QC Development
PO Box 916
Storrs, CT 06268
860-670-9068
Mark.Roberts@QCDevelopment.net

December 8, 2017

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

Notice of Exempt Modification – New Cingular Wireless PCS, LLC (AT&T)
315 Spencer Plains Road, Westbrook, CT 06498 – AT&T Site # CT2047
N 41-17-32.60
W 72-25-49.31

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 148-foot level of the existing 180-foot Self Support Tower at 315 Spencer Plains Road, Westbrook. The tower is owned by the Connecticut Department of Public Safety and the property is owned by the State of Connecticut. AT&T now intends to install three (3) Ericsson RRUS-12 radio heads, also at the 148-foot level.

This facility was approved by the Connecticut Siting Council, Petition #061 on September 16, 1980. There were no conditions that could feasibly be violated by this modification, including total facility height or mounting restrictions. This modification therefore complies with the aforementioned approval.

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 Mr. Noel Bishop, First Selectman of the Town of Westbrook, the Westbrook Town Planner and the property and tower owner.

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

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

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

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

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

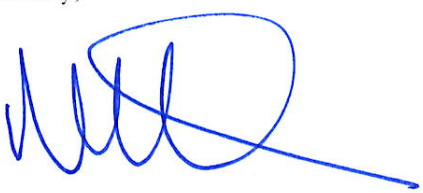
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

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

For the foregoing reasons, 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
QC Development
Consultant for AT&T

Attachments

cc: Mr. Noel Bishop – First Selectman, Town of Westbrook
Meg Parulis – Westbrook Town Planner
CT State Police - Tower and Property Owner

Power Density

Existing Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm^2)	Freq. Band (MHz**)	Limit S (mW /cm^2)	%MPE
Other Carriers*							7.74%
AT&T GSM	1	500	148	0.0089	880	0.5867	0.15%
AT&T GSM	1	500	148	0.0089	1900	1.0000	0.09%
AT&T UMTS	6	296	148	0.0317	880	0.5867	0.54%
AT&T UMTS	6	427	148	0.0457	1900	1.0000	0.46%
AT&T LTE	1	500	148	0.0089	740	0.4933	0.18%
Site Total							9.16%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

Proposed Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm^2)	Freq. Band (MHz**)	Limit S (mW /cm^2)	%MPE
Other Carriers*							7.74%
AT&T GSM	2	279	148	0.0100	880	0.5867	0.17%
AT&T GSM	1	398	148	0.0071	1900	1.0000	0.07%
AT&T UMTS	6	340	148	0.0364	880	0.5867	0.62%
AT&T UMTS	6	587	148	0.0628	1900	1.0000	0.63%
AT&T LTE	1	793	148	0.0141	740	0.4933	0.29%
AT&T LTE	1	1734	148	0.0309	1900	1.0000	0.31%
Site Total							9.83%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

Note: Proposed Loading may also include corrections to certain Existing Loading values

PROJECT INFORMATION

SCOPE OF WORK:	TELECOMMUNICATIONS FACILITY UPGRADE (LTE 2C 2016 UPGRADE):
SITE ADDRESS:	315 SPENCER PLAIN ROAD WESTBROOK, CT 06498
LATITUDE:	41.292436 N 41° 17' 32.76" N
LONGITUDE:	72.430388° W 72° 25' 49.39" W
TYPE OF SITE:	LATTICE TOWER / INDOOR EQUIPMENT
TOWER HEIGHT:	180' ±
RAD CENTER:	148' ±
JURISDICTION:	NATIONAL, STATE & LOCAL CODES OR ORDINANCES
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY

SITE NUMBER: CT2047

SITE NAME: WESTBROOK-SPENCER RD

PROJECT: LTE 2C 2016 UPGRADE

DRAWING INDEX

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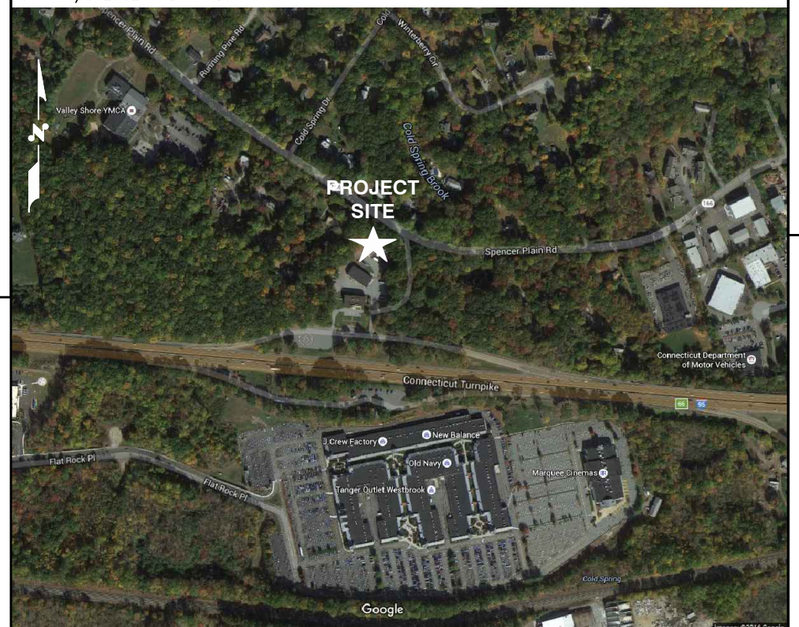
VICINITY MAP

DIRECTIONS TO SITE:

FROM ROCKY HILL, CT: TAKE CT-99/MAIN ST CONTINUE TO FOLLOW MAIN ST 5.8 MI, TAKE THE RAMP ONTO CT-9 S 24.9 MI, TAKE THE EXIT ONTO GOVERNOR JOHN DAVIS LODGE TURNPIKE/I-95 S/US-1 S TOWARD NEW HAVEN/N.Y. CITY, CONTINUE TO FOLLOW GOVERNOR JOHN DAVIS LODGE TURNPIKE/I-95 S 3.4 MI, TAKE EXIT 66 FOR SPENCER PLAIN RD/CT-166 0.3 MI, TURN LEFT AT CT-166/SPENCER PLAIN RD.



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.

72 HOURS

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

UNDERGROUND SERVICE ALERT

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

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SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: EB

STATE OF CONNECTICUT — DEREK J. PHELPS — 16,258 — LICENSED PROFESSIONAL ENGINEER

AT&T

TITLE SHEET
(LTE 2C)

SITE NUMBER	DRAWING NUMBER	REV
CT2047	T-1	2

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) 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 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 AWS 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. TOUCHUP 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: 2012 IBC WITH 2016 CT STATE BUILDING CODE AMENDMENTS
    ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS
    LIGHTENING CODE: REFER TO ELECTRICAL DRAWINGS

    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-G, STRUCTURAL STANDARDS FOR STEEL

    EQUIPMENT AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

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		

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

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27 NORTHWESTERN DR.
SALEM, NH 03079

SITE NUMBER: CT2047
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MIDDLESEX COUNTY

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

NO.	DATE	REVISIONS	BY	CHK	APP'D
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SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: EB

STATE OF CONNECTICUT
DEREK J. CREASER
No. 29511
LICENSED PROFESSIONAL ENGINEER

AT&T

GENERAL NOTES
(LTE 2C)

SITE NUMBER	DRAWING NUMBER	REV
CT2047	GN-1	2

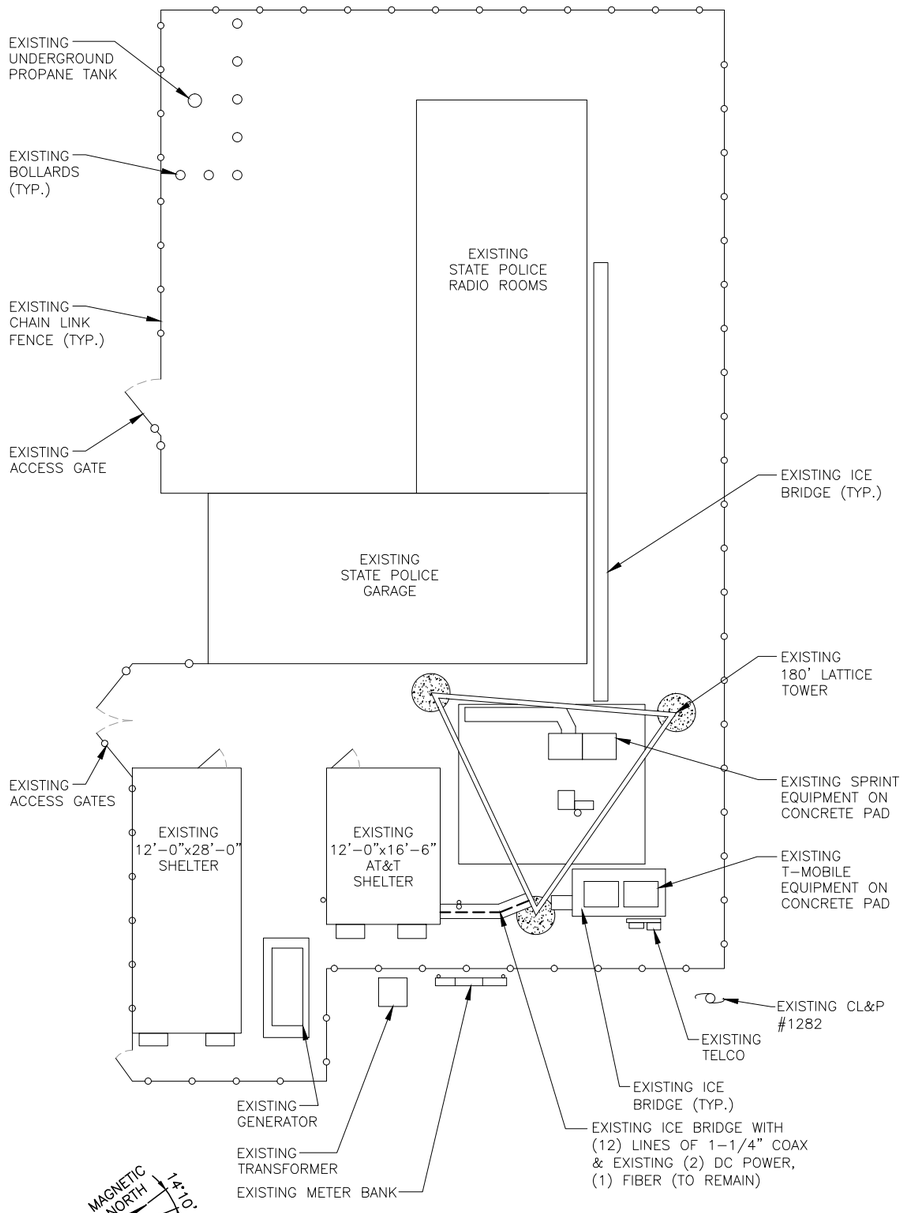
NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. (REV. 1) DATED: OCTOBER 23, 2017

NOTE:
REFER TO STRUCTURAL ANALYSIS & TOWER MODIFICATION DESIGN BY: AECOM DATED: SEPTEMBER 29, 2017, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

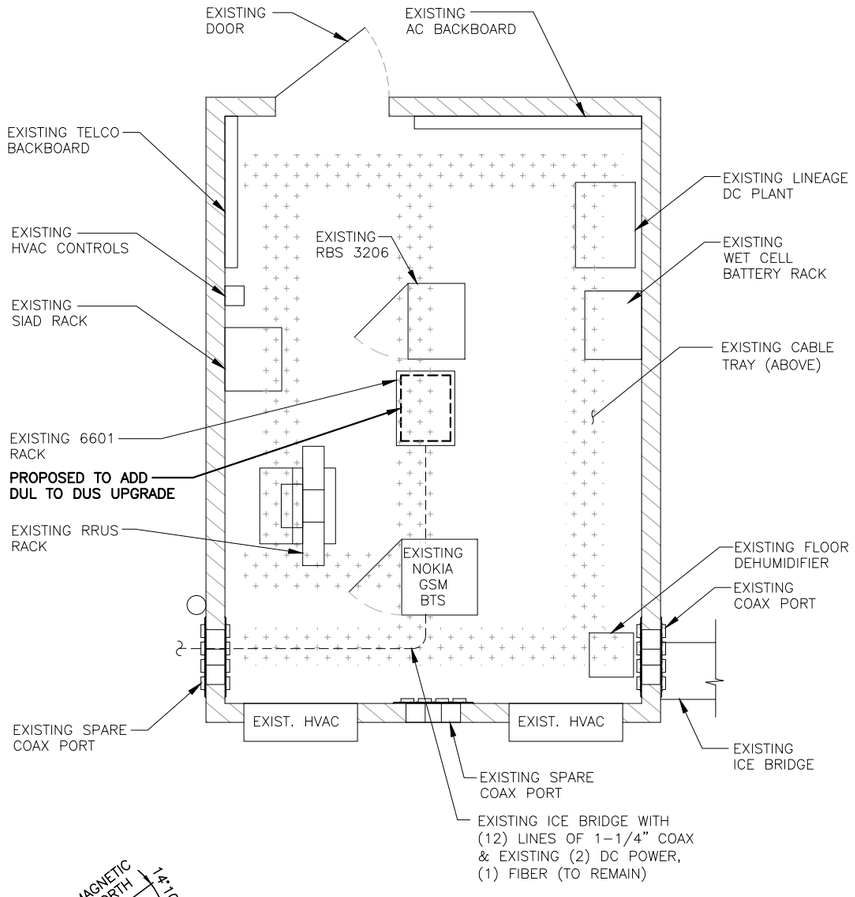
NOTE:

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



COMPOUND PLAN 1 A-1
22x34 SCALE: 1/8"=1'-0"
11x17 SCALE: 1/16"=1'-0"

0 4'-0" 8'-0" 16'-0" 24'-0"



EQUIPMENT PLAN 2 A-1
22x34 SCALE: 1/2"=1'-0"
11x17 SCALE: 1/4"=1'-0"

0 1'-0" (2'-0") 4'-0" 6'-0"

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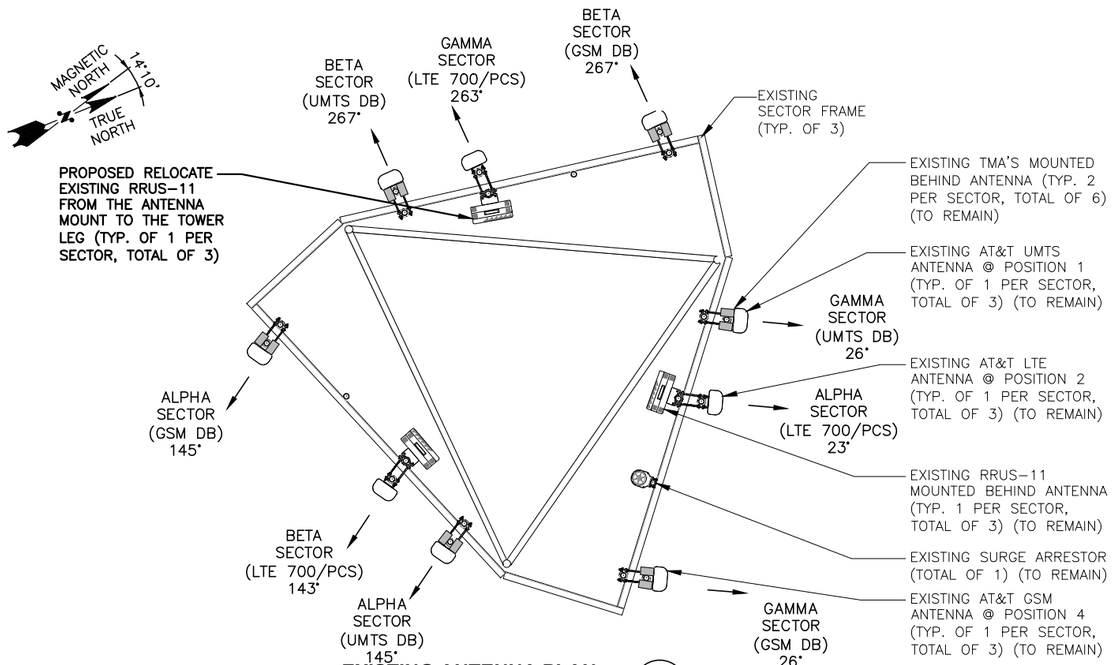
STATE OF CONNECTICUT DEREK J. CREASER 26,258 LICENSED PROFESSIONAL ENGINEER

AT&T

COMPOUND & EQUIPMENT PLANS (LTE 2C)

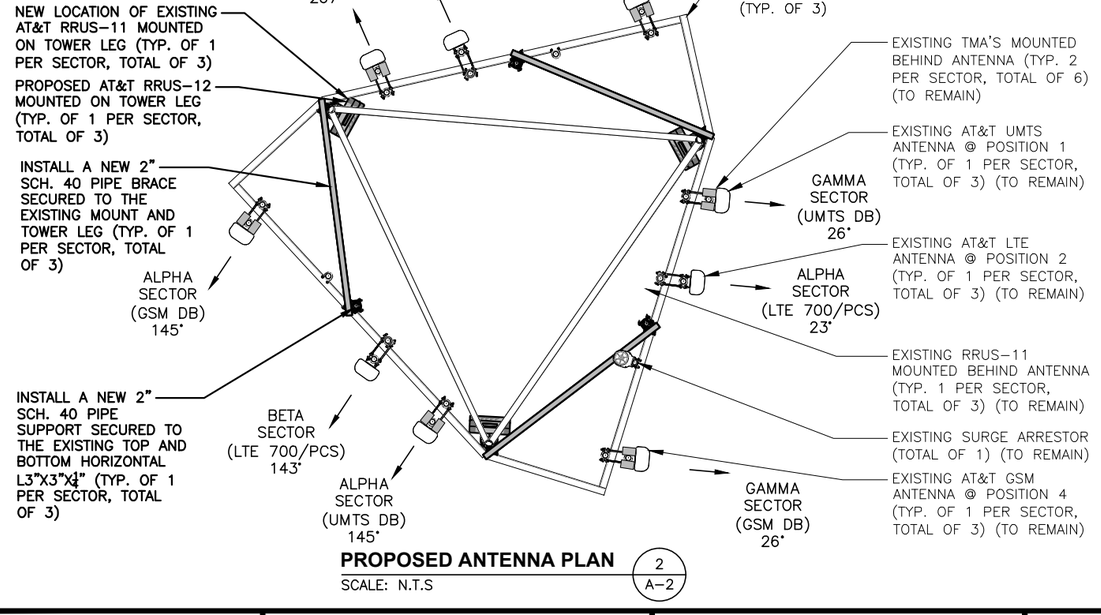
SITE NUMBER	DRAWING NUMBER	REV
CT2047	A-1	2



EXISTING ANTENNA PLAN

SCALE: N.T.S

1 / A-2



PROPOSED ANTENNA PLAN

SCALE: N.T.S

2 / A-2

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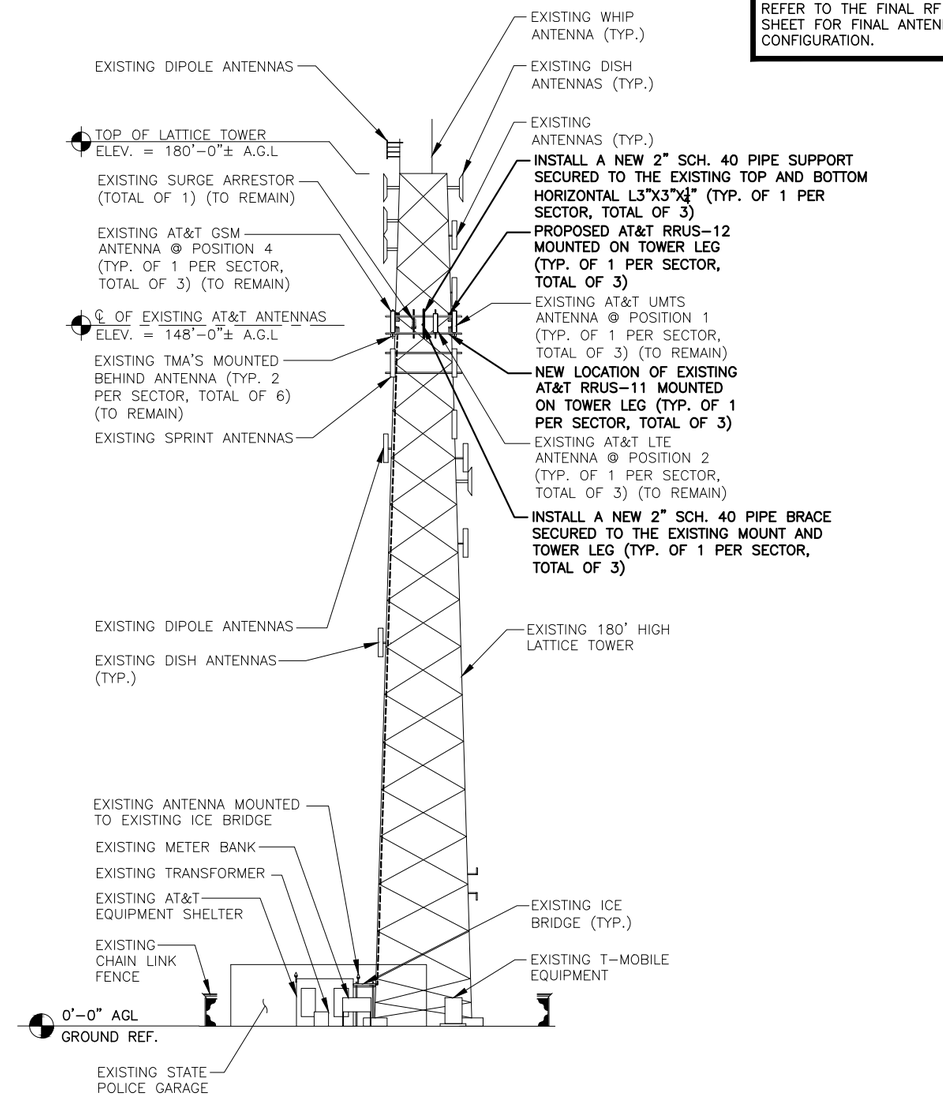

ELEVATION

22x34 SCALE: 1/16"=1'-0"
11x17 SCALE: 1/32"=1'-0"

3 / A-2

0 8'-0" 16'-0" 32'-0" 48'-0"

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A	06/13/16	ISSUED FOR REVIEW	EB	AT	DPH

SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: EB

STATE OF CONNECTICUT
DEREK J. CREASER
No. 21551
LICENSED PROFESSIONAL ENGINEER

AT&T

ANTENNA LAYOUTS & ELEVATION (LTE 2C)

SITE NUMBER	DRAWING NUMBER	REV
CT2047	A-2	2

EXISTING ANTENNA SCHEDULE

SECTOR	MAKE	MODEL#	SIZE (INCHES)
ALPHA:	POWERWAVE	7770	55.0X11.0X5.0
	KWM	AM-X-CD-14-65-00T-RET	48X11.8X5.9
	–	–	–
	POWERWAVE	7770	55.0X11.0X5.0
BETA:	POWERWAVE	7770	55.0X11.0X5.0
	KWM	AM-X-CD-14-65-00T-RET	48X11.8X5.9
	–	–	–
	POWERWAVE	7770	55.0X11.0X5.0
GAMMA:	POWERWAVE	7770	55.0X11.0X5.0
	KWM	AM-X-CD-14-65-00T-RET	48X11.8X5.9
	–	–	–
	POWERWAVE	7770	55.0X11.0X5.0

NOTE:

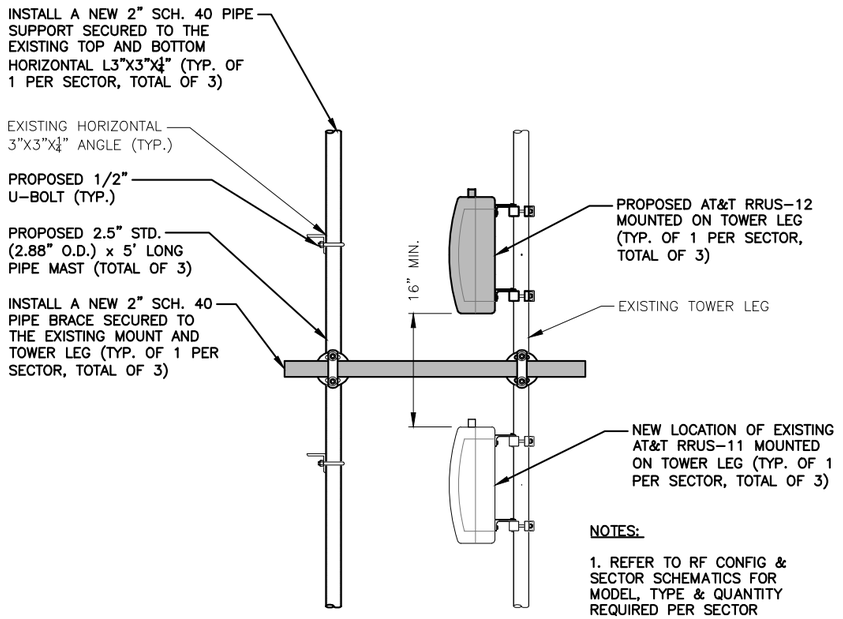
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY:
HUDSON DESIGN GROUP, LLC.
(REV. 1) DATED: OCTOBER 23, 2017

NOTE:

REFER TO STRUCTURAL ANALYSIS & TOWER MODIFICATION DESIGN BY: AECOM DATED: SEPTEMBER 29, 2017, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

NOTE:

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



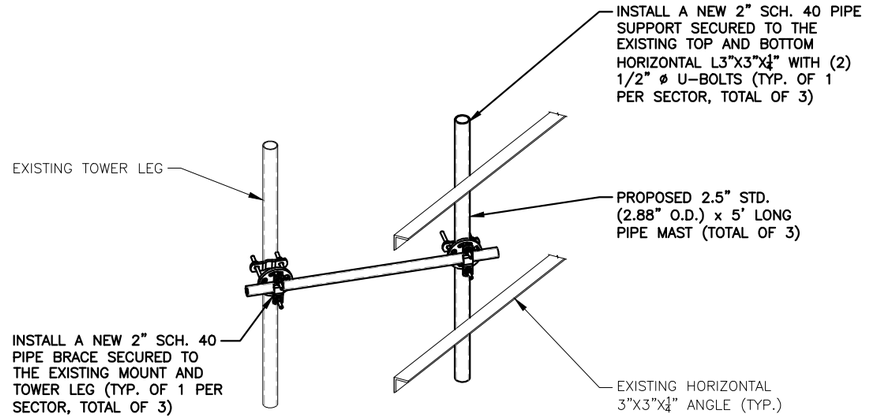
NOTES:

1. REFER TO RF CONFIG & SECTOR SCHEMATICS FOR MODEL, TYPE & QUANTITY REQUIRED PER SECTOR

PROPOSED RRU MOUNTING DETAIL (1 / A-3)

22x34 SCALE: 1"=1'-0"
11x17 SCALE: 1/2"=1'-0"

0 0'-6" 1'-0" 2'-0" 3'-0"



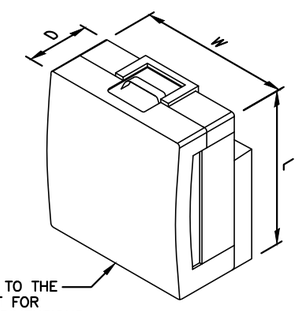
PROPOSED PIPE BRACE MOUNTING DETAIL (2 / A-3)

SCALE: N.T.S

RRU CHART

QUANTITY	MODEL	L	W	D
3 (E)	RRUS-11	19.7"	17.0"	7.2"
3 (P)	RRUS-12	20.4"	18.5"	7.5"
–	RRUS-32	27.2"	12.1"	7.0"
–	RRUS-E2	20.4"	18.5"	7.5"
–	LTE-A2	16.4"	15.2"	3.4"

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS



PROPOSED RRU REFER TO THE FINAL RFDS AND CHART FOR QUANTITY, MODEL AND DIMENSIONS

RRU DETAIL (3 / A-3)

SCALE: N.T.S

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

SAI
27 NORTHWESTERN DR.
SALEM, NH 03079

SITE NUMBER: CT2047
SITE NAME: WESTBROOK-SPENCER RD
315 SPENCER PLAIN ROAD
WESTBROOK, CT 06498
MIDDLESEX COUNTY

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

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	12/05/17	ISSUED FOR CONSTRUCTION	VP	AT	DPH
1	07/05/16	ISSUED FOR CONSTRUCTION	SG	AT	DPH
A	06/13/16	ISSUED FOR REVIEW	EB	AT	DPH

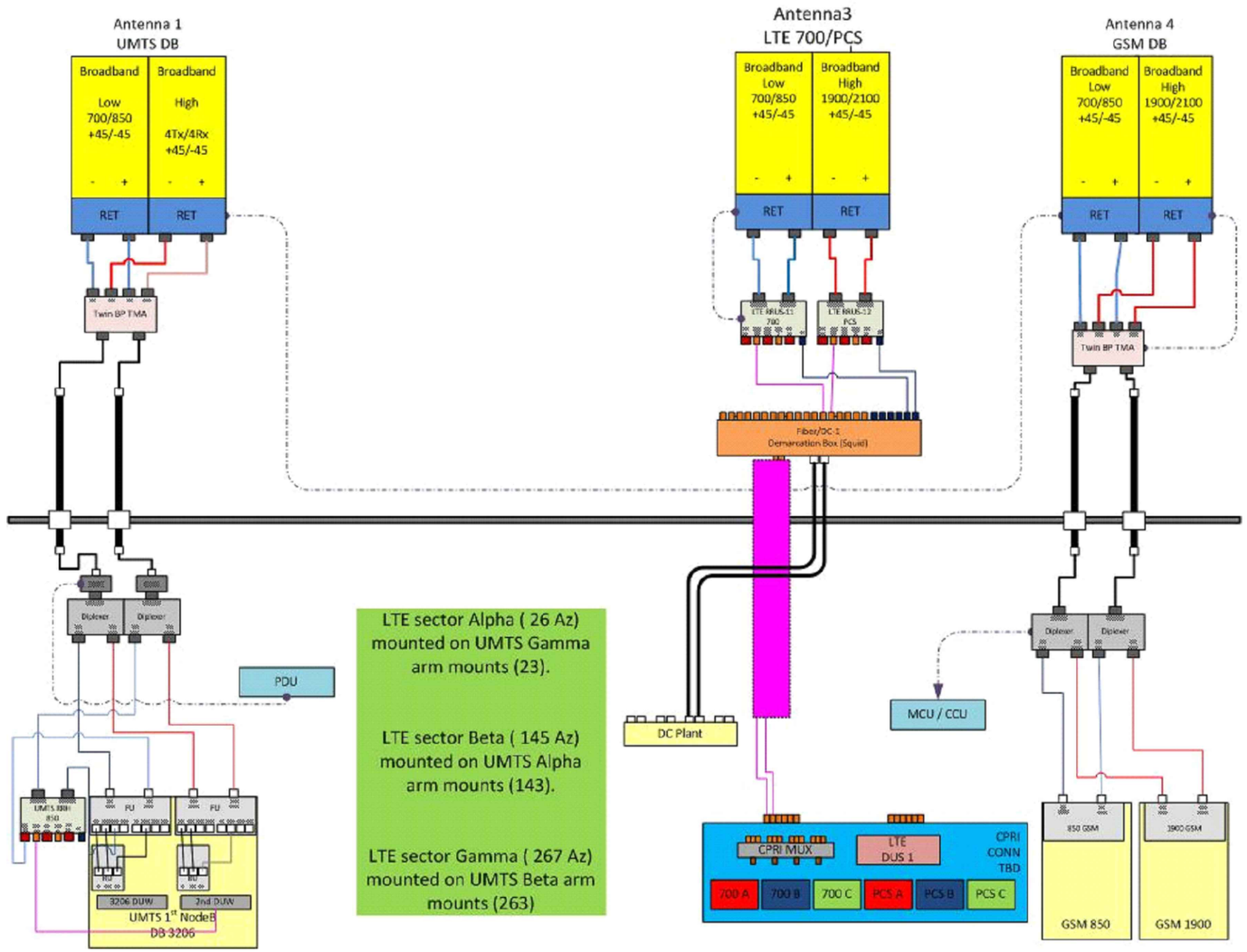
SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: EB

STATE OF CONNECTICUT · DEREK J. CREASER · 16,258 · LICENSED PROFESSIONAL ENGINEER

AT&T

DETAILS
(LTE 2C)

SITE NUMBER	DRAWING NUMBER	REV
CT2047	A-3	2



LTE sector Alpha (26 Az) mounted on UMTS Gamma arm mounts (23).

LTE sector Beta (145 Az) mounted on UMTS Alpha arm mounts (143).

LTE sector Gamma (267 Az) mounted on UMTS Beta arm mounts (263)

RF PLUMBING DIAGRAM 1
SCALE: N.T.S RF–1

NOTE:
1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS

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

HUDSON Design Group LLC
45 BEECHWOOD DRIVE
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SALEM, NH 03079

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A	06/13/16	ISSUED FOR REVIEW	EB	AT	DPH

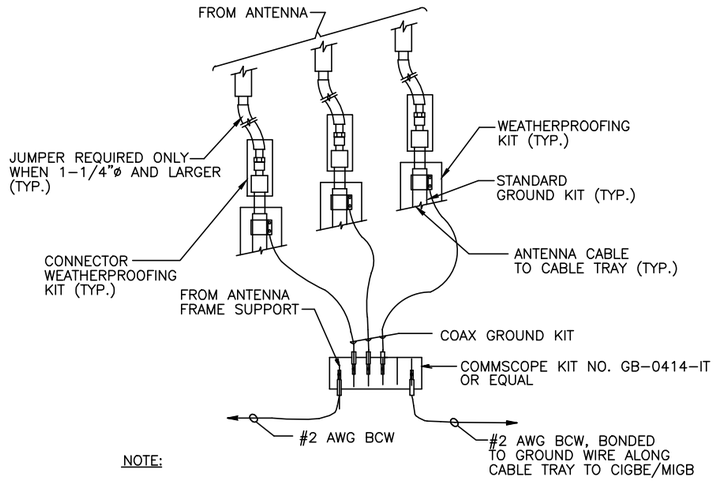
SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: EB

STATE OF CONNECTICUT · DEREK J. CREASER · No. 25357 · LICENSED PROFESSIONAL ENGINEER

AT&T

RF PLUMBING DIAGRAM
(LTE 2C)

SITE NUMBER	DRAWING NUMBER	REV
CT2047	RF–1	2



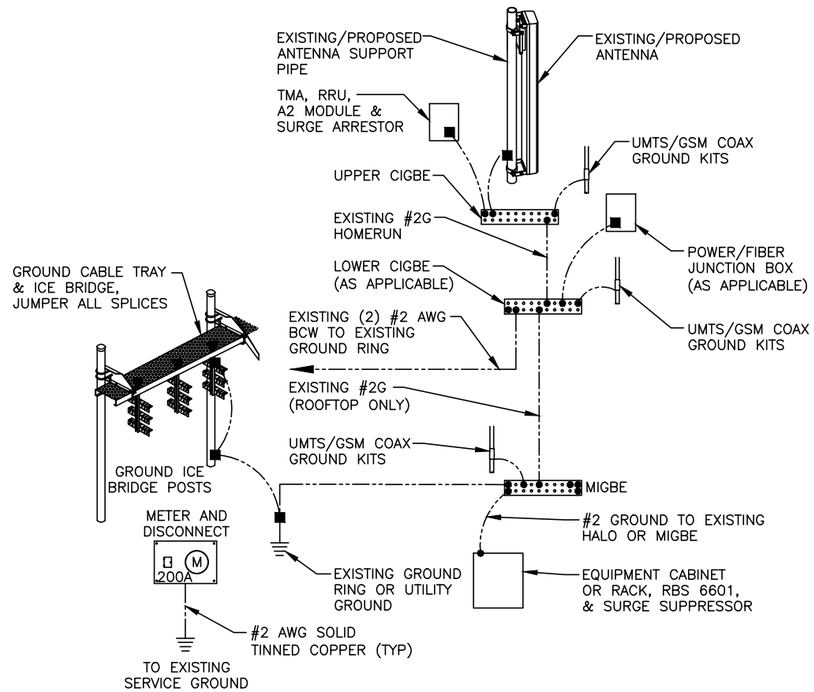
NOTE:

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

SCALE: N.T.S

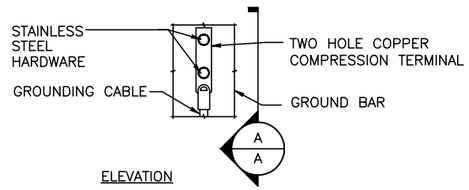
1 / G-1



GROUNDING RISER DIAGRAM

SCALE: N.T.S

2 / G-1



NOTE:
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

SCALE: N.T.S

3 / G-1

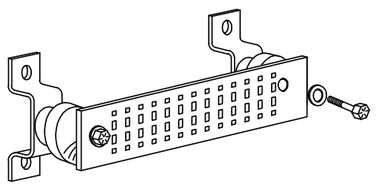
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" – SURGE PRODUCERS

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

SECTION "A" – SURGE ABSORBERS

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



GROUND BAR - DETAIL

SCALE: N.T.S

4 / G-1

HUDSON Design Group LLC
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SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: EB

STATE OF CONNECTICUT · DEREK J. CREASER · 26,255 · LICENSED PROFESSIONAL ENGINEER

AT&T

GROUNDING DETAILS
(LTE 2C)

SITE NUMBER	DRAWING NUMBER	REV
CT2047	G-1	2

AECOM

Submitted to
AT&T
500 Enterprise Drive, Suite 3A
Rocky Hill, CT 06067

Submitted by
AECOM
500 Enterprise Drive,
Suite 3B
Rocky Hill, CT 06067
September 29, 2017

DETAILED STRUCTURAL ANALYSIS AND MODIFICATON OF AN EXISTING 180' SELF SUPPORTING LATTICE TOWER AND FOUNDATION FOR PROPOSED ANTENNA ARRANGEMENT

AT&T Site ID : CT2047
Site Name: Connecticut State Police Tower #36
Site Address: 315 Spencer Plains Road
Westbrook, Connecticut

60553539
SAI-100

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

This report summarizes the structural analysis and modification of the 180' self-supporting lattice tower located at 315 Spencer Plains Road in Westbrook, Connecticut.

The structural analysis was conducted in accordance with the 2016 Connecticut State Building Code which includes the TIA-222-G[1] Standard, 2012 International Building Code, the 2016 Connecticut State Building Code Amendments, the AISC[2] Load Resistance Factor Design (LRFD), the ASCE 7[3] design Code, and the Connecticut State Police Requirements which include the TIA/EIA-222-F[4].

The antenna loading considered in the analysis consists of all the existing antennas, transmission lines and ancillary items as outlined in the Introduction Section of this report.

The proposed antenna modifications are listed below:

Proposed Antenna	Carrier	Antenna Center Elevation
Remove: **(1) Decibel DB806D Omni Antenna (Troop F 800MHz TX)** **(1) 1-5/8" Coaxial Cable (Troop F 800MHz TX)** **(1) Decibel 806D Omni Antenna (Troop F 800 MHz RX)** **(1) Bird TX/RX 422-86A-99166 TTA Unit** **(2) 1-5/8" Coaxial Cable (TX/RX TTA)** **(3) Windload Dishes**	**CSP (existing)**	**@ 180'**
Install: **(3) Ericsson RRUS-12 RRH Units**	**AT&T (Proposed)**	**@ 145'**

The results of an initial analysis indicated the existing tower did not have enough capacity for the proposed loading conditions. The existing tower structure requires modifications shown on SK-1 and SK-2. **Once the modifications indicated on sheets SK-1 and SK-2 are performed, the modified structure is considered structurally adequate with the wind load classification specified above with the existing and proposed antenna loading. No installation of proposed antennas shall occur without the required modification being completed.**

The results of the analysis indicate the modified tower's sway (deflection) is 0.6116 degrees and the modified tower's twist (rotation) is 0.0797 degrees. These figures are within the Connecticut State Police requirements of 0.75 degrees for combined twist (rotation) and sway (deflection) when applying the TIA/EIA-222-F design conditions.

1. TIA = Telecommunications Industry Association Structural Standard for Antenna Supporting Structures and Antennas (Version G)

2. AISC = American Institute of Steel Construction (14th Edition)

3. ASCE 7 = American Society of Civil Engineers Standard 7 (2010 Edition)

4. TIA/EIA = Telecommunications Industry Association Structural Standard for Antenna Supporting Structures and Antennas (Version F)

1. EXECUTIVE SUMMARY *(continued)*

This analysis is based on:

1) The tower structure's theoretical capacity not including any assessment of the condition of the tower.
2) Tower geometry, member sizes and foundation taken from manufacturers original design documents prepared by Stainless, Inc. project number 358811 signed and sealed June 14, 1994.
3) Previous tower reinforcement and structural analysis performed by URS Corporation on behalf of T-Mobile, Northeast Utilities and AT&T, project number SAI-063 / 36924430, signed and sealed June 16, 2011.
4) Previous structural analysis performed by URS Corporation on behalf of T-Mobile, project number NSS-015 / 36931360, signed and sealed November 26, 2014.
5) Geotechnical Study for Evaluation of tower site report performed by Dr. Clarence Welti, P.E., P.C., signed on March 24, 2015.
6) Previous structural analysis and modification performed by AECOM on behalf of T-Mobile, project number NSS-015 Rev. 2 / 36931360, signed and sealed May 22, 2015.
7) Tower Mapping and Inventory by D&K Nationwide Communications, Inc. performed on March 19, 2016.
8) Removal of Existing Antennas owned by Connecticut State Police obtained via e-mail dated August 30, 2016.
9) Proposed AT&T antenna inventory obtained from RFDS obtained via e-mail, dated March 13th, 2017.
10) Previous structural analysis and evaluation performed by AECOM on behalf of AT&T, project number SAI-092 / 60508377, signed and sealed May, 11 2017.
11) Removal of three future microwave dishes per e-mail received August 18, 2017.
12) Site visit performed by AECOM on September 26, 2017.
13) Coax cable orientation as specified in section 6 of this report.
14) Antenna inventory as specified in Sections 2 and 6 of this report

This report is only valid as per the information and data provided by others for antenna inventory, mounts, tower structure, existing foundation and associated cables. The user of this report shall field verify the antenna, cabling and mount configuration used, as well as the physical condition of the tower members, connections and foundations. Notify the engineer in writing immediately if any of the information in this report is found to be other than specified.

If you should have any questions, please call.

Sincerely,

AECOM

Richard A. Sambor, P.E.
Senior Structural Engineer
RAS/mcd

2. INTRODUCTION

The subject tower is located at 315 Spencer Plains Road in Westbrook, Connecticut. The structure is a self-supporting three-legged 180' steel tapered lattice tower manufactured by Stainless incorporated

The structural analysis was conducted in accordance with the following:

- TIA-222-G Standard for Standard for a wind velocity of range of 100 mph to 120 mph (3-second gust) and 50 mph (3-second gust) concurrent with 0.75" ice thickness, considered to increase in thickness with height
- 2012 International Building Code with 2016 Connecticut State Building Code Amendments for a wind speed of 112 mph (3-second gust)
- 2010 AISC Load Resistance Factor Design (LRFD)
- 2010 ASCE 7 Minimum Design Loads for Buildings and Other Structures for the ice thickness referenced in the TIA-222-G Standard
- Connecticut State Police Requirements for a wind velocity of 95 mph (fastest mile) and 90 mph (fastest mile) concurrent with 0.5" ice. Twist (rotation) and sway (deflection) were determined in accordance with Connecticut State Police Requirements for a wind velocity of 90 mph (fastest mile) concurrent with 0.5" ice, analyzed under the TIA/EIA-222-F design Standard.

The inventory together with the proposed AT&T antenna arrangement is summarized in the table below:

Antenna Type	*Carrier*	*Mount*	*Centerline Elevation*	*Cable*
(1) 8' Omni Antenna	D&K-58 (existing)	Pipe Mounted to Leg	182'	(1) 7/8" Coax Cable
(1) 16' Omni Antenna	D&K-57 (existing)	(2) 6' Side Arm Mounts	182.5'	(1) 7/8" Coax Cable
(1) 16' Lightning Rod	D&K-56 (existing)	Mounted to Tower	181'	----------
(1) 4-Bay 20' Dipole Antenna	D&K-55 (existing)	Pipe Mounted to Leg	181'	(1) 7/8" Coax Cable
(1) 4-Bay 10' Dipole Antenna	D&K-54 (existing)	Pipe Mounted to Leg	181'	(1) 7/8" Coax Cable
(1) 12' Whip Antenna	D&K-53 (existing)	(2) 6' Side-Arm Mount (Shared with D&K 40, 41, 47, 48, 49, 50, 53)	181'	(1) 1-5/8" Coax Cables
(1) 12' Omni Antenna	D&K-52 (existing)	Pipe Mounted on Leg (Shared with D&K 51)	181'	(1) 7/8" Coax Cables
(1) 1-Bay Dipole Antenna	D&K-51 CSP-12 (existing)	Pipe Mounted on Leg (Shared with D&K 52)	180'	(1) 7/8" Coax Cables
(1) TTA Unit	D&K-50 (existing)	(2) 6' Side-Arm Mount (Shared with D&K 40, 41, 47, 48, 49, 50, 53)	180'	(2) 5/8" Coax Cables (2) 1-5/8" Coax Cables
(1) 12' Whip Antenna	D&K-49 (existing)	(2) 6' Side-Arm Mount (Shared with D&K 40, 41, 47, 48, 49, 50, 53)	180'	(2) 1/2" Coax Cables
(1) 12' Whip Antenna	D&K-48 (existing)	(2) 6' Side-Arm Mount (Shared with D&K 40, 41, 47, 48, 49, 50, 53)	180'	(2) 1/2" Coax Cables
(1) 16' Omni Antenna	D&K-59 (existing)	4' Stand-off Mount (Shared with D&K 38, 39)	179'	(1) 1-5/8" Coax Cable

Antenna Type	Carrier	Mount	Centerline Elevation	Cable
(1) TTA Control Box	D&K-47 (existing)	Pipe Mount to Face	178'	(2) 7/8" Coax Cables (1) 1/2" Coax Cable
-----	D&K-46 (existing)	1' Side Arm Mount	172'	------
(1) 6' Dish with Radome	D&K-45 (existing)	Pipe Mounted to Leg	176'	(1) 2" Elliptical Cable
(1) 6' Dish with Radome	D&K-44 (existing)	Pipe Mounted to Leg	171'	(1) 2" Elliptical Cable
(1) 6' Dish with Radome	D&K-43 (existing)	Pipe Mounted to Leg	169'	(1) 2" Elliptical Cable
(1) (Inverted) 4-Bay Dipole Antenna	D&K-41 (existing)	(2) 6' Side-Arm Mount (Shared with D&K 40, 41, 47, 48, 49, 50, 53)	166'	(1) 7/8" Coax Cable
(1) (Inverted) 4-Bay Dipole Antenna	D&K-40 (existing)	(2) 6' Side-Arm Mount (Shared with D&K 40, 41, 47, 48, 49, 50, 53)	166'	(1) 7/8" Coax Cable
(1) (Inverted) 12' Whip Antenna	D&K-42 (existing)	6' Arm Mount	164'	(1) 1-5/8" Coax Cable
(1) (Inverted) 16' Whip Antenna	D&K-39 (existing)	4' Stand-off Mount (Shared with D&K 38, 59)	160'	(1) 1-5/8" Coax Cable
(1) (Inverted) 16' Whip Antenna	D&K-38 (existing)	4' Stand-off Mount (Shared with D&K 39, 59)	160'	(1) 1-5/8" Coax Cable
(1) Parabolic Grid Dish	D&K-37 (existing)	Pipe Mounted to Leg	157'	(1) 7/8" Coax Cable
(1) 10'x4' Dipole Antenna	D&K-36 (existing)	2' Standoff Mount	157'	(1) 7/8" Coax Cable
(1) 8' Whip Antenna	D&K-35 (existing)	2' Standoff Mount	157'	(1) 7/8 Coax Cable
(1) 16' Whip Antenna	D&K-33 (existing)	Shared with Mount @ D&K-32	153'	(1) 1-5//8" Coax Cable
(1) 1-Bay Dipole Antenna	D&K-34 (existing)	1' Stand-off Mount	151'	(1) 1/2" Coax Cable
(3) Ericsson RRUS-12 RRH	**AT&T (Proposed)**	*See Below Mount*	**145'**	*See Below Cables*
(6) Powerwave 7770 (3) KMW AM-X-CD-14-65 (6) TMA (3) Ericsson RRus-11 RRH (1) Raycap Surge Supressor	AT&T (existing)	(3) T-frames	145'	(12) 1 1/4" coax cables (1) Fiber Cable (10mm) (2) DC Cables (0.645")
(1) (Inverted) 10' Whip Antenna	D&K-32 (existing)	3' Side-arm Mount	143'	(1) 7/8" Coax Cable
(2) DB950F40T2E-M (2) DB950F85E-M (2) DB950F65E-M Panel Antennas	Sprint (existing)	(3) 13' Lightweight T-Frames (existing)	137'	(6) 1-5/8 coax cables

Antenna Type	Carrier	Mount	Centerline Elevation	Cable
(3) Commscope DBXNH-6565B-A2M Panel Antennas (3) Bias-T Units (6) TMA Units (6) Combiner/Filter units	T-Mobile (Existing)	(3) Antenna Mounts	130'	(12) 7/8" Coaxial Cables
(1) 14"x14" Panel Antenna	D&K-10 (existing)	1' Side Arm Mount	119'	(1) 7/8" Coax Cable
(1) 12' Dipole Antenna	D&K-9 (existing)	1' Side Arm Mount	119'	(1) 7/8" Coax Cable
(1) Parabolic Grid Dish	D&K-8 VSC-31 (existing)	Pipe Mounted to Leg	109'	(1) 7/8" Coax Cable
(1) 22' Dipole Antenna	D&K-7 (existing)	Shared with Below	76'	(1) 7/8" Coax Cable
(1) 3' Yagi Antenna	D&K-6 (existing)	1' Side Arm Mount	76'	(1) 7/8" Coax Cable
(1) GPS Antenna	D&K-5 Sprint (existing)	Pipe Mounted to Leg	75'	(1) 1/2" Coax Cable
(1) (Inverted) DB803M-XC Omni Whip antenna	D&K-4 CSP-45 (existing)	Shared with Below	27'	(1) 1/2" Coax Cable
(1) DB803M-XC Omni Whip antenna	D&K-3 CSP-46 (existing)	(1) 5' Sidearm Mount	27'	(1) 1/2" Coax Cable
(1) 4' Whip Antenna	D&K-2 (existing)	Shared with Below	27'	(1) 5/8" Coax Cable
(1) 2' Yagi Antenna	D&K-1 (existing)	(1) 2' Stand-off Mount	15'	(1) 5/8" Coax Cable

This structural analysis of the communications tower was performed by AECOM, for AT&T. The purpose of this analysis was to investigate the structural integrity of the modified tower and existing foundation for existing and proposed antenna loads in compliance with the 2016 Connecticut State Building Code. This analysis was conducted to evaluate stress on the tower and the effect forces to the foundation of the tower resulting from existing and proposed antenna arrangements.

3. ANALYSIS METHODOLOGY AND LOADING CONDITIONS

The structural analysis was done in accordance with, the TIA-222-G–Structural Standard for Antenna Towers and Antenna Supporting Structures and Antennas, the 2012 International Building Code with 2016 Connecticut State Building Code Amendments and the American Institute of Steel Construction (AISC) Manual of Steel Construction – Load Resistance Factor Design (LRFD)

The structural analysis was conducted using TNX Tower version 7.0.7.0 and used the following conditions for this tower review (following the TIA-222-G Standard):

- Structure Class 3 – (Essential Communications)
  - NOTE: ASCE 7 and CT State Building Code Applied Risk Category 4 for design wind loads (see below)
- Topographic Category 1 – (No Abrupt elevation changes to location of structure)
- Exposure Class C – (Open Terrain with scattered obstructions)
- Load Conditions:
  - Two load conditions were evaluated as shown which were compared to design stresses according to AISC and TIA-222-G Standard.

Basic Wind Speed:

- TIA-222-G:
  - Middlesex County (Wind Speed Range): V = 100 mph - 120 mph (3-second gust) [Annex of TIA/EIA-222-G 2006]
- IBC 2012 w/ 2016 CT State Building Code Amendment:
  - (2012) IBC Section 1609.1.1 – Determination of Wind Loads – Exception 5 "Designs using TIA-222" applies for determination of Design Wind Load obtained as "V.ult" are to be converted to "V.asd" when applying the TIA-222-G design Standard (under Section 1609.3) for Basic Wind Speed.
  - (2016) CT State Building Code Amendment to the IBC Section 1609.3 wind loads are obtained from Appendix N of the State Building Code.
    - **V.asd = 112 mph** (3-Second Gust) Wind Design Parameter for the Town of Southbury, Connecticut for Risk Category four (IV) for essential communications (Connecticut State Police).

LOAD CONDITION 1 = 112 MPH (3-SECOND GUST) WIND LOAD (WITHOUT ICE) + TOWER DEAD LOAD
Load Condition 2 = 50 mph (3-second gust) Wind Load (with ice) + Ice Load + Tower Dead Load

Ice thickness used for this analysis is **0.75 inch** (assumed to start at the base of the tower) and is considered to increase in thickness with height. The initial ice thickness for design is referenced in the Annex of TIA-222-G and follows the same design criteria as the ASCE 7 Standard.

The load condition below implements the design requirements of the Connecticut State Police for the tower structures deflection limits with the allowable deflection limit of the combination of the tower's sway (deflection) and twist (rotation) under the TIA/EIA-222-F design Standard. This design limit required the design combined value of sway (deflection) and twist (rotation) to be under 0.75 degrees following the TIA/EIA-222-F design Standard.

3. ANALYSIS METHODOLOGY AND LOADING CONDITIONS (cont.)

Load Condition 3 = 90 mph (fastest mile) Wind Load (with Ice) + Ice Load + Dead Load

Seismic event consideration factors/values for design:

- S.s = 0.167 (2016 CT State Building Code – Location Specific Value)
- S.1 = 0.059 (2016 CT State Building Code – Location Specific Value)
- Site Classification = "D"
- Seismic Design Category = "A" – (2012 International Building Code)
- F.a = 1.6 (Obtained from TIA-222-G Table 2-12 Considering above conditions)
- F.v = 2.4 (Obtained from TIA-222-G Table 2-13 Considering above conditions)

Strength Limit State Load Combinations (TIA-222-G Section 2.3.2):

The structural analysis herein has considered the following load combinations within the analysis:

1. ***1.2 Dead Load Tower structure + 1.0 Dead Load Guy Assemblies + 1.6 Wind load without ice***
2. 1.2 Dead Load Tower structure + 1.0 Dead Load Guy Assemblies + 1.0 Dead weight of ice due to factored ice thickness + 1.0 Concurrent wind load with factored ice thickness + 1.0 Load effects due to temperature
3. 1.2 Dead Load Tower structure + 1.0 Dead Load Guy Assemblies + 1.0 Earthquake Load

NOTE 1: The above **bolded** load combination is considered to create the governing design loads per the results of the analysis.

NOTE 2: The above "Dead Load Guy Assemblies" are not considered as part of the analysis and are considered as a value of zero.

NOTE 3: The "Load effects due to temperature" do not apply for structures that are self-sustaining (from the TIA-222-G Standard)

4. FINDINGS AND EVALUATION

The combined axial and bending stresses on the tower structure were evaluated to compare with the strength design in accordance with AISC (LRFD). The results of an initial analysis indicated that the existing tower structure did not have enough capacity to support the proposed loading conditions. The tower structure requires modifications shown on SK-1 and SK-2. **Once the modifications indicated on sheets SK-1 and SK-2 are performed, the modified structure and existing foundation are considered structurally adequate with the wind load specification and with the existing and proposed antenna loading included herein.**

The tower sway (deflection) is 0.6116 degrees and tower twist (rotation) is 0.0797 degrees. These figures combined are within the Connecticut State Police required maximum 0.75 degrees for combined twist and sway when applying the TIA/EIA-222-F design conditions.

Tower Base Reactions (Factored):

Description	Current (TIA-222-G)
Pier Compression (kips)	483
Pier Uplift (kips)	420
Overall Overturning (kip-ft)	10011
Overall Shear (kips)	102
Shear per Leg (kips)	58

Proposed Tower Component Stress vs. Capacity Summary

Component / (Section No.)	Controlling Component/ Elevation	Stress (% capacity)	Pass/Fail
Leg (T14)	Stainless P6.8750 O.D. x 0.5" / 0' – 12.5' / Compression	89.6	**Pass**
Diagonal (T12)	(2)L3-1/2x3x5/16 / 25' – 37.5' / Compresson	95.1	**Pass**
Horizontal (T13)	L4x4x5/16 / 12.5' – 25' / Compression	96.5	**Pass**
Top Grit (T4)	L2-1/2x2-1/2x3/16 / 150'-158.33' / Compression	48.4	**Pass**
Redundant Horizontal Bracing (T14)	L2-1/2x2-1/2x3/16 / 0' – 12.5' / Compression	71.8	**Pass**
Redundant Diagonal Bracing (T12)	L2-1/2x2-1/2x3/16 / 25' – 37.5' / Compression	78.4	**Pass**
Inner Bracing (T12)	L2-1/2x2-1/2x3/16 / 25' – 37.5' / Compression	12.7	**Pass**
Bolt Checks (T14)	(1) 1" A325X bolt connected to (2)L3x3-1/2x5/16 / 0' – 12.5' / Angle Block Shear Failure	94.8	**Pass**

Foundation Summary

Component	Required	Computed	% Capacity	Pass/Fail
Tower Anchor Rod Capacity (TIA-222-G – 4.9.9)	Ratio < 1.0	0.76	76.0	Pass
Ultimate Soil Bearing Pressure	6ksf * 0.60 Reduction = 3.60 ksf	1.93 ksf	53.6	Pass
Ultimate Punching Shear (ACI Eq. 11-33)	702.05 kip	685.01	97.6	Pass
Ultimate Beam Shear (ACI Eq. 11-2)	320.42 Kip	246.62 kip	76.9	Pass
Foundation Pad Bending Capacity	1354.22 kip*ft	874.22 kip*ft	64.6	Pass
Foundation Uplift Resistance	629.36 kips (Applying 0.750 Reduction Factor – TIA-222-G 9.4.1)	445 kips	70.8	Pass

4. FINDINGS AND EVALUATION (cont.)

Maximum Deformations – Proposed Condition

TIA-222-G Section 2.8.2 - Limit State Deformations

1. A rotation of 4 degrees about the vertical axis (twist) or any horizontal axis (sway) of the structure
2. A horizontal displacement (in feet) of 3% of the height of the structure.

Load Case Description	Current		Allowable	
	Sway (degree)	Displacement (Feet)	Sway (degree)	Displacement (Feet)
Service Wind Load	0.1161	0.24125	4.0	5.4

Tower Twist & Sway at Top (Connecticut State Police Requirements –TIA/EIA-222-F):

Description	Current	Total	Allowable
Tower Twist (degrees)	0.0797	0.6913	0.750
Tower Sway (degrees)	0.6116		

5. CONCLUSIONS

The results of an initial analysis indicated the existing tower did not have enough capacity for the proposed loading conditions. The existing tower structure requires modifications shown on SK-1 and SK-2. **Once the modifications indicated on sheets SK-1 and SK-2 are performed, the modified structure is considered structurally adequate with the wind load classification specified above with the existing and proposed antenna loading. No installation of proposed antennas shall occur without the required modification being completed.**

The results of the analysis indicate the modified tower's sway (deflection) is 0.6116 degrees and the modified tower's twist (rotation) is 0.0797 degrees. These figures are within the Connecticut State Police requirements of 0.75 degrees for combined twist (rotation) and sway (deflection) when applying the TIA/EIA-222-F design conditions.

Limitations/Assumptions:

This report is based on the following:

1. Tower inventory as listed in this report.
2. Tower is properly installed and maintained.
3. All members are as specified in the original design documents and are in good condition.
4. All required members are in place.
5. All bolts are in place and are properly tightened.
6. Tower is in plumb condition.
7. All member protective coatings are in good condition.
8. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.
9. Foundations are in good condition without defects and were properly constructed to support original design loads as specified in the original design documents.

AECOM is not responsible for any modifications completed prior to or hereafter in which AECOM is not or was not directly involved. Modifications include but are not limited to:

A. Adding antennas
B. Removing/replacing antennas
C. Adding coaxial cables

AECOM hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact AECOM. AECOM disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

Ongoing and Periodic Inspection and Maintenance:

After the Contractor has successfully completed the installation and the work has been accepted, the owner will be responsible for the ongoing and periodic inspection and maintenance of the tower.

The owner shall refer to TIA-222-G Section 14.2 for recommendations for maintenance and inspection. The frequency of the inspection and maintenance intervals is to be determined by the owner based upon actual site and environmental conditions. It is recommended that a complete and thorough inspection of the entire tower structural system be performed at least yearly and more frequently as conditions warrant. It is also recommended that the structure be inspected after severe wind and/or ice storms or other extreme loading conditions.

