER_CORNER_T16	18.827	18.827	9.414	9.414	9.414	9.414	.97	.97		Lateral
321	M1253	TWR_INNER_CORNER_T17	14.25	7.125	14.25	7.125	7.125	7.125	1.04	1.04		Lateral
322	M1254	TWR_INNER_CORNER_T17	14.25	7.125	14.25	7.125	7.125	7.125	1.04	1.04		Lateral
323	M1255	TWR_INNER_CORNER_T17	14.25	7.125	14.25	7.125	7.125	7.125	1.04	1.04		Lateral
324	M1256	TWR_INNER_CORNER_T17	14.25	7.125	14.25	7.125	7.125	7.125	1.04	1.04		Lateral
325	M1257	TWR_INNER_CORNER_T17	14.25	7.125	14.25	7.125	7.125	7.125	1.04	1.04		Lateral
326	M1258	TWR_INNER_CORNER_T17	14.25	7.125	14.25	7.125	7.125	7.125	1.04	1.04		Lateral
327	M1259	TWR_INNER_CORNER_T17	14.25	7.125	14.25	7.125	7.125	7.125	1.04	1.04		Lateral
328	M1260	TWR_INNER_CORNER_T17	14.25	7.125	14.25	7.125	7.125	7.125	1.04	1.04		Lateral
329	M1261	TWR_INNER_CORNER_T17	20.153	20.153	10.076	10.076	10.076	10.076	.95	.95		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
330	M1262	TWR_INNER_CORNER_T17	20.153	20.153	10.076	10.076	10.076	10.076	.95	.95		Lateral
331	M1263	TWR_INNER_CORNER_T17	20.153	20.153	10.076	10.076	10.076	10.076	.95	.95		Lateral
332	M1264	TWR_INNER_CORNER_T17	20.153	20.153	10.076	10.076	10.076	10.076	.95	.95		Lateral
333	M1081	TWR_INNER_CORNER_T18	15.188	7.594	15.188	7.594	7.594	7.594	1.08	1.08		Lateral
334	M1082	TWR_INNER_CORNER_T18	15.188	7.594	15.188	7.594	7.594	7.594	1.08	1.08		Lateral
335	M1083	TWR_INNER_CORNER_T18	15.188	7.594	15.188	7.594	7.594	7.594	1.08	1.08		Lateral
336	M1084	TWR_INNER_CORNER_T18	15.188	7.594	15.188	7.594	7.594	7.594	1.08	1.08		Lateral
337	M1085	TWR_INNER_CORNER_T18	15.188	7.594	15.188	7.594	7.594	7.594	1.08	1.08		Lateral
338	M1086	TWR_INNER_CORNER_T18	15.188	7.594	15.188	7.594	7.594	7.594	1.08	1.08		Lateral
339	M1087	TWR_INNER_CORNER_T18	15.188	7.594	15.188	7.594	7.594	7.594	1.08	1.08		Lateral
340	M1088	TWR_INNER_CORNER_T18	15.188	7.594	15.188	7.594	7.594	7.594	1.08	1.08		Lateral
341	M1089	TWR_INNER_CORNER_T18	21.478	21.478	10.739	10.739	10.739	10.739	1.03	1		Lateral
342	M1090	TWR_INNER_CORNER_T18	21.478	21.478	10.739	10.739	10.739	10.739	1.03	1		Lateral
343	M1091	TWR_INNER_CORNER_T18	21.478	21.478	10.739	10.739	10.739	10.739	1.03	1		Lateral
344	M1092	TWR_INNER_CORNER_T18	21.478	21.478	10.739	10.739	10.739	10.739	1.03	1		Lateral
345	M1413	TWR_INNER_GIRT_2_T15	12.375	12.375	12.375	12.375	12.375	12.375	1.09	1		Lateral
346	M1414	TWR_INNER_GIRT_2_T15	12.375	12.375	12.375	12.375	12.375	12.375	1.09	1		Lateral
347	M1415	TWR_INNER_GIRT_2_T15	12.375	12.375	12.375	12.375	12.375	12.375	1.09	1		Lateral
348	M1416	TWR_INNER_GIRT_2_T15	12.375	12.375	12.375	12.375	12.375	12.375	1.09	1		Lateral
349	M1349	TWR_INNER_GIRT_2_T16	13.313	13.313	13.313	13.313	13.313	13.313	1.08	1		Lateral
350	M1350	TWR_INNER_GIRT_2_T16	13.313	13.313	13.313	13.313	13.313	13.313	1.08	1		Lateral
351	M1351	TWR_INNER_GIRT_2_T16	13.313	13.313	13.313	13.313	13.313	13.313	1.08	1		Lateral
352	M1352	TWR_INNER_GIRT_2_T16	13.313	13.313	13.313	13.313	13.313	13.313	1.08	1		Lateral
353	M1285	TWR_INNER_GIRT_2_T17	14.25	14.25	14.25	14.25	14.25	14.25	1.07	1		Lateral
354	M1286	TWR_INNER_GIRT_2_T17	14.25	14.25	14.25	14.25	14.25	14.25	1.07	1		Lateral
355	M1287	TWR_INNER_GIRT_2_T17	14.25	14.25	14.25	14.25	14.25	14.25	1.07	1		Lateral
356	M1288	TWR_INNER_GIRT_2_T17	14.25	14.25	14.25	14.25	14.25	14.25	1.07	1		Lateral
357	M1121	TWR_INNER_GIRT_2_T18	15.188	15.188	7.594	7.594	7.594	7.594	1.06	1		Lateral
358	M1122	TWR_INNER_GIRT_2_T18	15.188	15.188	7.594	7.594	7.594	7.594	1.06	1		Lateral
359	M1123	TWR_INNER_GIRT_2_T18	15.188	15.188	7.594	7.594	7.594	7.594	1.06	1		Lateral
360	M1124	TWR_INNER_GIRT_2_T18	15.188	15.188	7.594	7.594	7.594	7.594	1.06	1		Lateral
361	M1405	TWR_INNER_GIRT_T15	8.75	8.75	8.75	8.75	8.75	8.75	1.05	1		Lateral
362	M1406	TWR_INNER_GIRT_T15	8.75	8.75	8.75	8.75	8.75	8.75	1.05	1		Lateral
363	M1407	TWR_INNER_GIRT_T15	8.75	8.75	8.75	8.75	8.75	8.75	1.05	1		Lateral
364	M1408	TWR_INNER_GIRT_T15	8.75	8.75	8.75	8.75	8.75	8.75	1.05	1		Lateral
365	M1409	TWR_INNER_GIRT_T15	8.75	8.75	8.75	8.75	8.75	8.75	1.05	1		Lateral
366	M1410	TWR_INNER_GIRT_T15	8.75	8.75	8.75	8.75	8.75	8.75	1.05	1		Lateral
367	M1411	TWR_INNER_GIRT_T15	8.75	8.75	8.75	8.75	8.75	8.75	1.05	1		Lateral
368	M1412	TWR_INNER_GIRT_T15	8.75	8.75	8.75	8.75	8.75	8.75	1.05	1		Lateral
369	M1341	TWR_INNER_GIRT_T16	9.413	9.413	9.413	9.413	9.413	9.413	1.05	1		Lateral
370	M1342	TWR_INNER_GIRT_T16	9.413	9.413	9.413	9.413	9.413	9.413	1.05	1		Lateral
371	M1343	TWR_INNER_GIRT_T16	9.413	9.413	9.413	9.413	9.413	9.413	1.05	1		Lateral
372	M1344	TWR_INNER_GIRT_T16	9.413	9.413	9.413	9.413	9.413	9.413	1.05	1		Lateral
373	M1345	TWR_INNER_GIRT_T16	9.413	9.413	9.413	9.413	9.413	9.413	1.05	1		Lateral
374	M1346	TWR_INNER_GIRT_T16	9.413	9.413	9.413	9.413	9.413	9.413	1.05	1		Lateral
375	M1347	TWR_INNER_GIRT_T16	9.413	9.413	9.413	9.413	9.413	9.413	1.05	1		Lateral
376	M1348	TWR_INNER_GIRT_T16	9.413	9.413	9.413	9.413	9.413	9.413	1.05	1		Lateral
377	M1277	TWR_INNER_GIRT_T17	10.076	10.076	10.076	10.076	10.076	10.076	1.05	1		Lateral
378	M1278	TWR_INNER_GIRT_T17	10.076	10.076	10.076	10.076	10.076	10.076	1.05	1		Lateral
379	M1279	TWR_INNER_GIRT_T17	10.076	10.076	10.076	10.076	10.076	10.076	1.05	1		Lateral
380	M1280	TWR_INNER_GIRT_T17	10.076	10.076	10.076	10.076	10.076	10.076	1.05	1		Lateral
381	M1281	TWR_INNER_GIRT_T17	10.076	10.076	10.076	10.076	10.076	10.076	1.05	1		Lateral
382	M1282	TWR_INNER_GIRT_T17	10.076	10.076	10.076	10.076	10.076	10.076	1.05	1		Lateral
383	M1283	TWR_INNER_GIRT_T17	10.076	10.076	10.076	10.076	10.076	10.076	1.05	1		Lateral
384	M1284	TWR_INNER_GIRT_T17	10.076	10.076	10.076	10.076	10.076	10.076	1.05	1		Lateral
385	M1113	TWR_INNER_GIRT_T18	10.739	10.739	10.739	10.739	10.739	10.739	1.04	1		Lateral
386	M1114	TWR_INNER_GIRT_T18	10.739	10.739	10.739	10.739	10.739	10.739	1.04	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
387	M1115	TWR_INNER_GIRT_T18	10.739	10.739	10.739	10.739	10.739	10.739	1.04	1		Lateral
388	M1116	TWR_INNER_GIRT_T18	10.739	10.739	10.739	10.739	10.739	10.739	1.04	1		Lateral
389	M1117	TWR_INNER_GIRT_T18	10.739	10.739	10.739	10.739	10.739	10.739	1.04	1		Lateral
390	M1118	TWR_INNER_GIRT_T18	10.739	10.739	10.739	10.739	10.739	10.739	1.04	1		Lateral
391	M1119	TWR_INNER_GIRT_T18	10.739	10.739	10.739	10.739	10.739	10.739	1.04	1		Lateral
392	M1120	TWR_INNER_GIRT_T18	10.739	10.739	10.739	10.739	10.739	10.739	1.04	1		Lateral
393	M1545	TWR_INNER_SQ_BOT_T12	31	31.225	8.925	8.925	8.925	8.925	1.01	1		Lateral
394	M1546	TWR_INNER_SQ_BOT_T12	31	31.225	8.925	8.925	8.925	8.925	1.01	1		Lateral
395	M1547	TWR_INNER_SQ_BOT_T12	31	31.225	8.925	8.925	8.925	8.925	1.01	1		Lateral
396	M1548	TWR_INNER_SQ_BOT_T12	31	31.225	8.925	8.925	8.925	8.925	1.01	1		Lateral
397	M1033	TWR_INNER_SQ_BOT_T18	46.188	46.188	11.547	11.547	11.547	11.547	1.01	1		Lateral
398	M1034	TWR_INNER_SQ_BOT_T18	46.188	46.188	11.547	11.547	11.547	11.547	1.01	1		Lateral
399	M1035	TWR_INNER_SQ_BOT_T18	46.188	46.188	11.547	11.547	11.547	11.547	1.01	1		Lateral
400	M1036	TWR_INNER_SQ_BOT_T18	46.188	46.188	11.547	11.547	11.547	11.547	1.01	1		Lateral
401	M1673	TWR_INNER_SQ_T3	7.875	7.875	7.875	7.875	7.875	7.875	1.07	1.07		Lateral
402	M1674	TWR_INNER_SQ_T3	7.875	7.875	7.875	7.875	7.875	7.875	1.07	1.07		Lateral
403	M1675	TWR_INNER_SQ_T3	7.875	7.875	7.875	7.875	7.875	7.875	1.07	1.07		Lateral
404	M1676	TWR_INNER_SQ_T3	7.875	7.875	7.875	7.875	7.875	7.875	1.07	1.07		Lateral
405	M1665	TWR_INNER_SQ_T4	8.813	8.813	8.813	8.813	8.813	8.813	1.03	1.03		Lateral
406	M1666	TWR_INNER_SQ_T4	8.813	8.813	8.813	8.813	8.813	8.813	1.03	1.03		Lateral
407	M1667	TWR_INNER_SQ_T4	8.813	8.813	8.813	8.813	8.813	8.813	1.03	1.03		Lateral
408	M1668	TWR_INNER_SQ_T4	8.813	8.813	8.813	8.813	8.813	8.813	1.03	1.03		Lateral
409	M1657	TWR_INNER_SQ_T5	9.75	9.75	9.75	9.75	9.75	9.75	1.17	1		Lateral
410	M1658	TWR_INNER_SQ_T5	9.75	9.75	9.75	9.75	9.75	9.75	1.17	1		Lateral
411	M1659	TWR_INNER_SQ_T5	9.75	9.75	9.75	9.75	9.75	9.75	1.17	1		Lateral
412	M1660	TWR_INNER_SQ_T5	9.75	9.75	9.75	9.75	9.75	9.75	1.17	1		Lateral
413	M1649	TWR_INNER_SQ_T6	10.688	10.688	10.688	10.688	10.688	10.688	1.14	1		Lateral
414	M1650	TWR_INNER_SQ_T6	10.688	10.688	10.688	10.688	10.688	10.688	1.14	1		Lateral
415	M1651	TWR_INNER_SQ_T6	10.688	10.688	10.688	10.688	10.688	10.688	1.14	1		Lateral
416	M1652	TWR_INNER_SQ_T6	10.688	10.688	10.688	10.688	10.688	10.688	1.14	1		Lateral
417	M1641	TWR_INNER_SQ_T7	11.625	11.625	11.625	11.625	11.625	11.625	1.12	1		Lateral
418	M1642	TWR_INNER_SQ_T7	11.625	11.625	11.625	11.625	11.625	11.625	1.12	1		Lateral
419	M1643	TWR_INNER_SQ_T7	11.625	11.625	11.625	11.625	11.625	11.625	1.12	1		Lateral
420	M1644	TWR_INNER_SQ_T7	11.625	11.625	11.625	11.625	11.625	11.625	1.12	1		Lateral
421	M1633	TWR_INNER_SQ_T8	12.563	12.563	12.563	12.563	12.563	12.563	1.1	1		Lateral
422	M1634	TWR_INNER_SQ_T8	12.563	12.563	12.563	12.563	12.563	12.563	1.1	1		Lateral
423	M1635	TWR_INNER_SQ_T8	12.563	12.563	12.563	12.563	12.563	12.563	1.1	1		Lateral
424	M1636	TWR_INNER_SQ_T8	12.563	12.563	12.563	12.563	12.563	12.563	1.1	1		Lateral
425	M1621	TWR_INNER_SQ_T9	13.5	13.5	6.75	6.75	6.75	6.75	1.03	1		Lateral
426	M1622	TWR_INNER_SQ_T9	13.5	13.5	6.75	6.75	6.75	6.75	1.03	1		Lateral
427	M1623	TWR_INNER_SQ_T9	13.5	13.5	6.75	6.75	6.75	6.75	1.03	1		Lateral
428	M1624	TWR_INNER_SQ_T9	13.5	13.5	6.75	6.75	6.75	6.75	1.03	1		Lateral
429	M1601	TWR_INNER_SQ_T10	15.375	15.375	7.688	7.688	7.688	7.688	1.02	1		Lateral
430	M1602	TWR_INNER_SQ_T10	15.375	15.375	7.688	7.688	7.688	7.688	1.02	1		Lateral
431	M1603	TWR_INNER_SQ_T10	15.375	15.375	7.688	7.688	7.688	7.688	1.02	1		Lateral
432	M1604	TWR_INNER_SQ_T10	15.375	15.375	7.688	7.688	7.688	7.688	1.02	1		Lateral
433	M1581	TWR_INNER_SQ_T11	17.25	17.25	8.625	8.625	8.625	8.625	1.02	1		Lateral
434	M1582	TWR_INNER_SQ_T11	17.25	17.25	8.625	8.625	8.625	8.625	1.02	1		Lateral
435	M1583	TWR_INNER_SQ_T11	17.25	17.25	8.625	8.625	8.625	8.625	1.02	1		Lateral
436	M1584	TWR_INNER_SQ_T11	17.25	17.25	8.625	8.625	8.625	8.625	1.02	1		Lateral
437	M1529	TWR_INNER_SQ_T12	25.5	25.5	12.75	12.75	12.75	12.75	1.01	1		Lateral
438	M1530	TWR_INNER_SQ_T12	25.5	25.5	12.75	12.75	12.75	12.75	1.01	1		Lateral
439	M1531	TWR_INNER_SQ_T12	25.5	25.5	12.75	12.75	12.75	12.75	1.01	1		Lateral
440	M1532	TWR_INNER_SQ_T12	25.5	25.5	12.75	12.75	12.75	12.75	1.01	1		Lateral
441	M1481	TWR_INNER_SQ_T13	28	14	14	14	14	14	1.02	1		Lateral
442	M1482	TWR_INNER_SQ_T13	28	14	14	14	14	14	1.02	1		Lateral
443	M1483	TWR_INNER_SQ_T13	28	14	14	14	14	14	1.02	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
444	M1484	TWR_INNER_SQ_T13	28	14	14	14	14	14	1.02	1		Lateral
445	M1449	TWR_INNER_SQ_T14	30.5	15.25	15.25	15.25	15.25	15.25	1.01	1		Lateral
446	M1450	TWR_INNER_SQ_T14	30.5	15.25	15.25	15.25	15.25	15.25	1.01	1		Lateral
447	M1451	TWR_INNER_SQ_T14	30.5	15.25	15.25	15.25	15.25	15.25	1.01	1		Lateral
448	M1452	TWR_INNER_SQ_T14	30.5	15.25	15.25	15.25	15.25	15.25	1.01	1		Lateral
449	M49	TWR_INNER_SUPP_T3	11.137	11.137	5.569	5.569	5.569	5.569	1.13	1		Lateral
450	M50	TWR_INNER_SUPP_T3	11.137	11.137	5.569	5.569	5.569	5.569	1.13	1		Lateral
451	M51	TWR_INNER_SUPP_T3	11.137	11.137	5.569	5.569	5.569	5.569	1.13	1		Lateral
452	M52	TWR_INNER_SUPP_T3	11.137	11.137	5.569	5.569	5.569	5.569	1.13	1		Lateral
453	M98	TWR_INNER_SUPP_T4	12.463	12.463	6.231	6.231	6.231	6.231	1.1	1		Lateral
454	M99	TWR_INNER_SUPP_T4	12.463	12.463	6.231	6.231	6.231	6.231	1.1	1		Lateral
455	M100	TWR_INNER_SUPP_T4	12.463	12.463	6.231	6.231	6.231	6.231	1.1	1		Lateral
456	M101	TWR_INNER_SUPP_T4	12.463	12.463	6.231	6.231	6.231	6.231	1.1	1		Lateral
457	M135	TWR_INNER_SUPP_T5	13.789	13.789	6.894	6.894	6.894	6.894	1.02	1		Lateral
458	M136	TWR_INNER_SUPP_T5	13.789	13.789	6.894	6.894	6.894	6.894	1.02	1		Lateral
459	M137	TWR_INNER_SUPP_T5	13.789	13.789	6.894	6.894	6.894	6.894	1.02	1		Lateral
460	M138	TWR_INNER_SUPP_T5	13.789	13.789	6.894	6.894	6.894	6.894	1.02	1		Lateral
461	M172	TWR_INNER_SUPP_T6	15.114	15.114	7.557	7.557	7.557	7.557	1.02	1		Lateral
462	M173	TWR_INNER_SUPP_T6	15.114	15.114	7.557	7.557	7.557	7.557	1.02	1		Lateral
463	M174	TWR_INNER_SUPP_T6	15.114	15.114	7.557	7.557	7.557	7.557	1.02	1		Lateral
464	M175	TWR_INNER_SUPP_T6	15.114	15.114	7.557	7.557	7.557	7.557	1.02	1		Lateral
465	M209	TWR_INNER_SUPP_T7	16.44	16.44	8.22	8.22	8.22	8.22	1.01	1		Lateral
466	M210	TWR_INNER_SUPP_T7	16.44	16.44	8.22	8.22	8.22	8.22	1.01	1		Lateral
467	M211	TWR_INNER_SUPP_T7	16.44	16.44	8.22	8.22	8.22	8.22	1.01	1		Lateral
468	M212	TWR_INNER_SUPP_T7	16.44	16.44	8.22	8.22	8.22	8.22	1.01	1		Lateral
469	M246	TWR_INNER_SUPP_T8	17.766	17.766	8.883	8.883	8.883	8.883	1.01	1		Lateral
470	M247	TWR_INNER_SUPP_T8	17.766	17.766	8.883	8.883	8.883	8.883	1.01	1		Lateral
471	M248	TWR_INNER_SUPP_T8	17.766	17.766	8.883	8.883	8.883	8.883	1.01	1		Lateral
472	M249	TWR_INNER_SUPP_T8	17.766	17.766	8.883	8.883	8.883	8.883	1.01	1		Lateral
473	M307	TWR_INNER_SUPP_T9	19.092	9.546	9.546	9.546	9.546	9.546	1.05	1		Lateral
474	M308	TWR_INNER_SUPP_T9	19.092	9.546	9.546	9.546	9.546	9.546	1.05	1		Lateral
475	M309	TWR_INNER_SUPP_T9	19.092	9.546	9.546	9.546	9.546	9.546	1.05	1		Lateral
476	M310	TWR_INNER_SUPP_T9	19.092	9.546	9.546	9.546	9.546	9.546	1.05	1		Lateral
477	M368	TWR_INNER_SUPP_T10	21.744	10.872	10.872	10.872	10.872	10.872	1.08	1		Lateral
478	M369	TWR_INNER_SUPP_T10	21.744	10.872	10.872	10.872	10.872	10.872	1.08	1		Lateral
479	M370	TWR_INNER_SUPP_T10	21.744	10.872	10.872	10.872	10.872	10.872	1.08	1		Lateral
480	M371	TWR_INNER_SUPP_T10	21.744	10.872	10.872	10.872	10.872	10.872	1.08	1		Lateral
481	M429	TWR_INNER_SUPP_T11	24.395	12.197	12.197	12.197	12.197	12.197	1.06	1		Lateral
482	M430	TWR_INNER_SUPP_T11	24.395	12.197	12.197	12.197	12.197	12.197	1.06	1		Lateral
483	M431	TWR_INNER_SUPP_T11	24.395	12.197	12.197	12.197	12.197	12.197	1.06	1		Lateral
484	M432	TWR_INNER_SUPP_T11	24.395	12.197	12.197	12.197	12.197	12.197	1.06	1		Lateral
485	M514	TWR_INNER_SUPP_T12	18.031	9.015	9.015	9.015	9.015	9.015	.89	.89		Lateral
486	M515	TWR_INNER_SUPP_T12	18.031	9.015	9.015	9.015	9.015	9.015	.89	.89		Lateral
487	M516	TWR_INNER_SUPP_T12	18.031	9.015	9.015	9.015	9.015	9.015	.89	.89		Lateral
488	M517	TWR_INNER_SUPP_T12	18.031	9.015	9.015	9.015	9.015	9.015	.89	.89		Lateral
489	M591	TWR_INNER_SUPP_T13	19.799	9.899	9.899	9.899	9.899	9.899	.9	.9		Lateral
490	M592	TWR_INNER_SUPP_T13	19.799	9.899	9.899	9.899	9.899	9.899	.9	.9		Lateral
491	M593	TWR_INNER_SUPP_T13	19.799	9.899	9.899	9.899	9.899	9.899	.9	.9		Lateral
492	M594	TWR_INNER_SUPP_T13	19.799	9.899	9.899	9.899	9.899	9.899	.9	.9		Lateral
493	M668	TWR_INNER_SUPP_T14	21.567	10.784	10.784	10.784	10.784	10.784	1	1		Lateral
494	M669	TWR_INNER_SUPP_T14	21.567	10.784	10.784	10.784	10.784	10.784	1	1		Lateral
495	M670	TWR_INNER_SUPP_T14	21.567	10.784	10.784	10.784	10.784	10.784	1	1		Lateral
496	M671	TWR_INNER_SUPP_T14	21.567	10.784	10.784	10.784	10.784	10.784	1	1		Lateral
497	M753	TWR_INNER_SUPP_T15	35.002	17.501	8.751	8.751	8.751	8.751	1.05	1		Lateral
498	M754	TWR_INNER_SUPP_T15	35.002	17.501	8.751	8.751	8.751	8.751	1.05	1		Lateral
499	M755	TWR_INNER_SUPP_T15	35.002	17.501	8.751	8.751	8.751	8.751	1.05	1		Lateral
500	M756	TWR_INNER_SUPP_T15	35.002	17.501	8.751	8.751	8.751	8.751	1.05	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
501	M838	TWR_INNER_SUPP_T16	37.653	18.826	9.413	9.413	9.413	9.413	1.04	1		Lateral
502	M839	TWR_INNER_SUPP_T16	37.653	18.826	9.413	9.413	9.413	9.413	1.04	1		Lateral
503	M840	TWR_INNER_SUPP_T16	37.653	18.826	9.413	9.413	9.413	9.413	1.04	1		Lateral
504	M841	TWR_INNER_SUPP_T16	37.653	18.826	9.413	9.413	9.413	9.413	1.04	1		Lateral
505	M923	TWR_INNER_SUPP_T17	40.305	20.152	10.076	10.076	10.076	10.076	1.04	1		Lateral
506	M924	TWR_INNER_SUPP_T17	40.305	20.152	10.076	10.076	10.076	10.076	1.04	1		Lateral
507	M925	TWR_INNER_SUPP_T17	40.305	20.152	10.076	10.076	10.076	10.076	1.04	1		Lateral
508	M926	TWR_INNER_SUPP_T17	40.305	20.152	10.076	10.076	10.076	10.076	1.04	1		Lateral
509	M1008	TWR_INNER_SUPP_T18	42.957	21.479	10.739	10.739	10.739	10.739	1.04	1		Lateral
510	M1009	TWR_INNER_SUPP_T18	42.957	21.479	10.739	10.739	10.739	10.739	1.04	1		Lateral
511	M1010	TWR_INNER_SUPP_T18	42.957	21.479	10.739	10.739	10.739	10.739	1.04	1		Lateral
512	M1011	TWR_INNER_SUPP_T18	42.957	21.479	10.739	10.739	10.739	10.739	1.04	1		Lateral
513	M1393	TWR_INNER_TRI_T15	6.188	6.188	6.188	6.188	6.188	6.188	1	1		Lateral
514	M1394	TWR_INNER_TRI_T15	6.188	6.188	6.188	6.188	6.188	6.188	1	1		Lateral
515	M1395	TWR_INNER_TRI_T15	6.188	6.188	6.188	6.188	6.188	6.188	1	1		Lateral
516	M1396	TWR_INNER_TRI_T15	6.188	6.188	6.188	6.188	6.188	6.188	1	1		Lateral
517	M1397	TWR_INNER_TRI_T15	6.188	6.188	6.188	6.188	6.188	6.188	1	1		Lateral
518	M1398	TWR_INNER_TRI_T15	6.188	6.188	6.188	6.188	6.188	6.188	1	1		Lateral
519	M1399	TWR_INNER_TRI_T15	6.188	6.188	6.188	6.188	6.188	6.188	1	1		Lateral
520	M1400	TWR_INNER_TRI_T15	6.188	6.188	6.188	6.188	6.188	6.188	1	1		Lateral
521	M1401	TWR_INNER_TRI_T15	8.75	8.75	8.75	8.75	8.75	8.75	1	1		Lateral
522	M1402	TWR_INNER_TRI_T15	8.75	8.75	8.75	8.75	8.75	8.75	1	1		Lateral
523	M1403	TWR_INNER_TRI_T15	8.75	8.75	8.75	8.75	8.75	8.75	1	1		Lateral
524	M1404	TWR_INNER_TRI_T15	8.75	8.75	8.75	8.75	8.75	8.75	1	1		Lateral
525	M1329	TWR_INNER_TRI_T16	6.656	6.656	6.656	6.656	6.656	6.656	1	1		Lateral
526	M1330	TWR_INNER_TRI_T16	6.656	6.656	6.656	6.656	6.656	6.656	1	1		Lateral
527	M1331	TWR_INNER_TRI_T16	6.656	6.656	6.656	6.656	6.656	6.656	1	1		Lateral
528	M1332	TWR_INNER_TRI_T16	6.656	6.656	6.656	6.656	6.656	6.656	1	1		Lateral
529	M1333	TWR_INNER_TRI_T16	6.656	6.656	6.656	6.656	6.656	6.656	1	1		Lateral
530	M1334	TWR_INNER_TRI_T16	6.656	6.656	6.656	6.656	6.656	6.656	1	1		Lateral
531	M1335	TWR_INNER_TRI_T16	6.656	6.656	6.656	6.656	6.656	6.656	1	1		Lateral
532	M1336	TWR_INNER_TRI_T16	6.656	6.656	6.656	6.656	6.656	6.656	1	1		Lateral
533	M1337	TWR_INNER_TRI_T16	9.413	9.413	9.413	9.413	9.413	9.413	1	1		Lateral
534	M1338	TWR_INNER_TRI_T16	9.413	9.413	9.413	9.413	9.413	9.413	1	1		Lateral
535	M1339	TWR_INNER_TRI_T16	9.413	9.413	9.413	9.413	9.413	9.413	1	1		Lateral
536	M1340	TWR_INNER_TRI_T16	9.413	9.413	9.413	9.413	9.413	9.413	1	1		Lateral
537	M1265	TWR_INNER_TRI_T17	7.125	7.125	7.125	7.125	7.125	7.125	1	1		Lateral
538	M1266	TWR_INNER_TRI_T17	7.125	7.125	7.125	7.125	7.125	7.125	1	1		Lateral
539	M1267	TWR_INNER_TRI_T17	7.125	7.125	7.125	7.125	7.125	7.125	1	1		Lateral
540	M1268	TWR_INNER_TRI_T17	7.125	7.125	7.125	7.125	7.125	7.125	1	1		Lateral
541	M1269	TWR_INNER_TRI_T17	7.125	7.125	7.125	7.125	7.125	7.125	1	1		Lateral
542	M1270	TWR_INNER_TRI_T17	7.125	7.125	7.125	7.125	7.125	7.125	1	1		Lateral
543	M1271	TWR_INNER_TRI_T17	7.125	7.125	7.125	7.125	7.125	7.125	1	1		Lateral
544	M1272	TWR_INNER_TRI_T17	7.125	7.125	7.125	7.125	7.125	7.125	1	1		Lateral
545	M1273	TWR_INNER_TRI_T17	10.076	10.076	10.076	10.076	10.076	10.076	1	1		Lateral
546	M1274	TWR_INNER_TRI_T17	10.076	10.076	10.076	10.076	10.076	10.076	1	1		Lateral
547	M1275	TWR_INNER_TRI_T17	10.076	10.076	10.076	10.076	10.076	10.076	1	1		Lateral
548	M1276	TWR_INNER_TRI_T17	10.076	10.076	10.076	10.076	10.076	10.076	1	1		Lateral
549	M1093	TWR_INNER_TRI_T18	7.594	7.594	7.594	7.594	7.594	7.594	1	1		Lateral
550	M1094	TWR_INNER_TRI_T18	7.594	7.594	7.594	7.594	7.594	7.594	1	1		Lateral
551	M1095	TWR_INNER_TRI_T18	7.594	7.594	7.594	7.594	7.594	7.594	1	1		Lateral
552	M1096	TWR_INNER_TRI_T18	7.594	7.594	7.594	7.594	7.594	7.594	1	1		Lateral
553	M1097	TWR_INNER_TRI_T18	7.594	7.594	7.594	7.594	7.594	7.594	1	1		Lateral
554	M1098	TWR_INNER_TRI_T18	7.594	7.594	7.594	7.594	7.594	7.594	1	1		Lateral
555	M1099	TWR_INNER_TRI_T18	7.594	7.594	7.594	7.594	7.594	7.594	1	1		Lateral
556	M1100	TWR_INNER_TRI_T18	7.594	7.594	7.594	7.594	7.594	7.594	1	1		Lateral
557	M1101	TWR_INNER_TRI_T18	10.739	10.739	10.739	10.739	10.739	10.739	1	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
558	M1102	TWR_INNER_TRI_T18	10.739	10.739	10.739	10.739	10.739	10.739	1	1		Lateral
559	M1103	TWR_INNER_TRI_T18	10.739	10.739	10.739	10.739	10.739	10.739	1	1		Lateral
560	M1104	TWR_INNER_TRI_T18	10.739	10.739	10.739	10.739	10.739	10.739	1	1		Lateral
561	M1	TWR_LEG_T1	12.57	6.74	6.74	6.74	6.74	6.74	1	1		Lateral
562	M2	TWR_LEG_T1	12.57	6.74	6.74	6.74	6.74	6.74	1	1		Lateral
563	M3	TWR_LEG_T1	12.57	6.74	6.74	6.74	6.74	6.74	1	1		Lateral
564	M4	TWR_LEG_T1	12.57	6.74	6.74	6.74	6.74	6.74	1	1		Lateral
565	M21	TWR_LEG_T2	12.57	6.683	6.683	6.683	6.683	6.683	1	1		Lateral
566	M22	TWR_LEG_T2	12.57	6.683	6.683	6.683	6.683	6.683	1	1		Lateral
567	M23	TWR_LEG_T2	12.57	6.683	6.683	6.683	6.683	6.683	1	1		Lateral
568	M24	TWR_LEG_T2	12.57	6.683	6.683	6.683	6.683	6.683	1	1		Lateral
569	M41	TWR_LEG_T3	12.57	6.638	6.638	6.638	6.638	6.638	1	1		Lateral
570	M42	TWR_LEG_T3	12.57	6.638	6.638	6.638	6.638	6.638	1	1		Lateral
571	M43	TWR_LEG_T3	12.57	6.638	6.638	6.638	6.638	6.638	1	1		Lateral
572	M44	TWR_LEG_T3	12.57	6.638	6.638	6.638	6.638	6.638	1	1		Lateral
573	M66	TWR_LEG_T4	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
574	M67	TWR_LEG_T4	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
575	M68	TWR_LEG_T4	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
576	M69	TWR_LEG_T4	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
577	M103	TWR_LEG_T5	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
578	M104	TWR_LEG_T5	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
579	M105	TWR_LEG_T5	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
580	M106	TWR_LEG_T5	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
581	M140	TWR_LEG_T6	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
582	M141	TWR_LEG_T6	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
583	M142	TWR_LEG_T6	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
584	M143	TWR_LEG_T6	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
585	M177	TWR_LEG_T7	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
586	M178	TWR_LEG_T7	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
587	M179	TWR_LEG_T7	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
588	M180	TWR_LEG_T7	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
589	M214	TWR_LEG_T8	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
590	M215	TWR_LEG_T8	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
591	M216	TWR_LEG_T8	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
592	M217	TWR_LEG_T8	12.57	6.285	6.285	6.285	6.285	6.285	1	1		Lateral
593	M251	TWR_LEG_T9	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
594	M252	TWR_LEG_T9	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
595	M253	TWR_LEG_T9	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
596	M254	TWR_LEG_T9	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
597	M312	TWR_LEG_T10	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
598	M313	TWR_LEG_T10	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
599	M314	TWR_LEG_T10	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
600	M315	TWR_LEG_T10	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
601	M373	TWR_LEG_T11	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
602	M374	TWR_LEG_T11	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
603	M375	TWR_LEG_T11	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
604	M376	TWR_LEG_T11	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
605	M434	TWR_LEG_T12	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
606	M435	TWR_LEG_T12	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
607	M436	TWR_LEG_T12	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
608	M437	TWR_LEG_T12	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
609	M519	TWR_LEG_T13	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
610	M520	TWR_LEG_T13	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
611	M521	TWR_LEG_T13	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
612	M522	TWR_LEG_T13	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
613	M596	TWR_LEG_T14	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
614	M597	TWR_LEG_T14	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
615	M598	TWR_LEG_T14	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
616	M599	TWR_LEG_T14	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
617	M673	TWR_LEG_T15	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
618	M674	TWR_LEG_T15	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
619	M675	TWR_LEG_T15	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
620	M676	TWR_LEG_T15	25.14	8.38	8.38	8.38	8.38	8.38	1	1		Lateral
621	M758	TWR_LEG_T16	25.14	4.2	4.2	4.2	4.2	4.2	1	1		Lateral
622	M759	TWR_LEG_T16	25.14	4.2	4.2	4.2	4.2	4.2	1	1		Lateral
623	M760	TWR_LEG_T16	25.14	4.2	4.2	4.2	4.2	4.2	1	1		Lateral
624	M761	TWR_LEG_T16	25.14	4.2	4.2	4.2	4.2	4.2	1	1		Lateral
625	M843	TWR_LEG_T17	25.14	4.19	4.19	4.19	4.19	4.19	1	1		Lateral
626	M844	TWR_LEG_T17	25.14	4.19	4.19	4.19	4.19	4.19	1	1		Lateral
627	M845	TWR_LEG_T17	25.14	4.19	4.19	4.19	4.19	4.19	1	1		Lateral
628	M846	TWR_LEG_T17	25.14	4.19	4.19	4.19	4.19	4.19	1	1		Lateral
629	M928	TWR_LEG_T18	25.14	4.19	4.19	4.19	4.19	4.19	1	1		Lateral
630	M929	TWR_LEG_T18	25.14	4.19	4.19	4.19	4.19	4.19	1	1		Lateral
631	M930	TWR_LEG_T18	25.14	4.19	4.19	4.19	4.19	4.19	1	1		Lateral
632	M931	TWR_LEG_T18	25.14	4.19	4.19	4.19	4.19	4.19	1	1		Lateral
633	M260	TWR_RED_DIAG_2_T9	11.831	11.36	11.36	11.36	11.36	11.36	1.07	1		Lateral
634	M265	TWR_RED_DIAG_2_T9	11.831	11.36	11.36	11.36	11.36	11.36	1.07	1		Lateral
635	M272	TWR_RED_DIAG_2_T9	11.831	11.36	11.36	11.36	11.36	11.36	1.07	1		Lateral
636	M277	TWR_RED_DIAG_2_T9	11.831	11.36	11.36	11.36	11.36	11.36	1.07	1		Lateral
637	M285	TWR_RED_DIAG_2_T9	11.831	11.36	11.36	11.36	11.36	11.36	1.07	1		Lateral
638	M290	TWR_RED_DIAG_2_T9	11.831	11.36	11.36	11.36	11.36	11.36	1.07	1		Lateral
639	M298	TWR_RED_DIAG_2_T9	11.831	11.36	11.36	11.36	11.36	11.36	1.07	1		Lateral
640	M303	TWR_RED_DIAG_2_T9	11.831	11.36	11.36	11.36	11.36	11.36	1.07	1		Lateral
641	M321	TWR_RED_DIAG_2_T10	12.747	12.31	12.31	12.31	12.31	12.31	1.06	1		Lateral
642	M326	TWR_RED_DIAG_2_T10	12.747	12.31	12.31	12.31	12.31	12.31	1.06	1		Lateral
643	M333	TWR_RED_DIAG_2_T10	12.747	12.31	12.31	12.31	12.31	12.31	1.06	1		Lateral
644	M338	TWR_RED_DIAG_2_T10	12.747	12.31	12.31	12.31	12.31	12.31	1.06	1		Lateral
645	M346	TWR_RED_DIAG_2_T10	12.747	12.31	12.31	12.31	12.31	12.31	1.06	1		Lateral
646	M351	TWR_RED_DIAG_2_T10	12.747	12.31	12.31	12.31	12.31	12.31	1.06	1		Lateral
647	M359	TWR_RED_DIAG_2_T10	12.747	12.31	12.31	12.31	12.31	12.31	1.06	1		Lateral
648	M364	TWR_RED_DIAG_2_T10	12.747	12.31	12.31	12.31	12.31	12.31	1.06	1		Lateral
649	M382	TWR_RED_DIAG_2_T11	13.715	13.3	13.3	13.3	13.3	13.3	1.05	1		Lateral
650	M387	TWR_RED_DIAG_2_T11	13.715	13.3	13.3	13.3	13.3	13.3	1.05	1		Lateral
651	M394	TWR_RED_DIAG_2_T11	13.715	13.3	13.3	13.3	13.3	13.3	1.05	1		Lateral
652	M399	TWR_RED_DIAG_2_T11	13.715	13.3	13.3	13.3	13.3	13.3	1.05	1		Lateral
653	M407	TWR_RED_DIAG_2_T11	13.715	13.3	13.3	13.3	13.3	13.3	1.05	1		Lateral
654	M412	TWR_RED_DIAG_2_T11	13.715	13.3	13.3	13.3	13.3	13.3	1.05	1		Lateral
655	M420	TWR_RED_DIAG_2_T11	13.715	13.3	13.3	13.3	13.3	13.3	1.05	1		Lateral
656	M425	TWR_RED_DIAG_2_T11	13.715	13.3	13.3	13.3	13.3	13.3	1.05	1		Lateral
657	M443	TWR_RED_DIAG_2_T12	11.483	10.993	10.993	10.993	10.993	10.993	1.04	1		Lateral
658	M448	TWR_RED_DIAG_2_T12	11.483	10.993	10.993	10.993	10.993	10.993	1.04	1		Lateral
659	M459	TWR_RED_DIAG_2_T12	11.483	10.993	10.993	10.993	10.993	10.993	1.04	1		Lateral
660	M464	TWR_RED_DIAG_2_T12	11.483	10.993	10.993	10.993	10.993	10.993	1.04	1		Lateral
661	M478	TWR_RED_DIAG_2_T12	11.483	10.993	10.993	10.993	10.993	10.993	1.04	1		Lateral
662	M483	TWR_RED_DIAG_2_T12	11.483	10.993	10.993	10.993	10.993	10.993	1.04	1		Lateral
663	M497	TWR_RED_DIAG_2_T12	11.483	10.993	10.993	10.993	10.993	10.993	1.04	1		Lateral
664	M502	TWR_RED_DIAG_2_T12	11.483	10.993	10.993	10.993	10.993	10.993	1.04	1		Lateral
665	M528	TWR_RED_DIAG_2_T13	12.069	11.599	11.599	11.599	11.599	11.599	1.04	1		Lateral
666	M533	TWR_RED_DIAG_2_T13	12.069	11.599	11.599	11.599	11.599	11.599	1.04	1		Lateral
667	M542	TWR_RED_DIAG_2_T13	12.069	11.599	11.599	11.599	11.599	11.599	1.04	1		Lateral
668	M547	TWR_RED_DIAG_2_T13	12.069	11.599	11.599	11.599	11.599	11.599	1.04	1		Lateral
669	M559	TWR_RED_DIAG_2_T13	12.069	11.599	11.599	11.599	11.599	11.599	1.04	1		Lateral
670	M564	TWR_RED_DIAG_2_T13	12.069	11.599	11.599	11.599	11.599	11.599	1.04	1		Lateral
671	M576	TWR_RED_DIAG_2_T13	12.069	11.599	11.599	11.599	11.599	11.599	1.04	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
672	M581	TWR_RED_DIAG_2_T13	12.069	11.599	11.599	11.599	11.599	11.599	1.04	1		Lateral
673	M605	TWR_RED_DIAG_2_T14	12.684	12.234	12.234	12.234	12.234	12.234	1.03	1		Lateral
674	M610	TWR_RED_DIAG_2_T14	12.684	12.234	12.234	12.234	12.234	12.234	1.03	1		Lateral
675	M619	TWR_RED_DIAG_2_T14	12.684	12.234	12.234	12.234	12.234	12.234	1.03	1		Lateral
676	M624	TWR_RED_DIAG_2_T14	12.684	12.234	12.234	12.234	12.234	12.234	1.03	1		Lateral
677	M636	TWR_RED_DIAG_2_T14	12.684	12.234	12.234	12.234	12.234	12.234	1.03	1		Lateral
678	M641	TWR_RED_DIAG_2_T14	12.684	12.234	12.234	12.234	12.234	12.234	1.03	1		Lateral
679	M653	TWR_RED_DIAG_2_T14	12.684	12.234	12.234	12.234	12.234	12.234	1.03	1		Lateral
680	M658	TWR_RED_DIAG_2_T14	12.684	12.234	12.234	12.234	12.234	12.234	1.03	1		Lateral
681	M682	TWR_RED_DIAG_2_T15	14.932	14.53	14.53	14.53	14.53	14.53	1.02	1		Lateral
682	M687	TWR_RED_DIAG_2_T15	14.932	14.53	14.53	14.53	14.53	14.53	1.02	1		Lateral
683	M698	TWR_RED_DIAG_2_T15	14.932	14.53	14.53	14.53	14.53	14.53	1.02	1		Lateral
684	M703	TWR_RED_DIAG_2_T15	14.932	14.53	14.53	14.53	14.53	14.53	1.02	1		Lateral
685	M717	TWR_RED_DIAG_2_T15	14.932	14.53	14.53	14.53	14.53	14.53	1.02	1		Lateral
686	M722	TWR_RED_DIAG_2_T15	14.932	14.53	14.53	14.53	14.53	14.53	1.02	1		Lateral
687	M736	TWR_RED_DIAG_2_T15	14.932	14.53	14.53	14.53	14.53	14.53	1.02	1		Lateral
688	M741	TWR_RED_DIAG_2_T15	14.932	14.53	14.53	14.53	14.53	14.53	1.02	1		Lateral
689	M767	TWR_RED_DIAG_2_T16	15.718	5.25	5.25	5.25	5.25	5.25	1.02	1		Lateral
690	M772	TWR_RED_DIAG_2_T16	15.718	5.25	5.25	5.25	5.25	5.25	1.02	1		Lateral
691	M783	TWR_RED_DIAG_2_T16	15.718	5.25	5.25	5.25	5.25	5.25	1.02	1		Lateral
692	M788	TWR_RED_DIAG_2_T16	15.718	5.25	5.25	5.25	5.25	5.25	1.02	1		Lateral
693	M802	TWR_RED_DIAG_2_T16	15.718	5.25	5.25	5.25	5.25	5.25	1.02	1		Lateral
694	M807	TWR_RED_DIAG_2_T16	15.718	5.25	5.25	5.25	5.25	5.25	1.02	1		Lateral
695	M821	TWR_RED_DIAG_2_T16	15.718	5.25	5.25	5.25	5.25	5.25	1.02	1		Lateral
696	M826	TWR_RED_DIAG_2_T16	15.718	5.25	5.25	5.25	5.25	5.25	1.02	1		Lateral
697	M852	TWR_RED_DIAG_2_T17	16.52	16.13	8.075	8.075	8.075	8.075	1.02	1		Lateral
698	M857	TWR_RED_DIAG_2_T17	16.52	16.13	8.075	8.075	8.075	8.075	1.02	1		Lateral
699	M868	TWR_RED_DIAG_2_T17	16.52	16.13	8.075	8.075	8.075	8.075	1.02	1		Lateral
700	M873	TWR_RED_DIAG_2_T17	16.52	16.13	8.075	8.075	8.075	8.075	1.02	1		Lateral
701	M887	TWR_RED_DIAG_2_T17	16.52	16.13	8.075	8.075	8.075	8.075	1.02	1		Lateral
702	M892	TWR_RED_DIAG_2_T17	16.52	16.13	8.075	8.075	8.075	8.075	1.02	1		Lateral
703	M906	TWR_RED_DIAG_2_T17	16.52	16.13	8.075	8.075	8.075	8.075	1.02	1		Lateral
704	M911	TWR_RED_DIAG_2_T17	16.52	16.13	8.075	8.075	8.075	8.075	1.02	1		Lateral
705	M937	TWR_RED_DIAG_2_T18	17.335	16.95	8.475	8.475	8.475	8.475	1.02	1		Lateral
706	M942	TWR_RED_DIAG_2_T18	17.335	16.95	8.475	8.475	8.475	8.475	1.02	1		Lateral
707	M953	TWR_RED_DIAG_2_T18	17.335	16.95	8.475	8.475	8.475	8.475	1.02	1		Lateral
708	M958	TWR_RED_DIAG_2_T18	17.335	16.95	8.475	8.475	8.475	8.475	1.02	1		Lateral
709	M972	TWR_RED_DIAG_2_T18	17.335	16.95	8.475	8.475	8.475	8.475	1.02	1		Lateral
710	M977	TWR_RED_DIAG_2_T18	17.335	16.95	8.475	8.475	8.475	8.475	1.02	1		Lateral
711	M991	TWR_RED_DIAG_2_T18	17.335	16.95	8.475	8.475	8.475	8.475	1.02	1		Lateral
712	M996	TWR_RED_DIAG_2_T18	17.335	16.95	8.475	8.475	8.475	8.475	1.02	1		Lateral
713	M73	TWR_RED_DIAG_T4	7.402	6.94	6.94	6.94	6.94	6.94	1.04	1.04		Lateral
714	M76	TWR_RED_DIAG_T4	7.402	6.94	6.94	6.94	6.94	6.94	1.04	1.04		Lateral
715	M80	TWR_RED_DIAG_T4	7.402	6.94	6.94	6.94	6.94	6.94	1.04	1.04		Lateral
716	M83	TWR_RED_DIAG_T4	7.402	6.94	6.94	6.94	6.94	6.94	1.04	1.04		Lateral
717	M87	TWR_RED_DIAG_T4	7.402	6.94	6.94	6.94	6.94	6.94	1.04	1.04		Lateral
718	M90	TWR_RED_DIAG_T4	7.402	6.94	6.94	6.94	6.94	6.94	1.04	1.04		Lateral
719	M94	TWR_RED_DIAG_T4	7.402	6.94	6.94	6.94	6.94	6.94	1.04	1.04		Lateral
720	M97	TWR_RED_DIAG_T4	7.402	6.94	6.94	6.94	6.94	6.94	1.04	1.04		Lateral
721	M110	TWR_RED_DIAG_T5	7.661	7.23	7.23	7.23	7.23	7.23	1.02	1.02		Lateral
722	M113	TWR_RED_DIAG_T5	7.661	7.23	7.23	7.23	7.23	7.23	1.02	1.02		Lateral
723	M117	TWR_RED_DIAG_T5	7.661	7.23	7.23	7.23	7.23	7.23	1.02	1.02		Lateral
724	M120	TWR_RED_DIAG_T5	7.661	7.23	7.23	7.23	7.23	7.23	1.02	1.02		Lateral
725	M124	TWR_RED_DIAG_T5	7.661	7.23	7.23	7.23	7.23	7.23	1.02	1.02		Lateral
726	M127	TWR_RED_DIAG_T5	7.661	7.23	7.23	7.23	7.23	7.23	1.02	1.02		Lateral
727	M131	TWR_RED_DIAG_T5	7.661	7.23	7.23	7.23	7.23	7.23	1.02	1.02		Lateral
728	M134	TWR_RED_DIAG_T5	7.661	7.23	7.23	7.23	7.23	7.23	1.02	1.02		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
729	M147	TWR_RED_DIAG_T6	7.94	7.53	7.53	7.53	7.53	7.53	1.06	1.06		Lateral
730	M150	TWR_RED_DIAG_T6	7.94	7.53	7.53	7.53	7.53	7.53	1.06	1.06		Lateral
731	M154	TWR_RED_DIAG_T6	7.94	7.53	7.53	7.53	7.53	7.53	1.06	1.06		Lateral
732	M157	TWR_RED_DIAG_T6	7.94	7.53	7.53	7.53	7.53	7.53	1.06	1.06		Lateral
733	M161	TWR_RED_DIAG_T6	7.94	7.53	7.53	7.53	7.53	7.53	1.06	1.06		Lateral
734	M164	TWR_RED_DIAG_T6	7.94	7.53	7.53	7.53	7.53	7.53	1.06	1.06		Lateral
735	M168	TWR_RED_DIAG_T6	7.94	7.53	7.53	7.53	7.53	7.53	1.06	1.06		Lateral
736	M171	TWR_RED_DIAG_T6	7.94	7.53	7.53	7.53	7.53	7.53	1.06	1.06		Lateral
737	M184	TWR_RED_DIAG_T7	8.236	7.85	7.85	7.85	7.85	7.85	1.05	1.05		Lateral
738	M187	TWR_RED_DIAG_T7	8.236	7.85	7.85	7.85	7.85	7.85	1.05	1.05		Lateral
739	M191	TWR_RED_DIAG_T7	8.236	7.85	7.85	7.85	7.85	7.85	1.05	1.05		Lateral
740	M194	TWR_RED_DIAG_T7	8.236	7.85	7.85	7.85	7.85	7.85	1.05	1.05		Lateral
741	M198	TWR_RED_DIAG_T7	8.236	7.85	7.85	7.85	7.85	7.85	1.05	1.05		Lateral
742	M201	TWR_RED_DIAG_T7	8.236	7.85	7.85	7.85	7.85	7.85	1.05	1.05		Lateral
743	M205	TWR_RED_DIAG_T7	8.236	7.85	7.85	7.85	7.85	7.85	1.05	1.05		Lateral
744	M208	TWR_RED_DIAG_T7	8.236	7.85	7.85	7.85	7.85	7.85	1.05	1.05		Lateral
745	M221	TWR_RED_DIAG_T8	8.548	8.06	8.06	8.06	8.06	8.06	1.04	1.04		Lateral
746	M224	TWR_RED_DIAG_T8	8.548	8.06	8.06	8.06	8.06	8.06	1.04	1.04		Lateral
747	M228	TWR_RED_DIAG_T8	8.548	8.06	8.06	8.06	8.06	8.06	1.04	1.04		Lateral
748	M231	TWR_RED_DIAG_T8	8.548	8.06	8.06	8.06	8.06	8.06	1.04	1.04		Lateral
749	M235	TWR_RED_DIAG_T8	8.548	8.06	8.06	8.06	8.06	8.06	1.04	1.04		Lateral
750	M238	TWR_RED_DIAG_T8	8.548	8.06	8.06	8.06	8.06	8.06	1.04	1.04		Lateral
751	M242	TWR_RED_DIAG_T8	8.548	8.06	8.06	8.06	8.06	8.06	1.04	1.04		Lateral
752	M245	TWR_RED_DIAG_T8	8.548	8.06	8.06	8.06	8.06	8.06	1.04	1.04		Lateral
753	M259	TWR_RED_DIAG_T9	9.211	8.43	8.43	8.43	8.43	8.43	1.02	1.02		Lateral
754	M264	TWR_RED_DIAG_T9	9.211	8.43	8.43	8.43	8.43	8.43	1.02	1.02		Lateral
755	M271	TWR_RED_DIAG_T9	9.211	8.43	8.43	8.43	8.43	8.43	1.02	1.02		Lateral
756	M276	TWR_RED_DIAG_T9	9.211	8.43	8.43	8.43	8.43	8.43	1.02	1.02		Lateral
757	M284	TWR_RED_DIAG_T9	9.211	8.43	8.43	8.43	8.43	8.43	1.02	1.02		Lateral
758	M289	TWR_RED_DIAG_T9	9.211	8.43	8.43	8.43	8.43	8.43	1.02	1.02		Lateral
759	M297	TWR_RED_DIAG_T9	9.211	8.43	8.43	8.43	8.43	8.43	1.02	1.02		Lateral
760	M302	TWR_RED_DIAG_T9	9.211	8.43	8.43	8.43	8.43	8.43	1.02	1.02		Lateral
761	M320	TWR_RED_DIAG_T10	9.491	8.79	8.79	8.79	8.79	8.79	1.01	1.01		Lateral
762	M325	TWR_RED_DIAG_T10	9.491	8.79	8.79	8.79	8.79	8.79	1.01	1.01		Lateral
763	M332	TWR_RED_DIAG_T10	9.491	8.79	8.79	8.79	8.79	8.79	1.01	1.01		Lateral
764	M337	TWR_RED_DIAG_T10	9.491	8.79	8.79	8.79	8.79	8.79	1.01	1.01		Lateral
765	M345	TWR_RED_DIAG_T10	9.491	8.79	8.79	8.79	8.79	8.79	1.01	1.01		Lateral
766	M350	TWR_RED_DIAG_T10	9.491	8.79	8.79	8.79	8.79	8.79	1.01	1.01		Lateral
767	M358	TWR_RED_DIAG_T10	9.491	8.79	8.79	8.79	8.79	8.79	1.01	1.01		Lateral
768	M363	TWR_RED_DIAG_T10	9.491	8.79	8.79	8.79	8.79	8.79	1.01	1.01		Lateral
769	M381	TWR_RED_DIAG_T11	9.803	9.17	9.17	9.17	9.17	9.17	1	1		Lateral
770	M386	TWR_RED_DIAG_T11	9.803	9.17	9.17	9.17	9.17	9.17	1	1		Lateral
771	M393	TWR_RED_DIAG_T11	9.803	9.17	9.17	9.17	9.17	9.17	1	1		Lateral
772	M398	TWR_RED_DIAG_T11	9.803	9.17	9.17	9.17	9.17	9.17	1	1		Lateral
773	M406	TWR_RED_DIAG_T11	9.803	9.17	9.17	9.17	9.17	9.17	1	1		Lateral
774	M411	TWR_RED_DIAG_T11	9.803	9.17	9.17	9.17	9.17	9.17	1	1		Lateral
775	M419	TWR_RED_DIAG_T11	9.803	9.17	9.17	9.17	9.17	9.17	1	1		Lateral
776	M424	TWR_RED_DIAG_T11	9.803	9.17	9.17	9.17	9.17	9.17	1	1		Lateral
777	M442	TWR_RED_DIAG_T12	9.109	8.269	8.269	8.269	8.269	8.269	1.02	1.02		Lateral
778	M447	TWR_RED_DIAG_T12	9.109	8.269	8.269	8.269	8.269	8.269	1.02	1.02		Lateral
779	M458	TWR_RED_DIAG_T12	9.109	8.269	8.269	8.269	8.269	8.269	1.02	1.02		Lateral
780	M463	TWR_RED_DIAG_T12	9.109	8.269	8.269	8.269	8.269	8.269	1.02	1.02		Lateral
781	M477	TWR_RED_DIAG_T12	9.109	8.269	8.269	8.269	8.269	8.269	1.02	1.02		Lateral
782	M482	TWR_RED_DIAG_T12	9.109	8.269	8.269	8.269	8.269	8.269	1.02	1.02		Lateral
783	M496	TWR_RED_DIAG_T12	9.109	8.269	8.269	8.269	8.269	8.269	1.02	1.02		Lateral
784	M501	TWR_RED_DIAG_T12	9.109	8.269	8.269	8.269	8.269	8.269	1.02	1.02		Lateral
785	M527	TWR_RED_DIAG_T13	9.283	8.503	8.503	8.503	8.503	8.503	1.02	1.02		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
786	M532	TWR_RED_DIAG_T13	9.283	8.503	8.503	8.503	8.503	8.503	1.02	1.02		Lateral
787	M541	TWR_RED_DIAG_T13	9.283	8.503	8.503	8.503	8.503	8.503	1.02	1.02		Lateral
788	M546	TWR_RED_DIAG_T13	9.283	8.503	8.503	8.503	8.503	8.503	1.02	1.02		Lateral
789	M558	TWR_RED_DIAG_T13	9.283	8.503	8.503	8.503	8.503	8.503	1.02	1.02		Lateral
790	M563	TWR_RED_DIAG_T13	9.283	8.503	8.503	8.503	8.503	8.503	1.02	1.02		Lateral
791	M575	TWR_RED_DIAG_T13	9.283	8.503	8.503	8.503	8.503	8.503	1.02	1.02		Lateral
792	M580	TWR_RED_DIAG_T13	9.283	8.503	8.503	8.503	8.503	8.503	1	1		Lateral
793	M604	TWR_RED_DIAG_T14	9.472	8.752	8.752	8.752	8.752	8.752	1	1		Lateral
794	M609	TWR_RED_DIAG_T14	9.472	8.752	8.752	8.752	8.752	8.752	1	1		Lateral
795	M618	TWR_RED_DIAG_T14	9.472	8.752	8.752	8.752	8.752	8.752	1	1		Lateral
796	M623	TWR_RED_DIAG_T14	9.472	8.752	8.752	8.752	8.752	8.752	1	1		Lateral
797	M635	TWR_RED_DIAG_T14	9.472	8.752	8.752	8.752	8.752	8.752	1	1		Lateral
798	M640	TWR_RED_DIAG_T14	9.472	8.752	8.752	8.752	8.752	8.752	1	1		Lateral
799	M652	TWR_RED_DIAG_T14	9.472	8.752	8.752	8.752	8.752	8.752	1	1		Lateral
800	M657	TWR_RED_DIAG_T14	9.472	8.752	8.752	8.752	8.752	8.752	1	1		Lateral
801	M681	TWR_RED_DIAG_T15	10.215	9.64	9.64	9.64	9.64	9.64	1.05	1		Lateral
802	M686	TWR_RED_DIAG_T15	10.215	9.64	9.64	9.64	9.64	9.64	1.05	1		Lateral
803	M697	TWR_RED_DIAG_T15	10.215	9.64	9.64	9.64	9.64	9.64	1.05	1		Lateral
804	M702	TWR_RED_DIAG_T15	10.215	9.64	9.64	9.64	9.64	9.64	1.05	1		Lateral
805	M716	TWR_RED_DIAG_T15	10.215	9.64	9.64	9.64	9.64	9.64	1.05	1		Lateral
806	M721	TWR_RED_DIAG_T15	10.215	9.64	9.64	9.64	9.64	9.64	1.05	1		Lateral
807	M735	TWR_RED_DIAG_T15	10.215	9.64	9.64	9.64	9.64	9.64	1.05	1		Lateral
808	M740	TWR_RED_DIAG_T15	10.215	9.64	9.64	9.64	9.64	9.64	1.05	1		Lateral
809	M766	TWR_RED_DIAG_T16	10.492	9.94	9.94	9.94	9.94	9.94	1.05	1		Lateral
810	M771	TWR_RED_DIAG_T16	10.492	9.94	9.94	9.94	9.94	9.94	1.05	1		Lateral
811	M782	TWR_RED_DIAG_T16	10.492	9.94	9.94	9.94	9.94	9.94	1.05	1		Lateral
812	M787	TWR_RED_DIAG_T16	10.492	9.94	9.94	9.94	9.94	9.94	1.05	1		Lateral
813	M801	TWR_RED_DIAG_T16	10.492	9.94	9.94	9.94	9.94	9.94	1.05	1		Lateral
814	M806	TWR_RED_DIAG_T16	10.492	9.94	9.94	9.94	9.94	9.94	1.05	1		Lateral
815	M820	TWR_RED_DIAG_T16	10.492	9.94	9.94	9.94	9.94	9.94	1.05	1		Lateral
816	M825	TWR_RED_DIAG_T16	10.492	9.94	9.94	9.94	9.94	9.94	1.05	1		Lateral
817	M851	TWR_RED_DIAG_T17	10.782	10.26	5.13	5.13	5.13	5.13	1.05	1		Lateral
818	M856	TWR_RED_DIAG_T17	10.782	10.26	5.13	5.13	5.13	5.13	1.05	1		Lateral
819	M867	TWR_RED_DIAG_T17	10.782	10.26	5.13	5.13	5.13	5.13	1.05	1		Lateral
820	M872	TWR_RED_DIAG_T17	10.782	10.26	5.13	5.13	5.13	5.13	1.05	1		Lateral
821	M886	TWR_RED_DIAG_T17	10.782	10.26	5.13	5.13	5.13	5.13	1.05	1		Lateral
822	M891	TWR_RED_DIAG_T17	10.782	10.26	5.13	5.13	5.13	5.13	1.05	1		Lateral
823	M905	TWR_RED_DIAG_T17	10.782	10.26	5.13	5.13	5.13	5.13	1.05	1		Lateral
824	M910	TWR_RED_DIAG_T17	10.782	10.26	5.13	5.13	5.13	5.13	1.05	1		Lateral
825	M936	TWR_RED_DIAG_T18	11.084	10.58	5.26	5.26	5.26	5.26	1.04	1		Lateral
826	M941	TWR_RED_DIAG_T18	11.084	10.58	5.26	5.26	5.26	5.26	1.04	1		Lateral
827	M952	TWR_RED_DIAG_T18	11.084	10.58	5.26	5.26	5.26	5.26	1.04	1		Lateral
828	M957	TWR_RED_DIAG_T18	11.084	10.58	5.26	5.26	5.26	5.26	1.04	1		Lateral
829	M971	TWR_RED_DIAG_T18	11.084	10.58	5.26	5.26	5.26	5.26	1.04	1		Lateral
830	M976	TWR_RED_DIAG_T18	11.084	10.58	5.26	5.26	5.26	5.26	1.04	1		Lateral
831	M990	TWR_RED_DIAG_T18	11.084	10.58	5.26	5.26	5.26	5.26	1.04	1		Lateral
832	M995	TWR_RED_DIAG_T18	11.084	10.58	5.26	5.26	5.26	5.26	1.04	1		Lateral
833	M1417	TWR_RED_HIPBRACE_T15	7.203	7.203	7.203	7.203	7.203	7.203	1.04	1.04		Lateral
834	M1418	TWR_RED_HIPBRACE_T15	4.178	4.178	4.178	4.178	4.178	4.178	1.04	1.04		Lateral
835	M1419	TWR_RED_HIPBRACE_T15	7.203	7.203	7.203	7.203	7.203	7.203	1.04	1.04		Lateral
836	M1420	TWR_RED_HIPBRACE_T15	4.178	4.178	4.178	4.178	4.178	4.178	1.04	1.04		Lateral
837	M1421	TWR_RED_HIPBRACE_T15	7.203	7.203	7.203	7.203	7.203	7.203	1.04	1.04		Lateral
838	M1422	TWR_RED_HIPBRACE_T15	4.178	4.178	4.178	4.178	4.178	4.178	1.04	1.04		Lateral
839	M1423	TWR_RED_HIPBRACE_T15	7.203	7.203	7.203	7.203	7.203	7.203	1.04	1.04		Lateral
840	M1424	TWR_RED_HIPBRACE_T15	4.178	4.178	4.178	4.178	4.178	4.178	1.04	1.04		Lateral
841	M1425	TWR_RED_HIPBRACE_T15	7.203	7.203	7.203	7.203	7.203	7.203	1.04	1.04		Lateral
842	M1426	TWR_RED_HIPBRACE_T15	4.178	4.178	4.178	4.178	4.178	4.178	1.04	1.04		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
843	M1427	TWR_RED_HIPBRACE_T15	7.203	7.203	7.203	7.203	7.203	7.203	1.04	1.04		Lateral
844	M1428	TWR_RED_HIPBRACE_T15	4.178	4.178	4.178	4.178	4.178	4.178	1.04	1.04		Lateral
845	M1429	TWR_RED_HIPBRACE_T15	7.203	7.203	7.203	7.203	7.203	7.203	1.04	1.04		Lateral
846	M1430	TWR_RED_HIPBRACE_T15	4.178	4.178	4.178	4.178	4.178	4.178	1.04	1.04		Lateral
847	M1431	TWR_RED_HIPBRACE_T15	7.203	7.203	7.203	7.203	7.203	7.203	1.04	1.04		Lateral
848	M1432	TWR_RED_HIPBRACE_T15	4.178	4.178	4.178	4.178	4.178	4.178	1.04	1.04		Lateral
849	M1353	TWR_RED_HIPBRACE_T16	7.59	7.59	7.59	7.59	7.59	7.59	1.02	1.02		Lateral
850	M1354	TWR_RED_HIPBRACE_T16	4.178	4.178	4.178	4.178	4.178	4.178	1.02	1.02		Lateral
851	M1355	TWR_RED_HIPBRACE_T16	7.59	7.59	7.59	7.59	7.59	7.59	1.02	1.02		Lateral
852	M1356	TWR_RED_HIPBRACE_T16	4.178	4.178	4.178	4.178	4.178	4.178	1.02	1.02		Lateral
853	M1357	TWR_RED_HIPBRACE_T16	7.59	7.59	7.59	7.59	7.59	7.59	1.02	1.02		Lateral
854	M1358	TWR_RED_HIPBRACE_T16	4.178	4.178	4.178	4.178	4.178	4.178	1.02	1.02		Lateral
855	M1359	TWR_RED_HIPBRACE_T16	7.59	7.59	7.59	7.59	7.59	7.59	1.02	1.02		Lateral
856	M1360	TWR_RED_HIPBRACE_T16	4.178	4.178	4.178	4.178	4.178	4.178	1.02	1.02		Lateral
857	M1361	TWR_RED_HIPBRACE_T16	7.59	7.59	7.59	7.59	7.59	7.59	1.02	1.02		Lateral
858	M1362	TWR_RED_HIPBRACE_T16	4.178	4.178	4.178	4.178	4.178	4.178	1.02	1.02		Lateral
859	M1363	TWR_RED_HIPBRACE_T16	7.59	7.59	7.59	7.59	7.59	7.59	1.02	1.02		Lateral
860	M1364	TWR_RED_HIPBRACE_T16	4.178	4.178	4.178	4.178	4.178	4.178	1.02	1.02		Lateral
861	M1365	TWR_RED_HIPBRACE_T16	7.59	7.59	7.59	7.59	7.59	7.59	1.02	1.02		Lateral
862	M1366	TWR_RED_HIPBRACE_T16	4.178	4.178	4.178	4.178	4.178	4.178	1.02	1.02		Lateral
863	M1367	TWR_RED_HIPBRACE_T16	7.59	7.59	7.59	7.59	7.59	7.59	1.02	1.02		Lateral
864	M1368	TWR_RED_HIPBRACE_T16	4.178	4.178	4.178	4.178	4.178	4.178	1.02	1.02		Lateral
865	M1289	TWR_RED_HIPBRACE_T17	7.986	7.986	7.986	7.986	7.986	7.986	1.01	1.01		Lateral
866	M1290	TWR_RED_HIPBRACE_T17	4.178	4.178	4.178	4.178	4.178	4.178	1.01	1.01		Lateral
867	M1291	TWR_RED_HIPBRACE_T17	7.986	7.986	7.986	7.986	7.986	7.986	1.01	1.01		Lateral
868	M1292	TWR_RED_HIPBRACE_T17	4.178	4.178	4.178	4.178	4.178	4.178	1.01	1.01		Lateral
869	M1293	TWR_RED_HIPBRACE_T17	7.986	7.986	7.986	7.986	7.986	7.986	1.01	1.01		Lateral
870	M1294	TWR_RED_HIPBRACE_T17	4.178	4.178	4.178	4.178	4.178	4.178	1.01	1.01		Lateral
871	M1295	TWR_RED_HIPBRACE_T17	7.986	7.986	7.986	7.986	7.986	7.986	1.01	1.01		Lateral
872	M1296	TWR_RED_HIPBRACE_T17	4.178	4.178	4.178	4.178	4.178	4.178	1.01	1.01		Lateral
873	M1297	TWR_RED_HIPBRACE_T17	7.986	7.986	7.986	7.986	7.986	7.986	1.01	1.01		Lateral
874	M1298	TWR_RED_HIPBRACE_T17	4.178	4.178	4.178	4.178	4.178	4.178	1.01	1.01		Lateral
875	M1299	TWR_RED_HIPBRACE_T17	7.986	7.986	7.986	7.986	7.986	7.986	1.01	1.01		Lateral
876	M1300	TWR_RED_HIPBRACE_T17	4.178	4.178	4.178	4.178	4.178	4.178	1.01	1.01		Lateral
877	M1301	TWR_RED_HIPBRACE_T17	7.986	7.986	7.986	7.986	7.986	7.986	1.01	1.01		Lateral
878	M1302	TWR_RED_HIPBRACE_T17	4.178	4.178	4.178	4.178	4.178	4.178	1.01	1.01		Lateral
879	M1303	TWR_RED_HIPBRACE_T17	7.986	7.986	7.986	7.986	7.986	7.986	1.01	1.01		Lateral
880	M1304	TWR_RED_HIPBRACE_T17	4.178	4.178	4.178	4.178	4.178	4.178	1.01	1.01		Lateral
881	M1237	TWR_RED_HIPBRACE_T18	8.389	8.389	8.389	8.389	8.389	8.389	.99	.99		Lateral
882	M1238	TWR_RED_HIPBRACE_T18	4.178	4.178	4.178	4.178	4.178	4.178	.99	.99		Lateral
883	M1239	TWR_RED_HIPBRACE_T18	8.389	8.389	8.389	8.389	8.389	8.389	.99	.99		Lateral
884	M1240	TWR_RED_HIPBRACE_T18	4.178	4.178	4.178	4.178	4.178	4.178	.99	.99		Lateral
885	M1241	TWR_RED_HIPBRACE_T18	8.389	8.389	8.389	8.389	8.389	8.389	.99	.99		Lateral
886	M1242	TWR_RED_HIPBRACE_T18	4.178	4.178	4.178	4.178	4.178	4.178	.99	.99		Lateral
887	M1243	TWR_RED_HIPBRACE_T18	8.389	8.389	8.389	8.389	8.389	8.389	.99	.99		Lateral
888	M1244	TWR_RED_HIPBRACE_T18	4.178	4.178	4.178	4.178	4.178	4.178	.99	.99		Lateral
889	M1245	TWR_RED_HIPBRACE_T18	8.389	8.389	8.389	8.389	8.389	8.389	.99	.99		Lateral
890	M1246	TWR_RED_HIPBRACE_T18	4.178	4.178	4.178	4.178	4.178	4.178	.99	.99		Lateral
891	M1247	TWR_RED_HIPBRACE_T18	8.389	8.389	8.389	8.389	8.389	8.389	.99	.99		Lateral
892	M1248	TWR_RED_HIPBRACE_T18	4.178	4.178	4.178	4.178	4.178	4.178	.99	.99		Lateral
893	M1249	TWR_RED_HIPBRACE_T18	8.389	8.389	8.389	8.389	8.389	8.389	.99	.99		Lateral
894	M1250	TWR_RED_HIPBRACE_T18	4.178	4.178	4.178	4.178	4.178	4.178	.99	.99		Lateral
895	M1251	TWR_RED_HIPBRACE_T18	8.389	8.389	8.389	8.389	8.389	8.389	.99	.99		Lateral
896	M1252	TWR_RED_HIPBRACE_T18	4.178	4.178	4.178	4.178	4.178	4.178	.99	.99		Lateral
897	M1105	TWR_RED_HIPDIA2_T18	17.874	17.874	8.924	8.924	8.924	8.924	1.01	1		Lateral
898	M1106	TWR_RED_HIPDIA2_T18	17.874	17.874	8.924	8.924	8.924	8.924	1.01	1		Lateral
899	M1107	TWR_RED_HIPDIA2_T18	17.874	17.874	8.924	8.924	8.924	8.924	1.01	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
900	M1108	TWR_RED_HIPDIA2_T18	17.874	17.874	8.924	8.924	8.924	8.924	1.01	1		Lateral
901	M1109	TWR_RED_HIPDIA2_T18	17.874	17.874	8.924	8.924	8.924	8.924	1.01	1		Lateral
902	M1110	TWR_RED_HIPDIA2_T18	17.874	17.874	8.924	8.924	8.924	8.924	1.01	1		Lateral
903	M1111	TWR_RED_HIPDIA2_T18	17.874	17.874	8.924	8.924	8.924	8.924	1.01	1		Lateral
904	M1112	TWR_RED_HIPDIA2_T18	17.874	17.874	8.924	8.924	8.924	8.924	1.01	1		Lateral
905	M1613	TWR_RED_HIPDIA_T9	11.246	11.246	11.246	11.246	11.246	11.246	1.04	1		Lateral
906	M1614	TWR_RED_HIPDIA_T9	11.246	11.246	11.246	11.246	11.246	11.246	1.04	1		Lateral
907	M1615	TWR_RED_HIPDIA_T9	11.246	11.246	11.246	11.246	11.246	11.246	1.04	1		Lateral
908	M1616	TWR_RED_HIPDIA_T9	11.246	11.246	11.246	11.246	11.246	11.246	1.04	1		Lateral
909	M1617	TWR_RED_HIPDIA_T9	11.246	11.246	11.246	11.246	11.246	11.246	1.04	1		Lateral
910	M1618	TWR_RED_HIPDIA_T9	11.246	11.246	11.246	11.246	11.246	11.246	1.04	1		Lateral
911	M1619	TWR_RED_HIPDIA_T9	11.246	11.246	11.246	11.246	11.246	11.246	1.04	1		Lateral
912	M1620	TWR_RED_HIPDIA_T9	11.246	11.246	11.246	11.246	11.246	11.246	1.04	1		Lateral
913	M1593	TWR_RED_HIPDIA_T10	11.929	11.929	11.929	11.929	11.929	11.929	1.03	1		Lateral
914	M1594	TWR_RED_HIPDIA_T10	11.929	11.929	11.929	11.929	11.929	11.929	1.03	1		Lateral
915	M1595	TWR_RED_HIPDIA_T10	11.929	11.929	11.929	11.929	11.929	11.929	1.03	1		Lateral
916	M1596	TWR_RED_HIPDIA_T10	11.929	11.929	11.929	11.929	11.929	11.929	1.03	1		Lateral
917	M1597	TWR_RED_HIPDIA_T10	11.929	11.929	11.929	11.929	11.929	11.929	1.03	1		Lateral
918	M1598	TWR_RED_HIPDIA_T10	11.929	11.929	11.929	11.929	11.929	11.929	1.03	1		Lateral
919	M1599	TWR_RED_HIPDIA_T10	11.929	11.929	11.929	11.929	11.929	11.929	1.03	1		Lateral
920	M1600	TWR_RED_HIPDIA_T10	11.929	11.929	11.929	11.929	11.929	11.929	1.03	1		Lateral
921	M1573	TWR_RED_HIPDIA_T11	12.652	12.652	12.652	12.652	12.652	12.652	1.03	1		Lateral
922	M1574	TWR_RED_HIPDIA_T11	12.652	12.652	12.652	12.652	12.652	12.652	1.03	1		Lateral
923	M1575	TWR_RED_HIPDIA_T11	12.652	12.652	12.652	12.652	12.652	12.652	1.03	1		Lateral
924	M1576	TWR_RED_HIPDIA_T11	12.652	12.652	12.652	12.652	12.652	12.652	1.03	1		Lateral
925	M1577	TWR_RED_HIPDIA_T11	12.652	12.652	12.652	12.652	12.652	12.652	1.03	1		Lateral
926	M1578	TWR_RED_HIPDIA_T11	12.652	12.652	12.652	12.652	12.652	12.652	1.03	1		Lateral
927	M1579	TWR_RED_HIPDIA_T11	12.652	12.652	12.652	12.652	12.652	12.652	1.03	1		Lateral
928	M1580	TWR_RED_HIPDIA_T11	12.652	12.652	12.652	12.652	12.652	12.652	1.03	1		Lateral
929	M1521	TWR_RED_HIPDIA_T12	10.986	10.986	10.986	10.986	10.986	10.986	1.03	1		Lateral
930	M1522	TWR_RED_HIPDIA_T12	10.986	10.986	10.986	10.986	10.986	10.986	1.03	1		Lateral
931	M1523	TWR_RED_HIPDIA_T12	10.986	10.986	10.986	10.986	10.986	10.986	1.03	1		Lateral
932	M1524	TWR_RED_HIPDIA_T12	10.986	10.986	10.986	10.986	10.986	10.986	1.03	1		Lateral
933	M1525	TWR_RED_HIPDIA_T12	10.986	10.986	10.986	10.986	10.986	10.986	1.03	1		Lateral
934	M1526	TWR_RED_HIPDIA_T12	10.986	10.986	10.986	10.986	10.986	10.986	1.03	1		Lateral
935	M1527	TWR_RED_HIPDIA_T12	10.986	10.986	10.986	10.986	10.986	10.986	1.03	1		Lateral
936	M1528	TWR_RED_HIPDIA_T12	10.986	10.986	10.986	10.986	10.986	10.986	1.03	1		Lateral
937	M1473	TWR_RED_HIPDIA_T13	11.424	11.424	11.424	11.424	11.424	11.424	1.04	1		Lateral
938	M1474	TWR_RED_HIPDIA_T13	11.424	11.424	11.424	11.424	11.424	11.424	1.04	1		Lateral
939	M1475	TWR_RED_HIPDIA_T13	11.424	11.424	11.424	11.424	11.424	11.424	1.04	1		Lateral
940	M1476	TWR_RED_HIPDIA_T13	11.424	11.424	11.424	11.424	11.424	11.424	1.04	1		Lateral
941	M1477	TWR_RED_HIPDIA_T13	11.424	11.424	11.424	11.424	11.424	11.424	1.04	1		Lateral
942	M1478	TWR_RED_HIPDIA_T13	11.424	11.424	11.424	11.424	11.424	11.424	1.04	1		Lateral
943	M1479	TWR_RED_HIPDIA_T13	11.424	11.424	11.424	11.424	11.424	11.424	1.04	1		Lateral
944	M1480	TWR_RED_HIPDIA_T13	11.424	11.424	11.424	11.424	11.424	11.424	1.04	1		Lateral
945	M1441	TWR_RED_HIPDIA_T14	11.882	11.882	11.882	11.882	11.882	11.882	1.03	1		Lateral
946	M1442	TWR_RED_HIPDIA_T14	11.882	11.882	11.882	11.882	11.882	11.882	1.03	1		Lateral
947	M1443	TWR_RED_HIPDIA_T14	11.882	11.882	11.882	11.882	11.882	11.882	1.03	1		Lateral
948	M1444	TWR_RED_HIPDIA_T14	11.882	11.882	11.882	11.882	11.882	11.882	1.03	1		Lateral
949	M1445	TWR_RED_HIPDIA_T14	11.882	11.882	11.882	11.882	11.882	11.882	1.03	1		Lateral
950	M1446	TWR_RED_HIPDIA_T14	11.882	11.882	11.882	11.882	11.882	11.882	1.03	1		Lateral
951	M1447	TWR_RED_HIPDIA_T14	11.882	11.882	11.882	11.882	11.882	11.882	1.03	1		Lateral
952	M1448	TWR_RED_HIPDIA_T14	11.882	11.882	11.882	11.882	11.882	11.882	1.03	1		Lateral
953	M1373	TWR_RED_HIPDIA_T15	15.442	15.442	7.721	7.721	7.721	7.721	1.02	1		Lateral
954	M1374	TWR_RED_HIPDIA_T15	15.442	15.442	7.721	7.721	7.721	7.721	1.02	1		Lateral
955	M1375	TWR_RED_HIPDIA_T15	15.442	15.442	7.721	7.721	7.721	7.721	1.02	1		Lateral
956	M1376	TWR_RED_HIPDIA_T15	15.442	15.442	7.721	7.721	7.721	7.721	1.02	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
957	M1377	TWR_RED_HIPDIA_T15	15.442	15.442	7.721	7.721	7.721	7.721	1.02	1		Lateral
958	M1378	TWR_RED_HIPDIA_T15	15.442	15.442	7.721	7.721	7.721	7.721	1.02	1		Lateral
959	M1379	TWR_RED_HIPDIA_T15	15.442	15.442	7.721	7.721	7.721	7.721	1.02	1		Lateral
960	M1380	TWR_RED_HIPDIA_T15	15.442	15.442	7.721	7.721	7.721	7.721	1.02	1		Lateral
961	M1309	TWR_RED_HIPDIA_T16	16.239	16.239	8.12	8.12	8.12	8.12	1.02	1		Lateral
962	M1310	TWR_RED_HIPDIA_T16	16.239	16.239	8.12	8.12	8.12	8.12	1.02	1		Lateral
963	M1311	TWR_RED_HIPDIA_T16	16.239	16.239	8.12	8.12	8.12	8.12	1.02	1		Lateral
964	M1312	TWR_RED_HIPDIA_T16	16.239	16.239	8.12	8.12	8.12	8.12	1.02	1		Lateral
965	M1313	TWR_RED_HIPDIA_T16	16.239	16.239	8.12	8.12	8.12	8.12	1.02	1		Lateral
966	M1314	TWR_RED_HIPDIA_T16	16.239	16.239	8.12	8.12	8.12	8.12	1.02	1		Lateral
967	M1315	TWR_RED_HIPDIA_T16	16.239	16.239	8.12	8.12	8.12	8.12	1.02	1		Lateral
968	M1316	TWR_RED_HIPDIA_T16	16.239	16.239	8.12	8.12	8.12	8.12	1.02	1		Lateral
969	M1181	TWR_RED_HIPDIA_T17	17.05	17.05	8.525	8.525	8.525	8.525	1.01	1		Lateral
970	M1182	TWR_RED_HIPDIA_T17	17.05	17.05	8.525	8.525	8.525	8.525	1.01	1		Lateral
971	M1183	TWR_RED_HIPDIA_T17	17.05	17.05	8.525	8.525	8.525	8.525	1.01	1		Lateral
972	M1184	TWR_RED_HIPDIA_T17	17.05	17.05	8.525	8.525	8.525	8.525	1.01	1		Lateral
973	M1185	TWR_RED_HIPDIA_T17	17.05	17.05	8.525	8.525	8.525	8.525	1.01	1		Lateral
974	M1186	TWR_RED_HIPDIA_T17	17.05	17.05	8.525	8.525	8.525	8.525	1.01	1		Lateral
975	M1187	TWR_RED_HIPDIA_T17	17.05	17.05	8.525	8.525	8.525	8.525	1.01	1		Lateral
976	M1188	TWR_RED_HIPDIA_T17	17.05	17.05	8.525	8.525	8.525	8.525	1.01	1		Lateral
977	M1073	TWR_RED_HIPDIA_T18	11.942	11.942	11.942	11.942	11.942	11.942	.92	.92		Lateral
978	M1074	TWR_RED_HIPDIA_T18	11.942	11.942	11.942	11.942	11.942	11.942	.92	.92		Lateral
979	M1075	TWR_RED_HIPDIA_T18	11.942	11.942	11.942	11.942	11.942	11.942	.92	.92		Lateral
980	M1076	TWR_RED_HIPDIA_T18	11.942	11.942	11.942	11.942	11.942	11.942	.92	.92		Lateral
981	M1077	TWR_RED_HIPDIA_T18	11.942	11.942	11.942	11.942	11.942	11.942	.92	.92		Lateral
982	M1078	TWR_RED_HIPDIA_T18	11.942	11.942	11.942	11.942	11.942	11.942	.92	.92		Lateral
983	M1079	TWR_RED_HIPDIA_T18	11.942	11.942	11.942	11.942	11.942	11.942	.92	.92		Lateral
984	M1080	TWR_RED_HIPDIA_T18	11.942	11.942	11.942	11.942	11.942	11.942	.92	.92		Lateral
985	M279	TWR_RED_HIP_2_T9	12.728	12.728	12.728	12.728	12.728	12.728	.97	.97		Lateral
986	M292	TWR_RED_HIP_2_T9	12.728	12.728	12.728	12.728	12.728	12.728	.97	.97		Lateral
987	M305	TWR_RED_HIP_2_T9	12.728	12.728	12.728	12.728	12.728	12.728	.97	.97		Lateral
988	M306	TWR_RED_HIP_2_T9	12.728	12.728	12.728	12.728	12.728	12.728	.97	.97		Lateral
989	M340	TWR_RED_HIP_2_T10	14.496	14.496	14.496	14.496	14.496	14.496	.97	.97		Lateral
990	M353	TWR_RED_HIP_2_T10	14.496	14.496	14.496	14.496	14.496	14.496	.97	.97		Lateral
991	M366	TWR_RED_HIP_2_T10	14.496	14.496	14.496	14.496	14.496	14.496	.97	.97		Lateral
992	M367	TWR_RED_HIP_2_T10	14.496	14.496	14.496	14.496	14.496	14.496	.97	.97		Lateral
993	M401	TWR_RED_HIP_2_T11	16.263	16.263	16.263	16.263	16.263	16.263	.95	.95		Lateral
994	M414	TWR_RED_HIP_2_T11	16.263	16.263	16.263	16.263	16.263	16.263	.95	.95		Lateral
995	M427	TWR_RED_HIP_2_T11	16.263	16.263	16.263	16.263	16.263	16.263	.95	.95		Lateral
996	M428	TWR_RED_HIP_2_T11	16.263	16.263	16.263	16.263	16.263	16.263	.95	.95		Lateral
997	M467	TWR_RED_HIP_2_T12	12.021	12.021	12.021	12.021	12.021	12.021	1.1	1		Lateral
998	M486	TWR_RED_HIP_2_T12	12.021	12.021	12.021	12.021	12.021	12.021	1.1	1		Lateral
999	M505	TWR_RED_HIP_2_T12	12.021	12.021	12.021	12.021	12.021	12.021	1.1	1		Lateral
1000	M508	TWR_RED_HIP_2_T12	12.021	12.021	12.021	12.021	12.021	12.021	1.1	1		Lateral
1001	M550	TWR_RED_HIP_2_T13	13.199	13.199	13.199	13.199	13.199	13.199	1	1		Lateral
1002	M567	TWR_RED_HIP_2_T13	13.199	13.199	13.199	13.199	13.199	13.199	1	1		Lateral
1003	M584	TWR_RED_HIP_2_T13	13.199	13.199	13.199	13.199	13.199	13.199	1	1		Lateral
1004	M587	TWR_RED_HIP_2_T13	13.199	13.199	13.199	13.199	13.199	13.199	1	1		Lateral
1005	M627	TWR_RED_HIP_2_T14	14.378	14.378	14.378	14.378	14.378	14.378	1.04	1		Lateral
1006	M644	TWR_RED_HIP_2_T14	14.378	14.378	14.378	14.378	14.378	14.378	1.04	1		Lateral
1007	M661	TWR_RED_HIP_2_T14	14.378	14.378	14.378	14.378	14.378	14.378	1.04	1		Lateral
1008	M664	TWR_RED_HIP_2_T14	14.378	14.378	14.378	14.378	14.378	14.378	1.04	1		Lateral
1009	M706	TWR_RED_HIP_2_T15	18.385	18.385	18.385	18.385	18.385	18.385	1.06	1		Lateral
1010	M725	TWR_RED_HIP_2_T15	18.385	18.385	18.385	18.385	18.385	18.385	1.06	1		Lateral
1011	M744	TWR_RED_HIP_2_T15	18.385	18.385	18.385	18.385	18.385	18.385	1.06	1		Lateral
1012	M747	TWR_RED_HIP_2_T15	18.385	18.385	18.385	18.385	18.385	18.385	1.06	1		Lateral
1013	M791	TWR_RED_HIP_2_T16	19.711	19.711	19.711	19.711	19.711	19.711	1.05	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1014	M810	TWR_RED_HIP_2_T16	19.711	19.711	19.711	19.711	19.711	19.711	1.05	1		Lateral
1015	M829	TWR_RED_HIP_2_T16	19.711	19.711	19.711	19.711	19.711	19.711	1.05	1		Lateral
1016	M832	TWR_RED_HIP_2_T16	19.711	19.711	19.711	19.711	19.711	19.711	1.05	1		Lateral
1017	M876	TWR_RED_HIP_2_T17	21.036	21.036	21.036	21.036	21.036	21.036	1.05	1		Lateral
1018	M895	TWR_RED_HIP_2_T17	21.036	21.036	21.036	21.036	21.036	21.036	1.05	1		Lateral
1019	M914	TWR_RED_HIP_2_T17	21.036	21.036	21.036	21.036	21.036	21.036	1.05	1		Lateral
1020	M917	TWR_RED_HIP_2_T17	21.036	21.036	21.036	21.036	21.036	21.036	1.05	1		Lateral
1021	M961	TWR_RED_HIP_2_T18	22.362	22.362	11.181	11.181	11.181	11.181	1.03	1		Lateral
1022	M980	TWR_RED_HIP_2_T18	22.362	22.362	11.181	11.181	11.181	11.181	1.03	1		Lateral
1023	M999	TWR_RED_HIP_2_T18	22.362	22.362	11.181	11.181	11.181	11.181	1.03	1		Lateral
1024	M1002	TWR_RED_HIP_2_T18	22.362	22.362	11.181	11.181	11.181	11.181	1.03	1		Lateral
1025	M705	TWR_RED_HIP_T15	9.192	9.192	9.192	9.192	9.192	9.192	1.02	1.02		Lateral
1026	M724	TWR_RED_HIP_T15	9.192	9.192	9.192	9.192	9.192	9.192	1.02	1.02		Lateral
1027	M743	TWR_RED_HIP_T15	9.192	9.192	9.192	9.192	9.192	9.192	1.02	1.02		Lateral
1028	M746	TWR_RED_HIP_T15	9.192	9.192	9.192	9.192	9.192	9.192	1.02	1.02		Lateral
1029	M790	TWR_RED_HIP_T16	9.855	9.855	9.855	9.855	9.855	9.855	1	1		Lateral
1030	M809	TWR_RED_HIP_T16	9.855	9.855	9.855	9.855	9.855	9.855	1	1		Lateral
1031	M828	TWR_RED_HIP_T16	9.855	9.855	9.855	9.855	9.855	9.855	1	1		Lateral
1032	M831	TWR_RED_HIP_T16	9.855	9.855	9.855	9.855	9.855	9.855	1	1		Lateral
1033	M875	TWR_RED_HIP_T17	10.518	10.518	10.518	10.518	10.518	10.518	1.06	1.06		Lateral
1034	M894	TWR_RED_HIP_T17	10.518	10.518	10.518	10.518	10.518	10.518	1.06	1.06		Lateral
1035	M913	TWR_RED_HIP_T17	10.518	10.518	10.518	10.518	10.518	10.518	1.06	1.06		Lateral
1036	M916	TWR_RED_HIP_T17	10.518	10.518	10.518	10.518	10.518	10.518	1.06	1.06		Lateral
1037	M960	TWR_RED_HIP_T18	11.181	11.181	11.181	11.181	11.181	11.181	1.04	1.04		Lateral
1038	M979	TWR_RED_HIP_T18	11.181	11.181	11.181	11.181	11.181	11.181	1.04	1.04		Lateral
1039	M998	TWR_RED_HIP_T18	11.181	11.181	11.181	11.181	11.181	11.181	1.04	1.04		Lateral
1040	M1001	TWR_RED_HIP_T18	11.181	11.181	11.181	11.181	11.181	11.181	1.04	1.04		Lateral
1041	M258	TWR_RED_HORZ_2_T9	9	8.67	8.67	8.67	8.67	8.67	1.06	1		Lateral
1042	M263	TWR_RED_HORZ_2_T9	9	8.67	8.67	8.67	8.67	8.67	1.06	1		Lateral
1043	M270	TWR_RED_HORZ_2_T9	9	8.67	8.67	8.67	8.67	8.67	1.06	1		Lateral
1044	M275	TWR_RED_HORZ_2_T9	9	8.67	8.67	8.67	8.67	8.67	1.06	1		Lateral
1045	M283	TWR_RED_HORZ_2_T9	9	8.67	8.67	8.67	8.67	8.67	1.06	1		Lateral
1046	M288	TWR_RED_HORZ_2_T9	9	8.67	8.67	8.67	8.67	8.67	1.06	1		Lateral
1047	M296	TWR_RED_HORZ_2_T9	9	8.67	8.67	8.67	8.67	8.67	1.06	1		Lateral
1048	M301	TWR_RED_HORZ_2_T9	9	8.67	8.67	8.67	8.67	8.67	1.06	1		Lateral
1049	M319	TWR_RED_HORZ_2_T10	10.25	9.92	9.92	9.92	9.92	9.92	1.05	1		Lateral
1050	M324	TWR_RED_HORZ_2_T10	10.25	9.92	9.92	9.92	9.92	9.92	1.05	1		Lateral
1051	M331	TWR_RED_HORZ_2_T10	10.25	9.92	9.92	9.92	9.92	9.92	1.05	1		Lateral
1052	M336	TWR_RED_HORZ_2_T10	10.25	9.92	9.92	9.92	9.92	9.92	1.05	1		Lateral
1053	M344	TWR_RED_HORZ_2_T10	10.25	9.92	9.92	9.92	9.92	9.92	1.05	1		Lateral
1054	M349	TWR_RED_HORZ_2_T10	10.25	9.92	9.92	9.92	9.92	9.92	1.05	1		Lateral
1055	M357	TWR_RED_HORZ_2_T10	10.25	9.92	9.92	9.92	9.92	9.92	1.05	1		Lateral
1056	M362	TWR_RED_HORZ_2_T10	10.25	9.92	9.92	9.92	9.92	9.92	1.05	1		Lateral
1057	M380	TWR_RED_HORZ_2_T11	11.5	11.17	11.17	11.17	11.17	11.17	1.04	1		Lateral
1058	M385	TWR_RED_HORZ_2_T11	11.5	11.17	11.17	11.17	11.17	11.17	1.04	1		Lateral
1059	M392	TWR_RED_HORZ_2_T11	11.5	11.17	11.17	11.17	11.17	11.17	1.04	1		Lateral
1060	M397	TWR_RED_HORZ_2_T11	11.5	11.17	11.17	11.17	11.17	11.17	1.04	1		Lateral
1061	M405	TWR_RED_HORZ_2_T11	11.5	11.17	11.17	11.17	11.17	11.17	1.04	1		Lateral
1062	M410	TWR_RED_HORZ_2_T11	11.5	11.17	11.17	11.17	11.17	11.17	1.04	1		Lateral
1063	M418	TWR_RED_HORZ_2_T11	11.5	11.17	11.17	11.17	11.17	11.17	1.04	1		Lateral
1064	M423	TWR_RED_HORZ_2_T11	11.5	11.17	11.17	11.17	11.17	11.17	1.04	1		Lateral
1065	M441	TWR_RED_HORZ_2_T12	8.5	8.16	8.16	8.16	8.16	8.16	1.07	1		Lateral
1066	M446	TWR_RED_HORZ_2_T12	8.5	8.16	8.16	8.16	8.16	8.16	1.07	1		Lateral
1067	M457	TWR_RED_HORZ_2_T12	8.5	8.16	8.16	8.16	8.16	8.16	1.07	1		Lateral
1068	M462	TWR_RED_HORZ_2_T12	8.5	8.16	8.16	8.16	8.16	8.16	1.07	1		Lateral
1069	M476	TWR_RED_HORZ_2_T12	8.5	8.16	8.16	8.16	8.16	8.16	1.07	1		Lateral
1070	M481	TWR_RED_HORZ_2_T12	8.5	8.16	8.16	8.16	8.16	8.16	1.07	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1071	M495	TWR_RED_HORZ_2_T12	8.5	8.16	8.16	8.16	8.16	8.16	1.07	1		Lateral
1072	M500	TWR_RED_HORZ_2_T12	8.5	8.16	8.16	8.16	8.16	8.16	1.07	1		Lateral
1073	M526	TWR_RED_HORZ_2_T13	9.333	8.993	8.993	8.993	8.993	8.993	1.06	1		Lateral
1074	M531	TWR_RED_HORZ_2_T13	9.333	8.993	8.993	8.993	8.993	8.993	1.06	1		Lateral
1075	M540	TWR_RED_HORZ_2_T13	9.333	8.993	8.993	8.993	8.993	8.993	1.06	1		Lateral
1076	M545	TWR_RED_HORZ_2_T13	9.333	8.993	8.993	8.993	8.993	8.993	1.06	1		Lateral
1077	M557	TWR_RED_HORZ_2_T13	9.333	8.993	8.993	8.993	8.993	8.993	1.06	1		Lateral
1078	M562	TWR_RED_HORZ_2_T13	9.333	8.993	8.993	8.993	8.993	8.993	1.06	1		Lateral
1079	M574	TWR_RED_HORZ_2_T13	9.333	8.993	8.993	8.993	8.993	8.993	1.06	1		Lateral
1080	M579	TWR_RED_HORZ_2_T13	9.333	8.993	8.993	8.993	8.993	8.993	1.06	1		Lateral
1081	M603	TWR_RED_HORZ_2_T14	10.167	9.827	9.827	9.827	9.827	9.827	1.05	1		Lateral
1082	M608	TWR_RED_HORZ_2_T14	10.167	9.827	9.827	9.827	9.827	9.827	1.05	1		Lateral
1083	M617	TWR_RED_HORZ_2_T14	10.167	9.827	9.827	9.827	9.827	9.827	1.05	1		Lateral
1084	M622	TWR_RED_HORZ_2_T14	10.167	9.827	9.827	9.827	9.827	9.827	1.05	1		Lateral
1085	M634	TWR_RED_HORZ_2_T14	10.167	9.827	9.827	9.827	9.827	9.827	1.05	1		Lateral
1086	M639	TWR_RED_HORZ_2_T14	10.167	9.827	9.827	9.827	9.827	9.827	1.05	1		Lateral
1087	M651	TWR_RED_HORZ_2_T14	10.167	9.827	9.827	9.827	9.827	9.827	1.05	1		Lateral
1088	M656	TWR_RED_HORZ_2_T14	10.167	9.827	9.827	9.827	9.827	9.827	1.05	1		Lateral
1089	M680	TWR_RED_HORZ_2_T15	13	12.67	12.67	12.67	12.67	12.67	1.06	1		Lateral
1090	M685	TWR_RED_HORZ_2_T15	13	12.67	12.67	12.67	12.67	12.67	1.06	1		Lateral
1091	M696	TWR_RED_HORZ_2_T15	13	12.67	12.67	12.67	12.67	12.67	1.06	1		Lateral
1092	M701	TWR_RED_HORZ_2_T15	13	12.67	12.67	12.67	12.67	12.67	1.06	1		Lateral
1093	M715	TWR_RED_HORZ_2_T15	13	12.67	12.67	12.67	12.67	12.67	1.06	1		Lateral
1094	M720	TWR_RED_HORZ_2_T15	13	12.67	12.67	12.67	12.67	12.67	1.06	1		Lateral
1095	M734	TWR_RED_HORZ_2_T15	13	12.67	12.67	12.67	12.67	12.67	1.06	1		Lateral
1096	M739	TWR_RED_HORZ_2_T15	13	12.67	12.67	12.67	12.67	12.67	1.06	1		Lateral
1097	M765	TWR_RED_HORZ_2_T16	13.938	13.6	13.6	13.6	13.6	13.6	1.05	1		Lateral
1098	M770	TWR_RED_HORZ_2_T16	13.938	13.6	13.6	13.6	13.6	13.6	1.05	1		Lateral
1099	M781	TWR_RED_HORZ_2_T16	13.938	13.6	13.6	13.6	13.6	13.6	1.05	1		Lateral
1100	M786	TWR_RED_HORZ_2_T16	13.938	13.6	13.6	13.6	13.6	13.6	1.05	1		Lateral
1101	M800	TWR_RED_HORZ_2_T16	13.938	13.6	13.6	13.6	13.6	13.6	1.05	1		Lateral
1102	M805	TWR_RED_HORZ_2_T16	13.938	13.6	13.6	13.6	13.6	13.6	1.05	1		Lateral
1103	M819	TWR_RED_HORZ_2_T16	13.938	13.6	13.6	13.6	13.6	13.6	1.05	1		Lateral
1104	M824	TWR_RED_HORZ_2_T16	13.938	13.6	13.6	13.6	13.6	13.6	1.05	1		Lateral
1105	M850	TWR_RED_HORZ_2_T17	14.875	14.54	14.54	14.54	14.54	14.54	1.05	1		Lateral
1106	M855	TWR_RED_HORZ_2_T17	14.875	14.54	14.54	14.54	14.54	14.54	1.05	1		Lateral
1107	M866	TWR_RED_HORZ_2_T17	14.875	14.54	14.54	14.54	14.54	14.54	1.05	1		Lateral
1108	M871	TWR_RED_HORZ_2_T17	14.875	14.54	14.54	14.54	14.54	14.54	1.05	1		Lateral
1109	M885	TWR_RED_HORZ_2_T17	14.875	14.54	14.54	14.54	14.54	14.54	1.05	1		Lateral
1110	M890	TWR_RED_HORZ_2_T17	14.875	14.54	14.54	14.54	14.54	14.54	1.05	1		Lateral
1111	M904	TWR_RED_HORZ_2_T17	14.875	14.54	14.54	14.54	14.54	14.54	1.05	1		Lateral
1112	M909	TWR_RED_HORZ_2_T17	14.875	14.54	14.54	14.54	14.54	14.54	1.05	1		Lateral
1113	M935	TWR_RED_HORZ_2_T18	15.813	7.74	15.48	7.74	7.74	7.74	1.16	1		Lateral
1114	M940	TWR_RED_HORZ_2_T18	15.813	7.74	15.48	7.74	7.74	7.74	1.16	1		Lateral
1115	M951	TWR_RED_HORZ_2_T18	15.813	7.74	15.48	7.74	7.74	7.74	1.16	1		Lateral
1116	M956	TWR_RED_HORZ_2_T18	15.813	7.74	15.48	7.74	7.74	7.74	1.16	1		Lateral
1117	M970	TWR_RED_HORZ_2_T18	15.813	7.74	15.48	7.74	7.74	7.74	1.16	1		Lateral
1118	M975	TWR_RED_HORZ_2_T18	15.813	7.74	15.48	7.74	7.74	7.74	1.16	1		Lateral
1119	M989	TWR_RED_HORZ_2_T18	15.813	7.74	15.48	7.74	7.74	7.74	1.16	1		Lateral
1120	M994	TWR_RED_HORZ_2_T18	15.813	7.74	15.48	7.74	7.74	7.74	1.16	1		Lateral
1121	M72	TWR_RED_HORZ_T4	4.406	4.16	4.16	4.16	4.16	4.16	1.26	1.26		Lateral
1122	M75	TWR_RED_HORZ_T4	4.406	4.16	4.16	4.16	4.16	4.16	1.26	1.26		Lateral
1123	M79	TWR_RED_HORZ_T4	4.406	4.16	4.16	4.16	4.16	4.16	1.26	1.26		Lateral
1124	M82	TWR_RED_HORZ_T4	4.406	4.16	4.16	4.16	4.16	4.16	1.26	1.26		Lateral
1125	M86	TWR_RED_HORZ_T4	4.406	4.16	4.16	4.16	4.16	4.16	1.26	1.26		Lateral
1126	M89	TWR_RED_HORZ_T4	4.406	4.16	4.16	4.16	4.16	4.16	1.26	1.26		Lateral
1127	M93	TWR_RED_HORZ_T4	4.406	4.16	4.16	4.16	4.16	4.16	1.26	1.26		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1128	M96	TWR_RED_HORZ_T4	4.406	4.16	4.16	4.16	4.16	4.16	1.26	1.26		Lateral
1129	M109	TWR_RED_HORZ_T5	4.875	4.63	4.63	4.63	4.63	4.63	1.19	1.19		Lateral
1130	M112	TWR_RED_HORZ_T5	4.875	4.63	4.63	4.63	4.63	4.63	1.19	1.19		Lateral
1131	M116	TWR_RED_HORZ_T5	4.875	4.63	4.63	4.63	4.63	4.63	1.19	1.19		Lateral
1132	M119	TWR_RED_HORZ_T5	4.875	4.63	4.63	4.63	4.63	4.63	1.19	1.19		Lateral
1133	M123	TWR_RED_HORZ_T5	4.875	4.63	4.63	4.63	4.63	4.63	1.19	1.19		Lateral
1134	M126	TWR_RED_HORZ_T5	4.875	4.63	4.63	4.63	4.63	4.63	1.19	1.19		Lateral
1135	M130	TWR_RED_HORZ_T5	4.875	4.63	4.63	4.63	4.63	4.63	1.19	1.19		Lateral
1136	M133	TWR_RED_HORZ_T5	4.875	4.63	4.63	4.63	4.63	4.63	1.19	1.19		Lateral
1137	M146	TWR_RED_HORZ_T6	5.344	5.09	5.09	5.09	5.09	5.09	1.15	1.15		Lateral
1138	M149	TWR_RED_HORZ_T6	5.344	5.09	5.09	5.09	5.09	5.09	1.15	1.15		Lateral
1139	M153	TWR_RED_HORZ_T6	5.344	5.09	5.09	5.09	5.09	5.09	1.15	1.15		Lateral
1140	M156	TWR_RED_HORZ_T6	5.344	5.09	5.09	5.09	5.09	5.09	1.15	1.15		Lateral
1141	M160	TWR_RED_HORZ_T6	5.344	5.09	5.09	5.09	5.09	5.09	1.15	1.15		Lateral
1142	M163	TWR_RED_HORZ_T6	5.344	5.09	5.09	5.09	5.09	5.09	1.15	1.15		Lateral
1143	M167	TWR_RED_HORZ_T6	5.344	5.09	5.09	5.09	5.09	5.09	1.15	1.15		Lateral
1144	M170	TWR_RED_HORZ_T6	5.344	5.09	5.09	5.09	5.09	5.09	1.15	1.15		Lateral
1145	M183	TWR_RED_HORZ_T7	5.813	5.48	5.48	5.48	5.48	5.48	1.11	1.11		Lateral
1146	M186	TWR_RED_HORZ_T7	5.813	5.48	5.48	5.48	5.48	5.48	1.11	1.11		Lateral
1147	M190	TWR_RED_HORZ_T7	5.813	5.48	5.48	5.48	5.48	5.48	1.11	1.11		Lateral
1148	M193	TWR_RED_HORZ_T7	5.813	5.48	5.48	5.48	5.48	5.48	1.11	1.11		Lateral
1149	M197	TWR_RED_HORZ_T7	5.813	5.48	5.48	5.48	5.48	5.48	1.11	1.11		Lateral
1150	M200	TWR_RED_HORZ_T7	5.813	5.48	5.48	5.48	5.48	5.48	1.11	1.11		Lateral
1151	M204	TWR_RED_HORZ_T7	5.813	5.48	5.48	5.48	5.48	5.48	1.11	1.11		Lateral
1152	M207	TWR_RED_HORZ_T7	5.813	5.48	5.48	5.48	5.48	5.48	1.11	1.11		Lateral
1153	M220	TWR_RED_HORZ_T8	6.281	5.95	5.95	5.95	5.95	5.95	1.08	1.08		Lateral
1154	M223	TWR_RED_HORZ_T8	6.281	5.95	5.95	5.95	5.95	5.95	1.08	1.08		Lateral
1155	M227	TWR_RED_HORZ_T8	6.281	5.95	5.95	5.95	5.95	5.95	1.08	1.08		Lateral
1156	M230	TWR_RED_HORZ_T8	6.281	5.95	5.95	5.95	5.95	5.95	1.08	1.08		Lateral
1157	M234	TWR_RED_HORZ_T8	6.281	5.95	5.95	5.95	5.95	5.95	1.08	1.08		Lateral
1158	M237	TWR_RED_HORZ_T8	6.281	5.95	5.95	5.95	5.95	5.95	1.08	1.08		Lateral
1159	M241	TWR_RED_HORZ_T8	6.281	5.95	5.95	5.95	5.95	5.95	1.08	1.08		Lateral
1160	M244	TWR_RED_HORZ_T8	6.281	5.95	5.95	5.95	5.95	5.95	1.08	1.08		Lateral
1161	M257	TWR_RED_HORZ_T9	4.5	4.17	4.17	4.17	4.17	4.17	1.24	1.24		Lateral
1162	M262	TWR_RED_HORZ_T9	4.5	4.17	4.17	4.17	4.17	4.17	1.24	1.24		Lateral
1163	M269	TWR_RED_HORZ_T9	4.5	4.17	4.17	4.17	4.17	4.17	1.24	1.24		Lateral
1164	M274	TWR_RED_HORZ_T9	4.5	4.17	4.17	4.17	4.17	4.17	1.24	1.24		Lateral
1165	M282	TWR_RED_HORZ_T9	4.5	4.17	4.17	4.17	4.17	4.17	1.24	1.24		Lateral
1166	M287	TWR_RED_HORZ_T9	4.5	4.17	4.17	4.17	4.17	4.17	1.24	1.24		Lateral
1167	M295	TWR_RED_HORZ_T9	4.5	4.17	4.17	4.17	4.17	4.17	1.24	1.24		Lateral
1168	M300	TWR_RED_HORZ_T9	4.5	4.17	4.17	4.17	4.17	4.17	1.24	1.24		Lateral
1169	M318	TWR_RED_HORZ_T10	5.125	4.79	4.79	4.79	4.79	4.79	1.18	1.18		Lateral
1170	M323	TWR_RED_HORZ_T10	5.125	4.79	4.79	4.79	4.79	4.79	1.18	1.18		Lateral
1171	M330	TWR_RED_HORZ_T10	5.125	4.79	4.79	4.79	4.79	4.79	1.18	1.18		Lateral
1172	M335	TWR_RED_HORZ_T10	5.125	4.79	4.79	4.79	4.79	4.79	1.18	1.18		Lateral
1173	M343	TWR_RED_HORZ_T10	5.125	4.79	4.79	4.79	4.79	4.79	1.18	1.18		Lateral
1174	M348	TWR_RED_HORZ_T10	5.125	4.79	4.79	4.79	4.79	4.79	1.18	1.18		Lateral
1175	M356	TWR_RED_HORZ_T10	5.125	4.79	4.79	4.79	4.79	4.79	1.18	1.18		Lateral
1176	M361	TWR_RED_HORZ_T10	5.125	4.79	4.79	4.79	4.79	4.79	1.18	1.18		Lateral
1177	M379	TWR_RED_HORZ_T11	5.75	5.42	5.42	5.42	5.42	5.42	1.13	1.13		Lateral
1178	M384	TWR_RED_HORZ_T11	5.75	5.42	5.42	5.42	5.42	5.42	1.13	1.13		Lateral
1179	M391	TWR_RED_HORZ_T11	5.75	5.42	5.42	5.42	5.42	5.42	1.13	1.13		Lateral
1180	M396	TWR_RED_HORZ_T11	5.75	5.42	5.42	5.42	5.42	5.42	1.13	1.13		Lateral
1181	M404	TWR_RED_HORZ_T11	5.75	5.42	5.42	5.42	5.42	5.42	1.13	1.13		Lateral
1182	M409	TWR_RED_HORZ_T11	5.75	5.42	5.42	5.42	5.42	5.42	1.13	1.13		Lateral
1183	M417	TWR_RED_HORZ_T11	5.75	5.42	5.42	5.42	5.42	5.42	1.13	1.13		Lateral
1184	M422	TWR_RED_HORZ_T11	5.75	5.42	5.42	5.42	5.42	5.42	1.13	1.13		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1185	M440	TWR_RED_HORZ_T12	4.25	3.91	3.91	3.91	3.91	3.91	1.28	1.28		Lateral
1186	M445	TWR_RED_HORZ_T12	4.25	3.91	3.91	3.91	3.91	3.91	1.28	1.28		Lateral
1187	M456	TWR_RED_HORZ_T12	4.25	3.91	3.91	3.91	3.91	3.91	1.28	1.28		Lateral
1188	M461	TWR_RED_HORZ_T12	4.25	3.91	3.91	3.91	3.91	3.91	1.28	1.28		Lateral
1189	M475	TWR_RED_HORZ_T12	4.25	3.91	3.91	3.91	3.91	3.91	1.28	1.28		Lateral
1190	M480	TWR_RED_HORZ_T12	4.25	3.91	3.91	3.91	3.91	3.91	1.28	1.28		Lateral
1191	M494	TWR_RED_HORZ_T12	4.25	3.91	3.91	3.91	3.91	3.91	1.28	1.28		Lateral
1192	M499	TWR_RED_HORZ_T12	4.25	3.91	3.91	3.91	3.91	3.91	1.28	1.28		Lateral
1193	M525	TWR_RED_HORZ_T13	4.667	4.337	4.337	4.337	4.337	4.337	1.22	1.22		Lateral
1194	M530	TWR_RED_HORZ_T13	4.667	4.337	4.337	4.337	4.337	4.337	1.22	1.22		Lateral
1195	M539	TWR_RED_HORZ_T13	4.667	4.337	4.337	4.337	4.337	4.337	1.22	1.22		Lateral
1196	M544	TWR_RED_HORZ_T13	4.667	4.337	4.337	4.337	4.337	4.337	1.22	1.22		Lateral
1197	M556	TWR_RED_HORZ_T13	4.667	4.337	4.337	4.337	4.337	4.337	1.22	1.22		Lateral
1198	M561	TWR_RED_HORZ_T13	4.667	4.337	4.337	4.337	4.337	4.337	1.22	1.22		Lateral
1199	M573	TWR_RED_HORZ_T13	4.667	4.337	4.337	4.337	4.337	4.337	1.22	1.22		Lateral
1200	M578	TWR_RED_HORZ_T13	4.667	4.337	4.337	4.337	4.337	4.337	1.22	1.22		Lateral
1201	M602	TWR_RED_HORZ_T14	5.083	4.743	4.743	4.743	4.743	4.743	1.18	1.18		Lateral
1202	M607	TWR_RED_HORZ_T14	5.083	4.743	4.743	4.743	4.743	4.743	1.18	1.18		Lateral
1203	M616	TWR_RED_HORZ_T14	5.083	4.743	4.743	4.743	4.743	4.743	1.18	1.18		Lateral
1204	M621	TWR_RED_HORZ_T14	5.083	4.743	4.743	4.743	4.743	4.743	1.18	1.18		Lateral
1205	M633	TWR_RED_HORZ_T14	5.083	4.743	4.743	4.743	4.743	4.743	1.18	1.18		Lateral
1206	M638	TWR_RED_HORZ_T14	5.083	4.743	4.743	4.743	4.743	4.743	1.18	1.18		Lateral
1207	M650	TWR_RED_HORZ_T14	5.083	4.743	4.743	4.743	4.743	4.743	1.18	1.18		Lateral
1208	M655	TWR_RED_HORZ_T14	5.083	4.743	4.743	4.743	4.743	4.743	1.18	1.18		Lateral
1209	M679	TWR_RED_HORZ_T15	6.5	6.17	6.17	6.17	6.17	6.17	1.07	1.07		Lateral
1210	M684	TWR_RED_HORZ_T15	6.5	6.17	6.17	6.17	6.17	6.17	1.07	1.07		Lateral
1211	M695	TWR_RED_HORZ_T15	6.5	6.17	6.17	6.17	6.17	6.17	1.07	1.07		Lateral
1212	M700	TWR_RED_HORZ_T15	6.5	6.17	6.17	6.17	6.17	6.17	1.07	1.07		Lateral
1213	M714	TWR_RED_HORZ_T15	6.5	6.17	6.17	6.17	6.17	6.17	1.07	1.07		Lateral
1214	M719	TWR_RED_HORZ_T15	6.5	6.17	6.17	6.17	6.17	6.17	1.07	1.07		Lateral
1215	M733	TWR_RED_HORZ_T15	6.5	6.17	6.17	6.17	6.17	6.17	1.07	1.07		Lateral
1216	M738	TWR_RED_HORZ_T15	6.5	6.17	6.17	6.17	6.17	6.17	1.07	1.07		Lateral
1217	M764	TWR_RED_HORZ_T16	6.969	6.64	6.64	6.64	6.64	6.64	1.05	1.05		Lateral
1218	M769	TWR_RED_HORZ_T16	6.969	6.64	6.64	6.64	6.64	6.64	1.05	1.05		Lateral
1219	M780	TWR_RED_HORZ_T16	6.969	6.64	6.64	6.64	6.64	6.64	1.05	1.05		Lateral
1220	M785	TWR_RED_HORZ_T16	6.969	6.64	6.64	6.64	6.64	6.64	1.05	1.05		Lateral
1221	M799	TWR_RED_HORZ_T16	6.969	6.64	6.64	6.64	6.64	6.64	1.05	1.05		Lateral
1222	M804	TWR_RED_HORZ_T16	6.969	6.64	6.64	6.64	6.64	6.64	1.05	1.05		Lateral
1223	M818	TWR_RED_HORZ_T16	6.969	6.64	6.64	6.64	6.64	6.64	1.05	1.05		Lateral
1224	M823	TWR_RED_HORZ_T16	6.969	6.64	6.64	6.64	6.64	6.64	1.05	1.05		Lateral
1225	M849	TWR_RED_HORZ_T17	7.438	7.1	7.1	7.1	7.1	7.1	1.03	1.03		Lateral
1226	M854	TWR_RED_HORZ_T17	7.438	7.1	7.1	7.1	7.1	7.1	1.03	1.03		Lateral
1227	M865	TWR_RED_HORZ_T17	7.438	7.1	7.1	7.1	7.1	7.1	1.03	1.03		Lateral
1228	M870	TWR_RED_HORZ_T17	7.438	7.1	7.1	7.1	7.1	7.1	1.03	1.03		Lateral
1229	M884	TWR_RED_HORZ_T17	7.438	7.1	7.1	7.1	7.1	7.1	1.03	1.03		Lateral
1230	M889	TWR_RED_HORZ_T17	7.438	7.1	7.1	7.1	7.1	7.1	1.03	1.03		Lateral
1231	M903	TWR_RED_HORZ_T17	7.438	7.1	7.1	7.1	7.1	7.1	1.03	1.03		Lateral
1232	M908	TWR_RED_HORZ_T17	7.438	7.1	7.1	7.1	7.1	7.1	1.03	1.03		Lateral
1233	M934	TWR_RED_HORZ_T18	7.906	7.57	7.57	7.57	7.57	7.57	1.01	1.01		Lateral
1234	M939	TWR_RED_HORZ_T18	7.906	7.57	7.57	7.57	7.57	7.57	1.01	1.01		Lateral
1235	M950	TWR_RED_HORZ_T18	7.906	7.57	7.57	7.57	7.57	7.57	1.01	1.01		Lateral
1236	M955	TWR_RED_HORZ_T18	7.906	7.57	7.57	7.57	7.57	7.57	1.01	1.01		Lateral
1237	M969	TWR_RED_HORZ_T18	7.906	7.57	7.57	7.57	7.57	7.57	1.01	1.01		Lateral
1238	M974	TWR_RED_HORZ_T18	7.906	7.57	7.57	7.57	7.57	7.57	1.01	1.01		Lateral
1239	M988	TWR_RED_HORZ_T18	7.906	7.57	7.57	7.57	7.57	7.57	1.01	1.01		Lateral
1240	M993	TWR_RED_HORZ_T18	7.906	7.57	7.57	7.57	7.57	7.57	1.01	1.01		Lateral
1241	M1129	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1242	M1130	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1243	M1131	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1244	M1132	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1245	M1133	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1246	M1134	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1247	M1135	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1248	M1136	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1249	M1137	TWR_RED_KICKER_2_T18	5.542	5.542	5.542	5.542	5.542	5.542	1	1		Lateral
1250	M1138	TWR_RED_KICKER_2_T18	5.542	5.542	5.542	5.542	5.542	5.542	1	1		Lateral
1251	M1139	TWR_RED_KICKER_2_T18	5.542	5.542	5.542	5.542	5.542	5.542	1	1		Lateral
1252	M1140	TWR_RED_KICKER_2_T18	5.542	5.542	5.542	5.542	5.542	5.542	1	1		Lateral
1253	M1141	TWR_RED_KICKER_2_T18	5.542	5.542	5.542	5.542	5.542	5.542	1	1		Lateral
1254	M1142	TWR_RED_KICKER_2_T18	5.542	5.542	5.542	5.542	5.542	5.542	1	1		Lateral
1255	M1143	TWR_RED_KICKER_2_T18	5.542	5.542	5.542	5.542	5.542	5.542	1	1		Lateral
1256	M1144	TWR_RED_KICKER_2_T18	5.542	5.542	5.542	5.542	5.542	5.542	1	1		Lateral
1257	M1145	TWR_RED_KICKER_2_T18	5.971	5.971	5.971	5.971	5.971	5.971	1	1		Lateral
1258	M1146	TWR_RED_KICKER_2_T18	5.971	5.971	5.971	5.971	5.971	5.971	1	1		Lateral
1259	M1147	TWR_RED_KICKER_2_T18	5.971	5.971	5.971	5.971	5.971	5.971	1	1		Lateral
1260	M1148	TWR_RED_KICKER_2_T18	5.971	5.971	5.971	5.971	5.971	5.971	1	1		Lateral
1261	M1149	TWR_RED_KICKER_2_T18	5.971	5.971	5.971	5.971	5.971	5.971	1	1		Lateral
1262	M1150	TWR_RED_KICKER_2_T18	5.971	5.971	5.971	5.971	5.971	5.971	1	1		Lateral
1263	M1151	TWR_RED_KICKER_2_T18	5.971	5.971	5.971	5.971	5.971	5.971	1	1		Lateral
1264	M1152	TWR_RED_KICKER_2_T18	5.971	5.971	5.971	5.971	5.971	5.971	1	1		Lateral
1265	M1153	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1266	M1154	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1267	M1155	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1268	M1156	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1269	M1157	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1270	M1158	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1271	M1159	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1272	M1160	TWR_RED_KICKER_2_T18	3.953	3.953	3.953	3.953	3.953	3.953	1	1		Lateral
1273	M1161	TWR_RED_KICKER_2_T18	9.22	9.22	9.22	9.22	9.22	9.22	1	1		Lateral
1274	M1162	TWR_RED_KICKER_2_T18	9.22	9.22	9.22	9.22	9.22	9.22	1	1		Lateral
1275	M1163	TWR_RED_KICKER_2_T18	9.22	9.22	9.22	9.22	9.22	9.22	1	1		Lateral
1276	M1164	TWR_RED_KICKER_2_T18	9.22	9.22	9.22	9.22	9.22	9.22	1	1		Lateral
1277	M1165	TWR_RED_KICKER_2_T18	9.22	9.22	9.22	9.22	9.22	9.22	1	1		Lateral
1278	M1166	TWR_RED_KICKER_2_T18	9.22	9.22	9.22	9.22	9.22	9.22	1	1		Lateral
1279	M1167	TWR_RED_KICKER_2_T18	9.22	9.22	9.22	9.22	9.22	9.22	1	1		Lateral
1280	M1168	TWR_RED_KICKER_2_T18	9.22	9.22	9.22	9.22	9.22	9.22	1	1		Lateral
1281	M1169	TWR_RED_KICKER_2_T18	7.906	7.906	7.906	7.906	7.906	7.906	1	1		Lateral
1282	M1170	TWR_RED_KICKER_2_T18	7.906	7.906	7.906	7.906	7.906	7.906	1	1		Lateral
1283	M1171	TWR_RED_KICKER_2_T18	7.906	7.906	7.906	7.906	7.906	7.906	1	1		Lateral
1284	M1172	TWR_RED_KICKER_2_T18	7.906	7.906	7.906	7.906	7.906	7.906	1	1		Lateral
1285	M1173	TWR_RED_KICKER_2_T18	7.906	7.906	7.906	7.906	7.906	7.906	1	1		Lateral
1286	M1174	TWR_RED_KICKER_2_T18	7.906	7.906	7.906	7.906	7.906	7.906	1	1		Lateral
1287	M1175	TWR_RED_KICKER_2_T18	7.906	7.906	7.906	7.906	7.906	7.906	1	1		Lateral
1288	M1176	TWR_RED_KICKER_2_T18	7.906	7.906	7.906	7.906	7.906	7.906	1	1		Lateral
1289	M1189	TWR_RED_KICKER_T17	5.391	5.391	5.391	5.391	5.391	5.391	1	1		Lateral
1290	M1190	TWR_RED_KICKER_T17	5.391	5.391	5.391	5.391	5.391	5.391	1	1		Lateral
1291	M1191	TWR_RED_KICKER_T17	5.391	5.391	5.391	5.391	5.391	5.391	1	1		Lateral
1292	M1192	TWR_RED_KICKER_T17	5.391	5.391	5.391	5.391	5.391	5.391	1	1		Lateral
1293	M1193	TWR_RED_KICKER_T17	5.391	5.391	5.391	5.391	5.391	5.391	1	1		Lateral
1294	M1194	TWR_RED_KICKER_T17	5.391	5.391	5.391	5.391	5.391	5.391	1	1		Lateral
1295	M1195	TWR_RED_KICKER_T17	5.391	5.391	5.391	5.391	5.391	5.391	1	1		Lateral
1296	M1196	TWR_RED_KICKER_T17	5.391	5.391	5.391	5.391	5.391	5.391	1	1		Lateral
1297	M1197	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1298	M1198	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1299	M1199	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1300	M1200	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1301	M1201	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1302	M1202	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1303	M1203	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1304	M1204	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1305	M1205	TWR_RED_KICKER_T17	5.806	5.806	5.806	5.806	5.806	5.806	1	1		Lateral
1306	M1206	TWR_RED_KICKER_T17	5.806	5.806	5.806	5.806	5.806	5.806	1	1		Lateral
1307	M1207	TWR_RED_KICKER_T17	5.806	5.806	5.806	5.806	5.806	5.806	1	1		Lateral
1308	M1208	TWR_RED_KICKER_T17	5.806	5.806	5.806	5.806	5.806	5.806	1	1		Lateral
1309	M1209	TWR_RED_KICKER_T17	5.806	5.806	5.806	5.806	5.806	5.806	1	1		Lateral
1310	M1210	TWR_RED_KICKER_T17	5.806	5.806	5.806	5.806	5.806	5.806	1	1		Lateral
1311	M1211	TWR_RED_KICKER_T17	5.806	5.806	5.806	5.806	5.806	5.806	1	1		Lateral
1312	M1212	TWR_RED_KICKER_T17	5.806	5.806	5.806	5.806	5.806	5.806	1	1		Lateral
1313	M1213	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1314	M1214	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1315	M1215	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1316	M1216	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1317	M1217	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1318	M1218	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1319	M1219	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1320	M1220	TWR_RED_KICKER_T17	3.719	3.719	3.719	3.719	3.719	3.719	1	1		Lateral
1321	M1221	TWR_RED_KICKER_T17	8.805	8.805	8.805	8.805	8.805	8.805	1	1		Lateral
1322	M1222	TWR_RED_KICKER_T17	8.805	8.805	8.805	8.805	8.805	8.805	1	1		Lateral
1323	M1223	TWR_RED_KICKER_T17	8.805	8.805	8.805	8.805	8.805	8.805	1	1		Lateral
1324	M1224	TWR_RED_KICKER_T17	8.805	8.805	8.805	8.805	8.805	8.805	1	1		Lateral
1325	M1225	TWR_RED_KICKER_T17	8.805	8.805	8.805	8.805	8.805	8.805	1	1		Lateral
1326	M1226	TWR_RED_KICKER_T17	8.805	8.805	8.805	8.805	8.805	8.805	1	1		Lateral
1327	M1227	TWR_RED_KICKER_T17	8.805	8.805	8.805	8.805	8.805	8.805	1	1		Lateral
1328	M1228	TWR_RED_KICKER_T17	8.805	8.805	8.805	8.805	8.805	8.805	1	1		Lateral
1329	M1229	TWR_RED_KICKER_T17	7.438	7.438	7.438	7.438	7.438	7.438	1	1		Lateral
1330	M1230	TWR_RED_KICKER_T17	7.438	7.438	7.438	7.438	7.438	7.438	1	1		Lateral
1331	M1231	TWR_RED_KICKER_T17	7.438	7.438	7.438	7.438	7.438	7.438	1	1		Lateral
1332	M1232	TWR_RED_KICKER_T17	7.438	7.438	7.438	7.438	7.438	7.438	1	1		Lateral
1333	M1233	TWR_RED_KICKER_T17	7.438	7.438	7.438	7.438	7.438	7.438	1	1		Lateral
1334	M1234	TWR_RED_KICKER_T17	7.438	7.438	7.438	7.438	7.438	7.438	1	1		Lateral
1335	M1235	TWR_RED_KICKER_T17	7.438	7.438	7.438	7.438	7.438	7.438	1	1		Lateral
1336	M1236	TWR_RED_KICKER_T17	7.438	7.438	7.438	7.438	7.438	7.438	1	1		Lateral
1337	M1017	TWR_RED_KICKER_T18	8.667	8.667	8.667	8.667	8.667	8.667	1	1		Lateral
1338	M1018	TWR_RED_KICKER_T18	8.667	8.667	8.667	8.667	8.667	8.667	1	1		Lateral
1339	M1019	TWR_RED_KICKER_T18	8.667	8.667	8.667	8.667	8.667	8.667	1	1		Lateral
1340	M1020	TWR_RED_KICKER_T18	8.667	8.667	8.667	8.667	8.667	8.667	1	1		Lateral
1341	M1021	TWR_RED_KICKER_T18	8.667	8.667	8.667	8.667	8.667	8.667	1	1		Lateral
1342	M1022	TWR_RED_KICKER_T18	8.667	8.667	8.667	8.667	8.667	8.667	1	1		Lateral
1343	M1023	TWR_RED_KICKER_T18	8.667	8.667	8.667	8.667	8.667	8.667	1	1		Lateral
1344	M1024	TWR_RED_KICKER_T18	8.667	8.667	8.667	8.667	8.667	8.667	1	1		Lateral
1345	M1025	TWR_RED_KICKER_T18	4.178	4.178	4.178	4.178	4.178	4.178	1	1		Lateral
1346	M1026	TWR_RED_KICKER_T18	4.178	4.178	4.178	4.178	4.178	4.178	1	1		Lateral
1347	M1027	TWR_RED_KICKER_T18	4.178	4.178	4.178	4.178	4.178	4.178	1	1		Lateral
1348	M1028	TWR_RED_KICKER_T18	4.178	4.178	4.178	4.178	4.178	4.178	1	1		Lateral
1349	M1029	TWR_RED_KICKER_T18	4.178	4.178	4.178	4.178	4.178	4.178	1	1		Lateral
1350	M1030	TWR_RED_KICKER_T18	4.178	4.178	4.178	4.178	4.178	4.178	1	1		Lateral
1351	M1031	TWR_RED_KICKER_T18	4.178	4.178	4.178	4.178	4.178	4.178	1	1		Lateral
1352	M1032	TWR_RED_KICKER_T18	4.178	4.178	4.178	4.178	4.178	4.178	1	1		Lateral
1353	M612	TWR_RED_SUBDIA_2_T14	10.12	10.346	10.346	10.346	10.346	10.346	1.056	1.056		Lateral
1354	M613	TWR_RED_SUBDIA_2_T14	10.12	10.346	10.346	10.346	10.346	10.346	1.056	1.056		Lateral
1355	M629	TWR_RED_SUBDIA_2_T14	10.12	10.346	10.346	10.346	10.346	10.346	1.056	1.056		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1356	M630	TWR_RED_SUBDIA_2_T14	10.12	10.346	10.346	10.346	10.346	10.346	1.056	1.056		Lateral
1357	M646	TWR_RED_SUBDIA_2_T14	10.12	10.346	10.346	10.346	10.346	10.346	1.056	1.056		Lateral
1358	M647	TWR_RED_SUBDIA_2_T14	10.12	10.346	10.346	10.346	10.346	10.346	1.056	1.056		Lateral
1359	M666	TWR_RED_SUBDIA_2_T14	10.12	10.346	10.346	10.346	10.346	10.346	1.056	1.056		Lateral
1360	M667	TWR_RED_SUBDIA_2_T14	10.12	10.346	10.346	10.346	10.346	10.346	1.056	1.056		Lateral
1361	M450	TWR_RED_SUBDIA_T12	9.675	9.79	9.79	9.79	9.79	9.79	1.031	1.031		Lateral
1362	M451	TWR_RED_SUBDIA_T12	9.675	9.79	9.79	9.79	9.79	9.79	1.031	1.031		Lateral
1363	M469	TWR_RED_SUBDIA_T12	9.675	9.79	9.79	9.79	9.79	9.79	1.031	1.031		Lateral
1364	M470	TWR_RED_SUBDIA_T12	9.675	9.79	9.79	9.79	9.79	9.79	1.031	1.031		Lateral
1365	M488	TWR_RED_SUBDIA_T12	9.675	9.79	9.79	9.79	9.79	9.79	1.031	1.031		Lateral
1366	M489	TWR_RED_SUBDIA_T12	9.675	9.79	9.79	9.79	9.79	9.79	1.031	1.031		Lateral
1367	M510	TWR_RED_SUBDIA_T12	9.675	9.79	9.79	9.79	9.79	9.79	1.031	1.031		Lateral
1368	M511	TWR_RED_SUBDIA_T12	9.675	9.79	9.79	9.79	9.79	9.79	1.031	1.031		Lateral
1369	M1513	TWR_RED_SUBDIA_T12	10.511	10.511	10.511	10.511	10.511	10.511	1.031	1.031		Lateral
1370	M1514	TWR_RED_SUBDIA_T12	10.511	10.511	10.511	10.511	10.511	10.511	1.031	1.031		Lateral
1371	M1515	TWR_RED_SUBDIA_T12	10.511	10.511	10.511	10.511	10.511	10.511	1.031	1.031		Lateral
1372	M1516	TWR_RED_SUBDIA_T12	10.511	10.511	10.511	10.511	10.511	10.511	1.031	1.031		Lateral
1373	M1517	TWR_RED_SUBDIA_T12	10.511	10.511	10.511	10.511	10.511	10.511	1.031	1.031		Lateral
1374	M1518	TWR_RED_SUBDIA_T12	10.511	10.511	10.511	10.511	10.511	10.511	1.031	1.031		Lateral
1375	M1519	TWR_RED_SUBDIA_T12	10.511	10.511	10.511	10.511	10.511	10.511	1.031	1.031		Lateral
1376	M1520	TWR_RED_SUBDIA_T12	10.511	10.511	10.511	10.511	10.511	10.511	1.031	1.031		Lateral
1377	M535	TWR_RED_SUBDIA_T13	9.891	9.891	9.891	9.891	9.891	9.891	1.02	1.02		Lateral
1378	M536	TWR_RED_SUBDIA_T13	9.891	9.891	9.891	9.891	9.891	9.891	1.02	1.02		Lateral
1379	M552	TWR_RED_SUBDIA_T13	9.891	9.891	9.891	9.891	9.891	9.891	1.02	1.02		Lateral
1380	M553	TWR_RED_SUBDIA_T13	9.891	9.891	9.891	9.891	9.891	9.891	1.02	1.02		Lateral
1381	M569	TWR_RED_SUBDIA_T13	9.891	9.891	9.891	9.891	9.891	9.891	1.02	1.02		Lateral
1382	M570	TWR_RED_SUBDIA_T13	9.891	9.891	9.891	9.891	9.891	9.891	1.02	1.02		Lateral
1383	M589	TWR_RED_SUBDIA_T13	9.891	9.891	9.891	9.891	9.891	9.891	1.02	1.02		Lateral
1384	M590	TWR_RED_SUBDIA_T13	9.891	9.891	9.891	9.891	9.891	9.891	1.02	1.02		Lateral
1385	M1485	TWR_RED_SUBDIA_T13	10.901	10.901	10.901	10.901	10.901	10.901	1.02	1.02		Lateral
1386	M1486	TWR_RED_SUBDIA_T13	10.901	10.901	10.901	10.901	10.901	10.901	1.02	1.02		Lateral
1387	M1487	TWR_RED_SUBDIA_T13	10.901	10.901	10.901	10.901	10.901	10.901	1.02	1.02		Lateral
1388	M1488	TWR_RED_SUBDIA_T13	10.901	10.901	10.901	10.901	10.901	10.901	1.02	1.02		Lateral
1389	M1489	TWR_RED_SUBDIA_T13	10.901	10.901	10.901	10.901	10.901	10.901	1.02	1.02		Lateral
1390	M1490	TWR_RED_SUBDIA_T13	10.901	10.901	10.901	10.901	10.901	10.901	1.02	1.02		Lateral
1391	M1491	TWR_RED_SUBDIA_T13	10.901	10.901	10.901	10.901	10.901	10.901	1.02	1.02		Lateral
1392	M1492	TWR_RED_SUBDIA_T13	10.901	10.901	10.901	10.901	10.901	10.901	1.02	1.02		Lateral
1393	M1433	TWR_RED_SUBDIA_T14	11.313	11.313	11.313	11.313	11.313	11.313	1.08	1		Lateral
1394	M1434	TWR_RED_SUBDIA_T14	11.313	11.313	11.313	11.313	11.313	11.313	1.056	1.056		Lateral
1395	M1435	TWR_RED_SUBDIA_T14	11.313	11.313	11.313	11.313	11.313	11.313	1.056	1.056		Lateral
1396	M1436	TWR_RED_SUBDIA_T14	11.313	11.313	11.313	11.313	11.313	11.313	1.056	1.056		Lateral
1397	M1437	TWR_RED_SUBDIA_T14	11.313	11.313	11.313	11.313	11.313	11.313	1.056	1.056		Lateral
1398	M1438	TWR_RED_SUBDIA_T14	11.313	11.313	11.313	11.313	11.313	11.313	1.056	1.056		Lateral
1399	M1439	TWR_RED_SUBDIA_T14	11.313	11.313	11.313	11.313	11.313	11.313	1.056	1.056		Lateral
1400	M1440	TWR_RED_SUBDIA_T14	11.313	11.313	11.313	11.313	11.313	11.313	1.056	1.056		Lateral
1401	M689	TWR_RED_SUBDIA_T15	14.932	14.932	14.932	14.932	14.932	14.932	1.02	1		Lateral
1402	M690	TWR_RED_SUBDIA_T15	14.932	14.932	14.932	14.932	14.932	14.932	1.02	1		Lateral
1403	M708	TWR_RED_SUBDIA_T15	14.932	14.932	14.932	14.932	14.932	14.932	1.02	1		Lateral
1404	M709	TWR_RED_SUBDIA_T15	14.932	14.932	14.932	14.932	14.932	14.932	1.02	1		Lateral
1405	M727	TWR_RED_SUBDIA_T15	14.932	14.932	14.932	14.932	14.932	14.932	1.02	1		Lateral
1406	M728	TWR_RED_SUBDIA_T15	14.932	14.932	14.932	14.932	14.932	14.932	1.02	1		Lateral
1407	M749	TWR_RED_SUBDIA_T15	14.932	14.932	14.932	14.932	14.932	14.932	1.02	1		Lateral
1408	M750	TWR_RED_SUBDIA_T15	14.932	14.932	14.932	14.932	14.932	14.932	1.02	1		Lateral
1409	M774	TWR_RED_SUBDIA_T16	15.718	15.718	15.718	15.718	15.718	15.718	1.019	1.019		Lateral
1410	M775	TWR_RED_SUBDIA_T16	15.718	15.718	15.718	15.718	15.718	15.718	1.019	1.019		Lateral
1411	M793	TWR_RED_SUBDIA_T16	15.718	15.718	15.718	15.718	15.718	15.718	1.019	1.019		Lateral
1412	M794	TWR_RED_SUBDIA_T16	15.718	15.718	15.718	15.718	15.718	15.718	1.019	1.019		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1413	M812	TWR_RED_SUBDIA_T16	15.718	15.718	15.718	15.718	15.718	15.718	1.019	1.019		Lateral
1414	M813	TWR_RED_SUBDIA_T16	15.718	15.718	15.718	15.718	15.718	15.718	1.019	1.019		Lateral
1415	M834	TWR_RED_SUBDIA_T16	15.718	15.718	15.718	15.718	15.718	15.718	1.019	1.019		Lateral
1416	M835	TWR_RED_SUBDIA_T16	15.718	15.718	15.718	15.718	15.718	15.718	1.019	1.019		Lateral
1417	M859	TWR_RED_SUBDIA_T17	16.52	16.52	16.52	16.52	16.52	16.52	1.022	1.022		Lateral
1418	M860	TWR_RED_SUBDIA_T17	16.52	16.52	16.52	16.52	16.52	16.52	1.022	1.022		Lateral
1419	M878	TWR_RED_SUBDIA_T17	16.52	16.52	16.52	16.52	16.52	16.52	1.022	1.022		Lateral
1420	M879	TWR_RED_SUBDIA_T17	16.52	16.52	16.52	16.52	16.52	16.52	1.022	1.022		Lateral
1421	M897	TWR_RED_SUBDIA_T17	16.52	16.52	16.52	16.52	16.52	16.52	1.022	1.022		Lateral
1422	M898	TWR_RED_SUBDIA_T17	16.52	16.52	16.52	16.52	16.52	16.52	1.022	1.022		Lateral
1423	M919	TWR_RED_SUBDIA_T17	16.52	16.52	16.52	16.52	16.52	16.52	1.022	1.022		Lateral
1424	M920	TWR_RED_SUBDIA_T17	16.52	16.52	16.52	16.52	16.52	16.52	1.022	1.022		Lateral
1425	M944	TWR_RED_SUBDIA_T18	17.335	17.335	8.668	8.668	8.668	8.668	1.01	1		Lateral
1426	M945	TWR_RED_SUBDIA_T18	17.335	17.335	8.668	8.668	8.668	8.668	1.01	1		Lateral
1427	M963	TWR_RED_SUBDIA_T18	17.335	17.335	8.668	8.668	8.668	8.668	1.01	1		Lateral
1428	M964	TWR_RED_SUBDIA_T18	17.335	17.335	8.668	8.668	8.668	8.668	1.01	1		Lateral
1429	M982	TWR_RED_SUBDIA_T18	17.335	17.335	8.668	8.668	8.668	8.668	1.01	1		Lateral
1430	M983	TWR_RED_SUBDIA_T18	17.335	17.335	8.668	8.668	8.668	8.668	1.01	1		Lateral
1431	M1004	TWR_RED_SUBDIA_T18	17.335	17.335	8.668	8.668	8.668	8.668	1.01	1		Lateral
1432	M1005	TWR_RED_SUBDIA_T18	17.335	17.335	8.668	8.668	8.668	8.668	1.01	1		Lateral
1433	M266	TWR_RED_SUBHOR_T9	10.25	10.25	10.25	10.25	10.25	10.25	1.04	1		Lateral
1434	M278	TWR_RED_SUBHOR_T9	10.25	10.25	10.25	10.25	10.25	10.25	1.04	1		Lateral
1435	M291	TWR_RED_SUBHOR_T9	10.25	10.25	10.25	10.25	10.25	10.25	1.04	1		Lateral
1436	M304	TWR_RED_SUBHOR_T9	10.25	10.25	10.25	10.25	10.25	10.25	1.04	1		Lateral
1437	M327	TWR_RED_SUBHOR_T10	11.5	11.5	11.5	11.5	11.5	11.5	1.03	1		Lateral
1438	M339	TWR_RED_SUBHOR_T10	11.5	11.5	11.5	11.5	11.5	11.5	1.03	1		Lateral
1439	M352	TWR_RED_SUBHOR_T10	11.5	11.5	11.5	11.5	11.5	11.5	1.03	1		Lateral
1440	M365	TWR_RED_SUBHOR_T10	11.5	11.5	11.5	11.5	11.5	11.5	1.03	1		Lateral
1441	M388	TWR_RED_SUBHOR_T11	12.75	12.75	12.75	12.75	12.75	12.75	1.07	1		Lateral
1442	M400	TWR_RED_SUBHOR_T11	12.75	12.75	12.75	12.75	12.75	12.75	1.07	1		Lateral
1443	M413	TWR_RED_SUBHOR_T11	12.75	12.75	12.75	12.75	12.75	12.75	1.07	1		Lateral
1444	M426	TWR_RED_SUBHOR_T11	12.75	12.75	12.75	12.75	12.75	12.75	1.07	1		Lateral
1445	M449	TWR_RED_SUBHOR_T12	22.5	6.375	6.375	6.375	6.375	6.375	1.03	1		Lateral
1446	M465	TWR_RED_SUBHOR_T12	22.5	6.375	6.375	6.375	6.375	6.375	1.03	1		Lateral
1447	M484	TWR_RED_SUBHOR_T12	22.5	6.375	6.375	6.375	6.375	6.375	1.03	1		Lateral
1448	M503	TWR_RED_SUBHOR_T12	22.5	6.375	6.375	6.375	6.375	6.375	1.03	1		Lateral
1449	M534	TWR_RED_SUBHOR_T13	24.583	12.291	12.291	12.291	12.291	12.291	1.01	1		Lateral
1450	M548	TWR_RED_SUBHOR_T13	24.583	12.291	12.291	12.291	12.291	12.291	1.01	1		Lateral
1451	M565	TWR_RED_SUBHOR_T13	24.583	12.291	12.291	12.291	12.291	12.291	1.01	1		Lateral
1452	M582	TWR_RED_SUBHOR_T13	24.583	12.291	12.291	12.291	12.291	12.291	1.01	1		Lateral
1453	M611	TWR_RED_SUBHOR_T14	26.667	13.335	13.335	13.335	13.335	13.335	1.01	1		Lateral
1454	M625	TWR_RED_SUBHOR_T14	26.667	13.335	13.335	13.335	13.335	13.335	1.01	1		Lateral
1455	M642	TWR_RED_SUBHOR_T14	26.667	13.335	13.335	13.335	13.335	13.335	1.01	1		Lateral
1456	M659	TWR_RED_SUBHOR_T14	26.667	13.335	13.335	13.335	13.335	13.335	1.01	1		Lateral
1457	M688	TWR_RED_SUBHOR_T15	24.75	12.375	12.375	12.375	12.375	12.375	1.02	1		Lateral
1458	M704	TWR_RED_SUBHOR_T15	24.75	12.375	12.375	12.375	12.375	12.375	1.02	1		Lateral
1459	M723	TWR_RED_SUBHOR_T15	24.75	12.375	12.375	12.375	12.375	12.375	1.02	1		Lateral
1460	M742	TWR_RED_SUBHOR_T15	24.75	12.375	12.375	12.375	12.375	12.375	1.02	1		Lateral
1461	M773	TWR_RED_SUBHOR_T16	26.625	13.313	13.313	13.313	13.313	13.313	1.02	1		Lateral
1462	M789	TWR_RED_SUBHOR_T16	26.625	13.313	13.313	13.313	13.313	13.313	1.02	1		Lateral
1463	M808	TWR_RED_SUBHOR_T16	26.625	13.313	13.313	13.313	13.313	13.313	1.02	1		Lateral
1464	M827	TWR_RED_SUBHOR_T16	26.625	13.313	13.313	13.313	13.313	13.313	1.02	1		Lateral
1465	M858	TWR_RED_SUBHOR_T17	28.5	14.25	14.25	14.25	14.25	14.25	1.02	1		Lateral
1466	M874	TWR_RED_SUBHOR_T17	28.5	14.25	14.25	14.25	14.25	14.25	1.02	1		Lateral
1467	M893	TWR_RED_SUBHOR_T17	28.5	14.25	14.25	14.25	14.25	14.25	1.02	1		Lateral
1468	M912	TWR_RED_SUBHOR_T17	28.5	14.25	14.25	14.25	14.25	14.25	1.02	1		Lateral
1469	M1689	TWR_RED_VERT_T1	5.813	5.813	5.813	5.813	5.813	5.813	1.11	1.11		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1470	M1690	TWR_RED_VERT_T1	5.813	5.813	5.813	5.813	5.813	5.813	1.11	1.11		Lateral
1471	M1691	TWR_RED_VERT_T1	5.813	5.813	5.813	5.813	5.813	5.813	1.11	1.11		Lateral
1472	M1692	TWR_RED_VERT_T1	5.813	5.813	5.813	5.813	5.813	5.813	1.11	1.11		Lateral
1473	M1685	TWR_RED_VERT_T2	5.871	5.871	5.871	5.871	5.871	5.871	1.11	1.11		Lateral
1474	M1686	TWR_RED_VERT_T2	5.871	5.871	5.871	5.871	5.871	5.871	1.11	1.11		Lateral
1475	M1687	TWR_RED_VERT_T2	5.871	5.871	5.871	5.871	5.871	5.871	1.11	1.11		Lateral
1476	M1688	TWR_RED_VERT_T2	5.871	5.871	5.871	5.871	5.871	5.871	1.11	1.11		Lateral
1477	M1681	TWR_RED_VERT_T3	5.915	5.915	5.915	5.915	5.915	5.915	1.11	1.11		Lateral
1478	M1682	TWR_RED_VERT_T3	5.915	5.915	5.915	5.915	5.915	5.915	1.11	1.11		Lateral
1479	M1683	TWR_RED_VERT_T3	5.915	5.915	5.915	5.915	5.915	5.915	1.11	1.11		Lateral
1480	M1684	TWR_RED_VERT_T3	5.915	5.915	5.915	5.915	5.915	5.915	1.11	1.11		Lateral
1481	M1693	TWR_RED_VERT_T11	8.654			Lbyy			0			Lateral
1482	M1694	TWR_RED_VERT_T11	8.654			Lbyy			0			Lateral
1483	M1695	TWR_RED_VERT_T11	8.654			Lbyy			0			Lateral
1484	M1696	TWR_RED_VERT_T11	8.654			Lbyy			0			Lateral
1485	M1697	TWR_RED_VERT_T11	8.654			Lbyy			0			Lateral
1486	M1698	TWR_RED_VERT_T11	8.654			Lbyy			0			Lateral
1487	M1699	TWR_RED_VERT_T11	8.654			Lbyy			0			Lateral
1488	M1700	TWR_RED_VERT_T11	8.654			Lbyy			0			Lateral
1489	M452	TWR_RED_VERT_T12	8.357	8.357	8.357	8.357	8.357	8.357	1.04	1.04		Lateral
1490	M453	TWR_RED_VERT_T12	8.357	8.357	8.357	8.357	8.357	8.357	1.04	1.04		Lateral
1491	M471	TWR_RED_VERT_T12	8.357	8.357	8.357	8.357	8.357	8.357	1.04	1.04		Lateral
1492	M472	TWR_RED_VERT_T12	8.357	8.357	8.357	8.357	8.357	8.357	1.04	1.04		Lateral
1493	M490	TWR_RED_VERT_T12	8.357	8.357	8.357	8.357	8.357	8.357	1.04	1.04		Lateral
1494	M491	TWR_RED_VERT_T12	8.357	8.357	8.357	8.357	8.357	8.357	1.04	1.04		Lateral
1495	M512	TWR_RED_VERT_T12	8.357	8.357	8.357	8.357	8.357	8.357	1.04	1.04		Lateral
1496	M513	TWR_RED_VERT_T12	8.357	8.357	8.357	8.357	8.357	8.357	1.04	1.04		Lateral
1497	M691	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1498	M692	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1499	M710	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1500	M711	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1501	M729	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1502	M730	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1503	M751	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1504	M752	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1505	M1369	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1506	M1370	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1507	M1371	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1508	M1372	TWR_RED_VERT_T15	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1509	M776	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1510	M777	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1511	M795	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1512	M796	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1513	M814	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1514	M815	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1515	M836	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1516	M837	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1517	M1305	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1518	M1306	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1519	M1307	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1520	M1308	TWR_RED_VERT_T16	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1521	M861	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1522	M862	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1523	M880	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1524	M881	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1525	M899	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1526	M900	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1527	M921	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1528	M922	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1529	M1177	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1530	M1178	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1531	M1179	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1532	M1180	TWR_RED_VERT_T17	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1533	M946	TWR_RED_VERT_T18	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1534	M947	TWR_RED_VERT_T18	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1535	M965	TWR_RED_VERT_T18	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1536	M966	TWR_RED_VERT_T18	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1537	M984	TWR_RED_VERT_T18	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1538	M985	TWR_RED_VERT_T18	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1539	M1006	TWR_RED_VERT_T18	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1540	M1007	TWR_RED_VERT_T18	8.357	8.357	8.357	8.357	8.357	8.357	1	1		Lateral
1541	M1013	TWR_RED_VERT_T18	8.357	5.357	5.357	5.357	5.357	5.357	1	1		Lateral
1542	M1014	TWR_RED_VERT_T18	8.357	5.357	5.357	5.357	5.357	5.357	1	1		Lateral
1543	M1015	TWR_RED_VERT_T18	8.357	5.357	5.357	5.357	5.357	5.357	1	1		Lateral
1544	M1016	TWR_RED_VERT_T18	8.357	5.357	5.357	5.357	5.357	5.357	1	1		Lateral
1545	M17	TWR_STEP_T1	12.87	5.955	5.955	5.955	5.955	5.955	1.13	1.13		Lateral
1546	M18	TWR_STEP_T1	12.87	5.955	5.955	5.955	5.955	5.955	1.13	1.13		Lateral
1547	M19	TWR_STEP_T1	12.87	5.955	5.955	5.955	5.955	5.955	1.13	1.13		Lateral
1548	M20	TWR_STEP_T1	12.87	5.955	5.955	5.955	5.955	5.955	1.13	1.13		Lateral
1549	M37	TWR_STEP_T2	14.753	6.895	6.895	6.895	6.895	6.895	1.08	1.08		Lateral
1550	M38	TWR_STEP_T2	14.753	6.895	6.895	6.895	6.895	6.895	1.08	1.08		Lateral
1551	M39	TWR_STEP_T2	14.753	6.895	6.895	6.895	6.895	6.895	1.08	1.08		Lateral
1552	M40	TWR_STEP_T2	14.753	6.895	6.895	6.895	6.895	6.895	1.08	1.08		Lateral
1553	M62	TWR_STEP_T3	16.635	7.84	7.84	7.84	7.84	7.84	1.04	1.04		Lateral
1554	M63	TWR_STEP_T3	16.635	7.84	7.84	7.84	7.84	7.84	1.04	1.04		Lateral
1555	M64	TWR_STEP_T3	16.635	7.84	7.84	7.84	7.84	7.84	1.04	1.04		Lateral
1556	M65	TWR_STEP_T3	16.635	7.84	7.84	7.84	7.84	7.84	1.04	1.04		Lateral
1557	M5	TWR_TOP_GIRT_T1	12	11.5	11.5	11.5	11.5	11.5	1	1		Lateral
1558	M6	TWR_TOP_GIRT_T1	12	11.5	11.5	11.5	11.5	11.5	1	1		Lateral
1559	M7	TWR_TOP_GIRT_T1	12	11.5	11.5	11.5	11.5	11.5	1	1		Lateral
1560	M8	TWR_TOP_GIRT_T1	12	11.5	11.5	11.5	11.5	11.5	1	1		Lateral
1561	M1502	TWR_INNER_CORNER_T13	7			Lbyy			0			Lateral
1562	M1503	TWR_INNER_CORNER_T13	7			Lbyy			0			Lateral
1563	M1505	TWR_INNER_CORNER_T13	7			Lbyy			0			Lateral
1564	M1508	TWR_INNER_CORNER_T13	7			Lbyy			0			Lateral
1565	M1509	TWR_INNER_CORNER_T13	9.899			Lbyy			0			Lateral
1566	M1510	TWR_INNER_CORNER_T13	9.899			Lbyy			0			Lateral
1567	M1511	TWR_INNER_CORNER_T13	9.899			Lbyy			0			Lateral
1568	M1512	TWR_INNER_CORNER_T13	9.899			Lbyy			0			Lateral
1569	M1462	TWR_INNER_CORNER_T14	7.625			Lbyy			0			Lateral
1570	M1464	TWR_INNER_CORNER_T14	7.625			Lbyy			0			Lateral
1571	M1465	TWR_INNER_CORNER_T14	7.625			Lbyy			0			Lateral
1572	M1467	TWR_INNER_CORNER_T14	7.625			Lbyy			0			Lateral
1573	M1469	TWR_INNER_CORNER_T14	10.783			Lbyy			0			Lateral
1574	M1470	TWR_INNER_CORNER_T14	10.783			Lbyy			0			Lateral
1575	M1471	TWR_INNER_CORNER_T14	10.783			Lbyy			0			Lateral
1576	M1472	TWR_INNER_CORNER_T14	10.783			Lbyy			0			Lateral
1577	M53	TWR_INNER_SUPP_T3	15.75	15.75	15.75	15.75	15.75	15.75	1.07	1		Lateral
1578	M102	TWR_INNER_SUPP_T4	17.625	17.625	17.625	17.625	17.625	17.625	1.05	1		Lateral
1579	M139	TWR_INNER_SUPP_T5	19.5	19.5	19.5	19.5	19.5	19.5	1.01	1		Lateral
1580	M176	TWR_INNER_SUPP_T6	21.375	21.375	21.375	21.375	21.375	21.375	1.01	1		Lateral
1581	M213	TWR_INNER_SUPP_T7	23.25	23.25	23.25	23.25	23.25	23.25	1.01	1		Lateral
1582	M250	TWR_INNER_SUPP_T8	25.125	25.125	25.125	25.125	25.125	25.125	1.01	1		Lateral
1583	M311	TWR_INNER_SUPP_T9	27	27	27	27	27	27	1.01	1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1584	M372	TWR_INNER_SUPP_T10	30.75	30.75	30.75	30.75	30.75	30.75	1.01	1		Lateral
1585	M433	TWR_INNER_SUPP_T11	34.5	34.5	34.5	34.5	34.5	34.5	1.01	1		Lateral
1586	M518	TWR_INNER_SUPP_T12	38.25	38.25	38.25	38.25	38.25	38.25	1	1		Lateral
1587	M595	TWR_INNER_SUPP_T13	42	42	42	42	42	42	1.01	1		Lateral
1588	M672	TWR_INNER_SUPP_T14	45.75	45.75	45.75	45.75	45.75	45.75	1	1		Lateral
1589	M757	TWR_INNER_SUPP_T15	49.5	49.5	49.5	49.5	49.5	49.5	1.01	1		Lateral
1590	M842	TWR_INNER_SUPP_T16	53.25	53.25	53.25	53.25	53.25	53.25	1.01	1		Lateral
1591	M927	TWR_INNER_SUPP_T17	57	57	57	57	57	57	1	1		Lateral
1592	M1012	TWR_INNER_SUPP_T18	60.75	60.75	60.75	60.75	60.75	60.75	1.01	1		Lateral
1593	M468	TWR_RED_HIPDIA_T12	12.878	12.688	12.688	12.688	12.688	12.688	1.02	1		Lateral
1594	M487	TWR_RED_HIPDIA_T12	12.878	12.688	12.688	12.688	12.688	12.688	1.02	1		Lateral
1595	M506	TWR_RED_HIPDIA_T12	12.878	12.688	12.688	12.688	12.688	12.688	1.02	1		Lateral
1596	M509	TWR_RED_HIPDIA_T12	12.878	12.688	12.688	12.688	12.688	12.688	1.02	1		Lateral
1597	M551	TWR_RED_HIPDIA_T13	13.6	13.33	13.33	13.33	13.33	13.33	1.03	1		Lateral
1598	M568	TWR_RED_HIPDIA_T13	13.6	13.33	13.33	13.33	13.33	13.33	1.03	1		Lateral
1599	M585	TWR_RED_HIPDIA_T13	13.6	13.33	13.33	13.33	13.33	13.33	1.03	1		Lateral
1600	M588	TWR_RED_HIPDIA_T13	13.6	13.33	13.33	13.33	13.33	13.33	1.03	1		Lateral
1601	M628	TWR_RED_HIPDIA_T14	14.345	13.992	13.992	13.992	13.992	13.992	1.02	1		Lateral
1602	M645	TWR_RED_HIPDIA_T14	14.345	13.992	13.992	13.992	13.992	13.992	1.02	1		Lateral
1603	M662	TWR_RED_HIPDIA_T14	14.345	13.992	13.992	13.992	13.992	13.992	1.02	1		Lateral
1604	M665	TWR_RED_HIPDIA_T14	14.345	13.992	13.992	13.992	13.992	13.992	1.02	1		Lateral
1605	M707	TWR_RED_HIPDIA_T15	17.018	17.018	17.018	17.018	17.018	17.018	1.02	1		Lateral
1606	M726	TWR_RED_HIPDIA_T15	17.018	17.018	17.018	17.018	17.018	17.018	1.02	1		Lateral
1607	M745	TWR_RED_HIPDIA_T15	17.018	17.018	17.018	17.018	17.018	17.018	1.02	1		Lateral
1608	M748	TWR_RED_HIPDIA_T15	17.018	17.018	17.018	17.018	17.018	17.018	1.02	1		Lateral
1609	M792	TWR_RED_HIPDIA_T16	17.938	17.938	17.938	17.938	17.938	17.938	1.01	1		Lateral
1610	M811	TWR_RED_HIPDIA_T16	17.938	17.938	17.938	17.938	17.938	17.938	1.01	1		Lateral
1611	M830	TWR_RED_HIPDIA_T16	17.938	17.938	17.938	17.938	17.938	17.938	1.01	1		Lateral
1612	M833	TWR_RED_HIPDIA_T16	17.938	17.938	17.938	17.938	17.938	17.938	1.01	1		Lateral
1613	M877	TWR_RED_HIPDIA_T17	18.871	18.871	18.871	18.871	18.871	18.871	1.01	1		Lateral
1614	M896	TWR_RED_HIPDIA_T17	18.871	18.871	18.871	18.871	18.871	18.871	1.01	1		Lateral
1615	M915	TWR_RED_HIPDIA_T17	18.871	18.871	18.871	18.871	18.871	18.871	1.01	1		Lateral
1616	M918	TWR_RED_HIPDIA_T17	18.871	18.871	18.871	18.871	18.871	18.871	1.01	1		Lateral
1617	M962	TWR_RED_HIPDIA_T18	19.815	19.815	19.815	19.815	19.815	19.815	1	1		Lateral
1618	M981	TWR_RED_HIPDIA_T18	19.815	19.815	19.815	19.815	19.815	19.815	1	1		Lateral
1619	M1000	TWR_RED_HIPDIA_T18	19.815	19.815	19.815	19.815	19.815	19.815	1	1		Lateral
1620	M1003	TWR_RED_HIPDIA_T18	19.815	19.815	19.815	19.815	19.815	19.815	1	1		Lateral
1621	M466	TWR_RED_HIP_T12	6.01	5.851	5.851	5.851	5.851	5.851	1	1		Lateral
1622	M485	TWR_RED_HIP_T12	6.01	5.851	5.851	5.851	5.851	5.851	1	1		Lateral
1623	M504	TWR_RED_HIP_T12	6.01	5.851	5.851	5.851	5.851	5.851	1	1		Lateral
1624	M507	TWR_RED_HIP_T12	6.01	5.851	5.851	5.851	5.851	5.851	1	1		Lateral
1625	M549	TWR_RED_HIP_T13	6.6	6.382	6.382	6.382	6.382	6.382	1	1		Lateral
1626	M566	TWR_RED_HIP_T13	6.6	6.382	6.382	6.382	6.382	6.382	1	1		Lateral
1627	M583	TWR_RED_HIP_T13	6.6	6.382	6.382	6.382	6.382	6.382	1	1		Lateral
1628	M586	TWR_RED_HIP_T13	6.6	6.382	6.382	6.382	6.382	6.382	1	1		Lateral
1629	M626	TWR_RED_HIP_T14	7.189	6.912	6.912	6.912	6.912	6.912	1	1		Lateral
1630	M643	TWR_RED_HIP_T14	7.189	6.912	6.912	6.912	6.912	6.912	1	1		Lateral
1631	M660	TWR_RED_HIP_T14	7.189	6.912	6.912	6.912	6.912	6.912	1	1		Lateral
1632	M663	TWR_RED_HIP_T14	7.189	6.912	6.912	6.912	6.912	6.912	1	1		Lateral
1633	M1701	TWR_RED_KICKER_T18	4.178									Lateral
1634	M1702	TWR_RED_KICKER_T18	4.178									Lateral
1635	M1703	TWR_RED_VERT2_T18	9.771			Lbyy			1.006	1.006		Lateral
1636	M1704	TWR_RED_VERT2_T18	9.771			Lbyy			1.006	1.006		Lateral
1637	M1705	TWR_RED_VERT2_T18	9.771			Lbyy			1.006	1.006		Lateral
1638	M1706	TWR_RED_KICKER_T18	4.178									Lateral
1639	M1707	TWR_RED_KICKER_T18	4.178									Lateral
1640	M1708	TWR_RED_VERT2_T18	9.771			Lbyy			1.006	1.006		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1641	M1709	TWR_RED_VERT2_T18	9.771			Lbyy			1.006	1.006		Lateral
1642	M1710	TWR_RED_KICKER_T18	4.178									Lateral
1643	M1711	TWR_RED_KICKER_T18	4.178									Lateral
1644	M1712	TWR_RED_VERT2_T18	9.771			Lbyy			1.006	1.006		Lateral
1645	M1713	TWR_RED_VERT2_T18	9.771			Lbyy			1.006	1.006		Lateral
1646	M1714	TWR_RED_KICKER_T18	4.178									Lateral
1647	M1715	TWR_RED_KICKER_T18	4.178									Lateral
1648	M1716	TWR_RED_VERT2_T18	9.771			Lbyy			1.006	1.006		Lateral
1649	M1717	TWR_RED_KICKER2_T17	11.38			Lbyy						Lateral
1650	M1718	TWR_RED_KICKER2_T17	11.38			Lbyy						Lateral
1651	M1719	TWR_RED_KICKER2_T17	11.38			Lbyy						Lateral
1652	M1720	TWR_RED_KICKER2_T17	11.38			Lbyy						Lateral
1653	M1721	TWR_RED_KICKER_T16	11.066			Lbyy						Lateral
1654	M1722	TWR_SUBRED_HORZ1_T16	3.484			Lbyy						Lateral
1655	M1723	TWR_SUBRED_HORZ2_T16	3.484			Lbyy						Lateral
1656	M1724	TWR_SUBRED_HORZ3_T16	6.969			Lbyy						Lateral
1657	M1725	TWR_SUBRED_DIAG1_T16	5.246			Lbyy						Lateral
1658	M1726	TWR_SUBRED_DIAG2_T16	5.646			Lbyy						Lateral
1659	M1727	TWR_SUBRED_DIAG3_T16	8.395			Lbyy						Lateral
1660	M1728	TWR_SUBRED_DIAG1_T16	5.246			Lbyy						Lateral
1661	M1729	TWR_SUBRED_DIAG3_T16	8.395			Lbyy						Lateral
1662	M1730	TWR_SUBRED_HORZ1_T16	3.484			Lbyy						Lateral
1663	M1731	TWR_SUBRED_HORZ2_T16	3.484			Lbyy						Lateral
1664	M1732	TWR_SUBRED_HORZ3_T16	6.969			Lbyy						Lateral
1665	M1733	TWR_SUBRED_DIAG2_T16	5.646			Lbyy						Lateral
1666	M1734	TWR_SUBRED_DIAG1_T16	5.246			Lbyy						Lateral
1667	M1735	TWR_SUBRED_DIAG1_T16	5.246			Lbyy						Lateral
1668	M1736	TWR_SUBRED_HORZ2_T16	3.484			Lbyy						Lateral
1669	M1737	TWR_SUBRED_DIAG3_T16	8.395			Lbyy						Lateral
1670	M1738	TWR_SUBRED_HORZ1_T16	3.484			Lbyy						Lateral
1671	M1739	TWR_SUBRED_DIAG2_T16	5.646			Lbyy						Lateral
1672	M1740	TWR_SUBRED_HORZ2_T16	3.484			Lbyy						Lateral
1673	M1741	TWR_SUBRED_DIAG2_T16	5.646			Lbyy						Lateral
1674	M1742	TWR_SUBRED_DIAG3_T16	8.395			Lbyy						Lateral
1675	M1743	TWR_SUBRED_HORZ3_T16	6.969			Lbyy						Lateral
1676	M1744	TWR_SUBRED_HORZ1_T16	3.484			Lbyy						Lateral
1677	M1745	TWR_SUBRED_HORZ3_T16	6.969			Lbyy						Lateral
1678	M1746	TWR_SUBRED_DIAG1_T16	5.246			Lbyy						Lateral
1679	M1747	TWR_SUBRED_DIAG1_T16	5.246			Lbyy						Lateral
1680	M1748	TWR_SUBRED_HORZ2_T16	3.484			Lbyy						Lateral
1681	M1749	TWR_SUBRED_DIAG3_T16	8.395			Lbyy						Lateral
1682	M1750	TWR_SUBRED_HORZ1_T16	3.484			Lbyy						Lateral
1683	M1751	TWR_SUBRED_DIAG2_T16	5.646			Lbyy						Lateral
1684	M1752	TWR_SUBRED_HORZ2_T16	3.484			Lbyy						Lateral
1685	M1753	TWR_SUBRED_DIAG2_T16	5.646			Lbyy						Lateral
1686	M1754	TWR_SUBRED_DIAG3_T16	8.395			Lbyy						Lateral
1687	M1755	TWR_SUBRED_HORZ3_T16	6.969			Lbyy						Lateral
1688	M1756	TWR_SUBRED_HORZ1_T16	3.484			Lbyy						Lateral
1689	M1757	TWR_SUBRED_HORZ3_T16	6.969			Lbyy						Lateral
1690	M1758	TWR_SUBRED_DIAG1_T16	5.246			Lbyy						Lateral
1691	M1759	TWR_SUBRED_DIAG1_T16	5.246			Lbyy						Lateral
1692	M1760	TWR_SUBRED_HORZ2_T16	3.484			Lbyy						Lateral
1693	M1761	TWR_SUBRED_DIAG3_T16	8.395			Lbyy						Lateral
1694	M1762	TWR_SUBRED_HORZ1_T16	3.484			Lbyy						Lateral
1695	M1763	TWR_SUBRED_DIAG2_T16	5.646			Lbyy						Lateral
1696	M1764	TWR_SUBRED_HORZ2_T16	3.484			Lbyy						Lateral
1697	M1765	TWR_SUBRED_DIAG2_T16	5.646			Lbyy						Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1698	M1766	TWR_SUBRED_DIAG3_T16	8.395			Lbyy						Lateral
1699	M1767	TWR_SUBRED_HORZ3_T16	6.969			Lbyy						Lateral
1700	M1768	TWR_SUBRED_HORZ1_T16	3.484			Lbyy						Lateral
1701	M1769	TWR_SUBRED_HORZ3_T16	6.969			Lbyy						Lateral
1702	M1770	TWR_RED_SUBDIA2_T15	10.764			Lbyy						Lateral
1703	M1771	TWR_RED_SUBDIA2_T15	10.764			Lbyy						Lateral
1704	M1772	TWR_RED_SUBDIA2_T15	10.764			Lbyy						Lateral
1705	M1773	TWR_RED_SUBDIA2_T15	10.764			Lbyy						Lateral
1706	M1774	TWR_RED_DIAG_3_T14	11.726			Lbyy						Lateral
1707	M1775	TWR_RED_DIAG_3_T14	11.726			Lbyy						Lateral
1708	M1776	TWR_RED_DIAG_3_T14	11.726			Lbyy						Lateral
1709	M1777	TWR_RED_DIAG_3_T14	11.726			Lbyy						Lateral
1710	M1778	TWR_RED_VERT_T14	8.357			Lbyy						Lateral
1711	M1779	TWR_RED_VERT_T14	8.357			Lbyy						Lateral
1712	M1780	TWR_RED_VERT_T14	8.357			Lbyy						Lateral
1713	M1781	TWR_RED_VERT_T14	8.357			Lbyy						Lateral
1714	M1782	TWR_RED_SUBHOR_2_T14	7.625			Lbyy						Lateral
1715	M1785	TWR_RED_VERT_T14	7.625			Lbyy						Lateral
1716	M1790	TWR_RED_VERT_T14	7.625			Lbyy						Lateral
1717	M1784	TWR_RED_VERT_T13	8.53			Lbyy						Lateral
1718	M1786	TWR_RED_VERT_T13	8.357			Lbyy						Lateral
1719	M1787	TWR_RED_VERT_T13	8.53			Lbyy						Lateral
1720	M1789	TWR_RED_DIAG_3_T13	11.295			Lbyy						Lateral
1721	M1792	TWR_RED_SUBHOR_2_T13	7			Lbyy						Lateral
1722	M1793	TWR_RED_SUBHOR_2_T13	7			Lbyy						Lateral
1723	M1795	TWR_RED_VERT_T13	8.53			Lbyy						Lateral
1724	M1796	TWR_RED_VERT_T13	8.53			Lbyy						Lateral
1725	M1799	TWR_RED_VERT_T13	8.357			Lbyy						Lateral
1726	M1800	TWR_RED_DIAG_3_T13	11.295			Lbyy						Lateral
1727	M1801	TWR_RED_SUBHOR_2_T13	7			Lbyy						Lateral
1728	M1802	TWR_RED_VERT_T13	8.53			Lbyy						Lateral
1729	M1803	TWR_RED_VERT_T13	8.53			Lbyy						Lateral
1730	M1805	TWR_RED_SUBHOR_2_T13	7			Lbyy						Lateral
1731	M1806	TWR_RED_VERT_T13	8.357			Lbyy						Lateral
1732	M1807	TWR_RED_DIAG_3_T13	11.295			Lbyy						Lateral
1733	M1808	TWR_RED_SUBHOR_2_T13	7			Lbyy						Lateral
1734	M1809	TWR_RED_VERT_T13	8.53			Lbyy						Lateral
1735	M1810	TWR_RED_VERT_T13	8.53			Lbyy						Lateral
1736	M1813	TWR_RED_VERT_T13	8.357			Lbyy						Lateral
1737	M1814	TWR_RED_DIAG_3_T13	11.295			Lbyy						Lateral
1738	M1815	TWR_RED_SUBHOR_2_T13	7			Lbyy						Lateral
1739	M1816	TWR_RED_VERT_2_T12	8.36			Lbyy						Lateral
1740	M1817	TWR_RED_VERT_2_T12	8.357			Lbyy						Lateral
1741	M1818	TWR_RED_VERT_2_T12	8.36			Lbyy						Lateral
1742	M1819	TWR_RED_SUBHOR_2_T12	6.501			Lbyy						Lateral
1743	M1820	TWR_RED_SUBHOR_2_T12	6.375			Lbyy						Lateral
1744	M1821	TWR_RED_SUBHOR_2_T12	6.501			Lbyy						Lateral
1745	M1822	TWR_RED_VERT_2_T12	8.36			Lbyy						Lateral
1746	M1823	TWR_RED_SUBHOR_2_T12	6.501			Lbyy						Lateral
1747	M1825	TWR_RED_VERT_2_T12	8.36			Lbyy						Lateral
1748	M1826	TWR_RED_VERT_2_T12	8.357			Lbyy						Lateral
1749	M1827	TWR_RED_SUBHOR_2_T12	6.501			Lbyy						Lateral
1750	M1828	TWR_RED_VERT_2_T12	8.36			Lbyy						Lateral
1751	M1829	TWR_RED_SUBHOR_2_T12	6.501			Lbyy						Lateral
1752	M1830	TWR_RED_SUBHOR_2_T12	6.375			Lbyy						Lateral
1753	M1831	TWR_RED_VERT_2_T12	8.36			Lbyy						Lateral
1754	M1832	TWR_RED_VERT_2_T12	8.357			Lbyy						Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1755	M1833	TWR_RED_SUBHOR_2_T12	6.501			Lbyy						Lateral
1756	M1834	TWR_RED_VERT_2_T12	8.36			Lbyy						Lateral
1757	M1835	TWR_RED_SUBHOR_2_T12	6.501			Lbyy						Lateral
1758	M1837	TWR_RED_VERT_2_T12	8.36			Lbyy						Lateral
1759	M1838	TWR_RED_VERT_2_T12	8.357			Lbyy						Lateral
1760	M1839	TWR_RED_SUBHOR_2_T12	6.501			Lbyy						Lateral
1761	M1840	TWR_INNER BRACE_2_T11	12.198			Lbyy						Lateral
1762	M1841	TWR_INNER BRACE_2_T11	12.198			Lbyy						Lateral
1763	M1842	TWR_INNER BRACE_2_T11	12.198			Lbyy						Lateral
1764	M1843	TWR_INNER BRACE_2_T11	12.198			Lbyy						Lateral
1765	M1836	TWR_RED_VERT_T10	8.357			Lbyy						Lateral
1766	M1844	TWR_RED_VERT_T10	8.357			Lbyy						Lateral
1767	M1845	TWR_RED_VERT_T10	8.357			Lbyy						Lateral
1768	M1846	TWR_RED_VERT_T10	8.357			Lbyy						Lateral
1769	M1847	TWR_RED_VERT_T10	8.357			Lbyy						Lateral
1770	M1848	TWR_RED_VERT_T10	8.357			Lbyy						Lateral
1771	M1849	TWR_RED_VERT_T10	8.357			Lbyy						Lateral
1772	M1850	TWR_RED_VERT_T10	8.357			Lbyy						Lateral
1773	M1851	TWR_INNER_BRACE_2_T10	13.612			Lbyy						Lateral
1774	M1852	TWR_INNER_BRACE_2_T10	13.612			Lbyy						Lateral
1775	M1853	TWR_INNER_BRACE_2_T10	13.612			Lbyy						Lateral
1776	M1854	TWR_INNER_BRACE_2_T10	13.612			Lbyy						Lateral
1777	M1855	TWR_INNER_SUPP_2_T8	8.883			Lbyy						Lateral
1778	M1856	TWR_INNER_SUPP_2_T8	9.211			Lbyy						Lateral
1779	M1857	TWR_INNER_SUPP_2_T8	9.211			Lbyy						Lateral
1780	M1858	TWR_INNER_SUPP_2_T8	8.883			Lbyy						Lateral
1781	M1859	TWR_INNER_SUPP_2_T8	9.211			Lbyy						Lateral
1782	M1860	TWR_INNER_SUPP_2_T8	9.211			Lbyy						Lateral
1783	M1861	TWR_INNER_SUPP_2_T8	8.883			Lbyy						Lateral
1784	M1862	TWR_INNER_SUPP_2_T8	9.211			Lbyy						Lateral
1785	M1863	TWR_INNER_SUPP_2_T8	9.211			Lbyy						Lateral
1786	M1864	TWR_INNER_SUPP_2_T8	8.883			Lbyy						Lateral
1787	M1865	TWR_INNER_SUPP_2_T8	9.211			Lbyy						Lateral
1788	M1866	TWR_INNER_SUPP_2_T8	9.211			Lbyy						Lateral
1789	M1867	TWR_INNER_SUPP_2_T7	8.22			Lbyy						Lateral
1790	M1868	TWR_INNER_SUPP_2_T7	8.873			Lbyy						Lateral
1791	M1869	TWR_INNER_SUPP_2_T7	8.873			Lbyy						Lateral
1792	M1870	TWR_INNER_SUPP_2_T7	8.22			Lbyy						Lateral
1793	M1871	TWR_INNER_SUPP_2_T7	8.873			Lbyy						Lateral
1794	M1872	TWR_INNER_SUPP_2_T7	8.873			Lbyy						Lateral
1795	M1873	TWR_INNER_SUPP_2_T7	8.22			Lbyy						Lateral
1796	M1874	TWR_INNER_SUPP_2_T7	8.873			Lbyy						Lateral
1797	M1875	TWR_INNER_SUPP_2_T7	8.873			Lbyy						Lateral
1798	M1876	TWR_INNER_SUPP_2_T7	8.22			Lbyy						Lateral
1799	M1877	TWR_INNER_SUPP_2_T7	8.873			Lbyy						Lateral
1800	M1878	TWR_INNER_SUPP_2_T7	8.873			Lbyy						Lateral
1801	M1879	TWR_RED_SUBHOR_2_T14	7.625			Lbyy						Lateral
1802	M1880	TWR_RED_SUBHOR_2_T14	7.625			Lbyy						Lateral
1803	M1881	TWR_RED_SUBHOR_2_T14	7.625			Lbyy						Lateral
1804	M1883	TWR_RED_SUBHOR_2_T14	7.625			Lbyy						Lateral
1805	M1885	TWR_RED_SUBHOR_2_T14	7.625			Lbyy						Lateral
1806	M1886	TWR_RED_SUBHOR_2_T14	7.625			Lbyy						Lateral
1807	M1887	TWR_RED_SUBHOR_2_T14	7.625			Lbyy						Lateral
1808	M1888	TWR_RED_SUBHOR_2_T14	7.625			Lbyy						Lateral
1809	M1889	TWR_RED_SUBHOR_2_T14	7.625			Lbyy						Lateral
1810	M1872A	TWR_RED_SUBHOR_2_T13	7									Lateral
1811	M1873A	TWR_RED_SUBHOR_2_T13	7									Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1812	M1874A	TWR_RED_SUBHOR_2_T13	7									Lateral
1813	M1875A	TWR_RED_SUBHOR_2_T13	7									Lateral
1814	M1875B	TWR_RED_SUBHOR_2_T12	6.375			Lbyy						Lateral
1815	M1881A	TWR_RED_SUBHOR_2_T12	6.375			Lbyy						Lateral
1816	M1877A	TWR_RED_SUBHOR_2_T13	7			Lbyy						Lateral
1817	M1883A	TWR_RED_SUBHOR_2_T13	7			Lbyy						Lateral
1818	M1878A	TWR_RED_KICKER_T16	11.066			Lbyy						Lateral
1819	M1879A	TWR_RED_KICKER_T16	11.066			Lbyy						Lateral
1820	M1880A	TWR_RED_KICKER_T16	11.066			Lbyy						Lateral
1821	M1881B	TWR_RED_VERT_T14	8.574									Lateral
1822	M1882	TWR_RED_VERT_T14	8.574									Lateral
1823	M1883B	TWR_RED_VERT_T14	8.574									Lateral
1824	M1884	TWR_RED_VERT_T14	8.574									Lateral
1825	M1885A	TWR_RED_VERT_T14	8.574									Lateral
1826	M1886A	TWR_RED_VERT_T14	8.574									Lateral
1827	M1887A	TWR_RED_VERT_T14	8.574									Lateral
1828	M1888A	TWR_RED_VERT_T14	8.574									Lateral

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
1	Dead	None		-1		84	756	72		
2	No Ice Wind 0 deg	None				84	1650	216		
3	No Ice Wind 45 deg	None				168	1766	288		
4	No Ice Wind 90 deg	None				84	1658	216		
5	No Ice Wind 135 deg	None				168	1582	288		
6	No Ice Wind 180 deg	None				84	1650	216		
7	No Ice Wind 225 deg	None				168	1766	288		
8	No Ice Wind 270 deg	None				84	1658	216		
9	No Ice Wind 315 deg	None				168	1778	288		
10	Ice	None				84	596	1084		
11	Temperature Drop	None						1700		
12	Ice Wind 0 deg	None				84	1656	216		
13	Ice Wind 45 deg	None				168	1750	288		
14	Ice Wind 90 deg	None				84	1664	216		
15	Ice Wind 135 deg	None				168	1770	288		
16	Ice Wind 180 deg	None				84	1656	216		
17	Ice Wind 225 deg	None				168	1750	288		
18	Ice Wind 270 deg	None				84	1664	216		
19	Ice Wind 315 deg	None				168	1770	288		
20	Service Wind 0 deg	None				84	1644	216		
21	Service Wind 45 deg	None				168	1742	288		
22	Service Wind 90 deg	None				84	1652	216		
23	Service Wind 135 deg	None				168	1766	288		
24	Service Wind 180 deg	None				84	1644	216		
25	Service Wind 225 deg	None				168	1742	288		
26	Service Wind 270 deg	None				84	1652	288		
27	Service Wind 315 deg	None				168	1766	288		