6. DRAWINGS AND DATA

REINFORCEMENT DRAWINGS SK-1 AND SK-2

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL COMPLY WITH THE CONNECTICUT STATE BUILDING, SUPPLEMENTS AND AMENDMENTS AND LIFE SAFETY CODES.
2. CONTRACTOR IS TO REVIEW ALL DRAWINGS AND NOTES IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUB-CONTRACTORS AND ALL RELATED PARTIES. THE SUB-CONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND NOTES FOR THE INFORMATION THAT AFFECTS THEIR WORK.
3. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON DRAWINGS.
4. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
5. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION AND ELECTRICAL SUB-CONTRACTORS SHALL PAY FOR THEIR PERMITS.
6. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS ON SITE AT ALL TIMES AND ENSURE THE DISTRIBUTION OF NEW DRAWINGS TO SUB-CONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. CONTRACTOR SHALL FURNISH 'AS-BUILT' SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
7. INSTALLATION OF THIS WIRELESS COMMUNICATIONS EQUIPMENT SITE REQUIRES WORK IN THE IMMEDIATE VICINITY OF EXISTING OPERATING TELECOMMUNICATION SYSTEMS. THE CONTRACTOR SHALL PROVIDE AND COORDINATE THE METHODS OF PROTECTION WITH THE CONNECTICUT STATE POLICE AND THE VARIOUS TELECOMMUNICATION OPERATORS. THERE SHALL BE NO INTERRUPTION OF OPERATION WITHOUT TIMELY COORDINATION WITH AND APPROVAL BY THE VARIOUS COMMUNICATIONS OPERATORS.
8. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB-CONTRACTORS FOR ANY CONDITION PER MFR'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR ARCHITECT.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
10. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ARCHITECT FOR REVIEW. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTAL TO THE ARCHITECT FOR REVIEW.
11. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA. SHOP DRAWINGS SHALL REFLECT FIELD VERIFIED DIMENSIONS.
12. EXISTING DIMENSIONS OF STRUCTURE SHOWN ON THESE DOCUMENTS ARE BASED ON ORIGINAL TOWER CONSTRUCTION DRAWINGS BY STAINLESS INC., DATED JUNE 1994, AND ARE NOT GUARANTEED. CONTRACTOR SHALL TAKE FIELD DIMENSIONS AS NECESSARY TO ASSURE PROPER FIT OF ALL FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. SHOP DRAWINGS SHALL CONTAIN FIELD VERIFIED DIMENSIONS.
13. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURE AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
14. CONTRACTOR TO CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO VERIFY AND IDENTIFY THE EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES AND OBSTRUCTIONS IDENTIFIED PRIOR TO COMMENCING WORK IN THE CONTRACT AREA.

STRUCTURAL NOTES

STRUCTURAL STEEL MATERIAL:

STRUCTURAL STEEL BEAMS, CHANNELS, PLATES..... A36
STRUCTURAL ANGLES..... A36
EXISTING TOWER LEG ..... A 572-Gr. 50 & Gr. 60

STRUCTURAL STEEL SHALL CONFORM TO ALL THE REQUIREMENTS OF THE ASTM SPECIFICATION, AS REFERENCED IN THE CODE.

UNLESS OTHERWISE NOTED, ALL STEEL WILL BE GALVANIZED IN ACCORDANCE WITH ASTM 123 AFTER FABRICATION. TOUCH UP ALL DAMAGED GALVANIZED STEEL WITH APPROVED COLD ZINC, "GALVANOX", "DRY GALV", "ZINC-IT", OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCH-UP DAMAGED NON GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.

SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL STEEL WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. SUBMIT 2 SETS OF PRINTS FOR THE ENGINEER REVIEW.

MILL BEARING ENDS OF COLUMNS, STIFFENERS, AND OTHER BEARING SURFACES TO TRANSFER LOAD OVER ENTIRE CROSS SECTION.

THE OMISSION OF ANY MATERIAL THAT WAS SHOWN ON THE CONTRACT DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF PROVIDING THE SAME.

CONNECTIONS / FIELD ASSEMBLY:

BOLTED CONNECTIONS: UNLESS OTHERWISE NOTED, ALL JOINTS ARE SLIP CRITICAL TYPE, REQUIRING 5/8" DIA. A325-N BOLTS, A563 NUTS AND F436 WASHERS, ALL GALVANIZED. BEVELED WASHERS SHALL BE USED ON BEAM FLANGES HAVING A SLOPE GREATER THAN 1:20.

STRUCTURE IS DESIGNED TO BE LEVEL AND PLUMB, SELF-SUPPORTING AND STABLE AFTER WORK IS COMPLETED.

COMMENCEMENT OF WORK WITHOUT NOTIFYING THE ENGINEER OF ANY DISCREPANCIES WILL BE CONSIDERED ACCEPTANCE OF PRECEDING WORK.

THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION. NO MEMBER OF THE TOWER SHALL BE LEFT DISCONNECTED FOR THE NEXT WORKING DAY. THE CONTRACTOR SHALL BE AWARE OF WEATHER AND WIND CONDITIONS AND NOT PERFORM MEMBER REPLACEMENT IN A WIND GUSTING MORE THAN 10 PMH.

INSPECTIONS:

SPECIAL INSPECTIONS ARE REQUIRED PER THE CODE FOR STRUCTURAL STEEL WORK.

OWNER WILL SUPPLY THE SERVICES OF A SPECIAL INSPECTOR AND TESTING AGENTS AS REQUIRED. CONTRACTOR SHALL COORDINATE INSPECTIONS OF FABRICATOR'S AND ERECTOR'S WORK AND MATERIALS TO MEET THE REQUIREMENTS OF THE STATEMENT OF SPECIAL INSPECTIONS FOR THIS PROJECT.

COPIES OF TESTING AND INSPECTION REPORTS WILL BE PROVIDED TO THE OWNER, BUILDING OFFICIAL, ENGINEER OF RECORD AND CONTRACTOR.

PROJECT NO. 60553539
Designed by: MCD
Drawn by: PD
Checked by: ICA
Approved by: RAS

AECOM
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
(860)-529-8882

at&t

CT2047
SITE ADDRESS: CSP #36, 315 SPENCER PLAINS ROAD
WESTBROOK, CONNECTICUT 06498

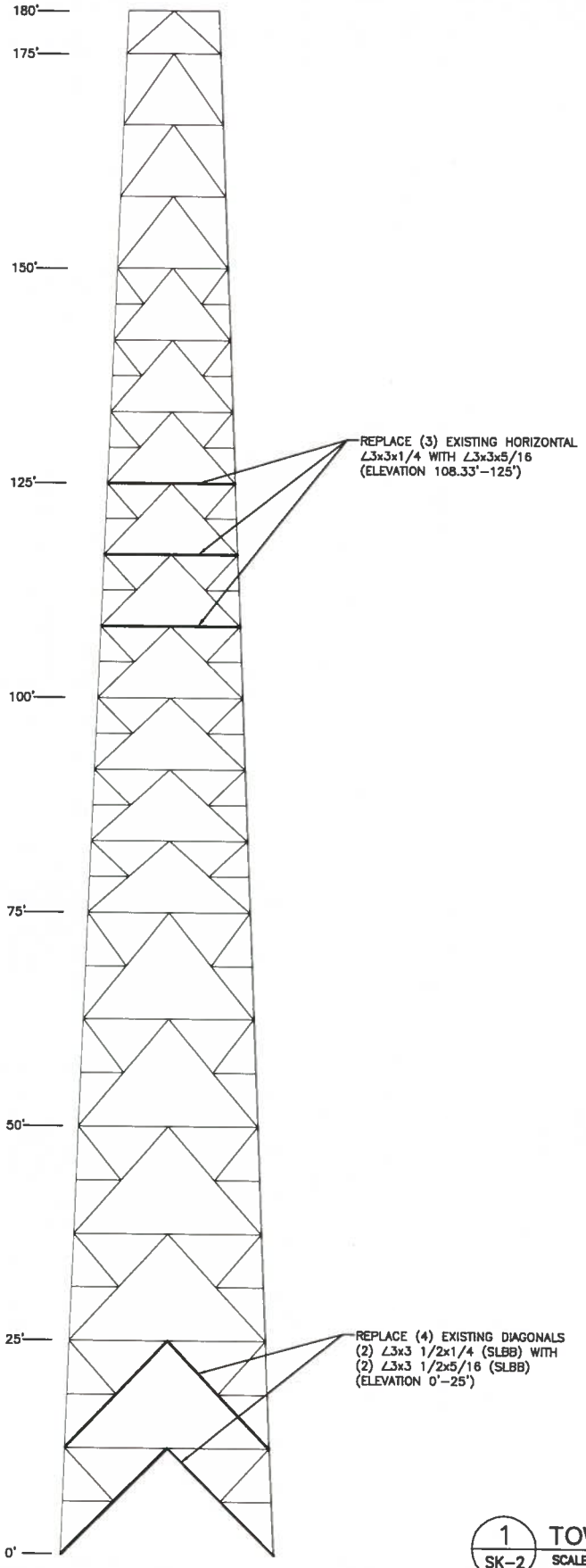
REV.	DATE:	DESCRIPTION

Scale: AS NOTED | Date: 09/29/17
Job No. SAI-100 | File No.

Dwg. No. SK-1

SEE SK-1 FOR STRUCTURAL NOTES

NOTES:
1. REFER TO STRUCTURAL NOTES ON SK-1 FOR STEEL GRADE REQUIREMENTS FOR REPLACEMENT MEMBERS.
2. REINFORCEMENT OF TOWER IS REQUIRED FOR ALL 3 SIDES OF EXISTING TOWER STRUCTURE.
3. CONNECTION BOLTS THAT ARE REMOVED DURING MEMBER REPLACEMENT SHALL BE REPLACED IN KIND, UNLESS NOTIFIED OTHERWISE. EXISTING BOLTS SHALL NOT BE RE-USED FOR CONNECTING REPLACEMENT MEMBERS.



NOTE:
SLBB - SHORT LEG (CONNECTION) BACK TO BACK

STATE OF CONNECTICUT
RICHARD A SAMBOR
No. 9057
LICENSED PROFESSIONAL ENGINEER

1 / SK-2 TOWER ELEVATION
SCALE: 1" = 20'-0"

PROJECT NO. 60553539
Designed by: MCD
Drawn by: PD
Checked by: ICA
Approved by: RAS

AECOM
500 ENTERPRISE DRIVE
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WESTBROOK, CONNECTICUT 06498

REV.	DATE:	DESCRIPTION

Scale: AS NOTED | Date: 09/29/17
Job No. SAI-100 | File No.

Dwg. No. SK-2
Dwg. 2 of 2

SEISMIC BASE SHEAR ANALYSIS

AECOM

Seismic (Vs) Base Shear Implementing ANSI/TIA–222-G, IBC 2012 & Connecticut State Building Code of 2016

Calculation of Seismic Base Shear Implementing ANSI/TIA-222-G, IBC 2012 & & CT State Building Code 2016.

Location: Westbrook, CT -Site Class "D"

$S_{DS} = \frac{2}{3} F_A S_S$, where $S_S = 0.167$ and $F_A = 1.6$ $S_{DS} = \frac{2}{3} F_A S_S = \frac{2}{3} * 1.6 * 0.167 = 0.178$

$S_{D1} = \frac{2}{3} F_V S_1$, where $S_1 = 0.059$ and $F_V = 2.4$ $S_{D1} = \frac{2}{3} F_V S_1 = \frac{2}{3} * 2.4 * 0.059 = 0.0944$

TIA-222-G SECTION 2.7 EARTHQUATE LOADS (PROCEDURES):

1. Importance Factor "I" (tables 2-3 TIA-222-G) = 1.5 (Structure Class 3)

ANSI/TIA-222-G 2.7.7.1 (TOTAL BASE SEISMIC SHEAR (Vs)

W=DL TOWER	= 39.450	Kips
W=Antennas/Mounts	= 7.416	Kips
W=Cables	= 4.757	Kips
	51.569 Kip	= WT Total = "W"

$$V_S = \frac{S_{DS} * W * I}{R} = \frac{0.178 * 51.6231 kips * 1.5}{3.0} = 4.59448 \ kips,$$ where R = 3.0 for Lattice Tower

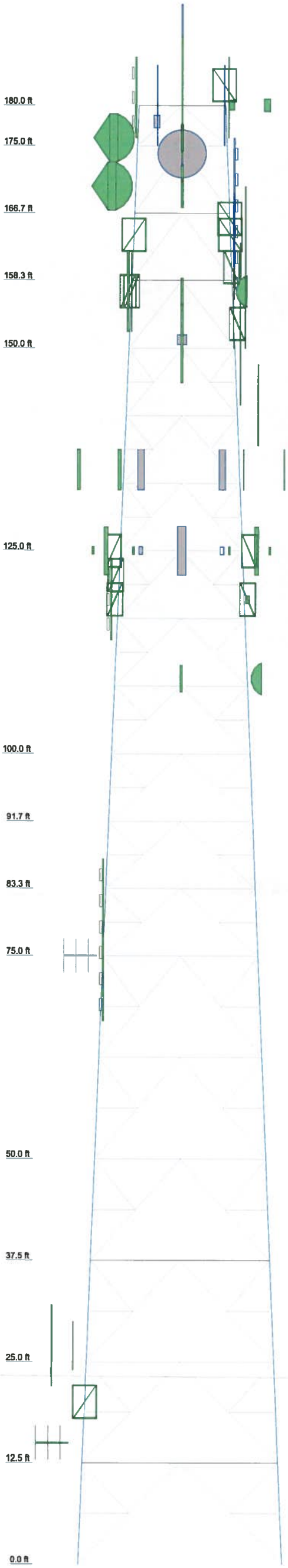
$$V_{S.min} = \frac{0.5 * S_{D1} * W * I}{R} = \frac{0.5 * 0.0944 * 51.623 kips * 1.5}{3.0} = 1.218 \ kips$$

*By visual inspection, the above "Base Shear" value when considering the following Load Combination is less that the base shear of wind on structure.

$1.2 * DL + 1.0\,E < 1.2\,DL + 1.6\,W$, (57.7 Kips), therefore seismic effect on structure Does NOT control Design.

TNX TOWER INPUT / OUPUT SUMMARY

Section	T14	T13	T12	T11	T10	T9	T8	T7	T8	T2	T3	T4	T5	T1
Legs		Stainless P8.875x0.500			Stainless P8.875x0.400	1/3 Pipe w/ 5"x0.5 Stainless		A	Stainless P5x0.400				Stainless P5x0.300	Stainless P5x0.250
Leg Grade			A572-60			A500-42							A513-50	
Diagonals	2L3x3 1/2x5/16			2L3 1/2x3x5/16				2L3x2 1/2x1/4					2L2 1/2x2x5/16	2L2 1/2x2x3/16
Diagonal Grade									A36					
Top Girts	2L4x4x5/16		2L4x4x1/4					N.A.		L3x3x5/16				L3x3x1/4
Horizontals	N.A.		N.A.							L2x2x3/16				B
Red. Horizontals	L2 1/2x2 1/2x3/16									L2x2x3/16				N.A.
Red. Diagonals	L3x3x1/4									L2 1/2x2 1/2x3/16				N.A.
Inner Bracing	L3x3x1/4													N.A.
Face Width (ft) 25	24		22			19		17		15		13		11
# Panels @ (ft)			6 @ 12.5							12 @ 8.33333				1 @ 5
Weight (lb) 39449.9	4388.7		3643.7		3351.7	8051.8		2177.7	1971.3	4822.1		768.1	760.9	592.3



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
3" Dia 20' Omni (DNK-57)	182.5	RRUS-12 ((DNK 19-32)/ATT)	143
6' Side-Arm(1) (DNK-57)	182.5	2" Dia 10' Omni (DNK-32)	143
6' Side-Arm(1) (DNK-57)	182.5	Pirod 4' Side Mount Standoff (1) (DNK-32)	143
1" Dia 8' Omni (DNK-58)	182	(2) 7770 w mount pipe ((DNK 19-32)/ATT)	143
2" Dia 10' Omni (DNK-52)	181	(2) TMA (shielded) ((DNK 19-32)/ATT)	143
2" Dia 10' Omni (DNK-53)	181	(2) TMA (shielded) ((DNK 19-32)/ATT)	143
10' - 2 Bay Dipole (DNK-54)	181	RRUS-11 ((DNK 19-32)/ATT)	143
20' 4-Bay Dipole (DNK-55)	181	(2) TMA (shielded) ((DNK 19-32)/ATT)	143
Lightning Rod 2"x15' (DNK-56)	181	13' Sector Mount (1) ((DNK 19-32)/ATT)	143
3" Dia 12' Omni (DNK-48)	180	13' Sector Mount (1) ((DNK 19-32)/ATT)	143
3" Dia 12' Omni (DNK-49)	180	13' Sector Mount (1) ((DNK 19-32)/ATT)	143
432E-83I-01T TTA Unit (DNK-50)	180	(2) 7770 w mount pipe ((DNK 19-32)/ATT)	143
1 Bay Dipole ANT400D (DNK-51)	180	(2) 7770 w mount pipe ((DNK 19-32)/ATT)	143
432E-83I-01T TTA Unit (DNK-47)	178	(2) DB950F40T2E-M ((DNK 14-19)/Sprint)	135
3'4"x4" Pipe Mount (DNK-45)	176	Pirod 12' PCS T-Frame (1) 104569 ((DNK 14-19)/Sprint)	135
6' w/Radome (DNK-45)	176		
6' w/Radome (DNK-44)	174	Pirod 12' PCS T-Frame (1) 104569 ((DNK 14-19)/Sprint)	135
3'4"x4" Pipe Mount (DNK-44)	171		
Andrew 6' w/Radome (DNK-43)	170	(2) DB950F85E-M ((DNK 14-19)/Sprint)	135
3'4"x4" Pipe Mount (DNK-43)	169	(2) DB950F85E-M ((DNK 14-19)/Sprint)	135
6' Side-Arm(1) (DNK-40,41)	166	Pirod 12' PCS T-Frame (1) 104569 ((DNK 14-19)/Sprint)	135
6' Side-Arm(1) (DNK-40,41)	166		
(inverted) 10' 8 Bay DI-Pole (DNK-40,41)	166	DBXNH-6565B-A2M (DNK-11,12,13/T-Mobile)	125
(inverted) 2" Dia 10' Omni (DNK-42)	164	(2) Ericsson TMA Unit (DNK-11,12,13/T-Mobile)	125
6' Side-Arm(1) (DNK-42)	164	DBXNH-6565B-A2M (DNK-11,12,13/T-Mobile)	125
6' Side-Arm(1) (DNK-42)	164	(2) Ericsson TMA Unit (DNK-11,12,13/T-Mobile)	125
(inverted) 3" Dia 20' Omni (DNK-38)	160	2' Sidearm (DNK-11,12,13/T-Mobile)	125
2' Sidearm (DNK-38,39)	160	2' Sidearm (DNK-11,12,13/T-Mobile)	125
(inverted) 3" Dia 20' Omni (DNK-39)	160	2' Sidearm (DNK-11,12,13/T-Mobile)	125
2" Dia 10' Omni (DNK-35)	157	(2) Ericsson TMA Unit (DNK-11,12,13/T-Mobile)	125
2' Sidearm (DNK-35)	157	DBXNH-6565B-A2M (DNK-11,12,13/T-Mobile)	125
10'x6" Dipole Antenna (DNK-36)	157	1' Side Arm (DNK-6,7)	122
1' Side Arm (DNK-36)	157	1' Side Arm (DNK-9)	119
3'4"x4" Pipe Mount (DNK-37)	157	1' Side Arm (DNK-10)	119
4' Paraflector (DNK-37)	157	1'x1' Panel Antenna (DNK-10)	119
3" Dia 20' Omni (DNK-33)	153	12' Dipole (DNK-9)	119
1' Side Arm (DNK-33)	153	4' Paraflector (DNK-8)	109.25
1.5" Dia 16' Omni (DNK-33)	153	3'4"x4" Pipe Mount (DNK-8)	109.25
1 Bay Dipole ANT400D (DNK-34)	151	3' Yagi (DNK-6)	76
10'6"x4" Pipe Mount (DNK-34)	151	20' 4-Bay Dipole (DNK-7)	76
RRUS-11 ((DNK 19-32)/ATT)	143	GPS (DNK-5)	75
RRUS-11 ((DNK 19-32)/ATT)	143	1" Dia Omni (DNK-4)	27
AM-X-CD-14-65-00T-RET ((DNK 19-32)/ATT)	143	2" Dia 8' Omni (DNK-2)	27
AM-X-CD-14-65-00T-RET ((DNK 19-32)/ATT)	143	(Inverted) 1" Dia Omni (DNK-3)	27
AM-X-CD-14-65-00T-RET ((DNK 19-32)/ATT)	143	Rohn 6' Side-Arm(1) (DNK-3,4)	26
Raycap Surge Suppressor ((DNK 19-32)/ATT)	143	2' Standoff T-Arm (5' face width) (DNK 1,2)	20
RRUS-12 ((DNK 19-32)/ATT)	143	2' Yagi (DNK-1)	15
RRUS-12 ((DNK 19-32)/ATT)	143		

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	Stainless P5x0.500	B	L2 1/2x2 1/2x3/16

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A513-50	50 ksi	66 ksi	A500-42	42 ksi	58 ksi
A36	36 ksi	58 ksi	A572-60	60 ksi	75 ksi

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-G Standard.
2. Tower designed for a 105 mph basic wind in accordance with the TIA-222-G Standard.
3. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Structure Class III.
6. Topographic Category 1 with Crest Height of 0.000 ft
7. P-Delta for analysis does not apply for this case - TIA-222-G Section 3.5.
8. Wind speed posted is from CT Building Code 2016 as 105 mph with a 1.15 importance factor applied (112 mph - w/o importance factor speed applied)
9. TOWER RATING: 96.5%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 482637 lb
SHEAR: 57664 lb

UPLIFT: -419582 lb
SHEAR: 51254 lb

AXIAL 219142 lb
SHEAR 30149 lb *MOMENT 3176 kip-ft*
TORQUE 18 kip-ft
50 mph WIND - 0.750 in ICE

AXIAL 60768 lb
SHEAR 101673 lb *MOMENT 10011 kip-ft*
TORQUE 37 kip-ft
REACTIONS - 105 mph WIND

AECOM
500 Enterprise Drive, Suite 3B
Rocky Hill, CT
Phone: 860-529-8882

Job:	MODification - 180' Lattice Tower (CSP #36		
Project:	Westbrook, Connecticut		
Client:	Site Acquisitions Inc / SAI-100	Drawn by: MCD	App'd:
Code:	TIA-222-G	Date: 09/28/17	Scale: NTS

Section	T14	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	Stainless P6.875x0.500			Stainless P6.875x0.400		B	A	Stainless P5x0.400	Stainless P5x0.300		Stainless P5x0.250			
Leg Grade	A572-60					A500-42			A513-50					
Diagonals	2L3x3 1/2x5/16			2L3 1/2x3x5/16		2L2 1/2x2x5/16		2L3x2 1/2x1/4			2L2 1/2x2x3/16			
Diagonal Grade	A36													
Top Girts	2L4x4x5/16	N.A.	2L4x4x1/4					N.A.		L2 1/2x2 1/2x3/16	N.A.	N.A.	C	
Horizontals	N.A.	L4x4x5/16	N.A.	L4x4x1/4				L3x3x5/16	L3x2 1/2x1/4		N.A.	D	N.A.	
Red. Horizontals	L3x3x1/4		L2 1/2x2 1/2x3/16					L2x2x3/16			N.A.			
Red. Diagonals	L3x3x1/4		L2 1/2x2 1/2x3/16					L2x2x3/16			N.A.			
Inner Bracing	L3x3x1/4		L2 1/2x2 1/2x3/16					L2 1/2x2x3/16			N.A.			
Face Width (ft)	25	23	22	21	19	18.3333	17.6667	17	15	13	12.3333	11.6667	11	10.599
# Panels @ (ft)	6 @ 12.5					12 @ 8.33333							1 @ 5	
Weight (lb)	39449.9	4388.7	3731.7	3448.7	3351.7	6051.6	2217.6	2177.7	1971.3	4822.1	3894.9	760.9	766.1	755.5	552.3

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	Stainless P5x0.500	C	L3x3x1/4
B	1/3 Pipe w/ 5"x0.5 Stainless	D	L2 1/2x2 1/2x3/16

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A513-50	50 ksi	66 ksi	A500-42	42 ksi	58 ksi
A36	36 ksi	58 ksi	A572-60	60 ksi	75 ksi

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-G Standard.
2. Tower designed for a 105 mph basic wind in accordance with the TIA-222-G Standard.
3. Tower is also designed for a 50 mph basic wind with 0.75 in Ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Structure Class III.
6. Topographic Category 1 with Crest Height of 0.000 ft
7. P-Delta for analysis does not apply for this case - TIA-222-G Section 3.5.
8. Wind speed posted is from CT Building Code 2016 as 105 mph with a 1.15 importance factor applied (112 mph - w/o importance factor speed applied)
9. TOWER RATING: 96.5%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 482637 lb
SHEAR: 57664 lb

UPLIFT: -419582 lb
SHEAR: 51254 lb

AXIAL 219142 lb
SHEAR 30149 lb *MOMENT 3176 kip-ft*

TORQUE 18 kip-ft
50 mph WIND - 0.750 in ICE

AXIAL 60768 lb
SHEAR 101673 lb *MOMENT 10011 kip-ft*

TORQUE 37 kip-ft
REACTIONS - 105 mph WIND

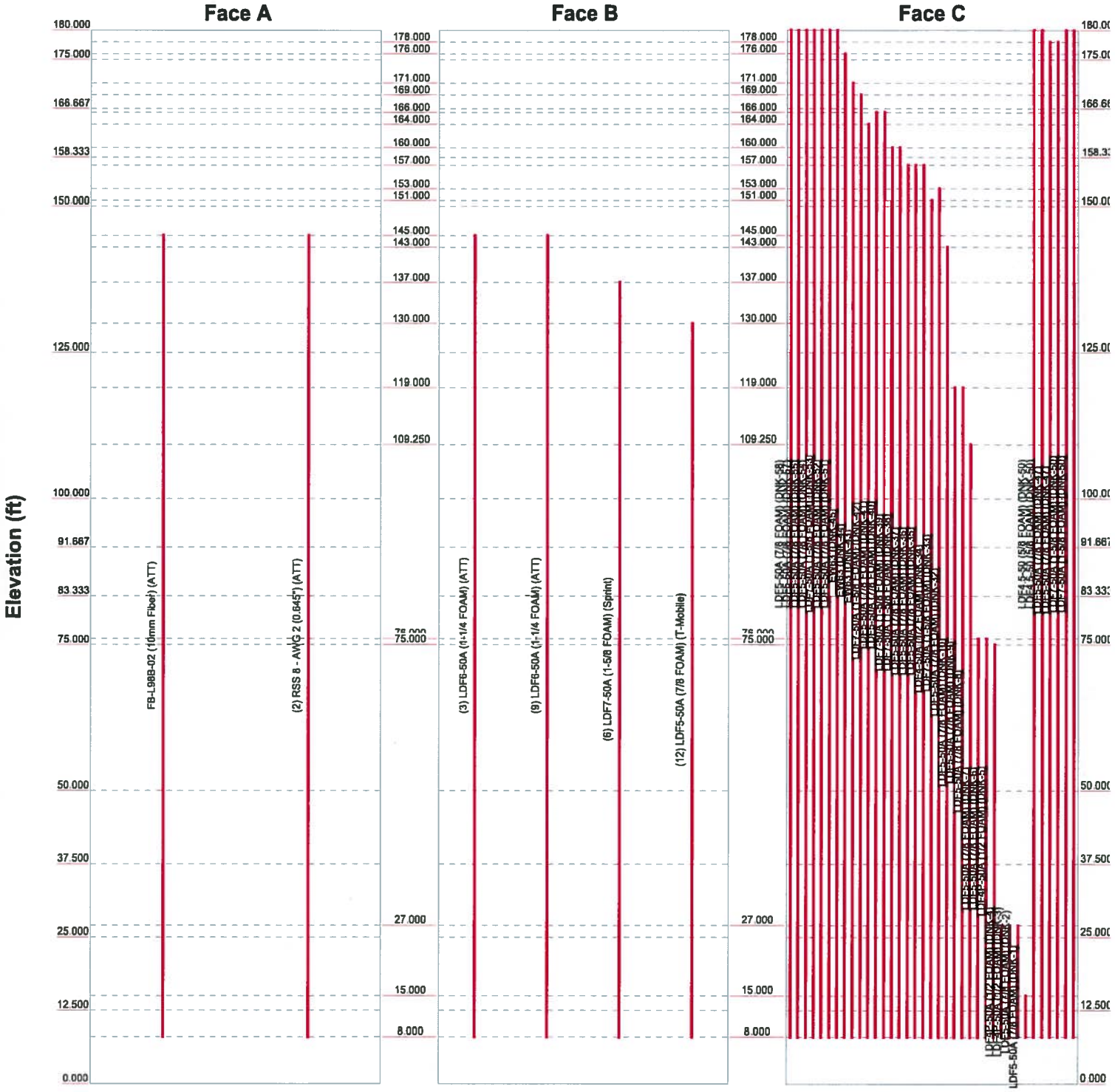
AECOM
500 Enterprise Drive, Suite 3B
Rocky Hill, CT
Phone: 860-529-8882
FAX: 860-529-3991

Job: MODification - 180' Lattice Tower (CSP #			
Project: Westbrook, Connecticut			
Client: Site Acquisitions Inc / SAI-100	Drawn by: MCD	App'd:	
Code: TIA-222-G	Date: 09/28/17	Scale: N	
Path:		Dwg No.	

TNX TOWER FEEDLINE DISTRIBUTION

Feed Line Distribution Chart
0' - 180'

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



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Project: Westbrook, Connecticut			
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Code: TIA-222-G	Date: 09/28/17	Scale: N	
Path:		Dwg No.	

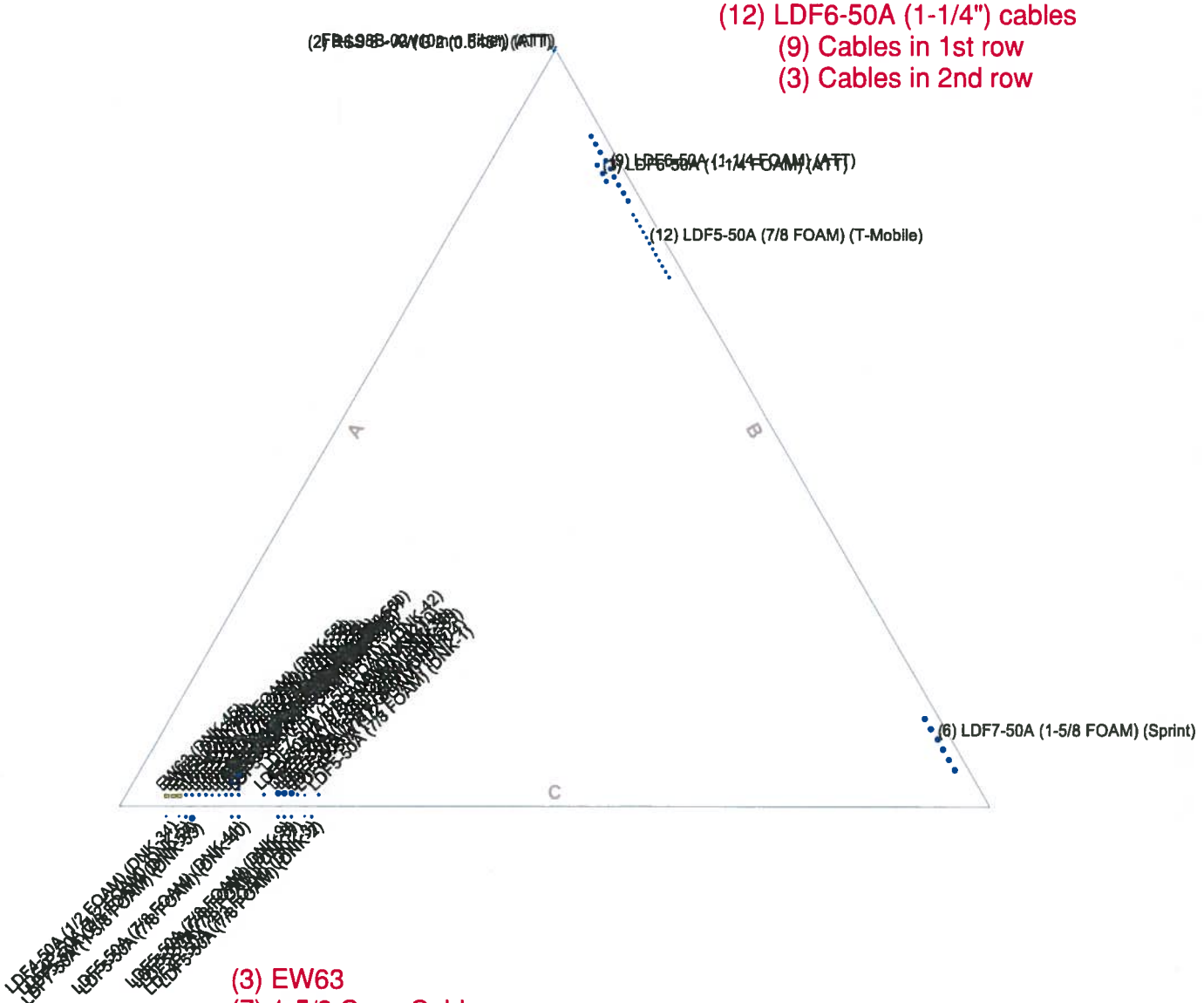
TNX TOWER FEEDLINE PLAN

Feed Line Plan

Round Flat App In Face App Out Face

(1) 10 mm Fiber Optic Cable
(2) AWG-2 Cables

(12) LDF6-50A (1-1/4") cables
(9) Cables in 1st row
(3) Cables in 2nd row



(3) EW63
(7) 1-5/8 Coax Cables
(21) 7/8" Coax Cables
(2) 5/8" Coax Cables
(4) 1/2" Coax Cables

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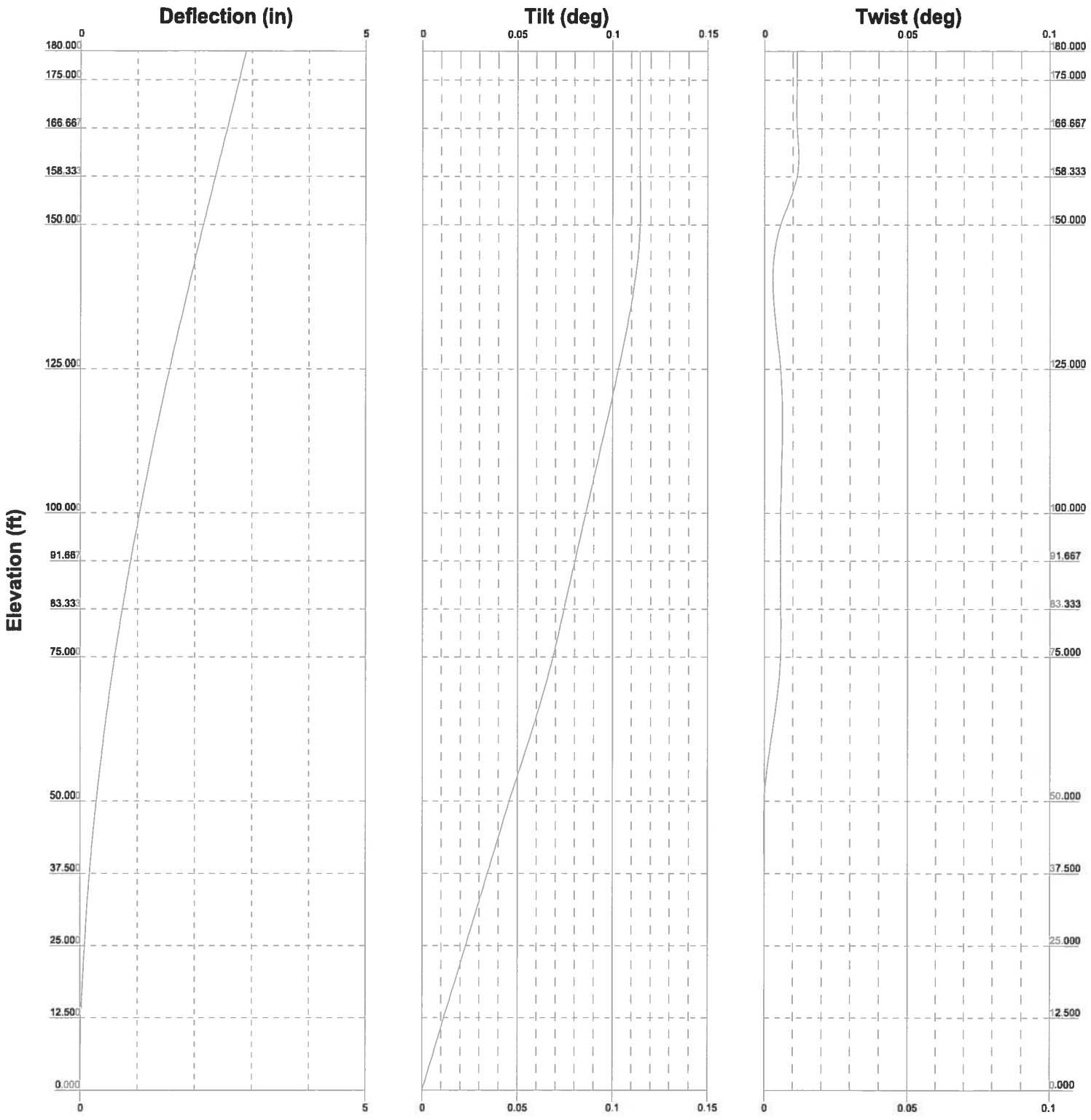
Job: MODification - 180' Lattice Tower (CSP #			
Project: Westbrook, Connecticut			
Client: Site Acquisitions Inc / SAI-100	Drawn by: MCD	App'd:	
Code: TIA-222-G	Date: 09/28/17	Scale: N	
Path:		Dwg No.	

TNX TOWER DEFLECTION, TILT, AND TWIST

TIA-222-G - Service - 60 mph

Maximum Values



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500 Enterprise Drive, Suite 3B
Rocky Hill, CT
Phone: 860-529-8882
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Job:	***MODification - 180' Lattice Tower (CSP #***		
Project:	***Westbrook, Connecticut***		
Client:	Site Acquisitions Inc / SAI-100	Drawn by: MCD	App'd:
Code:	TIA-222-G	Date: 09/28/17	Scale: N
Path:			Dwg No.

DETAILED OUTPUT

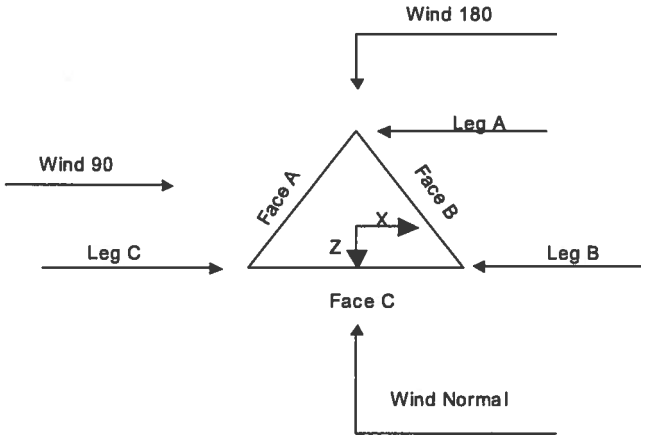
Tower Input Data

The main tower is a 3x free standing tower with an overall height of 180.000 ft above the ground line.
The base of the tower is set at an elevation of 0.000 ft above the ground line.
The face width of the tower is 10.599 ft at the top and 25.000 ft at the base.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

Basic wind speed of 105 mph.
Structure Class III.
Exposure Category C.
Topographic Category 1.
Crest Height 0.000 ft.
Nominal ice thickness of 0.750 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.
Deflections calculated using a wind speed of 60 mph.
P-Delta for analysis does not apply for this case - TIA-222-G Section 3.5..
Wind speed posted is from CT Building Code 2016 as 105 mph with a 1.15 importance factor applied (112 mph - w/o importance factor speed applied).
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-G Bracing Resist. Exemption
√	Include Bolts In Member Capacity	√	Autocalc Torque Arm Areas		Use TIA-222-G 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				



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	180.000-175.000			10.599	1	5.000
T2	175.000-166.667			11.000	1	8.333
T3	166.667-158.333			11.667	1	8.333
T4	158.333-150.000			12.333	1	8.333
T5	150.000-125.000			13.000	1	25.000
T6	125.000-100.000			15.000	1	25.000
T7	100.000-91.667			17.000	1	8.333
T8	91.667-83.333			17.667	1	8.333
T9	83.333-75.000			18.333	1	8.333
T10	75.000-50.000			19.000	1	25.000
T11	50.000-37.500			21.000	1	12.500
T12	37.500-25.000			22.000	1	12.500
T13	25.000-12.500			23.000	1	12.500
T14	12.500-0.000			24.000	1	12.500

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	180.000-175.000	5.000	K Brace Down	No	Yes	0.000	0.000

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T2	175.000-166.667	8.333	K Brace Down	No	Yes	0.000	0.000
T3	166.667-158.333	8.333	K Brace Down	No	Yes	0.000	0.000
T4	158.333-150.000	8.333	K Brace Down	No	Yes	0.000	0.000
T5	150.000-125.000	8.333	K1 Down	No	Yes	0.000	0.000
T6	125.000-100.000	8.333	K1 Down	No	Yes	0.000	0.000
T7	100.000-91.667	8.333	K1 Down	No	Yes	0.000	0.000
T8	91.667-83.333	8.333	K1 Down	No	Yes	0.000	0.000
T9	83.333-75.000	8.333	K1 Down	No	Yes	0.000	0.000
T10	75.000-50.000	12.500	K1 Down	No	Yes	0.000	0.000
T11	50.000-37.500	12.500	K1 Down	No	Yes	0.000	0.000
T12	37.500-25.000	12.500	K1 Down	No	Yes	0.000	0.000
T13	25.000-12.500	12.500	K1 Down	No	Yes	0.000	0.000
T14	12.500-0.000	12.500	K1 Down	No	Yes	0.000	0.000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 180.000-175.000	Pipe	Stainless P5x0.250	A513-50 (50 ksi)	Double Angle	2L2 1/2x2x3/16	A36 (36 ksi)
T2 175.000-166.667	Pipe	Stainless P5x0.250	A513-50 (50 ksi)	Double Angle	2L2 1/2x2x3/16	A36 (36 ksi)
T3 166.667-158.333	Pipe	Stainless P5x0.250	A513-50 (50 ksi)	Double Angle	2L2 1/2x2x3/16	A36 (36 ksi)
T4 158.333-150.000	Pipe	Stainless P5x0.250	A513-50 (50 ksi)	Double Angle	2L2 1/2x2x3/16	A36 (36 ksi)
T5 150.000-125.000	Pipe	Stainless P5x0.300	A513-50 (50 ksi)	Double Angle	2L2 1/2x2x5/16	A36 (36 ksi)
T6 125.000-100.000	Pipe	Stainless P5x0.400	A513-50 (50 ksi)	Double Angle	2L3x2 1/2x1/4	A36 (36 ksi)
T7 100.000-91.667	Pipe	Stainless P5x0.500	A513-50 (50 ksi)	Double Angle	2L3x2 1/2x1/4	A36 (36 ksi)
T8 91.667-83.333	Arbitrary Shape	1/3 Pipe w/ 5"x0.5 Stainless	A500-42 (42 ksi)	Double Angle	2L3x2 1/2x1/4	A36 (36 ksi)
T9 83.333-75.000	Arbitrary Shape	1/3 Pipe w/ 5"x0.5 Stainless	A500-42 (42 ksi)	Double Angle	2L3x2 1/2x1/4	A36 (36 ksi)
T10 75.000-50.000	Pipe	Stainless P6.875x0.400	A572-60 (60 ksi)	Double Angle	2L3 1/2x3x5/16	A36 (36 ksi)
T11 50.000-37.500	Pipe	Stainless P6.875x0.500	A572-60 (60 ksi)	Double Angle	2L3 1/2x3x5/16	A36 (36 ksi)
T12 37.500-25.000	Pipe	Stainless P6.875x0.500	A572-60 (60 ksi)	Double Angle	2L3 1/2x3x5/16	A36 (36 ksi)
T13 25.000-12.500	Pipe	Stainless P6.875x0.500	A572-60 (60 ksi)	Double Angle	2L3x3 1/2x5/16	A36 (36 ksi)
T14 12.500-0.000	Pipe	Stainless P6.875x0.500	A572-60 (60 ksi)	Double Angle	2L3x3 1/2x5/16	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 180.000-175.000	Single Angle	L3x3x1/4	A36 (36 ksi)	Pipe		A36 (36 ksi)
T3 166.667-158.333	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)	Pipe		A36 (36 ksi)
T4 158.333-150.000	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)	Pipe		A36 (36 ksi)
T12 37.500-25.000	Double Equal Angle	2L4x4x1/4	A36 (36 ksi)	Pipe		A36 (36 ksi)
T14 12.500-0.000	Double Equal Angle	2L4x4x5/16	A36 (36 ksi)	Pipe		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 180.000-175.000	None	Pipe		A36 (36 ksi)	Single Angle	L1x1x1/8	A36 (36 ksi)
T2 175.000-166.667	None	Pipe		A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T3 166.667-158.333	None	Pipe		A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T4 158.333-150.000	None	Pipe		A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T5 150.000-125.000	None	Pipe		A36 (36 ksi)	Single Angle	L3x2 1/2x1/4	A36 (36 ksi)
T6 125.000-100.000	None	Pipe		A36 (36 ksi)	Single Angle	L3x3x5/16	A36 (36 ksi)
T7 100.000-91.667	None	Pipe		A36 (36 ksi)	Double Equal Angle	2L3x3x1/4	A36 (36 ksi)
T8 91.667-83.333	None	Pipe		A36 (36 ksi)	Double Angle	2L3x3x1/4	A36 (36 ksi)
T9 83.333-75.000	None	Pipe		A36 (36 ksi)	Double Angle	2L3x3x1/4	A36 (36 ksi)
T10 75.000-50.000	None	Pipe		A36 (36 ksi)	Single Angle	L4x4x1/4	A36 (36 ksi)
T11 50.000-37.500	None	Pipe		A36 (36 ksi)	Single Angle	L4x4x1/4	A36 (36 ksi)
T12 37.500-25.000	None	Pipe		A36 (36 ksi)	Single Angle	L4x4x1/4	A36 (36 ksi)
T13 25.000-12.500	None	Pipe		A36 (36 ksi)	Single Angle	L4x4x5/16	A36 (36 ksi)
T14 12.500-0.000	None	Pipe		A36 (36 ksi)	Single Angle	L4x4x5/16	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T5 150.000-125.000	Solid Round		A36 (36 ksi)	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)
T6 125.000-100.000	Solid Round		A36 (36 ksi)	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)
T7 100.000-91.667	Solid Round		A36 (36 ksi)	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)
T8 91.667-83.333	Solid Round		A36 (36 ksi)	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)
T9 83.333-75.000	Solid Round		A36 (36 ksi)	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)
T10 75.000-50.000	Solid Round		A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T11 50.000-37.500	Solid Round		A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T12 37.500-25.000	Solid Round		A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T13 25.000-12.500	Solid Round		A36 (36 ksi)	Single Angle	L3x3x1/4	A36 (36 ksi)
T14 12.500-0.000	Solid Round		A36 (36 ksi)	Single Angle	L3x3x1/4	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Redundant Bracing Grade		Redundant Type	Redundant Size	K Factor
T5 150.000-125.000	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Single Angle Single Angle	L2x2x3/16 L2x2x3/16	1 1
T6 125.000-100.000	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Single Angle Single Angle	L2x2x3/16 L2x2x3/16	1 1
T7 100.000-91.667	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Single Angle Single Angle	L2x2x3/16 L2x2x3/16	1 1
T8 91.667-83.333	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Single Angle Single Angle	L2x2x3/16 L2x2x3/16	1 1
T9 83.333-75.000	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Single Angle Single Angle	L2x2x3/16 L2x2x3/16	1 1
T10 75.000-50.000	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Single Angle Single Angle	L2 1/2x2 1/2x3/16 L2 1/2x2 1/2x3/16	1 1
T11 50.000-37.500	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Single Angle Single Angle	L2 1/2x2 1/2x3/16 L2 1/2x2 1/2x3/16	1 1
T12 37.500-25.000	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Single Angle Single Angle	L2 1/2x2 1/2x3/16 L2 1/2x2 1/2x3/16	1 1
T13 25.000-12.500	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Single Angle Single Angle	L2 1/2x2 1/2x3/16 L3x3x1/4	1 1
T14 12.500-0.000	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Single Angle Single Angle	L2 1/2x2 1/2x3/16 L3x3x1/4	1 1

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
T1 180.000-175.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T2 175.000-166.667	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T3 166.667-158.333	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T4 158.333-150.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T5 150.000-125.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T6 125.000-100.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T7 100.000-91.667	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T8 91.667-83.333	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T9 83.333-75.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T10 75.000-50.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T11 50.000-37.500	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T12 37.500-25.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T13 25.000-12.500	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T14 12.500-0.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1 180.000-175.000	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T2 175.000-166.667	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T3 166.667-158.333	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T4 158.333-150.0	Yes	No	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X	X Brace Diags Y	K Single Diags X	K Single Diags Y	Girts X	Girts Y	Horiz. X	Horiz. Y	Sec. Horiz. X	Sec. Horiz. Y	Inner Brace X	Inner Brace Y
T5 150.000-125.000	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T6 125.000-100.000	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T7 100.000-91.667	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T8 91.667-83.333	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T9 83.333-75.000	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T10 75.000-50.000	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T11 50.000-37.500	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T12 37.500-25.000	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T13 25.000-12.500	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T14 12.500-0.000	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Net Width Deduct in	Leg U	Diagonal Net Width Deduct in	Diagonal U	Top Girt Net Width Deduct in	Top Girt U	Bottom Girt Net Width Deduct in	Bottom Girt U	Mid Girt Net Width Deduct in	Mid Girt U	Long Horizontal Net Width Deduct in	Long Horizontal U	Short Horizontal Net Width Deduct in	Short Horizontal U
T1 180.000-175.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T2 175.000-166.667	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T3 166.667-158.333	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T4 158.333-150.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T5 150.000-125.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T6 125.000-100.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T7 100.000-91.667	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T8 91.667-83.333	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T9 83.333-75.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T10 75.000-50.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T11 50.000-37.500	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T12 37.500-25.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T13 25.000-12.500	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T14 12.500-0.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 180.000-175.000	Flange	0.750 A325X	0	0.750 A325X	1	0.625 A325X	2	0.625 A325N	0	0.625 A325N	0	0.625 A325X	0	0.625 A325N	0
T2 175.000-166.667	Flange	0.750 A325X	6	0.750 A325X	1	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0	0.625 A325X	2	0.625 A325N	0
T3 166.667-158.333	Flange	0.750 A325X	0	0.750 A325X	1	0.625 A325X	2	0.000 A325N	0	0.625 A325N	0	0.625 A325X	2	0.625 A325N	0
T4 158.333-150.000	Flange	0.750 A325X	0	0.750 A325X	1	0.625 A325X	2	0.625 A325N	0	0.625 A325N	0	0.625 A325X	2	0.625 A325N	0
T5 150.000-125.000	Flange	0.750 A325X	6	0.750 A325X	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325X	2	0.625 A325N	0
T6 125.000-100.000	Flange	0.750 A325X	6	0.750 A325X	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325X	2	0.625 A325N	0
T7 100.000-91.667	Flange	1.000 A325X	6	0.750 A325X	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325X	2	0.625 A325N	0
T8 91.667-83.333	Flange	0.750 A325X	0	0.750 A325X	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325X	2	0.625 A325N	0
T9 83.333-75.000	Flange	0.750 A325X	0	0.750 A325X	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325X	2	0.625 A325N	0
T10 75.000-50.000	Flange	1.000 A325X	8	0.750 A325X	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325X	2	0.625 A325N	0

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T11	Flange	1.000	8	1.000	1	0.625	0	0.000	0	0.625	0	0.625	2	0.625	0
50.000-37.500		A325X		A325X		A325N		A325N		A325N		A325X		A325N	
T12	Flange	1.000	0	1.000	1	0.625	2	0.625	0	0.625	0	0.625	2	0.625	0
37.500-25.000		A325X		A325X		A325X		A325N		A325N		A325X		A325N	
T13	Flange	1.000	8	1.000	1	0.625	0	0.000	0	0.625	0	0.625	2	0.625	0
25.000-12.500		A325X		A325X		A325N		A325N		A325N		A325X		A325N	
T14	Flange	1.000	0	1.000	1	0.625	2	0.625	0	0.625	0	0.625	2	0.625	0
12.500-0.000		A325X		A325X		A325X		A325N		A325N		A325X		A325N	

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
FB-L98B-02 (10mm Fiber) (ATT)	A	No	Ar (CaAa)	145.000 - 8.000	0.000	0.5	1	1	0.394	0.394		0.300
RSS 8 - AWG 2 (0.645") (ATT)	A	No	Ar (CaAa)	145.000 - 8.000	0.000	0.5	2	2	0.645	0.645		0.300
LDF6-50A (1-1/4 FOAM) (ATT)	B	No	Ar (CaAa)	145.000 - 8.000	-6.000	-0.35	3	3	1.550	1.550		0.660
LDF6-50A (1-1/4 FOAM) (ATT)	B	No	Ar (CaAa)	145.000 - 8.000	-3.000	-0.35	9	9	1.550	1.550		0.660
LDF7-50A (1-5/8 FOAM) (Sprint)	B	No	Ar (CaAa)	137.000 - 8.000	-3.000	0.41	6	6	1.980	1.980		0.820
LDF5-50A (7/8 FOAM) (T-Mobile)	B	No	Ar (CaAa)	130.000 - 8.000	-4.000	-0.25	12	12	1.090	1.090		0.330
LDF5-50A (7/8 FOAM) (DNK-58)	C	No	Ar (CaAa)	180.000 - 8.000	-3.000	0.423	1	1	1.090	1.090		0.330
LDF5-50A (7/8 FOAM) (DNK-57)	C	No	Ar (CaAa)	180.000 - 8.000	3.000	0.423	1	1	1.090	1.090		0.330
LDF5-50A (7/8 FOAM) (DNK-55)	C	No	Ar (CaAa)	180.000 - 8.000	-3.000	0.423	1	1	1.090	1.090		0.330
LDF5-50A (7/8 FOAM) (DNK-54)	C	No	Ar (CaAa)	180.000 - 8.000	-3.000	0.416	1	1	1.090	1.090		0.330
LDF7-50A (1-5/8 FOAM) (DNK-53)	C	No	Ar (CaAa)	180.000 - 8.000	3.000	0.416	1	1	1.980	1.980		0.820
LDF5-50A (7/8 FOAM) (DNK-52)	C	No	Ar (CaAa)	180.000 - 8.000	-3.000	0.408	1	1	1.090	1.090		0.330
LDF5-50A (7/8 FOAM) (DNK-51)	C	No	Ar (CaAa)	180.000 - 8.000	-3.000	0.4	1	1	1.090	1.090		0.330
EW63	C	No	Af (CaAa)	176.000 - 8.000	-3.000	0.446	1	1	1.574	1.574		0.510

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
(DNK-45) EW63	C	No	Af (CaAa)	171.000 - 8.000	-3.000	0.438	1	1	1.574	1.574		0.510
(DNK-44) EW63	C	No	Af (CaAa)	169.000 - 8.000	-3.000	0.431	1	1	1.574	1.574		0.510
(DNK-43) LDF7-50A (1-5/8 FOAM)	C	No	Ar (CaAa)	164.000 - 8.000	-9.000	0.324	1	1	1.980	1.980		0.820
(DNK-42) LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	166.000 - 8.000	3.000	0.37	1	1	1.090	1.090		0.330
(DNK-41) LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	166.000 - 8.000	3.000	0.362	1	1	1.090	1.090		0.330
(DNK-40) LDF7-50A (1-5/8 FOAM)	C	No	Ar (CaAa)	160.000 - 8.000	-3.000	0.316	1	1	1.980	1.980		0.820
(DNK-39) LDF7-50A (1-5/8 FOAM)	C	No	Ar (CaAa)	160.000 - 8.000	-3.000	0.309	1	1	1.980	1.980		0.820
(DNK-38) LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	157.000 - 8.000	-3.000	0.362	1	1	1.090	1.090		0.330
(DNK-37) LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	157.000 - 8.000	-5.000	0.362	1	1	1.090	1.090		0.330
(DNK-36) LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	157.000 - 8.000	-7.000	0.362	1	1	1.090	1.090		0.330
(DNK-35) LDF4-50A (1/2 FOAM)	C	No	Ar (CaAa)	151.000 - 8.000	3.000	0.446	1	1	0.630	0.630		0.150
(DNK-34) LDF7-50A (1-5/8 FOAM)	C	No	Ar (CaAa)	153.000 - 8.000	-3.000	0.301	1	1	1.980	1.980		0.820
(DNK-33) LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	143.000 - 8.000	-3.000	0.332	1	1	1.090	1.090		0.330
(DNK-32) LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	119.000 - 8.000	-7.000	0.316	1	1	1.090	1.090		0.330
(DNK-10) LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	119.000 - 8.000	3.000	0.316	1	1	1.090	1.090		0.330
(DNK-9) LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	109.250 - 8.000	3.000	0.309	1	1	1.090	1.090		0.330
(DNK-8) LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	76.000 - 8.000	3.000	0.301	1	1	1.090	1.090		0.330
(DNK-7) LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	76.000 - 8.000	-3.000	0.294	1	1	1.090	1.090		0.330
(DNK-6) LDF4P-50A (1/2 FOAM)	C	No	Ar (CaAa)	75.000 - 8.000	3.000	0.431	1	1	0.630	0.630		0.150
(DNK-5) LDF4P-50A (1/2 FOAM)	C	No	Ar (CaAa)	27.000 - 8.000	-3.000	0.286	1	1	0.630	0.630		0.150
(DNK-4) LDF4P-50A (1/2 FOAM)	C	No	Ar (CaAa)	27.000 - 8.000	3.000	0.286	1	1	0.630	0.630		0.150

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
(DNK-3)												
LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	27.000 - 8.000	3.000	0.278	1	1	1.090	1.090		0.330
(DNK-2)												
LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	15.000 - 8.000	-3.000	0.27	1	1	1.090	1.090		0.330
(DNK-1)												
LDF4.5-50 (5/8 FOAM)	C	No	Ar (CaAa)	180.000 - 8.000	-3.000	0.393	1	1	0.870	0.870		0.150
(DNK-50)												
LDF4.5-50 (5/8 FOAM)	C	No	Ar (CaAa)	180.000 - 8.000	-3.000	0.385	1	1	0.870	0.870		0.150
(DNK-50)												
LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	178.000 - 8.000	-3.000	0.377	1	1	1.090	1.090		0.330
(DNK-47)												
LDF5-50A (7/8 FOAM)	C	No	Ar (CaAa)	178.000 - 8.000	-3.000	0.37	1	1	1.090	1.090		0.330
(DNK-47)												
LDF7-50A (1-5/8 FOAM)	C	No	Ar (CaAa)	180.000 - 8.000	-7.000	0.37	1	1	1.980	1.980		0.820
(DNK-50)												
LDF7-50A (1-5/8 FOAM)	C	No	Ar (CaAa)	180.000 - 8.000	-9.000	0.362	1	1	1.980	1.980		0.820
(DNK-50)												

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T1	180.000-175.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	8.026	0.000	26.190
T2	175.000-166.667	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	17.602	0.000	52.650
T3	166.667-158.333	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	23.679	0.000	70.190
T4	158.333-150.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	29.939	0.000	93.290
T5	150.000-125.000	A	0.000	0.000	3.367	0.000	18.000
		B	0.000	0.000	57.996	0.000	237.240
		C	0.000	0.000	97.640	0.000	306.190
T6	125.000-100.000	A	0.000	0.000	4.209	0.000	22.500
		B	0.000	0.000	108.900	0.000	420.000
		C	0.000	0.000	103.553	0.000	324.092
T7	100.000-91.667	A	0.000	0.000	1.403	0.000	7.500
		B	0.000	0.000	36.300	0.000	140.000
		C	0.000	0.000	35.526	0.000	111.083
T8	91.667-83.333	A	0.000	0.000	1.403	0.000	7.500
		B	0.000	0.000	36.300	0.000	140.000
		C	0.000	0.000	35.526	0.000	111.083
T9	83.333-75.000	A	0.000	0.000	1.403	0.000	7.500
		B	0.000	0.000	36.300	0.000	140.000

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		C	0.000	0.000	35.744	0.000	111.743
T10	75.000-50.000	A	0.000	0.000	4.209	0.000	22.500
		B	0.000	0.000	108.900	0.000	420.000
		C	0.000	0.000	113.603	0.000	353.500
T11	50.000-37.500	A	0.000	0.000	2.105	0.000	11.250
		B	0.000	0.000	54.450	0.000	210.000
		C	0.000	0.000	56.801	0.000	176.750
T12	37.500-25.000	A	0.000	0.000	2.105	0.000	11.250
		B	0.000	0.000	54.450	0.000	210.000
		C	0.000	0.000	57.271	0.000	178.010
T13	25.000-12.500	A	0.000	0.000	2.105	0.000	11.250
		B	0.000	0.000	54.450	0.000	210.000
		C	0.000	0.000	60.011	0.000	185.450
T14	12.500-0.000	A	0.000	0.000	0.758	0.000	4.050
		B	0.000	0.000	19.602	0.000	75.600
		C	0.000	0.000	21.996	0.000	67.950