Load Combinations

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	Dead Only	Yes			1	1.4																		
2	1.2 Dead+1.0 Wind 0 deg - No Ice	Yes			1	1.2	2	1																
3	0.9 Dead+1.0 Wind 0 deg - No Ice	Yes			1	.9	2	1																
4	1.2 Dead+1.0 Wind 45 deg - No I...	Yes			1	1.2	3	1																

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
5	0.9 Dead+1.0 Wind 45 deg - No I..	Yes			1	.9	3	1																
6	1.2 Dead+1.0 Wind 90 deg - No I..	Yes			1	1.2	4	1																
7	0.9 Dead+1.0 Wind 90 deg - No I..	Yes			1	.9	4	1																
8	1.2 Dead+1.0 Wind 135 deg - No..	Yes			1	1.2	5	1																
9	0.9 Dead+1.0 Wind 135 deg - No..	Yes			1	.9	5	1																
10	1.2 Dead+1.0 Wind 180 deg - No..	Yes			1	1.2	6	1																
11	0.9 Dead+1.0 Wind 180 deg - No..	Yes			1	.9	6	1																
12	1.2 Dead+1.0 Wind 225 deg - No..	Yes			1	1.2	7	1																
13	0.9 Dead+1.0 Wind 225 deg - No..	Yes			1	.9	7	1																
14	1.2 Dead+1.0 Wind 270 deg - No..	Yes			1	1.2	8	1																
15	0.9 Dead+1.0 Wind 270 deg - No..	Yes			1	.9	8	1																
16	1.2 Dead+1.0 Wind 315 deg - No..	Yes			1	1.2	9	1																
17	0.9 Dead+1.0 Wind 315 deg - No..	Yes			1	.9	9	1																
18	1.2 Dead+1.0 Ice+1.0 Temp	Yes			1	1.2	10	1																
19	1.2 Dead+1.0 Wind 0 deg+1.0 Ic..	Yes			1	1.2	12	1	10	1														
20	1.2 Dead+1.0 Wind 45 deg+1.0 I..	Yes			1	1.2	13	1	10	1														
21	1.2 Dead+1.0 Wind 90 deg+1.0 I..	Yes			1	1.2	14	1	10	1														
22	1.2 Dead+1.0 Wind 135 deg+1.0..	Yes			1	1.2	15	1	10	1														
23	1.2 Dead+1.0 Wind 180 deg+1.0..	Yes			1	1.2	16	1	10	1														
24	1.2 Dead+1.0 Wind 225 deg+1.0..	Yes			1	1.2	17	1	10	1														
25	1.2 Dead+1.0 Wind 270 deg+1.0..	Yes			1	1.2	18	1	10	1														
26	1.2 Dead+1.0 Wind 315 deg+1.0..	Yes			1	1.2	19	1	10	1														
27	Dead+Wind 0 deg - Service	Yes			1	1	20	1																
28	Dead+Wind 45 deg - Service	Yes			1	1	21	1																
29	Dead+Wind 90 deg - Service	Yes			1	1	22	1																
30	Dead+Wind 135 deg - Service	Yes			1	1	23	1																
31	Dead+Wind 180 deg - Service	Yes			1	1	24	1																
32	Dead+Wind 225 deg - Service	Yes			1	1	25	1																
33	Dead+Wind 270 deg - Service	Yes			1	1	26	1																
34	Dead+Wind 315 deg - Service	Yes			1	1	27	1																

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N465	max	71.462	12	538.576	12	51.831	5	0	34	.648	17	0	34
2		min	-48.348	5	-348.274	5	-75.891	12	0	1	-.642	8	0	1
3	N466	max	50.024	17	521.675	8	50.636	17	0	34	.525	13	0	34
4		min	-71.84	8	-351.592	17	-72.358	8	0	1	-.525	4	0	1
5	N467	max	51.904	13	537.115	4	71.41	4	0	34	.685	8	0	34
6		min	-75.794	4	-349.368	13	-48.386	13	0	1	-.692	17	0	1
7	N468	max	74.155	16	541.818	16	73.678	16	0	34	.817	4	0	34
8		min	-48.969	9	-333.883	9	-48.318	9	0	1	-.816	13	0	1
9	Totals:	max	212.466	15	714.797	26	214.77	3						
10		min	-212.28	6	322.555	3	-214.584	10						

Built-Up Quad Angles

NORWALK, CT2132

2022703.73

Steel Specification	AISC 14th Red Book
Code	TIA-222-G
Number of Sections	9
Max Capacity	105%

Existing Member								Modification						Built-Up Member																Member Analysis				
Section	Member	Member Type	Area (in²)	I_x (in⁴)	r_x (in)	r_i (in)	Ka/r_i	Mod Type	Area (in²)	I_x (in⁴)	r_x (in)	r_i (in)	Ka/r_i	Connection Type	K	K_i	L_u (in)	a (in)	h (in)	Area (in²)	I_{x-x} (in⁴)	r_{x-x} (in)	$(KL/r)_{x-x}$	r_i (in)	r_{ib} (in)	α	$(KL/r)_{x-b}$	K_e	$r_{x(i)}$ (in.)	Stiffness Only	.75$(KL/r)_{x-x}$	$(Ka/r)_{min}$	Design met?	$(KL/r)_y$	K Multiplier
225' - 250'	T9 Diagonal	2L3x2-1/2x5/16x1/2	1.621	1.423	0.937	0.525	45.74	2L3x3x3/8x1/2	2.11	1.760	0.913	0.587	26.28	bolted	1	0.86	117.600	24	2.321	7.461	16.239	1.475	79.71	0.525	0.913	1.27	91.90	0.53	2.24	Yes	130.73	45.74	Yes	27.71	0.53
200' - 225'	T10 Diagonal	2L2-1/2x3x5/16x1/2	1.621	0.898	0.744	0.525	68.61	2L3x3x3/8x1/2	2.11	1.760	0.913	0.587	39.42	bolted	1	0.86	121.728	36	1.571	7.461	9.839	1.148	106.00	0.525	0.744	1.06	126.27	0.77	1.74	Yes	123.29	68.61	Yes	53.67	0.77
175' - 200'	T11 Diagonal	2L2-1/2x2x5/16x1/2	1.309	0.788	0.776	0.422	85.37	L3x3-1/2x3/8x1/2	2.30	1.846	0.897	0.625	40.15	bolted	1	0.86	126.128	36	1.640	7.211	9.750	1.163	108.47	0.422	0.776	1.06	138.03	0.82	1.93	Yes	126.28	85.37	Yes	53.57	0.82
150' - 175'	T12 Diagonal	2L3x3-1/2x5/16x1/2	1.934	1.583	0.905	0.627	57.38	L3x3-1/2x3/8x1/2	2.30	1.846	0.897	0.625	40.15	bolted	1	0.86	116.094	36	1.638	8.461	12.493	1.215	95.54	0.625	0.897	0.91	111.58	0.82	1.80	Yes	101.61	57.38	Yes	53.20	0.82
125' - 150'	T13 Diagonal	2L3x3-1/2x3/8x1/2	2.297	1.846	0.897	0.625	38.43	L3x3-1/2x3/8x1/2	2.30	1.846	0.897	0.625	26.77	bolted	1	0.86	118.680	24	2.161	9.188	18.108	1.404	84.53	0.625	0.897	1.21	92.86	0.67	1.99	Yes	103.55	38.43	Yes	40.20	0.67
100' - 125'	T14 Diagonal	2L3x3-1/2x3/8x1/2	2.297	1.846	0.897	0.625	57.64	L3x3-1/2x3/8x1/2	2.30	1.846	0.897	0.625	40.15	bolted	1	0.86	121.446	36	1.661	9.188	13.720	1.222	99.38	0.625	0.897	0.93	114.89	0.81	1.73	Yes	105.95	57.64	Yes	57.15	0.81
75' - 100'	T15 Diagonal	2L3x3-1/2x3/8x1/2	2.297	1.846	0.897	0.625	57.64	L3x3-1/2x3/8x1/2	2.30	1.846	0.897	0.625	40.15	bolted	1	0.86	131.484	36	1.661	9.188	13.720	1.222	107.60	0.625	0.897	0.93	122.06	0.80	1.73	Yes	114.97	57.64	Yes	60.58	0.80
50' - 75'	T16 Diagonal	2L3x4x3/8x1/2	2.484	1.920	0.879	0.644	55.91	2L3x4x3/8x1/2	2.48	1.920	0.879	0.644	40.95	bolted	1	0.86	135.498	36	1.564	9.938	13.755	1.176	115.17	0.644	0.879	0.89	128.02	0.94	1.66	Yes	102.37	55.91	Yes	76.39	0.94
25' - 50'	T17 Diagonal	2L3x4x3/8x1/2	2.484	1.920	0.879	0.644	55.91	2L3x4x3/8x1/2	2.48	1.920	0.879	0.644	40.95	bolted	1	0.86	139.344	36	1.564	9.938	13.755	1.176	118.44	0.644	0.879	0.89	130.97	0.93	1.66	Yes	105.27	55.91	Yes	78.15	0.93

Existing Member								Modification						Built-Up Member																Member Analysis				
Section	Member	Member Type	Area (in²)	I_x (in⁴)	r_x (in)	r_i (in)	Ka/r_i	Mod Type	Area (in²)	I_x (in⁴)	r_x (in)	r_i (in)	Ka/r_i	Connection Type	K	K_i	L_u (in)	a (in)	h (in)	Area (in²)	I_{x-x} (in⁴)	r_{x-x} (in)	$(KL/r)_{x-x}$	r_i (in)	r_{ib} (in)	α	$(KL/r)_{x-b}$	K_e	$r_{x(i)}$ (in.)	Stiffness Only	.75$(KL/r)_{x-x}$	$(Ka/r)_{min}$	Design met?	$(KL/r)_y$	K Multiplier
225' - 250'	T9 Diagonal	2L3x2-1/2x5/16x1/2	1.621	0.898	0.744	0.525	45.74	2L3x3x3/8x1/2	2.11	1.760	0.913	0.587	26.28	bolted	1	0.86	235.320	24	2.275	7.461	13.598	1.350	174.31	0.525	0.744	1.53	180.21	1.03	2.05	Yes	130.73	45.74	Yes	118.79	1.03
200' - 225'	T10 Diagonal	2L2-1/2x3x5/16x1/2	1.621	1.423	0.937	0.525	68.61	2L3x3x3/8x1/2	2.11	1.760	0.913	0.587	39.42	bolted	1	0.86	243.456	36	2.367	7.461	16.363	1.481	164.39	0.525	0.913	1.30	178.14	1.08	2.25	Yes	123.29	68.61	Yes	117.43	1.08
175' - 200'	T11 Diagonal	2L2-1/2x2x5/16x1/2	1.309	0.446	0.584	0.422	85.37	L3x3-1/2x3/8x1/2	2.30	2.725	1.089	0.625	33.05	bolted	1	0.86	252.256	36	2.661	7.211	16.186	1.498	168.37	0.422	0.584	2.28	188.78	1.12	2.49	Yes	126.28	85.37	Yes	113.73	1.12
150' - 175'	T12 Diagonal	2L3x3-1/2x5/16x1/2	1.934	2.330	1.098	0.627	57.38	L3x3-1/2x3/8x1/2	2.30	2.725	1.089	0.625	33.05	bolted	1	0.86	232.188	36	2.661	8.461	24.854	1.714	135.47	0.625	1.089	1.22	147.23	1.09	2.54	Yes	101.61	57.38	Yes	99.54	1.09
125' - 150'	T13 Diagonal	2L3x3-1/2x3/8x1/2	2.297	2.725	1.089	0.625	38.43	L3x3-1/2x3/8x1/2	2.30	2.725	1.089	0.625	22.04	bolted	1	0.86	237.384	24	2.661	9.188	27.159	1.719	138.07	0.625	1.089	1.22	143.32	1.04	2.43	Yes	103.55	38.43	Yes	101.34	1.04
100' - 125'	T14 Diagonal	2L3x3-1/2x3/8x1/2	2.297	2.725	1.089	0.625	57.64	L3x3-1/2x3/8x1/2	2.30	2.725	1.089	0.625	33.05	bolted	1	0.86	242.892	36	2.661	9.188	27.159	1.719	141.27	0.625	1.089	1.22	152.58	1.08	2.43	Yes	105.95	57.64	Yes	107.89	1.08
75' - 100'	T15 Diagonal	2L3x3-1/2x3/8x1/2	2.297	2.725	1.089	0.625	57.64	L3x3-1/2x3/8x1/2	2.30	2.725	1.089	0.625	33.05	bolted	1	0.86	263.568	36	2.661	9.188	27.159	1.719	153.30	0.625	1.089	1.22	163.78	1.07	2.43	Yes	114.97	57.64	Yes	115.81	1.07
50' - 75'	T16 Diagonal	2L3x4x3/8x1/2	2.484	3.964	1.263	0.644	55.91	2L3x4x3/8x1/2	2.48	3.964	1.263	0.644	28.50	bolted	1	0.86	270.996	36	3.064	9.938	39.175	1.985	136.49	0.644	1.263	1.21	147.50	1.08	2.81	Yes	102.37	55.91	Yes	104.29	1.08
25' - 50'	T17 Diagonal	2L3x4x3/8x1/2	2.484	3.964	1.263	0.644	55.91	2L3x4x3/8x1/2	2.48	3.964	1.263	0.644	28.50	bolted	1	0.86	278.688	36	3.064	9.938	39.175	1.985	140.36	0.644	1.263	1.21	151.09	1.08	2.81	Yes	105.27	55.91	Yes	106.83	1.08

Member Summary				Compression Analysis				Tension Analysis					
Section	Member	Original Member	Modification	k	P_u (k)	ϕPn (k)	Rating	P_u (k)	A_n (in²)	U	A_g (in²)	ϕPn (k)	Rating
225' - 250'	T9 Diagonal	2L3x2-1/2x5/16x1/2	2L3x3x3/8x1/2	1.03	27.97	49.97	56.0%	24.08	2.73	1.00	2.73	105.05	22.9%
200' - 225'	T10 Diagonal	2L2-1/2x3x5/16x1/2	2L3x3x3/8x1/2	1.08	28.93	50.83	56.9%	26.23	2.73	1.00	2.73	105.05	25.0%
175' - 200'	T11 Diagonal	2L2-1/2x2x5/16x1/2	2L3x3-1/2x3/8x1/2	1.12	31.57	42.92	73.6%	28.74	2.11	1.00	2.11	84.80	33.9%
150' - 175'	T12 Diagonal	2L3x3-1/2x5/16x1/2	2L3x3-1/2x3/8x1/2	1.09	44.91	74.38	60.4%	36.93	3.36	1.00	3.36	125.30	29.5%
125' - 150'	T13 Diagonal	2L3x3-1/2x3/8x1/2	2L3x3-1/2x3/8x1/2	1.04	50.26	86.68	58.0%	38.89	3.98	1.00	3.98	148.84	26.1%
100' - 125'	T14 Diagonal	2L3x3-1/2x3/8x1/2	2L3x3-1/2x3/8x1/2	1.08	52.49	80.65	65.1%	41.39	3.98	1.00	3.98	148.84	27.8%
75' - 100'	T15 Diagonal	2L3x3-1/2x3/8x1/2	2L3x3-1/2x3/8x1/2	1.07	47.95	73.47	65.3%	38.90	3.98	1.00	3.98	148.84	26.1%
50' - 75'	T16 Diagonal	2L3x4x3/8x1/2	2L3x4x3/8x1/2	1.08	51.48	90.80	56.7%	40.45	4.36	1.00	4.36	160.99	25.1%
25' - 50'	T17 Diagonal	2L3x4x3/8x1/2	2L3x4x3/8x1/2	1.08	54.34	88.28	61.6%	42.36	4.36	1.00	4.36	160.99	26.3%

BUILT-UP MEMBER ANALYSIS

NORWALK, CT2132

2022703.73

Steel Specification	AISC 15th (Teal Book)
Analysis Method	LRFD
ASIF	1
Max Capacity	105%
Number of Sections	10

X-X Axis

Location		Existing Member							
Member Type	Elevation	Member	Area (in²)	I_x (in⁴)	I_{min} (in⁴)	F_y (ksi)	r_x (in)	r_{min} (in)	a/r_{min}
Redundant Sub Horiz T18	16' 8"	L2-1/2x2-1/2x3/16	0.90	0.54	0.21	36	0.771	0.482	49.80
Red Vert2 T18	25'	L3x3x1/4	1.44	1.23	0.49	36	0.924	0.583	41.14
Horiz T17	50'	LL4x3x5/16x1/2	2.09	3.36	0.85	36	1.268	0.637	34.52
Red Subdia T17	41' 8" - 50'	LL4x4x1/2x1/2	3.75	5.52	2.25	36	1.213	0.775	40.02
Horiz T16	75'	LL4x3x1/4x1/2	1.69	2.75	0.69	36	1.276	0.640	34.38
Red Subdia T16	66' 8" - 75'	LL4x4x1/2x1/2	3.75	5.52	2.25	36	1.213	0.775	35.50
Horiz T15	100'	LL3-1/2x3x5/16x1/2	2.10	2.44	0.98	36	1.078	0.685	32.14
Red Subia T14	116' 8 " - 125'	LL3x3x3/8x1/2	2.11	1.75	0.72	36	0.911	0.583	54.93
Red Subdia T13	141' 8" - 150'	LL3x2-1/2x1/4x1/2	1.32	1.16	0.36	36	0.937	0.519	36.64
Red Subdia T12	166' 8" - 175'	LL3x2-1/2x1/4x1/2	1.32	1.16	0.36	36	0.937	0.519	44.35

	Modification Member							
Member Type	Member	Area (in²)	I_x (in⁴)	I_{min} (in⁴)	F_y (ksi)	r_x (in)	r_{min} (in)	a/r_{min}
Redundant Sub Horiz T18	2-1/2x2-1/2x1/4	1.19	0.69	0.28	36	0.763	0.482	49.83
Red Vert2 T18	L3x3x3/8	2.11	1.75	0.72	36	0.911	0.583	41.20
Horiz T17	L4x3-1/2x3/8	2.67	4.15	1.39	36	1.247	0.722	30.49
Red Subdia T17	L4x4x3/8	2.86	4.32	1.73	36	1.229	0.778	39.86
Horiz T16	L4x3-1/2x3/8	2.67	4.15	1.39	36	1.247	0.722	30.49
Red Subdia T16	L4x4x3/8	2.86	4.32	1.73	36	1.229	0.778	35.36
Horiz T15	L4x3-1/2x3/8	2.67	4.15	1.39	36	1.247	0.722	30.49
Red Subia T14	L3-1/2x3x3/8	2.30	2.73	0.89	36	1.089	0.623	51.33
Red Subdia T13	3-1/2x2-1/2x3/8	2.11	2.56	0.61	36	1.101	0.537	35.37
Red Subdia T12	3-1/2x2-1/2x3/8	2.11	2.56	0.61	36	1.101	0.537	42.81

	Built-Up Member															
Member Type	Connectors	K	K_i	$L_{u(x)}$ (in)	a (in)	h (in)	Area (in²)	I_x (in⁴)	r_x (in)	$(KL/r)_{o(x)}$	r_i (in)	r_{ib} (in)	α	$(KL/r)_{m(x)}$	K_x	$r_{x(r)}$ (in)
Redundant Sub Horiz T18	Bolts	1	0.86	95	24	0.91	2.09	2.54	1.102	86.23	0.482	0.763	0.60	99.59	0.80	1.679
Red Vert2 T18	Bolts	1	0.86	117	24	0.03	3.55	2.98	0.917	127.66	0.583	0.911	0.01	128.47	1.01	1.439
Horiz T17	Bolts	1	0.86	171	22	0.91	4.76	19.78	2.038	83.89	0.637	1.247	0.36	90.71	0.80	3.076
Red Subdia T17	Bolts	1	0.86	198	31	0.92	6.61	22.47	1.844	107.39	0.775	1.213	0.38	114.60	1.04	2.448
Horiz T16	Bolts	1	0.86	160	22	1.02	4.36	17.57	2.008	79.69	0.640	1.247	0.41	86.79	0.79	3.225
Red Subdia T16	Bolts	1	0.86	189	27.5	0.67	6.61	27.55	2.042	92.57	0.775	1.213	0.28	99.15	1.07	2.711
Horiz T15	Bolts	1	0.86	149	22	0.84	4.77	14.09	1.719	86.70	0.685	1.078	0.39	92.47	1.07	2.590
Red Subia T14	Bolts	1	0.86	136	32	0.63	4.41	11.03	1.582	85.99	0.583	0.911	0.35	102.04	1.18	2.286
Red Subdia T13	Bolts	1	0.86	131	19	0.73	3.43	8.09	1.536	85.29	0.519	0.937	0.39	92.82	0.83	2.476
Red Subdia T12	Bolts	1	0.86	126	23	0.73	3.43	8.09	1.536	82.03	0.519	0.937	0.39	93.25	0.86	2.476

	Member Analysis					Modified Member	
Member Type	$0.75(KL/r)_{o(x)}$	$(a/r)_{max}$	$KL/r_{x(r)}$	Design met?	$(KL/r)_x$	K Multiplier	F_y (ksi)
Redundant Sub Horiz T18	64.67	49.83	56.58	Yes	99.59	0.8032	36
Red Vert2 T18	95.74	41.14	81.30	Yes	81.82	1.0064	36
Horiz T17	62.91	34.52	55.58	Yes	44.61	0.8025	36
Red Subdia T17	80.54	40.02	80.88	Yes	84.08	1.0395	36
Horiz T16	59.77	34.38	49.62	Yes	39.27	0.7915	36
Red Subdia T16	69.43	35.50	69.73	Yes	74.68	1.0710	36
Horiz T15	65.03	32.14	57.53	Yes	61.35	1.0665	36
Red Subia T14	64.49	54.93	59.48	Yes	69.98	1.1766	36
Red Subdia T13	63.97	36.64	52.91	Yes	43.71	0.8262	36
Red Subdia T12	61.52	44.35	50.89	Yes	43.92	0.8630	36

Y-Y Axis

Location		Existing Member							
Member Type	Elevation	Member	Area (in²)	I_y (in⁴)	I_{min} (in⁴)	F_y (ksi)	r_y (in)	r_{min} (in)	a/r_{min}
Redundant Sub Horiz T18	16' 8"	L2-1/2x2-1/2x3/16	0.90	0.54	0.21	36	0.771	0.482	49.80
Red Vert2 T18	25'	L3x3x1/4	1.44	1.23	0.49	36	0.924	0.583	41.14
Horiz T17	50'	LL4x3x5/16x1/2	2.09	3.36	0.85	36	1.268	0.637	34.52
Red Subdia T17	41' 8" - 50'	LL4x4x1/2x1/2	3.75	5.52	2.25	36	1.213	0.775	40.02
Horiz T16	75'	LL4x3x1/4x1/2	1.69	2.75	0.69	36	1.276	0.640	34.38
Red Subdia T16	66' 8" - 75'	LL4x4x1/2x1/2	3.75	5.52	2.25	36	1.213	0.775	35.50
Horiz T15	100'	LL3-1/2x3x5/16x1/2	2.10	2.44	0.98	36	1.078	0.685	32.14
Red Subia T14	116' 8 " - 125'	LL3x3x3/8x1/2	2.11	1.75	0.72	36	0.911	0.583	54.93
Red Subdia T13	141' 8" - 150'	LL3x2-1/2x1/4x1/2	1.32	1.16	0.36	36	0.937	0.519	36.64
Red Subdia T12	166' 8" - 175'	LL3x2-1/2x1/4x1/2	1.32	1.16	0.36	36	0.937	0.519	44.35

	Modification Member							
Member Type	Member	Area (in²)	I_y (in⁴)	I_{min} (in⁴)	F_y (ksi)	r_y (in)	r_{min} (in)	a/r_{min}
Redundant Sub Horiz T18	2-1/2x2-1/2x1/4	1.19	0.69	0.28	36	0.763	0.482	49.83
Red Vert2 T18	L3x3x3/8	2.11	1.75	0.72	36	0.911	0.583	41.20
Horiz T17	L4x3-1/2x3/8	2.67	2.96	1.39	36	1.053	0.722	30.49
Red Subdia T17	L4x4x3/8	2.86	4.32	1.73	36	1.229	0.778	39.86
Horiz T16	L4x3-1/2x3/8	2.67	2.96	1.39	36	1.053	0.722	30.49
Red Subdia T16	L4x4x3/8	2.86	4.32	1.73	36	1.229	0.778	35.36
Horiz T15	L4x3-1/2x3/8	2.67	2.96	1.39	36	1.053	0.722	30.49
Red Subia T14	L3-1/2x3x3/8	2.30	1.84	0.89	36	0.894	0.623	51.33
Red Subdia T13	3-1/2x2-1/2x3/8	2.11	1.09	0.61	36	0.719	0.537	35.37
Red Subdia T12	3-1/2x2-1/2x3/8	2.11	1.09	0.61	36	0.719	0.537	42.81

	Built-Up Member															
Member Type	Connectors	K	K_i	$L_{u(y)}$ (in)	a (in)	h (in)	Area (in²)	I_y (in⁴)	r_y (in)	$(KL/r)_{o(y)}$	r_i (in)	r_{ib} (in)	α	$(KL/r)_{m(y)}$	K_y	$r_{y(r)}$ (in)
Redundant Sub Horiz T18	Bolts	1	0.86	95	24	0.01	2.09	1.23	0.766	123.99	0.482	0.763	0.01	124.58	1.00	1.168
Red Vert2 T18	Bolts	1	0.86	117	24	1.14	3.55	6.13	1.314	89.06	0.583	0.911	0.63	98.13	0.77	2.063
Horiz T17	Bolts	1	0.86	171	22	0.30	4.76	10.89	1.513	113.04	0.637	1.053	0.14	118.19	1.05	2.283
Red Subdia T17	Bolts	1	0.86	198	31	0.36	6.61	21.32	1.796	110.25	0.775	1.213	0.15	117.29	1.06	2.384
Horiz T16	Bolts	1	0.86	160	22	0.34	4.36	9.28	1.459	109.66	0.640	1.053	0.16	114.92	1.05	2.344
Red Subdia T16	Bolts	1	0.86	189	27.5	0.26	6.61	31.27	2.175	86.89	0.775	1.213	0.11	93.86	1.01	2.888
Horiz T15	Bolts	1	0.86	149	22	0.31	4.77	14.54	1.746	85.34	0.685	1.053	0.15	91.19	1.05	2.631
Red Subia T14	Bolts	1	0.86	136	32	0.23	4.41	10.85	1.568	86.72	0.583	0.894	0.13	102.66	1.18	2.267
Red Subdia T13	Bolts	1	0.86	131	19	0.21	3.43	4.66	1.166	112.35	0.519	0.719	0.15	118.18	1.05	1.880
Red Subdia T12	Bolts	1	0.86	126	23	0.21	3.43	4.66	1.166	108.06	0.519	0.719	0.15	116.81	1.08	1.880

	Member Analysis					Modified Member	
Member Type	$0.75(KL/r)_{o(y)}$	$(a/r)_{max}$	$KL/r_{y(r)}$	Design met?	$(KL/r)_y$	K Multiplier	F_y (ksi)
Redundant Sub Horiz T18	92.99	49.83	81.36	Yes	124.58	1.0048	36
Red Vert2 T18	66.79	41.14	56.72	Yes	43.60	0.7687	36
Horiz T17	84.78	34.52	74.90	Yes	78.32	1.0456	36
Red Subdia T17	82.69	40.02	83.04	Yes	88.34	1.0638	36
Horiz T16	82.24	34.38	68.27	Yes	71.55	1.0480	36
Red Subdia T16	65.17	35.50	65.45	Yes	66.36	1.0139	36
Horiz T15	64.01	32.14	56.63	Yes	59.56	1.0518	36
Red Subia T14	65.04	54.93	59.99	Yes	71.01	1.1837	36
Red Subdia T13	84.26	36.64	69.70	Yes	73.31	1.0518	36
Red Subdia T12	81.05	44.35	67.04	Yes	72.46	1.0809	36

Summary

Member Type	Elevation	Modified Member	Stiffness Only	K	F_y (ksi)
Redundant Sub Horiz T18	16' 8"	L2-1/2x2-1/2x3/16 w/ L2-1/2x2-1/2x1/4	No	1.0048	36
Red Vert2 T18	25'	L3x3x1/4 w/ L3x3x3/8 (r)	Yes	1.0064	36
Horiz T17	50'	LL4x3x5/16x1/2 w/ L4x3-1/2x3/8 (r)	Yes	1.0456	36
Red Subdia T17	41' 8" - 50'	LL4x4x1/2x1/2 w/ L4x4x3/8 (r)	Yes	1.0638	36
Horiz T16	75'	LL4x3x1/4x1/2 w/ L4x3-1/2x3/8 (r)	Yes	1.0480	36
Red Subdia T16	66' 8" - 75'	LL4x4x1/2x1/2 w/ L4x4x3/8 (r)	Yes	1.0710	36
Horiz T15	100'	LL3-1/2x3x5/16x1/2 w/ L4x3-1/2x3/8 (r)	Yes	1.0665	36
Red Subia T14	116' 8 " - 125'	LL3x3x3/8x1/2 w/ L3-1/2x3x3/8 (r)	Yes	1.1837	36
Red Subdia T13	141' 8" - 150'	LL3x2-1/2x1/4x1/2 w/ L3-1/2x2-1/2x3/8 (r)	Yes	1.0518	36
Red Subdia T12	166' 8" - 175'	LL3x2-1/2x1/4x1/2 w/ L3-1/2x2-1/2x3/8 (r)	Yes	1.0809	36

Arbitrary Shape - TNX Input

Height (in)	Width (in)	Projection (in)	Perimeter (in)	A (in²)	I_x (in⁴)	I_y (in⁴)	$S_{x(Top)}$ (in³)	$S_{x(Bottom)}$ (in³)	$S_{y(Top)}$ (in³)	$S_{y(Bottom)}$ (in³)	Density (pcf)
5.1870	2.5000	5.1870	15.3740	0.9000	2.5370	1.2270	1.0270	0.9340	1.7350	0.6850	490.0000
3.0000	6.1880	5.1870	18.3760	1.4400	2.9820	6.1270	3.4300	1.3990	2.1200	1.8580	1207.9861
4.8020	6.5000	6.5000	22.6040	4.1900	19.7800	10.8930	9.1200	7.5130	3.1250	3.6150	1115.9809
4.7090	8.3750	8.3750	26.1680	4.8000	22.4720	21.3200	11.0580	8.3950	4.6930	5.5630	863.7067
4.7470	6.4960	6.4960	22.4860	3.3800	17.5740	9.2820	7.7970	7.0480	2.6330	3.1230	1264.1420
4.7530	8.3750	8.3750	26.2560	7.4900	27.5520	31.2740	14.8520	9.5090	7.0280	7.9680	863.7067
4.0800	7.3750	7.3750	22.9100	3.9100	14.0880	14.5400	8.5570	5.7900	3.6360	4.3070	1113.0000
3.7640	6.3750	6.3750	20.2780	4.2200	11.0310	10.8450	7.2520	4.9190	3.1760	3.6630	1024.1232
3.7230	5.3750	5.3750	18.1960	2.6400	8.0920	4.6630	4.9200	3.8940	1.6090	1.8820	1273.2576
3.7230	5.3750	5.3750	18.1960	2.6400	8.0920	4.6630	4.9200	3.8940	1.6090	1.8820	1273.2576

Modification Termination

Design Force (k)	Length (in)	Unmodified Span (in)
33.83		
N/A		
N/A		
N/A		
N/A		
N/A		
N/A		
N/A		
N/A		
N/A		

Capacity Summary

Compression (k)	Tension (k)	ϕPn (k) - Buckling	ϕPn (k) - Crushing	ϕPn (k) - Tension	Controlling	Rating
2.522	2.344	29.91	N/A	N/A	Buckling	8.4%
2.841	3.187	32.80	N/A	N/A	Buckling	8.7%
41.407	49.529	49.03	N/A	N/A	Buckling	84.5%
53.84	50.936	80.56	N/A	N/A	Buckling	66.8%
37.69	45.297	41.82	N/A	N/A	Buckling	90.1%
49.954	43.694	90.59	N/A	N/A	Buckling	55.1%
34.436	44.168	55.81	N/A	N/A	Buckling	61.7%
33.759	35.002	52.43	N/A	N/A	Buckling	64.4%
31.186	62.091	32.23	N/A	N/A	Buckling	96.8%
29.127	29.329	32.44	N/A	N/A	Buckling	89.8%
Apply TIA-222-H Section 15.5?				**No**		

Version 1.2

TIA-222-H Code Angle Bracing Member Checks
NORWALK, CT2132
2022703.73

Section Set	Member	Comp. (K)	$\Phi P_{n,Comp}$ (K)	Ten (K)	$\Phi P_{n,Ten}$ (K)	Capacity	Pass/Fail
TWR_DIAG_T1	M9	5.215	23.27	4.07	59.27	22.4%	Pass
TWR_DIAG_T1	M10	5.163	23.27	4.11	59.27	22.2%	Pass
TWR_DIAG_T1	M11	5.191	23.27	4.12	59.27	22.3%	Pass
TWR_DIAG_T1	M12	5.232	23.27	4.10	59.27	22.5%	Pass
TWR_DIAG_T1	M13	4.958	23.27	3.94	59.27	21.3%	Pass
TWR_DIAG_T1	M14	4.999	23.27	3.91	59.27	21.5%	Pass
TWR_DIAG_T1	M15	5	23.27	3.91	59.27	21.5%	Pass
TWR_DIAG_T1	M16	4.958	23.27	3.95	59.27	21.3%	Pass
TWR_DIAG_T2	M29	6.306	20.05	5.07	59.27	31.4%	Pass
TWR_DIAG_T2	M30	6.269	20.05	5.06	59.27	31.3%	Pass
TWR_DIAG_T2	M31	6.407	20.05	5.17	59.27	32.0%	Pass
TWR_DIAG_T2	M32	6.424	20.05	5.20	59.27	32.0%	Pass
TWR_DIAG_T2	M33	6.495	20.05	5.28	59.27	32.4%	Pass
TWR_DIAG_T2	M34	6.482	20.05	5.25	59.27	32.3%	Pass
TWR_DIAG_T2	M35	6.433	20.05	5.22	59.27	32.1%	Pass
TWR_DIAG_T2	M36	6.453	20.05	5.24	59.27	32.2%	Pass
TWR_DIAG_T3	M54	6.819	21.48	5.78	64.49	31.7%	Pass
TWR_DIAG_T3	M55	6.814	21.48	5.76	64.49	31.7%	Pass
TWR_DIAG_T3	M56	7.047	21.48	5.93	64.49	32.8%	Pass
TWR_DIAG_T3	M57	7.036	21.48	5.97	64.49	32.8%	Pass
TWR_DIAG_T3	M58	7.452	21.48	6.21	64.49	34.7%	Pass
TWR_DIAG_T3	M59	7.415	21.48	6.19	64.49	34.5%	Pass
TWR_DIAG_T3	M60	7.327	21.48	6.17	64.49	34.1%	Pass
TWR_DIAG_T3	M61	7.394	21.48	6.18	64.49	34.4%	Pass
TWR_DIAG_T4	M71	8.875	28.34	8.45	63.37	31.3%	Pass
TWR_DIAG_T4	M74	8.939	28.34	8.41	63.37	31.5%	Pass
TWR_DIAG_T4	M78	9.226	28.34	8.72	63.37	32.6%	Pass
TWR_DIAG_T4	M81	9.148	28.34	8.78	63.37	32.3%	Pass
TWR_DIAG_T4	M85	10.044	28.34	9.48	63.37	35.4%	Pass
TWR_DIAG_T4	M88	9.967	28.34	9.52	63.37	35.2%	Pass
TWR_DIAG_T4	M92	9.914	28.34	9.48	63.37	35.0%	Pass
TWR_DIAG_T4	M95	10.006	28.34	9.43	63.37	35.3%	Pass
TWR_DIAG_T5	M108	9.315	26.17	8.93	63.37	35.6%	Pass
TWR_DIAG_T5	M111	9.401	26.17	8.87	63.37	35.9%	Pass
TWR_DIAG_T5	M115	9.759	26.17	9.21	63.37	37.3%	Pass
TWR_DIAG_T5	M118	9.652	26.17	9.29	63.37	36.9%	Pass
TWR_DIAG_T5	M122	10.708	26.17	10.17	63.37	40.9%	Pass
TWR_DIAG_T5	M125	10.622	26.17	10.24	63.37	40.6%	Pass
TWR_DIAG_T5	M129	10.575	26.17	10.21	63.37	40.4%	Pass
TWR_DIAG_T5	M132	10.682	26.17	10.13	63.37	40.8%	Pass
TWR_DIAG_T6	M145	9.829	24.16	9.33	63.37	40.7%	Pass
TWR_DIAG_T6	M148	9.923	24.16	9.25	63.37	41.1%	Pass
TWR_DIAG_T6	M152	10.361	24.16	9.67	63.37	42.9%	Pass
TWR_DIAG_T6	M155	10.237	24.16	9.76	63.37	42.4%	Pass
TWR_DIAG_T6	M159	11.428	24.16	10.76	63.37	47.3%	Pass
TWR_DIAG_T6	M162	11.319	24.16	10.83	63.37	46.9%	Pass
TWR_DIAG_T6	M166	11.239	24.16	10.78	63.37	46.5%	Pass
TWR_DIAG_T6	M169	11.377	24.16	10.69	63.37	47.1%	Pass
TWR_DIAG_T7	M182	10.527	39.62	10.18	63.37	26.6%	Pass
TWR_DIAG_T7	M185	10.631	39.62	10.09	63.37	26.8%	Pass
TWR_DIAG_T7	M189	11.126	39.62	10.57	63.37	28.1%	Pass
TWR_DIAG_T7	M192	10.992	39.62	10.69	63.37	27.7%	Pass
TWR_DIAG_T7	M196	12.266	39.62	11.77	63.37	31.0%	Pass
TWR_DIAG_T7	M199	12.143	39.62	11.86	63.37	30.6%	Pass
TWR_DIAG_T7	M203	12.051	39.62	11.80	63.37	30.4%	Pass
TWR_DIAG_T7	M206	12.204	39.62	11.69	63.37	30.8%	Pass
TWR_DIAG_T8	M219	12.309	36.56	11.73	63.37	33.7%	Pass
TWR_DIAG_T8	M222	12.402	36.56	11.67	63.37	33.9%	Pass

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TWR_DIAG_T8	M226	13.286	36.56	12.46	63.37	36.3%	Pass
TWR_DIAG_T8	M229	13.037	36.56	12.65	63.37	35.7%	Pass
TWR_DIAG_T8	M233	14.445	36.56	13.82	63.37	39.5%	Pass
TWR_DIAG_T8	M236	14.342	36.56	13.88	63.37	39.2%	Pass
TWR_DIAG_T8	M240	13.904	36.56	13.56	63.37	38.0%	Pass
TWR_DIAG_T8	M243	14.163	36.56	13.38	63.37	38.7%	Pass
TWR_DIAG_T18	M933	52.036	146.15	37.90	214.11	35.6%	Pass
TWR_DIAG_T18	M938	52.541	146.15	37.42	214.11	35.9%	Pass
TWR_DIAG_T18	M949	53.541	146.15	37.50	214.11	36.6%	Pass
TWR_DIAG_T18	M954	52.142	146.15	38.91	214.11	35.7%	Pass
TWR_DIAG_T18	M968	56.534	146.15	41.18	214.11	38.7%	Pass
TWR_DIAG_T18	M973	56.017	146.15	41.50	214.11	38.3%	Pass
TWR_DIAG_T18	M987	57.179	146.15	41.35	214.11	39.1%	Pass
TWR_DIAG_T18	M992	56.504	146.15	42.20	214.11	38.7%	Pass
TWR_HORZ_T3	M45	0.737	50.65	1.60	63.21	2.5%	Pass
TWR_HORZ_T3	M46	0.724	50.65	1.60	63.21	2.5%	Pass
TWR_HORZ_T3	M47	0.732	50.65	1.60	63.21	2.5%	Pass
TWR_HORZ_T3	M48	0.732	50.65	1.59	63.21	2.5%	Pass
TWR_HORZ_T4	M70	4.94	62.10	5.01	71.53	8.0%	Pass
TWR_HORZ_T4	M77	5.135	62.10	5.21	71.53	8.3%	Pass
TWR_HORZ_T4	M84	5.577	62.10	5.68	71.53	9.0%	Pass
TWR_HORZ_T4	M91	5.539	62.10	5.63	71.53	8.9%	Pass
TWR_HORZ_T5	M107	5.882	33.26	5.18	63.37	17.7%	Pass
TWR_HORZ_T5	M114	6.113	33.26	5.40	63.37	18.4%	Pass
TWR_HORZ_T5	M121	6.754	33.26	6.00	63.37	20.3%	Pass
TWR_HORZ_T5	M128	6.738	33.26	5.97	63.37	20.3%	Pass
TWR_HORZ_T6	M144	6.422	27.42	5.70	63.37	23.4%	Pass
TWR_HORZ_T6	M151	6.72	27.42	5.98	63.37	24.5%	Pass
TWR_HORZ_T6	M158	7.462	27.42	6.69	63.37	27.2%	Pass
TWR_HORZ_T6	M165	7.427	27.42	6.65	63.37	27.1%	Pass
TWR_HORZ_T7	M181	7.252	22.95	6.38	63.37	31.6%	Pass
TWR_HORZ_T7	M188	7.612	22.95	6.71	63.37	33.2%	Pass
TWR_HORZ_T7	M195	8.461	22.95	7.54	63.37	36.9%	Pass
TWR_HORZ_T7	M202	8.417	22.95	7.48	63.37	36.7%	Pass
TWR_HORZ_T8	M218	8.643	19.76	7.61	63.37	43.7%	Pass
TWR_HORZ_T8	M225	9.367	19.76	8.21	63.37	47.4%	Pass
TWR_HORZ_T8	M232	10.293	19.76	9.10	63.37	52.1%	Pass
TWR_HORZ_T8	M239	10.021	19.76	8.89	63.37	50.7%	Pass
TWR_HORZ_T9	M255	9.935	28.33	9.96	71.53	35.1%	Pass
TWR_HORZ_T9	M267	10.495	28.33	10.58	71.53	37.0%	Pass
TWR_HORZ_T9	M280	11.432	28.33	11.78	71.53	40.4%	Pass
TWR_HORZ_T9	M293	11.258	28.33	11.52	71.53	39.7%	Pass
TWR_HORZ_T10	M316	12.027	22.39	12.38	71.53	53.7%	Pass
TWR_HORZ_T10	M328	12.383	22.39	12.84	71.53	55.3%	Pass
TWR_HORZ_T10	M341	13.423	22.39	14.49	71.53	60.0%	Pass
TWR_HORZ_T10	M354	13.427	22.39	14.49	71.53	60.0%	Pass
TWR_HORZ_T11	M377	14.018	20.67	14.66	79.69	67.8%	Pass
TWR_HORZ_T11	M389	14.394	20.67	15.11	79.69	69.6%	Pass
TWR_HORZ_T11	M402	15.738	20.67	16.83	79.69	76.2%	Pass
TWR_HORZ_T11	M415	15.583	20.67	16.65	79.69	75.4%	Pass
TWR_HORZ_T12	M438	24.931	105.27	25.31	98.14	25.8%	Pass
TWR_HORZ_T12	M454	25.359	105.27	25.80	98.14	26.3%	Pass
TWR_HORZ_T12	M473	27.262	105.27	28.09	98.14	28.6%	Pass
TWR_HORZ_T12	M492	27.25	105.27	28.01	98.14	28.5%	Pass
TWR_HORZ_T13	M523	28.599	113.58	30.57	108.32	28.2%	Pass
TWR_HORZ_T13	M537	29.017	113.58	31.15	108.32	28.8%	Pass
TWR_HORZ_T13	M554	31.521	113.58	34.58	108.32	31.9%	Pass
TWR_HORZ_T13	M571	31.452	113.58	34.41	108.32	31.8%	Pass
TWR_HORZ_T14	M600	33.299	130.37	36.63	128.71	28.5%	Pass
TWR_HORZ_T14	M614	33.89	130.37	37.48	128.71	29.1%	Pass

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TWR_HORZ_T14	M631	36.334	130.37	41.20	128.71	32.0%	Pass
TWR_HORZ_T14	M648	36.26	130.37	41.30	128.71	32.1%	Pass
TWR_HORZ_T18	M932	38.869	117.75	48.89	177.41	33.0%	Pass
TWR_HORZ_T18	M948	39.675	117.75	49.54	177.41	33.7%	Pass
TWR_HORZ_T18	M967	41.488	117.75	52.79	177.41	35.2%	Pass
TWR_HORZ_T18	M986	41.703	117.75	52.77	177.41	35.4%	Pass
TWR_INNER_BRACE_BOT_T12	M1549	0.708	35.59	0.79	39.78	2.0%	Pass
TWR_INNER_BRACE_BOT_T12	M1550	0.815	35.59	0.74	39.78	2.3%	Pass
TWR_INNER_BRACE_BOT_T12	M1551	0.774	35.59	0.77	39.78	2.2%	Pass
TWR_INNER_BRACE_BOT_T12	M1552	0.742	35.59	0.75	39.78	2.1%	Pass
TWR_INNER_BRACE_BOT_T12	M1553	0.481	35.59	0.49	39.78	1.4%	Pass
TWR_INNER_BRACE_BOT_T12	M1554	0.511	35.59	0.50	39.78	1.4%	Pass
TWR_INNER_BRACE_BOT_T12	M1555	0.533	35.59	0.46	39.78	1.5%	Pass
TWR_INNER_BRACE_BOT_T12	M1556	0.436	35.59	0.52	39.78	1.3%	Pass
TWR_INNER_BRACE_BOT_T12	M1557	0.404	35.59	0.48	39.78	1.2%	Pass
TWR_INNER_BRACE_BOT_T12	M1558	0.497	35.59	0.42	39.78	1.4%	Pass
TWR_INNER_BRACE_BOT_T12	M1559	0.478	35.59	0.46	39.78	1.3%	Pass
TWR_INNER_BRACE_BOT_T12	M1560	0.44	35.59	0.46	39.78	1.2%	Pass
TWR_INNER_BRACE_BOT_T12	M1561	0.692	35.59	0.77	39.78	1.9%	Pass
TWR_INNER_BRACE_BOT_T12	M1562	0.791	35.59	0.72	39.78	2.2%	Pass
TWR_INNER_BRACE_BOT_T12	M1563	0.758	35.59	0.75	39.78	2.1%	Pass
TWR_INNER_BRACE_BOT_T12	M1564	0.726	35.59	0.73	39.78	2.0%	Pass
TWR_INNER_BRACE_BOT_T12	M1565	1.196	16.93	1.15	39.78	7.1%	Pass
TWR_INNER_BRACE_BOT_T12	M1566	1.154	16.93	1.19	39.78	6.8%	Pass
TWR_INNER_BRACE_BOT_T12	M1567	1.179	16.93	1.23	39.78	7.0%	Pass
TWR_INNER_BRACE_BOT_T12	M1568	1.232	16.93	1.17	39.78	7.3%	Pass
TWR_INNER_BRACE_BOT_T12	M1569	0.753	16.93	0.79	39.78	4.4%	Pass
TWR_INNER_BRACE_BOT_T12	M1570	0.809	16.93	0.76	39.78	4.8%	Pass
TWR_INNER_BRACE_BOT_T12	M1571	0.742	16.93	0.71	39.78	4.4%	Pass
TWR_INNER_BRACE_BOT_T12	M1572	0.703	16.93	0.74	39.78	4.2%	Pass
TWR_INNER_BRACE_BOT_T18	M1037	0.577	12.91	0.68	39.78	4.5%	Pass
TWR_INNER_BRACE_BOT_T18	M1038	0.794	9.36	0.68	39.78	8.5%	Pass
TWR_INNER_BRACE_BOT_T18	M1039	0.687	11.10	0.76	39.78	6.2%	Pass
TWR_INNER_BRACE_BOT_T18	M1040	0.756	11.10	0.69	39.78	6.8%	Pass
TWR_INNER_BRACE_BOT_T18	M1041	0.713	9.36	0.75	39.78	7.6%	Pass
TWR_INNER_BRACE_BOT_T18	M1042	0.636	12.91	0.61	39.78	4.9%	Pass
TWR_INNER_BRACE_BOT_T18	M1043	1.009	12.91	0.99	39.78	7.8%	Pass
TWR_INNER_BRACE_BOT_T18	M1044	1.157	9.36	1.18	39.78	12.4%	Pass
TWR_INNER_BRACE_BOT_T18	M1045	1.154	11.10	1.09	39.78	10.4%	Pass
TWR_INNER_BRACE_BOT_T18	M1046	1.092	11.10	1.15	39.78	9.8%	Pass
TWR_INNER_BRACE_BOT_T18	M1047	1.219	9.36	1.11	39.78	13.0%	Pass
TWR_INNER_BRACE_BOT_T18	M1048	0.946	12.91	1.04	39.78	7.3%	Pass
TWR_INNER_BRACE_BOT_T18	M1049	0.994	12.91	0.97	39.78	7.7%	Pass
TWR_INNER_BRACE_BOT_T18	M1050	1.142	9.36	1.17	39.78	12.2%	Pass
TWR_INNER_BRACE_BOT_T18	M1051	1.143	11.10	1.08	39.78	10.3%	Pass
TWR_INNER_BRACE_BOT_T18	M1052	1.082	11.10	1.14	39.78	9.7%	Pass
TWR_INNER_BRACE_BOT_T18	M1053	1.214	9.36	1.11	39.78	13.0%	Pass
TWR_INNER_BRACE_BOT_T18	M1054	0.943	12.91	1.04	39.78	7.3%	Pass
TWR_INNER_BRACE_BOT_T18	M1055	0.692	12.91	0.67	39.78	5.4%	Pass
TWR_INNER_BRACE_BOT_T18	M1056	0.781	9.36	0.81	39.78	8.3%	Pass
TWR_INNER_BRACE_BOT_T18	M1057	0.817	11.10	0.72	39.78	7.4%	Pass
TWR_INNER_BRACE_BOT_T18	M1058	0.723	11.10	0.82	39.78	6.5%	Pass
TWR_INNER_BRACE_BOT_T18	M1059	0.86	9.36	0.71	39.78	9.2%	Pass
TWR_INNER_BRACE_BOT_T18	M1060	0.605	12.91	0.73	39.78	4.7%	Pass
TWR_INNER_BRACE_T9	M1630	0.002	8.14	0.00	24.08	0.0%	Pass
TWR_INNER_BRACE_T9	M1631	0.002	8.14	0.00	24.08	0.0%	Pass
TWR_INNER_BRACE_T10	M1610	0.002	6.77	0.00	24.08	0.0%	Pass
TWR_INNER_BRACE_T10	M1612	0.002	6.77	0.00	24.08	0.0%	Pass
TWR_INNER_BRACE_T11	M1589	0.001	5.71	0.00	24.08	0.0%	Pass
TWR_INNER_BRACE_T11	M1591	0.001	5.71	0.00	24.08	0.0%	Pass

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TWR_INNER_BRACE_T12	M1533	2.303	12.03	2.39	39.78	19.1%	Pass
TWR_INNER_BRACE_T12	M1534	2.368	12.03	2.33	39.78	19.7%	Pass
TWR_INNER_BRACE_T12	M1535	2.421	12.03	2.34	39.78	20.1%	Pass
TWR_INNER_BRACE_T12	M1536	2.318	12.03	2.44	39.78	19.3%	Pass
TWR_INNER_BRACE_T12	M1537	2.771	12.03	2.73	39.78	23.0%	Pass
TWR_INNER_BRACE_T12	M1538	2.702	12.03	2.80	39.78	22.5%	Pass
TWR_INNER_BRACE_T12	M1539	2.689	12.03	2.78	39.78	22.3%	Pass
TWR_INNER_BRACE_T12	M1540	2.752	12.03	2.71	39.78	22.9%	Pass
TWR_INNER_BRACE_T13	M1493	2.01	11.54	2.41	43.76	17.4%	Pass
TWR_INNER_BRACE_T13	M1494	2.009	11.54	2.41	43.76	17.4%	Pass
TWR_INNER_BRACE_T13	M1495	2.024	11.54	2.42	43.76	17.5%	Pass
TWR_INNER_BRACE_T13	M1496	2.025	11.54	2.42	43.76	17.6%	Pass
TWR_INNER_BRACE_T13	M1497	2.008	11.54	2.41	43.76	17.4%	Pass
TWR_INNER_BRACE_T13	M1498	2.007	11.54	2.41	43.76	17.4%	Pass
TWR_INNER_BRACE_T13	M1499	2.022	11.54	2.42	43.76	17.5%	Pass
TWR_INNER_BRACE_T13	M1500	2.021	11.54	2.42	43.76	17.5%	Pass
TWR_INNER_BRACE_T14	M1453	1.922	13.41	2.40	48.00	14.3%	Pass
TWR_INNER_BRACE_T14	M1454	1.918	13.41	2.41	48.00	14.3%	Pass
TWR_INNER_BRACE_T14	M1455	1.934	13.41	2.42	48.00	14.4%	Pass
TWR_INNER_BRACE_T14	M1456	1.93	13.41	2.42	48.00	14.4%	Pass
TWR_INNER_BRACE_T14	M1457	1.914	13.41	2.40	48.00	14.3%	Pass
TWR_INNER_BRACE_T14	M1458	1.916	13.41	2.40	48.00	14.3%	Pass
TWR_INNER_BRACE_T14	M1459	1.932	13.41	2.42	48.00	14.4%	Pass
TWR_INNER_BRACE_T14	M1460	1.933	13.41	2.42	48.00	14.4%	Pass
TWR_INNER_BRACE_T18	M1126	0.002	55.21	0.00	60.42	0.0%	Pass
TWR_INNER_BRACE_T18	M1128	0.002	55.21	0.00	60.42	0.0%	Pass
TWR_INNER_CORNER_BOT2_T18	M1069	1.893	7.82	3.57	39.78	24.2%	Pass
TWR_INNER_CORNER_BOT2_T18	M1070	1.908	7.82	3.47	39.78	24.4%	Pass
TWR_INNER_CORNER_BOT2_T18	M1071	1.883	7.82	3.58	39.78	24.1%	Pass
TWR_INNER_CORNER_BOT2_T18	M1072	1.793	7.82	3.60	39.78	22.9%	Pass
TWR_INNER_CORNER_T3	M1677	0	10.52	0.50	24.08	2.1%	Pass
TWR_INNER_CORNER_T3	M1678	0	10.52	0.51	24.08	2.1%	Pass
TWR_INNER_CORNER_T3	M1679	0	10.52	0.51	24.08	2.1%	Pass
TWR_INNER_CORNER_T3	M1680	0	10.52	0.50	24.08	2.1%	Pass
TWR_INNER_CORNER_T4	M1669	0	9.03	1.11	24.08	4.6%	Pass
TWR_INNER_CORNER_T4	M1670	0	9.03	1.11	24.08	4.6%	Pass
TWR_INNER_CORNER_T4	M1671	0	9.03	1.10	24.08	4.6%	Pass
TWR_INNER_CORNER_T4	M1672	0	9.03	1.09	24.08	4.5%	Pass
TWR_INNER_CORNER_T5	M1661	0	7.95	1.17	24.08	4.8%	Pass
TWR_INNER_CORNER_T5	M1662	0	7.95	1.14	24.08	4.7%	Pass
TWR_INNER_CORNER_T5	M1663	0	7.95	1.16	24.08	4.8%	Pass
TWR_INNER_CORNER_T5	M1664	0	7.95	1.16	24.08	4.8%	Pass
TWR_INNER_CORNER_T6	M1653	0	7.01	1.31	24.08	5.4%	Pass
TWR_INNER_CORNER_T6	M1654	0	7.01	1.28	24.08	5.3%	Pass
TWR_INNER_CORNER_T6	M1655	0	7.01	1.31	24.08	5.4%	Pass
TWR_INNER_CORNER_T6	M1656	0	7.01	1.30	24.08	5.4%	Pass
TWR_INNER_CORNER_T7	M1645	0	6.16	1.50	24.08	6.2%	Pass
TWR_INNER_CORNER_T7	M1646	0	6.16	1.50	24.08	6.2%	Pass
TWR_INNER_CORNER_T7	M1647	0	6.16	1.45	24.08	6.0%	Pass
TWR_INNER_CORNER_T7	M1648	0	6.16	1.47	24.08	6.1%	Pass
TWR_INNER_CORNER_T8	M1637	0	5.50	1.79	24.08	7.4%	Pass
TWR_INNER_CORNER_T8	M1638	0	5.50	1.76	24.08	7.3%	Pass
TWR_INNER_CORNER_T8	M1639	0	5.50	1.76	24.08	7.3%	Pass
TWR_INNER_CORNER_T8	M1640	0	5.50	1.75	24.08	7.3%	Pass
TWR_INNER_CORNER_T9	M1625	0	6.41	3.86	31.69	12.2%	Pass
TWR_INNER_CORNER_T9	M1626	0	6.41	3.74	31.69	11.8%	Pass
TWR_INNER_CORNER_T9	M1627	0	6.41	3.85	31.69	12.2%	Pass
TWR_INNER_CORNER_T9	M1628	0	6.41	3.83	31.69	12.1%	Pass
TWR_INNER_CORNER_T10	M1605	0	3.99	4.30	24.08	17.9%	Pass

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Section Set	Member	Comp. (K)	$\Phi P_{n,Comp}$ (K)	Ten (K)	$\Phi P_{n,Ten}$ (K)	Capacity	Pass/Fail
TWR_INNER_CORNER_T10	M1606	0	3.99	4.15	24.08	17.3%	Pass
TWR_INNER_CORNER_T10	M1607	0	3.99	4.30	24.08	17.9%	Pass
TWR_INNER_CORNER_T10	M1608	0	3.99	4.27	24.08	17.7%	Pass
TWR_INNER_CORNER_T11	M1585	0	3.31	4.34	24.08	18.0%	Pass
TWR_INNER_CORNER_T11	M1586	0	3.31	4.47	24.08	18.6%	Pass
TWR_INNER_CORNER_T11	M1587	0	3.31	4.45	24.08	18.5%	Pass
TWR_INNER_CORNER_T11	M1588	0	3.31	4.46	24.08	18.5%	Pass
TWR_INNER_CORNER_T12	M1541	0	8.16	7.72	35.60	21.7%	Pass
TWR_INNER_CORNER_T12	M1542	0	8.16	7.70	35.60	21.6%	Pass
TWR_INNER_CORNER_T12	M1543	0	8.16	7.71	35.60	21.6%	Pass
TWR_INNER_CORNER_T12	M1544	0	8.16	7.47	35.60	21.0%	Pass
TWR_INNER_CORNER_T13	M1501	0	7.19	10.17	35.60	28.6%	Pass
TWR_INNER_CORNER_T13	M1504	0	7.19	9.93	35.60	27.9%	Pass
TWR_INNER_CORNER_T13	M1506	0	7.19	10.17	35.60	28.6%	Pass
TWR_INNER_CORNER_T13	M1507	0	7.19	10.16	35.60	28.5%	Pass
TWR_INNER_CORNER_T14	M1461	0	6.66	10.11	30.21	33.5%	Pass
TWR_INNER_CORNER_T14	M1463	0	6.66	10.10	30.21	33.4%	Pass
TWR_INNER_CORNER_T14	M1466	0	6.66	9.89	30.21	32.7%	Pass
TWR_INNER_CORNER_T14	M1468	0	6.66	10.10	30.21	33.4%	Pass
TWR_INNER_CORNER_T15	M1381	1.033	16.28	1.71	71.53	6.3%	Pass
TWR_INNER_CORNER_T15	M1382	1.073	16.28	1.66	71.53	6.6%	Pass
TWR_INNER_CORNER_T15	M1383	1.07	16.28	1.71	71.53	6.6%	Pass
TWR_INNER_CORNER_T15	M1384	1.074	16.28	1.70	71.53	6.6%	Pass
TWR_INNER_CORNER_T15	M1385	1.032	16.28	1.71	71.53	6.3%	Pass
TWR_INNER_CORNER_T15	M1386	1.074	16.28	1.66	71.53	6.6%	Pass
TWR_INNER_CORNER_T15	M1387	1.071	16.28	1.70	71.53	6.6%	Pass
TWR_INNER_CORNER_T15	M1388	1.069	16.28	1.70	71.53	6.6%	Pass
TWR_INNER_CORNER_T15	M1389	3.129	37.22	0.92	71.53	8.4%	Pass
TWR_INNER_CORNER_T15	M1390	3.125	37.22	0.98	71.53	8.4%	Pass
TWR_INNER_CORNER_T15	M1391	3.067	37.22	0.97	71.53	8.2%	Pass
TWR_INNER_CORNER_T15	M1392	3.131	37.22	0.97	71.53	8.4%	Pass
TWR_INNER_CORNER_T16	M1317	0.975	14.87	1.70	71.53	6.6%	Pass
TWR_INNER_CORNER_T16	M1318	0.973	14.87	1.71	71.53	6.5%	Pass
TWR_INNER_CORNER_T16	M1319	0.941	14.87	1.71	71.53	6.3%	Pass
TWR_INNER_CORNER_T16	M1320	0.975	14.87	1.67	71.53	6.6%	Pass
TWR_INNER_CORNER_T16	M1321	0.973	14.87	1.70	71.53	6.5%	Pass
TWR_INNER_CORNER_T16	M1322	0.973	14.87	1.70	71.53	6.5%	Pass
TWR_INNER_CORNER_T16	M1323	0.974	14.87	1.67	71.53	6.5%	Pass
TWR_INNER_CORNER_T16	M1324	0.942	14.87	1.71	71.53	6.3%	Pass
TWR_INNER_CORNER_T16	M1325	3.08	32.83	0.89	71.53	9.4%	Pass
TWR_INNER_CORNER_T16	M1326	3.081	32.83	0.84	71.53	9.4%	Pass
TWR_INNER_CORNER_T16	M1327	3.083	32.83	0.88	71.53	9.4%	Pass
TWR_INNER_CORNER_T16	M1328	3.033	32.83	0.88	71.53	9.2%	Pass
TWR_INNER_CORNER_T17	M1253	1.032	13.48	1.87	71.53	7.7%	Pass
TWR_INNER_CORNER_T17	M1254	1.03	13.48	1.87	71.53	7.6%	Pass
TWR_INNER_CORNER_T17	M1255	0.998	13.48	1.87	71.53	7.4%	Pass
TWR_INNER_CORNER_T17	M1256	1.033	13.48	1.84	71.53	7.7%	Pass
TWR_INNER_CORNER_T17	M1257	1.029	13.48	1.87	71.53	7.6%	Pass
TWR_INNER_CORNER_T17	M1258	1.03	13.48	1.87	71.53	7.6%	Pass
TWR_INNER_CORNER_T17	M1259	1.034	13.48	1.84	71.53	7.7%	Pass
TWR_INNER_CORNER_T17	M1260	0.997	13.48	1.88	71.53	7.4%	Pass
TWR_INNER_CORNER_T17	M1261	3.365	29.87	0.93	71.53	11.3%	Pass
TWR_INNER_CORNER_T17	M1262	3.314	29.87	0.93	71.53	11.1%	Pass
TWR_INNER_CORNER_T17	M1263	3.362	29.87	0.93	71.53	11.3%	Pass
TWR_INNER_CORNER_T17	M1264	3.368	29.87	0.88	71.53	11.3%	Pass
TWR_INNER_CORNER_T18	M1081	1.181	11.01	2.34	71.53	10.7%	Pass
TWR_INNER_CORNER_T18	M1082	1.183	11.01	2.33	71.53	10.7%	Pass
TWR_INNER_CORNER_T18	M1083	1.13	11.01	2.34	71.53	10.3%	Pass
TWR_INNER_CORNER_T18	M1084	1.188	11.01	2.28	71.53	10.8%	Pass
TWR_INNER_CORNER_T18	M1085	1.179	11.01	2.33	71.53	10.7%	Pass

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TWR_INNER_CORNER_T18	M1086	1.177	11.01	2.33	71.53	10.7%	Pass
TWR_INNER_CORNER_T18	M1087	1.187	11.01	2.28	71.53	10.8%	Pass
TWR_INNER_CORNER_T18	M1088	1.13	11.01	2.34	71.53	10.3%	Pass
TWR_INNER_CORNER_T18	M1089	4.174	22.37	1.04	71.53	18.7%	Pass
TWR_INNER_CORNER_T18	M1090	4.099	22.37	1.05	71.53	18.3%	Pass
TWR_INNER_CORNER_T18	M1091	4.178	22.37	1.04	71.53	18.7%	Pass
TWR_INNER_CORNER_T18	M1092	4.187	22.37	0.97	71.53	18.7%	Pass
TWR_INNER_GIRT_2_T15	M1413	3.211	19.34	4.24	71.53	16.6%	Pass
TWR_INNER_GIRT_2_T15	M1414	3.171	19.34	4.22	71.53	16.4%	Pass
TWR_INNER_GIRT_2_T15	M1415	3.188	19.34	4.28	71.53	16.5%	Pass
TWR_INNER_GIRT_2_T15	M1416	3.161	19.34	4.23	71.53	16.3%	Pass
TWR_INNER_GIRT_2_T16	M1349	3.102	16.71	3.93	71.53	18.6%	Pass
TWR_INNER_GIRT_2_T16	M1350	3.139	16.71	3.96	71.53	18.8%	Pass
TWR_INNER_GIRT_2_T16	M1351	3.096	16.71	3.94	71.53	18.5%	Pass
TWR_INNER_GIRT_2_T16	M1352	3.128	16.71	3.98	71.53	18.7%	Pass
TWR_INNER_GIRT_2_T17	M1285	3.36	14.58	4.23	71.53	23.0%	Pass
TWR_INNER_GIRT_2_T17	M1286	3.414	14.58	4.25	71.53	23.4%	Pass
TWR_INNER_GIRT_2_T17	M1287	3.372	14.58	4.21	71.53	23.1%	Pass
TWR_INNER_GIRT_2_T17	M1288	3.396	14.58	4.27	71.53	23.3%	Pass
TWR_INNER_GIRT_2_T18	M1121	3.969	42.24	5.20	71.53	9.4%	Pass
TWR_INNER_GIRT_2_T18	M1122	4.02	42.24	5.24	71.53	9.5%	Pass
TWR_INNER_GIRT_2_T18	M1123	4.01	42.24	5.14	71.53	9.5%	Pass
TWR_INNER_GIRT_2_T18	M1124	4.054	42.24	5.19	71.53	9.6%	Pass
TWR_INNER_GIRT_T15	M1405	2.255	47.59	3.02	60.42	5.0%	Pass
TWR_INNER_GIRT_T15	M1406	2.22	47.59	3.01	60.42	5.0%	Pass
TWR_INNER_GIRT_T15	M1407	2.256	47.59	3.02	60.42	5.0%	Pass
TWR_INNER_GIRT_T15	M1408	2.226	47.59	3.01	60.42	5.0%	Pass
TWR_INNER_GIRT_T15	M1409	2.227	47.59	3.00	60.42	5.0%	Pass
TWR_INNER_GIRT_T15	M1410	2.238	47.59	3.05	60.42	5.0%	Pass
TWR_INNER_GIRT_T15	M1411	2.239	47.59	3.04	60.42	5.0%	Pass
TWR_INNER_GIRT_T15	M1412	2.219	47.59	3.02	60.42	5.0%	Pass
TWR_INNER_GIRT_T16	M1341	2.177	42.73	2.80	60.42	5.1%	Pass
TWR_INNER_GIRT_T16	M1342	2.177	42.73	2.80	60.42	5.1%	Pass
TWR_INNER_GIRT_T16	M1343	2.204	42.73	2.82	60.42	5.2%	Pass
TWR_INNER_GIRT_T16	M1344	2.195	42.73	2.83	60.42	5.1%	Pass
TWR_INNER_GIRT_T16	M1345	2.196	42.73	2.83	60.42	5.1%	Pass
TWR_INNER_GIRT_T16	M1346	2.172	42.73	2.81	60.42	5.1%	Pass
TWR_INNER_GIRT_T16	M1347	2.173	42.73	2.81	60.42	5.1%	Pass
TWR_INNER_GIRT_T16	M1348	2.203	42.73	2.82	60.42	5.2%	Pass
TWR_INNER_GIRT_T17	M1277	2.396	27.60	3.03	63.37	8.7%	Pass
TWR_INNER_GIRT_T17	M1278	2.365	27.60	3.00	63.37	8.6%	Pass
TWR_INNER_GIRT_T17	M1279	2.395	27.60	3.03	63.37	8.7%	Pass
TWR_INNER_GIRT_T17	M1280	2.358	27.60	3.01	63.37	8.5%	Pass
TWR_INNER_GIRT_T17	M1281	2.366	27.60	3.00	63.37	8.6%	Pass
TWR_INNER_GIRT_T17	M1282	2.383	27.60	3.05	63.37	8.6%	Pass
TWR_INNER_GIRT_T17	M1283	2.384	27.60	3.04	63.37	8.6%	Pass
TWR_INNER_GIRT_T17	M1284	2.357	27.60	3.01	63.37	8.5%	Pass
TWR_INNER_GIRT_T18	M1113	2.806	18.79	3.68	48.02	14.9%	Pass
TWR_INNER_GIRT_T18	M1114	2.842	18.79	3.70	48.02	15.1%	Pass
TWR_INNER_GIRT_T18	M1115	2.842	18.79	3.70	48.02	15.1%	Pass
TWR_INNER_GIRT_T18	M1116	2.835	18.79	3.64	48.02	15.1%	Pass
TWR_INNER_GIRT_T18	M1117	2.836	18.79	3.64	48.02	15.1%	Pass
TWR_INNER_GIRT_T18	M1118	2.866	18.79	3.67	48.02	15.3%	Pass
TWR_INNER_GIRT_T18	M1119	2.865	18.79	3.67	48.02	15.3%	Pass
TWR_INNER_GIRT_T18	M1120	2.807	18.79	3.68	48.02	14.9%	Pass
TWR_INNER_SQ_BOT_T12	M1545	2.687	11.17	2.69	96.00	24.1%	Pass
TWR_INNER_SQ_BOT_T12	M1546	2.035	11.17	2.08	96.00	18.2%	Pass
TWR_INNER_SQ_BOT_T12	M1547	2.119	11.17	2.17	96.00	19.0%	Pass
TWR_INNER_SQ_BOT_T12	M1548	2.709	11.17	2.67	96.00	24.3%	Pass
TWR_INNER_SQ_BOT_T18	M1033	3.274	36.21	0.90	136.62	9.0%	Pass

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TWR_INNER_SQ_BOT_T18	M1034	3.912	36.21	1.18	136.62	10.8%	Pass
TWR_INNER_SQ_BOT_T18	M1035	3.915	36.21	1.18	136.62	10.8%	Pass
TWR_INNER_SQ_BOT_T18	M1036	3.18	36.21	0.73	136.62	8.8%	Pass
TWR_INNER_SQ_T3	M1673	0.077	9.92	0.39	35.60	1.1%	Pass
TWR_INNER_SQ_T3	M1674	0.076	9.92	0.39	35.60	1.1%	Pass
TWR_INNER_SQ_T3	M1675	0.077	9.92	0.39	35.60	1.1%	Pass
TWR_INNER_SQ_T3	M1676	0.075	9.92	0.39	35.60	1.1%	Pass
TWR_INNER_SQ_T4	M1665	0.349	8.54	1.06	35.60	4.1%	Pass
TWR_INNER_SQ_T4	M1666	0.347	8.54	1.04	35.60	4.1%	Pass
TWR_INNER_SQ_T4	M1667	0.351	8.54	1.05	35.60	4.1%	Pass
TWR_INNER_SQ_T4	M1668	0.345	8.54	1.04	35.60	4.0%	Pass
TWR_INNER_SQ_T5	M1657	0.381	15.47	1.13	55.22	2.5%	Pass
TWR_INNER_SQ_T5	M1658	0.387	15.47	1.15	55.22	2.5%	Pass
TWR_INNER_SQ_T5	M1659	0.376	15.47	1.14	55.22	2.4%	Pass
TWR_INNER_SQ_T5	M1660	0.382	15.47	1.16	55.22	2.5%	Pass
TWR_INNER_SQ_T6	M1649	0.428	12.88	1.31	55.22	3.3%	Pass
TWR_INNER_SQ_T6	M1650	0.426	12.88	1.26	55.22	3.3%	Pass
TWR_INNER_SQ_T6	M1651	0.435	12.88	1.28	55.22	3.4%	Pass
TWR_INNER_SQ_T6	M1652	0.421	12.88	1.28	55.22	3.3%	Pass
TWR_INNER_SQ_T7	M1641	0.616	10.88	1.38	55.22	5.7%	Pass
TWR_INNER_SQ_T7	M1642	0.614	10.88	1.33	55.22	5.6%	Pass
TWR_INNER_SQ_T7	M1643	0.624	10.88	1.36	55.22	5.7%	Pass
TWR_INNER_SQ_T7	M1644	0.608	10.88	1.35	55.22	5.6%	Pass
TWR_INNER_SQ_T8	M1633	0.729	9.32	1.67	55.22	7.8%	Pass
TWR_INNER_SQ_T8	M1634	0.728	9.32	1.62	55.22	7.8%	Pass
TWR_INNER_SQ_T8	M1635	0.745	9.32	1.63	55.22	8.0%	Pass
TWR_INNER_SQ_T8	M1636	0.726	9.32	1.62	55.22	7.8%	Pass
TWR_INNER_SQ_T9	M1621	1.351	34.41	3.54	63.37	5.6%	Pass
TWR_INNER_SQ_T9	M1622	1.341	34.41	3.49	63.37	5.5%	Pass
TWR_INNER_SQ_T9	M1623	1.356	34.41	3.53	63.37	5.6%	Pass
TWR_INNER_SQ_T9	M1624	1.336	34.41	3.50	63.37	5.5%	Pass
TWR_INNER_SQ_T10	M1601	1.528	27.05	3.93	63.37	6.2%	Pass
TWR_INNER_SQ_T10	M1602	1.518	27.05	3.88	63.37	6.1%	Pass
TWR_INNER_SQ_T10	M1603	1.53	27.05	3.92	63.37	6.2%	Pass
TWR_INNER_SQ_T10	M1604	1.514	27.05	3.90	63.37	6.1%	Pass
TWR_INNER_SQ_T11	M1581	1.616	21.49	4.05	63.37	7.5%	Pass
TWR_INNER_SQ_T11	M1582	1.625	21.49	4.09	63.37	7.6%	Pass
TWR_INNER_SQ_T11	M1583	1.619	21.49	4.05	63.37	7.5%	Pass
TWR_INNER_SQ_T11	M1584	1.632	21.49	4.07	63.37	7.6%	Pass
TWR_INNER_SQ_T12	M1529	0.962	16.74	5.25	96.00	5.7%	Pass
TWR_INNER_SQ_T12	M1530	0.885	16.74	5.49	96.00	5.7%	Pass
TWR_INNER_SQ_T12	M1531	0.87	16.74	5.49	96.00	5.7%	Pass
TWR_INNER_SQ_T12	M1532	0.946	16.74	5.24	96.00	5.7%	Pass
TWR_INNER_SQ_T13	M1481	1.801	27.48	7.59	96.00	7.9%	Pass
TWR_INNER_SQ_T13	M1482	1.811	27.48	7.64	96.00	8.0%	Pass
TWR_INNER_SQ_T13	M1483	1.801	27.48	7.59	96.00	7.9%	Pass
TWR_INNER_SQ_T13	M1484	1.812	27.48	7.64	96.00	8.0%	Pass
TWR_INNER_SQ_T14	M1449	1.799	35.81	7.45	104.16	7.2%	Pass
TWR_INNER_SQ_T14	M1450	1.787	35.81	7.40	104.16	7.1%	Pass
TWR_INNER_SQ_T14	M1451	1.8	35.81	7.44	104.16	7.1%	Pass
TWR_INNER_SQ_T14	M1452	1.789	35.81	7.39	104.16	7.1%	Pass
TWR_INNER_SUPP_T3	M49	0.162	31.00	0.14	42.15	0.5%	Pass
TWR_INNER_SUPP_T3	M50	0.159	31.00	0.14	42.15	0.5%	Pass
TWR_INNER_SUPP_T3	M51	0.165	31.00	0.14	42.15	0.5%	Pass
TWR_INNER_SUPP_T3	M52	0.165	31.00	0.14	42.15	0.5%	Pass
TWR_INNER_SUPP_T4	M98	0.519	26.23	0.48	42.15	2.0%	Pass
TWR_INNER_SUPP_T4	M99	0.522	26.23	0.47	42.15	2.0%	Pass
TWR_INNER_SUPP_T4	M100	0.522	26.23	0.47	42.15	2.0%	Pass
TWR_INNER_SUPP_T4	M101	0.519	26.23	0.48	42.15	2.0%	Pass
TWR_INNER_SUPP_T5	M135	0.569	19.75	0.53	48.02	2.9%	Pass

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TWR_INNER_SUPP_T5	M136	0.577	19.75	0.52	48.02	2.9%	Pass
TWR_INNER_SUPP_T5	M137	0.576	19.75	0.52	48.02	2.9%	Pass
TWR_INNER_SUPP_T5	M138	0.569	19.75	0.53	48.02	2.9%	Pass
TWR_INNER_SUPP_T6	M172	0.636	16.44	0.59	48.02	3.9%	Pass
TWR_INNER_SUPP_T6	M173	0.646	16.44	0.59	48.02	3.9%	Pass
TWR_INNER_SUPP_T6	M174	0.646	16.44	0.59	48.02	3.9%	Pass
TWR_INNER_SUPP_T6	M175	0.636	16.44	0.59	48.02	3.9%	Pass
TWR_INNER_SUPP_T7	M209	0.705	14.17	0.69	48.02	5.0%	Pass
TWR_INNER_SUPP_T7	M210	0.716	14.17	0.68	48.02	5.1%	Pass
TWR_INNER_SUPP_T7	M211	0.716	14.17	0.68	48.02	5.1%	Pass
TWR_INNER_SUPP_T7	M212	0.705	14.17	0.69	48.02	5.0%	Pass
TWR_INNER_SUPP_T8	M246	0.84	12.14	0.83	48.02	6.9%	Pass
TWR_INNER_SUPP_T8	M247	0.862	12.14	0.81	48.02	7.1%	Pass
TWR_INNER_SUPP_T8	M248	0.863	12.14	0.81	48.02	7.1%	Pass
TWR_INNER_SUPP_T8	M249	0.84	12.14	0.83	48.02	6.9%	Pass
TWR_INNER_SUPP_T9	M307	1.738	30.75	1.71	63.37	5.7%	Pass
TWR_INNER_SUPP_T9	M308	1.746	30.75	1.70	63.37	5.7%	Pass
TWR_INNER_SUPP_T9	M309	1.748	30.75	1.70	63.37	5.7%	Pass
TWR_INNER_SUPP_T9	M310	1.739	30.75	1.71	63.37	5.7%	Pass
TWR_INNER_SUPP_T10	M368	1.936	39.52	1.93	71.53	4.9%	Pass
TWR_INNER_SUPP_T10	M369	1.941	39.52	1.92	71.53	4.9%	Pass
TWR_INNER_SUPP_T10	M370	1.941	39.52	1.92	71.53	4.9%	Pass
TWR_INNER_SUPP_T10	M371	1.937	39.52	1.92	71.53	4.9%	Pass
TWR_INNER_SUPP_T11	M429	2.028	31.40	2.02	71.53	6.5%	Pass
TWR_INNER_SUPP_T11	M430	2.041	31.40	2.00	71.53	6.5%	Pass
TWR_INNER_SUPP_T11	M431	2.039	31.40	2.00	71.53	6.5%	Pass
TWR_INNER_SUPP_T11	M432	2.029	31.40	2.01	71.53	6.5%	Pass
TWR_INNER_SUPP_T12	M514	2.373	15.19	2.41	39.78	15.6%	Pass
TWR_INNER_SUPP_T12	M515	2.76	15.19	2.77	39.78	18.2%	Pass
TWR_INNER_SUPP_T12	M516	2.83	15.19	2.70	39.78	18.6%	Pass
TWR_INNER_SUPP_T12	M517	2.747	15.19	2.75	39.78	18.1%	Pass
TWR_INNER_SUPP_T13	M591	2.458	67.03	2.02	96.00	3.7%	Pass
TWR_INNER_SUPP_T13	M592	2.462	67.03	2.03	96.00	3.7%	Pass
TWR_INNER_SUPP_T13	M593	2.463	67.03	2.03	96.00	3.7%	Pass
TWR_INNER_SUPP_T13	M594	2.466	67.03	2.03	96.00	3.7%	Pass
TWR_INNER_SUPP_T14	M668	2.435	13.67	1.91	48.00	17.8%	Pass
TWR_INNER_SUPP_T14	M669	2.441	13.67	1.90	48.00	17.9%	Pass
TWR_INNER_SUPP_T14	M670	2.448	13.67	1.91	48.00	17.9%	Pass
TWR_INNER_SUPP_T14	M671	2.446	13.67	1.92	48.00	17.9%	Pass
TWR_INNER_SUPP_T15	M753	3.153	32.42	2.91	71.53	9.7%	Pass
TWR_INNER_SUPP_T15	M754	3.147	32.42	2.93	71.53	9.7%	Pass
TWR_INNER_SUPP_T15	M755	3.049	32.42	2.93	71.53	9.4%	Pass
TWR_INNER_SUPP_T15	M756	3.153	32.42	2.91	71.53	9.7%	Pass
TWR_INNER_SUPP_T16	M838	2.677	28.56	2.83	71.53	9.4%	Pass
TWR_INNER_SUPP_T16	M839	2.675	28.56	2.90	71.53	9.4%	Pass
TWR_INNER_SUPP_T16	M840	2.605	28.56	2.90	71.53	9.1%	Pass
TWR_INNER_SUPP_T16	M841	2.678	28.56	2.90	71.53	9.4%	Pass
TWR_INNER_SUPP_T17	M923	2.798	24.92	3.14	71.53	11.2%	Pass
TWR_INNER_SUPP_T17	M924	2.79	24.92	3.22	71.53	11.2%	Pass
TWR_INNER_SUPP_T17	M925	2.72	24.92	3.22	71.53	10.9%	Pass
TWR_INNER_SUPP_T17	M926	2.793	24.92	3.21	71.53	11.2%	Pass
TWR_INNER_SUPP_T18	M1008	3.838	32.40	4.55	97.98	11.8%	Pass
TWR_INNER_SUPP_T18	M1009	4.084	32.40	4.96	97.98	12.6%	Pass
TWR_INNER_SUPP_T18	M1010	3.838	32.40	4.53	97.98	11.8%	Pass
TWR_INNER_SUPP_T18	M1011	4.097	32.40	4.95	97.98	12.6%	Pass
TWR_INNER_TRI_T15	M1393	0.028	10.88	0.03	24.08	0.3%	Pass
TWR_INNER_TRI_T15	M1394	0.029	10.88	0.03	24.08	0.3%	Pass
TWR_INNER_TRI_T15	M1395	0.034	10.88	0.04	24.08	0.3%	Pass
TWR_INNER_TRI_T15	M1396	0.035	10.88	0.04	24.08	0.3%	Pass
TWR_INNER_TRI_T15	M1397	0.03	10.88	0.03	24.08	0.3%	Pass