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T1	180.000-175.000	A	2.219	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	35.536	0.000	615.061
T2	175.000-166.667	A	2.210	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	72.117	0.000	1241.318
T3	166.667-158.333	A	2.199	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	93.023	0.000	1600.244
T4	158.333-150.000	A	2.188	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	117.439	0.000	2025.059
T5	150.000-125.000	A	2.163	0.000	0.000	29.421	0.000	348.772
		B		0.000	0.000	170.619	0.000	2817.050
		C		0.000	0.000	386.566	0.000	6590.381
T6	125.000-100.000	A	2.120	0.000	0.000	36.185	0.000	422.285
		B		0.000	0.000	315.589	0.000	5119.968
		C		0.000	0.000	409.737	0.000	6858.319
T7	100.000-91.667	A	2.086	0.000	0.000	11.907	0.000	137.236
		B		0.000	0.000	104.854	0.000	1682.422
		C		0.000	0.000	139.823	0.000	2308.254
T8	91.667-83.333	A	2.067	0.000	0.000	11.820	0.000	135.281
		B		0.000	0.000	104.663	0.000	1668.884
		C		0.000	0.000	138.878	0.000	2276.186
T9	83.333-75.000	A	2.046	0.000	0.000	11.725	0.000	133.167
		B		0.000	0.000	104.454	0.000	1654.166
		C		0.000	0.000	138.886	0.000	2257.839
T10	75.000-50.000	A	1.999	0.000	0.000	34.518	0.000	384.971
		B		0.000	0.000	311.912	0.000	4860.345
		C		0.000	0.000	443.381	0.000	7043.640
T11	50.000-37.500	A	1.929	0.000	0.000	16.777	0.000	182.096
		B		0.000	0.000	154.895	0.000	2355.859
		C		0.000	0.000	215.913	0.000	3335.278
T12	37.500-25.000	A	1.865	0.000	0.000	16.337	0.000	172.890
		B		0.000	0.000	153.931	0.000	2288.664
		C		0.000	0.000	213.356	0.000	3207.141

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T13	25.000-12.500	A	1.772	0.000	0.000	15.698	0.000	159.937
		B		0.000	0.000	152.532	0.000	2191.766
		C		0.000	0.000	220.241	0.000	3167.789
T14	12.500-0.000	A	1.588	0.000	0.000	5.195	0.000	48.882
		B		0.000	0.000	53.917	0.000	720.911
		C		0.000	0.000	74.701	0.000	989.347

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	180.000-175.000	-5.143	3.385	-7.344	4.837
T2	175.000-166.667	-7.118	4.619	-9.947	6.460
T3	166.667-158.333	-8.412	5.599	-11.498	7.659
T4	158.333-150.000	-9.326	6.408	-12.196	8.339
T5	150.000-125.000	-5.234	1.360	-8.076	3.829
T6	125.000-100.000	-3.333	-0.178	-6.661	2.633
T7	100.000-91.667	-3.669	-0.031	-7.222	2.987
T8	91.667-83.333	-3.754	-0.028	-7.473	3.088
T9	83.333-75.000	-3.890	0.010	-7.707	3.210
T10	75.000-50.000	-4.375	0.369	-8.621	3.887
T11	50.000-37.500	-4.642	0.400	-9.056	4.039
T12	37.500-25.000	-4.859	0.478	-9.347	4.182
T13	25.000-12.500	-5.308	0.840	-9.830	4.665
T14	12.500-0.000	-3.679	0.659	-7.312	3.376

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	7	LDF5-50A (7/8 FOAM)	175.00 - 180.00	0.6000	0.6000
T1	8	LDF5-50A (7/8 FOAM)	175.00 - 180.00	0.6000	0.6000
T1	9	LDF5-50A (7/8 FOAM)	175.00 - 180.00	0.6000	0.6000
T1	10	LDF5-50A (7/8 FOAM)	175.00 - 180.00	0.6000	0.6000
T1	11	LDF7-50A (1-5/8 FOAM)	175.00 - 180.00	0.6000	0.6000
T1	12	LDF5-50A (7/8 FOAM)	175.00 - 180.00	0.6000	0.6000
T1	13	LDF5-50A (7/8 FOAM)	175.00 - 180.00	0.6000	0.6000
T1	17	EW63	175.00 - 176.00	0.6000	0.6000
T1	41	LDF4.5-50 (5/8 FOAM)	175.00 - 180.00	0.6000	0.6000
T1	42	LDF4.5-50 (5/8 FOAM)	175.00 - 180.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	43	LDF5-50A (7/8 FOAM)	175.00 - 178.00	0.6000	0.6000
T1	44	LDF5-50A (7/8 FOAM)	175.00 - 178.00	0.6000	0.6000
T1	45	LDF7-50A (1-5/8 FOAM)	175.00 - 180.00	0.6000	0.6000
T1	46	LDF7-50A (1-5/8 FOAM)	175.00 - 180.00	0.6000	0.6000
T2	7	LDF5-50A (7/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	8	LDF5-50A (7/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	9	LDF5-50A (7/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	10	LDF5-50A (7/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	11	LDF7-50A (1-5/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	12	LDF5-50A (7/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	13	LDF5-50A (7/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	17	EW63	166.67 - 175.00	0.6000	0.6000
T2	18	EW63	166.67 - 171.00	0.6000	0.6000
T2	19	EW63	166.67 - 169.00	0.6000	0.6000
T2	41	LDF4.5-50 (5/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	42	LDF4.5-50 (5/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	43	LDF5-50A (7/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	44	LDF5-50A (7/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	45	LDF7-50A (1-5/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T2	46	LDF7-50A (1-5/8 FOAM)	166.67 - 175.00	0.6000	0.6000
T3	7	LDF5-50A (7/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	8	LDF5-50A (7/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	9	LDF5-50A (7/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	10	LDF5-50A (7/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	11	LDF7-50A (1-5/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	12	LDF5-50A (7/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	13	LDF5-50A (7/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	17	EW63	158.33 - 166.67	0.6000	0.6000
T3	18	EW63	158.33 - 166.67	0.6000	0.6000
T3	19	EW63	158.33 - 166.67	0.6000	0.6000
T3	20	LDF7-50A (1-5/8 FOAM)	158.33 - 164.00	0.6000	0.6000

tnxTower	Job	Page
	MODification - 180' Lattice Tower (CSP #36)	15 of 204
AECOM 500 Enterprise Drive, Suite 3B Rocky Hill, CT Phone: 860-529-8882 FAX: 860-529-3991	Project Westbrook, Connecticut	Date 14:47:48 09/29/17
	Client Site Acquisitions Inc / SAI-100	Designed by MCD

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T3	21	LDF5-50A (7/8 FOAM)	158.33 - 166.00	0.6000	0.6000
T3	22	LDF5-50A (7/8 FOAM)	158.33 - 166.00	0.6000	0.6000
T3	23	LDF7-50A (1-5/8 FOAM)	158.33 - 160.00	0.6000	0.6000
T3	24	LDF7-50A (1-5/8 FOAM)	158.33 - 160.00	0.6000	0.6000
T3	41	LDF4.5-50 (5/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	42	LDF4.5-50 (5/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	43	LDF5-50A (7/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	44	LDF5-50A (7/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	45	LDF7-50A (1-5/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T3	46	LDF7-50A (1-5/8 FOAM)	158.33 - 166.67	0.6000	0.6000
T4	7	LDF5-50A (7/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	8	LDF5-50A (7/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	9	LDF5-50A (7/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	10	LDF5-50A (7/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	11	LDF7-50A (1-5/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	12	LDF5-50A (7/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	13	LDF5-50A (7/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	17	EW63	150.00 - 158.33	0.6000	0.6000
T4	18	EW63	150.00 - 158.33	0.6000	0.6000
T4	19	EW63	150.00 - 158.33	0.6000	0.6000
T4	20	LDF7-50A (1-5/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	21	LDF5-50A (7/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	22	LDF5-50A (7/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	23	LDF7-50A (1-5/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	24	LDF7-50A (1-5/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	25	LDF5-50A (7/8 FOAM)	150.00 - 157.00	0.6000	0.6000
T4	26	LDF5-50A (7/8 FOAM)	150.00 - 157.00	0.6000	0.6000
T4	27	LDF5-50A (7/8 FOAM)	150.00 - 157.00	0.6000	0.6000
T4	28	LDF4-50A (1/2 FOAM)	150.00 - 151.00	0.6000	0.6000
T4	29	LDF7-50A (1-5/8 FOAM)	150.00 - 153.00	0.6000	0.6000
T4	41	LDF4.5-50 (5/8 FOAM)	150.00 - 158.33	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T4	42	LDF4.5-50 (5/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	43	LDF5-50A (7/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	44	LDF5-50A (7/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	45	LDF7-50A (1-5/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T4	46	LDF7-50A (1-5/8 FOAM)	150.00 - 158.33	0.6000	0.6000
T5	1	FB-L98B-02 (10mm Fiber)	125.00 - 145.00	1.0000	1.0000
T5	2	RSS 8 - AWG 2 (0.645")	125.00 - 145.00	1.0000	1.0000
T5	3	LDF6-50A (1-1/4 FOAM)	125.00 - 145.00	0.6000	0.6000
T5	4	LDF6-50A (1-1/4 FOAM)	125.00 - 145.00	0.6000	0.6000
T5	5	LDF7-50A (1-5/8 FOAM)	125.00 - 137.00	0.6000	0.6000
T5	6	LDF5-50A (7/8 FOAM)	125.00 - 130.00	0.6000	0.6000
T5	7	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	8	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	9	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	10	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	11	LDF7-50A (1-5/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	12	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	13	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	17	EW63	125.00 - 150.00	0.6000	0.6000
T5	18	EW63	125.00 - 150.00	0.6000	0.6000
T5	19	EW63	125.00 - 150.00	0.6000	0.6000
T5	20	LDF7-50A (1-5/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	21	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	22	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	23	LDF7-50A (1-5/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	24	LDF7-50A (1-5/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	25	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	26	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	27	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	28	LDF4-50A (1/2 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	29	LDF7-50A (1-5/8 FOAM)	125.00 - 150.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T5	30	LDF5-50A (7/8 FOAM)	125.00 - 143.00	0.6000	0.6000
T5	41	LDF4.5-50 (5/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	42	LDF4.5-50 (5/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	43	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	44	LDF5-50A (7/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	45	LDF7-50A (1-5/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T5	46	LDF7-50A (1-5/8 FOAM)	125.00 - 150.00	0.6000	0.6000
T6	1	FB-L98B-02 (10mm Fiber)	100.00 - 125.00	1.0000	1.0000
T6	2	RSS 8 - AWG 2 (0.645")	100.00 - 125.00	1.0000	1.0000
T6	3	LDF6-50A (1-1/4 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	4	LDF6-50A (1-1/4 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	5	LDF7-50A (1-5/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	6	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	7	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	8	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	9	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	10	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	11	LDF7-50A (1-5/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	12	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	13	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	17	EW63	100.00 - 125.00	0.6000	0.6000
T6	18	EW63	100.00 - 125.00	0.6000	0.6000
T6	19	EW63	100.00 - 125.00	0.6000	0.6000
T6	20	LDF7-50A (1-5/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	21	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	22	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	23	LDF7-50A (1-5/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	24	LDF7-50A (1-5/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	25	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	26	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	27	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T6	28	LDF4-50A (1/2 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	29	LDF7-50A (1-5/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	30	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	31	LDF5-50A (7/8 FOAM)	100.00 - 119.00	0.6000	0.6000
T6	32	LDF5-50A (7/8 FOAM)	100.00 - 119.00	0.6000	0.6000
T6	33	LDF5-50A (7/8 FOAM)	100.00 - 109.25	0.6000	0.6000
T6	41	LDF4.5-50 (5/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	42	LDF4.5-50 (5/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	43	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	44	LDF5-50A (7/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	45	LDF7-50A (1-5/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T6	46	LDF7-50A (1-5/8 FOAM)	100.00 - 125.00	0.6000	0.6000
T7	1	FB-L98B-02 (10mm Fiber)	91.67 - 100.00	1.0000	1.0000
T7	2	RSS 8 - AWG 2 (0.645")	91.67 - 100.00	1.0000	1.0000
T7	3	LDF6-50A (1-1/4 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	4	LDF6-50A (1-1/4 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	5	LDF7-50A (1-5/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	6	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	7	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	8	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	9	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	10	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	11	LDF7-50A (1-5/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	12	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	13	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	17	EW63	91.67 - 100.00	0.6000	0.6000
T7	18	EW63	91.67 - 100.00	0.6000	0.6000
T7	19	EW63	91.67 - 100.00	0.6000	0.6000
T7	20	LDF7-50A (1-5/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	21	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	22	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	23	LDF7-50A (1-5/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	24	LDF7-50A (1-5/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	25	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	26	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	27	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	28	LDF4-50A (1/2 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	29	LDF7-50A (1-5/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	30	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	31	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	32	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	33	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	41	LDF4.5-50 (5/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	42	LDF4.5-50 (5/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	43	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	44	LDF5-50A (7/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	45	LDF7-50A (1-5/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T7	46	LDF7-50A (1-5/8 FOAM)	91.67 - 100.00	0.6000	0.6000
T8	1	FB-L98B-02 (10mm Fiber)	83.33 - 91.67	1.0000	1.0000
T8	2	RSS 8 - AWG 2 (0.645")	83.33 - 91.67	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T8	3	LDF6-50A (1-1/4 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	4	LDF6-50A (1-1/4 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	5	LDF7-50A (1-5/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	6	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	7	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	8	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	9	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	10	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	11	LDF7-50A (1-5/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	12	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	13	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	17	EW63	83.33 - 91.67	0.6000	0.6000
T8	18	EW63	83.33 - 91.67	0.6000	0.6000
T8	19	EW63	83.33 - 91.67	0.6000	0.6000
T8	20	LDF7-50A (1-5/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	21	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	22	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	23	LDF7-50A (1-5/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	24	LDF7-50A (1-5/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	25	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	26	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	27	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	28	LDF4-50A (1/2 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	29	LDF7-50A (1-5/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	30	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	31	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	32	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	33	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	41	LDF4.5-50 (5/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	42	LDF4.5-50 (5/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	43	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	44	LDF5-50A (7/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	45	LDF7-50A (1-5/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T8	46	LDF7-50A (1-5/8 FOAM)	83.33 - 91.67	0.6000	0.6000
T9	1	FB-L98B-02 (10mm Fiber)	75.00 - 83.33	1.0000	1.0000
T9	2	RSS 8 - AWG 2 (0.645")	75.00 - 83.33	1.0000	1.0000
T9	3	LDF6-50A (1-1/4 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	4	LDF6-50A (1-1/4 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	5	LDF7-50A (1-5/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	6	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	7	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	8	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	9	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	10	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	11	LDF7-50A (1-5/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	12	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	13	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	17	EW63	75.00 - 83.33	0.6000	0.6000
T9	18	EW63	75.00 - 83.33	0.6000	0.6000
T9	19	EW63	75.00 - 83.33	0.6000	0.6000
T9	20	LDF7-50A (1-5/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	21	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	22	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	23	LDF7-50A (1-5/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	24	LDF7-50A (1-5/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	25	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	26	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	27	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	28	LDF4-50A (1/2 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	29	LDF7-50A (1-5/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	30	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	31	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T9	32	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	33	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	34	LDF5-50A (7/8 FOAM)	75.00 - 76.00	0.6000	0.6000
T9	35	LDF5-50A (7/8 FOAM)	75.00 - 76.00	0.6000	0.6000
T9	41	LDF4.5-50 (5/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	42	LDF4.5-50 (5/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	43	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	44	LDF5-50A (7/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	45	LDF7-50A (1-5/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T9	46	LDF7-50A (1-5/8 FOAM)	75.00 - 83.33	0.6000	0.6000
T10	1	FB-L98B-02 (10mm Fiber)	50.00 - 75.00	1.0000	1.0000
T10	2	RSS 8 - AWG 2 (0.645")	50.00 - 75.00	1.0000	1.0000
T10	3	LDF6-50A (1-1/4 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	4	LDF6-50A (1-1/4 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	5	LDF7-50A (1-5/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	6	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	7	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	8	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	9	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	10	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	11	LDF7-50A (1-5/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	12	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	13	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	17	EW63	50.00 - 75.00	0.6000	0.6000
T10	18	EW63	50.00 - 75.00	0.6000	0.6000
T10	19	EW63	50.00 - 75.00	0.6000	0.6000
T10	20	LDF7-50A (1-5/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	21	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	22	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	23	LDF7-50A (1-5/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	24	LDF7-50A (1-5/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	25	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	26	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	27	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	28	LDF4-50A (1/2 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	29	LDF7-50A (1-5/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	30	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	31	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	32	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	33	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	34	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	35	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	36	LDF4P-50A (1/2 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	41	LDF4.5-50 (5/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	42	LDF4.5-50 (5/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	43	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	44	LDF5-50A (7/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	45	LDF7-50A (1-5/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T10	46	LDF7-50A (1-5/8 FOAM)	50.00 - 75.00	0.6000	0.6000
T11	1	FB-L98B-02 (10mm Fiber)	37.50 - 50.00	1.0000	1.0000
T11	2	RSS 8 - AWG 2 (0.645")	37.50 - 50.00	1.0000	1.0000
T11	3	LDF6-50A (1-1/4 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	4	LDF6-50A (1-1/4 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	5	LDF7-50A (1-5/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	6	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	7	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	8	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	9	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	10	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	11	LDF7-50A (1-5/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	12	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	13	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T11	17	EW63	37.50 - 50.00	0.6000	0.6000
T11	18	EW63	37.50 - 50.00	0.6000	0.6000
T11	19	EW63	37.50 - 50.00	0.6000	0.6000
T11	20	LDF7-50A (1-5/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	21	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	22	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	23	LDF7-50A (1-5/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	24	LDF7-50A (1-5/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	25	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	26	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	27	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	28	LDF4-50A (1/2 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	29	LDF7-50A (1-5/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	30	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	31	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	32	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	33	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	34	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	35	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	36	LDF4P-50A (1/2 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	41	LDF4.5-50 (5/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	42	LDF4.5-50 (5/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	43	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	44	LDF5-50A (7/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	45	LDF7-50A (1-5/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T11	46	LDF7-50A (1-5/8 FOAM)	37.50 - 50.00	0.6000	0.6000
T12	1	FB-L98B-02 (10mm Fiber)	25.00 - 37.50	1.0000	1.0000
T12	2	RSS 8 - AWG 2 (0.645")	25.00 - 37.50	1.0000	1.0000
T12	3	LDF6-50A (1-1/4 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	4	LDF6-50A (1-1/4 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	5	LDF7-50A (1-5/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	6	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	7	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	8	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	9	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	10	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	11	LDF7-50A (1-5/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	12	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	13	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	17	EW63	25.00 - 37.50	0.6000	0.6000
T12	18	EW63	25.00 - 37.50	0.6000	0.6000
T12	19	EW63	25.00 - 37.50	0.6000	0.6000
T12	20	LDF7-50A (1-5/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	21	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	22	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	23	LDF7-50A (1-5/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	24	LDF7-50A (1-5/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	25	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	26	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	27	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	28	LDF4-50A (1/2 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	29	LDF7-50A (1-5/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	30	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	31	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	32	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	33	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	34	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	35	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	36	LDF4P-50A (1/2 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	37	LDF4P-50A (1/2 FOAM)	25.00 - 27.00	0.6000	0.6000
T12	38	LDF4P-50A (1/2 FOAM)	25.00 - 27.00	0.6000	0.6000
T12	39	LDF5-50A (7/8 FOAM)	25.00 - 27.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T12	41	LDF4.5-50 (5/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	42	LDF4.5-50 (5/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	43	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	44	LDF5-50A (7/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	45	LDF7-50A (1-5/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T12	46	LDF7-50A (1-5/8 FOAM)	25.00 - 37.50	0.6000	0.6000
T13	1	FB-L98B-02 (10mm Fiber)	12.50 - 25.00	1.0000	1.0000
T13	2	RSS 8 - AWG 2 (0.645")	12.50 - 25.00	1.0000	1.0000
T13	3	LDF6-50A (1-1/4 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	4	LDF6-50A (1-1/4 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	5	LDF7-50A (1-5/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	6	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	7	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	8	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	9	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	10	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	11	LDF7-50A (1-5/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	12	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	13	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	17	EW63	12.50 - 25.00	0.6000	0.6000
T13	18	EW63	12.50 - 25.00	0.6000	0.6000
T13	19	EW63	12.50 - 25.00	0.6000	0.6000
T13	20	LDF7-50A (1-5/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	21	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	22	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	23	LDF7-50A (1-5/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	24	LDF7-50A (1-5/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	25	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	26	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	27	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	28	LDF4-50A (1/2 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	29	LDF7-50A (1-5/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	30	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	31	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	32	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	33	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	34	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	35	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	36	LDF4P-50A (1/2 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	37	LDF4P-50A (1/2 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	38	LDF4P-50A (1/2 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	39	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	40	LDF5-50A (7/8 FOAM)	12.50 - 15.00	0.6000	0.6000
T13	41	LDF4.5-50 (5/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	42	LDF4.5-50 (5/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	43	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	44	LDF5-50A (7/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	45	LDF7-50A (1-5/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T13	46	LDF7-50A (1-5/8 FOAM)	12.50 - 25.00	0.6000	0.6000
T14	1	FB-L98B-02 (10mm Fiber)	8.00 - 12.50	1.0000	1.0000
T14	2	RSS 8 - AWG 2 (0.645")	8.00 - 12.50	1.0000	1.0000
T14	3	LDF6-50A (1-1/4 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	4	LDF6-50A (1-1/4 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	5	LDF7-50A (1-5/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	6	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	7	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	8	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	9	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	10	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	11	LDF7-50A (1-5/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	12	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	13	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T14	17	EW63	8.00 - 12.50	0.6000	0.6000
T14	18	EW63	8.00 - 12.50	0.6000	0.6000
T14	19	EW63	8.00 - 12.50	0.6000	0.6000
T14	20	LDF7-50A (1-5/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	21	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	22	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	23	LDF7-50A (1-5/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	24	LDF7-50A (1-5/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	25	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	26	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	27	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	28	LDF4-50A (1/2 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	29	LDF7-50A (1-5/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	30	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	31	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	32	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	33	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	34	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	35	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	36	LDF4P-50A (1/2 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	37	LDF4P-50A (1/2 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	38	LDF4P-50A (1/2 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	39	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	40	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	41	LDF4.5-50 (5/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	42	LDF4.5-50 (5/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	43	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	44	LDF5-50A (7/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	45	LDF7-50A (1-5/8 FOAM)	8.00 - 12.50	0.6000	0.6000
T14	46	LDF7-50A (1-5/8 FOAM)	8.00 - 12.50	0.6000	0.6000

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 lb
* D&K Inventory Climb Antennas									
2' Yagi	C	From Leg	2.000	0.0000	15.000	No Ice	2.083	2.083	30.950
(DNK-1)			0.000			1/2" Ice	3.787	3.787	52.866
			0.000			1" Ice	5.517	5.517	85.272
2" Dia 8' Omni	C	From Leg	2.000	0.0000	27.000	No Ice	2.000	2.000	5.000
(DNK-2)			0.000			1/2" Ice	3.030	3.030	18.000
			0.000			1" Ice	4.060	4.060	31.000
2' Standoff T-Arm (5' face width)	C	From Leg	0.000	0.0000	20.000	No Ice	3.500	3.500	91.000
			0.000			1/2" Ice	4.200	4.200	120.000
(DNK 1,2)			0.000			1" Ice	4.900	4.900	149.000
(Inverted) 1" Dia Omni	C	From Leg	5.000	0.0000	27.000	No Ice	2.000	2.000	5.000
(DNK-3)			0.000			1/2" Ice	3.030	3.030	18.000
			-2.000			1" Ice	4.060	4.060	31.000
1" Dia Omni	C	From Leg	5.000	0.0000	27.000	No Ice	2.000	2.000	5.000

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 lb
(DNK-4)			0.000			1/2" Ice	3.030	3.030	18.000
			2.000			1" Ice	4.060	4.060	31.000
Rohn 6' Side-Arm(1)	C	None		0.0000	26.000	No Ice	10.600	10.600	140.000
(DNK-3,4)						1/2" Ice	15.400	15.400	212.000
						1" Ice	20.200	20.200	284.000
GPS	A	From Leg	0.500	0.0000	75.000	No Ice	1.000	1.000	10.000
(DNK-5)			0.000			1/2" Ice	1.500	1.500	15.000
			0.000			1" Ice	2.000	2.000	20.000
3' Yagi	C	From Leg	1.000	0.0000	76.000	No Ice	2.083	2.083	30.950
(DNK-6)			0.000			1/2" Ice	3.787	3.787	52.866
			-1.000			1" Ice	5.517	5.517	85.272
20' 4-Bay Dipole	C	From Leg	0.000	0.0000	76.000	No Ice	4.000	4.000	55.000
(DNK-7)			0.000			1/2" Ice	6.000	6.000	100.000
			1.000			1" Ice	8.000	8.000	145.000
1' Side Arm	C	From Leg	0.500	0.0000	122.000	No Ice	2.500	2.500	55.000
(DNK-6,7)			0.000			1/2" Ice	3.363	3.363	73.000
			0.000			1" Ice	4.226	4.226	91.000
3'4"x4" Pipe Mount	B	None		0.0000	109.250	No Ice	0.862	0.862	36.000
(DNK-8)						1/2" Ice	1.269	1.269	46.951
						1" Ice	1.494	1.494	60.549
12' Dipole	C	From Leg	1.000	0.0000	119.000	No Ice	3.169	3.169	40.000
(DNK-9)			0.000			1/2" Ice	3.389	3.389	78.897
			0.000			1" Ice	3.617	3.617	121.780
1' Side Arm	C	From Leg	0.500	0.0000	119.000	No Ice	2.500	2.500	55.000
(DNK-9)			0.000			1/2" Ice	3.363	3.363	73.000
			0.000			1" Ice	4.226	4.226	91.000
1'x1' Panel Antenna	B	From Leg	0.500	0.0000	119.000	No Ice	1.200	0.131	10.000
(DNK-10)			0.000			1/2" Ice	1.337	0.208	16.287
			0.000			1" Ice	1.481	0.290	24.389
1' Side Arm	B	From Leg	0.500	0.0000	119.000	No Ice	2.500	2.500	55.000
(DNK-10)			0.000			1/2" Ice	3.363	3.363	73.000
			0.000			1" Ice	4.226	4.226	91.000
* T-Mobile Carrier Antennas @ 125'									
2' Sidearm	A	From Leg	1.000	0.0000	125.000	No Ice	3.900	3.900	87.000
(DNK-11,12,13/T-Mobile)			0.000			1/2" Ice	4.400	4.400	97.000
			0.000			1" Ice	4.900	4.900	107.000
2' Sidearm	B	From Leg	1.000	0.0000	125.000	No Ice	3.900	3.900	87.000
(DNK-11,12,13/T-Mobile)			0.000			1/2" Ice	4.400	4.400	97.000
			0.000			1" Ice	4.900	4.900	107.000
2' Sidearm	C	From Leg	1.000	0.0000	125.000	No Ice	3.900	3.900	87.000
(DNK-11,12,13/T-Mobile)			0.000			1/2" Ice	4.400	4.400	97.000
			0.000			1" Ice	4.900	4.900	107.000
(2) Ericsson TMA Unit	A	From Leg	1.000	0.0000	125.000	No Ice	0.591	0.591	19.473
(DNK-11,12,13/T-Mobile)			0.000			1/2" Ice	0.698	0.761	28.287
			0.000			1" Ice	0.813	0.948	39.619
(2) Ericsson TMA Unit	B	From Leg	1.000	0.0000	125.000	No Ice	0.591	0.591	19.473
(DNK-11,12,13/T-Mobile)			0.000			1/2" Ice	0.698	0.761	28.287
			0.000			1" Ice	0.813	0.948	39.619
(2) Ericsson TMA Unit	C	From Leg	1.000	0.0000	125.000	No Ice	0.591	0.591	19.473
(DNK-11,12,13/T-Mobile)			0.000			1/2" Ice	0.698	0.761	28.287
			0.000			1" Ice	0.813	0.948	39.619
DBXNH-6565B-A2M	A	From Leg	2.000	0.0000	125.000	No Ice	8.173	5.405	46.300
(DNK-11,12,13/T-Mobile)			0.000			1/2" Ice	8.633	5.863	96.807
			0.000			1" Ice	9.100	6.327	153.451
DBXNH-6565B-A2M	B	From Leg	2.000	0.0000	125.000	No Ice	8.173	5.405	46.300
(DNK-11,12,13/T-Mobile)			0.000			1/2" Ice	8.633	5.863	96.807

tnxTower	Job: MODification - 180' Lattice Tower (CSP #36)	Page: 25 of 204
AECOM 500 Enterprise Drive, Suite 3B Rocky Hill, CT Phone: 860-529-8882 FAX: 860-529-3991	Project: Westbrook, Connecticut	Date: 14:47:48 09/29/17
	Client: Site Acquisitions Inc / SAI-100	Designed by: MCD

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 lb
			0.000			1" Ice	9.100	6.327	153.451
DBXNH-6565B-A2M (DNK-11,12,13/T-Mobile)	C	From Leg	2.000 0.000 0.000	0.0000	125.000	No Ice 1/2" Ice 1" Ice	8.173 8.633 9.100	5.405 5.863 6.327	46.300 96.807 153.451
* T-Mobile Carrier Antennas @ 125'									
* Sprint Carrier Antennas @ 135'									
(2) DB950F65E-M ((DNK 14-19)/Sprint)	A	From Leg	3.500 0.000 0.000	0.0000	135.000	No Ice 1/2" Ice 1" Ice	5.875 6.259 6.649	4.236 4.620 5.012	15.000 53.954 98.125
(2) DB950F85E-M ((DNK 14-19)/Sprint)	B	From Leg	3.500 0.000 0.000	0.0000	135.000	No Ice 1/2" Ice 1" Ice	2.535 2.900 3.273	4.188 4.571 4.962	10.500 33.819 61.895
(2) DB950F40T2E-M ((DNK 14-19)/Sprint)	C	From Leg	3.500 0.000 0.000	0.0000	135.000	No Ice 1/2" Ice 1" Ice	6.102 6.488 6.881	4.625 5.013 5.397	20.000 61.922 109.146
Pirod 12' PCS T-Frame (1) 104569 ((DNK 14-19)/Sprint)	A	None		0.0000	135.000	No Ice 1/2" Ice 1" Ice	9.800 14.800 19.800	9.800 14.800 19.800	260.000 360.000 460.000
Pirod 12' PCS T-Frame (1) 104569 ((DNK 14-19)/Sprint)	B	None		0.0000	135.000	No Ice 1/2" Ice 1" Ice	9.800 14.800 19.800	9.800 14.800 19.800	260.000 360.000 460.000
Pirod 12' PCS T-Frame (1) 104569 ((DNK 14-19)/Sprint)	C	None		0.0000	135.000	No Ice 1/2" Ice 1" Ice	9.800 14.800 19.800	9.800 14.800 19.800	260.000 360.000 460.000
* Sprint Carrier Antennas @ 135'									
* AT&T Carrier Antennas @ 143'									
13' Sector Mount (1) ((DNK 19-32)/ATT)	A	From Leg	4.000 0.000 0.000	0.0000	143.000	No Ice 1/2" Ice 1" Ice	12.000 16.100 20.200	12.000 16.100 20.200	220.000 420.000 620.000
13' Sector Mount (1) ((DNK 19-32)/ATT)	B	From Leg	4.000 0.000 0.000	0.0000	143.000	No Ice 1/2" Ice 1" Ice	12.000 16.100 20.200	12.000 16.100 20.200	220.000 420.000 620.000
13' Sector Mount (1) ((DNK 19-32)/ATT)	C	From Leg	4.000 0.000 0.000	0.0000	143.000	No Ice 1/2" Ice 1" Ice	12.000 16.100 20.200	12.000 16.100 20.200	220.000 420.000 620.000
(2) 7770 w mount pipe ((DNK 19-32)/ATT)	A	From Leg	4.000 -6.000 0.000	0.0000	143.000	No Ice 1/2" Ice 1" Ice	5.882 6.314 6.755	3.980 4.603 5.243	52.000 94.698 146.494
(2) 7770 w mount pipe ((DNK 19-32)/ATT)	B	From Leg	4.000 -6.000 0.000	0.0000	143.000	No Ice 1/2" Ice 1" Ice	5.882 6.314 6.755	3.980 4.603 5.243	52.000 94.698 146.494
(2) 7770 w mount pipe ((DNK 19-32)/ATT)	C	From Leg	4.000 -6.000 0.000	0.0000	143.000	No Ice 1/2" Ice 1" Ice	5.882 6.314 6.755	3.980 4.603 5.243	52.000 94.698 146.494
(2) TMA (shielded) ((DNK 19-32)/ATT)	A	From Leg	4.000 0.000 0.000	0.0000	143.000	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.000 0.000 0.000	7.300 11.643 17.456
(2) TMA (shielded) ((DNK 19-32)/ATT)	B	From Leg	4.000 0.000 0.000	0.0000	143.000	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.000 0.000 0.000	7.300 11.643 17.456
(2) TMA (shielded) ((DNK 19-32)/ATT)	C	From Leg	4.000 0.000 0.000	0.0000	143.000	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.000 0.000 0.000	7.300 11.643 17.456

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 lb
RRUS-11	A	None		0.0000	143.000	No Ice	2.566	1.068	50.000
((DNK 19-32)/ATT)						1/2" Ice	2.765	1.211	69.573
						1" Ice	2.971	1.361	92.082
RRUS-11	B	None		0.0000	143.000	No Ice	2.566	1.068	50.000
((DNK 19-32)/ATT)						1/2" Ice	2.765	1.211	69.573
						1" Ice	2.971	1.361	92.082
RRUS-11	C	None		0.0000	143.000	No Ice	2.566	1.068	50.000
((DNK 19-32)/ATT)						1/2" Ice	2.765	1.211	69.573
						1" Ice	2.971	1.361	92.082
AM-X-CD-14-65-00T-RET	A	From Leg	4.000	0.0000	143.000	No Ice	5.507	2.828	4.000
((DNK 19-32)/ATT)			-2.000			1/2" Ice	5.899	3.137	35.591
			0.000			1" Ice	6.299	3.469	71.995
AM-X-CD-14-65-00T-RET	B	From Leg	4.000	0.0000	143.000	No Ice	5.507	2.828	4.000
((DNK 19-32)/ATT)			-2.000			1/2" Ice	5.899	3.137	35.591
			0.000			1" Ice	6.299	3.469	71.995
AM-X-CD-14-65-00T-RET	C	From Leg	4.000	0.0000	143.000	No Ice	5.507	2.828	4.000
((DNK 19-32)/ATT)			-2.000			1/2" Ice	5.899	3.137	35.591
			0.000			1" Ice	6.299	3.469	71.995
Raycap Surge Suppressor	A	From Leg	0.000	0.0000	143.000	No Ice	1.266	1.266	20.000
((DNK 19-32)/ATT)			0.000			1/2" Ice	1.456	1.456	35.116
			0.000			1" Ice	1.658	1.658	52.569
RRUS-12	A	None		0.0000	143.000	No Ice	3.145	1.285	58.000
((DNK 19-32)/ATT)						1/2" Ice	3.365	1.438	81.222
						1" Ice	3.592	1.600	107.645
RRUS-12	B	None		0.0000	143.000	No Ice	3.145	1.285	58.000
((DNK 19-32)/ATT)						1/2" Ice	3.365	1.438	81.222
						1" Ice	3.592	1.600	107.645
RRUS-12	C	None		0.0000	143.000	No Ice	3.145	1.285	58.000
((DNK 19-32)/ATT)						1/2" Ice	3.365	1.438	81.222
						1" Ice	3.592	1.600	107.645
* AT&T Carrier Antennas @ 143'									
2" Dia 10' Omni	B	From Leg	3.000	0.0000	143.000	No Ice	2.000	2.000	10.000
(DNK-32)			0.000			1/2" Ice	3.030	3.030	25.000
			0.000			1" Ice	4.060	4.060	40.000
Pirod 4' Side Mount Standoff	B	None		0.0000	143.000	No Ice	2.720	2.720	50.000
(1)						1/2" Ice	4.910	4.910	89.000
(DNK-32)						1" Ice	7.100	7.100	128.000
3" Dia 20' Omni	B	From Leg	1.000	0.0000	153.000	No Ice	4.000	4.000	55.000
(DNK-33)			0.000			1/2" Ice	6.000	6.000	100.000
			0.000			1" Ice	8.000	8.000	145.000
1' Side Arm	B	From Leg	0.500	0.0000	153.000	No Ice	2.500	2.500	55.000
(DNK-33)			0.000			1/2" Ice	3.363	3.363	73.000
			0.000			1" Ice	4.226	4.226	91.000
1 Bay Dipole ANT400D	A	From Leg	0.000	0.0000	151.000	No Ice	1.879	0.518	13.300
(DNK-34)			0.000			1/2" Ice	2.093	0.742	27.514
			0.000			1" Ice	2.317	0.984	44.738
10'6"x4" Pipe Mount	B	None		0.0000	151.000	No Ice	3.048	3.048	114.000
(DNK-34)						1/2" Ice	5.615	5.615	146.840
						1" Ice	6.252	6.252	186.706
1.5" Dia 16' Omni	B	From Leg	0.000	0.0000	153.000	No Ice	4.000	4.000	55.000
(DNK-33)			0.000			1/2" Ice	6.000	6.000	100.000
			2.000			1" Ice	8.000	8.000	145.000
2" Dia 10' Omni	C	From Leg	0.000	0.0000	157.000	No Ice	2.000	2.000	10.000
(DNK-35)			0.000			1/2" Ice	3.030	3.030	25.000
			0.000			1" Ice	4.060	4.060	40.000
2' Sidearm	C	From Leg	0.000	0.0000	157.000	No Ice	3.900	3.900	87.000

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 lb
(DNK-35)			0.000			1/2" Ice	4.400	4.400	97.000
			0.000			1" Ice	4.900	4.900	107.000
10'x6" Dipole Antenna	C	From Leg	0.500	0.0000	157.000	No Ice	9.167	1.667	46.000
(DNK-36)			0.000			1/2" Ice	9.888	2.793	77.565
			0.000			1" Ice	10.617	3.932	117.556
1' Side Arm	C	From Leg	0.500	0.0000	157.000	No Ice	2.500	2.500	55.000
(DNK-36)			0.000			1/2" Ice	3.363	3.363	73.000
			0.000			1" Ice	4.226	4.226	91.000
3'4"x4" Pipe Mount	B	None		0.0000	157.000	No Ice	0.846	0.846	36.000
(DNK-37)						1/2" Ice	1.269	1.269	46.951
						1" Ice	1.494	1.494	60.549
(Inverted) 3" Dia 20' Omni	B	From Leg	2.000	0.0000	160.000	No Ice	4.000	4.000	55.000
(DNK-38)			0.000			1/2" Ice	6.000	6.000	100.000
			0.000			1" Ice	8.000	8.000	145.000
2' Sidearm	B	From Leg	0.000	0.0000	160.000	No Ice	3.900	3.900	87.000
(DNK-38,39)			0.000			1/2" Ice	4.400	4.400	97.000
			0.000			1" Ice	4.900	4.900	107.000
(Inverted) 3" Dia 20' Omni	B	From Leg	2.000	0.0000	160.000	No Ice	4.000	4.000	55.000
(DNK-39)			0.000			1/2" Ice	6.000	6.000	100.000
			0.000			1" Ice	8.000	8.000	145.000
6' Side-Arm(1)	A	From Leg	0.000	-45.0000	166.000	No Ice	10.600	10.600	140.000
(DNK-40,41)			0.000			1/2" Ice	15.400	15.400	212.000
			0.000			1" Ice	20.200	20.200	284.000
6' Side-Arm(1)	B	From Leg	0.000	45.0000	166.000	No Ice	10.600	10.600	140.000
(DNK-40,41)			0.000			1/2" Ice	15.400	15.400	212.000
			0.000			1" Ice	20.200	20.200	284.000
(inverted) 10' 8 Bay Di-Pole	B	From Face	4.000	-45.0000	166.000	No Ice	4.000	4.000	55.000
(DNK-40,41)			0.000			1/2" Ice	6.000	6.000	100.000
			0.000			1" Ice	8.000	8.000	145.000
(inverted) 2" Dia 10' Omni	B	From Face	4.000	0.0000	164.000	No Ice	2.000	2.000	10.000
(DNK-42)			0.000			1/2" Ice	3.030	3.030	25.000
			0.000			1" Ice	4.060	4.060	40.000
6' Side-Arm(1)	B	From Leg	0.000	-45.0000	164.000	No Ice	10.600	10.600	140.000
(DNK-42)			0.000			1/2" Ice	15.400	15.400	212.000
			0.000			1" Ice	20.200	20.200	284.000
6' Side-Arm(1)	C	From Leg	0.000	45.0000	164.000	No Ice	10.600	10.600	140.000
(DNK-42)			0.000			1/2" Ice	15.400	15.400	212.000
			0.000			1" Ice	20.200	20.200	284.000
3'4"x4" Pipe Mount	C	None		0.0000	169.000	No Ice	0.843	0.843	36.000
(DNK-43)						1/2" Ice	1.269	1.269	46.951
						1" Ice	1.494	1.494	60.549
3'4"x4" Pipe Mount	A	None		0.0000	171.000	No Ice	0.842	0.842	36.000
(DNK-44)						1/2" Ice	1.269	1.269	46.951
						1" Ice	1.494	1.494	60.549
3'4"x4" Pipe Mount	C	None		0.0000	176.000	No Ice	0.841	0.841	36.000
(DNK-45)						1/2" Ice	1.269	1.269	46.951
						1" Ice	1.494	1.494	60.549
432E-83I-01T TTA Unit	A	From Face	0.500	0.0000	178.000	No Ice	2.850	0.973	25.000
(DNK-47)			0.000			1/2" Ice	3.059	1.111	44.704
			0.000			1" Ice	3.276	1.255	67.389
3" Dia 12' Omni	A	From Face	0.500	0.0000	180.000	No Ice	2.000	2.000	10.000
(DNK-48)			0.000			1/2" Ice	3.030	3.030	25.000
			0.000			1" Ice	4.060	4.060	40.000
3" Dia 12' Omni	B	From Face	3.000	0.0000	180.000	No Ice	2.000	2.000	10.000
(DNK-49)			0.000			1/2" Ice	3.030	3.030	25.000
			0.000			1" Ice	4.060	4.060	40.000
432E-83I-01T TTA Unit	B	From Leg	6.000	0.0000	180.000	No Ice	2.850	0.973	25.000

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 lb
(DNK-50)			0.000			1/2" Ice	3.059	1.111	44.704
			0.000			1" Ice	3.276	1.255	67.389
1 Bay Dipole ANT400D	B	From Leg	1.000	0.0000	180.000	No Ice	1.879	0.518	13.300
(DNK-51)			0.000			1/2" Ice	2.093	0.742	27.514
			0.000			1" Ice	2.317	0.984	44.738
2" Dia 10' Omni	B	From Leg	0.500	0.0000	181.000	No Ice	2.000	2.000	10.000
(DNK-52)			0.000			1/2" Ice	3.030	3.030	25.000
			0.000			1" Ice	4.060	4.060	40.000
2" Dia 10' Omni	C	From Leg	0.500	0.0000	181.000	No Ice	2.000	2.000	10.000
(DNK-53)			0.000			1/2" Ice	3.030	3.030	25.000
			0.000			1" Ice	4.060	4.060	40.000
10' - 2 Bay Dipole	C	From Leg	0.500	0.0000	181.000	No Ice	1.408	1.408	10.000
(DNK-54)			0.000			1/2" Ice	1.556	1.556	27.727
			0.000			1" Ice	1.712	1.712	48.176
20' 4-Bay Dipole	A	From Leg	0.500	0.0000	181.000	No Ice	4.000	4.000	55.000
(DNK-55)			0.000			1/2" Ice	6.000	6.000	100.000
			0.000			1" Ice	8.000	8.000	145.000
Lightning Rod 2"x15'	C	None		0.0000	181.000	No Ice	3.000	3.000	80.000
(DNK-56)						1/2" Ice	4.525	4.525	103.137
						1" Ice	6.067	6.067	135.792
3" Dia 20' Omni	A	From Leg	6.000	0.0000	182.500	No Ice	4.000	4.000	55.000
(DNK-57)			0.000			1/2" Ice	6.000	6.000	100.000
			0.000			1" Ice	8.000	8.000	145.000
1" Dia 8' Omni	A	From Leg	2.000	0.0000	182.000	No Ice	2.000	2.000	5.000
(DNK-58)			0.000			1/2" Ice	3.030	3.030	18.000
			0.000			1" Ice	4.060	4.060	31.000
6' Side-Arm(1)	A	From Leg	0.000	-45.0000	182.500	No Ice	10.600	10.600	140.000
(DNK-57)			0.000			1/2" Ice	15.400	15.400	212.000
			0.000			1" Ice	20.200	20.200	284.000
6' Side-Arm(1)	B	From Leg	0.000	45.0000	182.500	No Ice	10.600	10.600	140.000
(DNK-57)			0.000			1/2" Ice	15.400	15.400	212.000
			0.000			1" Ice	20.200	20.200	284.000

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight lb
6' w/Radome	C	Paraboloid	From	0.500	Worst		176.000	6.000	No Ice	28.274	380.000
(DNK-45)		w/Radome	Leg	0.000					1/2" Ice	29.065	450.000
				0.000					1" Ice	29.856	520.000
6' w/Radome	A	Paraboloid	From	0.500	Worst		174.000	6.000	No Ice	28.274	380.000
(DNK-44)		w/Radome	Leg	0.000					1/2" Ice	29.065	450.000
				0.000					1" Ice	29.856	520.000
Andrew 6' w/Radome	C	Paraboloid	From	0.500	Worst		170.000	6.000	No Ice	28.274	380.000
(DNK-43)		w/Radome	Leg	0.000					1/2" Ice	29.065	450.000
				0.000					1" Ice	29.856	520.000
4' Paraflector	B	Grid	From	0.500	Worst		109.250	4.000	No Ice	16.000	34.000
(DNK-8)			Leg	0.000					1/2" Ice	16.674	48.000

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 ft²	Weight lb
				0.000					1" Ice	17.347	62.000
4' Paraflector (DNK-37)	B	Grid	From Leg	0.500 0.000 0.000	Worst		157.000	4.000	No Ice 1/2" Ice 1" Ice	16.000 16.674 17.347	34.000 48.000 62.000

222-G Verification Constants

Constant	Value
Wind Importance Factor Without Ice	1.15
Wind Importance Factor With Ice Factor	1
Ice Importance Factor	1.25
K_d	0.85
Z_g	900
α	9.5
K_{zmin}	0.85
K_e	1
K_t	1
f	1

222-G Section Verification ArRr By Element

Section Elevation ft	Elem. Num.	Size	C	C w/Ice	Face	e	e w/Ice	A_r ft²	A_r w/Ice ft²	A_rR_r ft²	A_rR_r w/Ice ft²
T1 180.000-175.000	1	Stainless P5x0.250	56.067	46.991	C	0.173	0.388	2.086	3.936	0.970	2.484
	1	Stainless P5x0.250	56.067	46.991	A	0.173	0.388	2.086	3.936	0.970	2.484
	2	Stainless P5x0.250	56.067	46.991	C	0.173	0.388	2.086	3.936	0.970	2.484
	2	Stainless P5x0.250	56.067	46.991	B	0.173	0.388	2.086	3.936	0.970	2.484
	3	Stainless P5x0.250	56.067	46.991	B	0.173	0.388	2.086	3.936	0.970	2.484
	3	Stainless P5x0.250	56.067	46.991	A	0.173	0.388	2.086	3.936	0.970	2.484
					A		Sum:	4.171	7.873	1.941	4.967
					B			4.171	7.873	1.941	4.967
					C			4.171	7.873	1.941	4.967
T2 175.000-166.667	13	Stainless P5x0.250	55.842	46.717	C	0.135	0.302	3.476	6.549	1.567	3.927
	13	Stainless P5x0.250	55.842	46.717	A	0.135	0.302	3.476	6.549	1.567	3.927
	14	Stainless P5x0.250	55.842	46.717	C	0.135	0.302	3.476	6.549	1.567	3.927
	14	Stainless P5x0.250	55.842	46.717	B	0.135	0.302	3.476	6.549	1.567	3.927
	15	Stainless P5x0.250	55.842	46.717	B	0.135	0.302	3.476	6.549	1.567	3.927
	15	Stainless P5x0.250	55.842	46.717	A	0.135	0.302	3.476	6.549	1.567	3.927
					A		Sum:	6.952	13.097	3.134	7.853
					B			6.952	13.097	3.134	7.853
					C			6.952	13.097	3.134	7.853
T3 166.667-158.333	25	Stainless P5x0.250	55.549	46.363	C	0.13	0.291	3.476	6.533	1.565	3.896
	25	Stainless P5x0.250	55.549	46.363	A	0.13	0.291	3.476	6.533	1.565	3.896
	26	Stainless P5x0.250	55.549	46.363	C	0.13	0.291	3.476	6.533	1.565	3.896
	26	Stainless P5x0.250	55.549	46.363	B	0.13	0.291	3.476	6.533	1.565	3.896

tnxTower	Job: MODification - 180' Lattice Tower (CSP #36)	Page: 30 of 204
AECOM 500 Enterprise Drive, Suite 3B Rocky Hill, CT Phone: 860-529-8882 FAX: 860-529-3991	Project: Westbrook, Connecticut	Date: 14:47:48 09/29/17
	Client: Site Acquisitions Inc / SAI-100	Designed by: MCD

Section Elevation ft	Elem. Num.	Size	C	C w/Ice	Face	e	e w/Ice	A_r ft^2	A_r w/Ice ft^2	A_rR_r ft^2	A_rR_r w/Ice ft^2
	27	Stainless P5x0.250	55.549	46.363	B	0.13	0.291	3.476	6.533	1.565	3.896
	27	Stainless P5x0.250	55.549	46.363	A	0.13	0.291	3.476	6.533	1.565	3.896
					A		Sum:	6.952	13.067	3.131	7.792
					B			6.952	13.067	3.131	7.792
					C			6.952	13.067	3.131	7.792
T4	37	Stainless P5x0.250	55.242	45.994	C	0.126	0.282	3.476	6.517	1.565	3.868
158.333-150.000											
	37	Stainless P5x0.250	55.242	45.994	A	0.126	0.282	3.476	6.517	1.565	3.868
	38	Stainless P5x0.250	55.242	45.994	C	0.126	0.282	3.476	6.517	1.565	3.868
	38	Stainless P5x0.250	55.242	45.994	B	0.126	0.282	3.476	6.517	1.565	3.868
	39	Stainless P5x0.250	55.242	45.994	B	0.126	0.282	3.476	6.517	1.565	3.868
	39	Stainless P5x0.250	55.242	45.994	A	0.126	0.282	3.476	6.517	1.565	3.868
					A		Sum:	6.952	13.035	3.130	7.736
					B			6.952	13.035	3.130	7.736
					C			6.952	13.035	3.130	7.736
T5	49	Stainless P5x0.300	54.58	45.202	C	0.145	0.339	10.428	19.448	4.803	11.905
150.000-125.000											
	49	Stainless P5x0.300	54.58	45.202	A	0.145	0.339	10.428	19.448	4.803	11.905
	50	Stainless P5x0.300	54.58	45.202	C	0.145	0.339	10.428	19.448	4.803	11.905
	50	Stainless P5x0.300	54.58	45.202	B	0.145	0.339	10.428	19.448	4.803	11.905
	51	Stainless P5x0.300	54.58	45.202	B	0.145	0.339	10.428	19.448	4.803	11.905
	51	Stainless P5x0.300	54.58	45.202	A	0.145	0.339	10.428	19.448	4.803	11.905
					A		Sum:	20.856	38.897	9.606	23.811
					B			20.856	38.897	9.606	23.811
					C			20.856	38.897	9.606	23.811
T6	124	Stainless P5x0.400	53.44	43.849	C	0.142	0.323	10.428	19.269	4.848	11.685
125.000-100.000											
	124	Stainless P5x0.400	53.44	43.849	A	0.142	0.323	10.428	19.269	4.848	11.685
	125	Stainless P5x0.400	53.44	43.849	C	0.142	0.323	10.428	19.269	4.848	11.685
	125	Stainless P5x0.400	53.44	43.849	B	0.142	0.323	10.428	19.269	4.848	11.685
	126	Stainless P5x0.400	53.44	43.849	B	0.142	0.323	10.428	19.269	4.848	11.685
	126	Stainless P5x0.400	53.44	43.849	A	0.142	0.323	10.428	19.269	4.848	11.685
					A		Sum:	20.856	38.538	9.697	23.369
					B			20.856	38.538	9.697	23.369
					C			20.856	38.538	9.697	23.369
T7	199	Stainless P5x0.500	52.545	42.801	C	0.137	0.31	3.476	6.376	1.624	3.838
100.000-91.667											
	199	Stainless P5x0.500	52.545	42.801	A	0.137	0.31	3.476	6.376	1.624	3.838
	200	Stainless P5x0.500	52.545	42.801	C	0.137	0.31	3.476	6.376	1.624	3.838
	200	Stainless P5x0.500	52.545	42.801	B	0.137	0.31	3.476	6.376	1.624	3.838
	201	Stainless P5x0.500	52.545	42.801	B	0.137	0.31	3.476	6.376	1.624	3.838
	201	Stainless P5x0.500	52.545	42.801	A	0.137	0.31	3.476	6.376	1.624	3.838
					A		Sum:	6.952	12.752	3.248	7.676
					B			6.952	12.752	3.248	7.676
					C			6.952	12.752	3.248	7.676
T8					A		Sum:	0.000	0.000	0.000	0.000
91.667-83.333					B			0.000	0.000	0.000	0.000
					C			0.000	0.000	0.000	0.000
T9					A		Sum:	0.000	0.000	0.000	0.000
83.333-75.000					B			0.000	0.000	0.000	0.000
					C			0.000	0.000	0.000	0.000
T10	280	Stainless P6.875x0.400	69.071	48.504	C	0.135	0.26	14.338	22.675	5.899	13.321
75.000-50.000											
	280	Stainless P6.875x0.400	69.071	48.504	A	0.135	0.26	14.338	22.675	5.899	13.321
	281	Stainless P6.875x0.400	69.071	48.504	C	0.135	0.26	14.338	22.675	5.899	13.321

Section Elevation ft	Elem. Num.	Size	C	C w/Ice	Face	e	e w/Ice	A_r ft^2	A_r w/Ice ft^2	A_rR_r ft^2	A_rR_r w/Ice ft^2
	281	Stainless P6.875x0.400	69.071	48.504	B	0.135	0.26	14.338	22.675	5.899	13.321
	282	Stainless P6.875x0.400	69.071	48.504	B	0.135	0.26	14.338	22.675	5.899	13.321
	282	Stainless P6.875x0.400	69.071	48.504	A	0.135	0.26	14.338	22.675	5.899	13.321
					A		Sum:	28.676	45.350	11.798	26.643
					B			28.676	45.350	11.798	26.643
					C			28.676	45.350	11.798	26.643
T11 50.000-37.500	331	Stainless P6.875x0.500	66.526	46.115	C	0.13	0.246	7.169	11.191	2.930	6.536
	331	Stainless P6.875x0.500	66.526	46.115	A	0.13	0.246	7.169	11.191	2.930	6.536
	332	Stainless P6.875x0.500	66.526	46.115	C	0.13	0.246	7.169	11.191	2.930	6.536
	332	Stainless P6.875x0.500	66.526	46.115	B	0.13	0.246	7.169	11.191	2.930	6.536
	333	Stainless P6.875x0.500	66.526	46.115	B	0.13	0.246	7.169	11.191	2.930	6.536
	333	Stainless P6.875x0.500	66.526	46.115	A	0.13	0.246	7.169	11.191	2.930	6.536
					A		Sum:	14.338	22.383	5.860	13.073
					B			14.338	22.383	5.860	13.073
					C			14.338	22.383	5.860	13.073
T12 37.500-25.000	358	Stainless P6.875x0.500	64.211	43.981	C	0.127	0.237	7.169	11.058	2.919	6.435
	358	Stainless P6.875x0.500	64.211	43.981	A	0.127	0.237	7.169	11.058	2.919	6.435
	359	Stainless P6.875x0.500	64.211	43.981	C	0.127	0.237	7.169	11.058	2.919	6.435
	359	Stainless P6.875x0.500	64.211	43.981	B	0.127	0.237	7.169	11.058	2.919	6.435
	360	Stainless P6.875x0.500	64.211	43.981	B	0.127	0.237	7.169	11.058	2.919	6.435
	360	Stainless P6.875x0.500	64.211	43.981	A	0.127	0.237	7.169	11.058	2.919	6.435
					A		Sum:	14.338	22.117	5.839	12.871
					B			14.338	22.117	5.839	12.871
					C			14.338	22.117	5.839	12.871
T13 25.000-12.500	385	Stainless P6.875x0.500	60.849	40.948	C	0.121	0.225	7.169	10.865	3.015	6.293
	385	Stainless P6.875x0.500	60.849	40.948	A	0.121	0.225	7.169	10.865	3.015	6.293
	386	Stainless P6.875x0.500	60.849	40.948	C	0.121	0.225	7.169	10.865	3.015	6.293
	386	Stainless P6.875x0.500	60.849	40.948	B	0.121	0.225	7.169	10.865	3.015	6.293
	387	Stainless P6.875x0.500	60.849	40.948	B	0.121	0.225	7.169	10.865	3.015	6.293
	387	Stainless P6.875x0.500	60.849	40.948	A	0.121	0.225	7.169	10.865	3.015	6.293
					A		Sum:	14.338	21.729	6.029	12.586
					B			14.338	21.729	6.029	12.586
					C			14.338	21.729	6.029	12.586
T14 12.500-0.000	412	Stainless P6.875x0.500	59.476	38.608	C	0.119	0.21	7.169	10.480	3.056	6.039
	412	Stainless P6.875x0.500	59.476	38.608	A	0.119	0.21	7.169	10.480	3.056	6.039
	413	Stainless P6.875x0.500	59.476	38.608	C	0.119	0.21	7.169	10.480	3.056	6.039

Section Elevation ft	Elem. Num.	Size	C	C w/Ice	Face	e	e w/Ice	A_r ft^2	A_r w/Ice ft^2	A_rR_r ft^2	A_rR_r w/Ice ft^2
	413	Stainless P6.875x0.500	59.476	38.608	B	0.119	0.21	7.169	10.480	3.056	6.039
	414	Stainless P6.875x0.500	59.476	38.608	B	0.119	0.21	7.169	10.480	3.056	6.039
	414	Stainless P6.875x0.500	59.476	38.608	A	0.119	0.21	7.169	10.480	3.056	6.039
					A		Sum:	14.338	20.960	6.113	12.079
					B			14.338	20.960	6.113	12.079
					C			14.338	20.960	6.113	12.079

222-G Section Verification Tables - No Ice

Section Elevation ft	z_{wind} ft	z_{ice} ft	K_z	K_h	K_{zt}	t_z in	q_z ksf	Face	e	A_rR_r ft^2
T1 180.000-175.000	177.500		1.428	1	1		0.039	A	0.173	1.941
								B	0.173	1.941
								C	0.173	1.941
T2 175.000-166.667	170.833		1.417	1	1		0.039	A	0.135	3.134
								B	0.135	3.134
								C	0.135	3.134
T3 166.667-158.333	162.500		1.402	1	1		0.039	A	0.13	3.131
								B	0.13	3.131
								C	0.13	3.131
T4 158.333-150.000	154.167		1.386	1	1		0.038	A	0.126	3.130
								B	0.126	3.130
								C	0.126	3.130
T5 150.000-125.000	137.500		1.353	1	1		0.037	A	0.145	9.606
								B	0.145	9.606
								C	0.145	9.606
T6 125.000-100.000	112.500		1.297	1	1		0.036	A	0.142	9.697
								B	0.142	9.697
								C	0.142	9.697
T7 100.000-91.667	95.833		1.254	1	1		0.035	A	0.137	3.248
								B	0.137	3.248
								C	0.137	3.248
T8 91.667-83.333	87.500		1.231	1	1		0.034	A	0.137	0.000
								B	0.137	0.000
								C	0.137	0.000
T9 83.333-75.000	79.167		1.205	1	1		0.033	A	0.135	0.000
								B	0.135	0.000
								C	0.135	0.000
T10 75.000-50.000	62.500		1.146	1	1		0.032	A	0.135	11.798
								B	0.135	11.798
								C	0.135	11.798
T11 50.000-37.500	43.750		1.063	1	1		0.029	A	0.13	5.860
								B	0.13	5.860
								C	0.13	5.860
T12 37.500-25.000	31.250		0.991	1	1		0.027	A	0.127	5.839
								B	0.127	5.839
								C	0.127	5.839
T13 25.000-12.500	18.750		0.89	1	1		0.025	A	0.121	6.029

Section Elevation ft	z_{wind} ft	z_{ice} ft	K_z	K_h	K_{zt}	t_z in	q_z ksf	Face	e	A_rR_r ft²
								B	0.121	6.029
								C	0.121	6.029
T14 12.500-0.000	6.250		0.85	1	1		0.023	A	0.119	6.113
								B	0.119	6.113
								C	0.119	6.113

222-G Section Verification Tables - Ice

Section Elevation ft	z_{wind} ft	z_{ice} ft	K_z	K_h	K_{zt}	t_z in	q_z ksf	Face	e	A_rR_r ft²
T1 180.000-175.000	177.500	177.500	1.428	1	1	2.219	0.008	A	0.388	10.680
								B	0.388	10.680
								C	0.388	10.680
T2 175.000-166.667	170.833	170.833	1.417	1	1	2.210	0.008	A	0.302	14.524
								B	0.302	14.524
								C	0.302	14.524
T3 166.667-158.333	162.500	162.500	1.402	1	1	2.199	0.008	A	0.291	14.630
								B	0.291	14.630
								C	0.291	14.630
T4 158.333-150.000	154.167	154.167	1.386	1	1	2.188	0.008	A	0.282	14.742
								B	0.282	14.742
								C	0.282	14.742
T5 150.000-125.000	137.500	137.500	1.353	1	1	2.163	0.007	A	0.339	57.511
								B	0.339	57.511
								C	0.339	57.511
T6 125.000-100.000	112.500	112.500	1.297	1	1	2.120	0.007	A	0.323	59.362
								B	0.323	59.362
								C	0.323	59.362
T7 100.000-91.667	95.833	95.833	1.254	1	1	2.086	0.007	A	0.31	20.120
								B	0.31	20.120
								C	0.31	20.120
T8 91.667-83.333	87.500	87.500	1.231	1	1	2.067	0.007	A	0.293	12.585
								B	0.293	12.585
								C	0.293	12.585
T9 83.333-75.000	79.167	79.167	1.205	1	1	2.046	0.007	A	0.288	12.782
								B	0.288	12.782
								C	0.288	12.782
T10 75.000-50.000	62.500	62.500	1.146	1	1	1.999	0.006	A	0.26	55.739
								B	0.26	55.739
								C	0.26	55.739
T11 50.000-37.500	43.750	43.750	1.063	1	1	1.929	0.006	A	0.246	27.695
								B	0.246	27.695
								C	0.246	27.695
T12 37.500-25.000	31.250	31.250	0.991	1	1	1.865	0.005	A	0.237	27.417
								B	0.237	27.417
								C	0.237	27.417
T13 25.000-12.500	18.750	18.750	0.89	1	1	1.772	0.005	A	0.225	26.778
								B	0.225	26.778
								C	0.225	26.778
T14 12.500-0.000	6.250	6.250	0.85	1	1	1.588	0.005	A	0.21	25.123
								B	0.21	25.123
								C	0.21	25.123

222-G Section Verification Tables - Service

Section Elevation ft	z_{wind} ft	z_{ice} ft	K_z	K_h	K_{zt}	t_z in	q_z ksf	Face	e	A_rR_r ft²
T1 180.000-175.000	177.500		1.428	1	1		0.011	A	0.173	1.941
								B	0.173	1.941
								C	0.173	1.941
T2 175.000-166.667	170.833		1.417	1	1		0.011	A	0.135	3.134
								B	0.135	3.134
								C	0.135	3.134
T3 166.667-158.333	162.500		1.402	1	1		0.011	A	0.13	3.131
								B	0.13	3.131
								C	0.13	3.131
T4 158.333-150.000	154.167		1.386	1	1		0.011	A	0.126	3.130
								B	0.126	3.130
								C	0.126	3.130
T5 150.000-125.000	137.500		1.353	1	1		0.011	A	0.145	9.606
								B	0.145	9.606
								C	0.145	9.606
T6 125.000-100.000	112.500		1.297	1	1		0.010	A	0.142	9.697
								B	0.142	9.697
								C	0.142	9.697
T7 100.000-91.667	95.833		1.254	1	1		0.010	A	0.137	3.248
								B	0.137	3.248
								C	0.137	3.248
T8 91.667-83.333	87.500		1.231	1	1		0.010	A	0.137	0.000
								B	0.137	0.000
								C	0.137	0.000
T9 83.333-75.000	79.167		1.205	1	1		0.009	A	0.135	0.000
								B	0.135	0.000
								C	0.135	0.000
T10 75.000-50.000	62.500		1.146	1	1		0.009	A	0.135	11.798
								B	0.135	11.798
								C	0.135	11.798
T11 50.000-37.500	43.750		1.063	1	1		0.008	A	0.13	5.860
								B	0.13	5.860
								C	0.13	5.860
T12 37.500-25.000	31.250		0.991	1	1		0.008	A	0.127	5.839
								B	0.127	5.839
								C	0.127	5.839
T13 25.000-12.500	18.750		0.89	1	1		0.007	A	0.121	6.029
								B	0.121	6.029
								C	0.121	6.029
T14 12.500-0.000	6.250		0.85	1	1		0.007	A	0.119	6.113
								B	0.119	6.113
								C	0.119	6.113

Tower Pressures - No Ice

$G_H = 0.850$

Section Elevation ft	z ft	K_Z	q_z ksf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T1	177.500	1.428	0.039	56.082	A	5.526	4.171	4.171	43.02	0.000	0.000
180.000-175.0					B	5.526	4.171		43.02	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z ksf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
00					C	5.526	4.171		43.02	8.026	0.000
T2	170.833	1.417	0.039	97.919	A	6.293	6.952	6.952	52.49	0.000	0.000
175.000-166.6					B	6.293	6.952		52.49	0.000	0.000
67					C	6.293	6.952		52.49	17.602	0.000
T3	162.500	1.402	0.039	103.475	A	6.518	6.952	6.952	51.61	0.000	0.000
166.667-158.3					B	6.518	6.952		51.61	0.000	0.000
33					C	6.518	6.952		51.61	23.679	0.000
T4	154.167	1.386	0.038	109.031	A	6.746	6.952	6.952	50.75	0.000	0.000
158.333-150.0					B	6.746	6.952		50.75	0.000	0.000
00					C	6.746	6.952		50.75	29.939	0.000
T5	137.500	1.353	0.037	360.425	A	31.437	20.856	20.856	39.88	3.367	0.000
150.000-125.0					B	31.437	20.856		39.88	57.996	0.000
00					C	31.437	20.856		39.88	97.640	0.000
T6	112.500	1.297	0.036	410.425	A	37.501	20.856	20.856	35.74	4.209	0.000
125.000-100.0					B	37.501	20.856		35.74	108.900	0.000
00					C	37.501	20.856		35.74	103.553	0.000
T7	95.833	1.254	0.035	147.919	A	13.268	6.952	6.952	34.38	1.403	0.000
100.000-91.66					B	13.268	6.952		34.38	36.300	0.000
7					C	13.268	6.952		34.38	35.526	0.000
T8	87.500	1.231	0.034	154.157	A	21.130	0.000	7.473	35.37	1.403	0.000
91.667-83.333					B	21.130	0.000		35.37	36.300	0.000
					C	21.130	0.000		35.37	35.526	0.000
T9	79.167	1.205	0.033	159.712	A	21.520	0.000	7.473	34.73	1.403	0.000
83.333-75.000					B	21.520	0.000		34.73	36.300	0.000
					C	21.520	0.000		34.73	35.744	0.000
T10	62.500	1.146	0.032	514.334	A	40.966	28.676	28.676	41.18	4.209	0.000
75.000-50.000					B	40.966	28.676		41.18	108.900	0.000
					C	40.966	28.676		41.18	113.603	0.000
T11	43.750	1.063	0.029	275.917	A	21.483	14.338	14.338	40.03	2.105	0.000
50.000-37.500					B	21.483	14.338		40.03	54.450	0.000
					C	21.483	14.338		40.03	56.801	0.000
T12	31.250	0.991	0.027	288.417	A	22.193	14.338	14.338	39.25	2.105	0.000
37.500-25.000					B	22.193	14.338		39.25	54.450	0.000
					C	22.193	14.338		39.25	57.271	0.000
T13	18.750	0.89	0.025	300.917	A	22.157	14.338	14.338	39.29	2.105	0.000
25.000-12.500					B	22.157	14.338		39.29	54.450	0.000
					C	22.157	14.338		39.29	60.011	0.000
T14	6.250	0.85	0.023	313.417	A	22.863	14.338	14.338	38.54	0.758	0.000
12.500-0.000					B	22.863	14.338		38.54	19.602	0.000
					C	22.863	14.338		38.54	21.996	0.000

Tower Pressure - With Ice

$G_H = 0.850$

Section Elevation ft	z ft	K_Z	q_z ksf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T1	177.500	1.428	0.008	2.219	57.933	A	5.526	16.927	7.873	35.06	0.000	0.000
180.000-175.000						B	5.526	16.927		35.06	0.000	0.000
						C	5.526	16.927		35.06	35.536	0.000
T2	170.833	1.417	0.008	2.210	100.991	A	6.293	24.223	13.097	42.92	0.000	0.000
175.000-166.667						B	6.293	24.223		42.92	0.000	0.000
						C	6.293	24.223		42.92	72.117	0.000
T3	162.500	1.402	0.008	2.199	106.532	A	6.518	24.534	13.067	42.08	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z ksf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
166.667-158.333						B	6.518	24.534		42.08	0.000	0.000
						C	6.518	24.534		42.08	93.023	0.000
T4	154.167	1.386	0.008	2.188	112.071	A	6.746	24.840	13.035	41.27	0.000	0.000
158.333-150.000						B	6.746	24.840		41.27	0.000	0.000
						C	6.746	24.840		41.27	117.439	0.000
T5	137.500	1.353	0.007	2.163	369.443	A	31.437	93.947	38.897	31.02	29.421	0.000
150.000-125.000						B	31.437	93.947		31.02	170.619	0.000
						C	31.437	93.947		31.02	386.566	0.000
T6	112.500	1.297	0.007	2.120	419.264	A	37.501	97.893	38.538	28.46	36.185	0.000
125.000-100.000						B	37.501	97.893		28.46	315.589	0.000
						C	37.501	97.893		28.46	409.737	0.000
T7	95.833	1.254	0.007	2.086	150.819	A	13.268	33.424	12.752	27.31	11.907	0.000
100.000-91.667						B	13.268	33.424		27.31	104.854	0.000
						C	13.268	33.424		27.31	139.823	0.000
T8	87.500	1.231	0.007	2.067	157.030	A	24.962	21.086	11.305	24.55	11.820	0.000
91.667-83.333						B	24.962	21.086		24.55	104.663	0.000
						C	24.962	21.086		24.55	138.878	0.000
T9	79.167	1.205	0.007	2.046	162.557	A	25.314	21.475	11.267	24.08	11.725	0.000
83.333-75.000						B	25.314	21.475		24.08	104.454	0.000
						C	25.314	21.475		24.08	138.886	0.000
T10	62.500	1.146	0.006	1.999	522.669	A	40.966	94.877	45.350	33.38	34.518	0.000
75.000-50.000						B	40.966	94.877		33.38	311.912	0.000
						C	40.966	94.877		33.38	443.381	0.000
T11	43.750	1.063	0.006	1.929	279.938	A	21.483	47.419	22.383	32.48	16.777	0.000
50.000-37.500						B	21.483	47.419		32.48	154.895	0.000
						C	21.483	47.419		32.48	215.913	0.000
T12	31.250	0.991	0.005	1.865	292.305	A	22.193	47.111	22.117	31.91	16.337	0.000
37.500-25.000						B	22.193	47.111		31.91	153.931	0.000
						C	22.193	47.111		31.91	213.356	0.000
T13	18.750	0.89	0.005	1.772	304.612	A	22.157	46.233	21.729	31.77	15.698	0.000
25.000-12.500						B	22.157	46.233		31.77	152.532	0.000
						C	22.157	46.233		31.77	220.241	0.000
T14	6.250	0.85	0.005	1.588	316.727	A	22.863	43.595	20.960	31.54	5.195	0.000
12.500-0.000						B	22.863	43.595		31.54	53.917	0.000
						C	22.863	43.595		31.54	74.701	0.000

Tower Pressure - Service

$G_H = 0.850$

Section Elevation ft	z ft	K_Z	q_z ksf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T1	177.500	1.428	0.011	56.082	A	5.526	4.171	4.171	43.02	0.000	0.000
180.000-175.0					B	5.526	4.171		43.02	0.000	0.000
00					C	5.526	4.171		43.02	8.026	0.000
T2	170.833	1.417	0.011	97.919	A	6.293	6.952	6.952	52.49	0.000	0.000
175.000-166.6					B	6.293	6.952		52.49	0.000	0.000
67					C	6.293	6.952		52.49	17.602	0.000
T3	162.500	1.402	0.011	103.475	A	6.518	6.952	6.952	51.61	0.000	0.000
166.667-158.3					B	6.518	6.952		51.61	0.000	0.000
33					C	6.518	6.952		51.61	23.679	0.000
T4	154.167	1.386	0.011	109.031	A	6.746	6.952	6.952	50.75	0.000	0.000
158.333-150.0					B	6.746	6.952		50.75	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z ksf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
00					C	6.746	6.952		50.75	29.939	0.000
T5	137.500	1.353	0.011	360.425	A	31.437	20.856	20.856	39.88	3.367	0.000
150.000-125.0					B	31.437	20.856		39.88	57.996	0.000
00					C	31.437	20.856		39.88	97.640	0.000
T6	112.500	1.297	0.010	410.425	A	37.501	20.856	20.856	35.74	4.209	0.000
125.000-100.0					B	37.501	20.856		35.74	108.900	0.000
00					C	37.501	20.856		35.74	103.553	0.000
T7	95.833	1.254	0.010	147.919	A	13.268	6.952	6.952	34.38	1.403	0.000
100.000-91.66					B	13.268	6.952		34.38	36.300	0.000
7					C	13.268	6.952		34.38	35.526	0.000
T8	87.500	1.231	0.010	154.157	A	21.130	0.000	7.473	35.37	1.403	0.000
91.667-83.333					B	21.130	0.000		35.37	36.300	0.000
					C	21.130	0.000		35.37	35.526	0.000
T9	79.167	1.205	0.009	159.712	A	21.520	0.000	7.473	34.73	1.403	0.000
83.333-75.000					B	21.520	0.000		34.73	36.300	0.000
					C	21.520	0.000		34.73	35.744	0.000
T10	62.500	1.146	0.009	514.334	A	40.966	28.676	28.676	41.18	4.209	0.000
75.000-50.000					B	40.966	28.676		41.18	108.900	0.000
					C	40.966	28.676		41.18	113.603	0.000
T11	43.750	1.063	0.008	275.917	A	21.483	14.338	14.338	40.03	2.105	0.000
50.000-37.500					B	21.483	14.338		40.03	54.450	0.000
					C	21.483	14.338		40.03	56.801	0.000
T12	31.250	0.991	0.008	288.417	A	22.193	14.338	14.338	39.25	2.105	0.000
37.500-25.000					B	22.193	14.338		39.25	54.450	0.000
					C	22.193	14.338		39.25	57.271	0.000
T13	18.750	0.89	0.007	300.917	A	22.157	14.338	14.338	39.29	2.105	0.000
25.000-12.500					B	22.157	14.338		39.29	54.450	0.000
					C	22.157	14.338		39.29	60.011	0.000
T14	6.250	0.85	0.007	313.417	A	22.863	14.338	14.338	38.54	0.758	0.000
12.500-0.000					B	22.863	14.338		38.54	19.602	0.000
					C	22.863	14.338		38.54	21.996	0.000

Tower Forces - No Ice - Wind Normal To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	26.190	592.305	A	0.173	2.689	0.039	1	1	7.467	833.688	166.738	C
180.000-175.0			B	0.173	2.689		1	1	7.467			
00			C	0.173	2.689		1	1	7.467			
T2	52.650	755.494	A	0.135	2.826	0.039	1	1	9.427	1236.042	148.325	C
175.000-166.6			B	0.135	2.826		1	1	9.427			
67			C	0.135	2.826		1	1	9.427			
T3	70.190	768.073	A	0.13	2.846	0.039	1	1	9.649	1369.713	164.366	C
166.667-158.3			B	0.13	2.846		1	1	9.649			
33			C	0.13	2.846		1	1	9.649			
T4	93.290	780.881	A	0.126	2.863	0.038	1	1	9.875	1503.271	180.393	C
158.333-150.0			B	0.126	2.863		1	1	9.875			
00			C	0.126	2.863		1	1	9.875			
T5	561.430	3994.805	A	0.145	2.79	0.037	1	1	41.043	6704.424	268.177	C
150.000-125.0			B	0.145	2.79		1	1	41.043			
00			C	0.145	2.79		1	1	41.043			
T6	766.592	4822.083	A	0.142	2.8	0.036	1	1	47.198	8027.769	321.111	C
125.000-100.0			B	0.142	2.8		1	1	47.198			
00			C	0.142	2.8		1	1	47.198			
T7	258.583	1971.333	A	0.137	2.821	0.035	1	1	16.517	2679.486	321.538	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
100.000-91.66			B	0.137	2.821		1	1	16.517			
7			C	0.137	2.821		1	1	16.517			
T8	258.583	2177.704	A	0.137	2.82	0.034	1	1	21.130	3003.334	360.400	C
91.667-83.333			B	0.137	2.82		1	1	21.130			
			C	0.137	2.82		1	1	21.130			
T9	259.243	2217.593	A	0.135	2.828	0.033	1	1	21.520	2980.859	357.703	C
83.333-75.000			B	0.135	2.828		1	1	21.520			
			C	0.135	2.828		1	1	21.520			
T10	796.000	6051.792	A	0.135	2.826	0.032	1	1	52.764	7710.665	308.427	C
75.000-50.000			B	0.135	2.826		1	1	52.764			
			C	0.135	2.826		1	1	52.764			
T11	398.000	3351.672	A	0.13	2.847	0.029	1	1	27.344	3658.654	292.692	C
50.000-37.500			B	0.13	2.847		1	1	27.344			
			C	0.13	2.847		1	1	27.344			
T12	399.260	3845.718	A	0.127	2.859	0.027	1	1	28.032	3468.441	277.475	C
37.500-25.000			B	0.127	2.859		1	1	28.032			
			C	0.127	2.859		1	1	28.032			
T13	406.700	3731.717	A	0.121	2.88	0.025	1	1	28.186	3170.484	253.639	C
25.000-12.500			B	0.121	2.88		1	1	28.186			
			C	0.121	2.88		1	1	28.186			
T14	147.600	4388.734	A	0.119	2.89	0.023	1	1	28.975	2181.798	174.544	C
12.500-0.000			B	0.119	2.89		1	1	28.975			
			C	0.119	2.89		1	1	28.975			
Sum Weight:	4494.313	39449.903						OTM	4217.467 kip-ft	48528.628		

Tower Forces - No Ice - Wind 45 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	26.190	592.305	A	0.173	2.689	0.039	0.825	1	6.500	746.604	149.321	C
180.000-175.0			B	0.173	2.689		0.825	1	6.500			
00			C	0.173	2.689		0.825	1	6.500			
T2	52.650	755.494	A	0.135	2.826	0.039	0.825	1	8.326	1132.637	135.916	C
175.000-166.6			B	0.135	2.826		0.825	1	8.326			
67			C	0.135	2.826		0.825	1	8.326			
T3	70.190	768.073	A	0.13	2.846	0.039	0.825	1	8.508	1263.001	151.560	C
166.667-158.3			B	0.13	2.846		0.825	1	8.508			
33			C	0.13	2.846		0.825	1	8.508			
T4	93.290	780.881	A	0.126	2.863	0.038	0.825	1	8.695	1393.381	167.206	C
158.333-150.0			B	0.126	2.863		0.825	1	8.695			
00			C	0.126	2.863		0.825	1	8.695			
T5	561.430	3994.805	A	0.145	2.79	0.037	0.825	1	35.542	6217.342	248.694	C
150.000-125.0			B	0.145	2.79		0.825	1	35.542			
00			C	0.145	2.79		0.825	1	35.542			
T6	766.592	4822.083	A	0.142	2.8	0.036	0.825	1	40.635	7468.602	298.744	C
125.000-100.0			B	0.142	2.8		0.825	1	40.635			
00			C	0.142	2.8		0.825	1	40.635			
T7	258.583	1971.333	A	0.137	2.821	0.035	0.825	1	14.195	2486.810	298.417	C
100.000-91.66			B	0.137	2.821		0.825	1	14.195			
7			C	0.137	2.821		0.825	1	14.195			
T8	258.583	2177.704	A	0.137	2.82	0.034	0.825	1	17.432	2702.466	324.296	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
91.667-83.333			B	0.137	2.82		0.825	1	17.432			
			C	0.137	2.82		0.825	1	17.432			
T9	259.243	2217.593	A	0.135	2.828	0.033	0.825	1	17.754	2679.885	321.586	C
83.333-75.000			B	0.135	2.828		0.825	1	17.754			
			C	0.135	2.828		0.825	1	17.754			
T10	796.000	6051.792	A	0.135	2.826	0.032	0.825	1	45.595	7166.028	286.641	C
75.000-50.000			B	0.135	2.826		0.825	1	45.595			
			C	0.135	2.826		0.825	1	45.595			
T11	398.000	3351.672	A	0.13	2.847	0.029	0.825	1	23.584	3391.712	271.337	C
50.000-37.500			B	0.13	2.847		0.825	1	23.584			
			C	0.13	2.847		0.825	1	23.584			
T12	399.260	3845.718	A	0.127	2.859	0.027	0.825	1	24.148	3210.440	256.835	C
37.500-25.000			B	0.127	2.859		0.825	1	24.148			
			C	0.127	2.859		0.825	1	24.148			
T13	406.700	3731.717	A	0.121	2.88	0.025	0.825	1	24.309	2937.489	234.999	C
25.000-12.500			B	0.121	2.88		0.825	1	24.309			
			C	0.121	2.88		0.825	1	24.309			
T14	147.600	4388.734	A	0.119	2.89	0.023	0.825	1	24.974	1951.315	156.105	C
12.500-0.000			B	0.119	2.89		0.825	1	24.974			
			C	0.119	2.89		0.825	1	24.974			
Sum Weight:	4494.313	39449.903						OTM	3891.974 kip-ft	44747.712		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	26.190	592.305	A	0.173	2.689	0.039	0.8	1	6.361	734.163	146.833	C
180.000-175.0			B	0.173	2.689		0.8	1	6.361			
00			C	0.173	2.689		0.8	1	6.361			
T2	52.650	755.494	A	0.135	2.826	0.039	0.8	1	8.168	1117.865	134.144	C
175.000-166.6			B	0.135	2.826		0.8	1	8.168			
67			C	0.135	2.826		0.8	1	8.168			
T3	70.190	768.073	A	0.13	2.846	0.039	0.8	1	8.345	1247.757	149.731	C
166.667-158.3			B	0.13	2.846		0.8	1	8.345			
33			C	0.13	2.846		0.8	1	8.345			
T4	93.290	780.881	A	0.126	2.863	0.038	0.8	1	8.526	1377.682	165.322	C
158.333-150.0			B	0.126	2.863		0.8	1	8.526			
00			C	0.126	2.863		0.8	1	8.526			
T5	561.430	3994.805	A	0.145	2.79	0.037	0.8	1	34.756	6147.759	245.910	C
150.000-125.0			B	0.145	2.79		0.8	1	34.756			
00			C	0.145	2.79		0.8	1	34.756			
T6	766.592	4822.083	A	0.142	2.8	0.036	0.8	1	39.698	7388.721	295.549	C
125.000-100.0			B	0.142	2.8		0.8	1	39.698			
00			C	0.142	2.8		0.8	1	39.698			
T7	258.583	1971.333	A	0.137	2.821	0.035	0.8	1	13.863	2459.284	295.114	C
100.000-91.66			B	0.137	2.821		0.8	1	13.863			
7			C	0.137	2.821		0.8	1	13.863			
T8	258.583	2177.704	A	0.137	2.82	0.034	0.8	1	16.904	2659.485	319.138	C
91.667-83.333			B	0.137	2.82		0.8	1	16.904			
			C	0.137	2.82		0.8	1	16.904			
T9	259.243	2217.593	A	0.135	2.828	0.033	0.8	1	17.216	2636.889	316.427	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
83.333-75.000			B	0.135	2.828		0.8	1	17.216			
			C	0.135	2.828		0.8	1	17.216			
T10	796.000	6051.792	A	0.135	2.826	0.032	0.8	1	44.571	7088.223	283.529	C
75.000-50.000			B	0.135	2.826		0.8	1	44.571			
			C	0.135	2.826		0.8	1	44.571			
T11	398.000	3351.672	A	0.13	2.847	0.029	0.8	1	23.047	3353.577	268.286	C
50.000-37.500			B	0.13	2.847		0.8	1	23.047			
			C	0.13	2.847		0.8	1	23.047			
T12	399.260	3845.718	A	0.127	2.859	0.027	0.8	1	23.593	3173.582	253.887	C
37.500-25.000			B	0.127	2.859		0.8	1	23.593			
			C	0.127	2.859		0.8	1	23.593			
T13	406.700	3731.717	A	0.121	2.88	0.025	0.8	1	23.755	2904.204	232.336	C
25.000-12.500			B	0.121	2.88		0.8	1	23.755			
			C	0.121	2.88		0.8	1	23.755			
T14	147.600	4388.734	A	0.119	2.89	0.023	0.8	1	24.403	1918.388	153.471	C
12.500-0.000			B	0.119	2.89		0.8	1	24.403			
			C	0.119	2.89		0.8	1	24.403			
Sum Weight:	4494.313	39449.903						OTM	3845.475 kip-ft	44207.581		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	26.190	592.305	A	0.173	2.689	0.039	0.85	1	6.638	759.044	151.809	C
180.000-175.0			B	0.173	2.689		0.85	1	6.638			
00			C	0.173	2.689		0.85	1	6.638			
T2	52.650	755.494	A	0.135	2.826	0.039	0.85	1	8.483	1147.409	137.689	C
175.000-166.6			B	0.135	2.826		0.85	1	8.483			
67			C	0.135	2.826		0.85	1	8.483			
T3	70.190	768.073	A	0.13	2.846	0.039	0.85	1	8.671	1278.246	153.390	C
166.667-158.3			B	0.13	2.846		0.85	1	8.671			
33			C	0.13	2.846		0.85	1	8.671			
T4	93.290	780.881	A	0.126	2.863	0.038	0.85	1	8.864	1409.079	169.090	C
158.333-150.0			B	0.126	2.863		0.85	1	8.864			
00			C	0.126	2.863		0.85	1	8.864			
T5	561.430	3994.805	A	0.145	2.79	0.037	0.85	1	36.328	6286.926	251.477	C
150.000-125.0			B	0.145	2.79		0.85	1	36.328			
00			C	0.145	2.79		0.85	1	36.328			
T6	766.592	4822.083	A	0.142	2.8	0.036	0.85	1	41.573	7548.483	301.939	C
125.000-100.0			B	0.142	2.8		0.85	1	41.573			
00			C	0.142	2.8		0.85	1	41.573			
T7	258.583	1971.333	A	0.137	2.821	0.035	0.85	1	14.526	2514.335	301.720	C
100.000-91.66			B	0.137	2.821		0.85	1	14.526			
7			C	0.137	2.821		0.85	1	14.526			
T8	258.583	2177.704	A	0.137	2.82	0.034	0.85	1	17.960	2745.447	329.454	C
91.667-83.333			B	0.137	2.82		0.85	1	17.960			
			C	0.137	2.82		0.85	1	17.960			
T9	259.243	2217.593	A	0.135	2.828	0.033	0.85	1	18.292	2722.882	326.746	C
83.333-75.000			B	0.135	2.828		0.85	1	18.292			
			C	0.135	2.828		0.85	1	18.292			
T10	796.000	6051.792	A	0.135	2.826	0.032	0.85	1	46.619	7243.834	289.753	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
75.000-50.000			B	0.135	2.826		0.85	1	46.619			
			C	0.135	2.826		0.85	1	46.619			
T11	398.000	3351.672	A	0.13	2.847	0.029	0.85	1	24.121	3429.846	274.388	C
50.000-37.500			B	0.13	2.847		0.85	1	24.121			
			C	0.13	2.847		0.85	1	24.121			
T12	399.260	3845.718	A	0.127	2.859	0.027	0.85	1	24.703	3247.297	259.784	C
37.500-25.000			B	0.127	2.859		0.85	1	24.703			
			C	0.127	2.859		0.85	1	24.703			
T13	406.700	3731.717	A	0.121	2.88	0.025	0.85	1	24.862	2970.774	237.662	C
25.000-12.500			B	0.121	2.88		0.85	1	24.862			
			C	0.121	2.88		0.85	1	24.862			
T14	147.600	4388.734	A	0.119	2.89	0.023	0.85	1	25.546	1984.241	158.739	C
12.500-0.000			B	0.119	2.89		0.85	1	25.546			
			C	0.119	2.89		0.85	1	25.546			
Sum Weight:	4494.313	39449.903						OTM	3938.473 kip-ft	45287.843		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	615.061	2315.661	A	0.388	2.089	0.008	1	1	16.206	364.376	72.875	C
180.000-175.0			B	0.388	2.089		1	1	16.206			
00			C	0.388	2.089		1	1	16.206			
T2	1241.318	2943.071	A	0.302	2.29	0.008	1	1	20.817	595.758	71.491	C
175.000-166.6			B	0.302	2.29		1	1	20.817			
67			C	0.302	2.29		1	1	20.817			
T3	1600.244	2994.621	A	0.291	2.319	0.008	1	1	21.148	679.666	81.560	C
166.667-158.3			B	0.291	2.319		1	1	21.148			
33			C	0.291	2.319		1	1	21.148			
T4	2025.059	3045.796	A	0.282	2.345	0.008	1	1	21.488	774.794	92.975	C
158.333-150.0			B	0.282	2.345		1	1	21.488			
00			C	0.282	2.345		1	1	21.488			
T5	9756.203	14070.293	A	0.339	2.197	0.007	1	1	88.948	3498.897	139.956	C
150.000-125.0			B	0.339	2.197		1	1	88.948			
00			C	0.339	2.197		1	1	88.948			
T6	12400.572	16115.041	A	0.323	2.237	0.007	1	1	96.863	4127.668	165.107	C
125.000-100.0			B	0.323	2.237		1	1	96.863			
00			C	0.323	2.237		1	1	96.863			
T7	4127.912	6077.276	A	0.31	2.271	0.007	1	1	33.388	1360.282	163.234	C
100.000-91.66			B	0.31	2.271		1	1	33.388			
7			C	0.31	2.271		1	1	33.388			
T8	4080.352	6490.849	A	0.293	2.314	0.007	1	1	37.546	1393.095	167.171	C
91.667-83.333			B	0.293	2.314		1	1	37.546			
			C	0.293	2.314		1	1	37.546			
T9	4045.172	6581.005	A	0.288	2.329	0.007	1	1	38.096	1373.068	164.768	C
83.333-75.000			B	0.288	2.329		1	1	38.096			
			C	0.288	2.329		1	1	38.096			
T10	12288.956	16971.335	A	0.26	2.408	0.006	1	1	96.705	3819.664	152.787	C
75.000-50.000			B	0.26	2.408		1	1	96.705			
			C	0.26	2.408		1	1	96.705			
T11	5873.232	8788.065	A	0.246	2.449	0.006	1	1	49.179	1768.832	141.507	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
50.000-37.500			B	0.246	2.449		1	1	49.179			
			C	0.246	2.449		1	1	49.179			
T12	5668.695	9549.825	A	0.237	2.477	0.005	1	1	49.610	1647.296	131.784	C
37.500-25.000			B	0.237	2.477		1	1	49.610			
			C	0.237	2.477		1	1	49.610			
T13	5519.492	8789.700	A	0.225	2.516	0.005	1	1	48.935	1491.303	119.304	C
25.000-12.500			B	0.225	2.516		1	1	48.935			
			C	0.225	2.516		1	1	48.935			
T14	1759.139	9246.149	A	0.21	2.564	0.005	1	1	47.985	807.210	64.577	C
12.500-0.000			B	0.21	2.564		1	1	47.985			
			C	0.21	2.564		1	1	47.985			
Sum Weight:	71001.407	113978.689						OTM	2103.364 kip-ft	23701.910		

Tower Forces - With Ice - Wind 45 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	615.061	2315.661	A	0.388	2.089	0.008	0.825	1	15.239	351.036	70.207	C
180.000-175.000			B	0.388	2.089		0.825	1	15.239			
			C	0.388	2.089		0.825	1	15.239			
T2	1241.318	2943.071	A	0.302	2.29	0.008	0.825	1	19.716	579.237	69.508	C
175.000-166.667			B	0.302	2.29		0.825	1	19.716			
			C	0.302	2.29		0.825	1	19.716			
T3	1600.244	2994.621	A	0.291	2.319	0.008	0.825	1	20.007	662.520	79.502	C
166.667-158.333			B	0.291	2.319		0.825	1	20.007			
			C	0.291	2.319		0.825	1	20.007			
T4	2025.059	3045.796	A	0.282	2.345	0.008	0.825	1	20.307	757.044	90.845	C
158.333-150.000			B	0.282	2.345		0.825	1	20.307			
			C	0.282	2.345		0.825	1	20.307			
T5	9756.203	14070.293	A	0.339	2.197	0.007	0.825	1	83.446	3423.276	136.931	C
150.000-125.000			B	0.339	2.197		0.825	1	83.446			
			C	0.339	2.197		0.825	1	83.446			
T6	12400.572	16115.041	A	0.323	2.237	0.007	0.825	1	90.301	4039.604	161.584	C
125.000-100.000			B	0.323	2.237		0.825	1	90.301			
			C	0.323	2.237		0.825	1	90.301			
T7	4127.912	6077.276	A	0.31	2.271	0.007	0.825	1	31.066	1329.700	159.564	C
100.000-91.667			B	0.31	2.271		0.825	1	31.066			
			C	0.31	2.271		0.825	1	31.066			
T8	4080.352	6490.849	A	0.293	2.314	0.007	0.825	1	33.178	1335.576	160.269	C
91.667-83.333			B	0.293	2.314		0.825	1	33.178			
			C	0.293	2.314		0.825	1	33.178			
T9	4045.172	6581.005	A	0.288	2.329	0.007	0.825	1	33.667	1315.590	157.871	C
83.333-75.000			B	0.288	2.329		0.825	1	33.667			
			C	0.288	2.329		0.825	1	33.667			
T10	12288.956	16971.335	A	0.26	2.408	0.006	0.825	1	89.536	3728.151	149.126	C
75.000-50.000			B	0.26	2.408		0.825	1	89.536			
			C	0.26	2.408		0.825	1	89.536			
T11	5873.232	8788.065	A	0.246	2.449	0.006	0.825	1	45.419	1723.554	137.884	C
50.000-37.500			B	0.246	2.449		0.825	1	45.419			
			C	0.246	2.449		0.825	1	45.419			
T12	5668.695	9549.825	A	0.237	2.477	0.005	0.825	1	45.726	1603.228	128.258	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
37.500-25.000			B	0.237	2.477		0.825	1	45.726			
			C	0.237	2.477		0.825	1	45.726			
T13	5519.492	8789.700	A	0.225	2.516	0.005	0.825	1	45.058	1451.165	116.093	C
25.000-12.500			B	0.225	2.516		0.825	1	45.058			
			C	0.225	2.516		0.825	1	45.058			
T14	1759.139	9246.149	A	0.21	2.564	0.005	0.825	1	43.984	766.898	61.352	C
12.500-0.000			B	0.21	2.564		0.825	1	43.984			
			C	0.21	2.564		0.825	1	43.984			
Sum Weight:	71001.407	113978.689						OTM	2049.750 kip-ft	23066.578		

Tower Forces - With Ice - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	615.061	2315.661	A	0.388	2.089	0.008	0.8	1	15.101	349.130	69.826	C
180.000-175.000			B	0.388	2.089		0.8	1	15.101			
			C	0.388	2.089		0.8	1	15.101			
T2	1241.318	2943.071	A	0.302	2.29	0.008	0.8	1	19.558	576.876	69.225	C
175.000-166.667			B	0.302	2.29		0.8	1	19.558			
			C	0.302	2.29		0.8	1	19.558			
T3	1600.244	2994.621	A	0.291	2.319	0.008	0.8	1	19.844	660.071	79.209	C
166.667-158.333			B	0.291	2.319		0.8	1	19.844			
			C	0.291	2.319		0.8	1	19.844			
T4	2025.059	3045.796	A	0.282	2.345	0.008	0.8	1	20.139	754.509	90.541	C
158.333-150.000			B	0.282	2.345		0.8	1	20.139			
			C	0.282	2.345		0.8	1	20.139			
T5	9756.203	14070.293	A	0.339	2.197	0.007	0.8	1	82.660	3412.473	136.499	C
150.000-125.000			B	0.339	2.197		0.8	1	82.660			
			C	0.339	2.197		0.8	1	82.660			
T6	12400.572	16115.041	A	0.323	2.237	0.007	0.8	1	89.363	4027.023	161.081	C
125.000-100.000			B	0.323	2.237		0.8	1	89.363			
			C	0.323	2.237		0.8	1	89.363			
T7	4127.912	6077.276	A	0.31	2.271	0.007	0.8	1	30.734	1325.331	159.040	C
100.000-91.667			B	0.31	2.271		0.8	1	30.734			
			C	0.31	2.271		0.8	1	30.734			
T8	4080.352	6490.849	A	0.293	2.314	0.007	0.8	1	32.554	1327.359	159.283	C
91.667-83.333			B	0.293	2.314		0.8	1	32.554			
			C	0.293	2.314		0.8	1	32.554			
T9	4045.172	6581.005	A	0.288	2.329	0.007	0.8	1	33.034	1307.379	156.885	C
83.333-75.000			B	0.288	2.329		0.8	1	33.034			
			C	0.288	2.329		0.8	1	33.034			
T10	12288.956	16971.335	A	0.26	2.408	0.006	0.8	1	88.512	3715.077	148.603	C
75.000-50.000			B	0.26	2.408		0.8	1	88.512			
			C	0.26	2.408		0.8	1	88.512			
T11	5873.232	8788.065	A	0.246	2.449	0.006	0.8	1	44.882	1717.086	137.367	C
50.000-37.500			B	0.246	2.449		0.8	1	44.882			
			C	0.246	2.449		0.8	1	44.882			
T12	5668.695	9549.825	A	0.237	2.477	0.005	0.8	1	45.171	1596.933	127.755	C
37.500-25.000			B	0.237	2.477		0.8	1	45.171			
			C	0.237	2.477		0.8	1	45.171			
T13	5519.492	8789.700	A	0.225	2.516	0.005	0.8	1	44.504	1445.431	115.634	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
25.000-12.500			B	0.225	2.516		0.8	1	44.504			
			C	0.225	2.516		0.8	1	44.504			
T14	1759.139	9246.149	A	0.21	2.564	0.005	0.8	1	43.413	761.140	60.891	C
12.500-0.000			B	0.21	2.564		0.8	1	43.413			
			C	0.21	2.564		0.8	1	43.413			
Sum Weight:	71001.407	113978.689						OTM	2042.091 kip-ft	22975.816		

Tower Forces - With Ice - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	615.061	2315.661	A	0.388	2.089	0.008	0.85	1	15.377	352.942	70.588	C
180.000-175.000			B	0.388	2.089		0.85	1	15.377			
			C	0.388	2.089		0.85	1	15.377			
T2	1241.318	2943.071	A	0.302	2.29	0.008	0.85	1	19.873	581.597	69.792	C
175.000-166.667			B	0.302	2.29		0.85	1	19.873			
			C	0.302	2.29		0.85	1	19.873			
T3	1600.244	2994.621	A	0.291	2.319	0.008	0.85	1	20.170	664.970	79.796	C
166.667-158.333			B	0.291	2.319		0.85	1	20.170			
			C	0.291	2.319		0.85	1	20.170			
T4	2025.059	3045.796	A	0.282	2.345	0.008	0.85	1	20.476	759.580	91.150	C
158.333-150.000			B	0.282	2.345		0.85	1	20.476			
			C	0.282	2.345		0.85	1	20.476			
T5	9756.203	14070.293	A	0.339	2.197	0.007	0.85	1	84.232	3434.079	137.363	C
150.000-125.000			B	0.339	2.197		0.85	1	84.232			
			C	0.339	2.197		0.85	1	84.232			
T6	12400.572	16115.041	A	0.323	2.237	0.007	0.85	1	91.238	4052.185	162.087	C
125.000-100.000			B	0.323	2.237		0.85	1	91.238			
			C	0.323	2.237		0.85	1	91.238			
T7	4127.912	6077.276	A	0.31	2.271	0.007	0.85	1	31.398	1334.069	160.088	C
100.000-91.667			B	0.31	2.271		0.85	1	31.398			
			C	0.31	2.271		0.85	1	31.398			
T8	4080.352	6490.849	A	0.293	2.314	0.007	0.85	1	33.802	1343.793	161.255	C
91.667-83.333			B	0.293	2.314		0.85	1	33.802			
			C	0.293	2.314		0.85	1	33.802			
T9	4045.172	6581.005	A	0.288	2.329	0.007	0.85	1	34.299	1323.801	158.856	C
83.333-75.000			B	0.288	2.329		0.85	1	34.299			
			C	0.288	2.329		0.85	1	34.299			
T10	12288.956	16971.335	A	0.26	2.408	0.006	0.85	1	90.560	3741.224	149.649	C
75.000-50.000			B	0.26	2.408		0.85	1	90.560			
			C	0.26	2.408		0.85	1	90.560			
T11	5873.232	8788.065	A	0.246	2.449	0.006	0.85	1	45.956	1730.022	138.402	C
50.000-37.500			B	0.246	2.449		0.85	1	45.956			
			C	0.246	2.449		0.85	1	45.956			
T12	5668.695	9549.825	A	0.237	2.477	0.005	0.85	1	46.281	1609.523	128.762	C
37.500-25.000			B	0.237	2.477		0.85	1	46.281			
			C	0.237	2.477		0.85	1	46.281			
T13	5519.492	8789.700	A	0.225	2.516	0.005	0.85	1	45.612	1456.899	116.552	C
25.000-12.500			B	0.225	2.516		0.85	1	45.612			
			C	0.225	2.516		0.85	1	45.612			
T14	1759.139	9246.149	A	0.21	2.564	0.005	0.85	1	44.556	772.657	61.813	C

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
12.500-0.000			B	0.21	2.564		0.85	1	44.556			
			C	0.21	2.564		0.85	1	44.556			
Sum Weight:	71001.407	113978.689						OTM	2057.409 kip-ft	23157.340		

Tower Forces - Service - Wind Normal To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	26.190	592.305	A	0.173	2.689	0.011	1	1	7.467	236.717	47.343	C
180.000-175.000			B	0.173	2.689		1	1	7.467			
			C	0.173	2.689		1	1	7.467			
T2	52.650	755.494	A	0.135	2.826	0.011	1	1	9.427	350.961	42.115	C
175.000-166.667			B	0.135	2.826		1	1	9.427			
			C	0.135	2.826		1	1	9.427			
T3	70.190	768.073	A	0.13	2.846	0.011	1	1	9.649	388.916	46.670	C
166.667-158.333			B	0.13	2.846		1	1	9.649			
			C	0.13	2.846		1	1	9.649			
T4	93.290	780.881	A	0.126	2.863	0.011	1	1	9.875	426.838	51.221	C
158.333-150.000			B	0.126	2.863		1	1	9.875			
			C	0.126	2.863		1	1	9.875			
T5	561.430	3994.805	A	0.145	2.79	0.011	1	1	41.043	1903.652	76.146	C
150.000-125.000			B	0.145	2.79		1	1	41.043			
			C	0.145	2.79		1	1	41.043			
T6	766.592	4822.083	A	0.142	2.8	0.010	1	1	47.198	2279.402	91.176	C
125.000-100.000			B	0.142	2.8		1	1	47.198			
			C	0.142	2.8		1	1	47.198			
T7	258.583	1971.333	A	0.137	2.821	0.010	1	1	16.517	760.812	91.297	C
100.000-91.667			B	0.137	2.821		1	1	16.517			
			C	0.137	2.821		1	1	16.517			
T8	258.583	2177.704	A	0.137	2.82	0.010	1	1	21.130	852.766	102.332	C
91.667-83.333			B	0.137	2.82		1	1	21.130			
			C	0.137	2.82		1	1	21.130			
T9	259.243	2217.593	A	0.135	2.828	0.009	1	1	21.520	846.384	101.566	C
83.333-75.000			B	0.135	2.828		1	1	21.520			
			C	0.135	2.828		1	1	21.520			
T10	796.000	6051.792	A	0.135	2.826	0.009	1	1	52.764	2189.364	87.575	C
75.000-50.000			B	0.135	2.826		1	1	52.764			
			C	0.135	2.826		1	1	52.764			
T11	398.000	3351.672	A	0.13	2.847	0.008	1	1	27.344	1038.837	83.107	C
50.000-37.500			B	0.13	2.847		1	1	27.344			
			C	0.13	2.847		1	1	27.344			
T12	399.260	3845.718	A	0.127	2.859	0.008	1	1	28.032	984.828	78.786	C
37.500-25.000			B	0.127	2.859		1	1	28.032			
			C	0.127	2.859		1	1	28.032			
T13	406.700	3731.717	A	0.121	2.88	0.007	1	1	28.186	900.226	72.018	C
25.000-12.500			B	0.121	2.88		1	1	28.186			
			C	0.121	2.88		1	1	28.186			
T14	147.600	4388.734	A	0.119	2.89	0.007	1	1	28.975	619.499	49.560	C
12.500-0.000			B	0.119	2.89		1	1	28.975			
			C	0.119	2.89		1	1	28.975			
Sum Weight:	4494.313	39449.903						OTM	1197.506	13779.202		

tnxTower	Job: MODification - 180' Lattice Tower (CSP #36)	Page: 46 of 204
AECOM 500 Enterprise Drive, Suite 3B Rocky Hill, CT Phone: 860-529-8882 FAX: 860-529-3991	Project: Westbrook, Connecticut	Date: 14:47:48 09/29/17
	Client: Site Acquisitions Inc / SAI-100	Designed by: MCD

Section Elevation	Add Weight	Self Weight	Face	e	C_F	q_z	D_F	D_R	A_E	F	w	Ctrl. Face
ft	lb	lb				ksf			ft^2	lb	plf	
									kip-ft			

Tower Forces - Service - Wind 45 To Face

Section Elevation	Add Weight	Self Weight	Face	e	C_F	q_z	D_F	D_R	A_E	F	w	Ctrl. Face
ft	lb	lb				ksf			ft^2	lb	plf	
T1	26.190	592.305	A	0.173	2.689	0.011	0.825	1	6.500	211.990	42.398	C
180.000-175.0			B	0.173	2.689		0.825	1	6.500			
00			C	0.173	2.689		0.825	1	6.500			
T2	52.650	755.494	A	0.135	2.826	0.011	0.825	1	8.326	321.601	38.592	C
175.000-166.6			B	0.135	2.826		0.825	1	8.326			
67			C	0.135	2.826		0.825	1	8.326			
T3	70.190	768.073	A	0.13	2.846	0.011	0.825	1	8.508	358.616	43.034	C
166.667-158.3			B	0.13	2.846		0.825	1	8.508			
33			C	0.13	2.846		0.825	1	8.508			
T4	93.290	780.881	A	0.126	2.863	0.011	0.825	1	8.695	395.636	47.476	C
158.333-150.0			B	0.126	2.863		0.825	1	8.695			
00			C	0.126	2.863		0.825	1	8.695			
T5	561.430	3994.805	A	0.145	2.79	0.011	0.825	1	35.542	1765.350	70.614	C
150.000-125.0			B	0.145	2.79		0.825	1	35.542			
00			C	0.145	2.79		0.825	1	35.542			
T6	766.592	4822.083	A	0.142	2.8	0.010	0.825	1	40.635	2120.632	84.825	C
125.000-100.0			B	0.142	2.8		0.825	1	40.635			
00			C	0.142	2.8		0.825	1	40.635			
T7	258.583	1971.333	A	0.137	2.821	0.010	0.825	1	14.195	706.104	84.732	C
100.000-91.66			B	0.137	2.821		0.825	1	14.195			
7			C	0.137	2.821		0.825	1	14.195			
T8	258.583	2177.704	A	0.137	2.82	0.010	0.825	1	17.432	767.337	92.080	C
91.667-83.333			B	0.137	2.82		0.825	1	17.432			
			C	0.137	2.82		0.825	1	17.432			
T9	259.243	2217.593	A	0.135	2.828	0.009	0.825	1	17.754	760.926	91.311	C
83.333-75.000			B	0.135	2.828		0.825	1	17.754			
			C	0.135	2.828		0.825	1	17.754			
T10	796.000	6051.792	A	0.135	2.826	0.009	0.825	1	45.595	2034.720	81.389	C
75.000-50.000			B	0.135	2.826		0.825	1	45.595			
			C	0.135	2.826		0.825	1	45.595			
T11	398.000	3351.672	A	0.13	2.847	0.008	0.825	1	23.584	963.041	77.043	C
50.000-37.500			B	0.13	2.847		0.825	1	23.584			
			C	0.13	2.847		0.825	1	23.584			
T12	399.260	3845.718	A	0.127	2.859	0.008	0.825	1	24.148	911.571	72.926	C
37.500-25.000			B	0.127	2.859		0.825	1	24.148			
			C	0.127	2.859		0.825	1	24.148			
T13	406.700	3731.717	A	0.121	2.88	0.007	0.825	1	24.309	834.070	66.726	C
25.000-12.500			B	0.121	2.88		0.825	1	24.309			
			C	0.121	2.88		0.825	1	24.309			
T14	147.600	4388.734	A	0.119	2.89	0.007	0.825	1	24.974	554.056	44.324	C
12.500-0.000			B	0.119	2.89		0.825	1	24.974			
			C	0.119	2.89		0.825	1	24.974			
Sum Weight:	4494.313	39449.903						OTM	1105.086 kip-ft	12705.650		

Tower Forces - Service - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	26.190	592.305	A	0.173	2.689	0.011	0.8	1	6.361	208.458	41.692	C
180.000-175.0			B	0.173	2.689		0.8	1	6.361			
00			C	0.173	2.689		0.8	1	6.361			
T2	52.650	755.494	A	0.135	2.826	0.011	0.8	1	8.168	317.406	38.089	C
175.000-166.6			B	0.135	2.826		0.8	1	8.168			
67			C	0.135	2.826		0.8	1	8.168			
T3	70.190	768.073	A	0.13	2.846	0.011	0.8	1	8.345	354.288	42.515	C
166.667-158.3			B	0.13	2.846		0.8	1	8.345			
33			C	0.13	2.846		0.8	1	8.345			
T4	93.290	780.881	A	0.126	2.863	0.011	0.8	1	8.526	391.179	46.941	C
158.333-150.0			B	0.126	2.863		0.8	1	8.526			
00			C	0.126	2.863		0.8	1	8.526			
T5	561.430	3994.805	A	0.145	2.79	0.011	0.8	1	34.756	1745.593	69.824	C
150.000-125.0			B	0.145	2.79		0.8	1	34.756			
00			C	0.145	2.79		0.8	1	34.756			
T6	766.592	4822.083	A	0.142	2.8	0.010	0.8	1	39.698	2097.951	83.918	C
125.000-100.0			B	0.142	2.8		0.8	1	39.698			
00			C	0.142	2.8		0.8	1	39.698			
T7	258.583	1971.333	A	0.137	2.821	0.010	0.8	1	13.863	698.288	83.795	C
100.000-91.66			B	0.137	2.821		0.8	1	13.863			
7			C	0.137	2.821		0.8	1	13.863			
T8	258.583	2177.704	A	0.137	2.82	0.010	0.8	1	16.904	755.133	90.616	C
91.667-83.333			B	0.137	2.82		0.8	1	16.904			
			C	0.137	2.82		0.8	1	16.904			
T9	259.243	2217.593	A	0.135	2.828	0.009	0.8	1	17.216	748.717	89.846	C
83.333-75.000			B	0.135	2.828		0.8	1	17.216			
			C	0.135	2.828		0.8	1	17.216			
T10	796.000	6051.792	A	0.135	2.826	0.009	0.8	1	44.571	2012.628	80.505	C
75.000-50.000			B	0.135	2.826		0.8	1	44.571			
			C	0.135	2.826		0.8	1	44.571			
T11	398.000	3351.672	A	0.13	2.847	0.008	0.8	1	23.047	952.214	76.177	C
50.000-37.500			B	0.13	2.847		0.8	1	23.047			
			C	0.13	2.847		0.8	1	23.047			
T12	399.260	3845.718	A	0.127	2.859	0.008	0.8	1	23.593	901.106	72.088	C
37.500-25.000			B	0.127	2.859		0.8	1	23.593			
			C	0.127	2.859		0.8	1	23.593			
T13	406.700	3731.717	A	0.121	2.88	0.007	0.8	1	23.755	824.619	65.969	C
25.000-12.500			B	0.121	2.88		0.8	1	23.755			
			C	0.121	2.88		0.8	1	23.755			
T14	147.600	4388.734	A	0.119	2.89	0.007	0.8	1	24.403	544.707	43.577	C
12.500-0.000			B	0.119	2.89		0.8	1	24.403			
			C	0.119	2.89		0.8	1	24.403			
Sum Weight:	4494.313	39449.903						OTM	1091.883 kip-ft	12552.286		

Tower Forces - Service - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	q_z ksf	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T1	26.190	592.305	A	0.173	2.689	0.011	0.85	1	6.638	215.523	43.105	C
180.000-175.0			B	0.173	2.689		0.85	1	6.638			
00			C	0.173	2.689		0.85	1	6.638			
T2	52.650	755.494	A	0.135	2.826	0.011	0.85	1	8.483	325.795	39.095	C
175.000-166.6			B	0.135	2.826		0.85	1	8.483			
67			C	0.135	2.826		0.85	1	8.483			
T3	70.190	768.073	A	0.13	2.846	0.011	0.85	1	8.671	362.945	43.553	C
166.667-158.3			B	0.13	2.846		0.85	1	8.671			
33			C	0.13	2.846		0.85	1	8.671			
T4	93.290	780.881	A	0.126	2.863	0.011	0.85	1	8.864	400.094	48.011	C
158.333-150.0			B	0.126	2.863		0.85	1	8.864			
00			C	0.126	2.863		0.85	1	8.864			
T5	561.430	3994.805	A	0.145	2.79	0.011	0.85	1	36.328	1785.108	71.404	C
150.000-125.0			B	0.145	2.79		0.85	1	36.328			
00			C	0.145	2.79		0.85	1	36.328			
T6	766.592	4822.083	A	0.142	2.8	0.010	0.85	1	41.573	2143.314	85.733	C
125.000-100.0			B	0.142	2.8		0.85	1	41.573			
00			C	0.142	2.8		0.85	1	41.573			
T7	258.583	1971.333	A	0.137	2.821	0.010	0.85	1	14.526	713.919	85.670	C
100.000-91.66			B	0.137	2.821		0.85	1	14.526			
7			C	0.137	2.821		0.85	1	14.526			
T8	258.583	2177.704	A	0.137	2.82	0.010	0.85	1	17.960	779.541	93.545	C
91.667-83.333			B	0.137	2.82		0.85	1	17.960			
			C	0.137	2.82		0.85	1	17.960			
T9	259.243	2217.593	A	0.135	2.828	0.009	0.85	1	18.292	773.134	92.776	C
83.333-75.000			B	0.135	2.828		0.85	1	18.292			
			C	0.135	2.828		0.85	1	18.292			
T10	796.000	6051.792	A	0.135	2.826	0.009	0.85	1	46.619	2056.812	82.272	C
75.000-50.000			B	0.135	2.826		0.85	1	46.619			
			C	0.135	2.826		0.85	1	46.619			
T11	398.000	3351.672	A	0.13	2.847	0.008	0.85	1	24.121	973.869	77.910	C
50.000-37.500			B	0.13	2.847		0.85	1	24.121			
			C	0.13	2.847		0.85	1	24.121			
T12	399.260	3845.718	A	0.127	2.859	0.008	0.85	1	24.703	922.036	73.763	C
37.500-25.000			B	0.127	2.859		0.85	1	24.703			
			C	0.127	2.859		0.85	1	24.703			
T13	406.700	3731.717	A	0.121	2.88	0.007	0.85	1	24.862	843.521	67.482	C
25.000-12.500			B	0.121	2.88		0.85	1	24.862			
			C	0.121	2.88		0.85	1	24.862			
T14	147.600	4388.734	A	0.119	2.89	0.007	0.85	1	25.546	563.405	45.072	C
12.500-0.000			B	0.119	2.89		0.85	1	25.546			
			C	0.119	2.89		0.85	1	25.546			
Sum Weight:	4494.313	39449.903						OTM	1118.289 kip-ft	12859.015		

Mast Vectors - No Ice

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
T1	180.000-175.000	0	Wind Normal	833.688	0.000	-833.688	-147.906	0.112	-0.357
		30	Wind 90	759.044	379.522	-657.351	-116.606	-67.253	-0.175
		45	Wind 45	746.604	527.928	-527.928	-93.633	-93.595	-0.077
		60	Wind 60	734.163	635.804	-367.081	-65.083	-112.743	0.022

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		90	Wind 90	759.044	759.044	0.000	0.074	-134.618	0.214
		120	Wind Normal	833.688	721.995	416.844	74.064	-128.042	0.382
		135	Wind 45	818.759	578.950	578.950	102.837	-102.652	0.411
		150	Wind 90	759.044	379.522	657.351	116.754	-67.253	0.389
		180	Wind 60	734.163	0.000	734.163	130.388	0.112	0.315
		210	Wind 90	759.044	-379.522	657.351	116.754	67.477	0.175
		225	Wind 45	746.604	-527.928	527.928	93.781	93.819	0.077
		240	Wind Normal	833.688	-721.995	416.844	74.064	128.266	-0.025
		270	Wind 90	759.044	-759.044	0.000	0.074	134.842	-0.214
		300	Wind 60	734.163	-635.804	-367.081	-65.083	112.967	-0.337
		315	Wind 45	818.759	-578.950	-578.950	-102.690	102.876	-0.411
		330	Wind 90	759.044	-379.522	-657.351	-116.606	67.477	-0.389
T2	175.000-166.667	0	Wind Normal	1236.042	0.000	-1236.042	-211.001	0.239	-0.733
		30	Wind 90	1147.409	573.705	-993.686	-169.598	-97.768	-0.369
		45	Wind 45	1132.637	800.895	-800.895	-136.663	-136.580	-0.167
		60	Wind 60	1117.865	968.100	-558.933	-95.328	-165.144	0.041
		90	Wind 90	1147.409	1147.409	0.000	0.157	-195.776	0.442
		120	Wind Normal	1236.042	1070.444	618.021	105.735	-182.628	0.779
		135	Wind 45	1218.315	861.479	861.479	147.326	-146.930	0.843
		150	Wind 90	1147.409	573.705	993.686	169.911	-97.768	0.810
		180	Wind 60	1117.865	0.000	1117.865	191.125	0.239	0.663
		210	Wind 90	1147.409	-573.705	993.686	169.911	98.247	0.369
		225	Wind 45	1132.637	-800.895	800.895	136.976	137.059	0.167
		240	Wind Normal	1236.042	-1070.444	618.021	105.735	183.107	-0.045
		270	Wind 90	1147.409	-1147.409	0.000	0.157	196.255	-0.442
		300	Wind 60	1117.865	-968.100	-558.933	-95.328	165.623	-0.704
		315	Wind 45	1218.315	-861.479	-861.479	-147.013	147.409	-0.843
		330	Wind 90	1147.409	-573.705	-993.686	-169.598	98.247	-0.810
T3	166.667-158.333	0	Wind Normal	1369.713	0.000	-1369.713	-222.355	0.331	-0.960
		30	Wind 90	1278.246	639.123	-1106.993	-179.663	-103.527	-0.478
		45	Wind 45	1263.001	893.077	-893.077	-144.902	-144.794	-0.209
		60	Wind 60	1247.757	1080.589	-623.878	-101.157	-175.265	0.067
		90	Wind 90	1278.246	1278.246	0.000	0.223	-207.384	0.596
		120	Wind Normal	1369.713	1186.206	684.856	111.512	-192.428	1.034
		135	Wind 45	1351.419	955.598	955.598	155.508	-154.954	1.116
		150	Wind 90	1278.246	639.123	1106.993	180.109	-103.527	1.074
		180	Wind 60	1247.757	0.000	1247.757	202.983	0.331	0.875
		210	Wind 90	1278.246	-639.123	1106.993	180.109	104.188	0.478
		225	Wind 45	1263.001	-893.077	893.077	145.348	145.456	0.209
		240	Wind Normal	1369.713	-1186.206	684.856	111.512	193.089	-0.073
		270	Wind 90	1278.246	-1278.246	0.000	0.223	208.046	-0.596
		300	Wind 60	1247.757	-1080.589	-623.878	-101.157	175.926	-0.941
		315	Wind 45	1351.419	-955.598	-955.598	-155.062	155.615	-1.116
		330	Wind 90	1278.246	-639.123	-1106.993	-179.663	104.188	-1.074
T4	158.333-150.000	0	Wind Normal	1503.271	0.000	-1503.271	-231.443	0.445	-1.168
		30	Wind 90	1409.079	704.540	-1220.299	-187.818	-108.171	-0.572
		45	Wind 45	1393.381	985.269	-985.269	-151.584	-151.450	-0.240
		60	Wind 60	1377.682	1193.108	-688.841	-105.885	-183.492	0.102
		90	Wind 90	1409.079	1409.079	0.000	0.312	-216.788	0.752
		120	Wind Normal	1503.271	1301.871	751.636	116.189	-200.260	1.279
		135	Wind 45	1484.433	1049.652	1049.652	162.133	-161.376	1.376
		150	Wind 90	1409.079	704.540	1220.299	188.441	-108.171	1.325
		180	Wind 60	1377.682	0.000	1377.682	212.704	0.445	1.071
		210	Wind 90	1409.079	-704.540	1220.299	188.441	109.062	0.572
		225	Wind 45	1393.381	-985.269	985.269	152.207	152.341	0.240
		240	Wind Normal	1503.271	-1301.871	751.636	116.189	201.150	-0.111
		270	Wind 90	1409.079	-1409.079	0.000	0.312	217.678	-0.752
		300	Wind 60	1377.682	-1193.108	-688.841	-105.885	184.383	-1.172
		315	Wind 45	1484.433	-1049.652	-1049.652	-161.510	162.267	-1.376
		330	Wind 90	1409.079	-704.540	-1220.299	-187.818	109.062	-1.325
T5	150.000-125.000	0	Wind Normal	6704.424	0.000	-6704.424	-921.753	1.080	-2.924