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TWR_INNER_TRI_T15	M1398	0.029	10.88	0.03	24.08	0.3%	Pass
TWR_INNER_TRI_T15	M1399	0.024	10.88	0.02	24.08	0.2%	Pass
TWR_INNER_TRI_T15	M1400	0.023	10.88	0.03	24.08	0.2%	Pass
TWR_INNER_TRI_T15	M1401	0.067	5.44	0.03	24.08	1.2%	Pass
TWR_INNER_TRI_T15	M1402	0.066	5.44	0.03	24.08	1.2%	Pass
TWR_INNER_TRI_T15	M1403	0.067	5.44	0.03	24.08	1.2%	Pass
TWR_INNER_TRI_T15	M1404	0.067	5.44	0.03	24.08	1.2%	Pass
TWR_INNER_TRI_T16	M1329	0.019	9.40	0.02	24.08	0.2%	Pass
TWR_INNER_TRI_T16	M1330	0.019	9.40	0.02	24.08	0.2%	Pass
TWR_INNER_TRI_T16	M1331	0.022	9.40	0.02	24.08	0.2%	Pass
TWR_INNER_TRI_T16	M1332	0.023	9.40	0.02	24.08	0.2%	Pass
TWR_INNER_TRI_T16	M1333	0.026	9.40	0.03	24.08	0.3%	Pass
TWR_INNER_TRI_T16	M1334	0.026	9.40	0.03	24.08	0.3%	Pass
TWR_INNER_TRI_T16	M1335	0.022	9.40	0.02	24.08	0.2%	Pass
TWR_INNER_TRI_T16	M1336	0.021	9.40	0.02	24.08	0.2%	Pass
TWR_INNER_TRI_T16	M1337	0.054	4.70	0.01	24.08	1.1%	Pass
TWR_INNER_TRI_T16	M1338	0.055	4.70	0.01	24.08	1.2%	Pass
TWR_INNER_TRI_T16	M1339	0.055	4.70	0.01	24.08	1.2%	Pass
TWR_INNER_TRI_T16	M1340	0.055	4.70	0.01	24.08	1.2%	Pass
TWR_INNER_TRI_T17	M1265	0.025	8.20	0.03	24.08	0.3%	Pass
TWR_INNER_TRI_T17	M1266	0.025	8.20	0.03	24.08	0.3%	Pass
TWR_INNER_TRI_T17	M1267	0.023	8.20	0.02	24.08	0.3%	Pass
TWR_INNER_TRI_T17	M1268	0.022	8.20	0.02	24.08	0.3%	Pass
TWR_INNER_TRI_T17	M1269	0.019	8.20	0.02	24.08	0.2%	Pass
TWR_INNER_TRI_T17	M1270	0.019	8.20	0.02	24.08	0.2%	Pass
TWR_INNER_TRI_T17	M1271	0.021	8.20	0.02	24.08	0.3%	Pass
TWR_INNER_TRI_T17	M1272	0.022	8.20	0.02	24.08	0.3%	Pass
TWR_INNER_TRI_T17	M1273	0.054	4.10	0.01	24.08	1.3%	Pass
TWR_INNER_TRI_T17	M1274	0.054	4.10	0.01	24.08	1.3%	Pass
TWR_INNER_TRI_T17	M1275	0.054	4.10	0.01	24.08	1.3%	Pass
TWR_INNER_TRI_T17	M1276	0.053	4.10	0.01	24.08	1.3%	Pass
TWR_INNER_TRI_T18	M1093	0.029	16.96	0.03	39.78	0.2%	Pass
TWR_INNER_TRI_T18	M1094	0.029	16.96	0.03	39.78	0.2%	Pass
TWR_INNER_TRI_T18	M1095	0.026	16.96	0.03	39.78	0.2%	Pass
TWR_INNER_TRI_T18	M1096	0.025	16.96	0.03	39.78	0.1%	Pass
TWR_INNER_TRI_T18	M1097	0.021	16.96	0.02	39.78	0.1%	Pass
TWR_INNER_TRI_T18	M1098	0.021	16.96	0.02	39.78	0.1%	Pass
TWR_INNER_TRI_T18	M1099	0.024	16.96	0.03	39.78	0.1%	Pass
TWR_INNER_TRI_T18	M1100	0.025	16.96	0.03	39.78	0.1%	Pass
TWR_INNER_TRI_T18	M1101	0.058	8.48	0.02	39.78	0.7%	Pass
TWR_INNER_TRI_T18	M1102	0.058	8.48	0.02	39.78	0.7%	Pass
TWR_INNER_TRI_T18	M1103	0.057	8.48	0.02	39.78	0.7%	Pass
TWR_INNER_TRI_T18	M1104	0.058	8.48	0.02	39.78	0.7%	Pass
TWR_LEG_T1	M1	10.936	217.47	2.63	214.09	5.0%	Pass
TWR_LEG_T1	M2	11.456	217.47	2.61	214.09	5.3%	Pass
TWR_LEG_T1	M3	11.212	217.47	2.63	214.09	5.2%	Pass
TWR_LEG_T1	M4	10.685	217.47	2.55	214.09	4.9%	Pass
TWR_LEG_T2	M21	19.814	218.12	8.21	214.09	9.1%	Pass
TWR_LEG_T2	M22	19.494	218.12	7.62	214.09	8.9%	Pass
TWR_LEG_T2	M23	19.984	218.12	8.17	214.09	9.2%	Pass
TWR_LEG_T2	M24	19.552	218.12	8.00	214.09	9.0%	Pass
TWR_LEG_T3	M41	32.373	299.23	18.06	292.46	10.8%	Pass
TWR_LEG_T3	M42	31.514	299.23	17.38	292.46	10.5%	Pass
TWR_LEG_T3	M43	32.643	299.23	17.94	292.46	10.9%	Pass
TWR_LEG_T3	M44	32.24	299.23	17.36	292.46	10.8%	Pass
TWR_LEG_T4	M66	40.607	304.51	22.96	292.46	13.3%	Pass
TWR_LEG_T4	M67	39.15	304.51	22.38	292.46	12.9%	Pass
TWR_LEG_T4	M68	40.746	304.51	22.77	292.46	13.4%	Pass
TWR_LEG_T4	M69	40.678	304.51	21.82	292.46	13.4%	Pass
TWR_LEG_T5	M103	53.179	304.51	32.84	292.46	17.5%	Pass

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TWR_LEG_T5	M104	51.367	304.51	32.37	292.46	16.9%	Pass
TWR_LEG_T5	M105	53.407	304.51	32.73	292.46	17.5%	Pass
TWR_LEG_T5	M106	53.335	304.51	31.32	292.46	17.5%	Pass
TWR_LEG_T6	M140	66.132	304.51	42.87	292.46	21.7%	Pass
TWR_LEG_T6	M141	64.088	304.51	42.38	292.46	21.0%	Pass
TWR_LEG_T6	M142	66.434	304.51	42.71	292.46	21.8%	Pass
TWR_LEG_T6	M143	66.387	304.51	41.12	292.46	21.8%	Pass
TWR_LEG_T7	M177	79.492	381.89	53.10	351.75	20.8%	Pass
TWR_LEG_T7	M178	76.939	381.89	52.61	351.75	20.1%	Pass
TWR_LEG_T7	M179	79.858	381.89	52.89	351.75	20.9%	Pass
TWR_LEG_T7	M180	79.856	381.89	50.83	351.75	20.9%	Pass
TWR_LEG_T8	M214	94.396	381.89	63.27	351.75	24.7%	Pass
TWR_LEG_T8	M215	91.19	381.89	62.79	351.75	23.9%	Pass
TWR_LEG_T8	M216	96.001	381.89	63.01	351.75	25.1%	Pass
TWR_LEG_T8	M217	96.118	381.89	60.41	351.75	25.2%	Pass
TWR_LEG_T9	M251	103.182	413.90	71.04	405.67	24.9%	Pass
TWR_LEG_T9	M252	99.765	413.90	70.82	405.67	24.1%	Pass
TWR_LEG_T9	M253	104.304	413.90	69.98	405.67	25.2%	Pass
TWR_LEG_T9	M254	104.71	413.90	66.95	405.67	25.3%	Pass
TWR_LEG_T10	M312	140.973	472.57	96.21	464.09	29.8%	Pass
TWR_LEG_T10	M313	135.408	472.57	95.93	464.09	28.7%	Pass
TWR_LEG_T10	M314	141.686	472.57	95.44	464.09	30.0%	Pass
TWR_LEG_T10	M315	142.64	472.57	91.10	464.09	30.2%	Pass
TWR_LEG_T11	M373	177.074	639.94	122.69	512.72	27.7%	Pass
TWR_LEG_T11	M374	169.637	639.94	122.78	512.72	26.5%	Pass
TWR_LEG_T11	M375	178.164	639.94	122.22	512.72	27.8%	Pass
TWR_LEG_T11	M376	179.372	639.94	115.83	512.72	28.0%	Pass
TWR_LEG_T12	M434	193.169	639.94	133.52	512.72	30.2%	Pass
TWR_LEG_T12	M435	185.05	639.94	133.94	512.72	28.9%	Pass
TWR_LEG_T12	M436	193.977	639.94	132.77	512.72	30.3%	Pass
TWR_LEG_T12	M437	195.813	639.94	125.53	512.72	30.6%	Pass
TWR_LEG_T13	M519	225.449	639.94	157.26	512.72	35.2%	Pass
TWR_LEG_T13	M520	215.103	639.94	158.20	512.72	33.6%	Pass
TWR_LEG_T13	M521	225.95	639.94	156.81	512.72	35.3%	Pass
TWR_LEG_T13	M522	228.553	639.94	147.79	512.72	35.7%	Pass
TWR_LEG_T14	M596	268.495	955.58	183.46	460.83	39.8%	Pass
TWR_LEG_T14	M597	257.961	955.58	184.94	460.83	40.1%	Pass
TWR_LEG_T14	M598	270.753	955.58	183.17	460.83	39.7%	Pass
TWR_LEG_T14	M599	272.756	955.58	172.74	460.83	37.5%	Pass
TWR_LEG_T15	M673	329.899	955.58	221.48	460.83	48.1%	Pass
TWR_LEG_T15	M674	317.268	955.58	222.96	460.83	48.4%	Pass
TWR_LEG_T15	M675	331.34	955.58	220.27	460.83	47.8%	Pass
TWR_LEG_T15	M676	334.178	955.58	208.86	460.83	45.3%	Pass
TWR_LEG_T16	M758	374.459	1363.24	249.87	460.83	54.2%	Pass
TWR_LEG_T16	M759	360.467	1363.24	252.05	460.83	54.7%	Pass
TWR_LEG_T16	M760	375.153	1363.24	249.27	460.83	54.1%	Pass
TWR_LEG_T16	M761	378.663	1363.24	236.54	460.83	51.3%	Pass
TWR_LEG_T17	M843	422.266	1372.99	277.21	464.09	59.7%	Pass
TWR_LEG_T17	M844	407.497	1372.99	280.20	464.09	60.4%	Pass
TWR_LEG_T17	M845	421.621	1372.99	277.55	464.09	59.8%	Pass
TWR_LEG_T17	M846	425.267	1372.99	263.44	464.09	56.8%	Pass
TWR_LEG_T18	M928	469.765	1372.99	304.78	464.09	65.7%	Pass
TWR_LEG_T18	M929	453.671	1372.99	307.72	464.09	66.3%	Pass
TWR_LEG_T18	M930	468.311	1372.99	305.65	464.09	65.9%	Pass
TWR_LEG_T18	M931	472.999	1372.99	291.26	464.09	62.8%	Pass
TWR_RED_DIAG_2_T9	M260	6.494	15.66	3.69	42.05	41.5%	Pass
TWR_RED_DIAG_2_T9	M265	6.471	15.66	3.68	42.05	41.3%	Pass
TWR_RED_DIAG_2_T9	M272	6.394	15.66	3.54	42.05	40.8%	Pass
TWR_RED_DIAG_2_T9	M277	6.53	15.66	3.63	42.05	41.7%	Pass
TWR_RED_DIAG_2_T9	M285	6.744	15.66	3.57	42.05	43.1%	Pass

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TWR_RED_DIAG_2_T9	M290	6.661	15.66	3.47	42.05	42.5%	Pass
TWR_RED_DIAG_2_T9	M298	6.595	15.66	3.49	42.05	42.1%	Pass
TWR_RED_DIAG_2_T9	M303	6.565	15.66	3.50	42.05	41.9%	Pass
TWR_RED_DIAG_2_T10	M321	5.083	13.34	3.01	42.05	38.1%	Pass
TWR_RED_DIAG_2_T10	M326	5.238	13.34	3.13	42.05	39.3%	Pass
TWR_RED_DIAG_2_T10	M333	5.155	13.34	3.04	42.05	38.6%	Pass
TWR_RED_DIAG_2_T10	M338	5.088	13.34	2.98	42.05	38.1%	Pass
TWR_RED_DIAG_2_T10	M346	5.363	13.34	3.04	42.05	40.2%	Pass
TWR_RED_DIAG_2_T10	M351	5.208	13.34	2.91	42.05	39.0%	Pass
TWR_RED_DIAG_2_T10	M359	5.176	13.34	2.91	42.05	38.8%	Pass
TWR_RED_DIAG_2_T10	M364	5.243	13.34	2.97	42.05	39.3%	Pass
TWR_RED_DIAG_2_T11	M382	6.032	19.20	3.55	63.37	31.4%	Pass
TWR_RED_DIAG_2_T11	M387	6.114	19.20	3.66	63.37	31.8%	Pass
TWR_RED_DIAG_2_T11	M394	6.036	19.20	3.52	63.37	31.4%	Pass
TWR_RED_DIAG_2_T11	M399	6.054	19.20	3.54	63.37	31.5%	Pass
TWR_RED_DIAG_2_T11	M407	6.3	19.20	3.51	63.37	32.8%	Pass
TWR_RED_DIAG_2_T11	M412	6.158	19.20	3.46	63.37	32.1%	Pass
TWR_RED_DIAG_2_T11	M420	6.139	19.20	3.48	63.37	32.0%	Pass
TWR_RED_DIAG_2_T11	M425	6.122	19.20	3.45	63.37	31.9%	Pass
TWR_RED_DIAG_2_T12	M443	17.685	57.88	13.66	116.23	30.6%	Pass
TWR_RED_DIAG_2_T12	M448	17.709	57.88	14.07	116.23	30.6%	Pass
TWR_RED_DIAG_2_T12	M459	17.751	57.88	14.09	116.23	30.7%	Pass
TWR_RED_DIAG_2_T12	M464	17.705	57.88	13.64	116.23	30.6%	Pass
TWR_RED_DIAG_2_T12	M478	19.013	57.88	14.52	116.23	32.8%	Pass
TWR_RED_DIAG_2_T12	M483	18.377	57.88	13.53	116.23	31.8%	Pass
TWR_RED_DIAG_2_T12	M497	18.325	57.88	13.50	116.23	31.7%	Pass
TWR_RED_DIAG_2_T12	M502	18.99	57.88	14.53	116.23	32.8%	Pass
TWR_RED_DIAG_2_T13	M528	23.965	122.87	16.39	165.20	19.5%	Pass
TWR_RED_DIAG_2_T13	M533	24.714	122.87	17.40	165.20	20.1%	Pass
TWR_RED_DIAG_2_T13	M542	25.117	122.87	17.74	165.20	20.4%	Pass
TWR_RED_DIAG_2_T13	M547	23.956	122.87	16.40	165.20	19.5%	Pass
TWR_RED_DIAG_2_T13	M559	27.186	122.87	18.70	165.20	22.1%	Pass
TWR_RED_DIAG_2_T13	M564	25.807	122.87	17.14	165.20	21.0%	Pass
TWR_RED_DIAG_2_T13	M576	25.399	122.87	16.79	165.20	20.7%	Pass
TWR_RED_DIAG_2_T13	M581	27.196	122.87	18.70	165.20	22.1%	Pass
TWR_RED_DIAG_2_T14	M605	25.474	76.09	17.97	140.70	33.5%	Pass
TWR_RED_DIAG_2_T14	M610	26.298	76.09	19.03	140.70	34.6%	Pass
TWR_RED_DIAG_2_T14	M619	26.803	76.09	19.27	140.70	35.2%	Pass
TWR_RED_DIAG_2_T14	M624	25.539	76.09	17.92	140.70	33.6%	Pass
TWR_RED_DIAG_2_T14	M636	28.963	76.09	20.30	140.70	38.1%	Pass
TWR_RED_DIAG_2_T14	M641	27.5	76.09	18.65	140.70	36.1%	Pass
TWR_RED_DIAG_2_T14	M653	26.987	76.09	18.41	140.70	35.5%	Pass
TWR_RED_DIAG_2_T14	M658	28.901	76.09	20.35	140.70	38.0%	Pass
TWR_RED_DIAG_2_T15	M682	16.86	32.95	13.41	116.27	51.2%	Pass
TWR_RED_DIAG_2_T15	M687	17.363	32.95	14.01	116.27	52.7%	Pass
TWR_RED_DIAG_2_T15	M698	17.631	32.95	14.22	116.27	53.5%	Pass
TWR_RED_DIAG_2_T15	M703	16.88	32.95	13.39	116.27	51.2%	Pass
TWR_RED_DIAG_2_T15	M717	18.984	32.95	14.80	116.27	57.6%	Pass
TWR_RED_DIAG_2_T15	M722	18.08	32.95	13.79	116.27	54.9%	Pass
TWR_RED_DIAG_2_T15	M736	17.81	32.95	13.58	116.27	54.0%	Pass
TWR_RED_DIAG_2_T15	M741	18.964	32.95	14.81	116.27	57.6%	Pass
TWR_RED_DIAG_2_T16	M767	18.635	109.42	14.92	96.65	17.0%	Pass
TWR_RED_DIAG_2_T16	M772	19.074	109.42	15.48	96.65	17.4%	Pass
TWR_RED_DIAG_2_T16	M783	19.307	109.42	15.72	96.65	17.6%	Pass
TWR_RED_DIAG_2_T16	M788	18.659	109.42	14.90	96.65	17.1%	Pass
TWR_RED_DIAG_2_T16	M802	20.644	109.42	16.23	96.65	18.9%	Pass
TWR_RED_DIAG_2_T16	M807	19.794	109.42	15.26	96.65	18.1%	Pass
TWR_RED_DIAG_2_T16	M821	19.555	109.42	15.01	96.65	17.9%	Pass
TWR_RED_DIAG_2_T16	M826	20.625	109.42	16.25	96.65	18.9%	Pass
TWR_RED_DIAG_2_T17	M852	20.643	99.10	16.51	140.70	20.8%	Pass

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TWR_RED_DIAG_2_T17	M857	21.049	99.10	17.13	140.70	21.2%	Pass
TWR_RED_DIAG_2_T17	M868	21.231	99.10	17.39	140.70	21.4%	Pass
TWR_RED_DIAG_2_T17	M873	20.653	99.10	16.52	140.70	20.8%	Pass
TWR_RED_DIAG_2_T17	M887	22.564	99.10	17.90	140.70	22.8%	Pass
TWR_RED_DIAG_2_T17	M892	21.773	99.10	16.89	140.70	22.0%	Pass
TWR_RED_DIAG_2_T17	M906	21.574	99.10	16.61	140.70	21.8%	Pass
TWR_RED_DIAG_2_T17	M911	22.572	99.10	17.90	140.70	22.8%	Pass
TWR_RED_DIAG_2_T18	M937	24.651	90.79	18.45	140.70	27.2%	Pass
TWR_RED_DIAG_2_T18	M942	24.526	90.79	18.76	140.70	27.0%	Pass
TWR_RED_DIAG_2_T18	M953	24.602	90.79	18.92	140.70	27.1%	Pass
TWR_RED_DIAG_2_T18	M958	24.62	90.79	18.47	140.70	27.1%	Pass
TWR_RED_DIAG_2_T18	M972	25.709	90.79	19.06	140.70	28.3%	Pass
TWR_RED_DIAG_2_T18	M977	25.337	90.79	18.25	140.70	27.9%	Pass
TWR_RED_DIAG_2_T18	M991	25.264	90.79	18.09	140.70	27.8%	Pass
TWR_RED_DIAG_2_T18	M996	25.741	90.79	19.04	140.70	28.4%	Pass
TWR_RED_DIAG_T4	M73	0.19	5.60	0.28	21.04	3.4%	Pass
TWR_RED_DIAG_T4	M76	0.313	5.60	0.38	21.04	5.6%	Pass
TWR_RED_DIAG_T4	M80	0.275	5.60	0.34	21.04	4.9%	Pass
TWR_RED_DIAG_T4	M83	0.231	5.60	0.30	21.04	4.1%	Pass
TWR_RED_DIAG_T4	M87	0.306	5.60	0.38	21.04	5.5%	Pass
TWR_RED_DIAG_T4	M90	0.189	5.60	0.29	21.04	3.4%	Pass
TWR_RED_DIAG_T4	M94	0.222	5.60	0.32	21.04	4.0%	Pass
TWR_RED_DIAG_T4	M97	0.26	5.60	0.35	21.04	4.6%	Pass
TWR_RED_DIAG_T5	M110	0.34	7.66	0.41	24.08	4.4%	Pass
TWR_RED_DIAG_T5	M113	0.347	7.66	0.41	24.08	4.5%	Pass
TWR_RED_DIAG_T5	M117	0.347	7.66	0.41	24.08	4.5%	Pass
TWR_RED_DIAG_T5	M120	0.329	7.66	0.40	24.08	4.3%	Pass
TWR_RED_DIAG_T5	M124	0.328	7.66	0.40	24.08	4.3%	Pass
TWR_RED_DIAG_T5	M127	0.335	7.66	0.41	24.08	4.4%	Pass
TWR_RED_DIAG_T5	M131	0.335	7.66	0.41	24.08	4.4%	Pass
TWR_RED_DIAG_T5	M134	0.34	7.66	0.41	24.08	4.4%	Pass
TWR_RED_DIAG_T6	M147	0.366	6.54	0.44	24.08	5.6%	Pass
TWR_RED_DIAG_T6	M150	0.36	6.54	0.44	24.08	5.5%	Pass
TWR_RED_DIAG_T6	M154	0.358	6.54	0.43	24.08	5.5%	Pass
TWR_RED_DIAG_T6	M157	0.361	6.54	0.44	24.08	5.5%	Pass
TWR_RED_DIAG_T6	M161	0.356	6.54	0.44	24.08	5.4%	Pass
TWR_RED_DIAG_T6	M164	0.366	6.54	0.45	24.08	5.6%	Pass
TWR_RED_DIAG_T6	M168	0.359	6.54	0.44	24.08	5.5%	Pass
TWR_RED_DIAG_T6	M171	0.354	6.54	0.44	24.08	5.4%	Pass
TWR_RED_DIAG_T7	M184	0.47	6.13	0.62	24.08	7.7%	Pass
TWR_RED_DIAG_T7	M187	0.478	6.13	0.60	24.08	7.8%	Pass
TWR_RED_DIAG_T7	M191	0.478	6.13	0.60	24.08	7.8%	Pass
TWR_RED_DIAG_T7	M194	0.482	6.13	0.63	24.08	7.9%	Pass
TWR_RED_DIAG_T7	M198	0.514	6.13	0.60	24.08	8.4%	Pass
TWR_RED_DIAG_T7	M201	0.552	6.13	0.67	24.08	9.0%	Pass
TWR_RED_DIAG_T7	M205	0.551	6.13	0.67	24.08	9.0%	Pass
TWR_RED_DIAG_T7	M208	0.5	6.13	0.59	24.08	8.2%	Pass
TWR_RED_DIAG_T8	M221	0.541	5.93	0.72	24.08	9.1%	Pass
TWR_RED_DIAG_T8	M224	0.546	5.93	0.70	24.08	9.2%	Pass
TWR_RED_DIAG_T8	M228	0.502	5.93	0.66	24.08	8.5%	Pass
TWR_RED_DIAG_T8	M231	0.571	5.93	0.74	24.08	9.6%	Pass
TWR_RED_DIAG_T8	M235	0.521	5.93	0.72	24.08	8.8%	Pass
TWR_RED_DIAG_T8	M238	0.54	5.93	0.75	24.08	9.1%	Pass
TWR_RED_DIAG_T8	M242	0.567	5.93	0.78	24.08	9.6%	Pass
TWR_RED_DIAG_T8	M245	0.475	5.93	0.67	24.08	8.0%	Pass
TWR_RED_DIAG_T9	M259	0.401	10.06	0.64	30.21	4.0%	Pass
TWR_RED_DIAG_T9	M264	0.523	10.06	0.72	30.21	5.2%	Pass
TWR_RED_DIAG_T9	M271	0.478	10.06	0.68	30.21	4.8%	Pass
TWR_RED_DIAG_T9	M276	0.412	10.06	0.63	30.21	4.1%	Pass
TWR_RED_DIAG_T9	M284	0.568	10.06	0.78	30.21	5.6%	Pass

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TWR_RED_DIAG_T9	M289	0.455	10.06	0.71	30.21	4.5%	Pass
TWR_RED_DIAG_T9	M297	0.5	10.06	0.75	30.21	5.0%	Pass
TWR_RED_DIAG_T9	M302	0.557	10.06	0.80	30.21	5.5%	Pass
TWR_RED_DIAG_T10	M320	0.629	9.44	0.72	28.42	6.7%	Pass
TWR_RED_DIAG_T10	M325	0.666	9.44	0.75	28.42	7.1%	Pass
TWR_RED_DIAG_T10	M332	0.632	9.44	0.72	28.42	6.7%	Pass
TWR_RED_DIAG_T10	M337	0.654	9.44	0.72	28.42	6.9%	Pass
TWR_RED_DIAG_T10	M345	0.664	9.44	0.75	28.42	7.0%	Pass
TWR_RED_DIAG_T10	M350	0.628	9.44	0.72	28.42	6.7%	Pass
TWR_RED_DIAG_T10	M358	0.646	9.44	0.73	28.42	6.8%	Pass
TWR_RED_DIAG_T10	M363	0.625	9.44	0.73	28.42	6.6%	Pass
TWR_RED_DIAG_T11	M381	0.631	8.85	0.73	30.21	7.1%	Pass
TWR_RED_DIAG_T11	M386	0.656	8.85	0.77	30.21	7.4%	Pass
TWR_RED_DIAG_T11	M393	0.617	8.85	0.72	30.21	7.0%	Pass
TWR_RED_DIAG_T11	M398	0.665	8.85	0.76	30.21	7.5%	Pass
TWR_RED_DIAG_T11	M406	0.672	8.85	0.76	30.21	7.6%	Pass
TWR_RED_DIAG_T11	M411	0.612	8.85	0.74	30.21	6.9%	Pass
TWR_RED_DIAG_T11	M419	0.652	8.85	0.76	30.21	7.4%	Pass
TWR_RED_DIAG_T11	M424	0.612	8.85	0.74	30.21	6.9%	Pass
TWR_RED_DIAG_T12	M442	1.245	10.46	1.18	30.21	11.9%	Pass
TWR_RED_DIAG_T12	M447	1.191	10.46	1.17	30.21	11.4%	Pass
TWR_RED_DIAG_T12	M458	1.143	10.46	1.11	30.21	10.9%	Pass
TWR_RED_DIAG_T12	M463	1.281	10.46	1.20	30.21	12.2%	Pass
TWR_RED_DIAG_T12	M477	1.207	10.46	1.16	30.21	11.5%	Pass
TWR_RED_DIAG_T12	M482	1.229	10.46	1.18	30.21	11.8%	Pass
TWR_RED_DIAG_T12	M496	1.265	10.46	1.21	30.21	12.1%	Pass
TWR_RED_DIAG_T12	M501	1.14	10.46	1.13	30.21	10.9%	Pass
TWR_RED_DIAG_T13	M527	0.899	9.89	1.14	30.21	9.1%	Pass
TWR_RED_DIAG_T13	M532	0.873	9.89	1.15	30.21	8.8%	Pass
TWR_RED_DIAG_T13	M541	0.892	9.89	1.16	30.21	9.0%	Pass
TWR_RED_DIAG_T13	M546	0.906	9.89	1.14	30.21	9.2%	Pass
TWR_RED_DIAG_T13	M558	0.915	9.89	1.16	30.21	9.3%	Pass
TWR_RED_DIAG_T13	M563	0.915	9.89	1.14	30.21	9.3%	Pass
TWR_RED_DIAG_T13	M575	0.896	9.89	1.12	30.21	9.1%	Pass
TWR_RED_DIAG_T13	M580	0.908	10.29	1.17	30.21	8.8%	Pass
TWR_RED_DIAG_T14	M604	1.127	9.71	1.06	30.21	11.6%	Pass
TWR_RED_DIAG_T14	M609	1.086	9.71	1.06	30.21	11.2%	Pass
TWR_RED_DIAG_T14	M618	1.066	9.71	1.03	30.21	11.0%	Pass
TWR_RED_DIAG_T14	M623	1.148	9.71	1.06	30.21	11.8%	Pass
TWR_RED_DIAG_T14	M635	1.123	9.71	1.04	30.21	11.6%	Pass
TWR_RED_DIAG_T14	M640	1.106	9.71	1.07	30.21	11.4%	Pass
TWR_RED_DIAG_T14	M652	1.129	9.71	1.06	30.21	11.6%	Pass
TWR_RED_DIAG_T14	M657	1.061	9.71	1.05	30.21	10.9%	Pass
TWR_RED_DIAG_T15	M681	1.25	29.52	1.19	63.37	4.2%	Pass
TWR_RED_DIAG_T15	M686	1.205	29.52	1.19	63.37	4.1%	Pass
TWR_RED_DIAG_T15	M697	1.191	29.52	1.17	63.37	4.0%	Pass
TWR_RED_DIAG_T15	M702	1.259	29.52	1.18	63.37	4.3%	Pass
TWR_RED_DIAG_T15	M716	1.239	29.52	1.17	63.37	4.2%	Pass
TWR_RED_DIAG_T15	M721	1.247	29.52	1.18	63.37	4.2%	Pass
TWR_RED_DIAG_T15	M735	1.252	29.52	1.17	63.37	4.2%	Pass
TWR_RED_DIAG_T15	M740	1.195	29.52	1.17	63.37	4.0%	Pass
TWR_RED_DIAG_T16	M766	4.11	21.53	3.27	48.02	19.1%	Pass
TWR_RED_DIAG_T16	M771	4.06	21.53	3.33	48.02	18.9%	Pass
TWR_RED_DIAG_T16	M782	4.056	21.53	3.34	48.02	18.8%	Pass
TWR_RED_DIAG_T16	M787	4.175	21.53	3.26	48.02	19.4%	Pass
TWR_RED_DIAG_T16	M801	4.267	21.53	3.35	48.02	19.8%	Pass
TWR_RED_DIAG_T16	M806	4.257	21.53	3.21	48.02	19.8%	Pass
TWR_RED_DIAG_T16	M820	4.202	21.53	3.16	48.02	19.5%	Pass
TWR_RED_DIAG_T16	M825	4.262	21.53	3.40	48.02	19.8%	Pass
TWR_RED_DIAG_T17	M851	3.871	42.18	3.00	48.18	9.2%	Pass

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TWR_RED_DIAG_T17	M856	3.788	42.18	3.06	48.18	9.0%	Pass
TWR_RED_DIAG_T17	M867	3.804	42.18	3.08	48.18	9.0%	Pass
TWR_RED_DIAG_T17	M872	3.878	42.18	2.99	48.18	9.2%	Pass
TWR_RED_DIAG_T17	M886	3.987	42.18	3.08	48.18	9.5%	Pass
TWR_RED_DIAG_T17	M891	3.976	42.18	2.92	48.18	9.4%	Pass
TWR_RED_DIAG_T17	M905	3.961	42.18	2.91	48.18	9.4%	Pass
TWR_RED_DIAG_T17	M910	3.977	42.18	3.09	48.18	9.4%	Pass
TWR_RED_DIAG_T18	M936	3.038	41.19	2.70	48.18	7.4%	Pass
TWR_RED_DIAG_T18	M941	2.98	41.19	2.74	48.18	7.2%	Pass
TWR_RED_DIAG_T18	M952	2.992	41.19	2.76	48.18	7.3%	Pass
TWR_RED_DIAG_T18	M957	3.037	41.19	2.70	48.18	7.4%	Pass
TWR_RED_DIAG_T18	M971	3.134	41.19	2.78	48.18	7.6%	Pass
TWR_RED_DIAG_T18	M976	3.111	41.19	2.65	48.18	7.6%	Pass
TWR_RED_DIAG_T18	M990	3.099	41.19	2.64	48.18	7.5%	Pass
TWR_RED_DIAG_T18	M995	3.135	41.19	2.78	48.18	7.6%	Pass
TWR_RED_HIPBRACE_T15	M1417	0	7.42	0.22	24.08	0.9%	Pass
TWR_RED_HIPBRACE_T15	M1418	0.116	20.52	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T15	M1419	0	7.42	0.22	24.08	0.9%	Pass
TWR_RED_HIPBRACE_T15	M1420	0.116	20.52	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T15	M1421	0	7.42	0.22	24.08	0.9%	Pass
TWR_RED_HIPBRACE_T15	M1422	0.116	20.52	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T15	M1423	0	7.42	0.22	24.08	0.9%	Pass
TWR_RED_HIPBRACE_T15	M1424	0.116	20.52	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T15	M1425	0	7.42	0.22	24.08	0.9%	Pass
TWR_RED_HIPBRACE_T15	M1426	0.116	20.52	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T15	M1427	0	7.42	0.22	24.08	0.9%	Pass
TWR_RED_HIPBRACE_T15	M1428	0.116	20.52	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T15	M1429	0	7.42	0.22	24.08	0.9%	Pass
TWR_RED_HIPBRACE_T15	M1430	0.116	20.52	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T15	M1431	0	7.42	0.22	24.08	0.9%	Pass
TWR_RED_HIPBRACE_T15	M1432	0.116	20.52	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T16	M1353	0	6.95	0.25	24.08	1.0%	Pass
TWR_RED_HIPBRACE_T16	M1354	0.124	20.98	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T16	M1355	0	6.95	0.25	24.08	1.0%	Pass
TWR_RED_HIPBRACE_T16	M1356	0.124	20.98	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T16	M1357	0	6.95	0.25	24.08	1.0%	Pass
TWR_RED_HIPBRACE_T16	M1358	0.124	20.98	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T16	M1359	0	6.95	0.25	24.08	1.0%	Pass
TWR_RED_HIPBRACE_T16	M1360	0.124	20.98	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T16	M1361	0	6.95	0.25	24.08	1.0%	Pass
TWR_RED_HIPBRACE_T16	M1362	0.124	20.98	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T16	M1363	0	6.95	0.25	24.08	1.0%	Pass
TWR_RED_HIPBRACE_T16	M1364	0.124	20.98	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T16	M1365	0	6.95	0.25	24.08	1.0%	Pass
TWR_RED_HIPBRACE_T16	M1366	0.124	20.98	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T16	M1367	0	6.95	0.25	24.08	1.0%	Pass
TWR_RED_HIPBRACE_T16	M1368	0.124	20.98	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T17	M1289	0	6.40	0.27	24.08	1.1%	Pass
TWR_RED_HIPBRACE_T17	M1290	0.131	21.20	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T17	M1291	0	6.40	0.27	24.08	1.1%	Pass
TWR_RED_HIPBRACE_T17	M1292	0.131	21.20	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T17	M1293	0	6.40	0.27	24.08	1.1%	Pass
TWR_RED_HIPBRACE_T17	M1294	0.131	21.20	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T17	M1295	0	6.40	0.27	24.08	1.1%	Pass
TWR_RED_HIPBRACE_T17	M1296	0.131	21.20	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T17	M1297	0	6.40	0.27	24.08	1.1%	Pass
TWR_RED_HIPBRACE_T17	M1298	0.131	21.20	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T17	M1299	0	6.40	0.27	24.08	1.1%	Pass
TWR_RED_HIPBRACE_T17	M1300	0.131	21.20	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T17	M1301	0	6.40	0.27	24.08	1.1%	Pass

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TWR_RED_HIPBRACE_T17	M1302	0.131	21.20	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T17	M1303	0	6.40	0.27	24.08	1.1%	Pass
TWR_RED_HIPBRACE_T17	M1304	0.131	21.20	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T18	M1237	0	6.04	0.30	24.08	1.3%	Pass
TWR_RED_HIPBRACE_T18	M1238	0.139	21.64	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T18	M1239	0	6.04	0.30	24.08	1.3%	Pass
TWR_RED_HIPBRACE_T18	M1240	0.139	21.64	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T18	M1241	0	6.04	0.30	24.08	1.3%	Pass
TWR_RED_HIPBRACE_T18	M1242	0.139	21.64	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T18	M1243	0	6.04	0.30	24.08	1.3%	Pass
TWR_RED_HIPBRACE_T18	M1244	0.14	21.64	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T18	M1245	0	6.04	0.30	24.08	1.3%	Pass
TWR_RED_HIPBRACE_T18	M1246	0.139	21.64	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T18	M1247	0	6.04	0.30	24.08	1.3%	Pass
TWR_RED_HIPBRACE_T18	M1248	0.139	21.64	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T18	M1249	0	6.04	0.30	24.08	1.3%	Pass
TWR_RED_HIPBRACE_T18	M1250	0.14	21.64	0.00	24.08	0.6%	Pass
TWR_RED_HIPBRACE_T18	M1251	0	6.04	0.30	24.08	1.3%	Pass
TWR_RED_HIPBRACE_T18	M1252	0.139	21.64	0.00	24.08	0.6%	Pass
TWR_RED_HIPDIA2_T18	M1105	2.41	20.41	0.87	63.37	11.8%	Pass
TWR_RED_HIPDIA2_T18	M1106	2.438	20.41	0.85	63.37	11.9%	Pass
TWR_RED_HIPDIA2_T18	M1107	2.111	20.41	0.34	63.37	10.3%	Pass
TWR_RED_HIPDIA2_T18	M1108	1.855	20.41	0.52	63.37	9.1%	Pass
TWR_RED_HIPDIA2_T18	M1109	1.298	20.41	0.00	63.37	6.4%	Pass
TWR_RED_HIPDIA2_T18	M1110	1.283	20.41	0.00	63.37	6.3%	Pass
TWR_RED_HIPDIA2_T18	M1111	1.967	20.41	0.37	63.37	9.6%	Pass
TWR_RED_HIPDIA2_T18	M1112	1.978	20.41	0.46	63.37	9.7%	Pass
TWR_RED_HIPDIA_T9	M1613	0.376	22.16	0.00	63.37	1.7%	Pass
TWR_RED_HIPDIA_T9	M1614	0.378	22.16	0.00	63.37	1.7%	Pass
TWR_RED_HIPDIA_T9	M1615	0.377	22.16	0.00	63.37	1.7%	Pass
TWR_RED_HIPDIA_T9	M1616	0.377	22.16	0.00	63.37	1.7%	Pass
TWR_RED_HIPDIA_T9	M1617	0.376	22.16	0.00	63.37	1.7%	Pass
TWR_RED_HIPDIA_T9	M1618	0.378	22.16	0.00	63.37	1.7%	Pass
TWR_RED_HIPDIA_T9	M1619	0.377	22.16	0.00	63.37	1.7%	Pass
TWR_RED_HIPDIA_T9	M1620	0.376	22.16	0.00	63.37	1.7%	Pass
TWR_RED_HIPDIA_T10	M1593	0.447	19.69	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T10	M1594	0.448	19.69	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T10	M1595	0.447	19.69	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T10	M1596	0.447	19.69	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T10	M1597	0.447	19.69	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T10	M1598	0.448	19.69	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T10	M1599	0.448	19.69	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T10	M1600	0.447	19.69	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T11	M1573	0.518	17.51	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T11	M1574	0.518	17.51	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T11	M1575	0.517	17.51	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T11	M1576	0.518	17.51	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T11	M1577	0.517	17.51	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T11	M1578	0.518	17.51	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T11	M1579	0.518	17.51	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T11	M1580	0.518	17.51	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T12	M1521	2.822	23.22	2.20	63.37	12.2%	Pass
TWR_RED_HIPDIA_T12	M1522	2.968	23.22	2.12	63.37	12.8%	Pass
TWR_RED_HIPDIA_T12	M1523	2.117	23.22	1.41	63.37	9.1%	Pass
TWR_RED_HIPDIA_T12	M1524	2.151	23.22	1.39	63.37	9.3%	Pass
TWR_RED_HIPDIA_T12	M1525	2.95	23.22	2.33	63.37	12.7%	Pass
TWR_RED_HIPDIA_T12	M1526	3.095	23.22	2.25	63.37	13.3%	Pass
TWR_RED_HIPDIA_T12	M1527	3.861	23.22	3.10	63.37	16.6%	Pass
TWR_RED_HIPDIA_T12	M1528	3.826	23.22	3.12	63.37	16.5%	Pass
TWR_RED_HIPDIA_T13	M1473	0.503	21.47	0.00	63.37	2.3%	Pass

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TWR_RED_HIPDIA_T13	M1474	0.502	21.47	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T13	M1475	0.503	21.47	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T13	M1476	0.503	21.47	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T13	M1477	0.503	21.47	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T13	M1478	0.502	21.47	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T13	M1479	0.502	21.47	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T13	M1480	0.502	21.47	0.00	63.37	2.3%	Pass
TWR_RED_HIPDIA_T14	M1441	0.525	19.85	0.00	63.37	2.6%	Pass
TWR_RED_HIPDIA_T14	M1442	0.525	19.85	0.00	63.37	2.6%	Pass
TWR_RED_HIPDIA_T14	M1443	0.526	19.85	0.00	63.37	2.6%	Pass
TWR_RED_HIPDIA_T14	M1444	0.524	19.85	0.00	63.37	2.6%	Pass
TWR_RED_HIPDIA_T14	M1445	0.525	19.85	0.00	63.37	2.6%	Pass
TWR_RED_HIPDIA_T14	M1446	0.525	19.85	0.00	63.37	2.6%	Pass
TWR_RED_HIPDIA_T14	M1447	0.524	19.85	0.00	63.37	2.6%	Pass
TWR_RED_HIPDIA_T14	M1448	0.525	19.85	0.00	63.37	2.6%	Pass
TWR_RED_HIPDIA_T15	M1373	0.814	26.82	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T15	M1374	0.814	26.82	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T15	M1375	0.815	26.82	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T15	M1376	0.814	26.82	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T15	M1377	0.814	26.82	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T15	M1378	0.813	26.82	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T15	M1379	0.814	26.82	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T15	M1380	0.813	26.82	0.00	63.37	3.0%	Pass
TWR_RED_HIPDIA_T16	M1309	0.919	24.25	0.00	63.37	3.8%	Pass
TWR_RED_HIPDIA_T16	M1310	0.92	24.25	0.00	63.37	3.8%	Pass
TWR_RED_HIPDIA_T16	M1311	0.919	24.25	0.00	63.37	3.8%	Pass
TWR_RED_HIPDIA_T16	M1312	0.92	24.25	0.00	63.37	3.8%	Pass
TWR_RED_HIPDIA_T16	M1313	0.919	24.25	0.00	63.37	3.8%	Pass
TWR_RED_HIPDIA_T16	M1314	0.92	24.25	0.00	63.37	3.8%	Pass
TWR_RED_HIPDIA_T16	M1315	0.919	24.25	0.00	63.37	3.8%	Pass
TWR_RED_HIPDIA_T16	M1316	0.92	24.25	0.00	63.37	3.8%	Pass
TWR_RED_HIPDIA_T17	M1181	1.009	17.59	0.00	63.37	5.7%	Pass
TWR_RED_HIPDIA_T17	M1182	1.008	17.59	0.00	63.37	5.7%	Pass
TWR_RED_HIPDIA_T17	M1183	1.007	17.59	0.00	63.37	5.7%	Pass
TWR_RED_HIPDIA_T17	M1184	1.009	17.59	0.00	63.37	5.7%	Pass
TWR_RED_HIPDIA_T17	M1185	1.009	17.59	0.00	63.37	5.7%	Pass
TWR_RED_HIPDIA_T17	M1186	1.007	17.59	0.00	63.37	5.7%	Pass
TWR_RED_HIPDIA_T17	M1187	1.008	17.59	0.00	63.37	5.7%	Pass
TWR_RED_HIPDIA_T17	M1188	1.007	17.59	0.00	63.37	5.7%	Pass
TWR_RED_HIPDIA_T18	M1073	1.168	4.55	0.00	31.69	25.7%	Pass
TWR_RED_HIPDIA_T18	M1074	1.169	4.55	0.00	31.69	25.7%	Pass
TWR_RED_HIPDIA_T18	M1075	1.167	4.55	0.00	31.69	25.6%	Pass
TWR_RED_HIPDIA_T18	M1076	1.17	4.55	0.00	31.69	25.7%	Pass
TWR_RED_HIPDIA_T18	M1077	1.169	4.55	0.00	31.69	25.7%	Pass
TWR_RED_HIPDIA_T18	M1078	1.168	4.55	0.00	31.69	25.7%	Pass
TWR_RED_HIPDIA_T18	M1079	1.17	4.55	0.00	31.69	25.7%	Pass
TWR_RED_HIPDIA_T18	M1080	1.167	4.55	0.00	31.69	25.6%	Pass
TWR_RED_HIP_2_T9	M279	0	15.09	0.15	70.20	0.2%	Pass
TWR_RED_HIP_2_T9	M292	0	15.09	0.15	70.20	0.2%	Pass
TWR_RED_HIP_2_T9	M305	0	15.09	0.15	70.20	0.2%	Pass
TWR_RED_HIP_2_T9	M306	0	15.09	0.15	70.20	0.2%	Pass
TWR_RED_HIP_2_T10	M340	0	17.44	0.26	82.57	0.3%	Pass
TWR_RED_HIP_2_T10	M353	0	17.44	0.26	82.57	0.3%	Pass
TWR_RED_HIP_2_T10	M366	0	17.44	0.26	82.57	0.3%	Pass
TWR_RED_HIP_2_T10	M367	0	17.44	0.26	82.57	0.3%	Pass
TWR_RED_HIP_2_T11	M401	0	14.45	0.33	82.57	0.4%	Pass
TWR_RED_HIP_2_T11	M414	0	14.45	0.33	82.57	0.4%	Pass
TWR_RED_HIP_2_T11	M427	0	14.45	0.33	82.57	0.4%	Pass
TWR_RED_HIP_2_T11	M428	0	14.45	0.33	82.57	0.4%	Pass
TWR_RED_HIP_2_T12	M467	0.95	37.28	1.32	96.00	2.5%	Pass

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TWR_RED_HIP_2_T12	M486	1.419	37.28	1.80	96.00	3.8%	Pass
TWR_RED_HIP_2_T12	M505	1.699	37.28	2.18	96.00	4.6%	Pass
TWR_RED_HIP_2_T12	M508	1.375	37.28	1.73	96.00	3.7%	Pass
TWR_RED_HIP_2_T13	M550	0	4.04	0.45	35.60	1.2%	Pass
TWR_RED_HIP_2_T13	M567	0	4.04	0.45	35.60	1.2%	Pass
TWR_RED_HIP_2_T13	M584	0	4.04	0.44	35.60	1.2%	Pass
TWR_RED_HIP_2_T13	M587	0	4.04	0.45	35.60	1.2%	Pass
TWR_RED_HIP_2_T14	M627	0	22.59	0.51	71.53	0.7%	Pass
TWR_RED_HIP_2_T14	M644	0	22.59	0.51	71.53	0.7%	Pass
TWR_RED_HIP_2_T14	M661	0	22.59	0.51	71.53	0.7%	Pass
TWR_RED_HIP_2_T14	M664	0	22.59	0.51	71.53	0.7%	Pass
TWR_RED_HIP_2_T15	M706	0	11.06	0.77	97.98	0.8%	Pass
TWR_RED_HIP_2_T15	M725	0	11.06	0.76	97.98	0.8%	Pass
TWR_RED_HIP_2_T15	M744	0	11.06	0.75	97.98	0.8%	Pass
TWR_RED_HIP_2_T15	M747	0	11.06	0.76	97.98	0.8%	Pass
TWR_RED_HIP_2_T16	M791	0	9.62	0.90	97.98	0.9%	Pass
TWR_RED_HIP_2_T16	M810	0	9.62	0.88	97.98	0.9%	Pass
TWR_RED_HIP_2_T16	M829	0	9.62	0.87	97.98	0.9%	Pass
TWR_RED_HIP_2_T16	M832	0	9.62	0.89	97.98	0.9%	Pass
TWR_RED_HIP_2_T17	M876	0	8.44	1.01	97.98	1.0%	Pass
TWR_RED_HIP_2_T17	M895	0	8.44	1.00	97.98	1.0%	Pass
TWR_RED_HIP_2_T17	M914	0	8.44	0.99	97.98	1.0%	Pass
TWR_RED_HIP_2_T17	M917	0	8.44	1.00	97.98	1.0%	Pass
TWR_RED_HIP_2_T18	M961	0.203	29.89	1.97	97.98	2.0%	Pass
TWR_RED_HIP_2_T18	M980	0.545	29.89	2.17	97.98	2.2%	Pass
TWR_RED_HIP_2_T18	M999	0.239	29.89	2.04	97.98	2.1%	Pass
TWR_RED_HIP_2_T18	M1002	0.534	29.89	2.18	97.98	2.2%	Pass
TWR_RED_HIP_T15	M705	0.293	8.46	0.42	30.21	3.5%	Pass
TWR_RED_HIP_T15	M724	0.285	8.46	0.45	30.21	3.4%	Pass
TWR_RED_HIP_T15	M743	0.262	8.46	0.45	30.21	3.1%	Pass
TWR_RED_HIP_T15	M746	0.287	8.46	0.44	30.21	3.4%	Pass
TWR_RED_HIP_T16	M790	0.264	7.66	0.38	30.21	3.4%	Pass
TWR_RED_HIP_T16	M809	0.26	7.66	0.40	30.21	3.4%	Pass
TWR_RED_HIP_T16	M828	0.239	7.66	0.41	30.21	3.1%	Pass
TWR_RED_HIP_T16	M831	0.259	7.66	0.40	30.21	3.4%	Pass
TWR_RED_HIP_T17	M875	0.3	27.74	0.43	82.57	1.1%	Pass
TWR_RED_HIP_T17	M894	0.297	27.74	0.45	82.57	1.1%	Pass
TWR_RED_HIP_T17	M913	0.277	27.74	0.45	82.57	1.0%	Pass
TWR_RED_HIP_T17	M916	0.295	27.74	0.45	82.57	1.1%	Pass
TWR_RED_HIP_T18	M960	0	25.50	1.03	82.57	1.2%	Pass
TWR_RED_HIP_T18	M979	0	25.50	1.04	82.57	1.3%	Pass
TWR_RED_HIP_T18	M998	0	25.50	1.04	82.57	1.3%	Pass
TWR_RED_HIP_T18	M1001	0	25.50	1.04	82.57	1.3%	Pass
TWR_RED_HORZ_2_T9	M258	0.838	37.28	0.52	63.37	2.2%	Pass
TWR_RED_HORZ_2_T9	M263	0.863	37.28	0.55	63.37	2.3%	Pass
TWR_RED_HORZ_2_T9	M270	0.79	37.28	0.47	63.37	2.1%	Pass
TWR_RED_HORZ_2_T9	M275	0.825	37.28	0.53	63.37	2.2%	Pass
TWR_RED_HORZ_2_T9	M283	0.875	37.28	0.56	63.37	2.3%	Pass
TWR_RED_HORZ_2_T9	M288	0.786	37.28	0.46	63.37	2.1%	Pass
TWR_RED_HORZ_2_T9	M296	0.858	37.28	0.54	63.37	2.3%	Pass
TWR_RED_HORZ_2_T9	M301	0.889	37.28	0.55	63.37	2.4%	Pass
TWR_RED_HORZ_2_T10	M319	0.523	28.48	0.36	63.37	1.8%	Pass
TWR_RED_HORZ_2_T10	M324	0.629	28.48	0.43	63.37	2.2%	Pass
TWR_RED_HORZ_2_T10	M331	0.572	28.48	0.37	63.37	2.0%	Pass
TWR_RED_HORZ_2_T10	M336	0.508	28.48	0.37	63.37	1.8%	Pass
TWR_RED_HORZ_2_T10	M344	0.721	28.48	0.56	63.37	2.5%	Pass
TWR_RED_HORZ_2_T10	M349	0.539	28.48	0.41	63.37	1.9%	Pass
TWR_RED_HORZ_2_T10	M357	0.596	28.48	0.47	63.37	2.1%	Pass
TWR_RED_HORZ_2_T10	M362	0.736	28.48	0.55	63.37	2.6%	Pass
TWR_RED_HORZ_2_T11	M380	0.542	22.46	0.41	63.37	2.4%	Pass

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TWR_RED_HORZ_2_T11	M385	0.677	22.46	0.51	63.37	3.0%	Pass
TWR_RED_HORZ_2_T11	M392	0.586	22.46	0.45	63.37	2.6%	Pass
TWR_RED_HORZ_2_T11	M397	0.61	22.46	0.47	63.37	2.7%	Pass
TWR_RED_HORZ_2_T11	M405	0.664	22.46	0.53	63.37	3.0%	Pass
TWR_RED_HORZ_2_T11	M410	0.601	22.46	0.35	63.37	2.7%	Pass
TWR_RED_HORZ_2_T11	M418	0.645	22.46	0.44	63.37	2.9%	Pass
TWR_RED_HORZ_2_T11	M423	0.623	22.46	0.42	63.37	2.8%	Pass
TWR_RED_HORZ_2_T12	M441	0.838	41.97	0.76	63.21	2.0%	Pass
TWR_RED_HORZ_2_T12	M446	0.935	41.97	0.83	63.21	2.2%	Pass
TWR_RED_HORZ_2_T12	M457	0.848	41.97	0.76	63.21	2.0%	Pass
TWR_RED_HORZ_2_T12	M462	0.898	41.97	0.82	63.21	2.1%	Pass
TWR_RED_HORZ_2_T12	M476	0.931	41.97	0.84	63.21	2.2%	Pass
TWR_RED_HORZ_2_T12	M481	0.884	41.97	0.71	63.21	2.1%	Pass
TWR_RED_HORZ_2_T12	M495	0.928	41.97	0.79	63.21	2.2%	Pass
TWR_RED_HORZ_2_T12	M500	0.886	41.97	0.74	63.21	2.1%	Pass
TWR_RED_HORZ_2_T13	M526	1.109	34.56	0.93	63.21	3.2%	Pass
TWR_RED_HORZ_2_T13	M531	1.119	34.56	0.83	63.21	3.2%	Pass
TWR_RED_HORZ_2_T13	M540	1.175	34.56	0.93	63.21	3.4%	Pass
TWR_RED_HORZ_2_T13	M545	1.088	34.56	0.83	63.21	3.1%	Pass
TWR_RED_HORZ_2_T13	M557	1.078	34.56	0.81	63.21	3.1%	Pass
TWR_RED_HORZ_2_T13	M562	1.239	34.56	0.91	63.21	3.6%	Pass
TWR_RED_HORZ_2_T13	M574	1.123	34.56	0.83	63.21	3.2%	Pass
TWR_RED_HORZ_2_T13	M579	1.144	34.56	0.87	63.21	3.3%	Pass
TWR_RED_HORZ_2_T14	M603	0.921	28.94	0.96	63.21	3.2%	Pass
TWR_RED_HORZ_2_T14	M608	1.01	28.94	0.95	63.21	3.5%	Pass
TWR_RED_HORZ_2_T14	M617	0.946	28.94	0.94	63.21	3.3%	Pass
TWR_RED_HORZ_2_T14	M622	0.949	28.94	0.98	63.21	3.3%	Pass
TWR_RED_HORZ_2_T14	M634	0.962	28.94	1.01	63.21	3.3%	Pass
TWR_RED_HORZ_2_T14	M639	0.988	28.94	0.88	63.21	3.4%	Pass
TWR_RED_HORZ_2_T14	M651	0.973	28.94	0.93	63.21	3.4%	Pass
TWR_RED_HORZ_2_T14	M656	0.986	28.94	0.92	63.21	3.4%	Pass
TWR_RED_HORZ_2_T15	M680	1.163	29.05	1.19	71.37	4.0%	Pass
TWR_RED_HORZ_2_T15	M685	1.163	29.05	1.13	71.37	4.0%	Pass
TWR_RED_HORZ_2_T15	M696	1.121	29.05	1.12	71.37	3.9%	Pass
TWR_RED_HORZ_2_T15	M701	1.163	29.05	1.21	71.37	4.0%	Pass
TWR_RED_HORZ_2_T15	M715	1.14	29.05	1.17	71.37	3.9%	Pass
TWR_RED_HORZ_2_T15	M720	1.198	29.05	1.14	71.37	4.1%	Pass
TWR_RED_HORZ_2_T15	M734	1.183	29.05	1.17	71.37	4.1%	Pass
TWR_RED_HORZ_2_T15	M739	1.164	29.05	1.10	71.37	4.0%	Pass
TWR_RED_HORZ_2_T16	M765	1.1	25.21	1.18	71.37	4.4%	Pass
TWR_RED_HORZ_2_T16	M770	1.054	25.21	1.11	71.37	4.2%	Pass
TWR_RED_HORZ_2_T16	M781	1.013	25.21	1.09	71.37	4.0%	Pass
TWR_RED_HORZ_2_T16	M786	1.093	25.21	1.22	71.37	4.3%	Pass
TWR_RED_HORZ_2_T16	M800	1.039	25.21	1.14	71.37	4.1%	Pass
TWR_RED_HORZ_2_T16	M805	1.123	25.21	1.15	71.37	4.5%	Pass
TWR_RED_HORZ_2_T16	M819	1.114	25.21	1.17	71.37	4.4%	Pass
TWR_RED_HORZ_2_T16	M824	1.054	25.21	1.06	71.37	4.2%	Pass
TWR_RED_HORZ_2_T17	M850	1.351	22.06	1.73	71.37	6.1%	Pass
TWR_RED_HORZ_2_T17	M855	1.341	22.06	1.63	71.37	6.1%	Pass
TWR_RED_HORZ_2_T17	M866	1.312	22.06	1.61	71.37	5.9%	Pass
TWR_RED_HORZ_2_T17	M871	1.332	22.06	1.75	71.37	6.0%	Pass
TWR_RED_HORZ_2_T17	M885	1.301	22.06	1.62	71.37	5.9%	Pass
TWR_RED_HORZ_2_T17	M890	1.396	22.06	1.74	71.37	6.3%	Pass
TWR_RED_HORZ_2_T17	M904	1.383	22.06	1.73	71.37	6.3%	Pass
TWR_RED_HORZ_2_T17	M909	1.304	22.06	1.57	71.37	5.9%	Pass
TWR_RED_HORZ_2_T18	M935	1.899	19.46	3.04	71.37	9.8%	Pass
TWR_RED_HORZ_2_T18	M940	1.842	19.46	2.87	71.37	9.5%	Pass
TWR_RED_HORZ_2_T18	M951	1.819	19.46	2.85	71.37	9.3%	Pass
TWR_RED_HORZ_2_T18	M956	1.898	19.46	3.04	71.37	9.8%	Pass
TWR_RED_HORZ_2_T18	M970	1.742	19.46	2.85	71.37	9.0%	Pass

Section Set	Member	Comp. (K)	$\Phi P_{n,Comp}$ (K)	Ten (K)	$\Phi P_{n,Ten}$ (K)	Capacity	Pass/Fail
TWR_RED_HORZ_2_T18	M975	1.728	19.46	2.95	71.37	8.9%	Pass
TWR_RED_HORZ_2_T18	M989	1.751	19.46	2.97	71.37	9.0%	Pass
TWR_RED_HORZ_2_T18	M994	1.743	19.46	2.85	71.37	9.0%	Pass
TWR_RED_HORZ_T4	M72	0.237	10.62	0.29	21.04	2.2%	Pass
TWR_RED_HORZ_T4	M75	0.356	10.62	0.44	21.04	3.4%	Pass
TWR_RED_HORZ_T4	M79	0.31	10.62	0.39	21.04	2.9%	Pass
TWR_RED_HORZ_T4	M82	0.268	10.62	0.34	21.04	2.5%	Pass
TWR_RED_HORZ_T4	M86	0.357	10.62	0.43	21.04	3.4%	Pass
TWR_RED_HORZ_T4	M89	0.246	10.62	0.28	21.04	2.3%	Pass
TWR_RED_HORZ_T4	M93	0.285	10.62	0.32	21.04	2.7%	Pass
TWR_RED_HORZ_T4	M96	0.32	10.62	0.37	21.04	3.0%	Pass
TWR_RED_HORZ_T5	M109	0.408	13.72	0.51	24.08	3.0%	Pass
TWR_RED_HORZ_T5	M112	0.414	13.72	0.52	24.08	3.0%	Pass
TWR_RED_HORZ_T5	M116	0.415	13.72	0.52	24.08	3.0%	Pass
TWR_RED_HORZ_T5	M119	0.397	13.72	0.49	24.08	2.9%	Pass
TWR_RED_HORZ_T5	M123	0.398	13.72	0.49	24.08	2.9%	Pass
TWR_RED_HORZ_T5	M126	0.409	13.72	0.50	24.08	3.0%	Pass
TWR_RED_HORZ_T5	M130	0.409	13.72	0.50	24.08	3.0%	Pass
TWR_RED_HORZ_T5	M133	0.409	13.72	0.51	24.08	3.0%	Pass
TWR_RED_HORZ_T6	M146	0.472	12.16	0.58	24.08	3.9%	Pass
TWR_RED_HORZ_T6	M149	0.465	12.16	0.57	24.08	3.8%	Pass
TWR_RED_HORZ_T6	M153	0.462	12.16	0.57	24.08	3.8%	Pass
TWR_RED_HORZ_T6	M156	0.463	12.16	0.57	24.08	3.8%	Pass
TWR_RED_HORZ_T6	M160	0.468	12.16	0.57	24.08	3.8%	Pass
TWR_RED_HORZ_T6	M163	0.478	12.16	0.58	24.08	3.9%	Pass
TWR_RED_HORZ_T6	M167	0.469	12.16	0.57	24.08	3.9%	Pass
TWR_RED_HORZ_T6	M170	0.471	12.16	0.56	24.08	3.9%	Pass
TWR_RED_HORZ_T7	M183	0.691	11.26	0.82	24.08	6.1%	Pass
TWR_RED_HORZ_T7	M186	0.659	11.26	0.83	24.08	5.9%	Pass
TWR_RED_HORZ_T7	M190	0.658	11.26	0.83	24.08	5.8%	Pass
TWR_RED_HORZ_T7	M193	0.702	11.26	0.84	24.08	6.2%	Pass
TWR_RED_HORZ_T7	M197	0.657	11.26	0.88	24.08	5.8%	Pass
TWR_RED_HORZ_T7	M200	0.755	11.26	0.93	24.08	6.7%	Pass
TWR_RED_HORZ_T7	M204	0.755	11.26	0.93	24.08	6.7%	Pass
TWR_RED_HORZ_T7	M207	0.645	11.26	0.86	24.08	5.7%	Pass
TWR_RED_HORZ_T8	M220	0.845	10.09	0.96	24.08	8.4%	Pass
TWR_RED_HORZ_T8	M223	0.816	10.09	0.98	24.08	8.1%	Pass
TWR_RED_HORZ_T8	M227	0.757	10.09	0.91	24.08	7.5%	Pass
TWR_RED_HORZ_T8	M230	0.875	10.09	1.01	24.08	8.7%	Pass
TWR_RED_HORZ_T8	M234	0.84	10.09	0.93	24.08	8.3%	Pass
TWR_RED_HORZ_T8	M237	0.883	10.09	0.95	24.08	8.8%	Pass
TWR_RED_HORZ_T8	M241	0.916	10.09	0.99	24.08	9.1%	Pass
TWR_RED_HORZ_T8	M244	0.767	10.09	0.86	24.08	7.6%	Pass
TWR_RED_HORZ_T9	M257	0.359	10.91	0.48	21.04	3.3%	Pass
TWR_RED_HORZ_T9	M262	0.447	10.91	0.61	21.04	4.1%	Pass
TWR_RED_HORZ_T9	M269	0.404	10.91	0.56	21.04	3.7%	Pass
TWR_RED_HORZ_T9	M274	0.349	10.91	0.49	21.04	3.2%	Pass
TWR_RED_HORZ_T9	M282	0.506	10.91	0.65	21.04	4.6%	Pass
TWR_RED_HORZ_T9	M287	0.43	10.91	0.53	21.04	3.9%	Pass
TWR_RED_HORZ_T9	M295	0.472	10.91	0.58	21.04	4.3%	Pass
TWR_RED_HORZ_T9	M300	0.516	10.91	0.63	21.04	4.7%	Pass
TWR_RED_HORZ_T10	M318	0.608	9.13	0.70	21.04	6.7%	Pass
TWR_RED_HORZ_T10	M323	0.64	9.13	0.75	21.04	7.0%	Pass
TWR_RED_HORZ_T10	M330	0.608	9.13	0.71	21.04	6.7%	Pass
TWR_RED_HORZ_T10	M335	0.62	9.13	0.73	21.04	6.8%	Pass
TWR_RED_HORZ_T10	M343	0.646	9.13	0.74	21.04	7.1%	Pass
TWR_RED_HORZ_T10	M348	0.61	9.13	0.70	21.04	6.7%	Pass
TWR_RED_HORZ_T10	M356	0.629	9.13	0.72	21.04	6.9%	Pass
TWR_RED_HORZ_T10	M361	0.618	9.13	0.70	21.04	6.8%	Pass
TWR_RED_HORZ_T11	M379	0.67	7.78	0.78	21.04	8.6%	Pass