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		30	Wind 90	6286.926	3143.463	-5444.637	-748.532	-431.146	-2.018
		45	Wind 45	6217.342	4396.325	-4396.325	-604.389	-603.415	-1.419
		60	Wind 60	6147.759	5324.116	-3073.880	-422.553	-730.986	-0.737
		90	Wind 90	6286.926	6286.926	0.000	0.106	-863.372	0.712
		120	Wind Normal	6704.424	5806.202	3352.212	461.035	-797.273	2.120
		135	Wind 45	6620.925	4681.701	4681.701	643.839	-642.654	2.572
		150	Wind 90	6286.926	3143.463	5444.637	748.743	-431.146	2.731
		180	Wind 60	6147.759	0.000	6147.759	845.422	1.080	2.681
		210	Wind 90	6286.926	-3143.463	5444.637	748.743	433.306	2.018
		225	Wind 45	6217.342	-4396.325	4396.325	604.600	605.574	1.419
		240	Wind Normal	6704.424	-5806.202	3352.212	461.035	799.433	0.804
		270	Wind 90	6286.926	-6286.926	0.000	0.106	865.532	-0.712
		300	Wind 60	6147.759	-5324.116	-3073.880	-422.553	733.146	-1.944
		315	Wind 45	6620.925	-4681.701	-4681.701	-643.628	644.814	-2.572
		330	Wind 90	6286.926	-3143.463	-5444.637	-748.532	433.306	-2.731
T6	125.000-100.000	0	Wind Normal	8027.769	0.000	-8027.769	-903.430	0.722	-2.230
		30	Wind 90	7548.483	3774.242	-6537.178	-735.739	-423.880	-1.872
		45	Wind 45	7468.602	5281.099	-5281.099	-594.430	-593.402	-1.545
		60	Wind 60	7388.721	6398.820	-3694.360	-415.922	-719.146	-1.121
		90	Wind 90	7548.483	7548.483	0.000	-0.306	-848.483	-0.112
		120	Wind Normal	8027.769	6952.252	4013.885	451.256	-781.407	1.012
		135	Wind 45	7931.912	5608.709	5608.709	630.674	-630.258	1.475
		150	Wind 90	7548.483	3774.242	6537.178	735.127	-423.880	1.760
		180	Wind 60	7388.721	0.000	7388.721	830.925	0.722	2.052
		210	Wind 90	7548.483	-3774.242	6537.178	735.127	425.324	1.872
		225	Wind 45	7468.602	-5281.099	5281.099	593.818	594.845	1.545
		240	Wind Normal	8027.769	-6952.252	4013.885	451.256	782.850	1.218
		270	Wind 90	7548.483	-7548.483	0.000	-0.306	849.926	0.112
		300	Wind 60	7388.721	-6398.820	-3694.360	-415.922	720.589	-0.931
		315	Wind 45	7931.912	-5608.709	-5608.709	-631.286	631.701	-1.475
		330	Wind 90	7548.483	-3774.242	-6537.178	-735.739	425.324	-1.760
T7	100.000-91.667	0	Wind Normal	2679.486	0.000	-2679.486	-256.879	0.273	-0.819
		30	Wind 90	2514.335	1257.167	-2177.478	-208.770	-120.206	-0.669
		45	Wind 45	2486.810	1758.440	-1758.440	-168.612	-168.244	-0.542
		60	Wind 60	2459.284	2129.803	-1229.642	-117.936	-203.833	-0.381
		90	Wind 90	2514.335	2514.335	0.000	-0.095	-240.684	-0.006
		120	Wind Normal	2679.486	2320.503	1339.743	128.297	-222.109	0.404
		135	Wind 45	2646.456	1871.327	1871.327	179.241	-179.063	0.567
		150	Wind 90	2514.335	1257.167	2177.478	208.580	-120.206	0.663
		180	Wind 60	2459.284	0.000	2459.284	235.587	0.273	0.752
		210	Wind 90	2514.335	-1257.167	2177.478	208.580	120.751	0.669
		225	Wind 45	2486.810	-1758.440	1758.440	168.422	168.790	0.542
		240	Wind Normal	2679.486	-2320.503	1339.743	128.297	222.654	0.416
		270	Wind 90	2514.335	-2514.335	0.000	-0.095	241.230	0.006
		300	Wind 60	2459.284	-2129.803	-1229.642	-117.936	204.379	-0.371
		315	Wind 45	2646.456	-1871.327	-1871.327	-179.430	179.608	-0.567
		330	Wind 90	2514.335	-1257.167	-2177.478	-208.770	120.751	-0.663
T8	91.667-83.333	0	Wind Normal	3003.334	0.000	-3003.334	-262.890	0.282	-0.940
		30	Wind 90	2745.447	1372.724	-2377.627	-208.141	-119.832	-0.747
		45	Wind 45	2702.466	1910.932	-1910.932	-167.305	-166.925	-0.602
		60	Wind 60	2659.485	2303.182	-1329.742	-116.451	-201.247	-0.421
		90	Wind 90	2745.447	2745.447	0.000	-0.098	-239.945	-0.006
		120	Wind Normal	3003.334	2600.964	1501.667	131.298	-227.303	0.464
		135	Wind 45	2951.757	2087.207	2087.207	182.532	-182.349	0.648
		150	Wind 90	2745.447	1372.724	2377.627	207.944	-119.832	0.741
		180	Wind 60	2659.485	0.000	2659.485	232.607	0.282	0.832
		210	Wind 90	2745.447	-1372.724	2377.627	207.944	120.395	0.747
		225	Wind 45	2702.466	-1910.932	1910.932	167.108	167.488	0.602
		240	Wind Normal	3003.334	-2600.964	1501.667	131.298	227.866	0.476
		270	Wind 90	2745.447	-2745.447	0.000	-0.098	240.508	0.006
		300	Wind 60	2659.485	-2303.182	-1329.742	-116.451	201.810	-0.411

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		315	Wind 45	2951.757	-2087.207	-2087.207	-182.729	182.912	-0.648
		330	Wind 90	2745.447	-1372.724	-2377.627	-208.141	120.395	-0.741
T9	83.333-75.000	0	Wind Normal	2980.859	0.000	-2980.859	-236.083	0.294	-0.966
		30	Wind 90	2722.882	1361.441	-2358.085	-186.780	-107.487	-0.763
		45	Wind 45	2679.885	1894.965	-1894.965	-150.116	-149.724	-0.613
		60	Wind 60	2636.889	2283.613	-1318.445	-104.475	-180.492	-0.425
		90	Wind 90	2722.882	2722.882	0.000	-0.098	-215.267	0.002
		120	Wind Normal	2980.859	2581.500	1490.429	117.894	-204.075	0.485
		135	Wind 45	2929.263	2071.302	2071.302	163.880	-163.684	0.673
		150	Wind 90	2722.882	1361.441	2358.085	186.584	-107.487	0.766
		180	Wind 60	2636.889	0.000	2636.889	208.656	0.294	0.855
		210	Wind 90	2722.882	-1361.441	2358.085	186.584	108.075	0.763
		225	Wind 45	2679.885	-1894.965	1894.965	149.920	150.312	0.613
		240	Wind Normal	2980.859	-2581.500	1490.429	117.894	204.663	0.481
		270	Wind 90	2722.882	-2722.882	0.000	-0.098	215.856	-0.002
		300	Wind 60	2636.889	-2283.613	-1318.445	-104.475	181.080	-0.429
		315	Wind 45	2929.263	-2071.302	-2071.302	-164.076	164.272	-0.673
		330	Wind 90	2722.882	-1361.441	-2358.085	-186.780	108.075	-0.766
T10	75.000-50.000	0	Wind Normal	7710.665	0.000	-7710.665	-482.124	1.055	-2.811
		30	Wind 90	7243.834	3621.917	-6273.344	-392.291	-225.315	-2.176
		45	Wind 45	7166.028	5067.147	-5067.147	-316.904	-315.642	-1.692
		60	Wind 60	7088.223	6138.581	-3544.112	-221.714	-382.607	-1.103
		90	Wind 90	7243.834	7243.834	0.000	-0.207	-451.685	0.223
		120	Wind Normal	7710.665	6677.632	3855.332	240.751	-416.297	1.611
		135	Wind 45	7617.299	5386.243	5386.243	336.433	-335.586	2.129
		150	Wind 90	7243.834	3621.917	6273.344	391.877	-225.315	2.399
		180	Wind 60	7088.223	0.000	7088.223	442.807	1.055	2.584
		210	Wind 90	7243.834	-3621.917	6273.344	391.877	227.424	2.176
		225	Wind 45	7166.028	-5067.147	5067.147	316.490	317.751	1.692
		240	Wind Normal	7710.665	-6677.632	3855.332	240.751	418.407	1.200
		270	Wind 90	7243.834	-7243.834	0.000	-0.207	453.794	-0.223
		300	Wind 60	7088.223	-6138.581	-3544.112	-221.714	384.716	-1.481
		315	Wind 45	7617.299	-5386.243	-5386.243	-336.847	337.695	-2.129
		330	Wind 90	7243.834	-3621.917	-6273.344	-392.291	227.424	-2.399
T11	50.000-37.500	0	Wind Normal	3658.654	0.000	-3658.654	-160.177	0.562	-1.415
		30	Wind 90	3429.846	1714.923	-2970.334	-130.063	-74.466	-1.092
		45	Wind 45	3391.712	2398.302	-2398.302	-105.036	-104.364	-0.848
		60	Wind 60	3353.577	2904.283	-1676.789	-73.470	-126.501	-0.552
		90	Wind 90	3429.846	3429.846	0.000	-0.111	-149.494	0.114
		120	Wind Normal	3658.654	3168.487	1829.327	79.923	-138.059	0.813
		135	Wind 45	3612.892	2554.701	2554.701	111.658	-111.206	1.073
		150	Wind 90	3429.846	1714.923	2970.334	129.842	-74.466	1.206
		180	Wind 60	3353.577	0.000	3353.577	146.608	0.562	1.297
		210	Wind 90	3429.846	-1714.923	2970.334	129.842	75.590	1.092
		225	Wind 45	3391.712	-2398.302	2398.302	104.815	105.488	0.848
		240	Wind Normal	3658.654	-3168.487	1829.327	79.923	139.183	0.602
		270	Wind 90	3429.846	-3429.846	0.000	-0.111	150.618	-0.114
		300	Wind 60	3353.577	-2904.283	-1676.789	-73.470	127.624	-0.745
		315	Wind 45	3612.892	-2554.701	-2554.701	-111.879	112.330	-1.073
		330	Wind 90	3429.846	-1714.923	-2970.334	-130.063	75.590	-1.206
T12	37.500-25.000	0	Wind Normal	3468.441	0.000	-3468.441	-108.495	0.593	-1.404
		30	Wind 90	3247.297	1623.649	-2812.242	-87.989	-50.146	-1.074
		45	Wind 45	3210.440	2270.124	-2270.124	-71.048	-70.348	-0.829
		60	Wind 60	3173.582	2748.403	-1586.791	-49.694	-85.295	-0.533
		90	Wind 90	3247.297	3247.297	0.000	-0.107	-100.885	0.129
		120	Wind Normal	3468.441	3003.758	1734.221	54.088	-93.274	0.822
		135	Wind 45	3424.212	2421.284	2421.284	75.558	-75.072	1.077
		150	Wind 90	3247.297	1623.649	2812.242	87.776	-50.146	1.203
		180	Wind 60	3173.582	0.000	3173.582	99.068	0.593	1.285
		210	Wind 90	3247.297	-1623.649	2812.242	87.776	51.332	1.074
		225	Wind 45	3210.440	-2270.124	2270.124	70.835	71.534	0.829

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		240	Wind Normal	3468.441	-3003.758	1734.221	54.088	94.461	0.583
		270	Wind 90	3247.297	-3247.297	0.000	-0.107	102.071	-0.129
		300	Wind 60	3173.582	-2748.403	-1586.791	-49.694	86.481	-0.752
		315	Wind 45	3424.212	-2421.284	-2421.284	-75.772	76.258	-1.077
		330	Wind 90	3247.297	-1623.649	-2812.242	-87.989	51.332	-1.203
T13	25.000-12.500	0	Wind Normal	3170.484	0.000	-3170.484	-59.506	0.665	-1.402
		30	Wind 90	2970.774	1485.387	-2572.766	-48.299	-27.186	-1.034
		45	Wind 45	2937.489	2077.119	-2077.119	-39.006	-38.281	-0.773
		60	Wind 60	2904.204	2515.115	-1452.102	-27.287	-46.493	-0.466
		90	Wind 90	2970.774	2970.774	0.000	-0.060	-55.037	0.208
		120	Wind Normal	3170.484	2745.720	1585.242	29.663	-50.817	0.893
		135	Wind 45	3130.542	2213.627	2213.627	41.446	-40.840	1.134
		150	Wind 90	2970.774	1485.387	2572.766	48.180	-27.186	1.242
		180	Wind 60	2904.204	0.000	2904.204	54.394	0.665	1.285
		210	Wind 90	2970.774	-1485.387	2572.766	48.180	28.516	1.034
		225	Wind 45	2937.489	-2077.119	2077.119	38.886	39.611	0.773
		240	Wind Normal	3170.484	-2745.720	1585.242	29.663	52.148	0.509
		270	Wind 90	2970.774	-2970.774	0.000	-0.060	56.367	-0.208
		300	Wind 60	2904.204	-2515.115	-1452.102	-27.287	47.824	-0.818
		315	Wind 45	3130.542	-2213.627	-2213.627	-41.565	42.171	-1.134
		330	Wind 90	2970.774	-1485.387	-2572.766	-48.299	28.516	-1.242
T14	12.500-0.000	0	Wind Normal	2181.798	0.000	-2181.798	-13.650	0.254	-0.669
		30	Wind 90	1984.241	992.120	-1718.403	-10.754	-5.947	-0.472
		45	Wind 45	1951.315	1379.788	-1379.788	-8.638	-8.370	-0.347
		60	Wind 60	1918.388	1661.373	-959.194	-6.009	-10.130	-0.203
		90	Wind 90	1984.241	1984.241	0.000	-0.014	-12.148	0.109
		120	Wind Normal	2181.798	1889.493	1090.899	6.804	-11.556	0.438
		135	Wind 45	2142.287	1514.825	1514.825	9.454	-9.214	0.548
		150	Wind 90	1984.241	992.120	1718.403	10.726	-5.947	0.581
		180	Wind 60	1918.388	0.000	1918.388	11.976	0.254	0.588
		210	Wind 90	1984.241	-992.120	1718.403	10.726	6.454	0.472
		225	Wind 45	1951.315	-1379.788	1379.788	8.610	8.877	0.347
		240	Wind Normal	2181.798	-1889.493	1090.899	6.804	12.063	0.231
		270	Wind 90	1984.241	-1984.241	0.000	-0.014	12.655	-0.109
		300	Wind 60	1918.388	-1661.373	-959.194	-6.009	10.637	-0.385
		315	Wind 45	2142.287	-1514.825	-1514.825	-9.482	9.721	-0.548
		330	Wind 90	1984.241	-992.120	-1718.403	-10.754	6.454	-0.581

Mast Totals - No Ice

Wind Azimuth °	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	-48528.628	-4217.691	6.906	-18.800
30	22643.922	-39220.423	-3411.042	-1962.330	-13.511
45	31641.411	-31641.411	-2752.266	-2745.135	-9.903
60	38284.888	-22103.791	-1922.962	-3323.373	-5.712
90	45287.843	0.000	-0.225	-3931.567	3.378
120	42027.025	24264.314	2108.509	-3645.527	12.536
135	33856.606	33856.606	2942.519	-2935.837	15.643
150	22643.922	39220.423	3410.593	-1962.330	16.889
180	0.000	44207.581	3845.250	6.906	17.135
210	-22643.922	39220.423	3410.593	1976.143	13.511
225	-31641.411	31641.411	2751.816	2758.948	9.903
240	-42027.025	24264.314	2108.509	3659.340	6.264
270	-45287.843	0.000	-0.225	3945.379	-3.378
300	-38284.888	-22103.791	-1922.962	3337.185	-11.423

Wind Azimuth °	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
315	-33856.606	-33856.606	-2942.968	2949.650	-15.643
330	-22643.922	-39220.423	-3411.042	1976.143	-16.889

Mast Vectors - With Ice

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
T1	180.000-175.000	0	Wind Normal	364.376	0.000	-364.376	-62.928	2.652	-0.223
		30	Wind 90	352.942	176.471	-305.656	-52.505	-28.672	-0.116
		45	Wind 45	351.036	248.220	-248.220	-42.310	-41.407	-0.052
		60	Wind 60	349.130	302.355	-174.565	-29.236	-51.016	0.015
		90	Wind 90	352.942	352.942	0.000	1.749	-59.995	0.142
		120	Wind Normal	364.376	315.559	182.188	34.087	-53.360	0.239
		135	Wind 45	362.089	256.036	256.036	47.195	-42.795	0.260
		150	Wind 90	352.942	176.471	305.656	56.003	-28.672	0.258
		180	Wind 60	349.130	0.000	349.130	63.719	2.652	0.214
		210	Wind 90	352.942	-176.471	305.656	56.003	33.975	0.116
		225	Wind 45	351.036	-248.220	248.220	45.808	46.711	0.052
		240	Wind Normal	364.376	-315.559	182.188	34.087	58.664	-0.016
		270	Wind 90	352.942	-352.942	0.000	1.749	65.299	-0.142
		300	Wind 60	349.130	-302.355	-174.565	-29.236	56.320	-0.229
		315	Wind 45	362.089	-256.036	-256.036	-43.697	48.098	-0.260
		330	Wind 90	352.942	-176.471	-305.656	-52.505	33.975	-0.258
T2	175.000-166.667	0	Wind Normal	595.758	0.000	-595.758	-98.057	5.676	-0.494
		30	Wind 90	581.597	290.798	-503.678	-82.327	-44.002	-0.261
		45	Wind 45	579.237	409.582	-409.582	-66.252	-64.294	-0.119
		60	Wind 60	576.876	499.590	-288.438	-45.557	-79.670	0.030
		90	Wind 90	581.597	581.597	0.000	3.718	-93.680	0.313
		120	Wind Normal	595.758	515.941	297.879	54.606	-82.464	0.525
		135	Wind 45	592.926	419.262	419.262	75.342	-65.948	0.573
		150	Wind 90	581.597	290.798	503.678	89.763	-44.002	0.574
		180	Wind 60	576.876	0.000	576.876	102.268	5.676	0.478
		210	Wind 90	581.597	-290.798	503.678	89.763	55.354	0.261
		225	Wind 45	579.237	-409.582	409.582	73.689	75.647	0.119
		240	Wind Normal	595.758	-515.941	297.879	54.606	93.816	-0.031
		270	Wind 90	581.597	-581.597	0.000	3.718	105.032	-0.313
		300	Wind 60	576.876	-499.590	-288.438	-45.557	91.023	-0.508
		315	Wind 45	592.926	-419.262	-419.262	-67.906	77.300	-0.573
		330	Wind 90	581.597	-290.798	-503.678	-82.327	55.354	-0.574
T3	166.667-158.333	0	Wind Normal	679.666	0.000	-679.666	-105.304	7.620	-0.651
		30	Wind 90	664.970	332.485	-575.881	-88.439	-46.409	-0.340
		45	Wind 45	662.520	468.473	-468.473	-70.985	-68.507	-0.150
		60	Wind 60	660.071	571.638	-330.035	-48.489	-85.272	0.049
		90	Wind 90	664.970	664.970	0.000	5.142	-100.438	0.424
		120	Wind Normal	679.666	588.608	339.833	60.365	-88.029	0.701
		135	Wind 45	676.727	478.518	478.518	82.901	-70.140	0.764
		150	Wind 90	664.970	332.485	575.881	98.722	-46.409	0.764
		180	Wind 60	660.071	0.000	660.071	112.403	7.620	0.632
		210	Wind 90	664.970	-332.485	575.881	98.722	61.648	0.340
		225	Wind 45	662.520	-468.473	468.473	81.269	83.746	0.150
		240	Wind Normal	679.666	-588.608	339.833	60.365	103.268	-0.050
		270	Wind 90	664.970	-664.970	0.000	5.142	115.677	-0.424
		300	Wind 60	660.071	-571.638	-330.035	-48.489	100.511	-0.681
		315	Wind 45	676.727	-478.518	-478.518	-72.617	85.379	-0.764
		330	Wind 90	664.970	-332.485	-575.881	-88.439	61.648	-0.764
T4	158.333-150.000	0	Wind Normal	774.794	0.000	-774.794	-112.616	9.850	-0.787

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		30	Wind 90	759.580	379.790	-657.816	-94.581	-48.701	-0.405
		45	Wind 45	757.044	535.311	-535.311	-75.695	-72.677	-0.172
		60	Wind 60	754.509	653.424	-377.254	-51.328	-90.886	0.071
		90	Wind 90	759.580	759.580	0.000	6.832	-107.252	0.528
		120	Wind Normal	774.794	670.991	387.397	66.556	-93.594	0.860
		135	Wind 45	771.751	545.711	545.711	90.962	-74.280	0.934
		150	Wind 90	759.580	379.790	657.816	108.245	-48.701	0.932
		180	Wind 60	754.509	0.000	754.509	123.152	9.850	0.767
		210	Wind 90	759.580	-379.790	657.816	108.245	68.401	0.405
		225	Wind 45	757.044	-535.311	535.311	89.359	92.377	0.172
		240	Wind Normal	774.794	-670.991	387.397	66.556	113.295	-0.073
		270	Wind 90	759.580	-759.580	0.000	6.832	126.952	-0.528
		300	Wind 60	754.509	-653.424	-377.254	-51.328	110.586	-0.837
		315	Wind 45	771.751	-545.711	-545.711	-77.298	93.981	-0.934
		330	Wind 90	759.580	-379.790	-657.816	-94.581	68.401	-0.932
T5	150.000-125.000	0	Wind Normal	3498.897	0.000	-3498.897	-469.613	28.987	-2.355
		30	Wind 90	3434.079	1717.039	-2973.999	-397.440	-207.106	-1.454
		45	Wind 45	3423.276	2420.621	-2420.621	-321.350	-303.848	-0.857
		60	Wind 60	3412.473	2955.288	-1706.236	-223.122	-377.365	-0.205
		90	Wind 90	3434.079	3434.079	0.000	11.485	-443.199	1.096
		120	Wind Normal	3498.897	3030.134	1749.449	252.034	-387.656	2.144
		135	Wind 45	3485.934	2464.927	2464.927	350.413	-309.941	2.445
		150	Wind 90	3434.079	1717.039	2973.999	420.410	-207.106	2.549
		180	Wind 60	3412.473	0.000	3412.473	480.700	28.987	2.297
		210	Wind 90	3434.079	-1717.039	2973.999	420.410	265.080	1.454
		225	Wind 45	3423.276	-2420.621	2420.621	344.321	361.822	0.857
		240	Wind Normal	3498.897	-3030.134	1749.449	252.034	445.630	0.211
		270	Wind 90	3434.079	-3434.079	0.000	11.485	501.173	-1.096
		300	Wind 60	3412.473	-2955.288	-1706.236	-223.122	435.339	-2.091
		315	Wind 45	3485.934	-2464.927	-2464.927	-327.442	367.914	-2.445
		330	Wind 90	3434.079	-1717.039	-2973.999	-397.440	265.080	-2.549
T6	125.000-100.000	0	Wind Normal	4127.668	0.000	-4127.668	-456.953	26.997	-2.291
		30	Wind 90	4052.185	2026.092	-3509.295	-387.386	-200.939	-1.503
		45	Wind 45	4039.604	2856.431	-2856.431	-313.939	-294.352	-0.959
		60	Wind 60	4027.023	3487.505	-2013.512	-219.111	-365.347	-0.353
		90	Wind 90	4052.185	4052.185	0.000	7.409	-428.874	0.889
		120	Wind Normal	4127.668	3574.666	2063.834	239.591	-375.153	1.930
		135	Wind 45	4112.572	2908.027	2908.027	334.562	-300.156	2.252
		150	Wind 90	4052.185	2026.092	3509.295	402.205	-200.939	2.393
		180	Wind 60	4027.023	0.000	4027.023	460.450	26.997	2.235
		210	Wind 90	4052.185	-2026.092	3509.295	402.205	254.932	1.503
		225	Wind 45	4039.604	-2856.431	2856.431	328.758	348.345	0.959
		240	Wind Normal	4127.668	-3574.666	2063.834	239.591	429.147	0.361
		270	Wind 90	4052.185	-4052.185	0.000	7.409	482.868	-0.889
		300	Wind 60	4027.023	-3487.505	-2013.512	-219.111	419.341	-1.883
		315	Wind 45	4112.572	-2908.027	-2908.027	-319.744	354.150	-2.252
		330	Wind 90	4052.185	-2026.092	-3509.295	-387.386	254.932	-2.393
T7	100.000-91.667	0	Wind Normal	1360.282	0.000	-1360.282	-127.407	9.817	-0.819
		30	Wind 90	1334.069	667.034	-1155.338	-107.766	-54.107	-0.529
		45	Wind 45	1329.700	940.240	-940.240	-87.153	-80.289	-0.332
		60	Wind 60	1325.331	1147.771	-662.666	-60.552	-100.178	-0.113
		90	Wind 90	1334.069	1334.069	0.000	2.954	-118.031	0.332
		120	Wind Normal	1360.282	1178.039	680.141	68.134	-103.078	0.703
		135	Wind 45	1355.039	958.157	958.157	94.777	-82.006	0.815
		150	Wind 90	1334.069	667.034	1155.338	113.674	-54.107	0.861
		180	Wind 60	1325.331	0.000	1325.331	129.965	9.817	0.798
		210	Wind 90	1334.069	-667.034	1155.338	113.674	73.741	0.529
		225	Wind 45	1329.700	-940.240	940.240	93.060	99.923	0.332
		240	Wind Normal	1360.282	-1178.039	680.141	68.134	122.712	0.116
		270	Wind 90	1334.069	-1334.069	0.000	2.954	137.665	-0.332
		300	Wind 60	1325.331	-1147.771	-662.666	-60.552	119.812	-0.684

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		315	Wind 45	1355.039	-958.157	-958.157	-88.870	101.640	-0.815
		330	Wind 90	1334.069	-667.034	-1155.338	-107.766	73.741	-0.861
T8	91.667-83.333	0	Wind Normal	1393.095	0.000	-1393.095	-118.899	9.999	-0.868
		30	Wind 90	1343.793	671.896	-1163.759	-98.832	-48.792	-0.552
		45	Wind 45	1335.576	944.395	-944.395	-79.637	-72.635	-0.345
		60	Wind 60	1327.359	1149.526	-663.679	-55.075	-90.584	-0.117
		90	Wind 90	1343.793	1343.793	0.000	2.997	-107.583	0.346
		120	Wind Normal	1393.095	1206.455	696.547	63.945	-95.566	0.744
		135	Wind 45	1383.234	978.094	978.094	88.581	-75.584	0.861
		150	Wind 90	1343.793	671.896	1163.759	104.826	-48.792	0.898
		180	Wind 60	1327.359	0.000	1327.359	119.141	9.999	0.827
		210	Wind 90	1343.793	-671.896	1163.759	104.826	68.790	0.552
		225	Wind 45	1335.576	-944.395	944.395	85.632	92.634	0.345
		240	Wind Normal	1393.095	-1206.455	696.547	63.945	115.564	0.123
		270	Wind 90	1343.793	-1343.793	0.000	2.997	127.581	-0.346
		300	Wind 60	1327.359	-1149.526	-663.679	-55.075	110.583	-0.709
		315	Wind 45	1383.234	-978.094	-978.094	-82.586	95.582	-0.861
		330	Wind 90	1343.793	-671.896	-1163.759	-98.832	68.790	-0.898
T9	83.333-75.000	0	Wind Normal	1373.068	0.000	-1373.068	-105.584	10.246	-0.882
		30	Wind 90	1323.801	661.901	-1146.445	-87.643	-42.154	-0.559
		45	Wind 45	1315.590	930.262	-930.262	-70.529	-63.400	-0.349
		60	Wind 60	1307.379	1132.223	-653.689	-48.633	-79.388	-0.117
		90	Wind 90	1323.801	1323.801	0.000	3.117	-94.555	0.354
		120	Wind Normal	1373.068	1189.112	686.534	57.468	-83.892	0.759
		135	Wind 45	1363.215	963.938	963.938	79.429	-66.066	0.877
		150	Wind 90	1323.801	661.901	1146.445	93.878	-42.154	0.913
		180	Wind 60	1307.379	0.000	1307.379	106.618	10.246	0.840
		210	Wind 90	1323.801	-661.901	1146.445	93.878	62.647	0.559
		225	Wind 45	1315.590	-930.262	930.262	76.763	83.892	0.349
		240	Wind Normal	1373.068	-1189.112	686.534	57.468	104.384	0.123
		270	Wind 90	1323.801	-1323.801	0.000	3.117	115.047	-0.354
		300	Wind 60	1307.379	-1132.223	-653.689	-48.633	99.881	-0.723
		315	Wind 45	1363.215	-963.938	-963.938	-73.195	86.558	-0.877
		330	Wind 90	1323.801	-661.901	-1146.445	-87.643	62.647	-0.913
T10	75.000-50.000	0	Wind Normal	3819.664	0.000	-3819.664	-226.340	34.846	-2.744
		30	Wind 90	3741.224	1870.612	-3239.995	-190.111	-82.067	-1.722
		45	Wind 45	3728.151	2636.201	-2636.201	-152.374	-129.917	-1.040
		60	Wind 60	3715.077	3217.351	-1857.539	-103.707	-166.239	-0.292
		90	Wind 90	3741.224	3741.224	0.000	12.389	-198.981	1.212
		120	Wind Normal	3819.664	3307.926	1909.832	131.753	-171.900	2.444
		135	Wind 45	3803.976	2689.817	2689.817	180.502	-133.268	2.804
		150	Wind 90	3741.224	1870.612	3239.995	214.889	-82.067	2.934
		180	Wind 60	3715.077	0.000	3715.077	244.581	34.846	2.669
		210	Wind 90	3741.224	-1870.612	3239.995	214.889	151.759	1.722
		225	Wind 45	3728.151	-2636.201	2636.201	177.151	199.608	1.040
		240	Wind Normal	3819.664	-3307.926	1909.832	131.753	241.591	0.300
		270	Wind 90	3741.224	-3741.224	0.000	12.389	268.672	-1.212
		300	Wind 60	3715.077	-3217.351	-1857.539	-103.707	235.930	-2.377
		315	Wind 45	3803.976	-2689.817	-2689.817	-155.725	202.959	-2.804
		330	Wind 90	3741.224	-1870.612	-3239.995	-190.111	151.759	-2.934
T11	50.000-37.500	0	Wind Normal	1768.832	0.000	-1768.832	-71.308	17.458	-1.335
		30	Wind 90	1730.022	865.011	-1498.243	-59.470	-20.386	-0.840
		45	Wind 45	1723.554	1218.737	-1218.737	-47.242	-35.862	-0.510
		60	Wind 60	1717.086	1487.040	-858.543	-31.483	-47.600	-0.147
		90	Wind 90	1730.022	1730.022	0.000	6.078	-58.231	0.582
		120	Wind Normal	1768.832	1531.854	884.416	44.771	-49.561	1.183
		135	Wind 45	1761.070	1245.265	1245.265	60.558	-37.022	1.359
		150	Wind 90	1730.022	865.011	1498.243	71.626	-20.386	1.422
		180	Wind 60	1717.086	0.000	1717.086	81.201	17.458	1.296
		210	Wind 90	1730.022	-865.011	1498.243	71.626	55.302	0.840
		225	Wind 45	1723.554	-1218.737	1218.737	59.398	70.778	0.510

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		240	Wind Normal	1768.832	-1531.854	884.416	44.771	84.477	0.152
		270	Wind 90	1730.022	-1730.022	0.000	6.078	93.146	-0.582
		300	Wind 60	1717.086	-1487.040	-858.543	-31.483	82.516	-1.148
		315	Wind 45	1761.070	-1245.265	-1245.265	-48.402	71.938	-1.359
		330	Wind 90	1730.022	-865.011	-1498.243	-59.470	55.302	-1.422
T12	37.500-25.000	0	Wind Normal	1647.296	0.000	-1647.296	-45.409	17.357	-1.283
		30	Wind 90	1609.523	804.762	-1393.888	-37.490	-7.792	-0.805
		45	Wind 45	1603.228	1133.653	-1133.653	-29.358	-18.070	-0.488
		60	Wind 60	1596.933	1382.984	-798.466	-18.883	-25.862	-0.140
		90	Wind 90	1609.523	1609.523	0.000	6.069	-32.941	0.561
		120	Wind Normal	1647.296	1426.600	823.648	31.808	-27.225	1.139
		135	Wind 45	1639.741	1159.472	1159.472	42.302	-18.877	1.307
		150	Wind 90	1609.523	804.762	1393.888	49.628	-7.792	1.366
		180	Wind 60	1596.933	0.000	1596.933	55.973	17.357	1.244
		210	Wind 90	1609.523	-804.762	1393.888	49.628	42.505	0.805
		225	Wind 45	1603.228	-1133.653	1133.653	41.495	52.783	0.488
		240	Wind Normal	1647.296	-1426.600	823.648	31.808	61.938	0.144
		270	Wind 90	1609.523	-1609.523	0.000	6.069	67.654	-0.561
		300	Wind 60	1596.933	-1382.984	-798.466	-18.883	60.575	-1.104
		315	Wind 45	1639.741	-1159.472	-1159.472	-30.165	53.590	-1.307
		330	Wind 90	1609.523	-804.762	-1393.888	-37.490	42.505	-1.366
T13	25.000-12.500	0	Wind Normal	1491.303	0.000	-1491.303	-21.094	17.738	-1.222
		30	Wind 90	1456.899	728.449	-1261.711	-16.790	4.080	-0.750
		45	Wind 45	1451.165	1026.128	-1026.128	-12.372	-1.502	-0.442
		60	Wind 60	1445.431	1251.780	-722.715	-6.683	-5.733	-0.105
		90	Wind 90	1456.899	1456.899	0.000	6.868	-9.579	0.566
		120	Wind Normal	1491.303	1291.506	745.651	20.848	-6.478	1.113
		135	Wind 45	1484.422	1049.645	1049.645	26.548	-1.943	1.268
		150	Wind 90	1456.899	728.449	1261.711	30.525	4.080	1.317
		180	Wind 60	1445.431	0.000	1445.431	33.969	17.738	1.184
		210	Wind 90	1456.899	-728.449	1261.711	30.525	31.396	0.750
		225	Wind 45	1451.165	-1026.128	1026.128	26.107	36.978	0.442
		240	Wind Normal	1491.303	-1291.506	745.651	20.848	41.954	0.109
		270	Wind 90	1456.899	-1456.899	0.000	6.868	45.055	-0.566
		300	Wind 60	1445.431	-1251.780	-722.715	-6.683	41.209	-1.079
		315	Wind 45	1484.422	-1049.645	-1049.645	-12.813	37.419	-1.268
		330	Wind 90	1456.899	-728.449	-1261.711	-16.790	31.396	-1.317
T14	12.500-0.000	0	Wind Normal	807.210	0.000	-807.210	-3.012	5.475	-0.492
		30	Wind 90	772.657	386.329	-669.141	-2.149	3.061	-0.299
		45	Wind 45	766.898	542.279	-542.279	-1.356	2.086	-0.178
		60	Wind 60	761.140	659.166	-380.570	-0.345	1.355	-0.046
		90	Wind 90	772.657	772.657	0.000	2.034	0.646	0.217
		120	Wind Normal	807.210	699.065	403.605	4.556	1.106	0.443
		135	Wind 45	800.300	565.897	565.897	5.570	1.938	0.504
		150	Wind 90	772.657	386.329	669.141	6.216	3.061	0.516
		180	Wind 60	761.140	0.000	761.140	6.791	5.475	0.464
		210	Wind 90	772.657	-386.329	669.141	6.216	7.890	0.299
		225	Wind 45	766.898	-542.279	542.279	5.423	8.864	0.178
		240	Wind Normal	807.210	-699.065	403.605	4.556	9.844	0.049
		270	Wind 90	772.657	-772.657	0.000	2.034	10.304	-0.217
		300	Wind 60	761.140	-659.166	-380.570	-0.345	9.595	-0.417
		315	Wind 45	800.300	-565.897	-565.897	-1.503	9.012	-0.504
		330	Wind 90	772.657	-386.329	-669.141	-2.149	7.890	-0.516

Mast Totals - With Ice

Wind Azimuth °	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	-23701.910	-2024.523	204.718	-16.445
30	11578.670	-20054.844	-1702.928	-823.987	-10.135
45	16310.534	-16310.534	-1370.551	-1244.674	-5.991
60	19897.640	-11487.908	-942.204	-1563.784	-1.473
90	23157.340	0.000	78.841	-1852.691	7.563
120	20526.457	11850.955	1130.523	-1616.849	14.925
135	16682.768	16682.768	1559.645	-1276.086	17.023
150	11578.670	20054.844	1860.609	-823.987	17.698
180	0.000	22975.816	2120.931	204.718	15.944
210	-11578.670	20054.844	1860.609	1233.422	10.135
225	-16310.534	16310.534	1528.233	1654.110	5.991
240	-20526.457	11850.955	1130.523	2026.285	1.520
270	-23157.340	0.000	78.841	2262.127	-7.563
300	-19897.640	-11487.908	-942.204	1973.220	-14.471
315	-16682.768	-16682.768	-1401.963	1685.522	-17.023
330	-11578.670	-20054.844	-1702.928	1233.422	-17.698

Mast Vectors - Service

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
T1	180.000-175.000	0	Wind Normal	236.717	0.000	-236.717	-41.943	0.112	-0.101
		30	Wind 90	215.523	107.761	-186.648	-33.056	-19.016	-0.050
		45	Wind 45	211.990	149.900	-149.900	-26.533	-26.495	-0.022
		60	Wind 60	208.458	180.530	-104.229	-18.427	-31.932	0.006
		90	Wind 90	215.523	215.523	0.000	0.074	-38.143	0.061
		120	Wind Normal	236.717	205.003	118.358	21.082	-36.276	0.109
		135	Wind 45	232.478	164.387	164.387	29.252	-29.067	0.117
		150	Wind 90	215.523	107.761	186.648	33.204	-19.016	0.110
		180	Wind 60	208.458	0.000	208.458	37.075	0.112	0.089
		210	Wind 90	215.523	-107.761	186.648	33.204	19.240	0.050
		225	Wind 45	211.990	-149.900	149.900	26.681	26.719	0.022
		240	Wind Normal	236.717	-205.003	118.358	21.082	36.500	-0.007
		270	Wind 90	215.523	-215.523	0.000	0.074	38.367	-0.061
		300	Wind 60	208.458	-180.530	-104.229	-18.427	32.156	-0.096
		315	Wind 45	232.478	-164.387	-164.387	-29.105	29.291	-0.117
		330	Wind 90	215.523	-107.761	-186.648	-33.056	19.240	-0.110
T2	175.000-166.667	0	Wind Normal	350.961	0.000	-350.961	-59.799	0.239	-0.208
		30	Wind 90	325.795	162.898	-282.147	-48.043	-27.589	-0.105
		45	Wind 45	321.601	227.406	-227.406	-38.692	-38.609	-0.047
		60	Wind 60	317.406	274.882	-158.703	-26.955	-46.720	0.012
		90	Wind 90	325.795	325.795	0.000	0.157	-55.417	0.125
		120	Wind Normal	350.961	303.941	175.481	30.135	-51.684	0.221
		135	Wind 45	345.928	244.608	244.608	41.944	-41.548	0.239
		150	Wind 90	325.795	162.898	282.147	48.357	-27.589	0.230
		180	Wind 60	317.406	0.000	317.406	54.380	0.239	0.188
		210	Wind 90	325.795	-162.898	282.147	48.357	28.068	0.105
		225	Wind 45	321.601	-227.406	227.406	39.005	39.088	0.047
		240	Wind Normal	350.961	-303.941	175.481	30.135	52.163	-0.013
		270	Wind 90	325.795	-325.795	0.000	0.157	55.896	-0.125
		300	Wind 60	317.406	-274.882	-158.703	-26.955	47.198	-0.200
		315	Wind 45	345.928	-244.608	-244.608	-41.631	42.027	-0.239
		330	Wind 90	325.795	-162.898	-282.147	-48.043	28.068	-0.230
T3	166.667-158.333	0	Wind Normal	388.916	0.000	-388.916	-62.976	0.331	-0.273
		30	Wind 90	362.945	181.472	-314.319	-50.854	-29.158	-0.136
		45	Wind 45	358.616	253.580	-253.580	-40.984	-40.876	-0.059

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		60	Wind 60	354.288	306.822	-177.144	-28.563	-49.528	0.019
		90	Wind 90	362.945	362.945	0.000	0.223	-58.648	0.169
		120	Wind Normal	388.916	336.811	194.458	31.822	-54.401	0.293
		135	Wind 45	383.722	271.332	271.332	44.314	-43.761	0.317
		150	Wind 90	362.945	181.472	314.319	51.300	-29.158	0.305
		180	Wind 60	354.288	0.000	354.288	57.795	0.331	0.248
		210	Wind 90	362.945	-181.472	314.319	51.300	29.820	0.136
		225	Wind 45	358.616	-253.580	253.580	41.430	41.538	0.059
		240	Wind Normal	388.916	-336.811	194.458	31.822	55.063	-0.021
		270	Wind 90	362.945	-362.945	0.000	0.223	59.309	-0.169
		300	Wind 60	354.288	-306.822	-177.144	-28.563	50.189	-0.267
		315	Wind 45	383.722	-271.332	-271.332	-43.868	44.422	-0.317
		330	Wind 90	362.945	-181.472	-314.319	-50.854	29.820	-0.305
T4	158.333-150.000	0	Wind Normal	426.838	0.000	-426.838	-65.493	0.445	-0.332
		30	Wind 90	400.094	200.047	-346.491	-53.106	-30.395	-0.162
		45	Wind 45	395.636	279.757	-279.757	-42.818	-42.684	-0.068
		60	Wind 60	391.179	338.771	-195.589	-29.842	-51.782	0.029
		90	Wind 90	400.094	400.094	0.000	0.312	-61.236	0.214
		120	Wind Normal	426.838	369.653	213.419	33.214	-56.543	0.363
		135	Wind 45	421.489	298.038	298.038	46.259	-45.502	0.391
		150	Wind 90	400.094	200.047	346.491	53.729	-30.395	0.376
		180	Wind 60	391.179	0.000	391.179	60.618	0.445	0.304
		210	Wind 90	400.094	-200.047	346.491	53.729	31.286	0.162
		225	Wind 45	395.636	-279.757	279.757	43.441	43.574	0.068
		240	Wind Normal	426.838	-369.653	213.419	33.214	57.433	-0.032
		270	Wind 90	400.094	-400.094	0.000	0.312	62.126	-0.214
		300	Wind 60	391.179	-338.771	-195.589	-29.842	52.672	-0.333
		315	Wind 45	421.489	-298.038	-298.038	-45.636	46.393	-0.391
		330	Wind 90	400.094	-200.047	-346.491	-53.106	31.286	-0.376
T5	150.000-125.000	0	Wind Normal	1903.652	0.000	-1903.652	-261.647	1.080	-0.830
		30	Wind 90	1785.108	892.554	-1545.948	-212.462	-121.646	-0.573
		45	Wind 45	1765.350	1248.291	-1248.291	-171.535	-170.560	-0.403
		60	Wind 60	1745.593	1511.728	-872.796	-119.904	-206.783	-0.209
		90	Wind 90	1785.108	1785.108	0.000	0.106	-244.373	0.202
		120	Wind Normal	1903.652	1648.611	951.826	130.982	-225.604	0.602
		135	Wind 45	1879.943	1329.321	1329.321	182.887	-181.702	0.730
		150	Wind 90	1785.108	892.554	1545.948	212.673	-121.646	0.775
		180	Wind 60	1745.593	0.000	1745.593	240.125	1.080	0.761
		210	Wind 90	1785.108	-892.554	1545.948	212.673	123.806	0.573
		225	Wind 45	1765.350	-1248.291	1248.291	171.746	172.720	0.403
		240	Wind Normal	1903.652	-1648.611	951.826	130.982	227.764	0.228
		270	Wind 90	1785.108	-1785.108	0.000	0.106	246.532	-0.202
		300	Wind 60	1745.593	-1511.728	-872.796	-119.904	208.942	-0.552
		315	Wind 45	1879.943	-1329.321	-1329.321	-182.676	183.861	-0.730
		330	Wind 90	1785.108	-892.554	-1545.948	-212.462	123.806	-0.775
T6	125.000-100.000	0	Wind Normal	2279.402	0.000	-2279.402	-256.739	0.722	-0.633
		30	Wind 90	2143.314	1071.657	-1856.164	-209.124	-119.840	-0.531
		45	Wind 45	2120.632	1499.514	-1499.514	-169.001	-167.974	-0.439
		60	Wind 60	2097.951	1816.879	-1048.975	-118.316	-203.677	-0.318
		90	Wind 90	2143.314	2143.314	0.000	-0.306	-240.401	-0.032
		120	Wind Normal	2279.402	1974.020	1139.701	127.910	-221.356	0.287
		135	Wind 45	2252.184	1592.535	1592.535	178.854	-178.438	0.419
		150	Wind 90	2143.314	1071.657	1856.164	208.512	-119.840	0.500
		180	Wind 60	2097.951	0.000	2097.951	235.713	0.722	0.583
		210	Wind 90	2143.314	-1071.657	1856.164	208.512	121.283	0.531
		225	Wind 45	2120.632	-1499.514	1499.514	168.389	169.417	0.439
		240	Wind Normal	2279.402	-1974.020	1139.701	127.910	222.799	0.346
		270	Wind 90	2143.314	-2143.314	0.000	-0.306	241.845	0.032
		300	Wind 60	2097.951	-1816.879	-1048.975	-118.316	205.121	-0.264
		315	Wind 45	2252.184	-1592.535	-1592.535	-179.466	179.882	-0.419
		330	Wind 90	2143.314	-1071.657	-1856.164	-209.124	121.283	-0.500

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
T7	100.000-91.667	0	Wind Normal	760.812	0.000	-760.812	-73.006	0.273	-0.233
		30	Wind 90	713.919	356.960	-618.272	-59.346	-33.936	-0.190
		45	Wind 45	706.104	499.291	-499.291	-47.944	-47.576	-0.154
		60	Wind 60	698.288	604.735	-349.144	-33.554	-57.681	-0.108
		90	Wind 90	713.919	713.919	0.000	-0.095	-68.144	-0.002
		120	Wind Normal	760.812	658.883	380.406	36.361	-62.870	0.115
		135	Wind 45	751.434	531.344	531.344	50.826	-50.648	0.161
		150	Wind 90	713.919	356.960	618.272	59.156	-33.936	0.188
		180	Wind 60	698.288	0.000	698.288	66.824	0.273	0.214
		210	Wind 90	713.919	-356.960	618.272	59.156	34.482	0.190
		225	Wind 45	706.104	-499.291	499.291	47.754	48.122	0.154
		240	Wind Normal	760.812	-658.883	380.406	36.361	63.416	0.118
		270	Wind 90	713.919	-713.919	0.000	-0.095	68.690	0.002
		300	Wind 60	698.288	-604.735	-349.144	-33.554	58.227	-0.105
		315	Wind 45	751.434	-531.344	-531.344	-51.015	51.193	-0.161
		330	Wind 90	713.919	-356.960	-618.272	-59.346	34.482	-0.188
T8	91.667-83.333	0	Wind Normal	852.766	0.000	-852.766	-74.715	0.282	-0.267
		30	Wind 90	779.541	389.771	-675.103	-59.170	-33.823	-0.212
		45	Wind 45	767.337	542.589	-542.589	-47.575	-47.195	-0.171
		60	Wind 60	755.133	653.965	-377.567	-33.135	-56.940	-0.120
		90	Wind 90	779.541	779.541	0.000	-0.098	-67.928	-0.002
		120	Wind Normal	852.766	738.517	426.383	37.210	-64.339	0.132
		135	Wind 45	838.121	592.641	592.641	51.758	-51.574	0.184
		150	Wind 90	779.541	389.771	675.103	58.973	-33.823	0.210
		180	Wind 60	755.133	0.000	755.133	65.976	0.282	0.236
		210	Wind 90	779.541	-389.771	675.103	58.973	34.387	0.212
		225	Wind 45	767.337	-542.589	542.589	47.378	47.758	0.171
		240	Wind Normal	852.766	-738.517	426.383	37.210	64.902	0.135
		270	Wind 90	779.541	-779.541	0.000	-0.098	68.492	0.002
		300	Wind 60	755.133	-653.965	-377.567	-33.135	57.504	-0.117
		315	Wind 45	838.121	-592.641	-592.641	-51.954	52.138	-0.184
		330	Wind 90	779.541	-389.771	-675.103	-59.170	34.387	-0.210
T9	83.333-75.000	0	Wind Normal	846.384	0.000	-846.384	-67.103	0.294	-0.274
		30	Wind 90	773.134	386.567	-669.554	-53.104	-30.309	-0.217
		45	Wind 45	760.926	538.056	-538.056	-42.694	-42.302	-0.174
		60	Wind 60	748.717	648.408	-374.359	-29.735	-51.038	-0.121
		90	Wind 90	773.134	773.134	0.000	-0.098	-60.912	0.001
		120	Wind Normal	846.384	732.990	423.192	33.405	-57.734	0.138
		135	Wind 45	831.734	588.125	588.125	46.462	-46.266	0.191
		150	Wind 90	773.134	386.567	669.554	52.908	-30.309	0.217
		180	Wind 60	748.717	0.000	748.717	59.175	0.294	0.243
		210	Wind 90	773.134	-386.567	669.554	52.908	30.897	0.217
		225	Wind 45	760.926	-538.056	538.056	42.498	42.890	0.174
		240	Wind Normal	846.384	-732.990	423.192	33.405	58.323	0.137
		270	Wind 90	773.134	-773.134	0.000	-0.098	61.501	-0.001
		300	Wind 60	748.717	-648.408	-374.359	-29.735	51.627	-0.122
		315	Wind 45	831.734	-588.125	-588.125	-46.658	46.854	-0.191
		330	Wind 90	773.134	-386.567	-669.554	-53.104	30.897	-0.217
T10	75.000-50.000	0	Wind Normal	2189.364	0.000	-2189.364	-137.042	1.055	-0.798
		30	Wind 90	2056.812	1028.406	-1781.251	-111.535	-63.221	-0.618
		45	Wind 45	2034.720	1438.764	-1438.764	-90.130	-88.868	-0.480
		60	Wind 60	2012.628	1742.987	-1006.314	-63.102	-107.882	-0.313
		90	Wind 90	2056.812	2056.812	0.000	-0.207	-127.496	0.063
		120	Wind Normal	2189.364	1896.044	1094.682	68.211	-117.448	0.457
		135	Wind 45	2162.853	1529.368	1529.368	95.378	-94.531	0.605
		150	Wind 90	2056.812	1028.406	1781.251	111.121	-63.221	0.681
		180	Wind 60	2012.628	0.000	2012.628	125.582	1.055	0.734
		210	Wind 90	2056.812	-1028.406	1781.251	111.121	65.330	0.618
		225	Wind 45	2034.720	-1438.764	1438.764	89.716	90.977	0.480
		240	Wind Normal	2189.364	-1896.044	1094.682	68.211	119.557	0.341
		270	Wind 90	2056.812	-2056.812	0.000	-0.207	129.605	-0.063

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		300	Wind 60	2012.628	-1742.987	-1006.314	-63.102	109.991	-0.420
		315	Wind 45	2162.853	-1529.368	-1529.368	-95.793	96.640	-0.605
		330	Wind 90	2056.812	-1028.406	-1781.251	-111.535	65.330	-0.681
T11	50.000-37.500	0	Wind Normal	1038.837	0.000	-1038.837	-45.560	0.562	-0.402
		30	Wind 90	973.869	486.935	-843.396	-37.009	-20.742	-0.310
		45	Wind 45	963.041	680.973	-680.973	-29.903	-29.231	-0.241
		60	Wind 60	952.214	824.641	-476.107	-20.940	-35.516	-0.157
		90	Wind 90	973.869	973.869	0.000	-0.111	-42.045	0.032
		120	Wind Normal	1038.837	899.659	519.418	22.614	-38.798	0.231
		135	Wind 45	1025.843	725.381	725.381	31.625	-31.174	0.305
		150	Wind 90	973.869	486.935	843.396	36.788	-20.742	0.342
		180	Wind 60	952.214	0.000	952.214	41.549	0.562	0.368
		210	Wind 90	973.869	-486.935	843.396	36.788	21.865	0.310
		225	Wind 45	963.041	-680.973	680.973	29.682	30.354	0.241
		240	Wind Normal	1038.837	-899.659	519.418	22.614	39.922	0.171
		270	Wind 90	973.869	-973.869	0.000	-0.111	43.169	-0.032
		300	Wind 60	952.214	-824.641	-476.107	-20.940	36.640	-0.212
		315	Wind 45	1025.843	-725.381	-725.381	-31.846	32.297	-0.305
		330	Wind 90	973.869	-486.935	-843.396	-37.009	21.865	-0.342
T12	37.500-25.000	0	Wind Normal	984.828	0.000	-984.828	-30.883	0.593	-0.399
		30	Wind 90	922.036	461.018	-798.507	-25.060	-13.814	-0.305
		45	Wind 45	911.571	644.578	-644.578	-20.250	-19.550	-0.235
		60	Wind 60	901.106	780.381	-450.553	-14.186	-23.794	-0.151
		90	Wind 90	922.036	922.036	0.000	-0.107	-28.221	0.037
		120	Wind Normal	984.828	852.886	492.414	15.281	-26.060	0.233
		135	Wind 45	972.270	687.498	687.498	21.378	-20.891	0.306
		150	Wind 90	922.036	461.018	798.507	24.847	-13.814	0.342
		180	Wind 60	901.106	0.000	901.106	28.053	0.593	0.365
		210	Wind 90	922.036	-461.018	798.507	24.847	15.000	0.305
		225	Wind 45	911.571	-644.578	644.578	20.036	20.736	0.235
		240	Wind Normal	984.828	-852.886	492.414	15.281	27.246	0.165
		270	Wind 90	922.036	-922.036	0.000	-0.107	29.407	-0.037
		300	Wind 60	901.106	-780.381	-450.553	-14.186	24.980	-0.214
		315	Wind 45	972.270	-687.498	-687.498	-21.591	22.077	-0.306
		330	Wind 90	922.036	-461.018	-798.507	-25.060	15.000	-0.342
T13	25.000-12.500	0	Wind Normal	900.226	0.000	-900.226	-16.939	0.665	-0.398
		30	Wind 90	843.521	421.760	-730.510	-13.757	-7.243	-0.294
		45	Wind 45	834.070	589.776	-589.776	-11.118	-10.393	-0.220
		60	Wind 60	824.619	714.141	-412.309	-7.791	-12.725	-0.132
		90	Wind 90	843.521	843.521	0.000	-0.060	-15.151	0.059
		120	Wind Normal	900.226	779.619	450.113	8.380	-13.952	0.254
		135	Wind 45	888.885	628.537	628.537	11.725	-11.120	0.322
		150	Wind 90	843.521	421.760	730.510	13.637	-7.243	0.353
		180	Wind 60	824.619	0.000	824.619	15.402	0.665	0.365
		210	Wind 90	843.521	-421.760	730.510	13.637	8.573	0.294
		225	Wind 45	834.070	-589.776	589.776	10.999	11.724	0.220
		240	Wind Normal	900.226	-779.619	450.113	8.380	15.283	0.145
		270	Wind 90	843.521	-843.521	0.000	-0.060	16.481	-0.059
		300	Wind 60	824.619	-714.141	-412.309	-7.791	14.056	-0.232
		315	Wind 45	888.885	-628.537	-628.537	-11.845	12.450	-0.322
		330	Wind 90	843.521	-421.760	-730.510	-13.757	8.573	-0.353
T14	12.500-0.000	0	Wind Normal	619.499	0.000	-619.499	-3.886	0.254	-0.190
		30	Wind 90	563.405	281.702	-487.923	-3.064	-1.507	-0.134
		45	Wind 45	554.056	391.776	-391.776	-2.463	-2.195	-0.099
		60	Wind 60	544.707	471.730	-272.353	-1.716	-2.695	-0.058
		90	Wind 90	563.405	563.405	0.000	-0.014	-3.268	0.031
		120	Wind Normal	619.499	536.502	309.750	1.922	-3.100	0.124
		135	Wind 45	608.280	430.119	430.119	2.674	-2.435	0.155
		150	Wind 90	563.405	281.702	487.923	3.035	-1.507	0.165
		180	Wind 60	544.707	0.000	544.707	3.390	0.254	0.167
		210	Wind 90	563.405	-281.702	487.923	3.035	2.014	0.134

Section No.	Section Elevation ft	Wind Azimuth °	Directionality	F lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		225	Wind 45	554.056	-391.776	391.776	2.434	2.702	0.099
		240	Wind Normal	619.499	-536.502	309.750	1.922	3.607	0.066
		270	Wind 90	563.405	-563.405	0.000	-0.014	3.775	-0.031
		300	Wind 60	544.707	-471.730	-272.353	-1.716	3.202	-0.109
		315	Wind 45	608.280	-430.119	-430.119	-2.702	2.942	-0.155
		330	Wind 90	563.405	-281.702	-487.923	-3.064	2.014	-0.165

Mast Totals - Service

Wind Azimuth °	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	-13779.202	-1197.731	6.906	-5.338
30	6429.507	-11136.234	-968.691	-552.238	-3.836
45	8984.251	-8984.251	-781.638	-774.507	-2.812
60	10870.598	-6276.143	-546.166	-938.692	-1.622
90	12859.015	0.000	-0.225	-1111.382	0.959
120	11933.139	6889.601	598.528	-1030.164	3.559
135	9613.233	9613.233	835.337	-828.655	4.442
150	6429.507	11136.234	968.242	-552.238	4.795
180	0.000	12552.286	1091.658	6.906	4.865
210	-6429.507	11136.234	968.242	566.051	3.836
225	-8984.251	8984.251	781.189	788.320	2.812
240	-11933.139	6889.601	598.528	1043.977	1.779
270	-12859.015	0.000	-0.225	1125.195	-0.959
300	-10870.598	-6276.143	-546.166	952.505	-3.243
315	-9613.233	-9613.233	-835.786	842.468	-4.442
330	-6429.507	-11136.234	-968.691	566.051	-4.795

Discrete Appurtenance Pressures - No Ice $G_H = 0.850$

Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z ksf	C_AA_C Front ft^2	C_AA_C Side ft^2
2' Yagi	240.0000	30.950	-13.632	7.870	15.000	0.850	0.023	2.083	2.083
2" Dia 8' Omni	240.0000	5.000	-13.152	7.593	27.000	0.961	0.027	2.000	2.000
2' Standoff T-Arm (5' face width)	240.0000	91.000	-11.700	6.755	20.000	0.902	0.025	3.500	3.500
(Inverted) 1" Dia Omni	240.0000	5.000	-15.750	9.093	25.000	0.945	0.026	2.000	2.000
1" Dia Omni	240.0000	5.000	-15.750	9.093	29.000	0.975	0.027	2.000	2.000
Rohn 6' Side-Arm(1)	0.0000	140.000	0.000	0.000	26.000	0.953	0.026	10.600	10.600
GPS	0.0000	10.000	0.000	-11.470	75.000	1.191	0.033	1.000	1.000
3' Yagi	240.0000	30.950	-10.326	5.962	75.000	1.191	0.033	2.083	2.083
20' 4-Bay Dipole	240.0000	55.000	-9.460	5.462	77.000	1.198	0.033	4.000	4.000
1' Side Arm	240.0000	55.000	-8.053	4.649	122.000	1.320	0.036	2.500	2.500
3'4"x4" Pipe Mount	0.0000	36.000	0.000	0.000	109.250	1.289	0.036	0.862	0.862
12' Dipole	240.0000	40.000	-8.606	4.969	119.000	1.313	0.036	3.169	3.169
1' Side Arm	240.0000	55.000	-8.173	4.719	119.000	1.313	0.036	2.500	2.500
1'x1' Panel Antenna	120.0000	10.000	8.173	4.719	119.000	1.313	0.036	1.200	0.131
1' Side Arm	120.0000	55.000	8.173	4.719	119.000	1.313	0.036	2.500	2.500
2' Sidearm	0.0000	87.000	0.000	-9.660	125.000	1.326	0.037	3.900	3.900
2' Sidearm	120.0000	87.000	8.366	4.830	125.000	1.326	0.037	3.900	3.900

tnxTower	Job	Page
	MODification - 180' Lattice Tower (CSP #36)	62 of 204
AECOM 500 Enterprise Drive, Suite 3B Rocky Hill, CT Phone: 860-529-8882 FAX: 860-529-3991	Project Westbrook, Connecticut	Date 14:47:48 09/29/17
	Client Site Acquisitions Inc / SAI-100	Designed by MCD

Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z ksf	C_AA_C Front ft^2	C_AA_C Side ft^2
2' Sidearm	240.0000	87.000	-8.366	4.830	125.000	1.326	0.037	3.900	3.900
Ericsson TMA Unit	0.0000	38.946	0.000	-9.660	125.000	1.326	0.037	1.182	1.183
Ericsson TMA Unit	120.0000	38.946	8.366	4.830	125.000	1.326	0.037	1.182	1.183
Ericsson TMA Unit	240.0000	38.946	-8.366	4.830	125.000	1.326	0.037	1.182	1.183
DBXNH-6565B-A2M	0.0000	46.300	0.000	-10.660	125.000	1.326	0.037	8.173	5.405
DBXNH-6565B-A2M	120.0000	46.300	9.232	5.330	125.000	1.326	0.037	8.173	5.405
DBXNH-6565B-A2M	240.0000	46.300	-9.232	5.330	125.000	1.326	0.037	8.173	5.405
DB950F65E-M	0.0000	30.000	0.000	-11.698	135.000	1.348	0.037	11.750	8.472
DB950F85E-M	120.0000	21.000	10.131	5.849	135.000	1.348	0.037	5.069	8.375
DB950F40T2E-M	240.0000	40.000	-10.131	5.849	135.000	1.348	0.037	12.204	9.250
Pirod 12' PCS T-Frame (1) 104569	0.0000	260.000	0.000	0.000	135.000	1.348	0.037	9.800	9.800
Pirod 12' PCS T-Frame (1) 104569	0.0000	260.000	0.000	0.000	135.000	1.348	0.037	9.800	9.800
Pirod 12' PCS T-Frame (1) 104569	0.0000	260.000	0.000	0.000	135.000	1.348	0.037	9.800	9.800
13' Sector Mount (1)	0.0000	220.000	0.000	-11.829	143.000	1.365	0.038	12.000	12.000
13' Sector Mount (1)	120.0000	220.000	10.244	5.914	143.000	1.365	0.038	12.000	12.000
13' Sector Mount (1)	240.0000	220.000	-10.244	5.914	143.000	1.365	0.038	12.000	12.000
7770 w mount pipe	0.0000	104.000	-6.000	-11.829	143.000	1.365	0.038	11.764	7.959
7770 w mount pipe	120.0000	104.000	13.244	0.718	143.000	1.365	0.038	11.764	7.959
7770 w mount pipe	240.0000	104.000	-7.244	11.111	143.000	1.365	0.038	11.764	7.959
TMA (shielded)	0.0000	14.600	0.000	-11.829	143.000	1.365	0.038	0.000	0.000
TMA (shielded)	120.0000	14.600	10.244	5.914	143.000	1.365	0.038	0.000	0.000
TMA (shielded)	240.0000	14.600	-10.244	5.914	143.000	1.365	0.038	0.000	0.000
RRUS-11	0.0000	50.000	0.000	0.000	143.000	1.365	0.038	2.566	1.068
RRUS-11	0.0000	50.000	0.000	0.000	143.000	1.365	0.038	2.566	1.068
RRUS-11	0.0000	50.000	0.000	0.000	143.000	1.365	0.038	2.566	1.068
AM-X-CD-14-65-00T-RET	0.0000	4.000	-2.000	-11.829	143.000	1.365	0.038	5.507	2.828
AM-X-CD-14-65-00T-RET	120.0000	4.000	11.244	4.182	143.000	1.365	0.038	5.507	2.828
AM-X-CD-14-65-00T-RET	240.0000	4.000	-9.244	7.646	143.000	1.365	0.038	5.507	2.828
Raycap Surge Suppressor	0.0000	20.000	0.000	-7.829	143.000	1.365	0.038	1.266	1.266
RRUS-12	0.0000	58.000	0.000	0.000	143.000	1.365	0.038	3.145	1.285
RRUS-12	0.0000	58.000	0.000	0.000	143.000	1.365	0.038	3.145	1.285
RRUS-12	0.0000	58.000	0.000	0.000	143.000	1.365	0.038	3.145	1.285
2" Dia 10' Omni	120.0000	10.000	9.378	5.414	143.000	1.365	0.038	2.000	2.000
Pirod 4' Side Mount Standoff (1)	0.0000	50.000	0.000	0.000	143.000	1.365	0.038	2.720	2.720
3" Dia 20' Omni	120.0000	55.000	7.246	4.183	153.000	1.384	0.038	4.000	4.000
1' Side Arm	120.0000	55.000	6.813	3.933	153.000	1.384	0.038	2.500	2.500
1 Bay Dipole ANT400D	0.0000	13.300	0.000	-7.459	151.000	1.380	0.038	1.879	0.518
10'6"x4" Pipe Mount	0.0000	114.000	0.000	0.000	151.000	1.380	0.038	3.048	3.048
1.5" Dia 16' Omni	120.0000	55.000	6.380	3.683	155.000	1.388	0.038	4.000	4.000
2" Dia 10' Omni	240.0000	10.000	-6.220	3.591	157.000	1.392	0.038	2.000	2.000
2' Sidearm	240.0000	87.000	-6.220	3.591	157.000	1.392	0.038	3.900	3.900
10'x6" Dipole Antenna	240.0000	46.000	-6.653	3.841	157.000	1.392	0.038	9.167	1.667
1' Side Arm	240.0000	55.000	-6.653	3.841	157.000	1.392	0.038	2.500	2.500
3'4"x4" Pipe Mount	0.0000	36.000	0.000	0.000	157.000	1.392	0.038	0.846	0.846
(Inverted) 3" Dia 20' Omni	120.0000	55.000	7.832	4.522	160.000	1.397	0.039	4.000	4.000
2' Sidearm	120.0000	87.000	6.100	3.522	160.000	1.397	0.039	3.900	3.900
(Inverted) 3" Dia 20' Omni	120.0000	55.000	7.832	4.522	160.000	1.397	0.039	4.000	4.000
6' Side-Arm(1)	-45.0000	140.000	0.000	-6.767	166.000	1.408	0.039	10.600	10.600
6' Side-Arm(1)	165.0000	140.000	5.860	3.383	166.000	1.408	0.039	10.600	10.600
(inverted) 10' 8 Bay Di-Pole	15.0000	55.000	6.394	-3.692	166.000	1.408	0.039	4.000	4.000
(inverted) 2" Dia 10'	60.0000	10.000	6.434	-3.715	164.000	1.405	0.039	2.000	2.000

Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z ksf	C_AA_C Front ft^2	C_AA_C Side ft^2
Omni									
6' Side-Arm(1)	75.0000	140.000	5.940	3.429	164.000	1.405	0.039	10.600	10.600
6' Side-Arm(1)	285.0000	140.000	-5.940	3.429	164.000	1.405	0.039	10.600	10.600
3'4"x4" Pipe Mount	0.0000	36.000	0.000	0.000	169.000	1.413	0.039	0.843	0.843
3'4"x4" Pipe Mount	0.0000	36.000	0.000	0.000	171.000	1.417	0.039	0.842	0.842
3'4"x4" Pipe Mount	0.0000	36.000	0.000	0.000	176.000	1.426	0.039	0.841	0.841
432E-83I-01T TTA Unit	300.0000	25.000	-3.123	-1.803	178.000	1.429	0.039	2.850	0.973
3" Dia 12' Omni	300.0000	10.000	-3.083	-1.780	180.000	1.432	0.040	2.000	2.000
3" Dia 12' Omni	60.0000	10.000	5.248	-3.030	180.000	1.432	0.040	2.000	2.000
432E-83I-01T TTA Unit	120.0000	25.000	10.496	6.060	180.000	1.432	0.040	2.850	0.973
1 Bay Dipole ANT400D	120.0000	13.300	6.166	3.560	180.000	1.432	0.040	1.879	0.518
2" Dia 10' Omni	120.0000	10.000	5.692	3.287	181.000	1.434	0.040	2.000	2.000
2" Dia 10' Omni	240.0000	10.000	-5.692	3.287	181.000	1.434	0.040	2.000	2.000
10' - 2 Bay Dipole	240.0000	10.000	-5.692	3.287	181.000	1.434	0.040	1.408	1.408
20' 4-Bay Dipole	0.0000	55.000	0.000	-6.573	181.000	1.434	0.040	4.000	4.000
Lightning Rod 2"x15'	0.0000	80.000	0.000	0.000	181.000	1.434	0.040	3.000	3.000
3" Dia 20' Omni	0.0000	55.000	0.000	-12.004	182.500	1.436	0.040	4.000	4.000
1" Dia 8' Omni	0.0000	5.000	0.000	-8.027	182.000	1.436	0.040	2.000	2.000
6' Side-Arm(1)	-45.0000	140.000	0.000	-6.004	182.500	1.436	0.040	10.600	10.600
6' Side-Arm(1)	165.0000	140.000	5.199	3.002	182.500	1.436	0.040	10.600	10.600
	Sum Weight:	5488.038							

Discrete Appurtenance Vectors - No Ice

2' Yagi - Elevation 15 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	20.757	35.952	0.000	-41.513	-0.379	0.422	-0.566
30	35.952	20.757	20.757	-35.952	-0.296	0.111	-0.327
45	40.099	10.744	29.354	-29.354	-0.197	-0.018	-0.169
60	41.513	0.000	35.952	-20.757	-0.068	-0.117	0.000
90	35.952	20.757	41.513	0.000	0.244	-0.201	0.327
120	20.757	35.952	35.952	20.757	0.555	-0.117	0.566
135	10.744	40.099	29.354	29.354	0.684	-0.018	0.631
150	0.000	41.513	20.757	35.952	0.783	0.111	0.653
180	20.757	35.952	0.000	41.513	0.866	0.422	0.566
210	35.952	20.757	-20.757	35.952	0.783	0.733	0.327
225	40.099	10.744	-29.354	29.354	0.684	0.862	0.169
240	41.513	0.000	-35.952	20.757	0.555	0.961	0.000
270	35.952	20.757	-41.513	0.000	0.244	1.045	-0.327
300	20.757	35.952	-35.952	-20.757	-0.068	0.961	-0.566
315	10.744	40.099	-29.354	-29.354	-0.197	0.862	-0.631
330	0.000	41.513	-20.757	-35.952	-0.296	0.733	-0.653

2" Dia 8' Omni - Elevation 27 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	22.529	39.022	0.000	-45.058	-1.179	0.066	-0.593
30	39.022	22.529	22.529	-39.022	-1.016	-0.543	-0.342
45	43.523	11.662	31.861	-31.861	-0.822	-0.794	-0.177
60	45.058	0.000	39.022	-22.529	-0.570	-0.988	0.000
90	39.022	22.529	45.058	0.000	0.038	-1.151	0.342
120	22.529	39.022	39.022	22.529	0.646	-0.988	0.593

2" Dia 8' Omni - Elevation 27 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	11.662	43.523	31.861	31.861	0.898	-0.794	0.661
150	0.000	45.058	22.529	39.022	1.092	-0.543	0.684
180	22.529	39.022	0.000	45.058	1.255	0.066	0.593
210	39.022	22.529	-22.529	39.022	1.092	0.674	0.342
225	43.523	11.662	-31.861	31.861	0.898	0.926	0.177
240	45.058	0.000	-39.022	22.529	0.646	1.119	0.000
270	39.022	22.529	-45.058	0.000	0.038	1.282	-0.342
300	22.529	39.022	-39.022	-22.529	-0.570	1.119	-0.593
315	11.662	43.523	-31.861	-31.861	-0.822	0.926	-0.661
330	0.000	45.058	-22.529	-39.022	-1.016	0.674	-0.684

2' Standoff T-Arm (5' face width) - Elevation 20 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	37.012	64.107	0.000	-74.024	-0.866	1.065	-0.866
30	64.107	37.012	37.012	-64.107	-0.667	0.324	-0.500
45	71.502	19.159	52.343	-52.343	-0.432	0.018	-0.259
60	74.024	0.000	64.107	-37.012	-0.126	-0.217	0.000
90	64.107	37.012	74.024	0.000	0.615	-0.416	0.500
120	37.012	64.107	64.107	37.012	1.355	-0.217	0.866
135	19.159	71.502	52.343	52.343	1.662	0.018	0.966
150	0.000	74.024	37.012	64.107	1.897	0.324	1.000
180	37.012	64.107	0.000	74.024	2.095	1.065	0.866
210	64.107	37.012	-37.012	64.107	1.897	1.805	0.500
225	71.502	19.159	-52.343	52.343	1.662	2.112	0.259
240	74.024	0.000	-64.107	37.012	1.355	2.347	0.000
270	64.107	37.012	-74.024	0.000	0.615	2.545	-0.500
300	37.012	64.107	-64.107	-37.012	-0.126	2.347	-0.866
315	19.159	71.502	-52.343	-52.343	-0.432	2.112	-0.966
330	0.000	74.024	-37.012	-64.107	-0.667	1.805	-1.000

(Inverted) 1" Dia Omni - Elevation 25 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	22.167	38.394	0.000	-44.334	-1.063	0.079	-0.698
30	38.394	22.167	22.167	-38.394	-0.914	-0.475	-0.403
45	42.823	11.475	31.349	-31.349	-0.738	-0.705	-0.209
60	44.334	0.000	38.394	-22.167	-0.509	-0.881	0.000
90	38.394	22.167	44.334	0.000	0.045	-1.030	0.403
120	22.167	38.394	38.394	22.167	0.600	-0.881	0.698
135	11.475	42.823	31.349	31.349	0.829	-0.705	0.779
150	0.000	44.334	22.167	38.394	1.005	-0.475	0.806
180	22.167	38.394	0.000	44.334	1.154	0.079	0.698
210	38.394	22.167	-22.167	38.394	1.005	0.633	0.403
225	42.823	11.475	-31.349	31.349	0.829	0.862	0.209
240	44.334	0.000	-38.394	22.167	0.600	1.039	0.000
270	38.394	22.167	-44.334	0.000	0.045	1.187	-0.403
300	22.167	38.394	-38.394	-22.167	-0.509	1.039	-0.698
315	11.475	42.823	-31.349	-31.349	-0.738	0.862	-0.779
330	0.000	44.334	-22.167	-38.394	-0.914	0.633	-0.806

1" Dia Omni - Elevation 29 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	22.871	39.613	0.000	-45.741	-1.281	0.079	-0.720
30	39.613	22.871	22.871	-39.613	-1.103	-0.584	-0.416
45	44.183	11.839	32.344	-32.344	-0.893	-0.859	-0.215
60	45.741	0.000	39.613	-22.871	-0.618	-1.070	0.000
90	39.613	22.871	45.741	0.000	0.045	-1.248	0.416
120	22.871	39.613	39.613	22.871	0.709	-1.070	0.720
135	11.839	44.183	32.344	32.344	0.983	-0.859	0.804
150	0.000	45.741	22.871	39.613	1.194	-0.584	0.832
180	22.871	39.613	0.000	45.741	1.372	0.079	0.720
210	39.613	22.871	-22.871	39.613	1.194	0.742	0.416
225	44.183	11.839	-32.344	32.344	0.983	1.017	0.215
240	45.741	0.000	-39.613	22.871	0.709	1.228	0.000
270	39.613	22.871	-45.741	0.000	0.045	1.405	-0.416
300	22.871	39.613	-39.613	-22.871	-0.618	1.228	-0.720
315	11.839	44.183	-32.344	-32.344	-0.893	1.017	-0.804
330	0.000	45.741	-22.871	-39.613	-1.103	0.742	-0.832

Rohn 6' Side-Arm(1) - Elevation 26 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	236.919	0.000	0.000	-236.919	-6.160	0.000	0.000
30	236.919	0.000	118.459	-205.178	-5.335	-3.080	0.000
45	236.919	0.000	167.527	-167.527	-4.356	-4.356	0.000
60	236.919	0.000	205.178	-118.459	-3.080	-5.335	0.000
90	236.919	0.000	236.919	0.000	0.000	-6.160	0.000
120	236.919	0.000	205.178	118.459	3.080	-5.335	0.000
135	236.919	0.000	167.527	167.527	4.356	-4.356	0.000
150	236.919	0.000	118.459	205.178	5.335	-3.080	0.000
180	236.919	0.000	0.000	236.919	6.160	0.000	0.000
210	236.919	0.000	-118.459	205.178	5.335	3.080	0.000
225	236.919	0.000	-167.527	167.527	4.356	4.356	0.000
240	236.919	0.000	-205.178	118.459	3.080	5.335	0.000
270	236.919	0.000	-236.919	0.000	0.000	6.160	0.000
300	236.919	0.000	-205.178	-118.459	-3.080	5.335	0.000
315	236.919	0.000	-167.527	-167.527	-4.356	4.356	0.000
330	236.919	0.000	-118.459	-205.178	-5.335	3.080	0.000

GPS - Elevation 75 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	27.935	0.000	0.000	-27.935	-2.210	0.000	0.000
30	24.193	13.968	13.968	-24.193	-1.929	-1.048	-0.160
45	19.753	19.753	19.753	-19.753	-1.596	-1.481	-0.227
60	13.968	24.193	24.193	-13.968	-1.162	-1.814	-0.277
90	0.000	27.935	27.935	0.000	-0.115	-2.095	-0.320
120	13.968	24.193	24.193	13.968	0.933	-1.814	-0.277
135	19.753	19.753	19.753	19.753	1.367	-1.481	-0.227
150	24.193	13.968	13.968	24.193	1.700	-1.048	-0.160
180	27.935	0.000	0.000	27.935	1.980	0.000	0.000
210	24.193	13.968	-13.968	24.193	1.700	1.048	0.160
225	19.753	19.753	-19.753	19.753	1.367	1.481	0.227
240	13.968	24.193	-24.193	13.968	0.933	1.814	0.277
270	0.000	27.935	-27.935	0.000	-0.115	2.095	0.320
300	13.968	24.193	-24.193	-13.968	-1.162	1.814	0.277
315	19.753	19.753	-19.753	-19.753	-1.596	1.481	0.227

GPS - Elevation 75 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	24.193	13.968	-13.968	-24.193	-1.929	1.048	0.160

3' Yagi - Elevation 75 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	29.090	50.385	0.000	-58.179	-4.179	0.320	-0.601
30	50.385	29.090	29.090	-50.385	-3.594	-1.862	-0.347
45	56.197	15.058	41.139	-41.139	-2.901	-2.766	-0.180
60	58.179	0.000	50.385	-29.090	-1.997	-3.459	0.000
90	50.385	29.090	58.179	0.000	0.185	-4.044	0.347
120	29.090	50.385	50.385	29.090	2.366	-3.459	0.601
135	15.058	56.197	41.139	41.139	3.270	-2.766	0.670
150	0.000	58.179	29.090	50.385	3.963	-1.862	0.694
180	29.090	50.385	0.000	58.179	4.548	0.320	0.601
210	50.385	29.090	-29.090	50.385	3.963	2.501	0.347
225	56.197	15.058	-41.139	41.139	3.270	3.405	0.180
240	58.179	0.000	-50.385	29.090	2.366	4.098	0.000
270	50.385	29.090	-58.179	0.000	0.185	4.683	-0.347
300	29.090	50.385	-50.385	-29.090	-1.997	4.098	-0.601
315	15.058	56.197	-41.139	-41.139	-2.901	3.405	-0.670
330	0.000	58.179	-29.090	-50.385	-3.594	2.501	-0.694

20' 4-Bay Dipole - Elevation 77 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	56.181	97.309	0.000	-112.362	-8.351	0.520	-1.063
30	97.309	56.181	56.181	-97.309	-7.192	-3.806	-0.614
45	108.534	29.081	79.452	-79.452	-5.817	-5.598	-0.318
60	112.362	0.000	97.309	-56.181	-4.026	-6.972	0.000
90	97.309	56.181	112.362	0.000	0.300	-8.132	0.614
120	56.181	97.309	97.309	56.181	4.626	-6.972	1.063
135	29.081	108.534	79.452	79.452	6.418	-5.598	1.186
150	0.000	112.362	56.181	97.309	7.793	-3.806	1.227
180	56.181	97.309	0.000	112.362	8.952	0.520	1.063
210	97.309	56.181	-56.181	97.309	7.793	4.846	0.614
225	108.534	29.081	-79.452	79.452	6.418	6.638	0.318
240	112.362	0.000	-97.309	56.181	4.626	8.013	0.000
270	97.309	56.181	-112.362	0.000	0.300	9.172	-0.614
300	56.181	97.309	-97.309	-56.181	-4.026	8.013	-1.063
315	29.081	108.534	-79.452	-79.452	-5.817	6.638	-1.186
330	0.000	112.362	-56.181	-97.309	-7.192	4.846	-1.227

1' Side Arm - Elevation 122 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	38.685	67.005	0.000	-77.371	-9.184	0.443	-0.623
30	67.005	38.685	38.685	-67.005	-7.919	-4.277	-0.360
45	74.735	20.025	54.710	-54.710	-6.419	-6.232	-0.186
60	77.371	0.000	67.005	-38.685	-4.464	-7.732	0.000
90	67.005	38.685	77.371	0.000	0.256	-8.996	0.360
120	38.685	67.005	67.005	38.685	4.975	-7.732	0.623

1' Side Arm - Elevation 122 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	20.025	74.735	54.710	54.710	6.930	-6.232	0.695
150	0.000	77.371	38.685	67.005	8.430	-4.277	0.719
180	38.685	67.005	0.000	77.371	9.695	0.443	0.623
210	67.005	38.685	-38.685	67.005	8.430	5.163	0.360
225	74.735	20.025	-54.710	54.710	6.930	7.117	0.186
240	77.371	0.000	-67.005	38.685	4.975	8.618	0.000
270	67.005	38.685	-77.371	0.000	0.256	9.882	-0.360
300	38.685	67.005	-67.005	-38.685	-4.464	8.618	-0.623
315	20.025	74.735	-54.710	-54.710	-6.419	7.117	-0.695
330	0.000	77.371	-38.685	-67.005	-7.919	5.163	-0.719

3'4"x4" Pipe Mount - Elevation 109.25 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	26.055	0.000	0.000	-26.055	-2.846	0.000	0.000
30	26.055	0.000	13.027	-22.564	-2.465	-1.423	0.000
45	26.055	0.000	18.423	-18.423	-2.013	-2.013	0.000
60	26.055	0.000	22.564	-13.027	-1.423	-2.465	0.000
90	26.055	0.000	26.055	0.000	0.000	-2.846	0.000
120	26.055	0.000	22.564	13.027	1.423	-2.465	0.000
135	26.055	0.000	18.423	18.423	2.013	-2.013	0.000
150	26.055	0.000	13.027	22.564	2.465	-1.423	0.000
180	26.055	0.000	0.000	26.055	2.846	0.000	0.000
210	26.055	0.000	-13.027	22.564	2.465	1.423	0.000
225	26.055	0.000	-18.423	18.423	2.013	2.013	0.000
240	26.055	0.000	-22.564	13.027	1.423	2.465	0.000
270	26.055	0.000	-26.055	0.000	0.000	2.846	0.000
300	26.055	0.000	-22.564	-13.027	-1.423	2.465	0.000
315	26.055	0.000	-18.423	-18.423	-2.013	2.013	0.000
330	26.055	0.000	-13.027	-22.564	-2.465	1.423	0.000

12' Dipole - Elevation 119 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	48.778	84.485	0.000	-97.555	-11.410	0.344	-0.840
30	84.485	48.778	48.778	-84.485	-9.855	-5.460	-0.485
45	94.231	25.249	68.982	-68.982	-8.010	-7.865	-0.251
60	97.555	0.000	84.485	-48.778	-5.606	-9.709	0.000
90	84.485	48.778	97.555	0.000	0.199	-11.265	0.485
120	48.778	84.485	84.485	48.778	6.003	-9.709	0.840
135	25.249	94.231	68.982	68.982	8.408	-7.865	0.936
150	0.000	97.555	48.778	84.485	10.252	-5.460	0.969
180	48.778	84.485	0.000	97.555	11.808	0.344	0.840
210	84.485	48.778	-48.778	84.485	10.252	6.149	0.485
225	94.231	25.249	-68.982	68.982	8.408	8.553	0.251
240	97.555	0.000	-84.485	48.778	6.003	10.398	0.000
270	84.485	48.778	-97.555	0.000	0.199	11.953	-0.485
300	48.778	84.485	-84.485	-48.778	-5.606	10.398	-0.840
315	25.249	94.231	-68.982	-68.982	-8.010	8.553	-0.936
330	0.000	97.555	-48.778	-84.485	-9.855	6.149	-0.969

1' Side Arm - Elevation 119 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	38.483	66.655	0.000	-76.967	-8.899	0.450	-0.629
30	66.655	38.483	38.483	-66.655	-7.672	-4.130	-0.363
45	74.344	19.920	54.424	-54.424	-6.217	-6.027	-0.188
60	76.967	0.000	66.655	-38.483	-4.320	-7.482	0.000
90	66.655	38.483	76.967	0.000	0.260	-8.709	0.363
120	38.483	66.655	66.655	38.483	4.839	-7.482	0.629
135	19.920	74.344	54.424	54.424	6.736	-6.027	0.702
150	0.000	76.967	38.483	66.655	8.191	-4.130	0.726
180	38.483	66.655	0.000	76.967	9.419	0.450	0.629
210	66.655	38.483	-38.483	66.655	8.191	5.029	0.363
225	74.344	19.920	-54.424	54.424	6.736	6.926	0.188
240	76.967	0.000	-66.655	38.483	4.839	8.381	0.000
270	66.655	38.483	-76.967	0.000	0.260	9.609	-0.363
300	38.483	66.655	-66.655	-38.483	-4.320	8.381	-0.629
315	19.920	74.344	-54.424	-54.424	-6.217	6.926	-0.702
330	0.000	76.967	-38.483	-66.655	-7.672	5.029	-0.726

1'x1' Panel Antenna - Elevation 119 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.472	3.481	-14.257	-12.251	-1.411	1.615	0.033
30	0.000	4.019	2.010	-3.481	-0.367	-0.321	0.038
45	9.562	3.882	10.222	1.419	0.216	-1.298	0.037
60	18.472	3.481	17.738	6.221	0.788	-2.193	0.033
90	31.994	2.010	28.713	14.257	1.744	-3.499	0.019
120	36.944	0.000	31.994	18.472	2.245	-3.889	0.000
135	35.685	1.040	30.384	18.743	2.278	-3.697	-0.010
150	31.994	2.010	26.703	17.738	2.158	-3.259	-0.019
180	18.472	3.481	14.257	12.251	1.505	-1.778	-0.033
210	0.000	4.019	-2.010	3.481	0.461	0.157	-0.038
225	9.562	3.882	-10.222	-1.419	-0.122	1.135	-0.037
240	18.472	3.481	-17.738	-6.221	-0.693	2.029	-0.033
270	31.994	2.010	-28.713	-14.257	-1.649	3.335	-0.019
300	36.944	0.000	-31.994	-18.472	-2.151	3.726	0.000
315	35.685	1.040	-30.384	-18.743	-2.183	3.534	0.010
330	31.994	2.010	-26.703	-17.738	-2.064	3.096	0.019

1' Side Arm - Elevation 119 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	38.483	66.655	0.000	-76.967	-8.899	-0.450	0.629
30	0.000	76.967	38.483	-66.655	-7.672	-5.029	0.726
45	19.920	74.344	54.424	-54.424	-6.217	-6.926	0.702
60	38.483	66.655	66.655	-38.483	-4.320	-8.381	0.629
90	66.655	38.483	76.967	0.000	0.260	-9.609	0.363
120	76.967	0.000	66.655	38.483	4.839	-8.381	0.000
135	74.344	19.920	54.424	54.424	6.736	-6.926	-0.188
150	66.655	38.483	38.483	66.655	8.191	-5.029	-0.363
180	38.483	66.655	0.000	76.967	9.419	-0.450	-0.629
210	0.000	76.967	-38.483	66.655	8.191	4.130	-0.726
225	19.920	74.344	-54.424	54.424	6.736	6.027	-0.702
240	38.483	66.655	-66.655	38.483	4.839	7.482	-0.629
270	66.655	38.483	-76.967	0.000	0.260	8.709	-0.363
300	76.967	0.000	-66.655	-38.483	-4.320	7.482	0.000
315	74.344	19.920	-54.424	-54.424	-6.217	6.027	0.188

1' Side Arm - Elevation 119 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	66.655	38.483	-38.483	-66.655	-7.672	4.130	0.363

2' Sidearm - Elevation 125 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	121.318	0.000	0.000	-121.318	-16.005	0.000	0.000
30	105.064	60.659	60.659	-105.064	-13.973	-7.582	-0.586
45	85.785	85.785	85.785	-85.785	-11.564	-10.723	-0.829
60	60.659	105.064	105.064	-60.659	-8.423	-13.133	-1.015
90	0.000	121.318	121.318	0.000	-0.840	-15.165	-1.172
120	60.659	105.064	105.064	60.659	6.742	-13.133	-1.015
135	85.785	85.785	85.785	85.785	9.883	-10.723	-0.829
150	105.064	60.659	60.659	105.064	12.293	-7.582	-0.586
180	121.318	0.000	0.000	121.318	14.324	0.000	0.000
210	105.064	60.659	-60.659	105.064	12.293	7.582	0.586
225	85.785	85.785	-85.785	85.785	9.883	10.723	0.829
240	60.659	105.064	-105.064	60.659	6.742	13.133	1.015
270	0.000	121.318	-121.318	0.000	-0.840	15.165	1.172
300	60.659	105.064	-105.064	-60.659	-8.423	13.133	1.015
315	85.785	85.785	-85.785	-85.785	-11.564	10.723	0.829
330	105.064	60.659	-60.659	-105.064	-13.973	7.582	0.586

2' Sidearm - Elevation 125 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	60.659	105.064	0.000	-121.318	-14.744	-0.728	1.015
30	0.000	121.318	60.659	-105.064	-12.713	-8.310	1.172
45	31.399	117.184	85.785	-85.785	-10.303	-11.451	1.132
60	60.659	105.064	105.064	-60.659	-7.162	-13.861	1.015
90	105.064	60.659	121.318	0.000	0.420	-15.893	0.586
120	121.318	0.000	105.064	60.659	8.003	-13.861	0.000
135	117.184	31.399	85.785	85.785	11.143	-11.451	-0.303
150	105.064	60.659	60.659	105.064	13.553	-8.310	-0.586
180	60.659	105.064	0.000	121.318	15.585	-0.728	-1.015
210	0.000	121.318	-60.659	105.064	13.553	6.855	-1.172
225	31.399	117.184	-85.785	85.785	11.143	9.995	-1.132
240	60.659	105.064	-105.064	60.659	8.003	12.405	-1.015
270	105.064	60.659	-121.318	0.000	0.420	14.437	-0.586
300	121.318	0.000	-105.064	-60.659	-7.162	12.405	0.000
315	117.184	31.399	-85.785	-85.785	-10.303	9.995	0.303
330	105.064	60.659	-60.659	-105.064	-12.713	6.855	0.586

2' Sidearm - Elevation 125 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	60.659	105.064	0.000	-121.318	-14.744	0.728	-1.015
30	105.064	60.659	60.659	-105.064	-12.713	-6.855	-0.586
45	117.184	31.399	85.785	-85.785	-10.303	-9.995	-0.303
60	121.318	0.000	105.064	-60.659	-7.162	-12.405	0.000
90	105.064	60.659	121.318	0.000	0.420	-14.437	0.586
120	60.659	105.064	105.064	60.659	8.003	-12.405	1.015

2' Sidearm - Elevation 125 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	31.399	117.184	85.785	85.785	11.143	-9.995	1.132
150	0.000	121.318	60.659	105.064	13.553	-6.855	1.172
180	60.659	105.064	0.000	121.318	15.585	0.728	1.015
210	105.064	60.659	-60.659	105.064	13.553	8.310	0.586
225	117.184	31.399	-85.785	85.785	11.143	11.451	0.303
240	121.318	0.000	-105.064	60.659	8.003	13.861	0.000
270	105.064	60.659	-121.318	0.000	0.420	15.893	-0.586
300	60.659	105.064	-105.064	-60.659	-7.162	13.861	-1.015
315	31.399	117.184	-85.785	-85.785	-10.303	11.451	-1.132
330	0.000	121.318	-60.659	-105.064	-12.713	8.310	-1.172

Ericsson TMA Unit - Elevation 125 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	36.754	0.000	0.000	-36.754	-4.971	0.000	0.000
30	31.830	18.394	18.394	-31.830	-4.355	-2.299	-0.178
45	25.989	26.013	26.013	-25.989	-3.625	-3.252	-0.251
60	18.377	31.859	31.859	-18.377	-2.673	-3.982	-0.308
90	0.000	36.787	36.787	0.000	-0.376	-4.598	-0.355
120	18.377	31.859	31.859	18.377	1.921	-3.982	-0.308
135	25.989	26.013	26.013	25.989	2.872	-3.252	-0.251
150	31.830	18.394	18.394	31.830	3.603	-2.299	-0.178
180	36.754	0.000	0.000	36.754	4.218	0.000	0.000
210	31.830	18.394	-18.394	31.830	3.603	2.299	0.178
225	25.989	26.013	-26.013	25.989	2.872	3.252	0.251
240	18.377	31.859	-31.859	18.377	1.921	3.982	0.308
270	0.000	36.787	-36.787	0.000	-0.376	4.598	0.355
300	18.377	31.859	-31.859	-18.377	-2.673	3.982	0.308
315	25.989	26.013	-26.013	-25.989	-3.625	3.252	0.251
330	31.830	18.394	-18.394	-31.830	-4.355	2.299	0.178

Ericsson TMA Unit - Elevation 125 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.377	31.859	0.014	-36.779	-4.409	-0.328	0.308
30	0.000	36.787	18.394	-31.859	-3.794	-2.625	0.355
45	9.513	35.534	26.005	-26.017	-3.064	-3.576	0.343
60	18.377	31.859	31.844	-18.402	-2.112	-4.306	0.308
90	31.830	18.394	36.762	-0.014	0.186	-4.921	0.178
120	36.754	0.000	31.830	18.377	2.485	-4.305	0.000
135	35.502	9.521	25.985	25.997	3.438	-3.574	-0.092
150	31.830	18.394	18.369	31.844	4.169	-2.622	-0.178
180	18.377	31.859	-0.014	36.779	4.785	-0.324	-0.308
210	0.000	36.787	-18.394	31.859	4.170	1.973	-0.355
225	9.513	35.534	-26.005	26.017	3.440	2.925	-0.343
240	18.377	31.859	-31.844	18.402	2.488	3.655	-0.308
270	31.830	18.394	-36.762	0.014	0.190	4.269	-0.178
300	36.754	0.000	-31.830	-18.377	-2.109	3.653	0.000
315	35.502	9.521	-25.985	-25.997	-3.061	2.922	0.092
330	31.830	18.394	-18.369	-31.844	-3.792	1.970	0.178

Ericsson TMA Unit - Elevation 125 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.377	31.859	-0.014	-36.779	-4.409	0.328	-0.308
30	31.830	18.394	18.369	-31.844	-3.792	-1.970	-0.178
45	35.502	9.521	25.985	-25.997	-3.061	-2.922	-0.092
60	36.754	0.000	31.830	-18.377	-2.109	-3.653	0.000
90	31.830	18.394	36.762	0.014	0.190	-4.269	0.178
120	18.377	31.859	31.844	18.402	2.488	-3.655	0.308
135	9.513	35.534	26.005	26.017	3.440	-2.925	0.343
150	0.000	36.787	18.394	31.859	4.170	-1.973	0.355
180	18.377	31.859	0.014	36.779	4.785	0.324	0.308
210	31.830	18.394	-18.369	31.844	4.169	2.622	0.178
225	35.502	9.521	-25.985	25.997	3.438	3.574	0.092
240	36.754	0.000	-31.830	18.377	2.485	4.305	0.000
270	31.830	18.394	-36.762	-0.014	0.186	4.921	-0.178
300	18.377	31.859	-31.844	-18.402	-2.112	4.306	-0.308
315	9.513	35.534	-26.005	-26.017	-3.064	3.576	-0.343
330	0.000	36.787	-18.394	-31.859	-3.794	2.625	-0.355

DBXNH-6565B-A2M - Elevation 125 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	254.243	0.000	0.000	-254.243	-32.274	0.000	0.000
30	220.180	84.073	84.073	-220.180	-28.016	-10.509	-0.896
45	179.777	118.897	118.897	-179.777	-22.966	-14.862	-1.267
60	127.121	145.618	145.618	-127.121	-16.384	-18.202	-1.552
90	0.000	168.146	168.146	0.000	-0.494	-21.018	-1.792
120	127.121	145.618	145.618	127.121	15.397	-18.202	-1.552
135	179.777	118.897	118.897	179.777	21.979	-14.862	-1.267
150	220.180	84.073	84.073	220.180	27.029	-10.509	-0.896
180	254.243	0.000	0.000	254.243	31.287	0.000	0.000
210	220.180	84.073	-84.073	220.180	27.029	10.509	0.896
225	179.777	118.897	-118.897	179.777	21.979	14.862	1.267
240	127.121	145.618	-145.618	127.121	15.397	18.202	1.552
270	0.000	168.146	-168.146	0.000	-0.494	21.018	1.792
300	127.121	145.618	-145.618	-127.121	-16.384	18.202	1.552
315	179.777	118.897	-118.897	-179.777	-22.966	14.862	1.267
330	220.180	84.073	-84.073	-220.180	-28.016	10.509	0.896

DBXNH-6565B-A2M - Elevation 125 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	127.121	145.618	-37.281	-189.670	-23.462	4.233	1.552
30	0.000	168.146	84.073	-145.618	-17.956	-10.937	1.792
45	65.803	162.416	138.195	-107.755	-13.223	-17.702	1.731
60	127.121	145.618	182.899	-62.549	-7.572	-23.290	1.552
90	220.180	84.073	232.718	37.281	4.907	-29.517	0.896
120	254.243	0.000	220.180	127.121	16.137	-27.950	0.000
135	245.579	43.519	190.918	160.479	20.307	-24.292	-0.464
150	220.180	84.073	148.646	182.899	23.109	-19.008	-0.896
180	127.121	145.618	37.281	189.670	23.956	-5.088	-1.552
210	0.000	168.146	-84.073	145.618	18.449	10.082	-1.792
225	65.803	162.416	-138.195	107.755	13.716	16.847	-1.731
240	127.121	145.618	-182.899	62.549	8.065	22.435	-1.552
270	220.180	84.073	-232.718	-37.281	-4.413	28.662	-0.896
300	254.243	0.000	-220.180	-127.121	-15.643	27.095	0.000
315	245.579	43.519	-190.918	-160.479	-19.813	23.437	0.464

DBXNH-6565B-A2M - Elevation 125 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	220.180	84.073	-148.646	-182.899	-22.616	18.153	0.896

DBXNH-6565B-A2M - Elevation 125 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	127.121	145.618	37.281	-189.670	-23.462	-4.233	-1.552
30	220.180	84.073	148.646	-182.899	-22.616	-18.153	-0.896
45	245.579	43.519	190.918	-160.479	-19.813	-23.437	-0.464
60	254.243	0.000	220.180	-127.121	-15.643	-27.095	0.000
90	220.180	84.073	232.718	-37.281	-4.413	-28.662	0.896
120	127.121	145.618	182.899	62.549	8.065	-22.435	1.552
135	65.803	162.416	138.195	107.755	13.716	-16.847	1.731
150	0.000	168.146	84.073	145.618	18.449	-10.082	1.792
180	127.121	145.618	-37.281	189.670	23.956	5.088	1.552
210	220.180	84.073	-148.646	182.899	23.109	19.008	0.896
225	245.579	43.519	-190.918	160.479	20.307	24.292	0.464
240	254.243	0.000	-220.180	127.121	16.137	27.950	0.000
270	220.180	84.073	-232.718	37.281	4.907	29.517	-0.896
300	127.121	145.618	-182.899	-62.549	-7.572	23.290	-1.552
315	65.803	162.416	-138.195	-107.755	-13.223	17.702	-1.731
330	0.000	168.146	-84.073	-145.618	-17.956	10.937	-1.792

DB950F65E-M - Elevation 135 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	371.479	0.000	0.000	-371.479	-50.501	0.000	0.000
30	321.710	133.925	133.925	-321.710	-43.782	-18.080	-1.567
45	262.675	189.399	189.399	-262.675	-35.812	-25.569	-2.216
60	185.739	231.966	231.966	-185.739	-25.426	-31.315	-2.714
90	0.000	267.851	267.851	0.000	-0.351	-36.160	-3.133
120	185.739	231.966	231.966	185.739	24.724	-31.315	-2.714
135	262.675	189.399	189.399	262.675	35.110	-25.569	-2.216
150	321.710	133.925	133.925	321.710	43.080	-18.080	-1.567
180	371.479	0.000	0.000	371.479	49.799	0.000	0.000
210	321.710	133.925	-133.925	321.710	43.080	18.080	1.567
225	262.675	189.399	-189.399	262.675	35.110	25.569	2.216
240	185.739	231.966	-231.966	185.739	24.724	31.315	2.714
270	0.000	267.851	-267.851	0.000	-0.351	36.160	3.133
300	185.739	231.966	-231.966	-185.739	-25.426	31.315	2.714
315	262.675	189.399	-189.399	-262.675	-35.812	25.569	2.216
330	321.710	133.925	-133.925	-321.710	-43.782	18.080	1.567

DB950F85E-M - Elevation 135 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	80.136	229.304	45.252	-238.651	-32.095	-6.322	2.682
30	0.000	264.777	132.389	-229.304	-30.833	-18.085	3.097
45	41.481	255.755	163.801	-200.750	-26.978	-22.326	2.992
60	80.136	229.304	184.051	-158.515	-21.277	-25.060	2.682
90	138.799	132.389	186.398	-45.252	-5.986	-25.376	1.549
120	160.271	0.000	138.799	80.136	10.941	-18.951	0.000

DB950F85E-M - Elevation 135 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	154.810	68.529	99.805	136.753	18.585	-13.686	-0.802
150	138.799	132.389	54.009	184.051	24.970	-7.504	-1.549
180	80.136	229.304	-45.252	238.651	32.341	5.896	-2.682
210	0.000	264.777	-132.389	229.304	31.079	17.660	-3.097
225	41.481	255.755	-163.801	200.750	27.224	21.900	-2.992
240	80.136	229.304	-184.051	158.515	21.522	24.634	-2.682
270	138.799	132.389	-186.398	45.252	6.232	24.951	-1.549
300	160.271	0.000	-138.799	-80.136	-10.695	18.525	0.000
315	154.810	68.529	-99.805	-136.753	-18.339	13.261	0.802
330	138.799	132.389	-54.009	-184.051	-24.724	7.079	1.549

DB950F40T2E-M - Elevation 135 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	192.911	253.261	40.436	-315.786	-42.397	-5.054	-2.963
30	334.132	146.220	216.257	-293.696	-39.415	-28.789	-1.711
45	372.676	75.689	284.902	-251.887	-33.771	-38.057	-0.885
60	385.822	0.000	334.132	-192.911	-25.809	-44.703	0.000
90	334.132	146.220	362.477	-40.436	-5.225	-48.529	1.711
120	192.911	253.261	293.696	122.875	16.822	-39.244	2.963
135	99.858	282.476	227.718	194.702	26.519	-30.337	3.305
150	0.000	292.441	146.220	253.261	34.424	-19.334	3.421
180	192.911	253.261	-40.436	315.786	42.865	5.864	2.963
210	334.132	146.220	-216.257	293.696	39.883	29.600	1.711
225	372.676	75.689	-284.902	251.887	34.239	38.867	0.885
240	385.822	0.000	-334.132	192.911	26.277	45.513	0.000
270	334.132	146.220	-362.477	40.436	5.693	49.340	-1.711
300	192.911	253.261	-293.696	-122.875	-16.354	40.054	-2.963
315	99.858	282.476	-227.718	-194.702	-26.051	31.147	-3.305
330	0.000	292.441	-146.220	-253.261	-33.956	20.145	-3.421

Pirod 12' PCS T-Frame (1) 104569 - Elevation 135 - None A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	309.829	0.000	0.000	-309.829	-41.827	0.000	0.000
30	309.829	0.000	154.914	-268.320	-36.223	-20.913	0.000
45	309.829	0.000	219.082	-219.082	-29.576	-29.576	0.000
60	309.829	0.000	268.320	-154.914	-20.913	-36.223	0.000
90	309.829	0.000	309.829	0.000	0.000	-41.827	0.000
120	309.829	0.000	268.320	154.914	20.913	-36.223	0.000
135	309.829	0.000	219.082	219.082	29.576	-29.576	0.000
150	309.829	0.000	154.914	268.320	36.223	-20.913	0.000
180	309.829	0.000	0.000	309.829	41.827	0.000	0.000
210	309.829	0.000	-154.914	268.320	36.223	20.913	0.000
225	309.829	0.000	-219.082	219.082	29.576	29.576	0.000
240	309.829	0.000	-268.320	154.914	20.913	36.223	0.000
270	309.829	0.000	-309.829	0.000	0.000	41.827	0.000
300	309.829	0.000	-268.320	-154.914	-20.913	36.223	0.000
315	309.829	0.000	-219.082	-219.082	-29.576	29.576	0.000
330	309.829	0.000	-154.914	-268.320	-36.223	20.913	0.000

Pirod 12' PCS T-Frame (1) 104569 - Elevation 135 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	309.829	0.000	0.000	-309.829	-41.827	0.000	0.000
30	309.829	0.000	154.914	-268.320	-36.223	-20.913	0.000
45	309.829	0.000	219.082	-219.082	-29.576	-29.576	0.000
60	309.829	0.000	268.320	-154.914	-20.913	-36.223	0.000
90	309.829	0.000	309.829	0.000	0.000	-41.827	0.000
120	309.829	0.000	268.320	154.914	20.913	-36.223	0.000
135	309.829	0.000	219.082	219.082	29.576	-29.576	0.000
150	309.829	0.000	154.914	268.320	36.223	-20.913	0.000
180	309.829	0.000	0.000	309.829	41.827	0.000	0.000
210	309.829	0.000	-154.914	268.320	36.223	20.913	0.000
225	309.829	0.000	-219.082	219.082	29.576	29.576	0.000
240	309.829	0.000	-268.320	154.914	20.913	36.223	0.000
270	309.829	0.000	-309.829	0.000	0.000	41.827	0.000
300	309.829	0.000	-268.320	-154.914	-20.913	36.223	0.000
315	309.829	0.000	-219.082	-219.082	-29.576	29.576	0.000
330	309.829	0.000	-154.914	-268.320	-36.223	20.913	0.000

Pirod 12' PCS T-Frame (1) 104569 - Elevation 135 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	309.829	0.000	0.000	-309.829	-41.827	0.000	0.000
30	309.829	0.000	154.914	-268.320	-36.223	-20.913	0.000
45	309.829	0.000	219.082	-219.082	-29.576	-29.576	0.000
60	309.829	0.000	268.320	-154.914	-20.913	-36.223	0.000
90	309.829	0.000	309.829	0.000	0.000	-41.827	0.000
120	309.829	0.000	268.320	154.914	20.913	-36.223	0.000
135	309.829	0.000	219.082	219.082	29.576	-29.576	0.000
150	309.829	0.000	154.914	268.320	36.223	-20.913	0.000
180	309.829	0.000	0.000	309.829	41.827	0.000	0.000
210	309.829	0.000	-154.914	268.320	36.223	20.913	0.000
225	309.829	0.000	-219.082	219.082	29.576	29.576	0.000
240	309.829	0.000	-268.320	154.914	20.913	36.223	0.000
270	309.829	0.000	-309.829	0.000	0.000	41.827	0.000
300	309.829	0.000	-268.320	-154.914	-20.913	36.223	0.000
315	309.829	0.000	-219.082	-219.082	-29.576	29.576	0.000
330	309.829	0.000	-154.914	-268.320	-36.223	20.913	0.000

13' Sector Mount (1) - Elevation 143 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	384.008	0.000	0.000	-384.008	-57.516	0.000	0.000
30	332.561	192.004	192.004	-332.561	-50.159	-27.457	-2.271
45	271.535	271.535	271.535	-271.535	-41.432	-38.829	-3.212
60	192.004	332.561	332.561	-192.004	-30.059	-47.556	-3.934
90	0.000	384.008	384.008	0.000	-2.602	-54.913	-4.542
120	192.004	332.561	332.561	192.004	24.854	-47.556	-3.934
135	271.535	271.535	271.535	271.535	36.227	-38.829	-3.212
150	332.561	192.004	192.004	332.561	44.954	-27.457	-2.271
180	384.008	0.000	0.000	384.008	52.311	0.000	0.000
210	332.561	192.004	-192.004	332.561	44.954	27.457	2.271
225	271.535	271.535	-271.535	271.535	36.227	38.829	3.212
240	192.004	332.561	-332.561	192.004	24.854	47.556	3.934
270	0.000	384.008	-384.008	0.000	-2.602	54.913	4.542
300	192.004	332.561	-332.561	-192.004	-30.059	47.556	3.934
315	271.535	271.535	-271.535	-271.535	-41.432	38.829	3.212

13' Sector Mount (1) - Elevation 143 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	332.561	192.004	-192.004	-332.561	-50.159	27.457	2.271

13' Sector Mount (1) - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	192.004	332.561	0.000	-384.008	-53.612	-2.254	3.934
30	0.000	384.008	192.004	-332.561	-46.255	-29.710	4.542
45	99.389	370.924	271.535	-271.535	-37.528	-41.083	4.388
60	192.004	332.561	332.561	-192.004	-26.155	-49.810	3.934
90	332.561	192.004	384.008	0.000	1.301	-57.167	2.271
120	384.008	0.000	332.561	192.004	28.758	-49.810	0.000
135	370.924	99.389	271.535	271.535	40.131	-41.083	-1.176
150	332.561	192.004	192.004	332.561	48.857	-29.710	-2.271
180	192.004	332.561	0.000	384.008	56.214	-2.254	-3.934
210	0.000	384.008	-192.004	332.561	48.857	25.203	-4.542
225	99.389	370.924	-271.535	271.535	40.131	36.576	-4.388
240	192.004	332.561	-332.561	192.004	28.758	45.303	-3.934
270	332.561	192.004	-384.008	0.000	1.301	52.659	-2.271
300	384.008	0.000	-332.561	-192.004	-26.155	45.303	0.000
315	370.924	99.389	-271.535	-271.535	-37.528	36.576	1.176
330	332.561	192.004	-192.004	-332.561	-46.255	25.203	2.271

13' Sector Mount (1) - Elevation 143 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	192.004	332.561	0.000	-384.008	-53.612	2.254	-3.934
30	332.561	192.004	192.004	-332.561	-46.255	-25.203	-2.271
45	370.924	99.389	271.535	-271.535	-37.528	-36.576	-1.176
60	384.008	0.000	332.561	-192.004	-26.155	-45.303	0.000
90	332.561	192.004	384.008	0.000	1.301	-52.659	2.271
120	192.004	332.561	332.561	192.004	28.758	-45.303	3.934
135	99.389	370.924	271.535	271.535	40.131	-36.576	4.388
150	0.000	384.008	192.004	332.561	48.857	-25.203	4.542
180	192.004	332.561	0.000	384.008	56.214	2.254	3.934
210	332.561	192.004	-192.004	332.561	48.857	29.710	2.271
225	370.924	99.389	-271.535	271.535	40.131	41.083	1.176
240	384.008	0.000	-332.561	192.004	28.758	49.810	0.000
270	332.561	192.004	-384.008	0.000	1.301	57.167	-2.271
300	192.004	332.561	-332.561	-192.004	-26.155	49.810	-3.934
315	99.389	370.924	-271.535	-271.535	-37.528	41.083	-4.388
330	0.000	384.008	-192.004	-332.561	-46.255	29.710	-4.542

7770 w mount pipe - Elevation 143 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	376.453	0.000	0.000	-376.453	-55.063	0.624	-2.259
30	326.018	127.352	127.352	-326.018	-47.851	-17.587	-3.463
45	266.192	180.102	180.102	-266.192	-39.296	-25.131	-3.728
60	188.226	220.579	220.579	-188.226	-28.147	-30.919	-3.739
90	0.000	254.703	254.703	0.000	-1.230	-35.799	-3.013
120	188.226	220.579	220.579	188.226	25.686	-30.919	-1.480

7770 w mount pipe - Elevation 143 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	266.192	180.102	180.102	266.192	36.835	-25.131	-0.533
150	326.018	127.352	127.352	326.018	45.390	-17.587	0.450
180	376.453	0.000	0.000	376.453	52.603	0.624	2.259
210	326.018	127.352	-127.352	326.018	45.390	18.835	3.463
225	266.192	180.102	-180.102	266.192	36.835	26.379	3.728
240	188.226	220.579	-220.579	188.226	25.686	32.167	3.739
270	0.000	254.703	-254.703	0.000	-1.230	37.047	3.013
300	188.226	220.579	-220.579	-188.226	-28.147	32.167	1.480
315	266.192	180.102	-180.102	-266.192	-39.296	26.379	0.533
330	326.018	127.352	-127.352	-326.018	-47.851	18.835	-0.450

7770 w mount pipe - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	188.226	220.579	-52.719	-285.140	-40.700	6.161	3.739
30	0.000	254.703	127.352	-220.579	-31.468	-19.589	3.013
45	97.433	246.024	207.392	-164.347	-23.427	-31.034	2.326
60	188.226	220.579	273.298	-96.914	-13.784	-40.459	1.480
90	326.018	127.352	346.015	52.719	7.614	-50.858	-0.450
120	376.453	0.000	326.018	188.226	26.991	-47.998	-2.259
135	363.625	65.922	281.948	238.903	34.238	-41.696	-2.962
150	326.018	127.352	218.664	273.298	39.156	-32.646	-3.463
180	188.226	220.579	52.719	285.140	40.850	-8.916	-3.739
210	0.000	254.703	-127.352	220.579	31.618	16.834	-3.013
225	97.433	246.024	-207.392	164.347	23.576	28.280	-2.326
240	188.226	220.579	-273.298	96.914	13.933	37.704	-1.480
270	326.018	127.352	-346.015	-52.719	-7.464	48.103	0.450
300	376.453	0.000	-326.018	-188.226	-26.842	45.243	2.259
315	363.625	65.922	-281.948	-238.903	-34.088	38.941	2.962
330	326.018	127.352	-218.664	-273.298	-39.007	29.892	3.463

7770 w mount pipe - Elevation 143 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	188.226	220.579	52.719	-285.140	-39.620	-6.785	-1.480
30	326.018	127.352	218.664	-273.298	-37.926	-30.516	0.450
45	363.625	65.922	281.948	-238.903	-33.008	-39.565	1.402
60	376.453	0.000	326.018	-188.226	-25.761	-45.867	2.259
90	326.018	127.352	346.015	-52.719	-6.383	-48.727	3.463
120	188.226	220.579	273.298	96.914	15.014	-38.328	3.739
135	97.433	246.024	207.392	164.347	24.657	-28.904	3.495
150	0.000	254.703	127.352	220.579	32.698	-17.458	3.013
180	188.226	220.579	-52.719	285.140	41.931	8.292	1.480
210	326.018	127.352	-218.664	273.298	40.237	32.022	-0.450
225	363.625	65.922	-281.948	238.903	35.319	41.072	-1.402
240	376.453	0.000	-326.018	188.226	28.072	47.374	-2.259
270	326.018	127.352	-346.015	52.719	8.694	50.234	-3.463
300	188.226	220.579	-273.298	-96.914	-12.703	39.835	-3.739
315	97.433	246.024	-207.392	-164.347	-22.346	30.410	-3.495
330	0.000	254.703	-127.352	-220.579	-30.387	18.965	-3.013

TMA (shielded) - Elevation 143 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
30	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
45	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
60	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
90	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
120	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
135	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
150	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
180	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
210	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
225	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
240	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
270	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
300	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
315	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
330	0.000	0.000	0.000	0.000	-0.173	0.000	0.000

TMA (shielded) - Elevation 143 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
30	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
45	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
60	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
90	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
120	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
135	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
150	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
180	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
210	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
225	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
240	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
270	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
300	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
315	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
330	0.000	0.000	0.000	0.000	0.086	-0.150	0.000

TMA (shielded) - Elevation 143 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	0.000	0.000	0.000	0.086	0.150	0.000
30	0.000	0.000	0.000	0.000	0.086	0.150	0.000
45	0.000	0.000	0.000	0.000	0.086	0.150	0.000
60	0.000	0.000	0.000	0.000	0.086	0.150	0.000
90	0.000	0.000	0.000	0.000	0.086	0.150	0.000
120	0.000	0.000	0.000	0.000	0.086	0.150	0.000
135	0.000	0.000	0.000	0.000	0.086	0.150	0.000
150	0.000	0.000	0.000	0.000	0.086	0.150	0.000
180	0.000	0.000	0.000	0.000	0.086	0.150	0.000
210	0.000	0.000	0.000	0.000	0.086	0.150	0.000
225	0.000	0.000	0.000	0.000	0.086	0.150	0.000
240	0.000	0.000	0.000	0.000	0.086	0.150	0.000
270	0.000	0.000	0.000	0.000	0.086	0.150	0.000
300	0.000	0.000	0.000	0.000	0.086	0.150	0.000
315	0.000	0.000	0.000	0.000	0.086	0.150	0.000

TMA (shielded) - Elevation 143 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	0.000	0.000	0.000	0.000	0.086	0.150	0.000

RRUS-11 - Elevation 143 - None A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	82.119	0.000	0.000	-82.119	-11.743	0.000	0.000
30	82.119	0.000	41.060	-71.117	-10.170	-5.872	0.000
45	82.119	0.000	58.067	-58.067	-8.304	-8.304	0.000
60	82.119	0.000	71.117	-41.060	-5.872	-10.170	0.000
90	82.119	0.000	82.119	0.000	0.000	-11.743	0.000
120	82.119	0.000	71.117	41.060	5.872	-10.170	0.000
135	82.119	0.000	58.067	58.067	8.304	-8.304	0.000
150	82.119	0.000	41.060	71.117	10.170	-5.872	0.000
180	82.119	0.000	0.000	82.119	11.743	0.000	0.000
210	82.119	0.000	-41.060	71.117	10.170	5.872	0.000
225	82.119	0.000	-58.067	58.067	8.304	8.304	0.000
240	82.119	0.000	-71.117	41.060	5.872	10.170	0.000
270	82.119	0.000	-82.119	0.000	0.000	11.743	0.000
300	82.119	0.000	-71.117	-41.060	-5.872	10.170	0.000
315	82.119	0.000	-58.067	-58.067	-8.304	8.304	0.000
330	82.119	0.000	-41.060	-71.117	-10.170	5.872	0.000

RRUS-11 - Elevation 143 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	82.119	0.000	0.000	-82.119	-11.743	0.000	0.000
30	82.119	0.000	41.060	-71.117	-10.170	-5.872	0.000
45	82.119	0.000	58.067	-58.067	-8.304	-8.304	0.000
60	82.119	0.000	71.117	-41.060	-5.872	-10.170	0.000
90	82.119	0.000	82.119	0.000	0.000	-11.743	0.000
120	82.119	0.000	71.117	41.060	5.872	-10.170	0.000
135	82.119	0.000	58.067	58.067	8.304	-8.304	0.000
150	82.119	0.000	41.060	71.117	10.170	-5.872	0.000
180	82.119	0.000	0.000	82.119	11.743	0.000	0.000
210	82.119	0.000	-41.060	71.117	10.170	5.872	0.000
225	82.119	0.000	-58.067	58.067	8.304	8.304	0.000
240	82.119	0.000	-71.117	41.060	5.872	10.170	0.000
270	82.119	0.000	-82.119	0.000	0.000	11.743	0.000
300	82.119	0.000	-71.117	-41.060	-5.872	10.170	0.000
315	82.119	0.000	-58.067	-58.067	-8.304	8.304	0.000
330	82.119	0.000	-41.060	-71.117	-10.170	5.872	0.000

RRUS-11 - Elevation 143 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	82.119	0.000	0.000	-82.119	-11.743	0.000	0.000
30	82.119	0.000	41.060	-71.117	-10.170	-5.872	0.000
45	82.119	0.000	58.067	-58.067	-8.304	-8.304	0.000
60	82.119	0.000	71.117	-41.060	-5.872	-10.170	0.000
90	82.119	0.000	82.119	0.000	0.000	-11.743	0.000
120	82.119	0.000	71.117	41.060	5.872	-10.170	0.000

RRUS-11 - Elevation 143 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	82.119	0.000	58.067	58.067	8.304	-8.304	0.000
150	82.119	0.000	41.060	71.117	10.170	-5.872	0.000
180	82.119	0.000	0.000	82.119	11.743	0.000	0.000
210	82.119	0.000	-41.060	71.117	10.170	5.872	0.000
225	82.119	0.000	-58.067	58.067	8.304	8.304	0.000
240	82.119	0.000	-71.117	41.060	5.872	10.170	0.000
270	82.119	0.000	-82.119	0.000	0.000	11.743	0.000
300	82.119	0.000	-71.117	-41.060	-5.872	10.170	0.000
315	82.119	0.000	-58.067	-58.067	-8.304	8.304	0.000
330	82.119	0.000	-41.060	-71.117	-10.170	5.872	0.000

AM-X-CD-14-65-00T-RET - Elevation 143 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	176.217	0.000	0.000	-176.217	-25.246	0.008	-0.352
30	152.609	45.245	45.245	-152.609	-21.870	-6.462	-0.840
45	124.604	63.987	63.987	-124.604	-17.866	-9.142	-1.006
60	88.109	78.367	78.367	-88.109	-12.647	-11.199	-1.103
90	0.000	90.491	90.491	0.000	-0.047	-12.932	-1.070
120	88.109	78.367	78.367	88.109	12.552	-11.199	-0.751
135	124.604	63.987	63.987	124.604	17.771	-9.142	-0.508
150	152.609	45.245	45.245	152.609	21.776	-6.462	-0.230
180	176.217	0.000	0.000	176.217	25.152	0.008	0.352
210	152.609	45.245	-45.245	152.609	21.776	6.478	0.840
225	124.604	63.987	-63.987	124.604	17.771	9.158	1.006
240	88.109	78.367	-78.367	88.109	12.552	11.215	1.103
270	0.000	90.491	-90.491	0.000	-0.047	12.948	1.070
300	88.109	78.367	-78.367	-88.109	-12.647	11.215	0.751
315	124.604	63.987	-63.987	-124.604	-17.866	9.158	0.508
330	152.609	45.245	-45.245	-152.609	-21.870	6.478	0.230

AM-X-CD-14-65-00T-RET - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	88.109	78.367	-37.121	-111.922	-15.988	5.263	1.103
30	0.000	90.491	45.245	-78.367	-11.190	-6.515	1.070
45	45.608	87.407	83.202	-52.893	-7.547	-11.943	0.943
60	88.109	78.367	115.488	-23.814	-3.389	-16.560	0.751
90	152.609	45.245	154.786	37.121	5.325	-22.179	0.230
120	176.217	0.000	152.609	88.109	12.616	-21.868	-0.352
135	170.213	23.421	135.698	105.389	15.087	-19.450	-0.617
150	152.609	45.245	109.540	115.488	16.532	-15.709	-0.840
180	88.109	78.367	37.121	111.922	16.022	-5.353	-1.103
210	0.000	90.491	-45.245	78.367	11.223	6.425	-1.070
225	45.608	87.407	-83.202	52.893	7.580	11.853	-0.943
240	88.109	78.367	-115.488	23.814	3.422	16.470	-0.751
270	152.609	45.245	-154.786	-37.121	-5.292	22.089	-0.230
300	176.217	0.000	-152.609	-88.109	-12.583	21.778	0.352
315	170.213	23.421	-135.698	-105.389	-15.054	19.360	0.617
330	152.609	45.245	-109.540	-115.488	-16.498	15.619	0.840