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TWR_RED_HORZ_T11	M384	0.718	7.78	0.82	21.04	9.2%	Pass
TWR_RED_HORZ_T11	M391	0.661	7.78	0.77	21.04	8.5%	Pass
TWR_RED_HORZ_T11	M396	0.706	7.78	0.83	21.04	9.1%	Pass
TWR_RED_HORZ_T11	M404	0.71	7.78	0.83	21.04	9.1%	Pass
TWR_RED_HORZ_T11	M409	0.686	7.78	0.76	21.04	8.8%	Pass
TWR_RED_HORZ_T11	M417	0.714	7.78	0.81	21.04	9.2%	Pass
TWR_RED_HORZ_T11	M422	0.677	7.78	0.76	21.04	8.7%	Pass
TWR_RED_HORZ_T12	M440	0.866	11.65	1.04	21.04	7.4%	Pass
TWR_RED_HORZ_T12	M445	0.864	11.65	1.02	21.04	7.4%	Pass
TWR_RED_HORZ_T12	M456	0.818	11.65	0.98	21.04	7.0%	Pass
TWR_RED_HORZ_T12	M461	0.89	11.65	1.08	21.04	7.6%	Pass
TWR_RED_HORZ_T12	M475	0.864	11.65	1.03	21.04	7.4%	Pass
TWR_RED_HORZ_T12	M480	0.875	11.65	1.02	21.04	7.5%	Pass
TWR_RED_HORZ_T12	M494	0.897	11.65	1.06	21.04	7.7%	Pass
TWR_RED_HORZ_T12	M499	0.833	11.65	0.97	21.04	7.2%	Pass
TWR_RED_HORZ_T13	M525	0.766	10.42	0.91	21.04	7.3%	Pass
TWR_RED_HORZ_T13	M530	0.771	10.42	0.91	21.04	7.4%	Pass
TWR_RED_HORZ_T13	M539	0.791	10.42	0.93	21.04	7.6%	Pass
TWR_RED_HORZ_T13	M544	0.76	10.42	0.92	21.04	7.3%	Pass
TWR_RED_HORZ_T13	M556	0.797	10.42	0.95	21.04	7.6%	Pass
TWR_RED_HORZ_T13	M561	0.774	10.42	0.94	21.04	7.4%	Pass
TWR_RED_HORZ_T13	M573	0.754	10.42	0.92	21.04	7.2%	Pass
TWR_RED_HORZ_T13	M578	0.803	10.42	0.94	21.04	7.7%	Pass
TWR_RED_HORZ_T14	M602	0.817	9.32	1.06	21.04	8.8%	Pass
TWR_RED_HORZ_T14	M607	0.838	9.32	1.04	21.04	9.0%	Pass
TWR_RED_HORZ_T14	M616	0.805	9.32	1.02	21.04	8.6%	Pass
TWR_RED_HORZ_T14	M621	0.82	9.32	1.08	21.04	8.8%	Pass
TWR_RED_HORZ_T14	M633	0.816	9.32	1.07	21.04	8.8%	Pass
TWR_RED_HORZ_T14	M638	0.838	9.32	1.02	21.04	9.0%	Pass
TWR_RED_HORZ_T14	M650	0.829	9.32	1.05	21.04	8.9%	Pass
TWR_RED_HORZ_T14	M655	0.825	9.32	1.01	21.04	8.9%	Pass
TWR_RED_HORZ_T15	M679	0.951	9.56	1.24	24.08	10.0%	Pass
TWR_RED_HORZ_T15	M684	0.955	9.56	1.21	24.08	10.0%	Pass
TWR_RED_HORZ_T15	M695	0.927	9.56	1.20	24.08	9.7%	Pass
TWR_RED_HORZ_T15	M700	0.945	9.56	1.25	24.08	9.9%	Pass
TWR_RED_HORZ_T15	M714	0.939	9.56	1.24	24.08	9.8%	Pass
TWR_RED_HORZ_T15	M719	0.964	9.56	1.21	24.08	10.1%	Pass
TWR_RED_HORZ_T15	M733	0.954	9.56	1.23	24.08	10.0%	Pass
TWR_RED_HORZ_T15	M738	0.943	9.56	1.19	24.08	9.9%	Pass
TWR_RED_HORZ_T16	M764	1.091	8.57	1.46	24.08	12.7%	Pass
TWR_RED_HORZ_T16	M769	1.056	8.57	1.41	24.08	12.3%	Pass
TWR_RED_HORZ_T16	M780	1.034	8.57	1.40	24.08	12.1%	Pass
TWR_RED_HORZ_T16	M785	1.06	8.57	1.48	24.08	12.4%	Pass
TWR_RED_HORZ_T16	M799	1.044	8.57	1.46	24.08	12.2%	Pass
TWR_RED_HORZ_T16	M804	1.07	8.57	1.45	24.08	12.5%	Pass
TWR_RED_HORZ_T16	M818	1.073	8.57	1.46	24.08	12.5%	Pass
TWR_RED_HORZ_T16	M823	1.047	8.57	1.38	24.08	12.2%	Pass
TWR_RED_HORZ_T17	M849	1.059	7.79	1.56	24.08	13.6%	Pass
TWR_RED_HORZ_T17	M854	1.127	7.79	1.51	24.08	14.5%	Pass
TWR_RED_HORZ_T17	M865	1.105	7.79	1.49	24.08	14.2%	Pass
TWR_RED_HORZ_T17	M870	1.045	7.79	1.56	24.08	13.4%	Pass
TWR_RED_HORZ_T17	M884	1.062	7.79	1.50	24.08	13.6%	Pass
TWR_RED_HORZ_T17	M889	1.109	7.79	1.59	24.08	14.2%	Pass
TWR_RED_HORZ_T17	M903	1.097	7.79	1.58	24.08	14.1%	Pass
TWR_RED_HORZ_T17	M908	1.059	7.79	1.46	24.08	13.6%	Pass
TWR_RED_HORZ_T18	M934	0.422	7.13	0.42	24.08	5.9%	Pass
TWR_RED_HORZ_T18	M939	0.417	7.13	0.42	24.08	5.9%	Pass
TWR_RED_HORZ_T18	M950	0.419	7.13	0.42	24.08	5.9%	Pass
TWR_RED_HORZ_T18	M955	0.416	7.13	0.42	24.08	5.8%	Pass
TWR_RED_HORZ_T18	M969	0.421	7.13	0.43	24.08	5.9%	Pass

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TWR_RED_HORZ_T18	M974	0.417	7.13	0.42	24.08	5.9%	Pass
TWR_RED_HORZ_T18	M988	0.415	7.13	0.42	24.08	5.8%	Pass
TWR_RED_HORZ_T18	M993	0.428	7.13	0.42	24.08	6.0%	Pass
TWR_RED_KICKER_2_T18	M1129	1.964	29.79	2.87	31.69	9.0%	Pass
TWR_RED_KICKER_2_T18	M1130	1.989	29.79	2.89	31.69	9.1%	Pass
TWR_RED_KICKER_2_T18	M1131	2.037	29.79	3.07	31.69	9.7%	Pass
TWR_RED_KICKER_2_T18	M1132	1.888	29.79	2.89	31.69	9.1%	Pass
TWR_RED_KICKER_2_T18	M1133	2.031	29.79	3.08	31.69	9.7%	Pass
TWR_RED_KICKER_2_T18	M1134	1.883	29.79	2.89	31.69	9.1%	Pass
TWR_RED_KICKER_2_T18	M1135	1.876	29.79	3.02	31.69	9.5%	Pass
TWR_RED_KICKER_2_T18	M1136	1.85	29.79	3.00	31.69	9.5%	Pass
TWR_RED_KICKER_2_T18	M1137	2.252	17.89	1.66	31.69	12.6%	Pass
TWR_RED_KICKER_2_T18	M1138	2.268	17.89	1.68	31.69	12.7%	Pass
TWR_RED_KICKER_2_T18	M1139	2.415	17.89	1.70	31.69	13.5%	Pass
TWR_RED_KICKER_2_T18	M1140	2.282	17.89	1.60	31.69	12.8%	Pass
TWR_RED_KICKER_2_T18	M1141	2.374	17.89	1.58	31.69	13.3%	Pass
TWR_RED_KICKER_2_T18	M1142	2.36	17.89	1.57	31.69	13.2%	Pass
TWR_RED_KICKER_2_T18	M1143	2.276	17.89	1.60	31.69	12.7%	Pass
TWR_RED_KICKER_2_T18	M1144	2.408	17.89	1.71	31.69	13.5%	Pass
TWR_RED_KICKER_2_T18	M1145	3.625	15.41	2.33	31.69	23.5%	Pass
TWR_RED_KICKER_2_T18	M1146	3.516	15.41	2.24	31.69	22.8%	Pass
TWR_RED_KICKER_2_T18	M1147	3.475	15.41	2.31	31.69	22.5%	Pass
TWR_RED_KICKER_2_T18	M1148	3.462	15.41	2.29	31.69	22.5%	Pass
TWR_RED_KICKER_2_T18	M1149	3.522	15.41	2.24	31.69	22.9%	Pass
TWR_RED_KICKER_2_T18	M1150	3.633	15.41	2.32	31.69	23.6%	Pass
TWR_RED_KICKER_2_T18	M1151	3.592	15.41	2.18	31.69	23.3%	Pass
TWR_RED_KICKER_2_T18	M1152	3.604	15.41	2.19	31.69	23.4%	Pass
TWR_RED_KICKER_2_T18	M1153	2.909	29.79	4.64	31.69	14.6%	Pass
TWR_RED_KICKER_2_T18	M1154	2.888	29.79	4.62	31.69	14.6%	Pass
TWR_RED_KICKER_2_T18	M1155	3.088	29.79	4.67	31.69	14.7%	Pass
TWR_RED_KICKER_2_T18	M1156	2.971	29.79	4.52	31.69	14.3%	Pass
TWR_RED_KICKER_2_T18	M1157	3.058	29.79	4.47	31.69	14.1%	Pass
TWR_RED_KICKER_2_T18	M1158	3.037	29.79	4.45	31.69	14.0%	Pass
TWR_RED_KICKER_2_T18	M1159	2.965	29.79	4.53	31.69	14.3%	Pass
TWR_RED_KICKER_2_T18	M1160	3.081	29.79	4.68	31.69	14.8%	Pass
TWR_RED_KICKER_2_T18	M1161	3.137	6.46	1.53	31.69	48.5%	Pass
TWR_RED_KICKER_2_T18	M1162	3.014	6.46	1.43	31.69	46.6%	Pass
TWR_RED_KICKER_2_T18	M1163	3.105	6.46	1.40	31.69	48.0%	Pass
TWR_RED_KICKER_2_T18	M1164	3.089	6.46	1.38	31.69	47.8%	Pass
TWR_RED_KICKER_2_T18	M1165	3.005	6.46	1.44	31.69	46.5%	Pass
TWR_RED_KICKER_2_T18	M1166	3.128	6.46	1.54	31.69	48.4%	Pass
TWR_RED_KICKER_2_T18	M1167	2.96	6.46	1.49	31.69	45.8%	Pass
TWR_RED_KICKER_2_T18	M1168	2.976	6.46	1.51	31.69	46.0%	Pass
TWR_RED_KICKER_2_T18	M1169	2.904	8.79	4.57	31.69	33.0%	Pass
TWR_RED_KICKER_2_T18	M1170	2.874	8.79	4.54	31.69	32.7%	Pass
TWR_RED_KICKER_2_T18	M1171	2.764	8.79	4.63	31.69	31.4%	Pass
TWR_RED_KICKER_2_T18	M1172	2.945	8.79	4.85	31.69	33.5%	Pass
TWR_RED_KICKER_2_T18	M1173	2.687	8.79	4.76	31.69	30.6%	Pass
TWR_RED_KICKER_2_T18	M1174	2.716	8.79	4.79	31.69	30.9%	Pass
TWR_RED_KICKER_2_T18	M1175	2.956	8.79	4.83	31.69	33.6%	Pass
TWR_RED_KICKER_2_T18	M1176	2.774	8.79	4.62	31.69	31.6%	Pass
TWR_RED_KICKER_T17	M1189	3.964	18.91	2.59	31.69	21.0%	Pass
TWR_RED_KICKER_T17	M1190	4.022	18.91	2.60	31.69	21.3%	Pass
TWR_RED_KICKER_T17	M1191	4.264	18.91	2.77	31.69	22.6%	Pass
TWR_RED_KICKER_T17	M1192	4.015	18.91	2.54	31.69	21.2%	Pass
TWR_RED_KICKER_T17	M1193	4.302	18.91	2.69	31.69	22.8%	Pass
TWR_RED_KICKER_T17	M1194	4.359	18.91	2.69	31.69	23.1%	Pass
TWR_RED_KICKER_T17	M1195	4.016	18.91	2.61	31.69	21.2%	Pass
TWR_RED_KICKER_T17	M1196	4.249	18.91	2.72	31.69	22.5%	Pass
TWR_RED_KICKER_T17	M1197	3.076	31.29	4.80	31.69	15.1%	Pass

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TWR_RED_KICKER_T17	M1198	2.938	31.29	4.50	31.69	14.2%	Pass
TWR_RED_KICKER_T17	M1199	2.919	31.29	4.45	31.69	14.0%	Pass
TWR_RED_KICKER_T17	M1200	2.931	31.29	4.52	31.69	14.3%	Pass
TWR_RED_KICKER_T17	M1201	3.133	31.29	4.81	31.69	15.2%	Pass
TWR_RED_KICKER_T17	M1202	2.862	31.29	4.49	31.69	14.2%	Pass
TWR_RED_KICKER_T17	M1203	3.057	31.29	4.85	31.69	15.3%	Pass
TWR_RED_KICKER_T17	M1204	3.058	31.29	4.92	31.69	15.5%	Pass
TWR_RED_KICKER_T17	M1205	3.527	16.30	2.18	31.69	21.6%	Pass
TWR_RED_KICKER_T17	M1206	3.547	16.30	2.21	31.69	21.8%	Pass
TWR_RED_KICKER_T17	M1207	3.606	16.30	2.36	31.69	22.1%	Pass
TWR_RED_KICKER_T17	M1208	3.438	16.30	2.22	31.69	21.1%	Pass
TWR_RED_KICKER_T17	M1209	3.429	16.30	2.31	31.69	21.0%	Pass
TWR_RED_KICKER_T17	M1210	3.408	16.30	2.29	31.69	20.9%	Pass
TWR_RED_KICKER_T17	M1211	3.439	16.30	2.22	31.69	21.1%	Pass
TWR_RED_KICKER_T17	M1212	3.606	16.30	2.36	31.69	22.1%	Pass
TWR_RED_KICKER_T17	M1213	3.027	31.29	4.50	31.69	14.2%	Pass
TWR_RED_KICKER_T17	M1214	2.844	31.29	4.28	31.69	13.5%	Pass
TWR_RED_KICKER_T17	M1215	2.799	31.29	4.39	31.69	13.9%	Pass
TWR_RED_KICKER_T17	M1216	2.828	31.29	4.42	31.69	13.9%	Pass
TWR_RED_KICKER_T17	M1217	3.028	31.29	4.50	31.69	14.2%	Pass
TWR_RED_KICKER_T17	M1218	2.844	31.29	4.28	31.69	13.5%	Pass
TWR_RED_KICKER_T17	M1219	2.961	31.29	4.27	31.69	13.5%	Pass
TWR_RED_KICKER_T17	M1220	2.931	31.29	4.24	31.69	13.4%	Pass
TWR_RED_KICKER_T17	M1221	2.786	7.09	1.44	31.69	39.3%	Pass
TWR_RED_KICKER_T17	M1222	2.811	7.09	1.47	31.69	39.7%	Pass
TWR_RED_KICKER_T17	M1223	2.986	7.09	1.49	31.69	42.1%	Pass
TWR_RED_KICKER_T17	M1224	2.834	7.09	1.36	31.69	40.0%	Pass
TWR_RED_KICKER_T17	M1225	2.955	7.09	1.34	31.69	41.7%	Pass
TWR_RED_KICKER_T17	M1226	2.939	7.09	1.32	31.69	41.5%	Pass
TWR_RED_KICKER_T17	M1227	2.827	7.09	1.36	31.69	39.9%	Pass
TWR_RED_KICKER_T17	M1228	2.989	7.09	1.50	31.69	42.2%	Pass
TWR_RED_KICKER_T17	M1229	2.795	9.93	4.56	31.69	28.1%	Pass
TWR_RED_KICKER_T17	M1230	2.571	9.93	4.28	31.69	25.9%	Pass
TWR_RED_KICKER_T17	M1231	2.749	9.93	4.26	31.69	27.7%	Pass
TWR_RED_KICKER_T17	M1232	2.709	9.93	4.22	31.69	27.3%	Pass
TWR_RED_KICKER_T17	M1233	2.575	9.93	4.30	31.69	25.9%	Pass
TWR_RED_KICKER_T17	M1234	2.788	9.93	4.55	31.69	28.1%	Pass
TWR_RED_KICKER_T17	M1235	2.501	9.93	4.47	31.69	25.2%	Pass
TWR_RED_KICKER_T17	M1236	2.53	9.93	4.50	31.69	25.5%	Pass
TWR_RED_KICKER_T18	M1017	2.022	7.32	2.97	31.69	27.6%	Pass
TWR_RED_KICKER_T18	M1018	1.998	7.32	3.01	31.69	27.3%	Pass
TWR_RED_KICKER_T18	M1019	2.001	7.32	3.06	31.69	27.4%	Pass
TWR_RED_KICKER_T18	M1020	2.077	7.32	2.98	31.69	28.4%	Pass
TWR_RED_KICKER_T18	M1021	2.21	7.32	3.22	31.69	30.2%	Pass
TWR_RED_KICKER_T18	M1022	2.229	7.32	3.19	31.69	30.5%	Pass
TWR_RED_KICKER_T18	M1023	2.223	7.32	3.25	31.69	30.4%	Pass
TWR_RED_KICKER_T18	M1024	2.268	7.32	3.21	31.69	31.0%	Pass
TWR_RED_KICKER_T18	M1025	0.22	28.27	0.09	31.69	0.8%	Pass
TWR_RED_KICKER_T18	M1026	0.222	28.27	0.09	31.69	0.8%	Pass
TWR_RED_KICKER_T18	M1027	0.207	28.27	0.08	31.69	0.7%	Pass
TWR_RED_KICKER_T18	M1028	0.209	28.27	0.08	31.69	0.7%	Pass
TWR_RED_KICKER_T18	M1029	0.212	28.27	0.08	31.69	0.8%	Pass
TWR_RED_KICKER_T18	M1030	0.208	28.27	0.08	31.69	0.7%	Pass
TWR_RED_KICKER_T18	M1031	0.22	28.27	0.09	31.69	0.8%	Pass
TWR_RED_KICKER_T18	M1032	0.218	28.27	0.09	31.69	0.8%	Pass
TWR_RED_SUBDIA_2_T14	M612	28.795	58.60	26.76	116.23	49.1%	Pass
TWR_RED_SUBDIA_2_T14	M613	29.099	58.60	26.53	116.23	49.7%	Pass
TWR_RED_SUBDIA_2_T14	M629	29.761	58.60	26.62	116.23	50.8%	Pass
TWR_RED_SUBDIA_2_T14	M630	28.858	58.60	27.39	116.23	49.2%	Pass
TWR_RED_SUBDIA_2_T14	M646	32.064	58.60	29.50	116.23	54.7%	Pass

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TWR_RED_SUBDIA_2_T14	M647	31.761	58.60	29.72	116.23	54.2%	Pass
TWR_RED_SUBDIA_2_T14	M666	31.911	58.60	29.64	116.23	54.5%	Pass
TWR_RED_SUBDIA_2_T14	M667	32.006	58.60	29.67	116.23	54.6%	Pass
TWR_RED_SUBDIA_T15	M689	41.895	99.16	40.29	216.14	42.3%	Pass
TWR_RED_SUBDIA_T15	M690	42.424	99.16	39.89	216.14	42.8%	Pass
TWR_RED_SUBDIA_T15	M708	43.435	99.16	39.97	216.14	43.8%	Pass
TWR_RED_SUBDIA_T15	M709	41.952	99.16	41.28	216.14	42.3%	Pass
TWR_RED_SUBDIA_T15	M727	46.753	99.16	44.22	216.14	47.2%	Pass
TWR_RED_SUBDIA_T15	M728	46.225	99.16	44.62	216.14	46.6%	Pass
TWR_RED_SUBDIA_T15	M749	46.774	99.16	44.52	216.14	47.2%	Pass
TWR_RED_SUBDIA_T15	M750	46.672	99.16	44.79	216.14	47.1%	Pass
TWR_RED_SUBDIA_T16	M774	44.71	209.62	42.62	323.40	21.3%	Pass
TWR_RED_SUBDIA_T16	M775	45.34	209.62	42.15	323.40	21.6%	Pass
TWR_RED_SUBDIA_T16	M793	46.417	209.62	42.22	323.40	22.1%	Pass
TWR_RED_SUBDIA_T16	M794	44.771	209.62	43.69	323.40	21.4%	Pass
TWR_RED_SUBDIA_T16	M812	49.737	209.62	46.55	323.40	23.7%	Pass
TWR_RED_SUBDIA_T16	M813	49.109	209.62	47.02	323.40	23.4%	Pass
TWR_RED_SUBDIA_T16	M834	49.954	209.62	46.93	323.40	23.8%	Pass
TWR_RED_SUBDIA_T16	M835	49.658	209.62	47.40	323.40	23.7%	Pass
TWR_RED_SUBDIA_T18	M944	48.587	189.27	45.74	214.11	25.7%	Pass
TWR_RED_SUBDIA_T18	M945	49.228	189.27	45.27	214.11	26.0%	Pass
TWR_RED_SUBDIA_T18	M963	50.354	189.27	45.34	214.11	26.6%	Pass
TWR_RED_SUBDIA_T18	M964	48.767	189.27	46.80	214.11	25.8%	Pass
TWR_RED_SUBDIA_T18	M982	53.24	189.27	49.36	214.11	28.1%	Pass
TWR_RED_SUBDIA_T18	M983	52.684	189.27	49.75	214.11	27.8%	Pass
TWR_RED_SUBDIA_T18	M1004	53.912	189.27	49.64	214.11	28.5%	Pass
TWR_RED_SUBDIA_T18	M1005	53.198	189.27	50.48	214.11	28.1%	Pass
TWR_RED_SUBHOR_T9	M266	7.736	26.68	3.45	63.37	29.0%	Pass
TWR_RED_SUBHOR_T9	M278	7.711	26.68	3.35	63.37	28.9%	Pass
TWR_RED_SUBHOR_T9	M291	7.974	26.68	3.27	63.37	29.9%	Pass
TWR_RED_SUBHOR_T9	M304	7.842	26.68	3.25	63.37	29.4%	Pass
TWR_RED_SUBHOR_T10	M327	6.484	21.19	2.96	63.37	30.6%	Pass
TWR_RED_SUBHOR_T10	M339	6.434	21.19	2.90	63.37	30.4%	Pass
TWR_RED_SUBHOR_T10	M352	6.655	21.19	2.83	63.37	31.4%	Pass
TWR_RED_SUBHOR_T10	M365	6.573	21.19	2.79	63.37	31.0%	Pass
TWR_RED_SUBHOR_T11	M388	7.85	18.22	3.49	71.53	43.1%	Pass
TWR_RED_SUBHOR_T11	M400	7.813	18.22	3.40	71.53	42.9%	Pass
TWR_RED_SUBHOR_T11	M413	8.07	18.22	3.32	71.53	44.3%	Pass
TWR_RED_SUBHOR_T11	M426	7.957	18.22	3.29	71.53	43.7%	Pass
TWR_RED_SUBHOR_T12	M449	21.191	81.49	15.96	79.52	26.0%	Pass
TWR_RED_SUBHOR_T12	M465	21.447	81.49	16.15	79.52	26.3%	Pass
TWR_RED_SUBHOR_T12	M484	23.587	81.49	17.29	79.52	28.9%	Pass
TWR_RED_SUBHOR_T12	M503	23.598	81.49	17.28	79.52	29.0%	Pass
TWR_RED_SUBHOR_T13	M534	28.441	113.49	18.83	165.17	25.1%	Pass
TWR_RED_SUBHOR_T13	M548	28.75	113.49	19.06	165.17	25.3%	Pass
TWR_RED_SUBHOR_T13	M565	31.318	113.49	20.28	165.17	27.6%	Pass
TWR_RED_SUBHOR_T13	M582	31.315	113.49	20.29	165.17	27.6%	Pass
TWR_RED_SUBHOR_T14	M611	31.677	97.44	21.94	165.17	32.5%	Pass
TWR_RED_SUBHOR_T14	M625	32.271	97.44	22.20	165.17	33.1%	Pass
TWR_RED_SUBHOR_T14	M642	34.889	97.44	23.45	165.17	35.8%	Pass
TWR_RED_SUBHOR_T14	M659	34.844	97.44	23.49	165.17	35.8%	Pass
TWR_RED_SUBHOR_T15	M688	14.896	33.85	9.03	87.68	44.0%	Pass
TWR_RED_SUBHOR_T15	M704	14.807	33.85	8.90	87.68	43.7%	Pass
TWR_RED_SUBHOR_T15	M723	15.255	33.85	8.76	87.68	45.1%	Pass
TWR_RED_SUBHOR_T15	M742	15.124	33.85	8.67	87.68	44.7%	Pass
TWR_RED_SUBHOR_T16	M773	14.297	29.25	8.52	87.68	48.9%	Pass
TWR_RED_SUBHOR_T16	M789	14.182	29.25	8.42	87.68	48.5%	Pass
TWR_RED_SUBHOR_T16	M808	14.599	29.25	8.29	87.68	49.9%	Pass
TWR_RED_SUBHOR_T16	M827	14.506	29.25	8.18	87.68	49.6%	Pass
TWR_RED_SUBHOR_T17	M858	15.344	26.53	9.18	95.84	57.8%	Pass

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TWR_RED_SUBHOR_T17	M874	15.19	26.53	9.09	95.84	57.3%	Pass
TWR_RED_SUBHOR_T17	M893	15.545	26.53	9.02	95.84	58.6%	Pass
TWR_RED_SUBHOR_T17	M912	15.474	26.53	8.88	95.84	58.3%	Pass
TWR_RED_VERT_T1	M1689	0.217	10.00	0.00	24.08	2.2%	Pass
TWR_RED_VERT_T1	M1690	0.217	10.00	0.00	24.08	2.2%	Pass
TWR_RED_VERT_T1	M1691	0.216	10.00	0.00	24.08	2.2%	Pass
TWR_RED_VERT_T1	M1692	0.216	10.00	0.00	24.08	2.2%	Pass
TWR_RED_VERT_T2	M1685	0.257	9.81	0.00	24.08	2.6%	Pass
TWR_RED_VERT_T2	M1686	0.257	9.81	0.00	24.08	2.6%	Pass
TWR_RED_VERT_T2	M1687	0.257	9.81	0.00	24.08	2.6%	Pass
TWR_RED_VERT_T2	M1688	0.257	9.81	0.00	24.08	2.6%	Pass
TWR_RED_VERT_T3	M1681	0.433	9.66	0.00	24.08	4.5%	Pass
TWR_RED_VERT_T3	M1682	0.433	9.66	0.00	24.08	4.5%	Pass
TWR_RED_VERT_T3	M1683	0.433	9.66	0.00	24.08	4.5%	Pass
TWR_RED_VERT_T3	M1684	0.433	9.66	0.00	24.08	4.5%	Pass
TWR_RED_VERT_T11	M1693	0.324	7.34	0.00	31.69	4.4%	Pass
TWR_RED_VERT_T11	M1694	0.322	7.34	0.00	31.69	4.4%	Pass
TWR_RED_VERT_T11	M1695	0.324	7.34	0.00	31.69	4.4%	Pass
TWR_RED_VERT_T11	M1696	0.322	7.34	0.00	31.69	4.4%	Pass
TWR_RED_VERT_T11	M1697	0.325	7.34	0.00	31.69	4.4%	Pass
TWR_RED_VERT_T11	M1698	0.324	7.34	0.00	31.69	4.4%	Pass
TWR_RED_VERT_T11	M1699	0.323	7.34	0.00	31.69	4.4%	Pass
TWR_RED_VERT_T11	M1700	0.325	7.34	0.00	31.69	4.4%	Pass
TWR_RED_VERT_T12	M452	0	12.95	0.30	39.78	0.7%	Pass
TWR_RED_VERT_T12	M453	0	12.95	0.30	39.78	0.7%	Pass
TWR_RED_VERT_T12	M471	0	12.95	0.30	39.78	0.7%	Pass
TWR_RED_VERT_T12	M472	0	12.95	0.30	39.78	0.7%	Pass
TWR_RED_VERT_T12	M490	0	12.95	0.30	39.78	0.7%	Pass
TWR_RED_VERT_T12	M491	0	12.95	0.30	39.78	0.7%	Pass
TWR_RED_VERT_T12	M512	0	12.95	0.30	39.78	0.7%	Pass
TWR_RED_VERT_T12	M513	0	12.95	0.30	39.78	0.7%	Pass
TWR_RED_VERT_T15	M691	0.94	7.87	0.00	31.69	11.9%	Pass
TWR_RED_VERT_T15	M692	0.942	7.87	0.00	31.69	12.0%	Pass
TWR_RED_VERT_T15	M710	0.943	7.87	0.00	31.69	12.0%	Pass
TWR_RED_VERT_T15	M711	0.94	7.87	0.00	31.69	11.9%	Pass
TWR_RED_VERT_T15	M729	0.945	7.87	0.00	31.69	12.0%	Pass
TWR_RED_VERT_T15	M730	0.943	7.87	0.00	31.69	12.0%	Pass
TWR_RED_VERT_T15	M751	0.942	7.87	0.00	31.69	12.0%	Pass
TWR_RED_VERT_T15	M752	0.945	7.87	0.00	31.69	12.0%	Pass
TWR_RED_VERT_T15	M1369	0	7.87	0.53	31.69	1.7%	Pass
TWR_RED_VERT_T15	M1370	0	7.87	0.53	31.69	1.7%	Pass
TWR_RED_VERT_T15	M1371	0	7.87	0.53	31.69	1.7%	Pass
TWR_RED_VERT_T15	M1372	0	7.87	0.53	31.69	1.7%	Pass
TWR_RED_VERT_T16	M776	1.008	7.87	0.00	31.69	12.8%	Pass
TWR_RED_VERT_T16	M777	1.011	7.87	0.00	31.69	12.8%	Pass
TWR_RED_VERT_T16	M795	1.012	7.87	0.00	31.69	12.9%	Pass
TWR_RED_VERT_T16	M796	1.008	7.87	0.00	31.69	12.8%	Pass
TWR_RED_VERT_T16	M814	1.015	7.87	0.00	31.69	12.9%	Pass
TWR_RED_VERT_T16	M815	1.012	7.87	0.00	31.69	12.9%	Pass
TWR_RED_VERT_T16	M836	1.012	7.87	0.00	31.69	12.9%	Pass
TWR_RED_VERT_T16	M837	1.015	7.87	0.00	31.69	12.9%	Pass
TWR_RED_VERT_T16	M1305	0	7.87	0.54	31.69	1.7%	Pass
TWR_RED_VERT_T16	M1306	0	7.87	0.54	31.69	1.7%	Pass
TWR_RED_VERT_T16	M1307	0	7.87	0.54	31.69	1.7%	Pass
TWR_RED_VERT_T16	M1308	0	7.87	0.54	31.69	1.7%	Pass
TWR_RED_VERT_T17	M861	1.071	7.87	0.00	31.69	13.6%	Pass
TWR_RED_VERT_T17	M862	1.073	7.87	0.00	31.69	13.6%	Pass
TWR_RED_VERT_T17	M880	1.074	7.87	0.00	31.69	13.6%	Pass
TWR_RED_VERT_T17	M881	1.071	7.87	0.00	31.69	13.6%	Pass
TWR_RED_VERT_T17	M899	1.076	7.87	0.00	31.69	13.7%	Pass

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Section Set	Member	Comp. (K)	$\Phi P_{n,Comp}$ (K)	Ten (K)	$\Phi P_{n,Ten}$ (K)	Capacity	Pass/Fail
TWR_RED_VERT_T17	M900	1.074	7.87	0.00	31.69	13.6%	Pass
TWR_RED_VERT_T17	M921	1.074	7.87	0.00	31.69	13.6%	Pass
TWR_RED_VERT_T17	M922	1.076	7.87	0.00	31.69	13.7%	Pass
TWR_RED_VERT_T17	M1177	0	7.87	0.59	31.69	1.8%	Pass
TWR_RED_VERT_T17	M1178	0	7.87	0.59	31.69	1.8%	Pass
TWR_RED_VERT_T17	M1179	0	7.87	0.59	31.69	1.8%	Pass
TWR_RED_VERT_T17	M1180	0	7.87	0.59	31.69	1.8%	Pass
TWR_RED_VERT_T18	M946	2.265	7.87	0.34	31.69	28.8%	Pass
TWR_RED_VERT_T18	M947	2.28	7.87	0.32	31.69	29.0%	Pass
TWR_RED_VERT_T18	M965	2.307	7.87	0.33	31.69	29.3%	Pass
TWR_RED_VERT_T18	M966	2.269	7.87	0.36	31.69	28.8%	Pass
TWR_RED_VERT_T18	M984	2.379	7.87	0.42	31.69	30.2%	Pass
TWR_RED_VERT_T18	M985	2.366	7.87	0.43	31.69	30.1%	Pass
TWR_RED_VERT_T18	M1006	2.395	7.87	0.43	31.69	30.4%	Pass
TWR_RED_VERT_T18	M1007	2.378	7.87	0.45	31.69	30.2%	Pass
TWR_RED_VERT_T18	M1013	0	19.15	0.19	31.69	0.6%	Pass
TWR_RED_VERT_T18	M1014	0	19.15	0.19	31.69	0.6%	Pass
TWR_RED_VERT_T18	M1015	0	19.15	0.19	31.69	0.6%	Pass
TWR_RED_VERT_T18	M1016	0	19.15	0.19	31.69	0.6%	Pass
TWR_STEP_T1	M17	1.441	15.55	1.22	35.60	9.3%	Pass
TWR_STEP_T1	M18	1.468	15.55	1.24	35.60	9.4%	Pass
TWR_STEP_T1	M19	1.336	15.55	1.14	35.60	8.6%	Pass
TWR_STEP_T1	M20	1.307	15.55	1.12	35.60	8.4%	Pass
TWR_STEP_T2	M37	0.189	12.70	0.17	35.60	1.5%	Pass
TWR_STEP_T2	M38	0.234	12.70	0.22	35.60	1.8%	Pass
TWR_STEP_T2	M39	0.311	12.70	0.27	35.60	2.4%	Pass
TWR_STEP_T2	M40	0.29	12.70	0.26	35.60	2.3%	Pass
TWR_STEP_T3	M62	0.14	10.59	0.15	35.60	1.3%	Pass
TWR_STEP_T3	M63	0.183	10.59	0.20	35.60	1.7%	Pass
TWR_STEP_T3	M64	0.234	10.59	0.23	35.60	2.2%	Pass
TWR_STEP_T3	M65	0.231	10.59	0.23	35.60	2.2%	Pass
TWR_INNER_CORNER_T13	M1502	0	14.37	0.00	35.60	0.0%	Pass
TWR_INNER_CORNER_T13	M1503	0	14.37	0.00	35.60	0.0%	Pass
TWR_INNER_CORNER_T13	M1505	0	14.37	0.00	35.60	0.0%	Pass
TWR_INNER_CORNER_T13	M1508	0	14.37	0.00	35.60	0.0%	Pass
TWR_INNER_CORNER_T13	M1509	0	7.19	0.00	35.60	0.0%	Pass
TWR_INNER_CORNER_T13	M1510	0	7.19	0.00	35.60	0.0%	Pass
TWR_INNER_CORNER_T13	M1511	0	7.19	0.00	35.60	0.0%	Pass
TWR_INNER_CORNER_T13	M1512	0	7.19	0.00	35.60	0.0%	Pass
TWR_INNER_CORNER_T14	M1462	0	12.80	0.00	30.21	0.0%	Pass
TWR_INNER_CORNER_T14	M1464	0	12.80	0.00	30.21	0.0%	Pass
TWR_INNER_CORNER_T14	M1465	0	12.80	0.00	30.21	0.0%	Pass
TWR_INNER_CORNER_T14	M1467	0	12.80	0.00	30.21	0.0%	Pass
TWR_INNER_CORNER_T14	M1469	0	6.40	0.00	30.21	0.0%	Pass
TWR_INNER_CORNER_T14	M1470	0	6.40	0.00	30.21	0.0%	Pass
TWR_INNER_CORNER_T14	M1471	0	6.40	0.00	30.21	0.0%	Pass
TWR_INNER_CORNER_T14	M1472	0	6.40	0.00	30.21	0.0%	Pass
TWR_INNER_SUPP_T3	M53	0	4.65	0.00	42.15	0.0%	Pass
TWR_INNER_SUPP_T4	M102	0	3.71	0.00	42.15	0.0%	Pass
TWR_INNER_SUPP_T5	M139	0	5.70	0.00	48.02	0.0%	Pass
TWR_INNER_SUPP_T6	M176	0	4.74	0.00	48.02	0.0%	Pass
TWR_INNER_SUPP_T7	M213	0	4.01	0.00	48.02	0.0%	Pass
TWR_INNER_SUPP_T8	M250	0	3.43	0.00	48.02	0.0%	Pass
TWR_INNER_SUPP_T9	M311	0	3.84	0.00	63.37	0.0%	Pass
TWR_INNER_SUPP_T10	M372	0	4.94	0.00	71.53	0.0%	Pass
TWR_INNER_SUPP_T11	M433	0	3.92	0.00	71.53	0.0%	Pass
TWR_INNER_SUPP_T12	M518	0	0.67	0.00	39.78	0.0%	Pass
TWR_INNER_SUPP_T13	M595	0	3.05	0.00	96.00	0.0%	Pass
TWR_INNER_SUPP_T14	M672	0	0.76	0.00	48.00	0.0%	Pass
TWR_INNER_SUPP_T15	M757	0	1.21	0.00	71.53	0.0%	Pass

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Section Set	Member	Comp. (K)	$\Phi P_{n,Comp}$ (K)	Ten (K)	$\Phi P_{n,Ten}$ (K)	Capacity	Pass/Fail
TWR_INNER_SUPP_T16	M842	0	1.04	0.00	71.53	0.0%	Pass
TWR_INNER_SUPP_T17	M927	0	0.91	0.00	71.53	0.0%	Pass
TWR_INNER_SUPP_T18	M1012	0	1.01	0.00	97.98	0.0%	Pass
TWR_RED_HIPDIA_T12	M468	0	17.41	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T12	M487	0	17.41	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T12	M506	0	17.41	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T12	M509	0	17.41	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T13	M551	0	15.77	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T13	M568	0	15.77	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T13	M585	0	15.77	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T13	M588	0	15.77	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T14	M628	0	14.32	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T14	M645	0	14.32	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T14	M662	0	14.32	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T14	M665	0	14.32	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T15	M707	0	9.68	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T15	M726	0	9.68	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T15	M745	0	9.68	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T15	M748	0	9.68	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T16	M792	0	8.71	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T16	M811	0	8.71	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T16	M830	0	8.71	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T16	M833	0	8.71	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T17	M877	0	7.87	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T17	M896	0	7.87	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T17	M915	0	7.87	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T17	M918	0	7.87	0.00	63.37	0.0%	Pass
TWR_RED_HIPDIA_T18	M962	0	1.40	0.00	31.69	0.0%	Pass
TWR_RED_HIPDIA_T18	M981	0	1.40	0.00	31.69	0.0%	Pass
TWR_RED_HIPDIA_T18	M1000	0	1.40	0.00	31.69	0.0%	Pass
TWR_RED_HIPDIA_T18	M1003	0	1.40	0.00	31.69	0.0%	Pass

TIA-222-H Code Bolt Checks
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Section #	Elevation (Ft.)	Section Set	Member	Bolt Grade	Bolt Size (in)	# of Bolts	Comp. (K)	Ten. (K)	Maximum Load (K)	Allowable Load (K)	% Capacity
T1	350	TWR_TOP_GIRT_T1	C7X9.8	A307	0.75	2	0.115	0.084	0.115	49.720	0.2%
T1	350	TWR_DIAG_T1	L3 1/2x3 1/2x5/16	A307	0.75	5	5.232	4.122	5.232	62.150	8.4%
T1	350	TWR_STEP_T1	L3x2 1/2x1/4	A307	0.75	2	1.468	1.242	1.468	24.860	5.9%
T1	350	TWR_RED_VERT_T1	L2 1/2x2 1/2x3/16	A307	0.75	2	0.217	0	0.217	16.998	1.3%
T2	337.5	TWR_LEG_T2	L6x6x5/8	A307	0.75	12	19.984	8.209	19.984	149.100	13.4%
T2	337.5	TWR_HORZ_T2	C7X9.8	A307	0.75	4	0.176	1.34	1.340	49.720	2.7%
T2	337.5	TWR_DIAG_T2	L3 1/2x3 1/2x5/16	A307	0.75	5	6.495	5.28	6.495	62.150	10.5%
T2	337.5	TWR_STEP_T2	L3x2 1/2x1/4	A307	0.75	2	0.311	0.27	0.311	22.300	1.4%
T2	337.5	TWR_RED_VERT_T2	L2 1/2x2 1/2x3/16	A307	0.75	2	0.257	0	0.257	16.998	1.5%
T3	325	TWR_HORZ_T3	2L2 1/2x2 1/2x1/4x1/2	A307	0.75	3	0.737	1.603	1.603	59.820	2.7%
T3	325	TWR_INNER_SUPP_T3	2L2x2 1/2x3/16x3/8	A307	0.75	2	0.165	0.144	0.165	29.918	0.6%
T3	325	TWR_INNER_SQ_T3	L3x2 1/2x1/4	A307	0.75	2	0.077	0.39	0.390	24.023	1.6%
T3	325	TWR_INNER_CORNER_T3	L2 1/2x2 1/2x3/16	A307	0.75	2	0	0.508	0.508	16.998	3.0%
T3	325	TWR_DIAG_T3	L3 1/2x4x5/16	A307	0.75	5	7.452	6.211	7.452	62.150	12.0%
T3	325	TWR_STEP_T3	L3x2 1/2x1/4	A307	0.75	2	0.234	0.232	0.234	22.300	1.0%
T3	325	TWR_RED_VERT_T3	L2 1/2x2 1/2x3/16	A307	0.75	2	0.433	0	0.433	16.998	2.5%
T4	312.5	TWR_LEG_T4	L6x6x7/8	A307	0.75	16	40.746	22.956	40.746	198.800	20.5%
T4	312.5	TWR_HORZ_T4	2L3x2 1/2x1/4x3/8	A307	0.75	3	5.577	5.679	5.679	62.520	9.1%
T4	312.5	TWR_DIAG_T4	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	10.044	9.518	10.044	41.860	24.0%
T4	312.5	TWR_RED_HORZ_T4	L2 1/2x2x3/16	A307	0.75	2	0.357	0.44	0.440	16.998	2.6%
T4	312.5	TWR_RED_DIAG_T4	L2 1/2x2x3/16	A307	0.75	2	0.313	0.377	0.377	16.998	2.2%
T4	312.5	TWR_INNER_SUPP_T4	2L2x2 1/2x3/16x3/8	A307	0.75	2	0.522	0.477	0.522	29.918	1.7%
T4	312.5	TWR_INNER_SQ_T4	L3x2 1/2x1/4	A307	0.75	2	0.351	1.055	1.055	24.023	4.4%
T4	312.5	TWR_INNER_CORNER_T4	L2 1/2x2 1/2x3/16	A307	0.75	2	0	1.114	1.114	16.998	6.6%
T5	300	TWR_HORZ_T5	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	3	6.754	5.999	6.754	59.820	11.3%
T5	300	TWR_DIAG_T5	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	10.708	10.238	10.708	41.860	25.6%
T5	300	TWR_RED_HORZ_T5	L2 1/2x2 1/2x3/16	A307	0.75	2	0.415	0.519	0.519	16.998	3.1%
T5	300	TWR_RED_DIAG_T5	L2 1/2x2 1/2x3/16	A307	0.75	2	0.347	0.41	0.410	16.998	2.4%
T5	300	TWR_INNER_SUPP_T5	2L2 1/2x2 1/2x3/16	A307	0.75	2	0.577	0.528	0.577	33.996	1.7%
T5	300	TWR_INNER_SQ_T5	2L2x2 1/2x1/4x3/8	A307	0.75	2	0.387	1.162	1.162	39.891	2.9%
T5	300	TWR_INNER_CORNER_T5	L2 1/2x2 1/2x3/16	A307	0.75	2	0	1.165	1.165	16.998	6.9%
T6	287.5	TWR_LEG_T6	L6x6x7/8	A307	0.75	20	66.434	42.868	66.434	248.500	26.7%
T6	287.5	TWR_HORZ_T6	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	3	7.462	6.694	7.462	59.820	12.5%
T6	287.5	TWR_DIAG_T6	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	11.428	10.831	11.428	41.860	27.3%
T6	287.5	TWR_RED_HORZ_T6	L2 1/2x2 1/2x3/16	A307	0.75	2	0.478	0.579	0.579	16.998	3.4%
T6	287.5	TWR_RED_DIAG_T6	L2 1/2x2 1/2x3/16	A307	0.75	2	0.366	0.446	0.446	16.998	2.6%
T6	287.5	TWR_INNER_SUPP_T6	2L2 1/2x2 1/2x3/16	A307	0.75	2	0.646	0.592	0.646	33.996	1.9%
T6	287.5	TWR_INNER_SQ_T6	2L2x2 1/2x1/4x3/8	A307	0.75	2	0.435	1.305	1.305	39.891	3.3%
T6	287.5	TWR_INNER_CORNER_T6	L2 1/2x2 1/2x3/16	A307	0.75	2	0	1.309	1.309	16.998	7.7%
T7	275	TWR_HORZ_T7	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	3	8.461	7.541	8.461	59.820	14.1%
T7	275	TWR_DIAG_T7	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	12.266	11.859	12.266	41.860	29.3%
T7	275	TWR_RED_HORZ_T7	L2 1/2x2 1/2x3/16	A307	0.75	2	0.755	0.934	0.934	16.998	5.5%
T7	275	TWR_RED_DIAG_T7	L2 1/2x2 1/2x3/16	A325	0.75	2	0.552	0.67	0.670	16.998	3.9%
T7	275	TWR_INNER_SUPP_T7	2L2 1/2x2 1/2x3/16	A307	0.75	2	0.716	0.687	0.716	33.996	2.1%
T7	275	TWR_INNER_SUPP_2_T7	L3X3X4	A325	0.75	2	0.259	0.191	0.259	24.023	1.1%
T7	275	TWR_INNER_SQ_T7	2L2x2 1/2x1/4x3/8	A307	0.75	2	0.624	1.376	1.376	39.891	3.4%
T7	275	TWR_INNER_CORNER_T7	L2 1/2x2 1/2x3/16	A307	0.75	2	0	1.501	1.501	16.998	8.8%
T8	262.5	TWR_LEG_T8	L8x8x3/4	A307	0.75	24	96.118	63.274	96.118	298.200	32.2%
T8	262.5	TWR_HORZ_T8	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	3	10.293	9.1	10.293	59.820	17.2%
T8	262.5	TWR_DIAG_T8	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	14.445	13.884	14.445	41.860	34.5%
T8	262.5	TWR_RED_HORZ_T8	L2 1/2x2 1/2x3/16	A307	0.75	2	0.916	1.007	1.007	16.998	5.9%
T8	262.5	TWR_RED_DIAG_T8	L2 1/2x2 1/2x3/16	A325	0.75	2	0.571	0.776	0.776	16.998	4.6%
T8	262.5	TWR_INNER_SUPP_T8	2L2 1/2x2 1/2x3/16	A307	0.75	2	0.863	0.832	0.863	33.996	2.5%
T8	262.5	TWR_INNER_SUPP_2_T8	L3X3X4	A325	0.75	2	0.287	0.225	0.287	24.023	1.2%
T8	262.5	TWR_INNER_SQ_T8	2L2x2 1/2x1/4x3/8	A307	0.75	2	0.745	1.666	1.666	39.891	4.2%
T8	262.5	TWR_INNER_CORNER_T8	L2 1/2x2 1/2x3/16	A307	0.75	2	0	1.791	1.791	16.998	10.5%
T9	250	TWR_LEG_T9	L8x8x7/8	A307	0.75	24	104.71	71.041	104.710	298.200	35.1%
T9	250	TWR_HORZ_T9	2L3x2 1/2x1/4x3/8	A307	0.75	3	11.432	11.778	11.778	62.520	18.8%
T9	250	TWR_DIAG_T9	LL 2.5x3x5/16 w LL 3x3x3/8	A325N	0.75	3	27.97	24.08	27.970	59.640	46.9%
T9	250	TWR_RED_HORZ_T9	L2 1/2x2x3/16	A307	0.75	2	0.516	0.646	0.646	16.998	3.8%
T9	250	TWR_RED_HORZ_2_T9	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	0.889	0.559	0.889	45.328	2.0%
T9	250	TWR_RED_DIAG_T9	L3x3x3/16_HRA	A307	0.75	2	0.568	0.798	0.798	18.018	4.4%
T9	250	TWR_RED_DIAG_2_T9	2L2 1/2x2x3/16x3/8	A307	0.75	2	6.744	3.687	6.744	33.996	19.8%
T9	250	TWR_RED_SUBHOR_T9	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	7.974	3.453	7.974	45.328	17.6%
T9	250	TWR_RED_HIP_2_T9	L3 1/2x3 1/2x3/8	A307	0.75	2	0	0.151	0.151	24.850	0.6%
T9	250	TWR_RED_HIPDIA_T9	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	0.378	0	0.378	45.328	0.8%
T9	250	TWR_INNER_SUPP_T9	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	1.748	1.711	1.748	45.328	3.9%
T9	250	TWR_INNER_SQ_T9	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	1.356	3.542	3.542	45.328	7.8%
T9	250	TWR_INNER_CORNER_T9	L2 1/2x2 1/2x1/4	A307	0.75	2	0	3.856	3.856	22.664	17.0%
T9	250	TWR_INNER_BRACE_T9	L2 1/2x2 1/2x3/16	A307	0.75	2	0.002	0	0.002	16.998	0.0%
T10	225	TWR_LEG_T10	L8X8X16	A307	0.75	28	142.64	96.208	142.640	347.900	41.0%
T10	225	TWR_HORZ_T10	2L3x2 1/2x1/4x3/8	A307	0.75	3	13.427	14.489	14.489	62.520	23.2%
T10	225	TWR_RED_HORZ_T10	L2 1/2x2x3/16	A307	0.75	2	0.646	0.748	0.748	16.998	4.4%
T10	225	TWR_RED_HORZ_2_T10	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	0.736	0.56	0.736	45.328	1.6%
T10	225	TWR_RED_DIAG_T10	L3x3x3/16_HRA	A307	0.75	2	0.666	0.749	0.749	24.023	3.1%
T10	225	TWR_RED_DIAG_2_T10	2L2 1/2x2x3/16x3/8	A307	0.75	2	5.363	3.13	5.363	33.996	15.8%
T10	225	TWR_RED_VERT_T10	L2.5x2.5x4	A325	0.75	2	0.304	0	0.304	22.664	1.3%
T10	225	TWR_RED_SUBHOR_T10	2L2 1/2x2 1/2x1/4	A307	0.75	2	6.655	2.963	6.655	45.328	14.7%
T10	225	TWR_RED_HIP_2_T10	L4x4x3/8	A325	0.75	2	0	0.261	0.261	40.113	0.7%

Section #	Elevation (Ft.)	Section Set	Member	Bolt Grade	Bolt Size (in)	# of Bolts	Comp. (K)	Ten. (K)	Maximum Load (K)	Allowable Load (K)	% Capacity
T10	225	TWR_RED_HIPDIA_T10	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	0.448	0	0.448	45.328	1.0%
T10	225	TWR_INNER_SUPP_T10	2L3x2 1/2x1/4x3/8	A307	0.75	2	1.941	1.926	1.941	48.047	4.0%
T10	225	TWR_INNER_SQ_T10	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	1.53	3.928	3.928	45.328	8.7%
T10	225	TWR_INNER_CORNER_T10	L2 1/2x2 1/2x3/16	A307	0.75	2	0	4.299	4.299	16.998	25.3%
T10	225	TWR_INNER_BRACE_T10	L2 1/2x2 1/2x3/16	A307	0.75	2	0.002	0	0.002	16.998	0.0%
T10	225	TWR_INNER_BRACE_2_T10	L2.5x2.5x4	A325	0.75	2	0.034	0	0.034	22.664	0.2%

Section #	Elevation (Ft.)	Section Set	Member	Bolt Grade	Bolt Size (in)	# of Bolts	Comp. (K)	Ten. (K)	Maximum Load (K)	Allowable Load (K)	% Capacity
T11	200	TWR_LEG_T11	L8x8x1 1/8	A307	0.75	32	179.372	122.782	179.372	397.600	45.1%
T11	200	TWR_HORZ_T11	2L3 1/2x2 1/2x1/4x3/8	A307	0.75	3	15.738	16.831	16.831	67.980	24.8%
T11	200	TWR_RED_HORZ_T11	L2 1/2x2x3/16	A307	0.75	2	0.718	0.834	0.834	16.998	4.9%
T11	200	TWR_RED_HORZ_2_T11	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	0.677	0.529	0.677	45.328	1.5%
T11	200	TWR_RED_DIAG_T11	L3x3x3/16	A307	0.75	2	0.672	0.767	0.767	18.018	4.3%
T11	200	TWR_RED_DIAG_2_T11	2L3x2x1/4x3/8	A307	0.75	2	6.3	3.66	6.300	48.047	13.1%
T11	200	TWR_RED_SUBHOR_T11	2L2 1/2x3x1/4	A307	0.75	2	8.07	3.489	8.070	45.328	17.8%
T11	200	TWR_RED_VERT_T11	L2 1/2x2 1/2x1/4	A307	0.75	2	0.325	0	0.325	22.664	1.4%
T11	200	TWR_RED_HIP_2_T11	L4x4x3/8	A307	0.75	2	0	0.333	0.333	24.850	1.3%
T11	200	TWR_RED_HIPDIA_T11	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	0.518	0	0.518	45.328	1.1%
T11	200	TWR_INNER_SUPP_T11	2L3x2 1/2x1/4x3/8	A307	0.75	2	2.041	2.015	2.041	48.047	4.2%
T11	200	TWR_INNER_SQ_T11	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	1.632	4.089	4.089	45.328	9.0%
T11	200	TWR_INNER_CORNER_T11	L2 1/2x2 1/2x3/16	A307	0.75	2	0	4.473	4.473	16.998	26.3%
T11	200	TWR_INNER_BRACE_T11	L2 1/2x2 1/2x3/16	A307	0.75	2	0.001	0	0.001	16.998	0.0%
T11	200	TWR_INNER BRACE_2_T11	L2.5x2.5x4	A325	0.75	2	0.033	0	0.033	22.664	0.1%
T12	175	TWR_LEG_T12	L8x8x1 1/8	A307	0.75	32	195.813	133.936	195.813	397.600	49.2%
T12	175	TWR_HORZ_T12	2L3-1/2x2-1/2x5/16x1/2	A307	0.75	4	27.262	28.086	28.086	99.400	28.3%
T12	175	TWR_RED_HORZ_T12	L2 1/2x2x3/16	A307	0.75	2	0.897	1.078	1.078	16.998	6.3%
T12	175	TWR_RED_HORZ_2_T12	2L2 1/2x2 1/2x1/4x1/2	A307	0.75	2	0.935	0.842	0.935	45.328	2.1%
T12	175	TWR_RED_DIAG_T12	L3x3x3/16_HRA	A307	0.75	2	1.281	1.205	1.281	18.018	7.1%
T12	175	TWR_RED_DIAG_2_T12	2L3x3x3/8x1/2	A325	0.75	2	19.013	14.533	19.013	58.073	32.7%
T12	175	TWR_RED_SUBHOR_T12	2L3x3x1/4x1/2	A490	0.75	2	23.598	17.286	23.598	48.047	49.1%
T12	175	TWR_RED_SUBHOR_2_T12	L2.5x2.5x4	A325	0.75	2	0.048	0.019	0.048	22.664	0.2%
T12	175	TWR_RED_SUBDIA_T12	LL3x2.5x1/4 w L3.5x2.5x3/8	A307	0.75	2	29.127	29.658	29.658	49.401	60.0%
T12	175	TWR_RED_VERT_T12	L3x3x1/4	A307	0.75	2	0	0.297	0.297	24.023	1.2%
T12	175	TWR_RED_VERT_2_T12	L2.5x2.5x4	A325	0.75	2	0.283	0	0.283	22.664	1.2%
T12	175	TWR_RED_HIP_2_T12	2L3x4x1/4	A307	0.75	2	1.699	2.177	2.177	48.047	4.5%
T12	175	TWR_RED_HIPDIA_T12	2L2 1/2x2 1/2x1/4	A307	0.75	2	3.861	3.122	3.861	45.328	8.5%
T12	175	TWR_INNER_SUPP_T12	L3x3x1/4	A307	0.75	2	2.83	2.766	2.830	24.023	11.8%
T12	175	TWR_INNER_SQ_T12	2L4x3x1/4x3/8	A307	0.75	2	0.962	5.491	5.491	49.701	11.0%
T12	175	TWR_INNER_BRACE_T12	L3x3x1/4	A307	0.75	2	2.771	2.795	2.795	24.023	11.6%
T12	175	TWR_INNER_CORNER_T12	L3x2 1/2x1/4	A307	0.75	2	0	7.715	7.715	24.023	32.1%
T12	175	TWR_INNER_SQ_BOT_T12	2L4x3x1/4x3/8	A307	0.75	2	2.709	2.689	2.709	49.701	5.5%
T12	175	TWR_INNER_BRACE_BOT_T12	L3x3x1/4	A307	0.75	2	0.815	0.79	0.815	24.023	3.4%
T13	150	TWR_LEG_T13	L8x8x1 1/8	A307	0.875	28	228.553	158.202	228.553	473.480	48.3%
T13	150	TWR_HORZ_T13	2L3 1/2x3x5/16x1/2	A307	0.75	4	31.521	34.58	34.580	99.400	34.8%
T13	150	TWR_DIAG_T13	LL 3x3.5x5/16 w LL3x3.5x3/8	A490N	0.75	5	50.262	38.889	50.262	124.250	40.5%
T13	150	TWR_RED_HORZ_T13	L2 1/2x2x3/16	A307	0.75	2	0.803	0.947	0.947	16.998	5.6%
T13	150	TWR_RED_HORZ_2_T13	2L2 1/2x2 1/2x1/4x1/2	A307	0.75	2	1.239	0.926	1.239	45.328	2.7%
T13	150	TWR_RED_DIAG_T13	L3x3x3/16_HRA	A307	0.75	2	0.915	1.167	1.167	18.018	6.5%
T13	150	TWR_RED_DIAG_2_T13	LL4x4x6x3	A325	0.75	2	27.196	18.703	27.196	58.073	46.8%
T13	150	TWR_RED_DIAG_3_T13	L3X3X4	A325	0.75	2	0.483	0	0.483	24.023	2.0%
T13	150	TWR_RED_VERT_T13	L2.5x2.5x4	A325	0.75	2	0.31	0	0.310	22.664	1.4%
T13	150	TWR_RED_SUBHOR_T13	2L4x4x3/8x1/2	A325	0.75	2	31.318	20.286	31.318	58.073	53.9%
T13	150	TWR_RED_SUBHOR_2_T13	L2.5x2.5x4	A325	0.75	2	0.092	0.046	0.092	22.664	0.4%
T13	150	TWR_RED_SUBDIA_T13	LL3x2.5x1/4 w L3.5x2.5x3/8	A490	0.75	2	31.186	32.479	32.479	45.328	71.7%
T13	150	TWR_RED_HIP_2_T13	L3x2 1/2x1/4	A307	0.75	2	0	0.445	0.445	24.023	1.9%
T13	150	TWR_RED_HIPDIA_T13	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	0.503	0	0.503	45.328	1.1%
T13	150	TWR_INNER_SUPP_T13	2L3x4x1/4x3/8	A307	0.75	2	2.466	2.031	2.466	48.047	5.1%
T13	150	TWR_INNER_SQ_T13	2L3x4x1/4x3/8	A307	0.75	2	1.812	7.642	7.642	48.047	15.9%
T13	150	TWR_INNER_BRACE_T13	L3x3 1/2x1/4	A307	0.75	2	2.025	2.423	2.423	24.023	10.1%
T13	150	TWR_INNER_CORNER_T13	L3x2 1/2x1/4	A307	0.75	2	0	10.174	10.174	24.023	42.4%
T14	125	TWR_LEG_T14	L8X8X1_HRA	A490	0.875	28	272.756	184.935	272.756	473.480	57.6%
T14	125	TWR_HORZ_T14	2L4x3 1/2x5/16x1/2	A307	0.75	5	36.334	41.295	41.295	124.250	33.2%
T14	125	TWR_RED_HORZ_T14	L2 1/2x2x3/16	A307	0.75	2	0.838	1.076	1.076	16.998	6.3%
T14	125	TWR_RED_HORZ_2_T14	2L2 1/2x2 1/2x1/4x1/2	A307	0.75	2	1.01	1.009	1.010	45.328	2.2%
T14	125	TWR_RED_DIAG_T14	L3X3X3	A307	0.75	2	1.148	1.067	1.148	18.018	6.4%
T14	125	TWR_RED_DIAG_2_T14	2L3 1/2x3 1/2x3/8x1/2	A325	0.75	2	28.963	20.349	28.963	58.073	49.9%
T14	125	TWR_RED_DIAG_3_T14	L3X3X4	A325	0.75	2	0.556	0	0.556	24.023	2.3%
T14	125	TWR_RED_VERT_T14	L3X3X4	A307	0.75	2	0.394	0.041	0.394	24.023	1.6%
T14	125	TWR_RED_SUBHOR_T14	2L4x4x3/8x1/2	A307	0.75	2	34.889	23.489	34.889	49.701	70.2%
T14	125	TWR_RED_SUBHOR_2_T14	L3X3X4	A325	0.75	2	0.12	0.048	0.120	24.023	0.5%
T14	125	TWR_RED_SUBDIA_T14	LL3x3x3/8 w L3.5x3x3/8	A307	0.75	2	33.759	35.342	35.342	45.325	78.0%
T14	125	TWR_RED_SUBDIA_2_T14	2L3x3x3/8x1/2	A325	0.75	2	32.064	29.722	32.064	58.073	55.2%
T14	125	TWR_RED_HIP_2_T14	2L3x2 1/2x1/4x3/8	A307	0.75	2	0	0.512	0.512	48.047	1.1%
T14	125	TWR_RED_HIPDIA_T14	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	0.526	0	0.526	45.328	1.2%
T14	125	TWR_INNER_SUPP_T14	L3 1/2x3 1/2x1/4	A307	0.75	2	2.448	1.915	2.448	24.850	9.9%
T14	125	TWR_INNER_SQ_T14	2L3 1/2x4x1/4x3/8	A307	0.75	2	1.8	7.449	7.449	49.701	15.0%
T14	125	TWR_INNER_BRACE_T14	L3 1/2x3 1/2x1/4	A307	0.75	2	1.934	2.421	2.421	24.850	9.7%
T14	125	TWR_INNER_CORNER_T14	L3x3x3/16_HRA	A307	0.75	2	0	10.112	10.112	18.018	56.1%
T15	100	TWR_LEG_T15	L8X8X1_HRA	A490	0.875	32	334.178	222.955	334.178	541.120	61.8%
T15	100	TWR_HORZ_T15	LL3.5x3x5/16 w L4x3.5x3/8	A325	0.75	5	34.436	44.181	44.181	62.150	71.1%
T15	100	TWR_RED_HORZ_T15	L2 1/2x2 1/2x3/16	A307	0.75	2	0.964	1.246	1.246	16.998	7.3%
T15	100	TWR_RED_HORZ_2_T15	2L3x2 1/2x1/4x1/2	A307	0.75	2	1.198	1.212	1.212	48.047	2.5%
T15	100	TWR_RED_DIAG_T15	LL2.5x2.5x4x3	A325	0.75	2	1.259	1.19	1.259	45.328	2.8%
T15	100	TWR_RED_DIAG_2_T15	LL3x3x6x3	A325	0.75	2	18.984	14.814	18.984	58.073	32.7%
T15	100	TWR_RED_SUBHOR_T15	2L3x3 1/2x1/4x1/2	A307	0.75	2	15.255	9.029	15.255	48.047	31.8%
T15	100	TWR_RED_SUBDIA_T15	2L4x4x1/2x1/2	A325	0.75	5	46.774	44.793	46.774	152.033	30.8%
T15	100	TWR_RED_SUBDIA2_T15	L3X3X4	A325	0.75	2	0.15	0	0.150	24.023	0.6%
T15	100	TWR_RED_VERT_T15	L2 1/2x2 1/2x1/4	A307	0.75	2	0.945	0.529	0.945	22.664	4.2%
T15	100	TWR_RED_HIP_T15	L3x3x3/16_HRA	A307	0.75	2	0.293	0.454	0.454	18.018	2.5%
T15	100	TWR_RED_HIP_2_T15	2L2 1/2x3 1/2x5/16x3/8	A307	0.75	2	0	0.769	0.769	49.701	1.5%
T15	100	TWR_RED_HIPDIA_T15	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	0.815	0	0.815	45.328	1.8%
T15	100	TWR_RED_HIPBRACE_T15	L2 1/2x2 1/2x3/16	A307	0.75	2	0.116	0.223	0.223	16.998	1.3%
T15	100	TWR_INNER_SUPP_T15	2L2 1/2x3x1/4x3/8	A307	0.75	2	3.153	2.934	3.153	45.328	7.0%

Section #	Elevation (Ft.)	Section Set	Member	Bolt Grade	Bolt Size (in)	# of Bolts	Comp. (K)	Ten. (K)	Maximum Load (K)	Allowable Load (K)	% Capacity
T15	100	TWR_INNER_CORNER_T15	2L2 1/2x3x1/4x3/8	A307	0.75	2	3.131	1.707	3.131	45.328	6.9%
T15	100	TWR_INNER_TRI_T15	L2 1/2x2 1/2x3/16	A307	0.75	2	0.067	0.036	0.067	16.998	0.4%
T15	100	TWR_INNER_GIRT_T15	2L3x3x3/16x3/8	A307	0.75	2	2.256	3.046	3.046	36.035	8.5%
T15	100	TWR_INNER_GIRT_2_T15	2L2 1/2x3x1/4x3/8	A307	0.75	2	3.211	4.275	4.275	45.328	9.4%

Section #	Elevation (Ft.)	Section Set	Member	Bolt Grade	Bolt Size (in)	# of Bolts	Comp. (K)	Ten. (K)	Maximum Load (K)	Allowable Load (K)	% Capacity
T16	75	TWR_LEG_T16	L8X8X1_HRA	A490	0.875	36	378.663	252.053	378.663	608.760	62.2%
T16	75	TWR_HORZ_T16	LL4x3x5/16 w L4x3.5x3/8	A325	0.75	5	37.69	45.297	45.297	62.150	72.9%
T16	75	TWR_RED_HORZ_T16	L2 1/2x2 1/2x3/16	A307	0.75	2	1.091	1.481	1.481	16.998	8.7%
T16	75	TWR_RED_HORZ_2_T16	2L3x2 1/2x1/4x1/2	A307	0.75	2	1.123	1.221	1.221	48.047	2.5%
T16	75	TWR_RED_DIAG_T16	LL2.5x2.5x3x3	A325	0.75	2	4.267	3.397	4.267	33.996	12.6%
T16	75	TWR_RED_DIAG_2_T16	LL3.5x3.5x4x6	A325	0.75	2	20.644	16.253	20.644	53.484	38.6%
T16	75	TWR_RED_SUBHOR_T16	2L3x3 1/2x1/4x1/2	A307	0.75	2	14.599	8.519	14.599	48.047	30.4%
T16	75	TWR_RED_SUBDIA_T16	LL4x4x1/2 w L4x4x3/8	A325	0.75	2	49.954	47.399	49.954	53.484	93.4%
T16	75	TWR_RED_KICKER_T16	L3X3X4	A325	0.75	2	0.149	0	0.149	24.023	0.6%
T16	75	TWR_RED_VERT_T16	L2 1/2x2 1/2x1/4	A307	0.75	2	1.015	0.536	1.015	22.664	4.5%
T16	75	TWR_RED_HIP_T16	L3x3x3/16_HRA	A307	0.75	2	0.264	0.405	0.405	18.018	2.2%
T16	75	TWR_RED_HIP_2_T16	2L2 1/2x3 1/2x5/16x3/8	A307	0.75	2	0	0.896	0.896	49.701	1.8%
T16	75	TWR_RED_HIPDIA_T16	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	0.92	0	0.920	45.328	2.0%
T16	75	TWR_RED_HIPBRACE_T16	L2 1/2x2 1/2x3/16	A307	0.75	2	0.124	0.247	0.247	16.998	1.5%
T16	75	TWR_SUBRED_HORZ1_T16	L2.5x2.5x4	A325	0.75	2	3.053	4.603	4.603	22.664	20.3%
T16	75	TWR_SUBRED_HORZ2_T16	L2.5x2.5x4	A325	0.75	2	3.198	4.546	4.546	22.664	20.1%
T16	75	TWR_SUBRED_HORZ3_T16	L2.5x2.5x4	A325	0.75	2	2.06	3.385	3.385	22.664	14.9%
T16	75	TWR_SUBRED_DIAG1_T16	L2.5x2.5x4	A325	0.75	2	4.251	2.774	4.251	22.664	18.8%
T16	75	TWR_SUBRED_DIAG2_T16	L2.5x2.5x4	A325	0.75	2	3.79	2.595	3.790	22.664	16.7%
T16	75	TWR_SUBRED_DIAG3_T16	L2.5x2.5x4	A325	0.75	2	2.231	1.136	2.231	22.664	9.8%
T16	75	TWR_INNER_SUPP_T16	2L2 1/2x3x1/4x3/8	A307	0.75	2	2.678	2.899	2.899	45.328	6.4%
T16	75	TWR_INNER_CORNER_T16	2L2 1/2x3x1/4x3/8	A307	0.75	2	3.083	1.707	3.083	45.328	6.8%
T16	75	TWR_INNER_TRI_T16	L2 1/2x2 1/2x3/16	A307	0.75	2	0.055	0.027	0.055	16.998	0.3%
T16	75	TWR_INNER_GIRT_T16	2L3x3x3/16x3/8	A307	0.75	2	2.204	2.834	2.834	36.035	7.9%
T16	75	TWR_INNER_GIRT_2_T16	2L2 1/2x3x1/4x3/8	A307	0.75	2	3.139	3.975	3.975	45.328	8.8%
T17	50	TWR_LEG_T17	L8X8X16	A490	0.875	36	425.267	280.2	425.267	608.760	69.9%
T17	50	TWR_HORZ_T17	LL4x3x5/16 w L4x3.5x3/8	A325	0.75	5	41.407	49.529	49.529	62.150	79.7%
T17	50	TWR_RED_HORZ_T17	L2 1/2x2 1/2x3/16	A325	0.75	2	1.127	1.587	1.587	16.998	9.3%
T17	50	TWR_RED_HORZ_2_T17	2L3x2 1/2x1/4x1/2	A307	0.75	2	1.396	1.749	1.749	48.047	3.6%
T17	50	TWR_RED_DIAG_T17	2L2 1/2x2 1/2x3/16x1/2	A325	0.75	2	3.987	3.09	3.987	33.996	11.7%
T17	50	TWR_RED_DIAG_2_T17	2L3 1/2x3 1/2x3/8x1/2	A325	0.75	2	22.572	17.901	22.572	58.073	38.9%
T17	50	TWR_RED_SUBHOR_T17	2L3x4x1/4x1/2	A307	0.75	2	15.545	9.175	15.545	48.047	32.4%
T17	50	TWR_RED_SUBDIA_T17	LL4x4x1/2 w L4x4x3/8	A325	0.75	2	53.84	50.936	53.840	58.073	92.7%
T17	50	TWR_RED_KICKER_T17	L2 1/2x2 1/2x1/4	A325	0.75	2	4.359	4.92	4.920	22.664	21.7%
T17	50	TWR_RED_KICKER2_T17	L3X3X4	A325	0.75	2	0.158	0	0.158	24.023	0.7%
T17	50	TWR_RED_VERT_T17	L2 1/2x2 1/2x1/4	A307	0.75	2	1.076	0.585	1.076	22.664	4.7%
T17	50	TWR_RED_HIP_T17	L4x4x3/8	A307	0.75	2	0.3	0.453	0.453	24.850	1.8%
T17	50	TWR_RED_HIP_2_T17	2L2 1/2x3 1/2x5/16x3/8	A307	0.75	2	0	1.011	1.011	49.701	2.0%
T17	50	TWR_RED_HIPDIA_T17	2L2 1/2x2 1/2x1/4	A307	0.75	2	1.009	0	1.009	45.328	2.2%
T17	50	TWR_RED_HIPBRACE_T17	L2 1/2x2 1/2x3/16	A307	0.75	2	0.131	0.273	0.273	16.998	1.6%
T17	50	TWR_INNER_SUPP_T17	2L2 1/2x3x1/4x3/8	A307	0.75	2	2.798	3.22	3.220	45.328	7.1%
T17	50	TWR_INNER_CORNER_T17	2L2 1/2x3x1/4x3/8	A307	0.75	2	3.368	1.875	3.368	45.328	7.4%
T17	50	TWR_INNER_TRI_T17	L2 1/2x2 1/2x3/16	A307	0.75	2	0.054	0.026	0.054	16.998	0.3%
T17	50	TWR_INNER_GIRT_T17	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	2.396	3.045	3.045	45.328	6.7%
T17	50	TWR_INNER_GIRT_2_T17	2L2 1/2x3x1/4x3/8	A307	0.75	2	3.414	4.27	4.270	45.328	9.4%
T18	25	TWR_LEG_T18	L8X8X16	A490	0.875	40	472.999	307.718	472.999	676.400	69.9%
T18	25	TWR_HORZ_T18	2L5x3-1/2x3/8x1/2	A307	0.75	5	41.703	52.794	52.794	124.250	42.5%
T18	25	TWR_DIAG_T18	2L4x6x3/8x1/2	A325	0.75	5	57.179	42.203	57.179	124.250	46.0%
T18	25	TWR_RED_HORZ_T18	L2 1/2x2 1/2x3/16	A307	0.75	2	0.428	0.428	0.428	16.998	2.5%
T18	25	TWR_RED_HORZ_2_T18	2L3x2 1/2x1/4x1/2	A307	0.75	2	1.899	3.037	3.037	48.047	6.3%
T18	25	TWR_RED_DIAG_T18	2L2 1/2x2 1/2x3/16x1/2	A307	0.75	2	3.135	2.778	3.135	33.996	9.2%
T18	25	TWR_RED_DIAG_2_T18	2L3 1/2x3 1/2x3/8x1/2	A307	0.75	2	25.741	19.061	25.741	49.701	51.8%
T18	25	TWR_RED_SUBDIA_T18	2L5x5x3/8x1/2	A325	0.75	5	53.912	50.482	53.912	152.033	35.5%
T18	25	TWR_RED_KICKER_T18	L2 1/2x2 1/2x1/4	A325	0.75	2	2.268	3.25	3.250	22.664	14.3%
T18	25	TWR_RED_KICKER_2_T18	L2 1/2x2 1/2x1/4	A325	0.75	2	2.415	3.077	3.077	22.664	13.6%
T18	25	TWR_RED_VERT_T18	L2 1/2x2 1/2x1/4	A307	0.75	2	2.395	0.45	2.395	22.664	10.6%
T18	25	TWR_RED_VERT2_T18	L3x3x1/4 w L3x3x3/8	A325	0.75	2	2.841	3.187	3.187	45.328	7.0%
T18	25	TWR_RED_HIP_T18	L4x4x3/8	A307	0.75	2	0	1.04	1.040	24.850	4.2%
T18	25	TWR_RED_HIP_2_T18	2L2 1/2x3 1/2x5/16	A307	0.75	2	0.545	2.181	2.181	49.701	4.4%
T18	25	TWR_RED_HIPDIA_T18	L2 1/2x2 1/2x1/4	A307	0.75	2	1.17	0	1.170	22.664	5.2%
T18	25	TWR_RED_HIPDIA2_T18	2L2 1/2x2 1/2x1/4x3/8	A307	0.75	2	2.438	0.871	2.438	45.328	5.4%
T18	25	TWR_RED_HIPBRACE_T18	L2 1/2x2 1/2x3/16	A307	0.75	2	0.14	0.301	0.301	16.998	1.8%
T18	25	TWR_INNER_SUPP_T18	2L2 1/2x3 1/2x5/16x3/8	A307	0.75	2	4.097	4.964	4.964	49.701	10.0%
T18	25	TWR_INNER_CORNER_T18	2L2 1/2x3x1/4x3/8	A307	0.75	2	4.187	2.344	4.187	45.328	9.2%
T18	25	TWR_INNER_TRI_T18	L3x3x1/4	A307	0.75	2	0.058	0.03	0.058	24.023	0.2%
T18	25	TWR_INNER_GIRT_T18	2L2 1/2x2 1/2x3/16x3/8	A307	0.75	2	2.866	3.703	3.703	33.996	10.9%
T18	25	TWR_INNER_GIRT_2_T18	2L2 1/2x3x1/4x3/8	A307	0.75	2	4.054	5.235	5.235	45.328	11.5%
T18	25	TWR_INNER_BRACE_T18	2L3x3x3/16x3/8	A307	0.75	2	0.002	0.002	0.002	36.035	0.0%
T18	25	TWR_INNER_SQ_BOT_T18	2L3 1/2x6x1/4x3/8	A307	0.75	2	3.915	1.179	3.915	49.701	7.9%
T18	25	TWR_INNER_BRACE_BOT_T18	L3x3x1/4	A307	0.75	2	1.219	1.184	1.219	24.023	5.1%
T18	25	WR_INNER_CORNER_BOT_T18	L2 1/2x2 1/2x3/16 w L2 1/2x2 1/2	A325	0.75	2	2.546	1.359	2.546	28.330	9.0%
T18	25	R_INNER_CORNER_BOT2_T18	L3x3x1/4	A307	0.75	2	1.908	3.601	3.601	24.023	15.0%
T10	225	TWR_DIAG_T10	2L2-1/2x3x5/16 w/ 2L3x3x3/8	A325	0.75	3	28.933	26.225	28.933	59.640	48.5%
T11	200	TWR_DIAG_T11	2L2-1/2x2x5/16 w/ 2L3x3-1/2x3/8	A325	0.75	3	31.571	28.739	31.571	59.640	52.9%
T12	175	TWR_DIAG_T12	2L3x3-1/2x5/16 w/ 2L3x3-1/2x3/8	A490	0.75	4	44.91	36.932	44.910	99.400	45.2%
T14	125	TWR_DIAG_T14	2L3x3-1/2x3/8 w/ 2L3x3-1/2x3/8	A325	0.75	5	52.493	41.386	52.493	99.400	52.8%
T15	100	TWR_DIAG_T15	2L3x3-1/2x3/8 w/ 2L3x3-1/2x3/8	A325	0.75	5	47.954	38.9	47.954	99.400	48.2%
T16	75	TWR_DIAG_T16	2L3x4x3/8 w/ 2L3x4x3/8	A325	0.75	5	51.48	40.454	51.480	99.400	51.8%
T17	50	TWR_DIAG_T17	2L3x4x3/8 w/ 2L3x4x3/8	A325	0.75	5	54.338	42.363	54.338	99.400	54.7%
T18	25	TWR_RED_SUBHOR_T18	2L3x4x3/8 w/ 2L3x4x3/9	A326	0.75	5	2.522	2.344	2.522	100.400	2.5%

APPENDIX C

Additional Calculations

Self-Support Anchor Rod Analysis - TIA-222-H-1
NORWALK, CT2132
2022703.73

General Info	
Apply TIA-222-H Section 15.5	No
Modified Anchor Rods	No
Leg Eccentricity	No
Overstrength	No
Max Capacity	105%

Tower Reactions		
Compression, P_u =	541.82	kips
Compression Shear, V_u =	104.53	kips
Uplift, P_u =	351.59	kips
Uplift Shear, V_u =	104.53	kips
Number of Tower Legs =	4	
Tower Axial Force =	859.00	kips

Anchor Rods		
Number of Anchor Rods, n =	6	
Anchor Rod Grade =	C-1015	
Anchor Rod Diameter, d =	2.5	in
Bolt Circle Diameter, BC =	17.5	in
Rod Clear Span, l_{ar} =	0	in
Is grout present?	Yes	
Yield Strength, F_y =	47	ksi
Tensile Strength, F_u =	56	ksi
Rod Compression, P_{uc} =	90.30	kips
Rod Shear, V_u =	17.42	kips
Rod Moment, M_u =	0.00	k-in
Rod Tension, P_{ut} =	58.60	kips
Rod Shear, V_u =	17.42	kips
Rod Moment, M_u =	0.00	k-in

Anchor Rod Results		
$\phi_t R_{nt}$ =	168.00	kips
$\phi_c R_{nc}$ =	207.64	kips
$\phi_c R_{nb}$ =	207.64	kips
$\phi_v R_{nv}$ =	103.08	kips
$\phi_c R_{nvc}$ =	93.44	kips
$\phi_f M_n$ =	110.16	k-in
Tension Interaction	15.0%	OK
Compression Interaction	47.0%	OK

Pier and Pad Foundation

BU # :	
Site Name:	
App. Number:	

TIA-222 Revision:	H
Tower Type:	Self Support

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

Superstructure Analysis Reactions

Compression, **P_{comp}**:	542	kips
Compression Shear, Vu_comp:	105	kips
Uplift, **P_{uplift}**:	352	kips
Uplift Shear, **V_{u_uplift}**:	105	kips
Tower Height, **H**:	350	ft
Base Face Width, **BW**:	64.5	ft
BP Dist. Above Fdn, **bp_{dist}**:	6	in

Pier Properties

Pier Shape:	Square	
Pier Diameter, **dpier**:	3.75	ft
Ext. Above Grade, **E**:	1	ft
Pier Rebar Size, **Sc**:	11	
Pier Rebar Quantity, **mc**:	24	
Pier Tie/Spiral Size, **St**:	4	
Pier Tie/Spiral Quantity, **mt**:	12	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, **cc_{pier}**:	3	in

Pad Properties

Depth, **D**:	14	ft
Pad Width, **W_1**:	20	ft
Pad Thickness, **T**:	3	ft
Pad Rebar Size (Bottom dir. 2), **Sp_2**:	6	
Pad Rebar Quantity (Bottom dir. 2), **mp_2**:	40	
Pad Clear Cover, **cc_{pad}**:	3	in

Material Properties

Rebar Grade, **Fy**:	40	ksi
Concrete Compressive Strength, **F'c**:	3	ksi
Dry Concrete Density, **δc**:	186	pcf

Soil Properties

Total Soil Unit Weight, γ:	125	pcf
Ultimate Gross Bearing, Qult:	12.000	ksf
Cohesion, **Cu**:	0.000	ksf
Friction Angle, φ:	35	degrees
SPT Blow Count, **N_{blows}**:	50	
Base Friction, μ:		
Neglected Depth, **N**:	3.00	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	N/A	ft

<--Toggle between Gross and Net

Foundation Analysis Checks

	Capacity	Demand	Rating	Check
Uplift (kips)	1150.45	352.00	**30.6%**	**Pass**
Lateral (Sliding) (kips)	446.68	105.00	**23.5%**	**Pass**
Bearing Pressure (ksf)	9.00	3.71	**41.2%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	2201.63	1260.00	**57.2%**	**Pass**
*Pier Flexure (Tension) (kip*ft)*	1456.08	1260.00	**86.5%**	**Pass**
Pier Compression (kip)	3414.26	579.56	**17.0%**	**Pass**
*Pad Flexure (kip*ft)*	1652.63	918.21	**55.6%**	**Pass**
Pad Shear - 1-way (kips)	628.51	152.13	**24.2%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.164	0.071	**43.0%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	2113.76	756.00	**35.8%**	**Pass**
Pad Shear - 2-way (Uplift) (ksi)	0.164	0.070	**42.9%**	**Pass**
*Flexural 2-way (Tension) (kip*ft)*	2113.76	756.00	**35.8%**	**Pass**

Structural Rating:	**86.5%**
Soil Rating:	**41.2%**

Exhibit E

Mount Analysis

January 26, 2022
March 21, 2023 (Rev.1)

SAI Communications
12 Industrial Way
Salem NH, 03079

RE:	AT&T Site Number:	CT2132
	FA Number:	10034993
	PACE Number:	MRCTB051682
	PT Number:	2051A0Z8CL
	TEP Project Number:	354188
	Site Name:	NORWALK EAST-WILLARD RD
	Site Address:	Willard Road Norwalk, CT 06851

To Whom It May Concern:

TEP Northeast (TEP NE) has been authorized by SAI Communications to perform a mount analysis on the existing AT&T antenna/RRH mounts to determine its capability of supporting the following additional loading:

- (3) 4478 B14 RRH's (18.1"x13.4"x8.3" – Wt. = 60 lbs. /each)
- (3) 8843 B2/B66A RRH's (14.9"x13.2"x10.9" – Wt. = 72 lbs. /each)
- (3) 4449 B5/B12 RRH's (17.9"x13.2"x9.4" – Wt. = 73 lbs. /each)
- (3) RRUS-32 B30 RRH's (27.2"x12.1"x7.0" – Wt. = 60 lbs. /each)
- (3) DC6-48-60-18 Surge Arrestors (31.4"x10.2" Ø – Wt. = 29 lbs.) (Tower Mounted)
- **(3) QD4616-7 Antennas (51.5"x22.0"x9.6" – Wt. = 91 lbs. /each)**
- **(3) AIR6419 Antennas (31.1"x16.1"x7.3" – Wt. = 66 lbs. /each)**
- **(3) AIR6449 Antennas (30.6"x15.9"x10.6" – Wt. = 82 lbs. /each)**
- **(3) DMP65R-BU4DA Antennas (48.0"x20.7"x7.7" – Wt. = 68 lbs. /each)**

*Proposed equipment shown in bold.

Mount fabrication drawings prepared by Sabre Industries Towers and Poles, P/N C10857001C, dated December 22, 2015 were used to perform this analysis. TEP NE conducted at ground audit of the existing AT&T antenna mounts on November 3, 2021.

Mount Analysis Methods:

- This analysis was conducted in accordance with EIA/TIA-222-H, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the International Building Code 2021 with 2022 Connecticut State Building Code, and AT&T Mount Technical Directive – R22.
- TEP NE considers this mount to be asymmetrical and has applied wind loads in 30 degree increments all around the mount. Per TIA-222-H and Appendix P of the Connecticut State Building Code, the max basic wind speed for this site is equal to 120 mph with a max basic wind speed with ice of 50 mph and a max ice thickness of 1.0 in. An escalated ice thickness of 1.27 in was used for this analysis.
- TEP NE considers this site to be exposure category B; tower is located in an urban/suburban or wooded area with numerous closely spaced obstructions.
- TEP NE considers this site to be topographic category 1; tower is located on flat terrain or the bottom of a hill or ridge.
- TEP NE considers this site to have a spectral response acceleration parameter at short periods, S_S, of 0.240 and a spectral response acceleration parameter at a period of 1 second, S_1, of 0.056.
- The mount has been analyzed with load combinations consisting of 500 lbs live load using a service wind speed of 30 mph wind on the worst case antenna. Analysis performed on each antenna pipe to determine worst case location; worst case location was antenna position 4.
- The mount has been analyzed with load combinations consisting of a 250 lbs live load in a worst case location on the mount.
- The existing mount is secured to the existing lattice tower with threaded rods and clamps tightened around the tower leg. TEP NE considers the threaded rods as the governing connection members.

Based on our evaluation, we have determined that the existing mounts **ARE CAPABLE** of supporting the proposed installation.

	Component	Controlling Load Case	Stress Ratio	Pass/Fail
Existing Mount Rating	41	LC6	79%	**PASS**

Reference Documents:

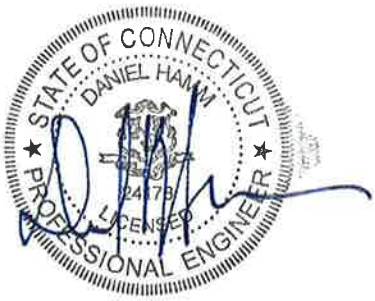
- Fabrication drawings prepared by Sabre Industries Towers and Poles, P/N C10857001C, dated December 22, 2015.

This determination was based on the following limitations and assumptions:

1. TEP NE is not responsible for any modifications completed prior to and hereafter which TEP NE was not directly involved.
2. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities.
3. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer's requirements.
4. The existing mounts have been adequately secured to the tower structure per the mount manufacturer's specifications.
5. All components pertaining to AT&T's mount must be tightened and re-plumbed prior to the installation of new appurtenances.
6. TEP NE performed a localized analysis on the mount itself and not on the supporting tower structure.

Please feel free to contact our office should you have any questions.

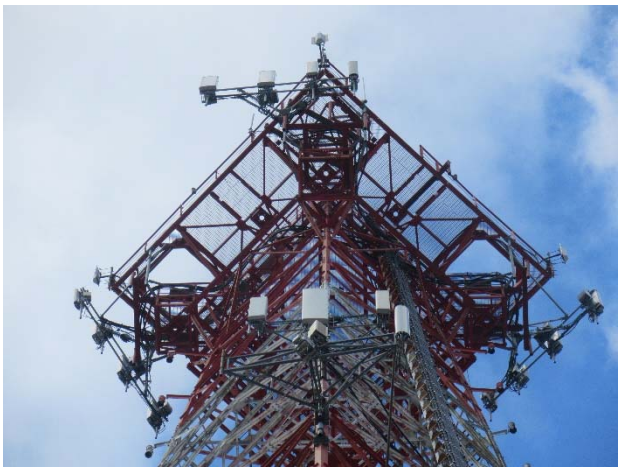
Respectfully Submitted,
TEP Northeast

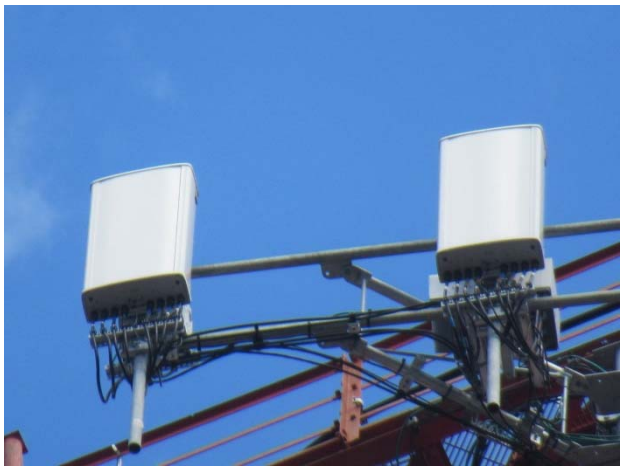


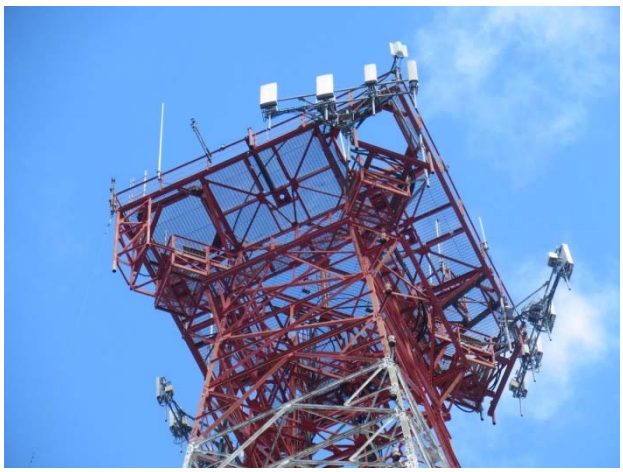
Michael Cabral
Director

Daniel P. Hamm, PE
Vice President

FIELD PHOTOS:








FIELD PHOTOS (CONT.):






Wind & Ice
Calculations

Date: 3/21/2023
Project Name: NORWALK EAST-WILLARD RD
Project No.: CT2132
Designed By: KSBM **Checked By:** MSC

2.6.5.2 Velocity Pressure Coeff:

$K_z = 2.01\ (z/z_g)^{2/\alpha}$

z=	347.0	(ft)
z_g=	1200	(ft)
α=	7	

K_z= 1.410

Kzmin ≤ Kz ≤ 2.01

Table 2-4

Exposure	Z_g	α	K_{zmin}	K_c
B	1200 ft	7.0	0.70	0.9
C	900 ft	9.5	0.85	1.0
D	700 ft	11.5	1.03	1.1

2.6.6.2 Topographic Factor:

Table 2-5

Topo. Category	K_t	f
2	0.43	1.25
3	0.53	2.0
4	0.72	1.5

$K_{zt} = [1+(K_c\ K_t/K_h)]^2$ $K_h = e^{(f*z/H)}$

K_{zt}= 1

(If Category 1 then K_{zt}=1.0)

Category= **1**

K_h=	1	
K_c=	0.9	(from Table 2-4)
K_t=	0	(from Table 2-5)
f=	0	(from Table 2-5)
z=	347.0	
z_s=	60	(Mean elevation of base of structure above sea level)
H=	0	(Ht. of the crest above surrounding terrain)
K_{zt}=	1.00	(from 2.6.6.2.1)
K_e=	1.00	(from 2.6.8)

2.6.10 Design Ice Thickness

Max Ice Thickness = t_i =	1.00	in
Importance Factor = I=	1.00	(from Table 2-3)
K_{iz} =	1.27	(from Sec. 2.6.10)

$t_{iz} = t_i * I * K_{iz} * (K_{zt})^{0.35}$ t_{iz} = 1.27 in

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2.6.9 Gust Effect Factor

2.6.9.1 Self Supporting Lattice Structures

G_h = 1.0 Latticed Structures > 600 ft

G_h = 0.85 Latticed Structures 450 ft or less

G_h = 0.85 + 0.15 [h/150 - 3.0] h= ht. of structure

h=	350.0	G_h=	0.85
2.6.9.2 Guyed Masts		G_h=	0.85
2.6.9.3 Pole Structures		G_h=	1.1
2.6.9 Appurtenances		G_h=	1.0

2.6.9.4 Structures Supported on Other Structures
(Cantilivered tubular or latticed spines, pole, structures on buildings (ht. : width ratio > 5)

G_h=	1.35	**Gh=**	**1.00**

2.6.11.2 Design Wind Force on Appurtenances

$F = q_z * G_h * (EPA)_A$

$q_z = 0.00256 * K_z * K_{zt} * K_s * K_e * K_d * V_{max}^2$

		K_z=	1.410	(from 2.6.5.2)
		K_{zt}=	1.0	(from 2.6.6.2.1)
		K_s=	1.0	(from 2.6.7)
q_z=	**44.09**	K_e=	1.00	(from 2.6.8)
$q_{z\ (ice)}$=	**7.65**	K_d=	0.85	(from Table 2-2)
$q_{z\ (30)}$=	**2.76**	V_{max}=	120	mph (Ultimate Wind Speed)
		$V_{max\ (ice)}$=	50	mph
		V_{30}=	30	mph

Table 2-2

Structure Type	Wind Direction Probability Factor, Kd
Latticed structures with triangular, square or rectangular cross sections	0.85
Tubular pole structures, latticed structures with other cross sections, appurtenances	0.95
Tubular pole structures supporting antennas enclosed within a cylindrical shroud	1.00

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Determine Ca:

Table 2-9

Force Coefficients (Ca) for Appurtenances				
Member Type		Aspect Ratio ≤ 2.5	Aspect Ratio = 7	Aspect Ratio ≥ 25
		Ca	Ca	Ca
Flat		1.2	1.4	2.0
Square/Rectangular HSS		1.2 - 2.8(r_s) ≥ 0.85	1.4 - 4.0(r_s) ≥ 0.90	2.0 - 6.0(r_s) ≥ 1.25
Round	C < 39 (Subcritical)	0.7	0.8	1.2
	39 ≤ C ≤ 78 (Transitional)	$4.14/(C^{0.485})$	$3.66/(C^{0.415})$	$46.8/(C^{1.0})$
	C > 78 (Supercritical)	0.5	0.6	0.6

Aspect Ratio is the overall length/width ratio in the plane normal to the wind direction.
(Aspect ratio is independent of the spacing between support points of a linear appurtenance,

Note: Linear interpolation may be used for aspect ratios other than those shown.

Ice Thickness = 1.27 in | **Angle =** 0 (deg) | **Equivalent Angle =** 180 (deg)

Appurtenances	Height	Width	Depth	Flat Area	Aspect Ratio	Ca	Force (lbs)	Force (lbs) (w/ Ice)	Force (lbs) (30 mph)
QD4616-7 Antenna	51.5	22.0	9.6	7.87	2.34	1.20	416	85	26
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.93	1.20	184	40	11
AIR6449 Antenna	30.6	15.9	10.6	3.38	1.92	1.20	179	39	11
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.32	1.20	365	75	23
4478 B14 RRH (Side)	18.1	8.3	13.4	1.04	2.18	1.20	55	14	3
4478 B14 RRH (Shielded)	18.1	4.2	13.4	0.52	4.36	1.28	29	9	2
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.20	60	15	4
8843 B2/B66A RRH (Shielded)	14.9	5.5	13.2	0.56	2.73	1.21	30	9	2
4449 B5/B12 RRH (Side)	17.9	9.4	13.2	1.17	1.90	1.20	62	16	4
4449 B5/B12 RRH (Shielded)	17.9	4.7	13.2	0.58	3.81	1.26	32	10	2
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	3.89	1.26	74	19	5
RRUS-32 B30 RRH (Shielded)	27.2	3.5	12.1	0.66	7.77	1.43	42	14	3
DC6-48-60-18 Surge Arrestor	31.4	10.2	10.2	2.22	3.08	0.70	69	16	4
Plate 11-1/4x5/8	0.6	12.0		0.05	0.05	2.00	5		
3/4" RoundBar	0.8	12.0		0.06	0.06	1.20	3		
2" Pipe	2.4	12.0		0.20	0.20	1.20	10		
2-1/2" Pipe	2.9	12.0		0.24	0.24	1.20	13		
3" Pipe	3.5	12.0		0.29	0.29	1.20	15		
3x3 Angle	3.0	12.0		0.25	0.25	2.00	22		

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WIND LOADS

Angle =	30	(deg)	Ice Thickness =	1.27	in.	Equivalent Angle =	210	(deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Aspect Ratio	Aspect Ratio	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
QD4616-7 Antenna	51.5	22.0	9.6	7.87	3.43	2.34	5.36	1.20	1.33	416	201	362
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	184	89	160
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	179	121	164
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	365	155	312
4478 B14 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	55	89	64
4478 B14 RRH (Shielded)	18.1	4.2	13.4	0.52	1.68	4.36	1.35	1.28	1.20	29	89	44
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	60	72	63
8843 B2/B66A RRH (Shielded)	14.9	5.5	13.2	0.56	1.37	2.73	1.13	1.21	1.20	30	72	41
4449 B5/B12 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	62	87	68
4449 B5/B12 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	32	87	46
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	74	121	85
RRUS-32 B30 RRH (Shielded)	27.2	3.5	12.1	0.66	2.29	7.77	2.25	1.43	1.20	42	121	61

WIND LOADS WITH ICE:

QD4616-7 Antenna	54.0	24.5	12.1	9.20	4.55	2.20	4.45	1.20	1.29	85	45	75
AIR6419 Antenna	33.6	18.6	9.8	4.35	2.30	1.81	3.42	1.20	1.24	40	22	35
AIR6449 Antenna	33.1	18.4	13.1	4.24	3.02	1.80	2.52	1.20	1.20	39	28	36
DMP65R-BU4DA Antenna	50.5	23.2	10.2	8.15	3.59	2.18	4.94	1.20	1.31	75	36	65
4478 B14 RRH (Side)	20.6	10.8	15.9	1.55	2.28	1.90	1.30	1.20	1.20	14	21	16
4478 B14 RRH (Shielded)	20.6	6.7	15.9	0.96	2.28	3.09	1.30	1.23	1.20	9	21	12
8843 B2/B66A RRH (Side)	17.4	13.4	15.7	1.63	1.90	1.30	1.11	1.20	1.20	15	17	16
8843 B2/B66A RRH (Shielded)	17.4	8.0	15.7	0.97	1.90	2.18	1.11	1.20	1.20	9	17	11
4449 B5/B12 RRH (Side)	20.4	11.9	15.7	1.69	2.23	1.71	1.30	1.20	1.20	16	20	17
4449 B5/B12 RRH (Shielded)	20.4	7.2	15.7	1.03	2.23	2.83	1.30	1.21	1.20	10	20	12
RRUS-32 B30 RRH (Side)	29.7	9.5	14.6	1.97	3.02	3.12	2.03	1.23	1.20	18	28	21
RRUS-32 B30 RRH (Shielded)	29.7	6.0	14.6	1.25	3.02	4.93	2.03	1.31	1.20	12	28	16

WIND LOADS AT 30 MPH:

QD4616-7 Antenna	51.5	22.0	9.6	7.87	3.43	2.34	5.36	1.20	1.33	26	13	23
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	11	6	10
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	11	8	10
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	23	10	20
4478 B14 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	3	6	4
4478 B14 RRH (Shielded)	18.1	4.2	13.4	0.52	1.68	4.36	1.35	1.28	1.20	2	6	3
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	4	5	4
8843 B2/B66A RRH (Shielded)	14.9	5.5	13.2	0.56	1.37	2.73	1.13	1.21	1.20	2	5	3
4449 B5/B12 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	4	5	4
4449 B5/B12 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	2	5	3
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	5	8	5
RRUS-32 B30 RRH (Shielded)	27.2	3.5	12.1	0.66	2.29	7.77	2.25	1.43	1.20	3	8	4

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TEP NORTHEAST

WIND LOADS

Angle =	60	(deg)	Ice Thickness =	1.27	in.	Equivalent Angle =	240	(deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
QD4616-7 Antenna	51.5	22.0	9.6	7.87	3.43	2.34	5.36	1.20	1.33	416	201	255
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	184	89	113
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	179	121	135
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	365	155	207
4478 B14 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	55	89	81
4478 B14 RRH (Shielded)	18.1	4.2	13.4	0.52	1.68	4.36	1.35	1.28	1.20	29	89	74
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	60	72	69
8843 B2/B66A RRH (Shielded)	14.9	5.5	13.2	0.56	1.37	2.73	1.13	1.21	1.20	30	72	62
4449 B5/B12 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	62	87	81
4449 B5/B12 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	32	87	73
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	74	121	109
RRUS-32 B30 RRH (Shielded)	27.2	3.5	12.1	0.66	2.29	7.77	2.25	1.43	1.20	42	121	101

WIND LOADS WITH ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
QD4616-7 Antenna	54.0	24.5	12.1	9.20	4.55	2.20	4.45	1.20	1.29	85	45	55
AIR6419 Antenna	33.6	18.6	9.8	4.35	2.30	1.81	3.42	1.20	1.24	40	22	26
AIR6449 Antenna	33.1	18.4	13.1	4.24	3.02	1.80	2.52	1.20	1.20	39	28	31
DMP65R-BU4DA Antenna	50.5	23.2	10.2	8.15	3.59	2.18	4.94	1.20	1.31	75	36	46
4478 B14 RRH (Side)	20.6	10.8	15.9	1.55	2.28	1.90	1.30	1.20	1.20	14	21	19
4478 B14 RRH (Shielded)	20.6	6.7	15.9	0.96	2.28	3.09	1.30	1.23	1.20	9	21	18
8843 B2/B66A RRH (Side)	17.4	13.4	15.7	1.63	1.90	1.30	1.11	1.20	1.20	15	17	17
8843 B2/B66A RRH (Shielded)	17.4	8.0	15.7	0.97	1.90	2.18	1.11	1.20	1.20	9	17	15
4449 B5/B12 RRH (Side)	20.4	11.9	15.7	1.69	2.23	1.71	1.30	1.20	1.20	16	20	19
4449 B5/B12 RRH (Shielded)	20.4	7.2	15.7	1.03	2.23	2.83	1.30	1.21	1.20	10	20	18
RRUS-32 B30 RRH (Side)	29.7	9.5	14.6	1.97	3.02	3.12	2.03	1.23	1.20	18	28	25
RRUS-32 B30 RRH (Shielded)	29.7	6.0	14.6	1.25	3.02	4.93	2.03	1.31	1.20	12	28	24

WIND LOADS AT 30 MPH:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
QD4616-7 Antenna	51.5	22.0	9.6	7.87	3.43	2.34	5.36	1.20	1.33	26	13	16
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	11	6	7
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	11	8	8
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	23	10	13
4478 B14 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	3	6	5
4478 B14 RRH (Shielded)	18.1	4.2	13.4	0.52	1.68	4.36	1.35	1.28	1.20	2	6	5
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	4	5	4
8843 B2/B66A RRH (Shielded)	14.9	5.5	13.2	0.56	1.37	2.73	1.13	1.21	1.20	2	5	4
4449 B5/B12 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	4	5	5
4449 B5/B12 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	2	5	5
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	5	8	7
RRUS-32 B30 RRH (Shielded)	27.2	3.5	12.1	0.66	2.29	7.77	2.25	1.43	1.20	3	8	6

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WIND LOADS

Angle = 90 (deg) | Ice Thickness = 1.27 in. | Equivalent Angle = 270 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
QD4616-7 Antenna	51.5	22.0	9.6	7.87	3.43	2.34	5.36	1.20	1.33	416	201	201
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	184	89	89
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	179	121	121
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	365	155	155
4478 B14 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	55	89	89
4478 B14 RRH (Shielded)	18.1	4.2	13.4	0.52	1.68	4.36	1.35	1.28	1.20	29	89	89
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	60	72	72
8843 B2/B66A RRH (Shielded)	14.9	5.5	13.2	0.56	1.37	2.73	1.13	1.21	1.20	30	72	72
4449 B5/B12 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	62	87	87
4449 B5/B12 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	32	87	87
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	74	121	121
RRUS-32 B30 RRH (Shielded)	27.2	3.5	12.1	0.66	2.29	7.77	2.25	1.43	1.20	42	121	121

WIND LOADS WITH ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
QD4616-7 Antenna	54.0	24.5	12.1	9.20	4.55	2.20	4.45	1.20	1.29	85	45	45
AIR6419 Antenna	33.6	18.6	9.8	4.35	2.30	1.81	3.42	1.20	1.24	40	22	22
AIR6449 Antenna	33.1	18.4	13.1	4.24	3.02	1.80	2.52	1.20	1.20	39	28	28
DMP65R-BU4DA Antenna	50.5	23.2	10.2	8.15	3.59	2.18	4.94	1.20	1.31	75	36	36
4478 B14 RRH (Side)	20.6	10.8	15.9	1.55	2.28	1.90	1.30	1.20	1.20	14	21	21
4478 B14 RRH (Shielded)	20.6	6.7	15.9	0.96	2.28	3.09	1.30	1.23	1.20	9	21	21
8843 B2/B66A RRH (Side)	17.4	13.4	15.7	1.63	1.90	1.30	1.11	1.20	1.20	15	17	17
8843 B2/B66A RRH (Shielded)	17.4	8.0	15.7	0.97	1.90	2.18	1.11	1.20	1.20	9	17	17
4449 B5/B12 RRH (Side)	20.4	11.9	15.7	1.69	2.23	1.71	1.30	1.20	1.20	16	20	20
4449 B5/B12 RRH (Shielded)	20.4	7.2	15.7	1.03	2.23	2.83	1.30	1.21	1.20	10	20	20
RRUS-32 B30 RRH (Side)	29.7	9.5	14.6	1.97	3.02	3.12	2.03	1.23	1.20	18	28	28
RRUS-32 B30 RRH (Shielded)	29.7	6.0	14.6	1.25	3.02	4.93	2.03	1.31	1.20	12	28	28

WIND LOADS AT 30 MPH:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
QD4616-7 Antenna	51.5	22.0	9.6	7.87	3.43	2.34	5.36	1.20	1.33	26	13	13
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	11	6	6
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	11	8	8
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	23	10	10
4478 B14 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	3	6	6
4478 B14 RRH (Shielded)	18.1	4.2	13.4	0.52	1.68	4.36	1.35	1.28	1.20	2	6	6
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	4	5	5
8843 B2/B66A RRH (Shielded)	14.9	5.5	13.2	0.56	1.37	2.73	1.13	1.21	1.20	2	5	5
4449 B5/B12 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	4	5	5
4449 B5/B12 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	2	5	5
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	5	8	8
RRUS-32 B30 RRH (Shielded)	27.2	3.5	12.1	0.66	2.29	7.77	2.25	1.43	1.20	3	8	8

Date: 3/21/2023
Project Name: NORWALK EAST-WILLARD RD
Project No.: CT2132
Designed By: KSBM Checked By: MSC

WIND LOADS

Angle =	120	(deg)	Ice Thickness =	1.27	in.	Equivalent Angle =	300	(deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
QD4616-7 Antenna	51.5	22.0	9.6	7.87	3.43	2.34	5.36	1.20	1.33	416	201	255
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	184	89	113
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	179	121	135
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	365	155	207
4478 B14 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	55	89	81
4478 B14 RRH (Shielded)	18.1	4.2	13.4	0.52	1.68	4.36	1.35	1.28	1.20	29	89	74
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	60	72	69
8843 B2/B66A RRH (Shielded)	14.9	5.5	13.2	0.56	1.37	2.73	1.13	1.21	1.20	30	72	62
4449 B5/B12 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	62	87	81
4449 B5/B12 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	32	87	73
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	74	121	109
RRUS-32 B30 RRH (Shielded)	27.2	3.5	12.1	0.66	2.29	7.77	2.25	1.43	1.20	42	121	101

WIND LOADS WITH ICE:

QD4616-7 Antenna	54.0	24.5	12.1	9.20	4.55	2.20	4.45	1.20	1.29	85	45	55
AIR6419 Antenna	33.6	18.6	9.8	4.35	2.30	1.81	3.42	1.20	1.24	40	22	26
AIR6449 Antenna	33.1	18.4	13.1	4.24	3.02	1.80	2.52	1.20	1.20	39	28	31
DMP65R-BU4DA Antenna	50.5	23.2	10.2	8.15	3.59	2.18	4.94	1.20	1.31	75	36	46
4478 B14 RRH (Side)	20.6	10.8	15.9	1.55	2.28	1.90	1.30	1.20	1.20	14	21	19
4478 B14 RRH (Shielded)	20.6	6.7	15.9	0.96	2.28	3.09	1.30	1.23	1.20	9	21	18
8843 B2/B66A RRH (Side)	17.4	13.4	15.7	1.63	1.90	1.30	1.11	1.20	1.20	15	17	17
8843 B2/B66A RRH (Shielded)	17.4	8.0	15.7	0.97	1.90	2.18	1.11	1.20	1.20	9	17	15
4449 B5/B12 RRH (Side)	20.4	11.9	15.7	1.69	2.23	1.71	1.30	1.20	1.20	16	20	19
4449 B5/B12 RRH (Shielded)	20.4	7.2	15.7	1.03	2.23	2.83	1.30	1.21	1.20	10	20	18
RRUS-32 B30 RRH (Side)	29.7	9.5	14.6	1.97	3.02	3.12	2.03	1.23	1.20	18	28	25
RRUS-32 B30 RRH (Shielded)	29.7	6.0	14.6	1.25	3.02	4.93	2.03	1.31	1.20	12	28	24

WIND LOADS AT 30 MPH:

QD4616-7 Antenna	51.5	22.0	9.6	7.87	3.43	2.34	5.36	1.20	1.33	26	13	16
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	11	6	7
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	11	8	8
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	23	10	13
4478 B14 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	3	6	5
4478 B14 RRH (Shielded)	18.1	4.2	13.4	0.52	1.68	4.36	1.35	1.28	1.20	2	6	5
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	4	5	4
8843 B2/B66A RRH (Shielded)	14.9	5.5	13.2	0.56	1.37	2.73	1.13	1.21	1.20	2	5	4
4449 B5/B12 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	4	5	5
4449 B5/B12 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	2	5	5
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	5	8	7
RRUS-32 B30 RRH (Shielded)	27.2	3.5	12.1	0.66	2.29	7.77	2.25	1.43	1.20	3	8	6

Date: 3/21/2023
Project Name: NORWALK EAST-WILLARD RD
Project No.: CT2132
Designed By: KSBM Checked By: MSC

WIND LOADS

Angle =	150	(deg)	Ice Thickness =	1.27	in.	Equivalent Angle =	330	(deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
QD4616-7 Antenna	51.5	22.0	9.6	7.87	3.43	2.34	5.36	1.20	1.33	416	201	362
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	184	89	160
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	179	121	164
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	365	155	312
4478 B14 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	55	89	64
4478 B14 RRH (Shielded)	18.1	4.2	13.4	0.52	1.68	4.36	1.35	1.28	1.20	29	89	44
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	60	72	63
8843 B2/B66A RRH (Shielded)	14.9	5.5	13.2	0.56	1.37	2.73	1.13	1.21	1.20	30	72	41
4449 B5/B12 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	62	87	68
4449 B5/B12 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	32	87	46
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	74	121	85
RRUS-32 B30 RRH (Shielded)	27.2	3.5	12.1	0.66	2.29	7.77	2.25	1.43	1.20	42	121	61

WIND LOADS WITH ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
QD4616-7 Antenna	54.0	24.5	12.1	9.20	4.55	2.20	4.45	1.20	1.29	85	45	75
AIR6419 Antenna	33.6	18.6	9.8	4.35	2.30	1.81	3.42	1.20	1.24	40	22	35
AIR6449 Antenna	33.1	18.4	13.1	4.24	3.02	1.80	2.52	1.20	1.20	39	28	36
DMP65R-BU4DA Antenna	50.5	23.2	10.2	8.15	3.59	2.18	4.94	1.20	1.31	75	36	65
4478 B14 RRH (Side)	20.6	10.8	15.9	1.55	2.28	1.90	1.30	1.20	1.20	14	21	16
4478 B14 RRH (Shielded)	20.6	6.7	15.9	0.96	2.28	3.09	1.30	1.23	1.20	9	21	12
8843 B2/B66A RRH (Side)	17.4	13.4	15.7	1.63	1.90	1.30	1.11	1.20	1.20	15	17	16
8843 B2/B66A RRH (Shielded)	17.4	8.0	15.7	0.97	1.90	2.18	1.11	1.20	1.20	9	17	11
4449 B5/B12 RRH (Side)	20.4	11.9	15.7	1.69	2.23	1.71	1.30	1.20	1.20	16	20	17
4449 B5/B12 RRH (Shielded)	20.4	7.2	15.7	1.03	2.23	2.83	1.30	1.21	1.20	10	20	12
RRUS-32 B30 RRH (Side)	29.7	9.5	14.6	1.97	3.02	3.12	2.03	1.23	1.20	18	28	21
RRUS-32 B30 RRH (Shielded)	29.7	6.0	14.6	1.25	3.02	4.93	2.03	1.31	1.20	12	28	16

WIND LOADS AT 30 MPH:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
QD4616-7 Antenna	51.5	22.0	9.6	7.87	3.43	2.34	5.36	1.20	1.33	26	13	23
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	11	6	10
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	11	8	10
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	23	10	20
4478 B14 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	3	6	4
4478 B14 RRH (Shielded)	18.1	4.2	13.4	0.52	1.68	4.36	1.35	1.28	1.20	2	6	3
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	4	5	4
8843 B2/B66A RRH (Shielded)	14.9	5.5	13.2	0.56	1.37	2.73	1.13	1.21	1.20	2	5	3
4449 B5/B12 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	4	5	4
4449 B5/B12 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	2	5	3
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	5	8	5
RRUS-32 B30 RRH (Shielded)	27.2	3.5	12.1	0.66	2.29	7.77	2.25	1.43	1.20	3	8	4

Date: 3/21/2023
Project Name: NORWALK EAST-WILLARD RD
Project No.: CT2132
Designed By: KSBM **Checked By:** MSC

ICE WEIGHT CALCULATIONS

Thickness of ice: 1.27 in.
Density of ice: 56 pcf

QD4616-7 Antenna
Weight of ice based on total radial SF area:
Height (in): 51.5
Width (in): 22.0
Depth (in): 9.6
Total weight of ice on object: 168 lbs
Weight of object: 91.0 lbs
Combined weight of ice and object: 259 lbs

AIR6419 Antenna
Weight of ice based on total radial SF area:
Height (in): 31.1
Width (in): 16.1
Depth (in): 7.3
Total weight of ice on object: 76 lbs
Weight of object: 66.0 lbs
Combined weight of ice and object: 142 lbs

AIR6449 Antenna
Weight of ice based on total radial SF area:
Height (in): 30.6
Width (in): 15.9
Depth (in): 10.6
Total weight of ice on object: 81 lbs
Weight of object: 82.0 lbs
Combined weight of ice and object: 163 lbs

DMP65R-BU4DA Antenna
Weight of ice based on total radial SF area:
Height (in): 48.0
Width (in): 20.7
Depth (in): 7.7
Total weight of ice on object: 145 lbs
Weight of object: 68.0 lbs
Combined weight of ice and object: 213 lbs

4478 B14 RRH
Weight of ice based on total radial SF area:
Height (in): 18.1
Width (in): 13.4
Depth (in): 8.3
Total weight of ice on object: 40 lbs
Weight of object: 60.0 lbs
Combined weight of ice and object: 100 lbs

8843 B2/B66A RRH
Weight of ice based on total radial SF area:
Height (in): 14.9
Width (in): 13.2
Depth (in): 10.9
Total weight of ice on object: 35 lbs
Weight of object: 72.0 lbs
Combined weight of ice and object: 107 lbs

4449 B5/B12 RRH
Weight of ice based on total radial SF area:
Height (in): 17.9
Width (in): 13.2
Depth (in): 9.4
Total weight of ice on object: 40 lbs
Weight of object: 73.0 lbs
Combined weight of ice and object: 113 lbs

RRUS-32 B30 RRH
Weight of ice based on total radial SF area:
Height (in): 27.2
Width (in): 12.1
Depth (in): 7.0
Total weight of ice on object: 54 lbs
Weight of object: 60.0 lbs
Combined weight of ice and object: 114 lbs

DC6-48-60-18 Surge Arrestor
Weight of ice based on total radial SF area:
Depth (in): 31.4
Diameter(in): 10.2
Total weight of ice on object: 47 lbs
Weight of object: 29 lbs
Combined weight of ice and object: 76 lbs

3/4" Round Bar
Per foot weight of ice:
diameter (in): 0.75
Per foot weight of ice on object: 3 plf

2" pipe
Per foot weight of ice:
diameter (in): 2.38
Per foot weight of ice on object: 6 plf

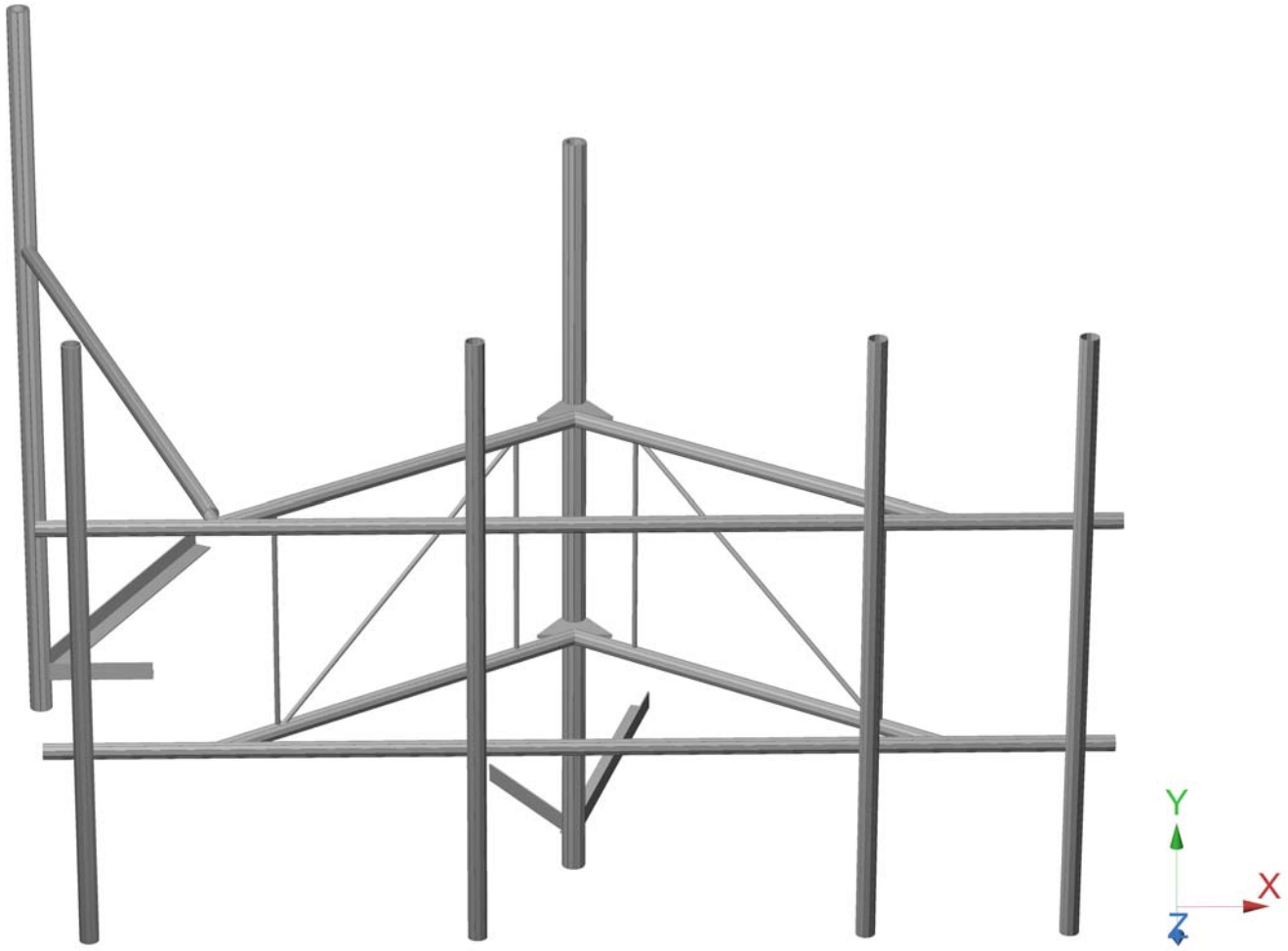
PL 11-1/4x5/8
Weight of ice based on total radial SF area:
Height (in): 11.25
Width (in): 0.63
Per foot weight of ice on object: 19 plf

2-1/2" pipe
Per foot weight of ice:
diameter (in): 2.88
Per foot weight of ice on object: 6 plf

L 3x3 Angles
Weight of ice based on total radial SF area:
Height (in): 3
Width (in): 3
Per foot weight of ice on object: 9 plf

3" Pipe
Per foot weight of ice:
diameter (in): 3.5
Per foot weight of ice on object: 7 plf

Mount Calculations
(Existing Conditions)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X
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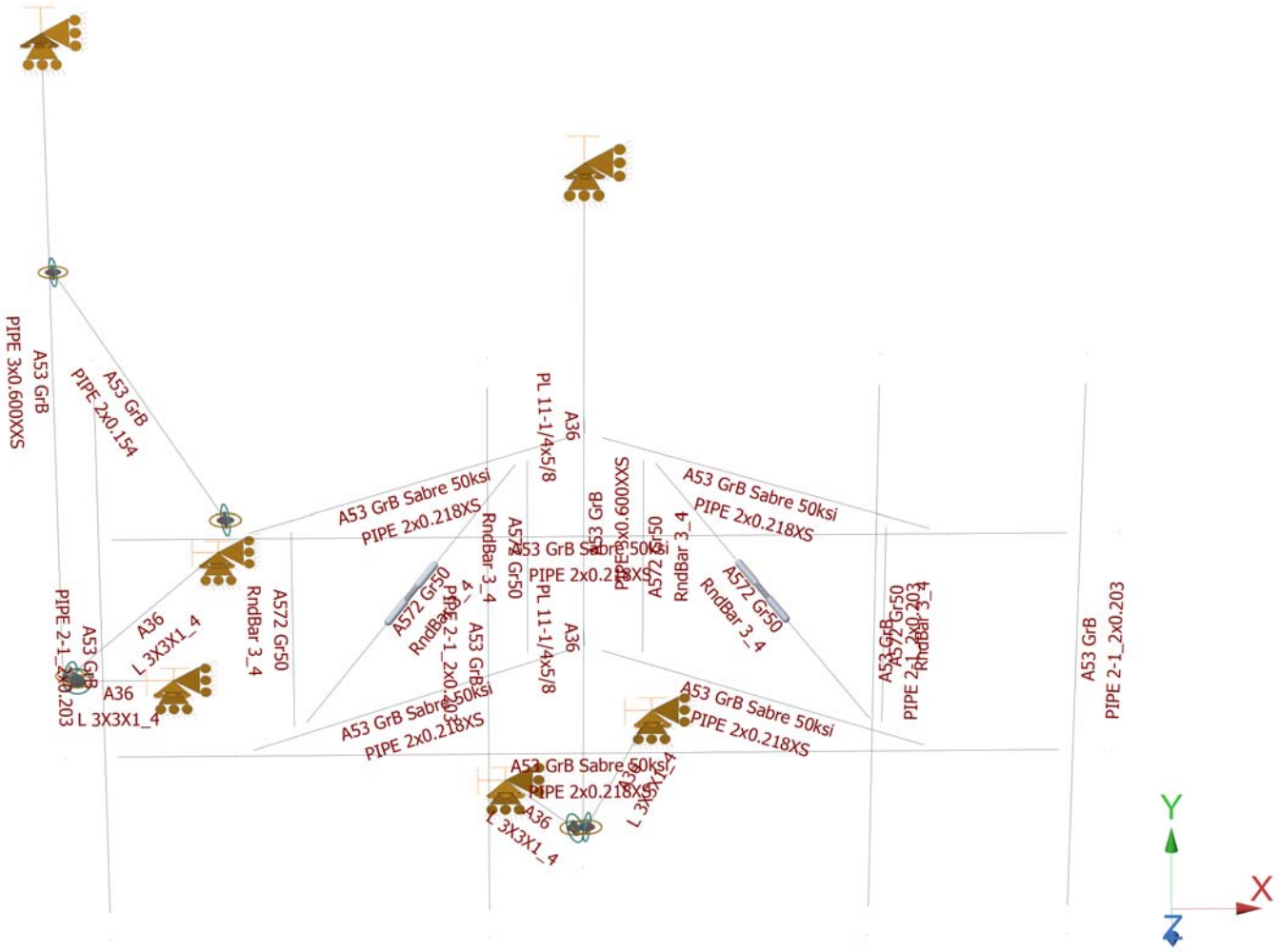
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PIPE 3x0.600XXS
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PIPE 2x0.218XS
A36
PL 11-1/4x5/8
A53 GrB
PIPE 3x0.600XXS
A53 GrB Sabre 50ksi
PIPE 2x0.218XS
A572 Gr50
RndBar 3_4
A572 Gr50
RndBar 3_4
A36
L 3X3X1_4
A572 Gr50
RndBar 3_4
A53 GrB
PIPE 2-1_2x0.203
A36
L 3X3X1_4
A36
PL 11-1/4x5/8
A53 GrB Sabre 50ksi
PIPE 2x0.218XS
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PIPE 2x0.218XS
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PIPE 2x0.218XS
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PIPE 2-1_2x0.203
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Y
X
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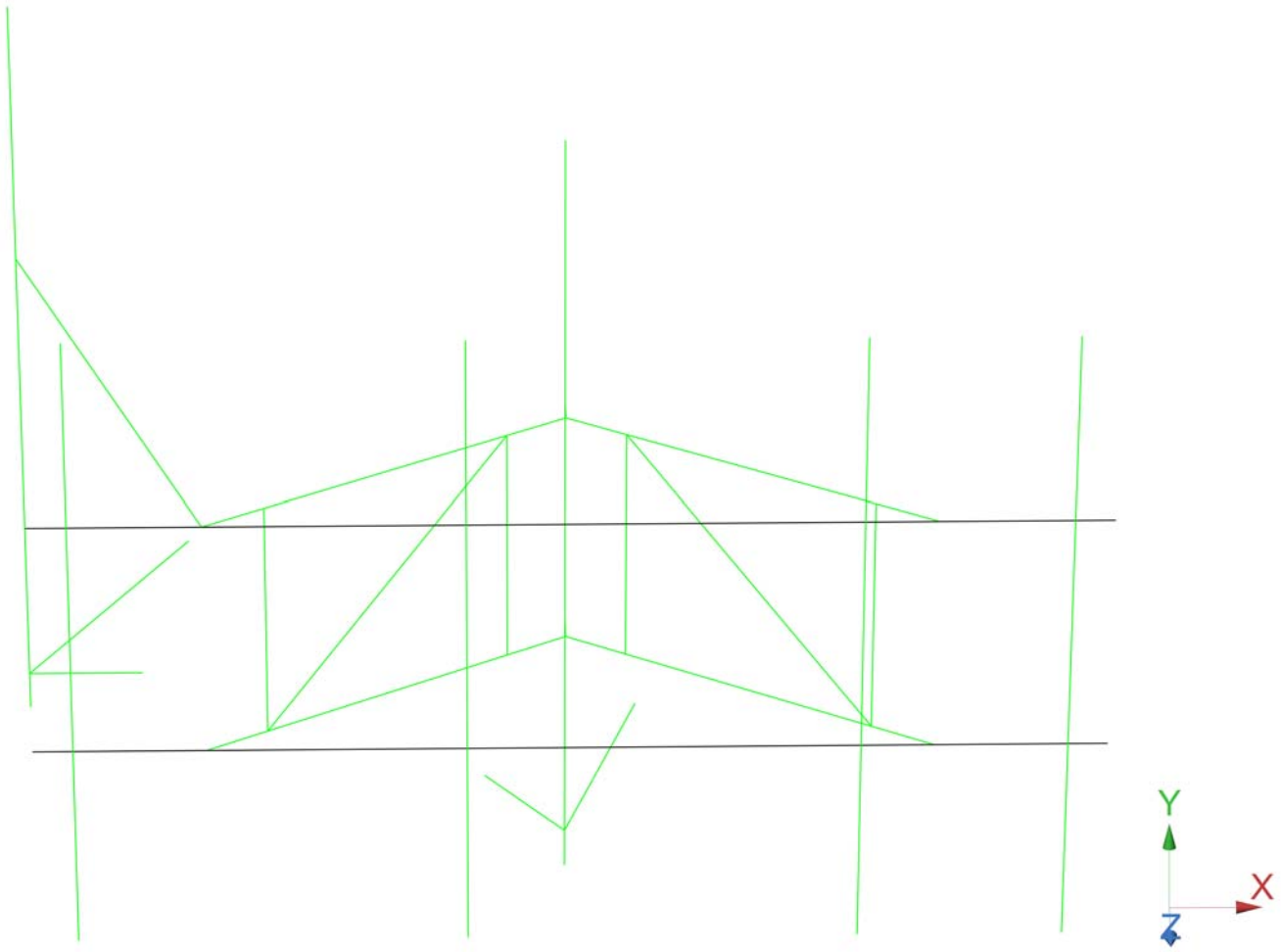
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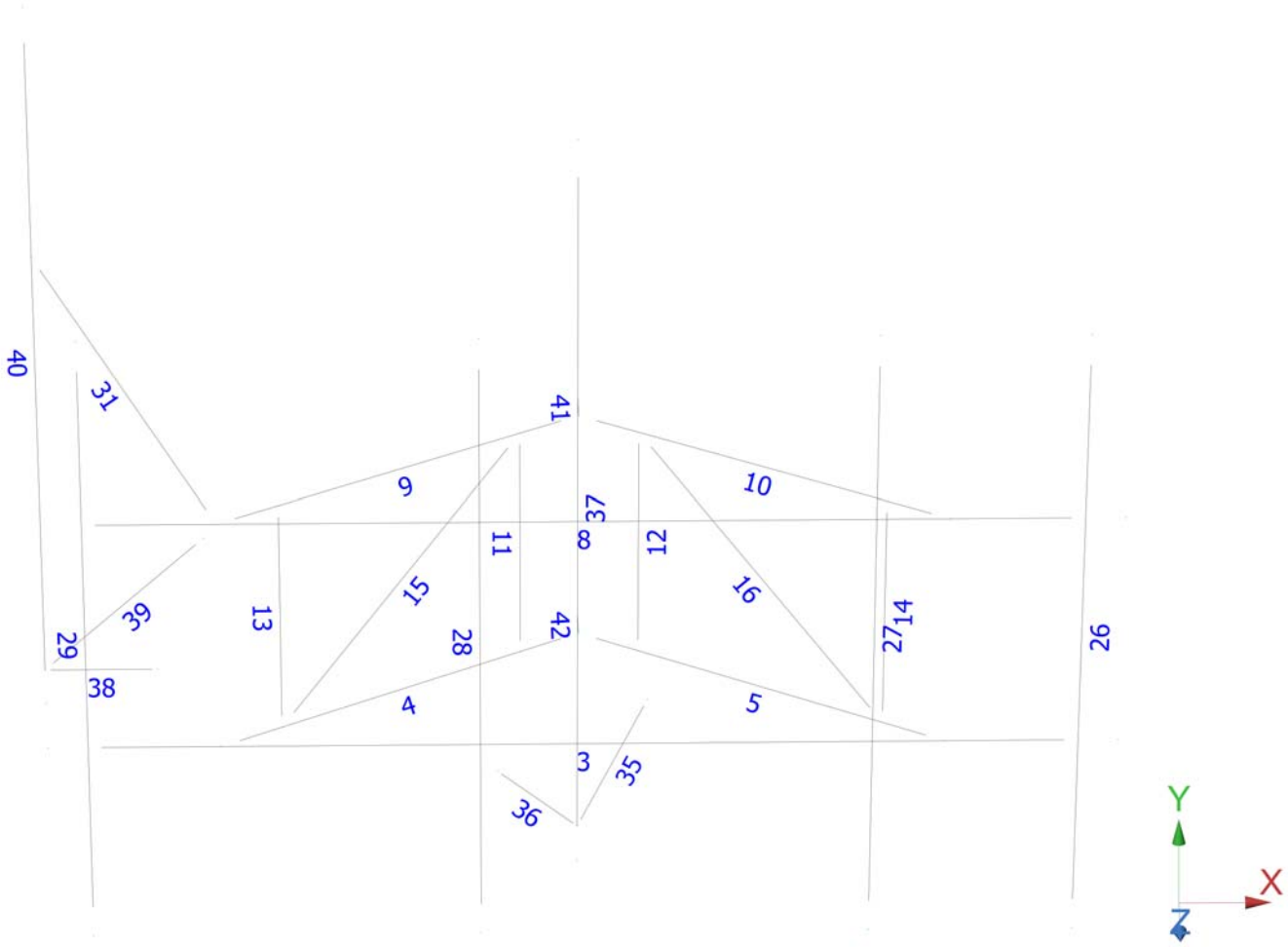
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Z

RAM® Elements
CONNECT Edition

Current Date: 3/21/2023 12:32 PM
Units system: English

Load data

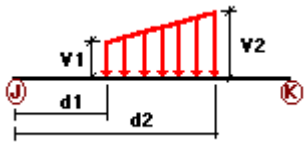
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

Condition	Description	Comb.	Category
D	Dead Load	No	DL
Wo	Wind Load (NO ICE)	No	WIND
W30	WL 30deg	No	WIND
W60	WL 60deg	No	WIND
W90	WL 90deg	No	WIND
W120	WL 120deg	No	WIND
W150	WL 150deg	No	WIND
Di	Ice Load	No	LL
WI0	WL ICE 0deg	No	WIND
WI30	WL ICE 30deg	No	WIND
WI60	WL ICE 60deg	No	WIND
WI90	WL ICE 90deg	No	WIND
WI120	WL ICE 120deg	No	WIND
WI150	WL ICE 150deg	No	WIND
WL0	WL 30 mph 0deg	No	WIND
WL30	WL 30 mph 30deg	No	WIND
WL60	WL 30 mph 60deg	No	WIND
WL90	WL 30 mph 90deg	No	WIND
WL120	WL 30 mph 120deg	No	WIND
WL150	WL 30 mph 150deg	No	WIND
LL1	250 lb Live Load Center of Mount	No	LL
LL2	250 lb Live Load Right End of Mount	No	LL
LL3	250 lb Live Load Left End of Mount	No	LL
LLa1	500 lb Live Load Antenna 1	No	LL
LLa2	500 lb Live Load Antenna 2	No	LL
LLa3	500 lb Live Load Antenna 3	No	LL
LLa4	500 lb Live Load Antenna 4	No	LL

Distributed force on members

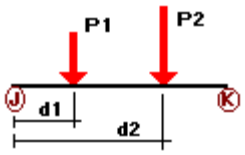


Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wo	3	z	-0.01	0.00	0.00	No	0.00	No
	4	z	-0.01	0.00	0.00	No	0.00	No
	5	z	-0.01	0.00	0.00	No	0.00	No
	8	z	-0.01	0.00	0.00	No	0.00	No
	9	z	-0.01	0.00	0.00	No	0.00	No
	10	z	-0.01	0.00	0.00	No	0.00	No
	11	z	-0.003	0.00	0.00	No	0.00	No
	12	z	-0.003	0.00	0.00	No	0.00	No
	13	z	-0.003	0.00	0.00	No	0.00	No
	14	z	-0.003	0.00	0.00	No	0.00	No
	15	z	-0.003	0.00	0.00	No	0.00	No
	16	z	-0.003	0.00	0.00	No	0.00	No
	26	z	-0.013	0.00	0.00	No	0.00	No
	27	z	-0.013	-0.013	4.50	No	8.00	No
	29	z	-0.013	-0.013	4.50	No	8.00	No
	31	z	-0.01	0.00	0.00	No	0.00	No
	35	z	-0.022	0.00	0.00	No	0.00	No
	36	z	-0.022	0.00	0.00	No	0.00	No
	37	z	-0.015	0.00	0.00	No	0.00	No
	38	z	-0.022	0.00	0.00	No	0.00	No
	39	z	-0.022	0.00	0.00	No	0.00	No
	40	z	-0.015	0.00	0.00	No	0.00	No
	41	z	-0.005	0.00	0.00	No	0.00	No
	42	z	-0.005	0.00	0.00	No	0.00	No
W30	3	z	-0.01	0.00	0.00	No	0.00	No
	4	z	-0.01	0.00	0.00	No	0.00	No
	5	z	-0.01	0.00	0.00	No	0.00	No
	8	z	-0.01	0.00	0.00	No	0.00	No
	9	z	-0.01	0.00	0.00	No	0.00	No
	10	z	-0.01	0.00	0.00	No	0.00	No
	11	z	-0.003	0.00	0.00	No	0.00	No
	12	z	-0.003	0.00	0.00	No	0.00	No
	13	z	-0.003	0.00	0.00	No	0.00	No
	14	z	-0.003	0.00	0.00	No	0.00	No
	15	z	-0.003	0.00	0.00	No	0.00	No
	16	z	-0.003	0.00	0.00	No	0.00	No
	26	z	-0.013	0.00	0.00	No	0.00	No
	27	z	-0.013	-0.013	4.50	No	8.00	No
	29	z	-0.013	-0.013	4.50	No	8.00	No
	31	z	-0.01	0.00	0.00	No	0.00	No
	35	z	-0.022	0.00	0.00	No	0.00	No
	36	z	-0.022	0.00	0.00	No	0.00	No
	37	z	-0.015	0.00	0.00	No	0.00	No
	38	z	-0.022	0.00	0.00	No	0.00	No
	39	z	-0.022	0.00	0.00	No	0.00	No
	40	z	-0.015	0.00	0.00	No	0.00	No
	41	z	-0.005	0.00	0.00	No	0.00	No
	42	z	-0.005	0.00	0.00	No	0.00	No
W60	3	x	-0.01	0.00	0.00	No	0.00	No
	4	x	-0.01	0.00	0.00	No	0.00	No
	5	x	-0.01	0.00	0.00	No	0.00	No
	8	x	-0.01	0.00	0.00	No	0.00	No
	9	x	-0.01	0.00	0.00	No	0.00	No
	10	x	-0.01	0.00	0.00	No	0.00	No
	11	x	-0.003	0.00	0.00	No	0.00	No
	12	x	-0.003	0.00	0.00	No	0.00	No
	13	x	-0.003	0.00	0.00	No	0.00	No
	14	x	-0.003	0.00	0.00	No	0.00	No
	15	x	-0.003	0.00	0.00	No	0.00	No
	16	x	-0.003	0.00	0.00	No	0.00	No

	26	x	-0.013	0.00	0.00	No	0.00	No
	27	x	-0.013	0.00	0.00	No	0.00	No
	28	x	-0.013	0.00	0.00	No	0.00	No
	29	x	-0.013	0.00	0.00	No	0.00	No
	31	x	-0.01	0.00	0.00	No	0.00	No
	35	x	-0.022	0.00	0.00	No	0.00	No
	36	x	-0.022	0.00	0.00	No	0.00	No
	37	x	-0.015	0.00	0.00	No	0.00	No
	38	x	-0.022	0.00	0.00	No	0.00	No
	39	x	-0.022	0.00	0.00	No	0.00	No
	40	x	-0.015	0.00	0.00	No	0.00	No
	41	x	-0.005	0.00	0.00	No	0.00	No
	42	x	-0.005	0.00	0.00	No	0.00	No
W90	4	x	-0.01	0.00	0.00	No	0.00	No
	5	x	-0.01	0.00	0.00	No	0.00	No
	9	x	-0.01	0.00	0.00	No	0.00	No
	10	x	-0.01	0.00	0.00	No	0.00	No
	11	x	-0.003	0.00	0.00	No	0.00	No
	12	x	-0.003	0.00	0.00	No	0.00	No
	13	x	-0.003	0.00	0.00	No	0.00	No
	14	x	-0.003	0.00	0.00	No	0.00	No
	15	x	-0.003	0.00	0.00	No	0.00	No
	16	x	-0.003	0.00	0.00	No	0.00	No
	26	x	-0.013	0.00	0.00	No	0.00	No
	27	x	-0.013	0.00	0.00	No	0.00	No
	28	x	-0.013	0.00	0.00	No	0.00	No
	29	x	-0.013	0.00	0.00	No	0.00	No
	31	x	-0.01	0.00	0.00	No	0.00	No
	35	x	-0.022	0.00	0.00	No	0.00	No
	36	x	-0.022	0.00	0.00	No	0.00	No
	37	x	-0.015	0.00	0.00	No	0.00	No
	38	x	-0.022	0.00	0.00	No	0.00	No
	39	x	-0.022	0.00	0.00	No	0.00	No
	40	x	-0.015	0.00	0.00	No	0.00	No
	41	x	-0.005	0.00	0.00	No	0.00	No
	42	x	-0.005	0.00	0.00	No	0.00	No
W120	3	x	-0.01	0.00	0.00	No	0.00	No
	4	x	-0.01	0.00	0.00	No	0.00	No
	5	x	-0.01	0.00	0.00	No	0.00	No
	8	x	-0.01	0.00	0.00	No	0.00	No
	9	x	-0.01	0.00	0.00	No	0.00	No
	10	x	-0.01	0.00	0.00	No	0.00	No
	11	x	-0.003	0.00	0.00	No	0.00	No
	12	x	-0.003	0.00	0.00	No	0.00	No
	13	x	-0.003	0.00	0.00	No	0.00	No
	14	x	-0.003	0.00	0.00	No	0.00	No
	15	x	-0.003	0.00	0.00	No	0.00	No
	16	x	-0.003	0.00	0.00	No	0.00	No
	26	x	-0.013	0.00	0.00	No	0.00	No
	27	x	-0.013	0.00	0.00	No	0.00	No
	28	x	-0.013	0.00	0.00	No	0.00	No
	29	x	-0.013	0.00	0.00	No	0.00	No
	31	x	-0.01	0.00	0.00	No	0.00	No
	35	x	-0.022	0.00	0.00	No	0.00	No
	36	x	-0.022	0.00	0.00	No	0.00	No
	37	x	-0.015	0.00	0.00	No	0.00	No
	38	x	-0.022	0.00	0.00	No	0.00	No
	39	x	-0.022	0.00	0.00	No	0.00	No
	40	x	-0.015	0.00	0.00	No	0.00	No
	41	x	-0.005	0.00	0.00	No	0.00	No

	42	x	-0.005	0.00	0.00	No	0.00	No
W150	3	z	0.01	0.00	0.00	No	0.00	No
	4	z	0.01	0.00	0.00	No	0.00	No
	5	z	0.01	0.00	0.00	No	0.00	No
	8	z	0.01	0.00	0.00	No	0.00	No
	9	z	0.01	0.00	0.00	No	0.00	No
	10	z	0.01	0.00	0.00	No	0.00	No
	11	z	0.003	0.00	0.00	No	0.00	No
	12	z	0.003	0.00	0.00	No	0.00	No
	13	z	0.003	0.00	0.00	No	0.00	No
	14	z	0.003	0.00	0.00	No	0.00	No
	15	z	0.003	0.00	0.00	No	0.00	No
	16	z	0.003	0.00	0.00	No	0.00	No
	26	z	0.013	0.00	0.00	No	0.00	No
	27	z	0.013	0.00	0.00	No	0.00	No
	28	z	0.013	0.00	0.00	No	0.00	No
	29	z	0.013	0.00	0.00	No	0.00	No
	31	z	0.01	0.00	0.00	No	0.00	No
	35	z	0.022	0.00	0.00	No	0.00	No
	36	z	0.022	0.00	0.00	No	0.00	No
	37	z	0.015	0.00	0.00	No	0.00	No
	38	z	0.022	0.00	0.00	No	0.00	No
	39	z	0.022	0.00	0.00	No	0.00	No
	40	z	0.015	0.00	0.00	No	0.00	No
	41	z	0.005	0.00	0.00	No	0.00	No
	42	z	0.005	0.00	0.00	No	0.00	No
Di	3	y	-0.006	0.00	0.00	No	0.00	No
	4	y	-0.006	0.00	0.00	No	0.00	No
	5	y	-0.006	0.00	0.00	No	0.00	No
	8	y	-0.006	0.00	0.00	No	0.00	No
	9	y	-0.006	0.00	0.00	No	0.00	No
	10	y	-0.006	0.00	0.00	No	0.00	No
	11	y	-0.003	0.00	0.00	No	0.00	No
	12	y	-0.003	0.00	0.00	No	0.00	No
	13	y	-0.003	0.00	0.00	No	0.00	No
	14	y	-0.003	0.00	0.00	No	0.00	No
	15	y	-0.003	0.00	0.00	No	0.00	No
	16	y	-0.003	0.00	0.00	No	0.00	No
	26	y	-0.006	0.00	0.00	No	0.00	No
	27	y	-0.006	0.00	0.00	No	0.00	No
	28	y	-0.006	0.00	0.00	No	0.00	No
	29	y	-0.006	0.00	0.00	No	0.00	No
	31	y	-0.006	0.00	0.00	No	0.00	No
	35	y	-0.009	0.00	0.00	No	0.00	No
	36	y	-0.009	0.00	0.00	No	0.00	No
	37	y	-0.007	0.00	0.00	No	0.00	No
	38	y	-0.009	0.00	0.00	No	0.00	No
	39	y	-0.009	0.00	0.00	No	0.00	No
	40	y	-0.007	0.00	0.00	No	0.00	No
	41	y	-0.019	0.00	0.00	No	0.00	No
	42	y	-0.019	0.00	0.00	No	0.00	No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
D	27	y	-0.046	1.00	No
		y	-0.046	4.00	No
		y	-0.06	3.00	No
		y	-0.072	3.00	No
	28	y	-0.033	1.25	No
		y	-0.033	3.00	No
		y	-0.041	5.00	No
		y	-0.041	6.75	No
	29	y	-0.034	1.00	No
		y	-0.034	4.00	No
		y	-0.073	3.00	No
		y	-0.06	3.00	No
Wo	27	z	-0.209	1.00	No
		z	-0.209	4.00	No
		z	-0.029	3.00	No
		z	-0.03	3.00	No
	28	z	-0.092	1.25	No
		z	-0.092	3.00	No
		z	-0.09	5.00	No
		z	-0.09	6.75	No
	29	z	-0.183	1.00	No
		z	-0.183	4.00	No
		z	-0.032	3.00	No
		z	-0.042	3.00	No
W30	27	3	-0.182	1.00	No
		3	-0.182	4.00	No
		3	-0.044	3.00	No
	28	3	-0.08	1.25	No
		3	-0.08	3.00	No
		3	-0.083	5.00	No
		3	-0.083	6.75	No
	29	3	-0.157	1.00	No
		3	-0.157	4.00	No
		3	-0.061	3.00	No
W60	27	3	-0.128	1.00	No
		3	-0.128	4.00	No
		3	-0.074	3.00	No
	28	3	-0.057	1.25	No
		3	-0.057	3.00	No
		3	-0.068	5.00	No
		3	-0.068	6.75	No
	29	3	-0.104	1.00	No
		3	-0.104	4.00	No
		3	-0.101	3.00	No
W90	27	x	-0.101	1.00	No
		x	-0.101	4.00	No
		x	-0.089	3.00	No
	28	x	-0.045	1.25	No
		x	-0.045	3.00	No
		x	-0.061	5.00	No
		x	-0.061	6.75	No
	29	x	-0.078	1.00	No
		x	-0.078	4.00	No
		x	-0.121	3.00	No

W120	27	2	-0.128	1.00	No
		2	-0.128	4.00	No
		2	-0.074	3.00	No
	28	2	-0.057	1.25	No
		2	-0.057	3.00	No
		2	-0.068	5.00	No
		2	-0.068	6.75	No
	29	2	-0.104	1.00	No
		2	-0.104	4.00	No
		2	-0.101	3.00	No
W150	27	2	-0.182	1.00	No
		2	-0.182	4.00	No
		2	-0.044	3.00	No
	28	2	-0.08	1.25	No
		2	-0.08	3.00	No
		2	-0.083	5.00	No
		2	-0.083	6.75	No
	29	2	-0.157	1.00	No
		2	-0.157	4.00	No
		2	-0.061	3.00	No
Di	27	y	-0.085	1.00	No
		y	-0.085	4.00	No
		y	-0.04	3.00	No
		y	-0.035	3.00	No
	28	y	-0.038	1.25	No
		y	-0.038	3.00	No
		y	-0.041	5.00	No
		y	-0.041	6.75	No
	29	y	-0.073	1.00	No
		y	-0.073	4.00	No
		y	-0.04	3.00	No
		y	-0.054	3.00	No
WI0	27	z	-0.043	1.00	No
		z	-0.043	4.00	No
		z	-0.009	3.00	No
		z	-0.009	3.00	No
	28	z	-0.02	1.25	No
		z	-0.02	3.00	No
		z	-0.02	5.00	No
		z	-0.02	6.75	No
	29	z	-0.038	1.00	No
		z	-0.038	4.00	No
		z	-0.01	3.00	No
		z	-0.014	3.00	No
WI30	27	3	-0.038	1.00	No
		3	-0.038	4.00	No
		3	-0.012	3.00	No
	28	3	-0.018	1.25	No
		3	-0.018	3.00	No
		3	-0.019	5.00	No
		3	-0.019	6.75	No
	29	3	-0.033	1.00	No
		3	-0.033	4.00	No
		3	-0.016	3.00	No
WI60	27	3	-0.028	1.00	No
		3	-0.028	4.00	No
		3	-0.018	3.00	No
	28	3	-0.014	1.25	No
		3	-0.014	3.00	No
		3	-0.016	5.00	No

		3	-0.016	6.75	No
	29	3	-0.023	1.00	No
		3	-0.023	4.00	No
		3	-0.024	3.00	No
WI90	27	x	-0.023	1.00	No
		x	-0.023	4.00	No
	28	x	-0.011	1.25	No
		x	-0.011	3.00	No
		x	-0.014	5.00	No
		x	-0.014	6.75	No
	29	x	-0.018	1.00	No
		x	-0.018	4.00	No
WI120	27	2	-0.028	1.00	No
		2	-0.028	4.00	No
		2	-0.018	3.00	No
	28	2	-0.014	1.25	No
		2	-0.014	3.00	No
		2	-0.016	5.00	No
		2	-0.016	6.75	No
	29	2	-0.023	1.00	No
		2	-0.023	4.00	No
		2	-0.024	3.00	No
WI150	27	2	-0.038	1.00	No
		2	-0.038	4.00	No
		2	-0.012	3.00	No
	28	2	-0.018	1.25	No
		2	-0.018	3.00	No
		2	-0.019	5.00	No
		2	-0.019	6.75	No
	29	2	-0.033	1.00	No
		2	-0.033	4.00	No
		2	-0.016	3.00	No
WL0	27	z	-0.014	1.00	No
		z	-0.014	4.00	No
		z	-0.002	3.00	No
		z	-0.002	3.00	No
	28	z	-0.006	1.25	No
		z	-0.006	3.00	No
		z	-0.006	5.00	No
		z	-0.006	6.75	No
	29	z	-0.012	1.00	No
		z	-0.012	4.00	No
		z	-0.002	3.00	No
		z	-0.003	3.00	No
WL30	27	3	-0.012	1.00	No
		3	-0.012	4.00	No
		3	-0.003	3.00	No
	28	3	-0.005	1.25	No
		3	-0.005	3.00	No
		3	-0.006	5.00	No
		3	-0.006	6.75	No
	29	3	-0.01	1.00	No
		3	-0.01	4.00	No
		3	-0.004	3.00	No
WL60	27	3	-0.008	1.00	No
		3	-0.008	4.00	No
		3	-0.005	3.00	No
	28	3	-0.004	1.25	No
		3	-0.004	3.00	No
		3	-0.005	5.00	No

		3	-0.005	6.75	No
	29	3	-0.007	1.00	No
		3	-0.007	4.00	No
		3	-0.006	3.00	No
WL90	27	x	-0.007	1.00	No
		x	-0.007	4.00	No
		x	-0.006	3.00	No
	28	x	-0.003	1.25	No
		x	-0.003	3.00	No
		x	-0.004	5.00	No
		x	-0.004	6.75	No
	29	x	-0.005	1.00	No
		x	-0.005	4.00	No
		x	-0.008	3.00	No
WL120	27	2	-0.008	1.00	No
		2	-0.008	4.00	No
		2	-0.005	3.00	No
	28	2	-0.004	1.25	No
		2	-0.004	3.00	No
		2	-0.005	5.00	No
		2	-0.005	6.75	No
	29	2	-0.007	1.00	No
		2	-0.007	4.00	No
		2	-0.006	3.00	No
WL150	27	2	-0.012	1.00	No
		2	-0.012	4.00	No
		2	-0.003	3.00	No
	28	2	-0.005	1.25	No
		2	-0.005	3.00	No
		2	-0.006	5.00	No
		2	-0.006	6.75	No
	29	2	-0.01	1.00	No
		2	-0.01	4.00	No
		2	-0.004	3.00	No
LL1	8	y	-0.25	50.00	Yes
LL2	8	y	-0.25	100.00	Yes
LL3	8	y	-0.25	0.00	Yes
LLa1	26	y	-0.50	50.00	Yes
LLa2	27	y	-0.50	50.00	Yes
LLa3	28	y	-0.50	50.00	Yes
LLa4	29	y	-0.50	50.00	Yes

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00
W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00

WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00
WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00
LLa1	500 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	500 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	500 lb Live Load Antenna 3	No	0.00	0.00	0.00
LLa4	500 lb Live Load Antenna 4	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
D	0.00	0.00	0.00
Wo	0.00	0.00	0.00
W30	0.00	0.00	0.00
W60	0.00	0.00	0.00
W90	0.00	0.00	0.00
W120	0.00	0.00	0.00
W150	0.00	0.00	0.00
Di	0.00	0.00	0.00
WI0	0.00	0.00	0.00
WI30	0.00	0.00	0.00
WI60	0.00	0.00	0.00
WI90	0.00	0.00	0.00
WI120	0.00	0.00	0.00
WI150	0.00	0.00	0.00
WL0	0.00	0.00	0.00
WL30	0.00	0.00	0.00
WL60	0.00	0.00	0.00
WL90	0.00	0.00	0.00
WL120	0.00	0.00	0.00
WL150	0.00	0.00	0.00
LL1	0.00	0.00	0.00
LL2	0.00	0.00	0.00
LL3	0.00	0.00	0.00
LLa1	0.00	0.00	0.00
LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00
LLa4	0.00	0.00	0.00

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Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+WI0
LC26=1.2D+Di+WI30
LC27=1.2D+Di+WI60
LC28=1.2D+Di+WI90
LC29=1.2D+Di+WI120
LC30=1.2D+Di+WI150
LC31=1.2D+Di-WI0
LC32=1.2D+Di-WI30
LC33=1.2D+Di-WI60
LC34=1.2D+Di-WI90
LC35=1.2D+Di-WI120
LC36=1.2D+Di-WI150
LC37=1.2D+1.6LL1
LC38=1.2D+1.6LL2
LC39=1.2D+1.6LL3
LC40=1.2D+WL0+1.6LLa1
LC41=1.2D+WL30+1.6LLa1
LC42=1.2D+WL60+1.6LLa1
LC43=1.2D+WL90+1.6LLa1
LC44=1.2D+WL120+1.6LLa1
LC45=1.2D+WL150+1.6LLa1
LC46=1.2D-WL0+1.6LLa1
LC47=1.2D-WL30+1.6LLa1
LC48=1.2D-WL60+1.6LLa1
LC49=1.2D-WL90+1.6LLa1
LC50=1.2D-WL120+1.6LLa1
LC51=1.2D-WL150+1.6LLa1
LC52=1.2D+WL0+1.6LLa2
LC53=1.2D+WL30+1.6LLa2
LC54=1.2D+WL60+1.6LLa2

LC55=1.2D+WL90+1.6LLa2
LC56=1.2D+WL120+1.6LLa2
LC57=1.2D+WL150+1.6LLa2
LC58=1.2D-WL0+1.6LLa2
LC59=1.2D-WL30+1.6LLa2
LC60=1.2D-WL60+1.6LLa2
LC61=1.2D-WL90+1.6LLa2
LC62=1.2D-WL120+1.6LLa2
LC63=1.2D-WL150+1.6LLa2
LC64=1.2D+WL0+1.6LLa3
LC65=1.2D+WL30+1.6LLa3
LC66=1.2D+WL60+1.6LLa3
LC67=1.2D+WL90+1.6LLa3
LC68=1.2D+WL120+1.6LLa3
LC69=1.2D+WL150+1.6LLa3
LC70=1.2D-WL0+1.6LLa3
LC71=1.2D-WL30+1.6LLa3
LC72=1.2D-WL60+1.6LLa3
LC73=1.2D-WL90+1.6LLa3
LC74=1.2D-WL120+1.6LLa3
LC75=1.2D-WL150+1.6LLa3
LC76=1.2D+WL0+1.6LLa4
LC77=1.2D+WL30+1.6LLa4
LC78=1.2D+WL60+1.6LLa4
LC79=1.2D+WL90+1.6LLa4
LC80=1.2D+WL120+1.6LLa4
LC81=1.2D+WL150+1.6LLa4
LC82=1.2D-WL0+1.6LLa4
LC83=1.2D-WL30+1.6LLa4
LC84=1.2D-WL60+1.6LLa4
LC85=1.2D-WL90+1.6LLa4
LC86=1.2D-WL120+1.6LLa4
LC87=1.2D-WL150+1.6LLa4

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	L 3X3X1_4	**35**	LC11 at 0.00%	**0.06**	**OK**	
		36	LC3 at 100.00%	0.03	OK	
		38	LC9 at 0.00%	0.01	OK	
		39	LC3 at 43.75%	0.04	OK	
	PIPE 2-1_2x0.203	**26**	LC47 at 31.25%	0.14	OK	
		27	LC4 at 31.25%	0.13	OK	
		28	LC9 at 31.25%	0.13	OK	
		29	LC77 at 31.25%	**0.18**	**OK**	
	PIPE 2x0.154	**31**	LC3 at 50.00%	**0.09**	**OK**	
	PIPE 2x0.218XS	**3**	LC64 at 40.18%	0.21	With warnings	
		4	LC82 at 16.67%	0.19	OK	
		5	LC40 at 83.33%	0.16	OK	
		8	LC7 at 16.96%	**0.24**	**With warnings**	
		9	LC82 at 16.67%	0.16	OK	
		10	LC45 at 85.42%	0.15	OK	
	PIPE 3x0.600XXS	**37**	LC6 at 65.63%	**0.54**	**OK**	
		40	LC9 at 66.67%	0.21	OK	
	PL 11-1/4x5/8	**41**	LC6 at 100.00%	**0.79**	**OK**	
		42	LC12 at 100.00%	0.67	OK	
	RndBar 3_4	**11**	LC87 at 0.00%	0.45	OK	
		12	LC40 at 100.00%	0.44	OK	
		13	LC82 at 100.00%	**0.48**	**OK**	
		14	LC41 at 0.00%	0.40	OK	

15	LC83 at 0.00%	0.16	OK
16	LC41 at 0.00%	0.15	OK

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Geometry data

GLOSSARY

Cb22, Cb33	: Moment gradient coefficients
Cm22, Cm33	: Coefficients applied to bending term in interaction formula
d0	: Tapered member section depth at J end of member
DJX	: Rigid end offset distance measured from J node in axis X
DJY	: Rigid end offset distance measured from J node in axis Y
DJZ	: Rigid end offset distance measured from J node in axis Z
DKX	: Rigid end offset distance measured from K node in axis X
DKY	: Rigid end offset distance measured from K node in axis Y
DKZ	: Rigid end offset distance measured from K node in axis Z
dL	: Tapered member section depth at K end of member
Ig factor	: Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members
K22	: Effective length factor about axis 2
K33	: Effective length factor about axis 3
L22	: Member length for calculation of axial capacity
L33	: Member length for calculation of axial capacity
LB pos	: Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg	: Lateral unbraced length of the compression flange in the negative side of local axis 2
RX	: Rotation about X
RY	: Rotation about Y
RZ	: Rotation about Z
TO	: 1 = Tension only member 0 = Normal member
TX	: Translation in X
TY	: Translation in Y
TZ	: Translation in Z

Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
2	6.50	0.00	0.00	0
3	-6.50	0.00	0.00	0
8	-4.40	0.00	0.00	0
9	4.40	0.00	0.00	0
10	0.00	0.00	-3.00	0
11	-3.6667	0.00	-0.50	0
12	3.6667	0.00	-0.50	0
13	0.7333	0.00	-2.50	0
14	-0.7333	0.00	-2.50	0
16	6.50	3.00	0.00	0
17	-6.50	3.00	0.00	0
22	-4.40	3.00	0.00	0
23	4.40	3.00	0.00	0
24	0.00	3.00	-3.00	0
25	-3.6667	3.00	-0.50	0
26	3.6667	3.00	-0.50	0
27	0.7333	3.00	-2.50	0
28	-0.7333	3.00	-2.50	0
33	-6.00	5.50	0.20	0
34	6.00	5.50	0.20	0
35	-6.00	-2.50	0.20	0
36	6.00	-2.50	0.20	0
42	3.50	5.50	0.20	0

43	3.50	-2.50	0.20	0
48	-1.25	5.50	0.20	0
49	-1.25	-2.50	0.20	0
51	-7.00	3.00	-8.00	0
57	0.00	-3.50	-3.4792	0
58	0.00	-3.00	-3.4792	0
59	1.00	-3.00	-7.00	0
60	-1.00	-3.00	-5.00	0
62	0.00	6.50	-3.4792	0
63	-7.00	-3.50	-8.00	0
64	-7.00	-3.00	-8.00	0
65	-5.50	-3.00	-8.00	0
66	-5.00	-3.00	-12.00	0
67	-7.00	6.50	-8.00	0
68	0.00	3.00	-3.4792	0
69	0.00	0.00	-3.4792	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
59	1	1	1	1	0	1
60	1	1	1	1	0	1
62	1	1	1	0	1	0
65	1	1	1	1	0	1
66	1	1	1	1	0	1
67	1	1	1	0	1	0

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	lg factor
3	3	2		PIPE 2x0.218XS	A53 GrB Sabre 50ksi	0.00	0.00	0.00
4	8	10		PIPE 2x0.218XS	A53 GrB Sabre 50ksi	0.00	0.00	0.00
5	9	10		PIPE 2x0.218XS	A53 GrB Sabre 50ksi	0.00	0.00	0.00
8	17	16		PIPE 2x0.218XS	A53 GrB Sabre 50ksi	0.00	0.00	0.00
9	22	24		PIPE 2x0.218XS	A53 GrB Sabre 50ksi	0.00	0.00	0.00
10	23	24		PIPE 2x0.218XS	A53 GrB Sabre 50ksi	0.00	0.00	0.00
11	14	28		RndBar 3_4	A572 Gr50	0.00	0.00	0.00
12	27	13		RndBar 3_4	A572 Gr50	0.00	0.00	0.00
13	25	11		RndBar 3_4	A572 Gr50	0.00	0.00	0.00
14	12	26		RndBar 3_4	A572 Gr50	0.00	0.00	0.00
15	28	11		RndBar 3_4	A572 Gr50	0.00	0.00	0.00
16	27	12		RndBar 3_4	A572 Gr50	0.00	0.00	0.00
26	34	36		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
27	42	43		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
28	48	49		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
29	33	35		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
31	22	51		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
35	59	58		L 3X3X1_4	A36	0.00	0.00	0.00
36	58	60		L 3X3X1_4	A36	0.00	0.00	0.00
37	57	62		PIPE 3x0.600XXS	A53 GrB	0.00	0.00	0.00

38	65	64	L 3X3X1_4	A36	0.00	0.00	0.00
39	64	66	L 3X3X1_4	A36	0.00	0.00	0.00
40	63	67	PIPE 3x0.600XXS	A53 GrB	0.00	0.00	0.00
41	24	68	PL 11-1/4x5/8	A36	11.25	4.00	0.00
42	10	69	PL 11-1/4x5/8	A36	11.25	4.00	0.00

Orientation of local axes

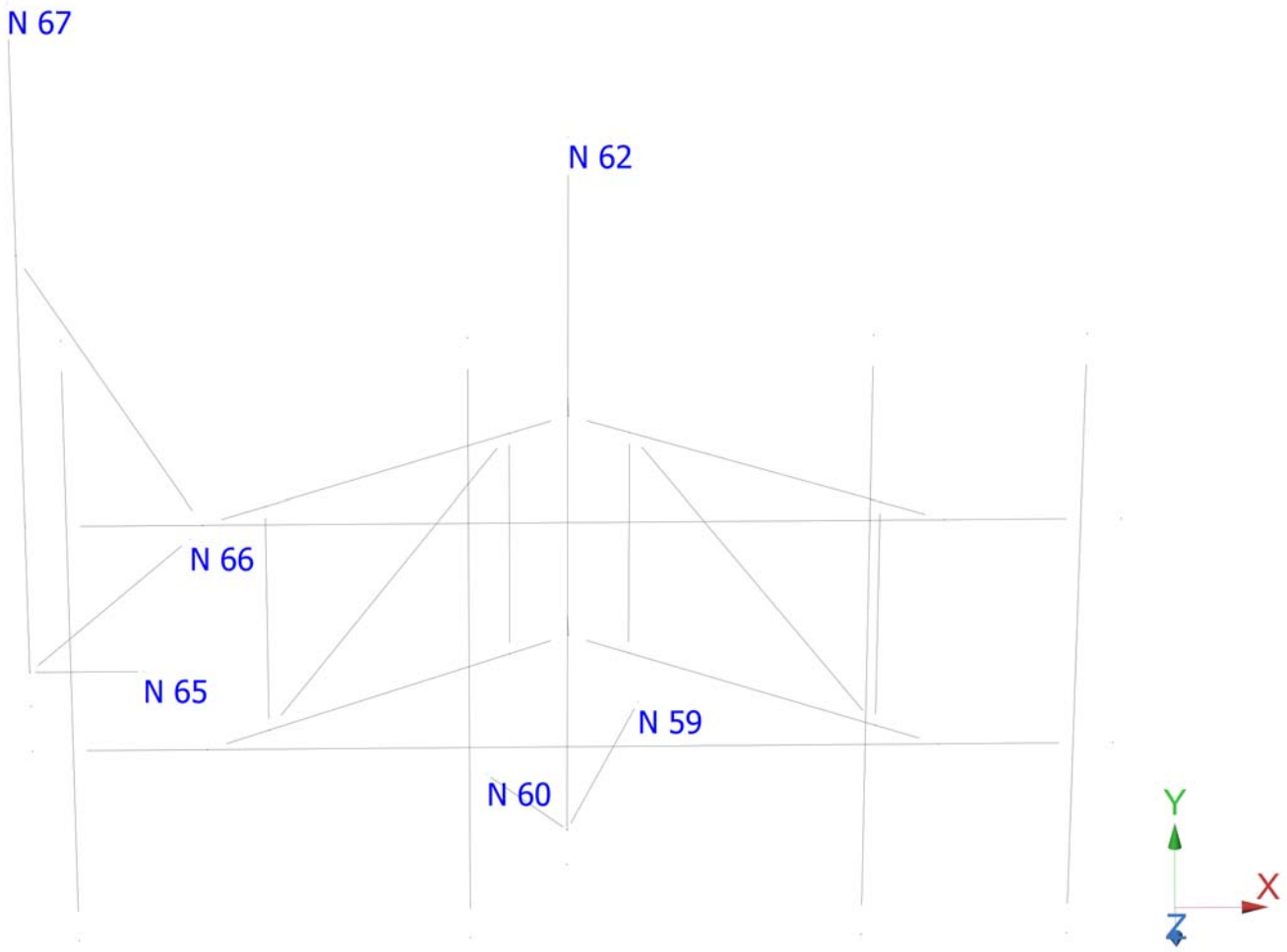
Member	Rotation [Deg]	Axes23	NX	NY	NZ
12	315.00	0	0.00	0.00	0.00
26	315.00	0	0.00	0.00	0.00
27	315.00	0	0.00	0.00	0.00
28	315.00	0	0.00	0.00	0.00
29	315.00	0	0.00	0.00	0.00
41	90.00	0	0.00	0.00	0.00
42	90.00	0	0.00	0.00	0.00

Rigid end offsets

Member	DJX [in]	DJY [in]	DJZ [in]	DKX [in]	DKY [in]	DKZ [in]
31	0.00	2.00	0.00	0.00	2.00	0.00

Hinges

	Node-J				Node-K						
Member	M33	M22	V3	V2	M33	M22	V3	V2	TOR	AXL	Axial rigidity
15	0	0	0	0	0	0	0	0	0	0	Tension only
16	0	0	0	0	0	0	0	0	0	0	Tension only
31	1	1	0	0	1	1	0	0	0	0	Full
35	0	0	0	0	1	1	0	0	0	0	Full
36	1	1	0	0	0	0	0	0	0	0	Full
38	0	0	0	0	1	1	0	0	0	0	Full
39	1	1	0	0	0	0	0	0	0	0	Full


N 67
N 62
N 66
N 65
N 59
N 60
Y
X
Z

RAM® Elements
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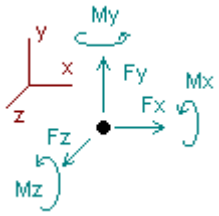
Current Date: 3/21/2023 12:34 PM
Units system: English

Analysis result

Envelope for nodal reactions

Note.- **Ic** is the controlling load condition



Direction of positive forces and moments

Envelope of nodal reactions for :

LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+WI0
LC26=1.2D+Di+WI30
LC27=1.2D+Di+WI60
LC28=1.2D+Di+WI90
LC29=1.2D+Di+WI120
LC30=1.2D+Di+WI150
LC31=1.2D+Di-WI0
LC32=1.2D+Di-WI30
LC33=1.2D+Di-WI60
LC34=1.2D+Di-WI90
LC35=1.2D+Di-WI120
LC36=1.2D+Di-WI150
LC37=1.2D+1.6LL1
LC38=1.2D+1.6LL2
LC39=1.2D+1.6LL3
LC40=1.2D+WL0+1.6LLa1
LC41=1.2D+WL30+1.6LLa1
LC42=1.2D+WL60+1.6LLa1

LC43=1.2D+WL90+1.6LLa1
LC44=1.2D+WL120+1.6LLa1
LC45=1.2D+WL150+1.6LLa1
LC46=1.2D-WL0+1.6LLa1
LC47=1.2D-WL30+1.6LLa1
LC48=1.2D-WL60+1.6LLa1
LC49=1.2D-WL90+1.6LLa1
LC50=1.2D-WL120+1.6LLa1
LC51=1.2D-WL150+1.6LLa1
LC52=1.2D+WL0+1.6LLa2
LC53=1.2D+WL30+1.6LLa2
LC54=1.2D+WL60+1.6LLa2
LC55=1.2D+WL90+1.6LLa2
LC56=1.2D+WL120+1.6LLa2
LC57=1.2D+WL150+1.6LLa2
LC58=1.2D-WL0+1.6LLa2
LC59=1.2D-WL30+1.6LLa2
LC60=1.2D-WL60+1.6LLa2
LC61=1.2D-WL90+1.6LLa2
LC62=1.2D-WL120+1.6LLa2
LC63=1.2D-WL150+1.6LLa2
LC64=1.2D+WL0+1.6LLa3
LC65=1.2D+WL30+1.6LLa3
LC66=1.2D+WL60+1.6LLa3
LC67=1.2D+WL90+1.6LLa3
LC68=1.2D+WL120+1.6LLa3
LC69=1.2D+WL150+1.6LLa3
LC70=1.2D-WL0+1.6LLa3
LC71=1.2D-WL30+1.6LLa3
LC72=1.2D-WL60+1.6LLa3
LC73=1.2D-WL90+1.6LLa3
LC74=1.2D-WL120+1.6LLa3
LC75=1.2D-WL150+1.6LLa3
LC76=1.2D+WL0+1.6LLa4
LC77=1.2D+WL30+1.6LLa4
LC78=1.2D+WL60+1.6LLa4
LC79=1.2D+WL90+1.6LLa4
LC80=1.2D+WL120+1.6LLa4
LC81=1.2D+WL150+1.6LLa4
LC82=1.2D-WL0+1.6LLa4
LC83=1.2D-WL30+1.6LLa4
LC84=1.2D-WL60+1.6LLa4
LC85=1.2D-WL90+1.6LLa4
LC86=1.2D-WL120+1.6LLa4
LC87=1.2D-WL150+1.6LLa4

		Forces						Moments					
Node		**Fx** [Kip]	**lc**	**Fy** [Kip]	**lc**	**Fz** [Kip]	**lc**	**Mx** [Kip*ft]	**lc**	**My** [Kip*ft]	**lc**	**Mz** [Kip*ft]	**lc**
59	Max	0.249	LC17	0.035	LC25	1.417	LC12	0.01214	LC16	0.00000	LC1	0.00086	LC17
	Min	-0.441	LC11	0.005	LC17	-0.742	LC18	-0.03164	LC10	0.00000	LC1	-0.00805	LC26
60	Max	0.505	LC4	0.023	LC36	0.742	LC4	0.00198	LC23	0.00000	LC1	0.01350	LC12
	Min	-0.432	LC22	0.006	LC21	-0.632	LC22	-0.01487	LC5	0.00000	LC1	-0.00342	LC18
62	Max	0.739	LC4	2.471	LC26	0.804	LC24	0.00000	LC1	0.90838	LC6	0.00000	LC1
	Min	-0.607	LC22	1.094	LC22	-1.558	LC6	0.00000	LC1	-0.77270	LC24	0.00000	LC1
65	Max	0.370	LC15	0.015	LC32	0.017	LC14	0.00533	LC15	0.00000	LC1	0.00114	LC14
	Min	-0.380	LC9	0.003	LC14	-0.017	LC18	-0.00548	LC9	0.00000	LC1	-0.00697	LC8
66	Max	0.168	LC8	0.042	LC32	0.350	LC14	0.01300	LC23	0.00000	LC1	0.00825	LC21
	Min	-0.164	LC14	0.006	LC23	-0.358	LC8	-0.03637	LC5	0.00000	LC1	-0.01988	LC3

67	Max	0.268	LC15	0.284	LC32	0.525	LC15	0.00000	LC1	0.00000	LC4	0.00000	LC1
	Min	-0.273	LC9	0.172	LC16	-0.541	LC9	0.00000	LC1	0.00000	LC10	0.00000	LC1

Connection Check

Date: 3/21/2023
Project Name: NORWALK EAST-WILLARD RD
Project No.: CT2132
Designed By: KSBM **Checked By:** MSC

CHECK CONNECTION CAPACITY (Worst Case)

Reference: AISC Steel Construction Manual 14th Edition (ASD)

Bolt Type = A325 3/4" (Threaded Rod)

Allowable Tensile Load =

F_{Tall} = 19880 lbs.

Allowable Shear Load =

F_{Vall} = 11928 lbs.

TENSILE FORCES

Reaction **F =** 2471 lbs. (See Bentley Output)

SHEAR FORCES

Reactions in X direction: 739 lbs. (See Bentley Output)
Reactions in Z direction: 1558 lbs. (See Bentley Output)

Resultant: 1724 lbs.

No. of Supports = 1
No. of Bolts / Support = 4

Tension Design Load /Bolts =

f_t = 617.75 lbs. < 19880 lbs. **Therefore, OK !**

Shear Design Load / Bolts=

f_v = 431.09 lbs. < 11928 lbs. **Therefore, OK !**

CHECK COMBINED TENSION AND SHEAR

f_t / F_T	+	f_v / F_V	≤	1.0			
0.031	+	0.036	=	0.067	<	1.0	**Therefore, OK !**

Exhibit F

Power Density/RF Emissions Report

SAI Group
12 Industrial Way
Salem, NH 03079
(603) 421-0470
www.saigrp.com

Radio Frequency Exposure Theoretical Study

Prepared For:

AT&T Mobility

Site Name:	Norwalk East-Willard Rd
FA#:	10034993
Site ID:	CTL02132
Address:	10 Willard Road, Norwalk, CT 06851

Prepared by: **SAI Group**
12 Industrial Way
Salem, NH 03079
(603) 421-0470

Date of Report: March 20, 2023

Statement of Compliance

AT&T's proposed antenna installation along with other existing antennas is calculated to be within *1%* of FCC Standard for General Public/Uncontrolled Maximum Permissible Exposure (MPE).

Table of Contents

1 General Summary

SAI Group was contracted by AT&T Mobility to conduct a Radio Frequency (RF) Analysis for a wireless facility located at 10 Willard Road, Norwalk, CT to determine whether the radio facility is in compliance with Federal Communications Commission (FCC) regulations and standards regarding RF exposure.

RF exposure is calculated in accordance with FCC's suggested prediction methods.

2 Site Compliance Summary

Compliance Summary (General Public Limit)	
Site Compliance	Yes
Maximum Calculated %MPE at 0-6' Ground Level (Cumulative)	1% at about 554ft South-West from the tower.

3 RF Design Specifications

Table below shows the technical data used for the calculation of cumulative %MPE results.

Ant ID	Operator	Antenna Make	Antenna Model	Type	TX Freq (MHz)	Az (Deg)	Ant Gain (dBd)	Total ERP (Watts)	Z Rad Center (ft)
1	AT&T	QUINTEL	QD4616-7	Panel	700	116	10.8599	1950	347
1	AT&T	QUINTEL	QD4616-7	Panel	700	116	10.8599	975	347
1	AT&T	QUINTEL	QD4616-7	Panel	1900	116	14.5397	1138	347
1	AT&T	QUINTEL	QD4616-7	Panel	1900	116	14.5397	1138	347
1	AT&T	QUINTEL	QD4616-7	Panel	2100	116	15.1845	2640	347
1	AT&T	QUINTEL	QD4616-7	Panel	2100	116	15.1845	2640	347
1	AT&T	QUINTEL	QD4616-7	Panel	1900	116	14.5397	2275	347
2	AT&T	ERICSSON	AIR6419	Panel	3500	116	23.45	23990	347.67
3	AT&T	ERICSSON	AIR6449	Panel	3700	116	23.5	24268	344
4	AT&T	CCI	DMP65R-BU4D	Panel	750	116	9.95	791	347
4	AT&T	CCI	DMP65R-BU4D	Panel	850	116	10.35	1000	347
4	AT&T	CCI	DMP65R-BU4D	Panel	2310	116	14.65	2917	347
5	AT&T	QUINTEL	QD4616-7	Panel	700	234	10.8599	1950	347
5	AT&T	QUINTEL	QD4616-7	Panel	700	234	10.8599	975	347
5	AT&T	QUINTEL	QD4616-7	Panel	1900	234	14.5397	1138	347
5	AT&T	QUINTEL	QD4616-7	Panel	1900	234	14.5397	1138	347
5	AT&T	QUINTEL	QD4616-7	Panel	2100	234	14.655	2337	347
5	AT&T	QUINTEL	QD4616-7	Panel	2100	234	14.655	2337	347
5	AT&T	QUINTEL	QD4616-7	Panel	1900	234	14.5975	2306	347
6	AT&T	ERICSSON	AIR6419	Panel	3500	234	23.45	23990	347.67
7	AT&T	ERICSSON	AIR6449	Panel	3700	234	23.5	24268	344
8	AT&T	CCI	DMP65R-BU4D	Panel	750	234	9.95	791	347
8	AT&T	CCI	DMP65R-BU4D	Panel	850	234	10.35	1000	347
8	AT&T	CCI	DMP65R-BU4D	Panel	2310	234	14.65	2917	347
9	AT&T	QUINTEL	QD4616-7	Panel	700	346	10.8599	1950	347
9	AT&T	QUINTEL	QD4616-7	Panel	700	346	10.8599	975	347
9	AT&T	QUINTEL	QD4616-7	Panel	1900	346	14.5397	1138	347
9	AT&T	QUINTEL	QD4616-7	Panel	1900	346	14.5397	1138	347
9	AT&T	QUINTEL	QD4616-7	Panel	2100	346	15.137	2611	347
9	AT&T	QUINTEL	QD4616-7	Panel	2100	346	15.137	2611	347
9	AT&T	QUINTEL	QD4616-7	Panel	1900	346	14.5525	2282	347
10	AT&T	ERICSSON	AIR6419	Panel	3500	346	23.45	23990	347.67
11	AT&T	ERICSSON	AIR6449	Panel	3700	346	23.5	24268	344
12	AT&T	CCI	DMP65R-BU4D	Panel	750	346	9.95	791	347
12	AT&T	CCI	DMP65R-BU4D	Panel	850	346	10.35	1000	347
12	AT&T	CCI	DMP65R-BU4D	Panel	2310	346	14.65	2917	347
13	T-Mobile	ERICSSON	AIR6449	Panel	2500	0	22.35	20615	262
13	T-Mobile	ERICSSON	AIR6449	Panel	2500	0	22.35	20615	262

14	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	0	13.09	1630	262
14	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	0	13.09	1630	262
14	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	700	0	13.17	3320	262
14	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	0	15.29	5409	262
14	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	0	15.29	2705	262
14	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	2100	0	17.32	4316	262
15	T-Mobile	ERICSSON	AIR3246	Panel	2100	0	19.0655	12902	262
16	T-Mobile	ERICSSON	AIR3246	Panel	2100	120	19.0655	12902	262
17	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	120	13.09	1630	262
17	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	120	13.09	1630	262
17	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	700	120	13.17	3320	262
17	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	120	15.29	5409	262
17	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	120	15.29	2705	262
17	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	2100	120	17.32	4316	262
18	T-Mobile	ERICSSON	AIR6449	Panel	2500	120	22.35	20615	262
18	T-Mobile	ERICSSON	AIR6449	Panel	2500	120	22.35	20615	262
19	T-Mobile	ERICSSON	AIR3246	Panel	2100	240	19.0655	12902	262
20	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	240	13.09	1630	262
20	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	600	240	13.09	1630	262
20	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	700	240	13.17	3320	262
20	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	240	15.29	5409	262
20	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	1900	240	15.29	2705	262
20	T-Mobile	RFS	APXVAARR24_43-U-NA20	Panel	2100	240	17.32	4316	262
21	T-Mobile	ERICSSON	AIR6449	Panel	2500	240	22.35	20615	262
21	T-Mobile	ERICSSON	AIR6449	Panel	2500	240	22.35	20615	262
22	DISH	JMA	MX08FRO665-21	Panel	600	60	11.35	1637	200
22	DISH	JMA	MX08FRO665-21	Panel	2007	60	15.75	6013	200
22	DISH	JMA	MX08FRO665-21	Panel	2100	60	16.75	7570	200
23	DISH	JMA	MX08FRO665-21	Panel	600	180	11.35	1637	200
23	DISH	JMA	MX08FRO665-21	Panel	2007	180	15.75	6013	200
23	DISH	JMA	MX08FRO665-21	Panel	2100	180	16.75	7570	200
24	DISH	JMA	MX08FRO665-21	Panel	600	280	11.35	1637	200
24	DISH	JMA	MX08FRO665-21	Panel	2007	280	15.75	6013	200
24	DISH	JMA	MX08FRO665-21	Panel	2100	280	16.75	7570	200
25	SPRINT	RFS	APXVSPP18-C-A20	Panel	850	0	13.35	433	244
25	SPRINT	RFS	APXVSPP18-C-A20	Panel	850	0	13.35	865	244
25	SPRINT	RFS	APXVSPP18-C-A20	Panel	1900	0	15.85	3077	244
25	SPRINT	RFS	APXVSPP18-C-A20	Panel	1900	0	15.85	3077	244
26	SPRINT	NOKIA	AAHC	Panel	2500	0	20.82	14494	244
27	SPRINT	RFS	APXVSPP18-C-A20	Panel	850	100	13.35	433	244
27	SPRINT	RFS	APXVSPP18-C-A20	Panel	850	100	13.35	865	244
27	SPRINT	RFS	APXVSPP18-C-A20	Panel	1900	100	15.85	3077	244
27	SPRINT	RFS	APXVSPP18-C-A20	Panel	1900	100	15.85	3077	244

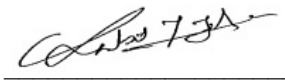
28	SPRINT	NOKIA	AAHC	Panel	2500	100	20.82	14494	244
29	SPRINT	RFS	APXVSPP18-C-A20	Panel	850	220	13.35	433	244
29	SPRINT	RFS	APXVSPP18-C-A20	Panel	850	220	13.35	865	244
29	SPRINT	RFS	APXVSPP18-C-A20	Panel	1900	220	15.85	3077	244
29	SPRINT	RFS	APXVSPP18-C-A20	Panel	1900	220	15.85	3077	244
30	SPRINT	NOKIA	AAHC	Panel	2500	220	20.82	14494	244
31	Unknown	GENERIC	OMNI 12FT	Omni	850	0	8.96	1	365
32	Unknown	GENERIC	OMNI 4FT	Omni	450	0	5.96	20	356
33	Unknown	GENERIC	OMNI 8FT	Omni	150	0	9	201	350
34	Unknown	GENERIC	OMNI 20FT	Omni	450	0	12	402	348
35	Unknown	GENERIC	YAGI 3.5FT	Yagi	450	0	12.1	81	344
36	Unknown	GENERIC	GRID DISH 3FT	Dish	2400	0	22.35	859	48
37	Unknown	GENERIC	GRID DISH 4FT	Dish	2400	0	24.85	1527	31
38	Unknown	TIL-TEK	TA-2335-DAB	Panel	2300	0	12.85	489	343
39	Unknown	TIL-TEK	TA-2335-DAB	Panel	2300	120	12.85	489	343
40	Unknown	TIL-TEK	TA-2335-DAB	Panel	2300	240	12.85	489	343
41	Unknown	GENERIC	OMNI 20FT	Omni	450	0	12	402	350

NOTE: The Z value indicates the distance of radiation center of the antenna height above the ground site level unless otherwise indicated. Effective Radiated Power (ERP) is provided by the operator or calculated based on SAI Group experience. SAI Group has assumed transmission parameters for “Unknown” RF emitters based on either similar installations found at other radio communications sites or from the latest data available for the site. “Generic” antenna models have been used where existing antenna part numbers or radiation patterns are not available. The frequencies presented in this table may have been assumed in order to represent the approximate band of operation and to support a worst-case calculation of power density

4 Conclusion

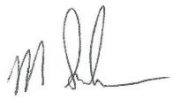
I certify to the best of my knowledge that the statements contained in this report are true and accurate. The theoretical computations contained are based on FCC recommended methods, with industry standard assumptions & formulas, and complies with FCC mandated Maximum Permissible RF Exposure requirements.

A comprehensive field survey was not performed prior to the generation of this report. If questions arise regarding the calculations herein, SAI Group recommends that a comprehensive field survey be performed to resolve any disputes.



Sanket Joshi
RF Engineer
SAI Group

March 20, 2023
Date



Matthew Smelcer
RF Engineering Manager

March 20, 2023
Date

Appendix A – FCC Rules and Regulations

In 1996, the Federal Communication Commission (FCC) adopted procedures and guidelines for evaluating of the effects of RF exposure. This guideline from the FCC Office of Engineering and Technology is Bulletin 65 ("OET Bulletin 65"), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following Tables and diagram:

Table 1. MPE Limits for General Population/ Uncontrolled Exposure

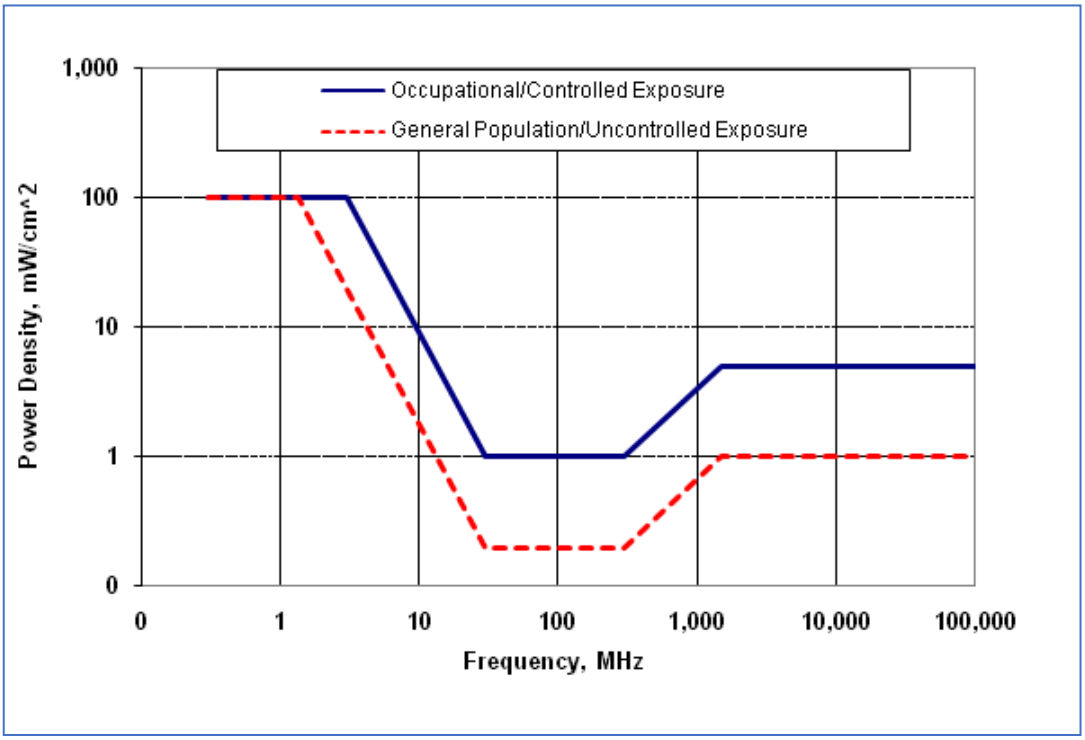
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time for $\|E\|^2$, $\|H\|^2$, or S (Minutes)
0.3 – 1.34	614	1.63	(100)*	30
1.34 -30	824/f	2.19/f	($180/f^2$)*	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	--	--	f/1500	30
1500– 100,000	--	--	1.0	30
f = frequency in MHz		* = Plane wave equivalent power density		

General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can't exercise control over their exposure. A site is evaluated with General Public limits if there is no access controls or no RF warning signage present.

Table 2. MPE Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time for $\|E\|^2$, $\|H\|^2$, or S (Minutes)
0.3 – 3.0	614	1.63	(100)*	6
3.0 – 30	1842/f	4.89/f	($900/f^2$)*	6
30 – 300	61.4	0.163	1.0	6
300 – 1500	--	--	f/300	6
1500– 100,000	--	--	5.0	6
f = frequency in MHz		* = Plane wave equivalent power density		

Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where such occupational/controlled limits apply provided he or she is made aware of the potential for exposure. Typical criteria to remediate controlled environment are restricted access to the areas where antennas are located along with appropriate RF warning signage. A site with Controlled environment is evaluated with Occupational limits.



Maximum Permissible Exposures. Occupational/Controlled and General Population/Uncontrolled MPE's are functions of frequency.

Appendix B – Calculations Methodology and Assumptions

SAI Group has performed theoretical analysis using Waterford Consultants' RoofMaster™ 2020 Version 30.5.26.2022 which uses a cylindrical model for very conservative power density calculations within the near field of the antenna where the antenna pattern has not truly formed yet. The Cylindrical Model is used to determine the spatially averaged power density in the near field directly in front of an antenna. In order to implement this model in all directions, the calculations utilize the antenna manufacturer horizontal pattern data. Additionally, the model also incorporates factors that reduce the power density by inverse square of horizontal and vertical distances beyond the near field region.

RoofMaster™ uses far field model to calculate the spatial peak power density. The RoofMaster™ implementation of this model incorporated manufacturer's horizontal and vertical pattern data to determine the power density in all directions.

The calculations are based on worst-case assumptions that, all antennas are always operating at full power.

The site has been modeled with these assumptions to show the maximum RF energy density. Areas modeled with exposure greater than 100% of the General Public MPE level may not actually occur, but are shown as a prediction that could be realized.

Appendix C – Informative References

The following references can be followed for further information about RF Health and Safety.

FCC Radio Frequency Safety
http://www.fcc.gov/encyclopedia/radio-frequency-safety

FCC OET Bulletin 56
https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf

FCC OET Bulletin 65
https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf

National Council on Radiation Protection and Measurements (NCRP)
http://www.ncrponline.org

American National Standards Institute (ANSI)
http://www.ansi.org

Environmental Protection Agency (EPA)
https://www3.epa.gov/radtown/wireless-technology.html

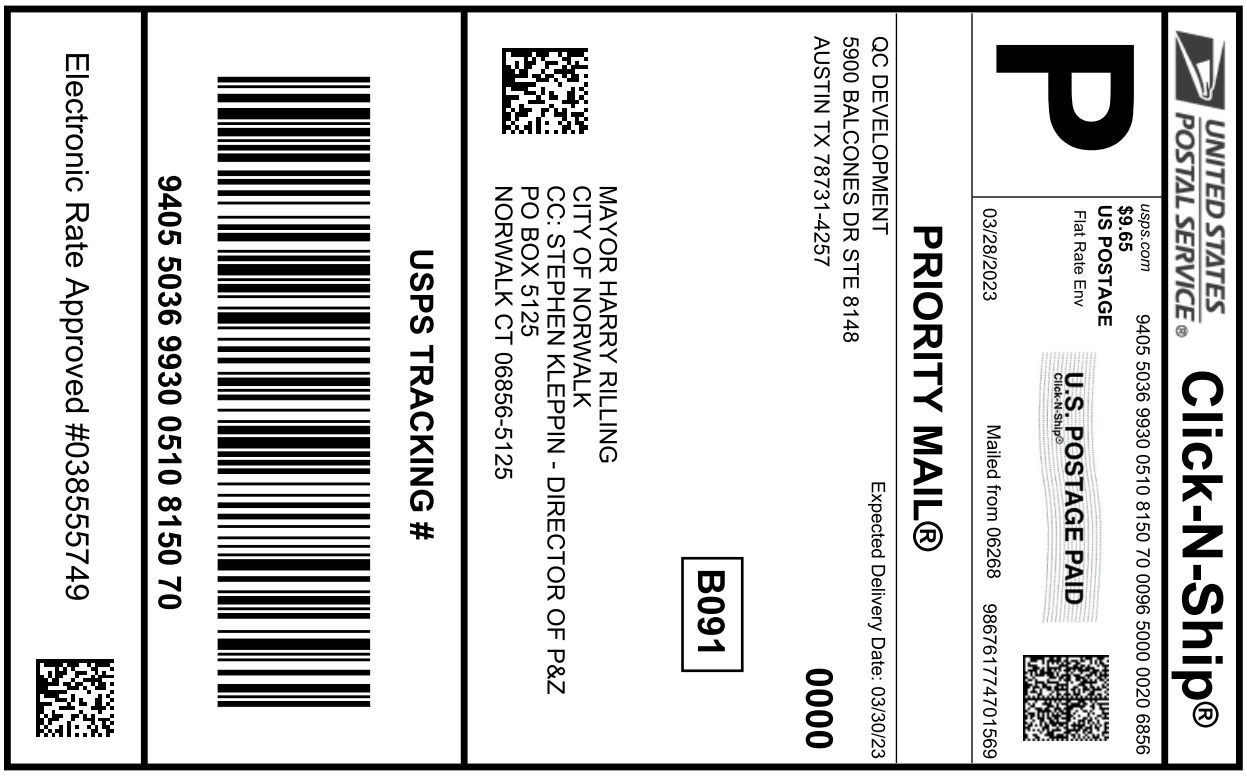
National Institutes of Health (NIH)
http://www.niehs.nih.gov/health/topics/agents/emf/

Occupational Safety and Health Agency (OSHA)
http://www.osha.gov/SLTC/radiofrequencyradiation/

International Commission on Non-Ionizing Radiation Protection (ICNIRP)
http://www.icnirp.org/

Exhibit G

Recipient Mailings



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Ship Date:	03/28/2023
Expected Delivery Date:	03/30/2023

Priority Mail® Postage:	**$9.65**
Total:	**$9.65**

From: QC DEVELOPMENT
5900 BALCONES DR STE 8148
AUSTIN TX 78731-4257

To: MAYOR HARRY RILLING
CITY OF NORWALK
CC: STEPHEN KLEPPIN - DIRECTOR OF P&Z
PO BOX 5125
NORWALK CT 06856-5125

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

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Expected Delivery by

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30 March 2023 ⓘ

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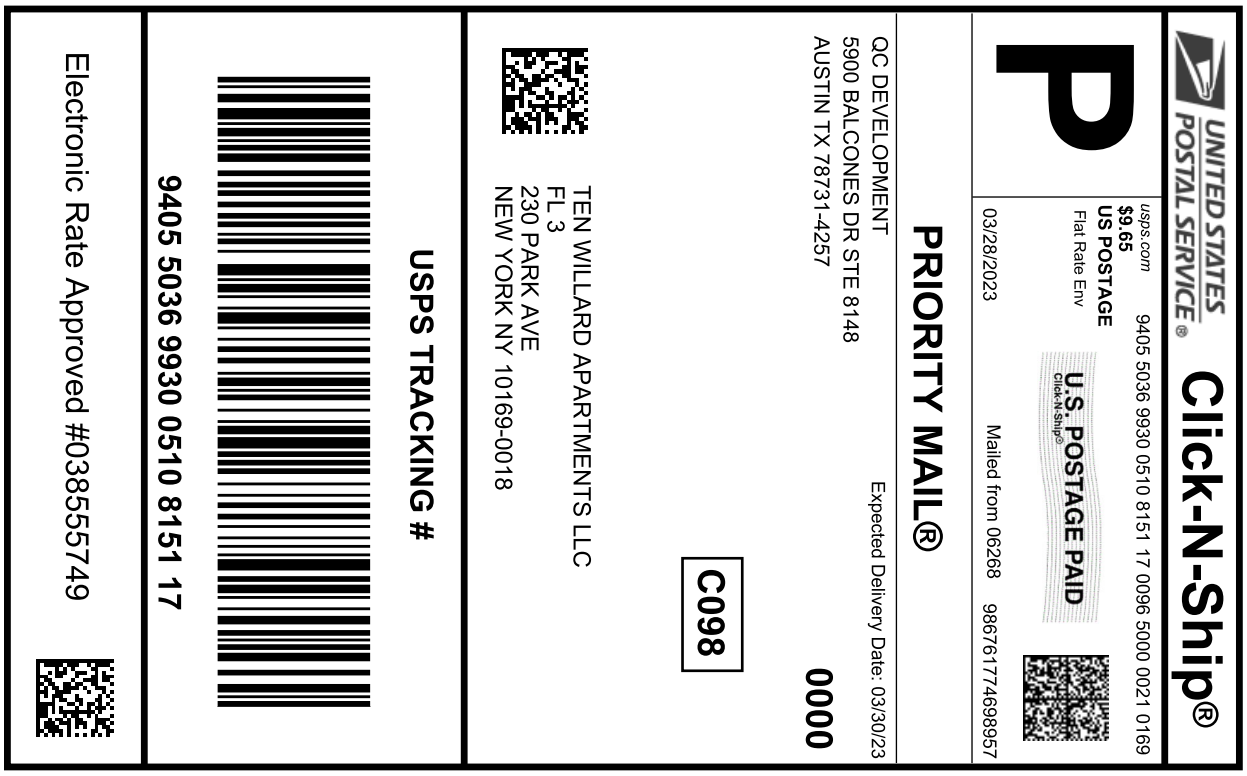
Pre-Shipment Info Sent to USPS, USPS Awaiting Item

March 28, 2023

Feedback



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Instructions

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Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0510 8151 17

Trans. #:	585398925
Print Date:	03/28/2023
Ship Date:	03/28/2023
Expected Delivery Date:	03/30/2023

Priority Mail® Postage:	**$9.65**
Total:	**$9.65**

From: QC DEVELOPMENT
5900 BALCONES DR STE 8148
AUSTIN TX 78731-4257

To: TEN WILLARD APARTMENTS LLC
FL 3
230 PARK AVE
NEW YORK NY 10169-0018

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

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USPS Tracking®

FAQs >

Remove ×

Tracking Number:

9405503699300510815117

Copy Add to Informed Delivery (https://informeddelivery.usps.com/)

Expected Delivery by

THURSDAY

30 March 2023 ⓘ by **9:00pm** ⓘ

USPS is now in possession of your item as of 4:40 pm on March 28, 2023 in STORRS MANSFIELD, CT 06268.

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In Transit

Accepted

USPS in possession of item

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March 28, 2023, 4:40 pm

Pre-Shipment Info Sent to USPS, USPS Awaiting Item

March 28, 2023

Feedback