AM-X-CD-14-65-00T-RET - Elevation 143 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	88.109	78.367	37.121	-111.922	-15.974	-5.271	-0.751
30	152.609	45.245	109.540	-115.488	-16.484	-15.627	-0.230
45	170.213	23.421	135.698	-105.389	-15.040	-19.368	0.063
60	176.217	0.000	152.609	-88.109	-12.569	-21.786	0.352
90	152.609	45.245	154.786	-37.121	-5.278	-22.097	0.840
120	88.109	78.367	115.488	23.814	3.436	-16.478	1.103
135	45.608	87.407	83.202	52.893	7.594	-11.861	1.125
150	0.000	90.491	45.245	78.367	11.237	-6.433	1.070
180	88.109	78.367	-37.121	111.922	16.035	5.345	0.751
210	152.609	45.245	-109.540	115.488	16.545	15.701	0.230
225	170.213	23.421	-135.698	105.389	15.101	19.442	-0.063
240	176.217	0.000	-152.609	88.109	12.630	21.860	-0.352
270	152.609	45.245	-154.786	37.121	5.339	22.171	-0.840
300	88.109	78.367	-115.488	-23.814	-3.375	16.552	-1.103
315	45.608	87.407	-83.202	-52.893	-7.533	11.935	-1.125
330	0.000	90.491	-45.245	-78.367	-11.176	6.507	-1.070

Raycap Surge Suppressor - Elevation 143 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	40.525	0.000	0.000	-40.525	-5.952	0.000	0.000
30	35.096	20.263	20.263	-35.096	-5.175	-2.898	-0.159
45	28.656	28.656	28.656	-28.656	-4.254	-4.098	-0.224
60	20.263	35.096	35.096	-20.263	-3.054	-5.019	-0.275
90	0.000	40.525	40.525	0.000	-0.157	-5.795	-0.317
120	20.263	35.096	35.096	20.263	2.741	-5.019	-0.275
135	28.656	28.656	28.656	28.656	3.941	-4.098	-0.224
150	35.096	20.263	20.263	35.096	4.862	-2.898	-0.159
180	40.525	0.000	0.000	40.525	5.639	0.000	0.000
210	35.096	20.263	-20.263	35.096	4.862	2.898	0.159
225	28.656	28.656	-28.656	28.656	3.941	4.098	0.224
240	20.263	35.096	-35.096	20.263	2.741	5.019	0.275
270	0.000	40.525	-40.525	0.000	-0.157	5.795	0.317
300	20.263	35.096	-35.096	-20.263	-3.054	5.019	0.275
315	28.656	28.656	-28.656	-28.656	-4.254	4.098	0.224
330	35.096	20.263	-20.263	-35.096	-5.175	2.898	0.159

RRUS-12 - Elevation 143 - None A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	100.642	0.000	0.000	-100.642	-14.392	0.000	0.000
30	100.642	0.000	50.321	-87.159	-12.464	-7.196	0.000
45	100.642	0.000	71.165	-71.165	-10.177	-10.177	0.000
60	100.642	0.000	87.159	-50.321	-7.196	-12.464	0.000
90	100.642	0.000	100.642	0.000	0.000	-14.392	0.000
120	100.642	0.000	87.159	50.321	7.196	-12.464	0.000
135	100.642	0.000	71.165	71.165	10.177	-10.177	0.000
150	100.642	0.000	50.321	87.159	12.464	-7.196	0.000
180	100.642	0.000	0.000	100.642	14.392	0.000	0.000
210	100.642	0.000	-50.321	87.159	12.464	7.196	0.000
225	100.642	0.000	-71.165	71.165	10.177	10.177	0.000
240	100.642	0.000	-87.159	50.321	7.196	12.464	0.000
270	100.642	0.000	-100.642	0.000	0.000	14.392	0.000
300	100.642	0.000	-87.159	-50.321	-7.196	12.464	0.000
315	100.642	0.000	-71.165	-71.165	-10.177	10.177	0.000

RRUS-12 - Elevation 143 - None A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	100.642	0.000	-50.321	-87.159	-12.464	7.196	0.000

RRUS-12 - Elevation 143 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	100.642	0.000	0.000	-100.642	-14.392	0.000	0.000
30	100.642	0.000	50.321	-87.159	-12.464	-7.196	0.000
45	100.642	0.000	71.165	-71.165	-10.177	-10.177	0.000
60	100.642	0.000	87.159	-50.321	-7.196	-12.464	0.000
90	100.642	0.000	100.642	0.000	0.000	-14.392	0.000
120	100.642	0.000	87.159	50.321	7.196	-12.464	0.000
135	100.642	0.000	71.165	71.165	10.177	-10.177	0.000
150	100.642	0.000	50.321	87.159	12.464	-7.196	0.000
180	100.642	0.000	0.000	100.642	14.392	0.000	0.000
210	100.642	0.000	-50.321	87.159	12.464	7.196	0.000
225	100.642	0.000	-71.165	71.165	10.177	10.177	0.000
240	100.642	0.000	-87.159	50.321	7.196	12.464	0.000
270	100.642	0.000	-100.642	0.000	0.000	14.392	0.000
300	100.642	0.000	-87.159	-50.321	-7.196	12.464	0.000
315	100.642	0.000	-71.165	-71.165	-10.177	10.177	0.000
330	100.642	0.000	-50.321	-87.159	-12.464	7.196	0.000

RRUS-12 - Elevation 143 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	100.642	0.000	0.000	-100.642	-14.392	0.000	0.000
30	100.642	0.000	50.321	-87.159	-12.464	-7.196	0.000
45	100.642	0.000	71.165	-71.165	-10.177	-10.177	0.000
60	100.642	0.000	87.159	-50.321	-7.196	-12.464	0.000
90	100.642	0.000	100.642	0.000	0.000	-14.392	0.000
120	100.642	0.000	87.159	50.321	7.196	-12.464	0.000
135	100.642	0.000	71.165	71.165	10.177	-10.177	0.000
150	100.642	0.000	50.321	87.159	12.464	-7.196	0.000
180	100.642	0.000	0.000	100.642	14.392	0.000	0.000
210	100.642	0.000	-50.321	87.159	12.464	7.196	0.000
225	100.642	0.000	-71.165	71.165	10.177	10.177	0.000
240	100.642	0.000	-87.159	50.321	7.196	12.464	0.000
270	100.642	0.000	-100.642	0.000	0.000	14.392	0.000
300	100.642	0.000	-87.159	-50.321	-7.196	12.464	0.000
315	100.642	0.000	-71.165	-71.165	-10.177	10.177	0.000
330	100.642	0.000	-50.321	-87.159	-12.464	7.196	0.000

2" Dia 10' Omni - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	32.001	55.427	0.000	-64.001	-9.098	-0.094	0.600
30	0.000	64.001	32.001	-55.427	-7.872	-4.670	0.693
45	16.565	61.821	45.256	-45.256	-6.417	-6.565	0.669
60	32.001	55.427	55.427	-32.001	-4.522	-8.020	0.600
90	55.427	32.001	64.001	0.000	0.054	-9.246	0.347
120	64.001	0.000	55.427	32.001	4.630	-8.020	0.000

2" Dia 10' Omni - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	61.821	16.565	45.256	45.256	6.526	-6.565	-0.179
150	55.427	32.001	32.001	55.427	7.980	-4.670	-0.347
180	32.001	55.427	0.000	64.001	9.206	-0.094	-0.600
210	0.000	64.001	-32.001	55.427	7.980	4.482	-0.693
225	16.565	61.821	-45.256	45.256	6.526	6.378	-0.669
240	32.001	55.427	-55.427	32.001	4.630	7.832	-0.600
270	55.427	32.001	-64.001	0.000	0.054	9.058	-0.347
300	64.001	0.000	-55.427	-32.001	-4.522	7.832	0.000
315	61.821	16.565	-45.256	-45.256	-6.417	6.378	0.179
330	55.427	32.001	-32.001	-55.427	-7.872	4.482	0.347

Pirod 4' Side Mount Standoff (1) - Elevation 143 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	87.042	0.000	0.000	-87.042	-12.447	0.000	0.000
30	87.042	0.000	43.521	-75.380	-10.779	-6.223	0.000
45	87.042	0.000	61.548	-61.548	-8.801	-8.801	0.000
60	87.042	0.000	75.380	-43.521	-6.223	-10.779	0.000
90	87.042	0.000	87.042	0.000	0.000	-12.447	0.000
120	87.042	0.000	75.380	43.521	6.223	-10.779	0.000
135	87.042	0.000	61.548	61.548	8.801	-8.801	0.000
150	87.042	0.000	43.521	75.380	10.779	-6.223	0.000
180	87.042	0.000	0.000	87.042	12.447	0.000	0.000
210	87.042	0.000	-43.521	75.380	10.779	6.223	0.000
225	87.042	0.000	-61.548	61.548	8.801	8.801	0.000
240	87.042	0.000	-75.380	43.521	6.223	10.779	0.000
270	87.042	0.000	-87.042	0.000	0.000	12.447	0.000
300	87.042	0.000	-75.380	-43.521	-6.223	10.779	0.000
315	87.042	0.000	-61.548	-61.548	-8.801	8.801	0.000
330	87.042	0.000	-43.521	-75.380	-10.779	6.223	0.000

3" Dia 20' Omni - Elevation 153 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	64.919	112.442	0.000	-129.837	-19.635	-0.399	0.941
30	0.000	129.837	64.919	-112.442	-16.974	-10.331	1.086
45	33.604	125.413	91.809	-91.809	-13.817	-14.445	1.049
60	64.919	112.442	112.442	-64.919	-9.702	-17.602	0.941
90	112.442	64.919	129.837	0.000	0.230	-20.264	0.543
120	129.837	0.000	112.442	64.919	10.163	-17.602	0.000
135	125.413	33.604	91.809	91.809	14.277	-14.445	-0.281
150	112.442	64.919	64.919	112.442	17.434	-10.331	-0.543
180	64.919	112.442	0.000	129.837	20.095	-0.399	-0.941
210	0.000	129.837	-64.919	112.442	17.434	9.534	-1.086
225	33.604	125.413	-91.809	91.809	14.277	13.648	-1.049
240	64.919	112.442	-112.442	64.919	10.163	16.805	-0.941
270	112.442	64.919	-129.837	0.000	0.230	19.467	-0.543
300	129.837	0.000	-112.442	-64.919	-9.702	16.805	0.000
315	125.413	33.604	-91.809	-91.809	-13.817	13.648	0.281
330	112.442	64.919	-64.919	-112.442	-16.974	9.534	0.543

1' Side Arm - Elevation 153 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	40.574	70.277	0.000	-81.148	-12.199	-0.375	0.553
30	0.000	81.148	40.574	-70.277	-10.536	-6.583	0.638
45	21.003	78.383	57.381	-57.381	-8.563	-9.154	0.617
60	40.574	70.277	70.277	-40.574	-5.992	-11.127	0.553
90	70.277	40.574	81.148	0.000	0.216	-12.790	0.319
120	81.148	0.000	70.277	40.574	6.424	-11.127	0.000
135	78.383	21.003	57.381	57.381	8.996	-9.154	-0.165
150	70.277	40.574	40.574	70.277	10.969	-6.583	-0.319
180	40.574	70.277	0.000	81.148	12.632	-0.375	-0.553
210	0.000	81.148	-40.574	70.277	10.969	5.833	-0.638
225	21.003	78.383	-57.381	57.381	8.996	8.405	-0.617
240	40.574	70.277	-70.277	40.574	6.424	10.378	-0.553
270	70.277	40.574	-81.148	0.000	0.216	12.041	-0.319
300	81.148	0.000	-70.277	-40.574	-5.992	10.378	0.000
315	78.383	21.003	-57.381	-57.381	-8.563	8.405	0.165
330	70.277	40.574	-40.574	-70.277	-10.536	5.833	0.319

1 Bay Dipole ANT400D - Elevation 151 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	60.822	0.000	0.000	-60.822	-9.283	0.000	0.000
30	52.674	8.377	8.377	-52.674	-8.053	-1.265	-0.062
45	43.008	11.847	11.847	-43.008	-6.593	-1.789	-0.088
60	30.411	14.510	14.510	-30.411	-4.691	-2.191	-0.108
90	0.000	16.754	16.754	0.000	-0.099	-2.530	-0.125
120	30.411	14.510	14.510	30.411	4.493	-2.191	-0.108
135	43.008	11.847	11.847	43.008	6.395	-1.789	-0.088
150	52.674	8.377	8.377	52.674	7.854	-1.265	-0.062
180	60.822	0.000	0.000	60.822	9.085	0.000	0.000
210	52.674	8.377	-8.377	52.674	7.854	1.265	0.062
225	43.008	11.847	-11.847	43.008	6.395	1.789	0.088
240	30.411	14.510	-14.510	30.411	4.493	2.191	0.108
270	0.000	16.754	-16.754	0.000	-0.099	2.530	0.125
300	30.411	14.510	-14.510	-30.411	-4.691	2.191	0.108
315	43.008	11.847	-11.847	-43.008	-6.593	1.789	0.088
330	52.674	8.377	-8.377	-52.674	-8.053	1.265	0.062

10'6"x4" Pipe Mount - Elevation 151 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	98.657	0.000	0.000	-98.657	-14.897	0.000	0.000
30	98.657	0.000	49.328	-85.439	-12.901	-7.449	0.000
45	98.657	0.000	69.761	-69.761	-10.534	-10.534	0.000
60	98.657	0.000	85.439	-49.328	-7.449	-12.901	0.000
90	98.657	0.000	98.657	0.000	0.000	-14.897	0.000
120	98.657	0.000	85.439	49.328	7.449	-12.901	0.000
135	98.657	0.000	69.761	69.761	10.534	-10.534	0.000
150	98.657	0.000	49.328	85.439	12.901	-7.449	0.000
180	98.657	0.000	0.000	98.657	14.897	0.000	0.000
210	98.657	0.000	-49.328	85.439	12.901	7.449	0.000
225	98.657	0.000	-69.761	69.761	10.534	10.534	0.000
240	98.657	0.000	-85.439	49.328	7.449	12.901	0.000
270	98.657	0.000	-98.657	0.000	0.000	14.897	0.000
300	98.657	0.000	-85.439	-49.328	-7.449	12.901	0.000
315	98.657	0.000	-69.761	-69.761	-10.534	10.534	0.000

10'6"x4" Pipe Mount - Elevation 151 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	98.657	0.000	-49.328	-85.439	-12.901	7.449	0.000

1.5" Dia 16' Omni - Elevation 155 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	65.096	112.750	0.000	-130.193	-19.977	-0.351	0.831
30	0.000	130.193	65.096	-112.750	-17.274	-10.441	0.959
45	33.696	125.757	92.060	-92.060	-14.067	-14.620	0.926
60	65.096	112.750	112.750	-65.096	-9.887	-17.827	0.831
90	112.750	65.096	130.193	0.000	0.203	-20.531	0.480
120	130.193	0.000	112.750	65.096	10.293	-17.827	0.000
135	125.757	33.696	92.060	92.060	14.472	-14.620	-0.248
150	112.750	65.096	65.096	112.750	17.679	-10.441	-0.480
180	65.096	112.750	0.000	130.193	20.382	-0.351	-0.831
210	0.000	130.193	-65.096	112.750	17.679	9.739	-0.959
225	33.696	125.757	-92.060	92.060	14.472	13.918	-0.926
240	65.096	112.750	-112.750	65.096	10.293	17.125	-0.831
270	112.750	65.096	-130.193	0.000	0.203	19.829	-0.480
300	130.193	0.000	-112.750	-65.096	-9.887	17.125	0.000
315	125.757	33.696	-92.060	-92.060	-14.067	13.918	0.248
330	112.750	65.096	-65.096	-112.750	-17.274	9.739	0.480

2" Dia 10' Omni - Elevation 157 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	32.636	56.528	0.000	-65.272	-10.212	0.062	-0.406
30	56.528	32.636	32.636	-56.528	-8.839	-5.062	-0.234
45	63.048	16.894	46.155	-46.155	-7.210	-7.184	-0.121
60	65.272	0.000	56.528	-32.636	-5.088	-8.813	0.000
90	56.528	32.636	65.272	0.000	0.036	-10.186	0.234
120	32.636	56.528	56.528	32.636	5.160	-8.813	0.406
135	16.894	63.048	46.155	46.155	7.282	-7.184	0.453
150	0.000	65.272	32.636	56.528	8.911	-5.062	0.469
180	32.636	56.528	0.000	65.272	10.284	0.062	0.406
210	56.528	32.636	-32.636	56.528	8.911	5.186	0.234
225	63.048	16.894	-46.155	46.155	7.282	7.308	0.121
240	65.272	0.000	-56.528	32.636	5.160	8.937	0.000
270	56.528	32.636	-65.272	0.000	0.036	10.310	-0.234
300	32.636	56.528	-56.528	-32.636	-5.088	8.937	-0.406
315	16.894	63.048	-46.155	-46.155	-7.210	7.308	-0.453
330	0.000	65.272	-32.636	-56.528	-8.839	5.186	-0.469

2' Sidearm - Elevation 157 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	63.641	110.229	0.000	-127.281	-19.671	0.541	-0.792
30	110.229	63.641	63.641	-110.229	-16.993	-9.450	-0.457
45	122.944	32.943	90.001	-90.001	-13.818	-13.589	-0.237
60	127.281	0.000	110.229	-63.641	-9.679	-16.765	0.000
90	110.229	63.641	127.281	0.000	0.312	-19.442	0.457
120	63.641	110.229	110.229	63.641	10.304	-16.765	0.792

2' Sidearm - Elevation 157 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	32.943	122.944	90.001	90.001	14.443	-13.589	0.883
150	0.000	127.281	63.641	110.229	17.618	-9.450	0.914
180	63.641	110.229	0.000	127.281	20.296	0.541	0.792
210	110.229	63.641	-63.641	110.229	17.618	10.533	0.457
225	122.944	32.943	-90.001	90.001	14.443	14.671	0.237
240	127.281	0.000	-110.229	63.641	10.304	17.847	0.000
270	110.229	63.641	-127.281	0.000	0.312	20.524	-0.457
300	63.641	110.229	-110.229	-63.641	-9.679	17.847	-0.792
315	32.943	122.944	-90.001	-90.001	-13.818	14.671	-0.883
330	0.000	127.281	-63.641	-110.229	-16.993	10.533	-0.914

10'x6" Dipole Antenna - Elevation 157 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	149.582	47.106	105.989	-115.586	-17.970	-16.334	-0.362
30	259.084	27.197	210.775	-153.095	-23.859	-32.786	-0.209
45	288.971	14.078	243.217	-156.678	-24.422	-37.879	-0.108
60	299.165	0.000	259.084	-149.582	-23.308	-40.370	0.000
90	259.084	27.197	237.972	-105.989	-16.464	-37.056	0.209
120	149.582	47.106	153.095	-33.996	-5.161	-23.730	0.362
135	77.430	52.540	93.326	6.786	1.242	-14.346	0.404
150	0.000	54.394	27.197	47.106	7.572	-3.964	0.418
180	149.582	47.106	-105.989	115.586	18.324	16.946	0.362
210	259.084	27.197	-210.775	153.095	24.213	33.398	0.209
225	288.971	14.078	-243.217	156.678	24.775	38.491	0.108
240	299.165	0.000	-259.084	149.582	23.661	40.982	0.000
270	259.084	27.197	-237.972	105.989	16.817	37.668	-0.209
300	149.582	47.106	-153.095	33.996	5.514	24.342	-0.362
315	77.430	52.540	-93.326	-6.786	-0.889	14.958	-0.404
330	0.000	54.394	-27.197	-47.106	-7.219	4.576	-0.418

1' Side Arm - Elevation 157 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	40.795	70.659	0.000	-81.590	-12.598	0.366	-0.543
30	70.659	40.795	40.795	-70.659	-10.882	-6.039	-0.313
45	78.810	21.117	57.693	-57.693	-8.847	-8.692	-0.162
60	81.590	0.000	70.659	-40.795	-6.194	-10.728	0.000
90	70.659	40.795	81.590	0.000	0.211	-12.444	0.313
120	40.795	70.659	70.659	40.795	6.616	-10.728	0.543
135	21.117	78.810	57.693	57.693	9.269	-8.692	0.605
150	0.000	81.590	40.795	70.659	11.305	-6.039	0.627
180	40.795	70.659	0.000	81.590	13.021	0.366	0.543
210	70.659	40.795	-40.795	70.659	11.305	6.771	0.313
225	78.810	21.117	-57.693	57.693	9.269	9.424	0.162
240	81.590	0.000	-70.659	40.795	6.616	11.459	0.000
270	70.659	40.795	-81.590	0.000	0.211	13.176	-0.313
300	40.795	70.659	-70.659	-40.795	-6.194	11.459	-0.543
315	21.117	78.810	-57.693	-57.693	-8.847	9.424	-0.605
330	0.000	81.590	-40.795	-70.659	-10.882	6.771	-0.627

3'4"x4" Pipe Mount - Elevation 157 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	27.605	0.000	0.000	-27.605	-4.334	0.000	0.000
30	27.605	0.000	13.803	-23.907	-3.753	-2.167	0.000
45	27.605	0.000	19.520	-19.520	-3.065	-3.065	0.000
60	27.605	0.000	23.907	-13.803	-2.167	-3.753	0.000
90	27.605	0.000	27.605	0.000	0.000	-4.334	0.000
120	27.605	0.000	23.907	13.803	2.167	-3.753	0.000
135	27.605	0.000	19.520	19.520	3.065	-3.065	0.000
150	27.605	0.000	13.803	23.907	3.753	-2.167	0.000
180	27.605	0.000	0.000	27.605	4.334	0.000	0.000
210	27.605	0.000	-13.803	23.907	3.753	2.167	0.000
225	27.605	0.000	-19.520	19.520	3.065	3.065	0.000
240	27.605	0.000	-23.907	13.803	2.167	3.753	0.000
270	27.605	0.000	-27.605	0.000	0.000	4.334	0.000
300	27.605	0.000	-23.907	-13.803	-2.167	3.753	0.000
315	27.605	0.000	-19.520	-19.520	-3.065	3.065	0.000
330	27.605	0.000	-13.803	-23.907	-3.753	2.167	0.000

(Inverted) 3" Dia 20' Omni - Elevation 160 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	65.533	113.506	0.000	-131.066	-20.722	-0.431	1.027
30	0.000	131.066	65.533	-113.506	-17.912	-10.916	1.185
45	33.922	126.600	92.678	-92.678	-14.580	-15.259	1.145
60	65.533	113.506	113.506	-65.533	-10.237	-18.592	1.027
90	113.506	65.533	131.066	0.000	0.249	-21.401	0.593
120	131.066	0.000	113.506	65.533	10.734	-18.592	0.000
135	126.600	33.922	92.678	92.678	15.077	-15.259	-0.307
150	113.506	65.533	65.533	113.506	18.410	-10.916	-0.593
180	65.533	113.506	0.000	131.066	21.219	-0.431	-1.027
210	0.000	131.066	-65.533	113.506	18.410	10.055	-1.185
225	33.922	126.600	-92.678	92.678	15.077	14.398	-1.145
240	65.533	113.506	-113.506	65.533	10.734	17.730	-1.027
270	113.506	65.533	-131.066	0.000	0.249	20.540	-0.593
300	131.066	0.000	-113.506	-65.533	-10.237	17.730	0.000
315	126.600	33.922	-92.678	-92.678	-14.580	14.398	0.307
330	113.506	65.533	-65.533	-113.506	-17.912	10.055	0.593

2' Sidearm - Elevation 160 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	63.895	110.669	0.000	-127.789	-20.140	-0.531	0.780
30	0.000	127.789	63.895	-110.669	-17.401	-10.754	0.900
45	33.074	123.435	90.361	-90.361	-14.151	-14.988	0.869
60	63.895	110.669	110.669	-63.895	-9.917	-18.238	0.780
90	110.669	63.895	127.789	0.000	0.306	-20.977	0.450
120	127.789	0.000	110.669	63.895	10.530	-18.238	0.000
135	123.435	33.074	90.361	90.361	14.764	-14.988	-0.233
150	110.669	63.895	63.895	110.669	18.013	-10.754	-0.450
180	63.895	110.669	0.000	127.789	20.753	-0.531	-0.780
210	0.000	127.789	-63.895	110.669	18.013	9.692	-0.900
225	33.074	123.435	-90.361	90.361	14.764	13.927	-0.869
240	63.895	110.669	-110.669	63.895	10.530	17.176	-0.780
270	110.669	63.895	-127.789	0.000	0.306	19.916	-0.450
300	127.789	0.000	-110.669	-63.895	-9.917	17.176	0.000
315	123.435	33.074	-90.361	-90.361	-14.151	13.927	0.233

2' Sidearm - Elevation 160 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	110.669	63.895	-63.895	-110.669	-17.401	9.692	0.450

(Inverted) 3" Dia 20' Omni - Elevation 160 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	65.533	113.506	0.000	-131.066	-20.722	-0.431	1.027
30	0.000	131.066	65.533	-113.506	-17.912	-10.916	1.185
45	33.922	126.600	92.678	-92.678	-14.580	-15.259	1.145
60	65.533	113.506	113.506	-65.533	-10.237	-18.592	1.027
90	113.506	65.533	131.066	0.000	0.249	-21.401	0.593
120	131.066	0.000	113.506	65.533	10.734	-18.592	0.000
135	126.600	33.922	92.678	92.678	15.077	-15.259	-0.307
150	113.506	65.533	65.533	113.506	18.410	-10.916	-0.593
180	65.533	113.506	0.000	131.066	21.219	-0.431	-1.027
210	0.000	131.066	-65.533	113.506	18.410	10.055	-1.185
225	33.922	126.600	-92.678	92.678	15.077	14.398	-1.145
240	65.533	113.506	-113.506	65.533	10.734	17.730	-1.027
270	113.506	65.533	-131.066	0.000	0.249	20.540	-0.593
300	131.066	0.000	-113.506	-65.533	-10.237	17.730	0.000
315	126.600	33.922	-92.678	-92.678	-14.580	14.398	0.307
330	113.506	65.533	-65.533	-113.506	-17.912	10.055	0.593

6' Side-Arm(1) - Elevation 166 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	247.506	247.506	0.000	-350.027	-59.052	0.000	0.000
30	90.594	338.100	175.014	-303.132	-51.267	-29.052	-1.184
45	0.000	350.027	247.506	-247.506	-42.033	-41.086	-1.675
60	90.594	338.100	303.132	-175.014	-30.000	-50.320	-2.051
90	247.506	247.506	350.027	0.000	-0.947	-58.104	-2.368
120	338.100	90.594	303.132	175.014	28.105	-50.320	-2.051
135	350.027	0.000	247.506	247.506	40.139	-41.086	-1.675
150	338.100	90.594	175.014	303.132	49.373	-29.052	-1.184
180	247.506	247.506	0.000	350.027	57.157	0.000	0.000
210	90.594	338.100	-175.014	303.132	49.373	29.052	1.184
225	0.000	350.027	-247.506	247.506	40.139	41.086	1.675
240	90.594	338.100	-303.132	175.014	28.105	50.320	2.051
270	247.506	247.506	-350.027	0.000	-0.947	58.104	2.368
300	338.100	90.594	-303.132	-175.014	-30.000	50.320	2.051
315	350.027	0.000	-247.506	-247.506	-42.033	41.086	1.675
330	338.100	90.594	-175.014	-303.132	-51.267	29.052	1.184

6' Side-Arm(1) - Elevation 166 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	338.100	90.594	0.000	-350.027	-57.631	-0.820	2.051
30	247.506	247.506	175.014	-303.132	-49.846	-29.873	2.368
45	175.014	303.132	247.506	-247.506	-40.612	-41.906	2.288
60	90.594	338.100	303.132	-175.014	-28.579	-51.140	2.051
90	90.594	338.100	350.027	0.000	0.474	-58.925	1.184
120	247.506	247.506	303.132	175.014	29.526	-51.140	0.000

6' Side-Arm(1) - Elevation 166 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	303.132	175.014	247.506	247.506	41.560	-41.906	-0.613
150	338.100	90.594	175.014	303.132	50.794	-29.873	-1.184
180	338.100	90.594	0.000	350.027	58.578	-0.820	-2.051
210	247.506	247.506	-175.014	303.132	50.794	28.232	-2.368
225	175.014	303.132	-247.506	247.506	41.560	40.266	-2.288
240	90.594	338.100	-303.132	175.014	29.526	49.500	-2.051
270	90.594	338.100	-350.027	0.000	0.474	57.284	-1.184
300	247.506	247.506	-303.132	-175.014	-28.579	49.500	0.000
315	303.132	175.014	-247.506	-247.506	-40.612	40.266	0.613
330	338.100	90.594	-175.014	-303.132	-49.846	28.232	1.184

(inverted) 10' 8 Bay Di-Pole - Elevation 166 - From Face B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	127.585	34.186	0.000	-132.086	-22.129	-0.352	0.845
30	127.585	34.186	66.043	-114.390	-19.192	-11.315	0.488
45	114.390	66.043	93.399	-93.399	-15.707	-15.856	0.252
60	93.399	93.399	114.390	-66.043	-11.166	-19.340	0.000
90	34.186	127.585	132.086	0.000	-0.203	-22.278	-0.488
120	34.186	127.585	114.390	66.043	10.760	-19.340	-0.845
135	66.043	114.390	93.399	93.399	15.301	-15.856	-0.942
150	93.399	93.399	66.043	114.390	18.786	-11.315	-0.975
180	127.585	34.186	0.000	132.086	21.723	-0.352	-0.845
210	127.585	34.186	-66.043	114.390	18.786	10.611	-0.488
225	114.390	66.043	-93.399	93.399	15.301	15.153	-0.252
240	93.399	93.399	-114.390	66.043	10.760	18.637	0.000
270	34.186	127.585	-132.086	0.000	-0.203	21.575	0.488
300	34.186	127.585	-114.390	-66.043	-11.166	18.637	0.845
315	66.043	114.390	-93.399	-93.399	-15.707	15.153	0.942
330	93.399	93.399	-66.043	-114.390	-19.192	10.611	0.975

(inverted) 2" Dia 10' Omni - Elevation 164 - From Face B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	32.937	57.049	0.000	-65.875	-10.841	-0.064	0.424
30	57.049	32.937	32.937	-57.049	-9.393	-5.466	0.245
45	63.630	17.050	46.580	-46.580	-7.676	-7.704	0.127
60	65.875	0.000	57.049	-32.937	-5.439	-9.420	0.000
90	57.049	32.937	65.875	0.000	-0.037	-10.868	-0.245
120	32.937	57.049	57.049	32.937	5.365	-9.420	-0.424
135	17.050	63.630	46.580	46.580	7.602	-7.704	-0.473
150	0.000	65.875	32.937	57.049	9.319	-5.466	-0.489
180	32.937	57.049	0.000	65.875	10.766	-0.064	-0.424
210	57.049	32.937	-32.937	57.049	9.319	5.337	-0.245
225	63.630	17.050	-46.580	46.580	7.602	7.575	-0.127
240	65.875	0.000	-57.049	32.937	5.365	9.292	0.000
270	57.049	32.937	-65.875	0.000	-0.037	10.739	0.245
300	32.937	57.049	-57.049	-32.937	-5.439	9.292	0.424
315	17.050	63.630	-46.580	-46.580	-7.676	7.575	0.473
330	0.000	65.875	-32.937	-57.049	-9.393	5.337	0.489

6' Side-Arm(1) - Elevation 164 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	90.363	337.238	0.000	-349.135	-56.778	-0.832	2.074
30	246.876	246.876	174.567	-302.360	-49.107	-29.461	2.395
45	302.360	174.567	246.876	-246.876	-40.007	-41.319	2.313
60	337.238	90.363	302.360	-174.567	-28.149	-50.419	2.074
90	337.238	90.363	349.135	0.000	0.480	-58.090	1.197
120	246.876	246.876	302.360	174.567	29.109	-50.419	0.000
135	174.567	302.360	246.876	246.876	40.968	-41.319	-0.620
150	90.363	337.238	174.567	302.360	50.067	-29.461	-1.197
180	90.363	337.238	0.000	349.135	57.738	-0.832	-2.074
210	246.876	246.876	-174.567	302.360	50.067	27.797	-2.395
225	302.360	174.567	-246.876	246.876	40.968	39.656	-2.313
240	337.238	90.363	-302.360	174.567	29.109	48.755	-2.074
270	337.238	90.363	-349.135	0.000	0.480	56.427	-1.197
300	246.876	246.876	-302.360	-174.567	-28.149	48.755	0.000
315	174.567	302.360	-246.876	-246.876	-40.007	39.656	0.620
330	90.363	337.238	-174.567	-302.360	-49.107	27.797	1.197

6' Side-Arm(1) - Elevation 164 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	90.363	337.238	0.000	-349.135	-56.778	0.832	-2.074
30	90.363	337.238	174.567	-302.360	-49.107	-27.797	-1.197
45	174.567	302.360	246.876	-246.876	-40.007	-39.656	-0.620
60	246.876	246.876	302.360	-174.567	-28.149	-48.755	0.000
90	337.238	90.363	349.135	0.000	0.480	-56.427	1.197
120	337.238	90.363	302.360	174.567	29.109	-48.755	2.074
135	302.360	174.567	246.876	246.876	40.968	-39.656	2.313
150	246.876	246.876	174.567	302.360	50.067	-27.797	2.395
180	90.363	337.238	0.000	349.135	57.738	0.832	2.074
210	90.363	337.238	-174.567	302.360	50.067	29.461	1.197
225	174.567	302.360	-246.876	246.876	40.968	41.319	0.620
240	246.876	246.876	-302.360	174.567	29.109	50.419	0.000
270	337.238	90.363	-349.135	0.000	0.480	58.090	-1.197
300	337.238	90.363	-302.360	-174.567	-28.149	50.419	-2.074
315	302.360	174.567	-246.876	-246.876	-40.007	41.319	-2.313
330	246.876	246.876	-174.567	-302.360	-49.107	29.461	-2.395

3'4"x4" Pipe Mount - Elevation 169 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	27.931	0.000	0.000	-27.931	-4.720	0.000	0.000
30	27.931	0.000	13.966	-24.189	-4.088	-2.360	0.000
45	27.931	0.000	19.750	-19.750	-3.338	-3.338	0.000
60	27.931	0.000	24.189	-13.966	-2.360	-4.088	0.000
90	27.931	0.000	27.931	0.000	0.000	-4.720	0.000
120	27.931	0.000	24.189	13.966	2.360	-4.088	0.000
135	27.931	0.000	19.750	19.750	3.338	-3.338	0.000
150	27.931	0.000	13.966	24.189	4.088	-2.360	0.000
180	27.931	0.000	0.000	27.931	4.720	0.000	0.000
210	27.931	0.000	-13.966	24.189	4.088	2.360	0.000
225	27.931	0.000	-19.750	19.750	3.338	3.338	0.000
240	27.931	0.000	-24.189	13.966	2.360	4.088	0.000
270	27.931	0.000	-27.931	0.000	0.000	4.720	0.000
300	27.931	0.000	-24.189	-13.966	-2.360	4.088	0.000
315	27.931	0.000	-19.750	-19.750	-3.338	3.338	0.000

3'4"x4" Pipe Mount - Elevation 169 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	27.931	0.000	-13.966	-24.189	-4.088	2.360	0.000

3'4"x4" Pipe Mount - Elevation 171 - None A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	27.984	0.000	0.000	-27.984	-4.785	0.000	0.000
30	27.984	0.000	13.992	-24.235	-4.144	-2.393	0.000
45	27.984	0.000	19.788	-19.788	-3.384	-3.384	0.000
60	27.984	0.000	24.235	-13.992	-2.393	-4.144	0.000
90	27.984	0.000	27.984	0.000	0.000	-4.785	0.000
120	27.984	0.000	24.235	13.992	2.393	-4.144	0.000
135	27.984	0.000	19.788	19.788	3.384	-3.384	0.000
150	27.984	0.000	13.992	24.235	4.144	-2.393	0.000
180	27.984	0.000	0.000	27.984	4.785	0.000	0.000
210	27.984	0.000	-13.992	24.235	4.144	2.393	0.000
225	27.984	0.000	-19.788	19.788	3.384	3.384	0.000
240	27.984	0.000	-24.235	13.992	2.393	4.144	0.000
270	27.984	0.000	-27.984	0.000	0.000	4.785	0.000
300	27.984	0.000	-24.235	-13.992	-2.393	4.144	0.000
315	27.984	0.000	-19.788	-19.788	-3.384	3.384	0.000
330	27.984	0.000	-13.992	-24.235	-4.144	2.393	0.000

3'4"x4" Pipe Mount - Elevation 176 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	28.113	0.000	0.000	-28.113	-4.948	0.000	0.000
30	28.113	0.000	14.056	-24.346	-4.285	-2.474	0.000
45	28.113	0.000	19.879	-19.879	-3.499	-3.499	0.000
60	28.113	0.000	24.346	-14.056	-2.474	-4.285	0.000
90	28.113	0.000	28.113	0.000	0.000	-4.948	0.000
120	28.113	0.000	24.346	14.056	2.474	-4.285	0.000
135	28.113	0.000	19.879	19.879	3.499	-3.499	0.000
150	28.113	0.000	14.056	24.346	4.285	-2.474	0.000
180	28.113	0.000	0.000	28.113	4.948	0.000	0.000
210	28.113	0.000	-14.056	24.346	4.285	2.474	0.000
225	28.113	0.000	-19.879	19.879	3.499	3.499	0.000
240	28.113	0.000	-24.346	14.056	2.474	4.285	0.000
270	28.113	0.000	-28.113	0.000	0.000	4.948	0.000
300	28.113	0.000	-24.346	-14.056	-2.474	4.285	0.000
315	28.113	0.000	-19.879	-19.879	-3.499	3.499	0.000
330	28.113	0.000	-14.056	-24.346	-4.285	2.474	0.000

432E-83I-01T TTA Unit - Elevation 178 - From Face A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	47.752	28.250	-27.229	-48.342	-8.650	4.925	-0.102
30	0.000	32.621	16.310	-28.250	-5.074	-2.825	-0.118
45	24.718	31.509	37.161	-14.929	-2.702	-6.537	-0.114
60	47.752	28.250	55.480	-0.590	-0.150	-9.797	-0.102
90	82.709	16.310	79.783	27.229	4.802	-14.123	-0.059
120	95.504	0.000	82.709	47.752	8.455	-14.644	0.000

432E-83I-01T TTA Unit - Elevation 178 - From Face A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	92.250	8.443	75.669	53.437	9.467	-13.391	0.030
150	82.709	16.310	63.473	55.480	9.830	-11.220	0.059
180	47.752	28.250	27.229	48.342	8.560	-4.769	0.102
210	0.000	32.621	-16.310	28.250	4.983	2.981	0.118
225	24.718	31.509	-37.161	14.929	2.612	6.693	0.114
240	47.752	28.250	-55.480	0.590	0.060	9.953	0.102
270	82.709	16.310	-79.783	-27.229	-4.892	14.279	0.059
300	95.504	0.000	-82.709	-47.752	-8.545	14.800	0.000
315	92.250	8.443	-75.669	-53.437	-9.557	13.547	-0.030
330	82.709	16.310	-63.473	-55.480	-9.920	11.376	-0.059

3" Dia 12' Omni - Elevation 180 - From Face A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	33.589	58.178	0.000	-67.178	-12.110	0.031	-0.207
30	0.000	67.178	33.589	-58.178	-10.490	-6.015	-0.239
45	17.387	64.889	47.502	-47.502	-8.568	-8.520	-0.231
60	33.589	58.178	58.178	-33.589	-6.064	-10.441	-0.207
90	58.178	33.589	67.178	0.000	-0.018	-12.061	-0.120
120	67.178	0.000	58.178	33.589	6.028	-10.441	0.000
135	64.889	17.387	47.502	47.502	8.533	-8.520	0.062
150	58.178	33.589	33.589	58.178	10.454	-6.015	0.120
180	33.589	58.178	0.000	67.178	12.074	0.031	0.207
210	0.000	67.178	-33.589	58.178	10.454	6.077	0.239
225	17.387	64.889	-47.502	47.502	8.533	8.581	0.231
240	33.589	58.178	-58.178	33.589	6.028	10.503	0.207
270	58.178	33.589	-67.178	0.000	-0.018	12.123	0.120
300	67.178	0.000	-58.178	-33.589	-6.064	10.503	0.000
315	64.889	17.387	-47.502	-47.502	-8.568	8.581	-0.062
330	58.178	33.589	-33.589	-58.178	-10.490	6.077	-0.120

3" Dia 12' Omni - Elevation 180 - From Face B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	33.589	58.178	0.000	-67.178	-12.122	-0.052	0.353
30	58.178	33.589	33.589	-58.178	-10.502	-6.099	0.204
45	64.889	17.387	47.502	-47.502	-8.581	-8.603	0.105
60	67.178	0.000	58.178	-33.589	-6.076	-10.525	0.000
90	58.178	33.589	67.178	0.000	-0.030	-12.145	-0.204
120	33.589	58.178	58.178	33.589	6.016	-10.525	-0.353
135	17.387	64.889	47.502	47.502	8.520	-8.603	-0.393
150	0.000	67.178	33.589	58.178	10.442	-6.099	-0.407
180	33.589	58.178	0.000	67.178	12.062	-0.052	-0.353
210	58.178	33.589	-33.589	58.178	10.442	5.994	-0.204
225	64.889	17.387	-47.502	47.502	8.520	8.498	-0.105
240	67.178	0.000	-58.178	33.589	6.016	10.420	0.000
270	58.178	33.589	-67.178	0.000	-0.030	12.040	0.204
300	33.589	58.178	-58.178	-33.589	-6.076	10.420	0.353
315	17.387	64.889	-47.502	-47.502	-8.581	8.498	0.393
330	0.000	67.178	-33.589	-58.178	-10.502	5.994	0.407

432E-83I-01T TTA Unit - Elevation 180 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	47.865	28.317	-27.293	-48.455	-8.570	4.650	0.343
30	0.000	32.698	16.349	-28.317	-4.946	-3.205	0.396
45	24.776	31.583	37.249	-14.964	-2.542	-6.967	0.383
60	47.865	28.317	55.610	-0.591	0.045	-10.272	0.343
90	82.904	16.349	79.971	27.293	5.064	-14.657	0.198
120	95.729	0.000	82.904	47.865	8.767	-15.185	0.000
135	92.467	8.463	75.848	53.563	9.793	-13.915	-0.103
150	82.904	16.349	63.622	55.610	10.161	-11.714	-0.198
180	47.865	28.317	27.293	48.455	8.873	-5.175	-0.343
210	0.000	32.698	-16.349	28.317	5.249	2.680	-0.396
225	24.776	31.583	-37.249	14.964	2.845	6.442	-0.383
240	47.865	28.317	-55.610	0.591	0.258	9.747	-0.343
270	82.904	16.349	-79.971	-27.293	-4.761	14.132	-0.198
300	95.729	0.000	-82.904	-47.865	-8.464	14.660	0.000
315	92.467	8.463	-75.848	-53.563	-9.490	13.390	0.103
330	82.904	16.349	-63.622	-55.610	-9.858	11.190	0.198

1 Bay Dipole ANT400D - Elevation 180 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	31.557	15.056	-19.801	-28.818	-5.140	3.482	0.107
30	0.000	17.385	8.693	-15.056	-2.663	-1.647	0.124
45	16.335	16.793	22.543	-6.376	-1.100	-4.140	0.120
60	31.557	15.056	34.857	2.739	0.540	-6.356	0.107
90	54.658	8.693	51.682	19.801	3.612	-9.385	0.062
120	63.114	0.000	54.658	31.557	5.728	-9.920	0.000
135	60.963	4.500	50.546	34.378	6.235	-9.180	-0.032
150	54.658	8.693	42.989	34.857	6.322	-7.820	-0.062
180	31.557	15.056	19.801	28.818	5.235	-3.646	-0.107
210	0.000	17.385	-8.693	15.056	2.757	1.483	-0.124
225	16.335	16.793	-22.543	6.376	1.195	3.976	-0.120
240	31.557	15.056	-34.857	-2.739	-0.446	6.192	-0.107
270	54.658	8.693	-51.682	-19.801	-3.517	9.221	-0.062
300	63.114	0.000	-54.658	-31.557	-5.633	9.756	0.000
315	60.963	4.500	-50.546	-34.378	-6.141	9.016	0.032
330	54.658	8.693	-42.989	-34.857	-6.227	7.656	0.062

2" Dia 10' Omni - Elevation 181 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	33.628	58.246	0.000	-67.257	-12.141	-0.057	0.383
30	0.000	67.257	33.628	-58.246	-10.510	-6.144	0.442
45	17.407	64.965	47.558	-47.558	-8.575	-8.665	0.427
60	33.628	58.246	58.246	-33.628	-6.054	-10.599	0.383
90	58.246	33.628	67.257	0.000	0.033	-12.230	0.221
120	67.257	0.000	58.246	33.628	6.120	-10.599	0.000
135	64.965	17.407	47.558	47.558	8.641	-8.665	-0.114
150	58.246	33.628	33.628	58.246	10.575	-6.144	-0.221
180	33.628	58.246	0.000	67.257	12.206	-0.057	-0.383
210	0.000	67.257	-33.628	58.246	10.575	6.030	-0.442
225	17.407	64.965	-47.558	47.558	8.641	8.551	-0.427
240	33.628	58.246	-58.246	33.628	6.120	10.486	-0.383
270	58.246	33.628	-67.257	0.000	0.033	12.117	-0.221
300	67.257	0.000	-58.246	-33.628	-6.054	10.486	0.000
315	64.965	17.407	-47.558	-47.558	-8.575	8.551	0.114

2" Dia 10' Omni - Elevation 181 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	58.246	33.628	-33.628	-58.246	-10.510	6.030	0.221

2" Dia 10' Omni - Elevation 181 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	33.628	58.246	0.000	-67.257	-12.141	0.057	-0.383
30	58.246	33.628	33.628	-58.246	-10.510	-6.030	-0.221
45	64.965	17.407	47.558	-47.558	-8.575	-8.551	-0.114
60	67.257	0.000	58.246	-33.628	-6.054	-10.486	0.000
90	58.246	33.628	67.257	0.000	0.033	-12.117	0.221
120	33.628	58.246	58.246	33.628	6.120	-10.486	0.383
135	17.407	64.965	47.558	47.558	8.641	-8.551	0.427
150	0.000	67.257	33.628	58.246	10.575	-6.030	0.442
180	33.628	58.246	0.000	67.257	12.206	0.057	0.383
210	58.246	33.628	-33.628	58.246	10.575	6.144	0.221
225	64.965	17.407	-47.558	47.558	8.641	8.665	0.114
240	67.257	0.000	-58.246	33.628	6.120	10.599	0.000
270	58.246	33.628	-67.257	0.000	0.033	12.230	-0.221
300	33.628	58.246	-58.246	-33.628	-6.054	10.599	-0.383
315	17.407	64.965	-47.558	-47.558	-8.575	8.665	-0.427
330	0.000	67.257	-33.628	-58.246	-10.510	6.144	-0.442

10' - 2 Bay Dipole - Elevation 181 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	23.680	41.015	0.000	-47.360	-8.539	0.057	-0.270
30	41.015	23.680	23.680	-41.015	-7.391	-4.229	-0.156
45	45.746	12.258	33.489	-33.489	-6.029	-6.004	-0.081
60	47.360	0.000	41.015	-23.680	-4.253	-7.367	0.000
90	41.015	23.680	47.360	0.000	0.033	-8.515	0.156
120	23.680	41.015	41.015	23.680	4.319	-7.367	0.270
135	12.258	45.746	33.489	33.489	6.094	-6.004	0.301
150	0.000	47.360	23.680	41.015	7.457	-4.229	0.311
180	23.680	41.015	0.000	47.360	8.605	0.057	0.270
210	41.015	23.680	-23.680	41.015	7.457	4.343	0.156
225	45.746	12.258	-33.489	33.489	6.094	6.118	0.081
240	47.360	0.000	-41.015	23.680	4.319	7.481	0.000
270	41.015	23.680	-47.360	0.000	0.033	8.629	-0.156
300	23.680	41.015	-41.015	-23.680	-4.253	7.481	-0.270
315	12.258	45.746	-33.489	-33.489	-6.029	6.118	-0.301
330	0.000	47.360	-23.680	-41.015	-7.391	4.343	-0.311

20' 4-Bay Dipole - Elevation 181 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	134.513	0.000	0.000	-134.513	-24.708	0.000	0.000
30	116.492	67.257	67.257	-116.492	-21.447	-12.173	-0.442
45	95.115	95.115	95.115	-95.115	-17.577	-17.216	-0.625
60	67.257	116.492	116.492	-67.257	-12.535	-21.085	-0.766
90	0.000	134.513	134.513	0.000	-0.362	-24.347	-0.884
120	67.257	116.492	116.492	67.257	11.812	-21.085	-0.766

20' 4-Bay Dipole - Elevation 181 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	95.115	95.115	95.115	95.115	16.854	-17.216	-0.625
150	116.492	67.257	67.257	116.492	20.724	-12.173	-0.442
180	134.513	0.000	0.000	134.513	23.985	0.000	0.000
210	116.492	67.257	-67.257	116.492	20.724	12.173	0.442
225	95.115	95.115	-95.115	95.115	16.854	17.216	0.625
240	67.257	116.492	-116.492	67.257	11.812	21.085	0.766
270	0.000	134.513	-134.513	0.000	-0.362	24.347	0.884
300	67.257	116.492	-116.492	-67.257	-12.535	21.085	0.766
315	95.115	95.115	-95.115	-95.115	-17.577	17.216	0.625
330	116.492	67.257	-67.257	-116.492	-21.447	12.173	0.442

Lightning Rod 2"x15' - Elevation 181 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	100.885	0.000	0.000	-100.885	-18.260	0.000	0.000
30	100.885	0.000	50.442	-87.369	-15.814	-9.130	0.000
45	100.885	0.000	71.336	-71.336	-12.912	-12.912	0.000
60	100.885	0.000	87.369	-50.442	-9.130	-15.814	0.000
90	100.885	0.000	100.885	0.000	0.000	-18.260	0.000
120	100.885	0.000	87.369	50.442	9.130	-15.814	0.000
135	100.885	0.000	71.336	71.336	12.912	-12.912	0.000
150	100.885	0.000	50.442	87.369	15.814	-9.130	0.000
180	100.885	0.000	0.000	100.885	18.260	0.000	0.000
210	100.885	0.000	-50.442	87.369	15.814	9.130	0.000
225	100.885	0.000	-71.336	71.336	12.912	12.912	0.000
240	100.885	0.000	-87.369	50.442	9.130	15.814	0.000
270	100.885	0.000	-100.885	0.000	0.000	18.260	0.000
300	100.885	0.000	-87.369	-50.442	-9.130	15.814	0.000
315	100.885	0.000	-71.336	-71.336	-12.912	12.912	0.000
330	100.885	0.000	-50.442	-87.369	-15.814	9.130	0.000

3" Dia 20' Omni - Elevation 182.5 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	134.747	0.000	0.000	-134.747	-25.252	0.000	0.000
30	116.695	67.374	67.374	-116.695	-21.957	-12.296	-0.809
45	95.281	95.281	95.281	-95.281	-18.049	-17.389	-1.144
60	67.374	116.695	116.695	-67.374	-12.956	-21.297	-1.401
90	0.000	134.747	134.747	0.000	-0.660	-24.591	-1.617
120	67.374	116.695	116.695	67.374	11.635	-21.297	-1.401
135	95.281	95.281	95.281	95.281	16.729	-17.389	-1.144
150	116.695	67.374	67.374	116.695	20.637	-12.296	-0.809
180	134.747	0.000	0.000	134.747	23.931	0.000	0.000
210	116.695	67.374	-67.374	116.695	20.637	12.296	0.809
225	95.281	95.281	-95.281	95.281	16.729	17.389	1.144
240	67.374	116.695	-116.695	67.374	11.635	21.297	1.401
270	0.000	134.747	-134.747	0.000	-0.660	24.591	1.617
300	67.374	116.695	-116.695	-67.374	-12.956	21.297	1.401
315	95.281	95.281	-95.281	-95.281	-18.049	17.389	1.144
330	116.695	67.374	-67.374	-116.695	-21.957	12.296	0.809

1" Dia 8' Omni - Elevation 182 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	67.335	0.000	0.000	-67.335	-12.295	0.000	0.000
30	58.314	33.667	33.667	-58.314	-10.653	-6.127	-0.270
45	47.613	47.613	47.613	-47.613	-8.706	-8.666	-0.382
60	33.667	58.314	58.314	-33.667	-6.168	-10.613	-0.468
90	0.000	67.335	67.335	0.000	-0.040	-12.255	-0.540
120	33.667	58.314	58.314	33.667	6.087	-10.613	-0.468
135	47.613	47.613	47.613	47.613	8.625	-8.666	-0.382
150	58.314	33.667	33.667	58.314	10.573	-6.127	-0.270
180	67.335	0.000	0.000	67.335	12.215	0.000	0.000
210	58.314	33.667	-33.667	58.314	10.573	6.127	0.270
225	47.613	47.613	-47.613	47.613	8.625	8.666	0.382
240	33.667	58.314	-58.314	33.667	6.087	10.613	0.468
270	0.000	67.335	-67.335	0.000	-0.040	12.255	0.540
300	33.667	58.314	-58.314	-33.667	-6.168	10.613	0.468
315	47.613	47.613	-47.613	-47.613	-8.706	8.666	0.382
330	58.314	33.667	-33.667	-58.314	-10.653	6.127	0.270

6' Side-Arm(1) - Elevation 182.5 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	252.494	252.494	0.000	-357.080	-66.008	0.000	0.000
30	92.419	344.913	178.540	-309.240	-57.277	-32.584	-1.072
45	0.000	357.080	252.494	-252.494	-46.921	-46.080	-1.516
60	92.419	344.913	309.240	-178.540	-33.424	-56.436	-1.857
90	252.494	252.494	357.080	0.000	-0.840	-65.167	-2.144
120	344.913	92.419	309.240	178.540	31.743	-56.436	-1.857
135	357.080	0.000	252.494	252.494	45.240	-46.080	-1.516
150	344.913	92.419	178.540	309.240	55.596	-32.584	-1.072
180	252.494	252.494	0.000	357.080	64.327	0.000	0.000
210	92.419	344.913	-178.540	309.240	55.596	32.584	1.072
225	0.000	357.080	-252.494	252.494	45.240	46.080	1.516
240	92.419	344.913	-309.240	178.540	31.743	56.436	1.857
270	252.494	252.494	-357.080	0.000	-0.840	65.167	2.144
300	344.913	92.419	-309.240	-178.540	-33.424	56.436	1.857
315	357.080	0.000	-252.494	-252.494	-46.921	46.080	1.516
330	344.913	92.419	-178.540	-309.240	-57.277	32.584	1.072

6' Side-Arm(1) - Elevation 182.5 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	344.913	92.419	0.000	-357.080	-64.747	-0.728	1.857
30	252.494	252.494	178.540	-309.240	-56.016	-33.311	2.144
45	178.540	309.240	252.494	-252.494	-45.660	-46.808	2.071
60	92.419	344.913	309.240	-178.540	-32.163	-57.164	1.857
90	92.419	344.913	357.080	0.000	0.420	-65.895	1.072
120	252.494	252.494	309.240	178.540	33.004	-57.164	0.000
135	309.240	178.540	252.494	252.494	46.500	-46.808	-0.555
150	344.913	92.419	178.540	309.240	56.857	-33.311	-1.072
180	344.913	92.419	0.000	357.080	65.587	-0.728	-1.857
210	252.494	252.494	-178.540	309.240	56.857	31.856	-2.144
225	178.540	309.240	-252.494	252.494	46.500	45.352	-2.071
240	92.419	344.913	-309.240	178.540	33.004	55.708	-1.857
270	92.419	344.913	-357.080	0.000	0.420	64.439	-1.072
300	252.494	252.494	-309.240	-178.540	-32.163	55.708	0.000
315	309.240	178.540	-252.494	-252.494	-45.660	45.352	0.555

6' Side-Arm(1) - Elevation 182.5 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	344.913	92.419	-178.540	-309.240	-56.016	31.856	1.072

Discrete Appurtenance Totals - No Ice

Wind Azimuth °	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	103.097	-11836.865	-1691.210	-13.270	2.238
30	6043.423	-10302.574	-1470.777	-866.361	4.578
45	8493.323	-8442.827	-1204.213	-1218.358	5.316
60	10364.418	-6007.717	-855.356	-1487.332	5.691
90	11908.277	-103.097	-9.848	-1709.797	5.279
120	10261.322	5829.148	839.194	-1474.144	3.453
135	8347.523	8297.027	1192.243	-1199.708	2.150
150	5864.854	10199.477	1464.270	-843.519	0.701
180	-103.097	11836.865	1697.890	13.105	-2.238
210	-6043.423	10302.574	1477.458	866.195	-4.578
225	-8493.323	8442.827	1210.893	1218.193	-5.316
240	-10364.418	6007.717	862.036	1487.167	-5.691
270	-11908.277	103.097	16.528	1709.631	-5.279
300	-10261.322	-5829.148	-832.514	1473.979	-3.453
315	-8347.523	-8297.027	-1185.563	1199.543	-2.150
330	-5864.854	-10199.477	-1457.590	843.354	-0.701

Discrete Appurtenance Pressures - With Ice $G_H = 0.850$

Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z ksf	C_AA_C Front ft^2	C_AA_C Side ft^2	t_z in
2' Yagi	240.0000	157.312	-13.632	7.870	15.000	0.850	0.005	8.131	8.131	1.733
2" Dia 8' Omni	240.0000	52.781	-13.152	7.593	27.000	0.961	0.005	5.786	5.786	1.838
2' Standoff T-Arm (5' face width)	240.0000	194.438	-11.700	6.755	20.000	0.902	0.005	5.997	5.997	1.783
(Inverted) 1" Dia Omni	240.0000	52.781	-15.750	9.093	25.000	0.945	0.005	5.786	5.786	1.838
1" Dia Omni	240.0000	52.781	-15.750	9.093	29.000	0.975	0.005	5.786	5.786	1.838
Rohn 6' Side-Arm(1)	0.0000	403.639	0.000	0.000	26.000	0.953	0.005	28.176	28.176	1.831
GPS	0.0000	30.354	0.000	-11.470	75.000	1.191	0.006	3.035	3.035	2.035
3' Yagi	240.0000	190.240	-10.326	5.962	75.000	1.191	0.006	9.175	9.175	2.038
20' 4-Bay Dipole	240.0000	238.431	-9.460	5.462	77.000	1.198	0.007	12.153	12.153	2.038
1' Side Arm	240.0000	131.929	-8.053	4.649	122.000	1.320	0.007	6.188	6.188	2.137
3'4"x4" Pipe Mount	0.0000	102.536	0.000	0.000	109.250	1.289	0.007	2.033	2.033	2.113
12' Dipole	240.0000	236.955	-8.606	4.969	119.000	1.313	0.007	4.163	4.163	2.132
1' Side Arm	240.0000	131.737	-8.173	4.719	119.000	1.313	0.007	6.179	6.179	2.132
1'x1' Panel Antenna	120.0000	51.762	8.173	4.719	119.000	1.313	0.007	1.839	0.503	2.132
1' Side Arm	120.0000	131.737	8.173	4.719	119.000	1.313	0.007	6.179	6.179	2.132
2' Sidearm	0.0000	129.842	0.000	-9.660	125.000	1.326	0.007	6.042	6.042	2.142
2' Sidearm	120.0000	129.842	8.366	4.830	125.000	1.326	0.007	6.042	6.042	2.142
2' Sidearm	240.0000	129.842	-8.366	4.830	125.000	1.326	0.007	6.042	6.042	2.142
Ericsson TMA Unit	0.0000	156.161	0.000	-9.660	125.000	1.326	0.007	2.219	2.899	2.142
Ericsson TMA Unit	120.0000	156.161	8.366	4.830	125.000	1.326	0.007	2.219	2.899	2.142
Ericsson TMA Unit	240.0000	156.161	-8.366	4.830	125.000	1.326	0.007	2.219	2.899	2.142

Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z ksf	C_AA_C Front ft^2	C_AA_C Side ft^2	t_z in
DBXNH-6565B-A2M	0.0000	310.600	0.000	-10.660	125.000	1.326	0.007	10.196	7.416	2.142
DBXNH-6565B-A2M	120.0000	310.600	9.232	5.330	125.000	1.326	0.007	10.196	7.416	2.142
DBXNH-6565B-A2M	240.0000	310.600	-9.232	5.330	125.000	1.326	0.007	10.196	7.416	2.142
DB950F65E-M	0.0000	450.333	0.000	-11.698	135.000	1.348	0.007	15.171	11.842	2.159
DB950F85E-M	120.0000	299.202	10.131	5.849	135.000	1.348	0.007	8.338	11.747	2.159
DB950F40T2E-M	240.0000	487.270	-10.131	5.849	135.000	1.348	0.007	15.646	12.603	2.159
Pirod 12' PCS T-Frame (1) 104569	0.0000	691.731	0.000	0.000	135.000	1.348	0.007	31.387	31.387	2.159
Pirod 12' PCS T-Frame (1) 104569	0.0000	691.731	0.000	0.000	135.000	1.348	0.007	31.387	31.387	2.159
Pirod 12' PCS T-Frame (1) 104569	0.0000	691.731	0.000	0.000	135.000	1.348	0.007	31.387	31.387	2.159
13' Sector Mount (1)	0.0000	1088.447	0.000	-11.829	143.000	1.365	0.007	29.803	29.803	2.171
13' Sector Mount (1)	120.0000	1088.447	10.244	5.914	143.000	1.365	0.007	29.803	29.803	2.171
13' Sector Mount (1)	240.0000	1088.447	-10.244	5.914	143.000	1.365	0.007	29.803	29.803	2.171
7770 w mount pipe	0.0000	602.958	-6.000	-11.829	143.000	1.365	0.007	15.653	13.678	2.171
7770 w mount pipe	120.0000	602.958	13.244	0.718	143.000	1.365	0.007	15.653	13.678	2.171
7770 w mount pipe	240.0000	602.958	-7.244	11.111	143.000	1.365	0.007	15.653	13.678	2.171
TMA (shielded)	0.0000	78.793	0.000	-11.829	143.000	1.365	0.007	0.000	0.000	2.171
TMA (shielded)	120.0000	78.793	10.244	5.914	143.000	1.365	0.007	0.000	0.000	2.171
TMA (shielded)	240.0000	78.793	-10.244	5.914	143.000	1.365	0.007	0.000	0.000	2.171
RRUS-11	0.0000	159.776	0.000	0.000	143.000	1.365	0.007	3.487	1.746	2.171
RRUS-11	0.0000	159.776	0.000	0.000	143.000	1.365	0.007	3.487	1.746	2.171
RRUS-11	0.0000	159.776	0.000	0.000	143.000	1.365	0.007	3.487	1.746	2.171
AM-X-CD-14-65-00T-RET	0.0000	179.120	-2.000	-11.829	143.000	1.365	0.007	7.277	4.357	2.171
AM-X-CD-14-65-00T-RET	120.0000	179.120	11.244	4.182	143.000	1.365	0.007	7.277	4.357	2.171
AM-X-CD-14-65-00T-RET	240.0000	179.120	-9.244	7.646	143.000	1.365	0.007	7.277	4.357	2.171
Raycap Surge Suppressor	0.0000	105.346	0.000	-7.829	143.000	1.365	0.007	2.179	2.179	2.171
RRUS-12	0.0000	185.714	0.000	0.000	143.000	1.365	0.007	4.158	2.023	2.171
RRUS-12	0.0000	185.714	0.000	0.000	143.000	1.365	0.007	4.158	2.023	2.171
RRUS-12	0.0000	185.714	0.000	0.000	143.000	1.365	0.007	4.158	2.023	2.171
2" Dia 10' Omni	120.0000	75.134	9.378	5.414	143.000	1.365	0.007	6.473	6.473	2.171
Pirod 4' Side Mount Standoff (1)	0.0000	219.347	0.000	0.000	143.000	1.365	0.007	12.229	12.229	2.171
3" Dia 20' Omni	120.0000	251.726	7.246	4.183	153.000	1.384	0.008	12.743	12.743	2.186
1' Side Arm	120.0000	133.690	6.813	3.933	153.000	1.384	0.008	6.273	6.273	2.186
1 Bay Dipole ANT400D	0.0000	103.842	0.000	-7.459	151.000	1.380	0.008	2.899	1.619	2.183
10'6"x4" Pipe Mount	0.0000	315.005	0.000	0.000	151.000	1.380	0.008	7.802	7.802	2.183
1.5" Dia 16' Omni	120.0000	251.726	6.380	3.683	155.000	1.388	0.008	12.743	12.743	2.186
2" Dia 10' Omni	240.0000	75.745	-6.220	3.591	157.000	1.392	0.008	6.514	6.514	2.191
2' Sidearm	240.0000	130.830	-6.220	3.591	157.000	1.392	0.008	6.091	6.091	2.191
10'x6" Dipole Antenna	240.0000	254.398	-6.653	3.841	157.000	1.392	0.008	12.388	6.613	2.191
1' Side Arm	240.0000	133.894	-6.653	3.841	157.000	1.392	0.008	6.283	6.283	2.191
3'4"x4" Pipe Mount	0.0000	106.828	0.000	0.000	157.000	1.392	0.008	2.075	2.075	2.191
(Inverted) 3" Dia 20' Omni	120.0000	252.608	7.832	4.522	160.000	1.397	0.008	12.783	12.783	2.196
2' Sidearm	120.0000	130.913	6.100	3.522	160.000	1.397	0.008	6.096	6.096	2.196
(Inverted) 3" Dia 20' Omni	120.0000	252.608	7.832	4.522	160.000	1.397	0.008	12.783	12.783	2.196
6' Side-Arm(1)	-45.0000	457.339	0.000	-6.767	166.000	1.408	0.008	31.756	31.756	2.204
6' Side-Arm(1)	165.0000	457.339	5.860	3.383	166.000	1.408	0.008	31.756	31.756	2.204
(inverted) 10' 8 Bay Di-Pole	15.0000	253.337	6.394	-3.692	166.000	1.408	0.008	12.815	12.815	2.204
(inverted) 2" Dia 10' Omni	60.0000	76.032	6.434	-3.715	164.000	1.405	0.008	6.534	6.534	2.201
6' Side-Arm(1)	75.0000	456.954	5.940	3.429	164.000	1.405	0.008	31.730	31.730	2.201
6' Side-Arm(1)	285.0000	456.954	-5.940	3.429	164.000	1.405	0.008	31.730	31.730	2.201
3'4"x4" Pipe Mount	0.0000	107.719	0.000	0.000	169.000	1.413	0.008	2.083	2.083	2.208

Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z ksf	C_AA_C Front ft^2	C_AA_C Side ft^2	t_z in
3'4"x4" Pipe Mount	0.0000	107.862	0.000	0.000	171.000	1.417	0.008	2.085	2.085	2.210
3'4"x4" Pipe Mount	0.0000	108.212	0.000	0.000	176.000	1.426	0.008	2.088	2.088	2.217
432E-83I-01T TTA Unit	300.0000	139.415	-3.123	-1.803	178.000	1.429	0.008	3.841	1.645	2.219
3" Dia 12' Omni	300.0000	76.650	-3.083	-1.780	180.000	1.432	0.008	6.577	6.577	2.222
3" Dia 12' Omni	60.0000	76.650	5.248	-3.030	180.000	1.432	0.008	6.577	6.577	2.222
432E-83I-01T TTA Unit	120.0000	139.607	10.496	6.060	180.000	1.432	0.008	3.842	1.646	2.222
1 Bay Dipole ANT400D	120.0000	106.760	6.166	3.560	180.000	1.432	0.008	2.920	1.643	2.222
2" Dia 10' Omni	120.0000	76.687	5.692	3.287	181.000	1.434	0.008	6.579	6.579	2.223
2" Dia 10' Omni	240.0000	76.687	-5.692	3.287	181.000	1.434	0.008	6.579	6.579	2.223
10' - 2 Bay Dipole	240.0000	113.722	-5.692	3.287	181.000	1.434	0.008	2.130	2.130	2.223
20' 4-Bay Dipole	0.0000	255.060	0.000	-6.573	181.000	1.434	0.008	12.892	12.892	2.223
Lightning Rod 2"x15'	0.0000	264.811	0.000	0.000	181.000	1.434	0.008	9.720	9.720	2.223
3" Dia 20' Omni	0.0000	255.225	0.000	-12.004	182.500	1.436	0.008	12.899	12.899	2.225
1" Dia 8' Omni	0.0000	62.827	0.000	-8.027	182.000	1.436	0.008	6.582	6.582	2.224
6' Side-Arm(1)	-45.0000	460.360	0.000	-6.004	182.500	1.436	0.008	31.957	31.957	2.225
6' Side-Arm(1)	165.0000	460.360	5.199	3.002	182.500	1.436	0.008	31.957	31.957	2.225
	Sum Weight:	21985.855								

Discrete Appurtenance Vectors - With Ice

2' Yagi - Elevation 15 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	15.978	27.675	0.000	-31.956	0.759	2.144	-0.436
30	27.675	15.978	15.978	-27.675	0.823	1.905	-0.252
45	30.867	8.271	22.596	-22.596	0.899	1.806	-0.130
60	31.956	0.000	27.675	-15.978	0.998	1.729	0.000
90	27.675	15.978	31.956	0.000	1.238	1.665	0.252
120	15.978	27.675	27.675	15.978	1.478	1.729	0.436
135	8.271	30.867	22.596	22.596	1.577	1.806	0.486
150	0.000	31.956	15.978	27.675	1.653	1.905	0.503
180	15.978	27.675	0.000	31.956	1.717	2.144	0.436
210	27.675	15.978	-15.978	27.675	1.653	2.384	0.252
225	30.867	8.271	-22.596	22.596	1.577	2.483	0.130
240	31.956	0.000	-27.675	15.978	1.478	2.560	0.000
270	27.675	15.978	-31.956	0.000	1.238	2.624	-0.252
300	15.978	27.675	-27.675	-15.978	0.998	2.560	-0.436
315	8.271	30.867	-22.596	-22.596	0.899	2.483	-0.486
330	0.000	31.956	-15.978	-27.675	0.823	2.384	-0.503

2" Dia 8' Omni - Elevation 27 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	12.851	22.259	0.000	-25.702	-0.293	0.694	-0.338
30	22.259	12.851	12.851	-22.259	-0.200	0.347	-0.195
45	24.826	6.652	18.174	-18.174	-0.090	0.203	-0.101
60	25.702	0.000	22.259	-12.851	0.054	0.093	0.000
90	22.259	12.851	25.702	0.000	0.401	0.000	0.195
120	12.851	22.259	22.259	12.851	0.748	0.093	0.338
135	6.652	24.826	18.174	18.174	0.891	0.203	0.377
150	0.000	25.702	12.851	22.259	1.002	0.347	0.390
180	12.851	22.259	0.000	25.702	1.095	0.694	0.338
210	22.259	12.851	-12.851	22.259	1.002	1.041	0.195

2" Dia 8' Omni - Elevation 27 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
225	24.826	6.652	-18.174	18.174	0.891	1.185	0.101
240	25.702	0.000	-22.259	12.851	0.748	1.295	0.000
270	22.259	12.851	-25.702	0.000	0.401	1.388	-0.195
300	12.851	22.259	-22.259	-12.851	0.054	1.295	-0.338
315	6.652	24.826	-18.174	-18.174	-0.090	1.185	-0.377
330	0.000	25.702	-12.851	-22.259	-0.200	1.041	-0.390

2' Standoff T-Arm (5' face width) - Elevation 20 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	12.504	21.658	0.000	-25.008	0.813	2.275	-0.293
30	21.658	12.504	12.504	-21.658	0.880	2.025	-0.169
45	24.156	6.473	17.684	-17.684	0.960	1.921	-0.087
60	25.008	0.000	21.658	-12.504	1.063	1.842	0.000
90	21.658	12.504	25.008	0.000	1.313	1.775	0.169
120	12.504	21.658	21.658	12.504	1.564	1.842	0.293
135	6.473	24.156	17.684	17.684	1.667	1.921	0.326
150	0.000	25.008	12.504	21.658	1.747	2.025	0.338
180	12.504	21.658	0.000	25.008	1.814	2.275	0.293
210	21.658	12.504	-12.504	21.658	1.747	2.525	0.169
225	24.156	6.473	-17.684	17.684	1.667	2.629	0.087
240	25.008	0.000	-21.658	12.504	1.564	2.708	0.000
270	21.658	12.504	-25.008	0.000	1.313	2.775	-0.169
300	12.504	21.658	-21.658	-12.504	1.063	2.708	-0.293
315	6.473	24.156	-17.684	-17.684	0.960	2.629	-0.326
330	0.000	25.008	-12.504	-21.658	0.880	2.525	-0.338

(Inverted) 1" Dia Omni - Elevation 25 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	12.645	21.901	0.000	-25.289	-0.152	0.831	-0.398
30	21.901	12.645	12.645	-21.901	-0.068	0.515	-0.230
45	24.427	6.545	17.882	-17.882	0.033	0.384	-0.119
60	25.289	0.000	21.901	-12.645	0.164	0.284	0.000
90	21.901	12.645	25.289	0.000	0.480	0.199	0.230
120	12.645	21.901	21.901	12.645	0.796	0.284	0.398
135	6.545	24.427	17.882	17.882	0.927	0.384	0.444
150	0.000	25.289	12.645	21.901	1.027	0.515	0.460
180	12.645	21.901	0.000	25.289	1.112	0.831	0.398
210	21.901	12.645	-12.645	21.901	1.027	1.147	0.230
225	24.427	6.545	-17.882	17.882	0.927	1.278	0.119
240	25.289	0.000	-21.901	12.645	0.796	1.379	0.000
270	21.901	12.645	-25.289	0.000	0.480	1.464	-0.230
300	12.645	21.901	-21.901	-12.645	0.164	1.379	-0.398
315	6.545	24.427	-17.882	-17.882	0.033	1.278	-0.444
330	0.000	25.289	-12.645	-21.901	-0.068	1.147	-0.460

1" Dia Omni - Elevation 29 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	13.046	22.596	0.000	-26.092	-0.277	0.831	-0.411

1" Dia Omni - Elevation 29 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
30	22.596	13.046	13.046	-22.596	-0.175	0.453	-0.237
45	25.203	6.753	18.450	-18.450	-0.055	0.296	-0.123
60	26.092	0.000	22.596	-13.046	0.102	0.176	0.000
90	22.596	13.046	26.092	0.000	0.480	0.075	0.237
120	13.046	22.596	22.596	13.046	0.858	0.176	0.411
135	6.753	25.203	18.450	18.450	1.015	0.296	0.458
150	0.000	26.092	13.046	22.596	1.135	0.453	0.475
180	13.046	22.596	0.000	26.092	1.237	0.831	0.411
210	22.596	13.046	-13.046	22.596	1.135	1.210	0.237
225	25.203	6.753	-18.450	18.450	1.015	1.366	0.123
240	26.092	0.000	-22.596	13.046	0.858	1.487	0.000
270	22.596	13.046	-26.092	0.000	0.480	1.588	-0.237
300	13.046	22.596	-22.596	-13.046	0.102	1.487	-0.411
315	6.753	25.203	-18.450	-18.450	-0.055	1.366	-0.458
330	0.000	26.092	-13.046	-22.596	-0.175	1.210	-0.475

Rohn 6' Side-Arm(1) - Elevation 26 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	124.175	0.000	0.000	-124.175	-3.229	0.000	0.000
30	124.175	0.000	62.088	-107.539	-2.796	-1.614	0.000
45	124.175	0.000	87.805	-87.805	-2.283	-2.283	0.000
60	124.175	0.000	107.539	-62.088	-1.614	-2.796	0.000
90	124.175	0.000	124.175	0.000	0.000	-3.229	0.000
120	124.175	0.000	107.539	62.088	1.614	-2.796	0.000
135	124.175	0.000	87.805	87.805	2.283	-2.283	0.000
150	124.175	0.000	62.088	107.539	2.796	-1.614	0.000
180	124.175	0.000	0.000	124.175	3.229	0.000	0.000
210	124.175	0.000	-62.088	107.539	2.796	1.614	0.000
225	124.175	0.000	-87.805	87.805	2.283	2.283	0.000
240	124.175	0.000	-107.539	62.088	1.614	2.796	0.000
270	124.175	0.000	-124.175	0.000	0.000	3.229	0.000
300	124.175	0.000	-107.539	-62.088	-1.614	2.796	0.000
315	124.175	0.000	-87.805	-87.805	-2.283	2.283	0.000
330	124.175	0.000	-62.088	-107.539	-2.796	1.614	0.000

GPS - Elevation 75 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	16.720	0.000	0.000	-16.720	-1.602	0.000	0.000
30	14.480	8.360	8.360	-14.480	-1.434	-0.627	-0.096
45	11.823	11.823	11.823	-11.823	-1.235	-0.887	-0.136
60	8.360	14.480	14.480	-8.360	-0.975	-1.086	-0.166
90	0.000	16.720	16.720	0.000	-0.348	-1.254	-0.192
120	8.360	14.480	14.480	8.360	0.279	-1.086	-0.166
135	11.823	11.823	11.823	11.823	0.539	-0.887	-0.136
150	14.480	8.360	8.360	14.480	0.738	-0.627	-0.096
180	16.720	0.000	0.000	16.720	0.906	0.000	0.000
210	14.480	8.360	-8.360	14.480	0.738	0.627	0.096
225	11.823	11.823	-11.823	11.823	0.539	0.887	0.136
240	8.360	14.480	-14.480	8.360	0.279	1.086	0.166
270	0.000	16.720	-16.720	0.000	-0.348	1.254	0.192
300	8.360	14.480	-14.480	-8.360	-0.975	1.086	0.166
315	11.823	11.823	-11.823	-11.823	-1.235	0.887	0.136

GPS - Elevation 75 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	14.480	8.360	-8.360	-14.480	-1.434	0.627	0.096

3' Yagi - Elevation 75 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	25.270	43.768	0.000	-50.539	-2.656	1.964	-0.522
30	43.768	25.270	25.270	-43.768	-2.148	0.069	-0.301
45	48.817	13.081	35.737	-35.737	-1.546	-0.716	-0.156
60	50.539	0.000	43.768	-25.270	-0.761	-1.318	0.000
90	43.768	25.270	50.539	0.000	1.134	-1.826	0.301
120	25.270	43.768	43.768	25.270	3.029	-1.318	0.522
135	13.081	48.817	35.737	35.737	3.814	-0.716	0.582
150	0.000	50.539	25.270	43.768	4.417	0.069	0.603
180	25.270	43.768	0.000	50.539	4.925	1.964	0.522
210	43.768	25.270	-25.270	43.768	4.417	3.860	0.301
225	48.817	13.081	-35.737	35.737	3.814	4.645	0.156
240	50.539	0.000	-43.768	25.270	3.029	5.247	0.000
270	43.768	25.270	-50.539	0.000	1.134	5.755	-0.301
300	25.270	43.768	-43.768	-25.270	-0.761	5.247	-0.522
315	13.081	48.817	-35.737	-35.737	-1.546	4.645	-0.582
330	0.000	50.539	-25.270	-43.768	-2.148	3.860	-0.603

20' 4-Bay Dipole - Elevation 77 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	33.656	58.294	0.000	-67.312	-3.881	2.256	-0.637
30	58.294	33.656	33.656	-58.294	-3.186	-0.336	-0.368
45	65.018	17.422	47.596	-47.596	-2.363	-1.409	-0.190
60	67.312	0.000	58.294	-33.656	-1.289	-2.233	0.000
90	58.294	33.656	67.312	0.000	1.302	-2.927	0.368
120	33.656	58.294	58.294	33.656	3.894	-2.233	0.637
135	17.422	65.018	47.596	47.596	4.967	-1.409	0.710
150	0.000	67.312	33.656	58.294	5.791	-0.336	0.735
180	33.656	58.294	0.000	67.312	6.485	2.256	0.637
210	58.294	33.656	-33.656	58.294	5.791	4.847	0.368
225	65.018	17.422	-47.596	47.596	4.967	5.920	0.190
240	67.312	0.000	-58.294	33.656	3.894	6.744	0.000
270	58.294	33.656	-67.312	0.000	1.302	7.439	-0.368
300	33.656	58.294	-58.294	-33.656	-1.289	6.744	-0.637
315	17.422	65.018	-47.596	-47.596	-2.363	5.920	-0.710
330	0.000	67.312	-33.656	-58.294	-3.186	4.847	-0.735

1' Side Arm - Elevation 122 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.882	32.704	0.000	-37.764	-3.994	1.062	-0.304
30	32.704	18.882	18.882	-32.704	-3.377	-1.241	-0.176
45	36.477	9.774	26.703	-26.703	-2.644	-2.195	-0.091
60	37.764	0.000	32.704	-18.882	-1.690	-2.927	0.000
90	32.704	18.882	37.764	0.000	0.613	-3.545	0.176
120	18.882	32.704	32.704	18.882	2.917	-2.927	0.304

1' Side Arm - Elevation 122 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	9.774	36.477	26.703	26.703	3.871	-2.195	0.339
150	0.000	37.764	18.882	32.704	4.603	-1.241	0.351
180	18.882	32.704	0.000	37.764	5.221	1.062	0.304
210	32.704	18.882	-18.882	32.704	4.603	3.366	0.176
225	36.477	9.774	-26.703	26.703	3.871	4.320	0.091
240	37.764	0.000	-32.704	18.882	2.917	5.052	0.000
270	32.704	18.882	-37.764	0.000	0.613	5.670	-0.176
300	18.882	32.704	-32.704	-18.882	-1.690	5.052	-0.304
315	9.774	36.477	-26.703	-26.703	-2.644	4.320	-0.339
330	0.000	37.764	-18.882	-32.704	-3.377	3.366	-0.351

3'4"x4" Pipe Mount - Elevation 109.25 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	12.122	0.000	0.000	-12.122	-1.324	0.000	0.000
30	12.122	0.000	6.061	-10.498	-1.147	-0.662	0.000
45	12.122	0.000	8.572	-8.572	-0.936	-0.936	0.000
60	12.122	0.000	10.498	-6.061	-0.662	-1.147	0.000
90	12.122	0.000	12.122	0.000	0.000	-1.324	0.000
120	12.122	0.000	10.498	6.061	0.662	-1.147	0.000
135	12.122	0.000	8.572	8.572	0.936	-0.936	0.000
150	12.122	0.000	6.061	10.498	1.147	-0.662	0.000
180	12.122	0.000	0.000	12.122	1.324	0.000	0.000
210	12.122	0.000	-6.061	10.498	1.147	0.662	0.000
225	12.122	0.000	-8.572	8.572	0.936	0.936	0.000
240	12.122	0.000	-10.498	6.061	0.662	1.147	0.000
270	12.122	0.000	-12.122	0.000	0.000	1.324	0.000
300	12.122	0.000	-10.498	-6.061	-0.662	1.147	0.000
315	12.122	0.000	-8.572	-8.572	-0.936	0.936	0.000
330	12.122	0.000	-6.061	-10.498	-1.147	0.662	0.000

12' Dipole - Elevation 119 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	12.637	21.888	0.000	-25.274	-1.830	2.039	-0.218
30	21.888	12.637	12.637	-21.888	-1.427	0.535	-0.126
45	24.413	6.541	17.871	-17.871	-0.949	-0.087	-0.065
60	25.274	0.000	21.888	-12.637	-0.326	-0.565	0.000
90	21.888	12.637	25.274	0.000	1.177	-0.968	0.126
120	12.637	21.888	21.888	12.637	2.681	-0.565	0.218
135	6.541	24.413	17.871	17.871	3.304	-0.087	0.243
150	0.000	25.274	12.637	21.888	3.782	0.535	0.251
180	12.637	21.888	0.000	25.274	4.185	2.039	0.218
210	21.888	12.637	-12.637	21.888	3.782	3.543	0.126
225	24.413	6.541	-17.871	17.871	3.304	4.166	0.065
240	25.274	0.000	-21.888	12.637	2.681	4.644	0.000
270	21.888	12.637	-25.274	0.000	1.177	5.047	-0.126
300	12.637	21.888	-21.888	-12.637	-0.326	4.644	-0.218
315	6.541	24.413	-17.871	-17.871	-0.949	4.166	-0.243
330	0.000	25.274	-12.637	-21.888	-1.427	3.543	-0.251

1' Side Arm - Elevation 119 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.755	32.485	0.000	-37.510	-3.842	1.077	-0.307
30	32.485	18.755	18.755	-32.485	-3.244	-1.155	-0.177
45	36.232	9.708	26.524	-26.524	-2.535	-2.080	-0.092
60	37.510	0.000	32.485	-18.755	-1.610	-2.789	0.000
90	32.485	18.755	37.510	0.000	0.622	-3.387	0.177
120	18.755	32.485	32.485	18.755	2.854	-2.789	0.307
135	9.708	36.232	26.524	26.524	3.778	-2.080	0.342
150	0.000	37.510	18.755	32.485	4.487	-1.155	0.354
180	18.755	32.485	0.000	37.510	5.085	1.077	0.307
210	32.485	18.755	-18.755	32.485	4.487	3.309	0.177
225	36.232	9.708	-26.524	26.524	3.778	4.233	0.092
240	37.510	0.000	-32.485	18.755	2.854	4.942	0.000
270	32.485	18.755	-37.510	0.000	0.622	5.540	-0.177
300	18.755	32.485	-32.485	-18.755	-1.610	4.942	-0.307
315	9.708	36.232	-26.524	-26.524	-2.535	4.233	-0.342
330	0.000	37.510	-18.755	-32.485	-3.244	3.309	-0.354

1'x1' Panel Antenna - Elevation 119 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	5.583	2.642	-3.514	-5.080	-0.360	-0.005	0.025
30	0.000	3.051	1.526	-2.642	-0.070	-0.605	0.029
45	2.890	2.947	3.976	-1.107	0.112	-0.896	0.028
60	5.583	2.642	6.156	0.503	0.304	-1.156	0.025
90	9.670	1.526	9.137	3.514	0.662	-1.510	0.014
120	11.166	0.000	9.670	5.583	0.909	-1.574	0.000
135	10.786	0.790	8.946	6.077	0.967	-1.488	-0.007
150	9.670	1.526	7.612	6.156	0.977	-1.329	-0.014
180	5.583	2.642	3.514	5.080	0.849	-0.841	-0.025
210	0.000	3.051	-1.526	2.642	0.559	-0.241	-0.029
225	2.890	2.947	-3.976	1.107	0.376	0.050	-0.028
240	5.583	2.642	-6.156	-0.503	0.184	0.310	-0.025
270	9.670	1.526	-9.137	-3.514	-0.174	0.664	-0.014
300	11.166	0.000	-9.670	-5.583	-0.420	0.728	0.000
315	10.786	0.790	-8.946	-6.077	-0.479	0.641	0.007
330	9.670	1.526	-7.612	-6.156	-0.488	0.483	0.014

1' Side Arm - Elevation 119 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.755	32.485	0.000	-37.510	-3.842	-1.077	0.307
30	0.000	37.510	18.755	-32.485	-3.244	-3.309	0.354
45	9.708	36.232	26.524	-26.524	-2.535	-4.233	0.342
60	18.755	32.485	32.485	-18.755	-1.610	-4.942	0.307
90	32.485	18.755	37.510	0.000	0.622	-5.540	0.177
120	37.510	0.000	32.485	18.755	2.854	-4.942	0.000
135	36.232	9.708	26.524	26.524	3.778	-4.233	-0.092
150	32.485	18.755	18.755	32.485	4.487	-3.309	-0.177
180	18.755	32.485	0.000	37.510	5.085	-1.077	-0.307
210	0.000	37.510	-18.755	32.485	4.487	1.155	-0.354
225	9.708	36.232	-26.524	26.524	3.778	2.080	-0.342
240	18.755	32.485	-32.485	18.755	2.854	2.789	-0.307
270	32.485	18.755	-37.510	0.000	0.622	3.387	-0.177
300	37.510	0.000	-32.485	-18.755	-1.610	2.789	0.000
315	36.232	9.708	-26.524	-26.524	-2.535	2.080	0.092

1' Side Arm - Elevation 119 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	32.485	18.755	-18.755	-32.485	-3.244	1.155	0.177

2' Sidearm - Elevation 125 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	37.060	0.000	0.000	-37.060	-5.887	0.000	0.000
30	32.095	18.530	18.530	-32.095	-5.266	-2.316	-0.179
45	26.206	26.206	26.206	-26.206	-4.530	-3.276	-0.253
60	18.530	32.095	32.095	-18.530	-3.571	-4.012	-0.310
90	0.000	37.060	37.060	0.000	-1.254	-4.633	-0.358
120	18.530	32.095	32.095	18.530	1.062	-4.012	-0.310
135	26.206	26.206	26.206	26.206	2.021	-3.276	-0.253
150	32.095	18.530	18.530	32.095	2.758	-2.316	-0.179
180	37.060	0.000	0.000	37.060	3.378	0.000	0.000
210	32.095	18.530	-18.530	32.095	2.758	2.316	0.179
225	26.206	26.206	-26.206	26.206	2.021	3.276	0.253
240	18.530	32.095	-32.095	18.530	1.062	4.012	0.310
270	0.000	37.060	-37.060	0.000	-1.254	4.633	0.358
300	18.530	32.095	-32.095	-18.530	-3.571	4.012	0.310
315	26.206	26.206	-26.206	-26.206	-4.530	3.276	0.253
330	32.095	18.530	-18.530	-32.095	-5.266	2.316	0.179

2' Sidearm - Elevation 125 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.530	32.095	0.000	-37.060	-4.005	-1.086	0.310
30	0.000	37.060	18.530	-32.095	-3.385	-3.403	0.358
45	9.592	35.798	26.206	-26.206	-2.649	-4.362	0.346
60	18.530	32.095	32.095	-18.530	-1.689	-5.098	0.310
90	32.095	18.530	37.060	0.000	0.627	-5.719	0.179
120	37.060	0.000	32.095	18.530	2.943	-5.098	0.000
135	35.798	9.592	26.206	26.206	3.903	-4.362	-0.093
150	32.095	18.530	18.530	32.095	4.639	-3.403	-0.179
180	18.530	32.095	0.000	37.060	5.260	-1.086	-0.310
210	0.000	37.060	-18.530	32.095	4.639	1.230	-0.358
225	9.592	35.798	-26.206	26.206	3.903	2.189	-0.346
240	18.530	32.095	-32.095	18.530	2.943	2.926	-0.310
270	32.095	18.530	-37.060	0.000	0.627	3.546	-0.179
300	37.060	0.000	-32.095	-18.530	-1.689	2.926	0.000
315	35.798	9.592	-26.206	-26.206	-2.649	2.189	0.093
330	32.095	18.530	-18.530	-32.095	-3.385	1.230	0.179

2' Sidearm - Elevation 125 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.530	32.095	0.000	-37.060	-4.005	1.086	-0.310
30	32.095	18.530	18.530	-32.095	-3.385	-1.230	-0.179
45	35.798	9.592	26.206	-26.206	-2.649	-2.189	-0.093
60	37.060	0.000	32.095	-18.530	-1.689	-2.926	0.000
90	32.095	18.530	37.060	0.000	0.627	-3.546	0.179
120	18.530	32.095	32.095	18.530	2.943	-2.926	0.310

2' Sidearm - Elevation 125 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	9.592	35.798	26.206	26.206	3.903	-2.189	0.346
150	0.000	37.060	18.530	32.095	4.639	-1.230	0.358
180	18.530	32.095	0.000	37.060	5.260	1.086	0.310
210	32.095	18.530	-18.530	32.095	4.639	3.403	0.179
225	35.798	9.592	-26.206	26.206	3.903	4.362	0.093
240	37.060	0.000	-32.095	18.530	2.943	5.098	0.000
270	32.095	18.530	-37.060	0.000	0.627	5.719	-0.179
300	18.530	32.095	-32.095	-18.530	-1.689	5.098	-0.310
315	9.592	35.798	-26.206	-26.206	-2.649	4.362	-0.346
330	0.000	37.060	-18.530	-32.095	-3.385	3.403	-0.358

Ericsson TMA Unit - Elevation 125 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	13.609	0.000	0.000	-13.609	-3.210	0.000	0.000
30	11.786	8.891	8.891	-11.786	-2.982	-1.111	-0.086
45	9.623	12.574	12.574	-9.623	-2.711	-1.572	-0.121
60	6.804	15.400	15.400	-6.804	-2.359	-1.925	-0.149
90	0.000	17.782	17.782	0.000	-1.509	-2.223	-0.172
120	6.804	15.400	15.400	6.804	-0.658	-1.925	-0.149
135	9.623	12.574	12.574	9.623	-0.306	-1.572	-0.121
150	11.786	8.891	8.891	11.786	-0.035	-1.111	-0.086
180	13.609	0.000	0.000	13.609	0.193	0.000	0.000
210	11.786	8.891	-8.891	11.786	-0.035	1.111	0.086
225	9.623	12.574	-12.574	9.623	-0.306	1.572	0.121
240	6.804	15.400	-15.400	6.804	-0.658	1.925	0.149
270	0.000	17.782	-17.782	0.000	-1.509	2.223	0.172
300	6.804	15.400	-15.400	-6.804	-2.359	1.925	0.149
315	9.623	12.574	-12.574	-9.623	-2.711	1.572	0.121
330	11.786	8.891	-8.891	-11.786	-2.982	1.111	0.086

Ericsson TMA Unit - Elevation 125 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	6.804	15.400	1.807	-16.739	-1.338	-1.532	0.149
30	0.000	17.782	8.891	-15.400	-1.171	-2.418	0.172
45	3.522	17.176	11.638	-13.114	-0.885	-2.761	0.166
60	6.804	15.400	13.593	-9.934	-0.488	-3.006	0.149
90	11.786	8.891	14.652	-1.807	0.528	-3.138	0.086
120	13.609	0.000	11.786	6.804	1.605	-2.780	0.000
135	13.145	4.602	9.083	10.558	2.074	-2.442	-0.044
150	11.786	8.891	5.761	13.593	2.453	-2.027	-0.086
180	6.804	15.400	-1.807	16.739	2.847	-1.081	-0.149
210	0.000	17.782	-8.891	15.400	2.679	-0.195	-0.172
225	3.522	17.176	-11.638	13.114	2.394	0.148	-0.166
240	6.804	15.400	-13.593	9.934	1.996	0.393	-0.149
270	11.786	8.891	-14.652	1.807	0.980	0.525	-0.086
300	13.609	0.000	-11.786	-6.804	-0.096	0.167	0.000
315	13.145	4.602	-9.083	-10.558	-0.566	-0.171	0.044
330	11.786	8.891	-5.761	-13.593	-0.945	-0.586	0.086

Ericsson TMA Unit - Elevation 125 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	6.804	15.400	-1.807	-16.739	-1.338	1.532	-0.149
30	11.786	8.891	5.761	-13.593	-0.945	0.586	-0.086
45	13.145	4.602	9.083	-10.558	-0.566	0.171	-0.044
60	13.609	0.000	11.786	-6.804	-0.096	-0.167	0.000
90	11.786	8.891	14.652	1.807	0.980	-0.525	0.086
120	6.804	15.400	13.593	9.934	1.996	-0.393	0.149
135	3.522	17.176	11.638	13.114	2.394	-0.148	0.166
150	0.000	17.782	8.891	15.400	2.679	0.195	0.172
180	6.804	15.400	1.807	16.739	2.847	1.081	0.149
210	11.786	8.891	-5.761	13.593	2.453	2.027	0.086
225	13.145	4.602	-9.083	10.558	2.074	2.442	0.044
240	13.609	0.000	-11.786	6.804	1.605	2.780	0.000
270	11.786	8.891	-14.652	-1.807	0.528	3.138	-0.086
300	6.804	15.400	-13.593	-9.934	-0.488	3.006	-0.149
315	3.522	17.176	-11.638	-13.114	-0.885	2.761	-0.166
330	0.000	17.782	-8.891	-15.400	-1.171	2.418	-0.172

DBXNH-6565B-A2M - Elevation 125 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	62.541	0.000	0.000	-62.541	-11.129	0.000	0.000
30	54.162	22.744	22.744	-54.162	-10.081	-2.843	-0.242
45	44.223	32.165	32.165	-44.223	-8.839	-4.021	-0.343
60	31.271	39.394	39.394	-31.271	-7.220	-4.924	-0.420
90	0.000	45.488	45.488	0.000	-3.311	-5.686	-0.485
120	31.271	39.394	39.394	31.271	0.598	-4.924	-0.420
135	44.223	32.165	32.165	44.223	2.217	-4.021	-0.343
150	54.162	22.744	22.744	54.162	3.459	-2.843	-0.242
180	62.541	0.000	0.000	62.541	4.507	0.000	0.000
210	54.162	22.744	-22.744	54.162	3.459	2.843	0.242
225	44.223	32.165	-32.165	44.223	2.217	4.021	0.343
240	31.271	39.394	-39.394	31.271	0.598	4.924	0.420
270	0.000	45.488	-45.488	0.000	-3.311	5.686	0.485
300	31.271	39.394	-39.394	-31.271	-7.220	4.924	0.420
315	44.223	32.165	-32.165	-44.223	-8.839	4.021	0.343
330	54.162	22.744	-22.744	-54.162	-10.081	2.843	0.242

DBXNH-6565B-A2M - Elevation 125 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	31.271	39.394	-7.384	-49.752	-4.563	-1.944	0.420
30	0.000	45.488	22.744	-39.394	-3.269	-5.710	0.485
45	16.187	43.938	35.987	-29.958	-2.089	-7.366	0.468
60	31.271	39.394	46.778	-18.481	-0.655	-8.715	0.420
90	54.162	22.744	58.278	7.384	2.579	-10.152	0.242
120	62.541	0.000	54.162	31.271	5.564	-9.638	0.000
135	60.410	11.773	46.430	40.401	6.706	-8.671	-0.126
150	54.162	22.744	35.534	46.778	7.503	-7.309	-0.242
180	31.271	39.394	7.384	49.752	7.874	-3.790	-0.420
210	0.000	45.488	-22.744	39.394	6.580	-0.024	-0.485
225	16.187	43.938	-35.987	29.958	5.400	1.631	-0.468
240	31.271	39.394	-46.778	18.481	3.966	2.980	-0.420
270	54.162	22.744	-58.278	-7.384	0.733	4.417	-0.242
300	62.541	0.000	-54.162	-31.271	-2.253	3.903	0.000
315	60.410	11.773	-46.430	-40.401	-3.395	2.936	0.126

DBXNH-6565B-A2M - Elevation 125 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	54.162	22.744	-35.534	-46.778	-4.192	1.574	0.242

DBXNH-6565B-A2M - Elevation 125 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	31.271	39.394	7.384	-49.752	-4.563	1.944	-0.420
30	54.162	22.744	35.534	-46.778	-4.192	-1.574	-0.242
45	60.410	11.773	46.430	-40.401	-3.395	-2.936	-0.126
60	62.541	0.000	54.162	-31.271	-2.253	-3.903	0.000
90	54.162	22.744	58.278	-7.384	0.733	-4.417	0.242
120	31.271	39.394	46.778	18.481	3.966	-2.980	0.420
135	16.187	43.938	35.987	29.958	5.400	-1.631	0.468
150	0.000	45.488	22.744	39.394	6.580	0.024	0.485
180	31.271	39.394	-7.384	49.752	7.874	3.790	0.420
210	54.162	22.744	-35.534	46.778	7.503	7.309	0.242
225	60.410	11.773	-46.430	40.401	6.706	8.671	0.126
240	62.541	0.000	-54.162	31.271	5.564	9.638	0.000
270	54.162	22.744	-58.278	7.384	2.579	10.152	-0.242
300	31.271	39.394	-46.778	-18.481	-0.655	8.715	-0.420
315	16.187	43.938	-35.987	-29.958	-2.089	7.366	-0.468
330	0.000	45.488	-22.744	-39.394	-3.269	5.710	-0.485

DB950F65E-M - Elevation 135 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	94.571	0.000	0.000	-94.571	-18.035	0.000	0.000
30	81.901	36.912	36.912	-81.901	-16.325	-4.983	-0.432
45	66.872	52.201	52.201	-66.872	-14.296	-7.047	-0.611
60	47.286	63.933	63.933	-47.286	-11.652	-8.631	-0.748
90	0.000	73.823	73.823	0.000	-5.268	-9.966	-0.864
120	47.286	63.933	63.933	47.286	1.115	-8.631	-0.748
135	66.872	52.201	52.201	66.872	3.760	-7.047	-0.611
150	81.901	36.912	36.912	81.901	5.789	-4.983	-0.432
180	94.571	0.000	0.000	94.571	7.499	0.000	0.000
210	81.901	36.912	-36.912	81.901	5.789	4.983	0.432
225	66.872	52.201	-52.201	66.872	3.760	7.047	0.611
240	47.286	63.933	-63.933	47.286	1.115	8.631	0.748
270	0.000	73.823	-73.823	0.000	-5.268	9.966	0.864
300	47.286	63.933	-63.933	-47.286	-11.652	8.631	0.748
315	66.872	52.201	-52.201	-66.872	-14.296	7.047	0.611
330	81.901	36.912	-36.912	-81.901	-16.325	4.983	0.432

DB950F85E-M - Elevation 135 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	25.988	63.420	9.204	-67.917	-7.419	-4.274	0.742
30	0.000	73.231	36.615	-63.420	-6.812	-7.974	0.857
45	13.452	70.735	47.018	-54.532	-5.612	-9.379	0.827
60	25.988	63.420	54.216	-41.929	-3.910	-10.350	0.742
90	45.012	36.615	57.289	-9.204	0.508	-10.765	0.428
120	51.975	0.000	45.012	25.988	5.258	-9.108	0.000

DB950F85E-M - Elevation 135 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	50.204	18.953	34.002	41.516	7.355	-7.621	-0.222
150	45.012	36.615	20.674	54.216	9.069	-5.822	-0.428
180	25.988	63.420	-9.204	67.917	10.919	-1.789	-0.742
210	0.000	73.231	-36.615	63.420	10.312	1.912	-0.857
225	13.452	70.735	-47.018	54.532	9.112	3.316	-0.827
240	25.988	63.420	-54.216	41.929	7.411	4.288	-0.742
270	45.012	36.615	-57.289	9.204	2.993	4.703	-0.428
300	51.975	0.000	-45.012	-25.988	-1.758	3.045	0.000
315	50.204	18.953	-34.002	-41.516	-3.855	1.559	0.222
330	45.012	36.615	-20.674	-54.216	-5.569	-0.240	0.428

DB950F40T2E-M - Elevation 135 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	48.768	68.040	8.214	-83.308	-8.396	3.828	-0.796
30	84.468	39.283	53.510	-76.254	-7.444	-2.287	-0.460
45	94.212	20.334	71.423	-64.716	-5.887	-4.706	-0.238
60	97.535	0.000	84.468	-48.768	-3.734	-6.467	0.000
90	84.468	39.283	92.793	-8.214	1.741	-7.590	0.460
120	48.768	68.040	76.254	34.540	7.513	-5.358	0.796
135	25.244	75.889	59.806	53.100	10.019	-3.137	0.888
150	0.000	78.566	39.283	68.040	12.036	-0.367	0.919
180	48.768	68.040	-8.214	83.308	14.097	6.045	0.796
210	84.468	39.283	-53.510	76.254	13.144	12.160	0.460
225	94.212	20.334	-71.423	64.716	11.587	14.579	0.238
240	97.535	0.000	-84.468	48.768	9.434	16.340	0.000
270	84.468	39.283	-92.793	8.214	3.959	17.464	-0.460
300	48.768	68.040	-76.254	-34.540	-1.813	15.231	-0.796
315	25.244	75.889	-59.806	-53.100	-4.318	13.010	-0.888
330	0.000	78.566	-39.283	-68.040	-6.335	10.240	-0.919

Pirod 12' PCS T-Frame (1) 104569 - Elevation 135 - None A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	195.660	0.000	0.000	-195.660	-26.414	0.000	0.000
30	195.660	0.000	97.830	-169.447	-22.875	-13.207	0.000
45	195.660	0.000	138.353	-138.353	-18.678	-18.678	0.000
60	195.660	0.000	169.447	-97.830	-13.207	-22.875	0.000
90	195.660	0.000	195.660	0.000	0.000	-26.414	0.000
120	195.660	0.000	169.447	97.830	13.207	-22.875	0.000
135	195.660	0.000	138.353	138.353	18.678	-18.678	0.000
150	195.660	0.000	97.830	169.447	22.875	-13.207	0.000
180	195.660	0.000	0.000	195.660	26.414	0.000	0.000
210	195.660	0.000	-97.830	169.447	22.875	13.207	0.000
225	195.660	0.000	-138.353	138.353	18.678	18.678	0.000
240	195.660	0.000	-169.447	97.830	13.207	22.875	0.000
270	195.660	0.000	-195.660	0.000	0.000	26.414	0.000
300	195.660	0.000	-169.447	-97.830	-13.207	22.875	0.000
315	195.660	0.000	-138.353	-138.353	-18.678	18.678	0.000
330	195.660	0.000	-97.830	-169.447	-22.875	13.207	0.000

Pirod 12' PCS T-Frame (1) 104569 - Elevation 135 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	195.660	0.000	0.000	-195.660	-26.414	0.000	0.000
30	195.660	0.000	97.830	-169.447	-22.875	-13.207	0.000
45	195.660	0.000	138.353	-138.353	-18.678	-18.678	0.000
60	195.660	0.000	169.447	-97.830	-13.207	-22.875	0.000
90	195.660	0.000	195.660	0.000	0.000	-26.414	0.000
120	195.660	0.000	169.447	97.830	13.207	-22.875	0.000
135	195.660	0.000	138.353	138.353	18.678	-18.678	0.000
150	195.660	0.000	97.830	169.447	22.875	-13.207	0.000
180	195.660	0.000	0.000	195.660	26.414	0.000	0.000
210	195.660	0.000	-97.830	169.447	22.875	13.207	0.000
225	195.660	0.000	-138.353	138.353	18.678	18.678	0.000
240	195.660	0.000	-169.447	97.830	13.207	22.875	0.000
270	195.660	0.000	-195.660	0.000	0.000	26.414	0.000
300	195.660	0.000	-169.447	-97.830	-13.207	22.875	0.000
315	195.660	0.000	-138.353	-138.353	-18.678	18.678	0.000
330	195.660	0.000	-97.830	-169.447	-22.875	13.207	0.000

Pirod 12' PCS T-Frame (1) 104569 - Elevation 135 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	195.660	0.000	0.000	-195.660	-26.414	0.000	0.000
30	195.660	0.000	97.830	-169.447	-22.875	-13.207	0.000
45	195.660	0.000	138.353	-138.353	-18.678	-18.678	0.000
60	195.660	0.000	169.447	-97.830	-13.207	-22.875	0.000
90	195.660	0.000	195.660	0.000	0.000	-26.414	0.000
120	195.660	0.000	169.447	97.830	13.207	-22.875	0.000
135	195.660	0.000	138.353	138.353	18.678	-18.678	0.000
150	195.660	0.000	97.830	169.447	22.875	-13.207	0.000
180	195.660	0.000	0.000	195.660	26.414	0.000	0.000
210	195.660	0.000	-97.830	169.447	22.875	13.207	0.000
225	195.660	0.000	-138.353	138.353	18.678	18.678	0.000
240	195.660	0.000	-169.447	97.830	13.207	22.875	0.000
270	195.660	0.000	-195.660	0.000	0.000	26.414	0.000
300	195.660	0.000	-169.447	-97.830	-13.207	22.875	0.000
315	195.660	0.000	-138.353	-138.353	-18.678	18.678	0.000
330	195.660	0.000	-97.830	-169.447	-22.875	13.207	0.000

13' Sector Mount (1) - Elevation 143 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	188.055	0.000	0.000	-188.055	-39.767	0.000	0.000
30	162.861	94.028	94.028	-162.861	-36.164	-13.446	-1.112
45	132.975	132.975	132.975	-132.975	-31.891	-19.015	-1.573
60	94.028	162.861	162.861	-94.028	-26.321	-23.289	-1.926
90	0.000	188.055	188.055	0.000	-12.875	-26.892	-2.224
120	94.028	162.861	162.861	94.028	0.571	-23.289	-1.926
135	132.975	132.975	132.975	132.975	6.140	-19.015	-1.573
150	162.861	94.028	94.028	162.861	10.414	-13.446	-1.112
180	188.055	0.000	0.000	188.055	14.017	0.000	0.000
210	162.861	94.028	-94.028	162.861	10.414	13.446	1.112
225	132.975	132.975	-132.975	132.975	6.140	19.015	1.573
240	94.028	162.861	-162.861	94.028	0.571	23.289	1.926
270	0.000	188.055	-188.055	0.000	-12.875	26.892	2.224
300	94.028	162.861	-162.861	-94.028	-26.321	23.289	1.926
315	132.975	132.975	-132.975	-132.975	-31.891	19.015	1.573

13' Sector Mount (1) - Elevation 143 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	162.861	94.028	-94.028	-162.861	-36.164	13.446	1.112

13' Sector Mount (1) - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	94.028	162.861	0.000	-188.055	-20.454	-11.150	1.926
30	0.000	188.055	94.028	-162.861	-16.852	-24.596	2.224
45	48.672	181.647	132.975	-132.975	-12.578	-30.166	2.149
60	94.028	162.861	162.861	-94.028	-7.008	-34.439	1.926
90	162.861	94.028	188.055	0.000	6.438	-38.042	1.112
120	188.055	0.000	162.861	94.028	19.884	-34.439	0.000
135	181.647	48.672	132.975	132.975	25.453	-30.166	-0.576
150	162.861	94.028	94.028	162.861	29.727	-24.596	-1.112
180	94.028	162.861	0.000	188.055	33.329	-11.150	-1.926
210	0.000	188.055	-94.028	162.861	29.727	2.296	-2.224
225	48.672	181.647	-132.975	132.975	25.453	7.865	-2.149
240	94.028	162.861	-162.861	94.028	19.884	12.139	-1.926
270	162.861	94.028	-188.055	0.000	6.438	15.742	-1.112
300	188.055	0.000	-162.861	-94.028	-7.008	12.139	0.000
315	181.647	48.672	-132.975	-132.975	-12.578	7.865	0.576
330	162.861	94.028	-94.028	-162.861	-16.852	2.296	1.112

13' Sector Mount (1) - Elevation 143 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	94.028	162.861	0.000	-188.055	-20.454	11.150	-1.926
30	162.861	94.028	94.028	-162.861	-16.852	-2.296	-1.112
45	181.647	48.672	132.975	-132.975	-12.578	-7.865	-0.576
60	188.055	0.000	162.861	-94.028	-7.008	-12.139	0.000
90	162.861	94.028	188.055	0.000	6.438	-15.742	1.112
120	94.028	162.861	162.861	94.028	19.884	-12.139	1.926
135	48.672	181.647	132.975	132.975	25.453	-7.865	2.149
150	0.000	188.055	94.028	162.861	29.727	-2.296	2.224
180	94.028	162.861	0.000	188.055	33.329	11.150	1.926
210	162.861	94.028	-94.028	162.861	29.727	24.596	1.112
225	181.647	48.672	-132.975	132.975	25.453	30.166	0.576
240	188.055	0.000	-162.861	94.028	19.884	34.439	0.000
270	162.861	94.028	-188.055	0.000	6.438	38.042	-1.112
300	94.028	162.861	-162.861	-94.028	-7.008	34.439	-1.926
315	48.672	181.647	-132.975	-132.975	-12.578	30.166	-2.149
330	0.000	188.055	-94.028	-162.861	-16.852	24.596	-2.224

7770 w mount pipe - Elevation 143 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	98.767	0.000	0.000	-98.767	-21.256	3.618	-0.593
30	85.535	43.154	43.154	-85.535	-19.364	-2.553	-1.024
45	69.839	61.029	61.029	-69.839	-17.119	-5.109	-1.141
60	49.383	74.746	74.746	-49.383	-14.194	-7.071	-1.180
90	0.000	86.309	86.309	0.000	-7.132	-8.724	-1.021
120	49.383	74.746	74.746	49.383	-0.070	-7.071	-0.588

7770 w mount pipe - Elevation 143 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	69.839	61.029	61.029	69.839	2.855	-5.109	-0.303
150	85.535	43.154	43.154	85.535	5.099	-2.553	0.003
180	98.767	0.000	0.000	98.767	6.991	3.618	0.593
210	85.535	43.154	-43.154	85.535	5.099	9.789	1.024
225	69.839	61.029	-61.029	69.839	2.855	12.345	1.141
240	49.383	74.746	-74.746	49.383	-0.070	14.306	1.180
270	0.000	86.309	-86.309	0.000	-7.132	15.960	1.021
300	49.383	74.746	-74.746	-49.383	-14.194	14.306	0.588
315	69.839	61.029	-61.029	-69.839	-17.119	12.345	0.303
330	85.535	43.154	-43.154	-85.535	-19.364	9.789	-0.003

7770 w mount pipe - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	49.383	74.746	-5.395	-89.423	-12.354	-7.214	1.180
30	0.000	86.309	43.154	-74.746	-10.256	-14.157	1.021
45	25.563	83.368	63.822	-59.417	-8.064	-17.112	0.833
60	49.383	74.746	80.140	-40.040	-5.293	-19.446	0.588
90	85.535	43.154	95.652	5.395	1.205	-21.664	-0.003
120	98.767	0.000	85.535	49.383	7.495	-20.217	-0.593
135	95.402	22.338	71.451	67.046	10.021	-18.203	-0.837
150	85.535	43.154	52.498	80.140	11.893	-15.493	-1.024
180	49.383	74.746	5.395	89.423	13.221	-8.757	-1.180
210	0.000	86.309	-43.154	74.746	11.122	-1.815	-1.021
225	25.563	83.368	-63.822	59.417	8.930	1.141	-0.833
240	49.383	74.746	-80.140	40.040	6.159	3.474	-0.588
270	85.535	43.154	-95.652	-5.395	-0.338	5.693	0.003
300	98.767	0.000	-85.535	-49.383	-6.629	4.246	0.593
315	95.402	22.338	-71.451	-67.046	-9.155	2.232	0.837
330	85.535	43.154	-52.498	-80.140	-11.027	-0.478	1.024

7770 w mount pipe - Elevation 143 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	49.383	74.746	5.395	-89.423	-6.088	3.596	-0.588
30	85.535	43.154	52.498	-80.140	-4.761	-3.139	0.003
45	95.402	22.338	71.451	-67.046	-2.888	-5.850	0.308
60	98.767	0.000	85.535	-49.383	-0.363	-7.864	0.593
90	85.535	43.154	95.652	-5.395	5.928	-9.310	1.024
120	49.383	74.746	80.140	40.040	12.425	-7.092	1.180
135	25.563	83.368	63.822	59.417	15.196	-4.759	1.140
150	0.000	86.309	43.154	74.746	17.388	-1.803	1.021
180	49.383	74.746	-5.395	89.423	19.487	5.139	0.588
210	85.535	43.154	-52.498	80.140	18.159	11.875	-0.003
225	95.402	22.338	-71.451	67.046	16.287	14.585	-0.308
240	98.767	0.000	-85.535	49.383	13.761	16.599	-0.593
270	85.535	43.154	-95.652	5.395	7.471	18.046	-1.024
300	49.383	74.746	-80.140	-40.040	0.974	15.828	-1.180
315	25.563	83.368	-63.822	-59.417	-1.797	13.494	-1.140
330	0.000	86.309	-43.154	-74.746	-3.989	10.539	-1.021

TMA (shielded) - Elevation 143 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
30	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
45	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
60	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
90	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
120	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
135	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
150	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
180	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
210	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
225	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
240	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
270	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
300	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
315	0.000	0.000	0.000	0.000	-0.932	0.000	0.000
330	0.000	0.000	0.000	0.000	-0.932	0.000	0.000

TMA (shielded) - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
30	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
45	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
60	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
90	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
120	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
135	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
150	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
180	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
210	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
225	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
240	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
270	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
300	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
315	0.000	0.000	0.000	0.000	0.466	-0.807	0.000
330	0.000	0.000	0.000	0.000	0.466	-0.807	0.000

TMA (shielded) - Elevation 143 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	0.000	0.000	0.000	0.466	0.807	0.000
30	0.000	0.000	0.000	0.000	0.466	0.807	0.000
45	0.000	0.000	0.000	0.000	0.466	0.807	0.000
60	0.000	0.000	0.000	0.000	0.466	0.807	0.000
90	0.000	0.000	0.000	0.000	0.466	0.807	0.000
120	0.000	0.000	0.000	0.000	0.466	0.807	0.000
135	0.000	0.000	0.000	0.000	0.466	0.807	0.000
150	0.000	0.000	0.000	0.000	0.466	0.807	0.000
180	0.000	0.000	0.000	0.000	0.466	0.807	0.000
210	0.000	0.000	0.000	0.000	0.466	0.807	0.000
225	0.000	0.000	0.000	0.000	0.466	0.807	0.000
240	0.000	0.000	0.000	0.000	0.466	0.807	0.000
270	0.000	0.000	0.000	0.000	0.466	0.807	0.000
300	0.000	0.000	0.000	0.000	0.466	0.807	0.000
315	0.000	0.000	0.000	0.000	0.466	0.807	0.000

TMA (shielded) - Elevation 143 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	0.000	0.000	0.000	0.000	0.466	0.807	0.000

RRUS-11 - Elevation 143 - None A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	22.005	0.000	0.000	-22.005	-3.147	0.000	0.000
30	22.005	0.000	11.003	-19.057	-2.725	-1.573	0.000
45	22.005	0.000	15.560	-15.560	-2.225	-2.225	0.000
60	22.005	0.000	19.057	-11.003	-1.573	-2.725	0.000
90	22.005	0.000	22.005	0.000	0.000	-3.147	0.000
120	22.005	0.000	19.057	11.003	1.573	-2.725	0.000
135	22.005	0.000	15.560	15.560	2.225	-2.225	0.000
150	22.005	0.000	11.003	19.057	2.725	-1.573	0.000
180	22.005	0.000	0.000	22.005	3.147	0.000	0.000
210	22.005	0.000	-11.003	19.057	2.725	1.573	0.000
225	22.005	0.000	-15.560	15.560	2.225	2.225	0.000
240	22.005	0.000	-19.057	11.003	1.573	2.725	0.000
270	22.005	0.000	-22.005	0.000	0.000	3.147	0.000
300	22.005	0.000	-19.057	-11.003	-1.573	2.725	0.000
315	22.005	0.000	-15.560	-15.560	-2.225	2.225	0.000
330	22.005	0.000	-11.003	-19.057	-2.725	1.573	0.000

RRUS-11 - Elevation 143 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	22.005	0.000	0.000	-22.005	-3.147	0.000	0.000
30	22.005	0.000	11.003	-19.057	-2.725	-1.573	0.000
45	22.005	0.000	15.560	-15.560	-2.225	-2.225	0.000
60	22.005	0.000	19.057	-11.003	-1.573	-2.725	0.000
90	22.005	0.000	22.005	0.000	0.000	-3.147	0.000
120	22.005	0.000	19.057	11.003	1.573	-2.725	0.000
135	22.005	0.000	15.560	15.560	2.225	-2.225	0.000
150	22.005	0.000	11.003	19.057	2.725	-1.573	0.000
180	22.005	0.000	0.000	22.005	3.147	0.000	0.000
210	22.005	0.000	-11.003	19.057	2.725	1.573	0.000
225	22.005	0.000	-15.560	15.560	2.225	2.225	0.000
240	22.005	0.000	-19.057	11.003	1.573	2.725	0.000
270	22.005	0.000	-22.005	0.000	0.000	3.147	0.000
300	22.005	0.000	-19.057	-11.003	-1.573	2.725	0.000
315	22.005	0.000	-15.560	-15.560	-2.225	2.225	0.000
330	22.005	0.000	-11.003	-19.057	-2.725	1.573	0.000

RRUS-11 - Elevation 143 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	22.005	0.000	0.000	-22.005	-3.147	0.000	0.000
30	22.005	0.000	11.003	-19.057	-2.725	-1.573	0.000
45	22.005	0.000	15.560	-15.560	-2.225	-2.225	0.000
60	22.005	0.000	19.057	-11.003	-1.573	-2.725	0.000
90	22.005	0.000	22.005	0.000	0.000	-3.147	0.000
120	22.005	0.000	19.057	11.003	1.573	-2.725	0.000

RRUS-11 - Elevation 143 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	22.005	0.000	15.560	15.560	2.225	-2.225	0.000
150	22.005	0.000	11.003	19.057	2.725	-1.573	0.000
180	22.005	0.000	0.000	22.005	3.147	0.000	0.000
210	22.005	0.000	-11.003	19.057	2.725	1.573	0.000
225	22.005	0.000	-15.560	15.560	2.225	2.225	0.000
240	22.005	0.000	-19.057	11.003	1.573	2.725	0.000
270	22.005	0.000	-22.005	0.000	0.000	3.147	0.000
300	22.005	0.000	-19.057	-11.003	-1.573	2.725	0.000
315	22.005	0.000	-15.560	-15.560	-2.225	2.225	0.000
330	22.005	0.000	-11.003	-19.057	-2.725	1.573	0.000

AM-X-CD-14-65-00T-RET - Elevation 143 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	45.914	0.000	0.000	-45.914	-8.685	0.358	-0.092
30	39.763	13.747	13.747	-39.763	-7.805	-1.608	-0.242
45	32.466	19.441	19.441	-32.466	-6.761	-2.422	-0.295
60	22.957	23.810	23.810	-22.957	-5.402	-3.047	-0.328
90	0.000	27.493	27.493	0.000	-2.119	-3.573	-0.325
120	22.957	23.810	23.810	22.957	1.164	-3.047	-0.236
135	32.466	19.441	19.441	32.466	2.524	-2.422	-0.165
150	39.763	13.747	13.747	39.763	3.567	-1.608	-0.083
180	45.914	0.000	0.000	45.914	4.447	0.358	0.092
210	39.763	13.747	-13.747	39.763	3.567	2.324	0.242
225	32.466	19.441	-19.441	32.466	2.524	3.138	0.295
240	22.957	23.810	-23.810	22.957	1.164	3.763	0.328
270	0.000	27.493	-27.493	0.000	-2.119	4.290	0.325
300	22.957	23.810	-23.810	-22.957	-5.402	3.763	0.236
315	32.466	19.441	-19.441	-32.466	-6.761	3.138	0.165
330	39.763	13.747	-13.747	-39.763	-7.805	2.324	0.083

AM-X-CD-14-65-00T-RET - Elevation 143 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	22.957	23.810	-7.977	-32.099	-3.841	-0.873	0.328
30	0.000	27.493	13.747	-23.810	-2.656	-3.980	0.325
45	11.884	26.557	23.570	-17.057	-1.690	-5.385	0.290
60	22.957	23.810	31.787	-9.141	-0.558	-6.560	0.236
90	39.763	13.747	41.309	7.977	1.890	-7.921	0.083
120	45.914	0.000	39.763	22.957	4.032	-7.700	-0.092
135	44.350	7.116	34.850	28.337	4.801	-6.998	-0.173
150	39.763	13.747	27.562	31.787	5.295	-5.955	-0.242
180	22.957	23.810	7.977	32.099	5.339	-3.155	-0.328
210	0.000	27.493	-13.747	23.810	4.154	-0.048	-0.325
225	11.884	26.557	-23.570	17.057	3.188	1.356	-0.290
240	22.957	23.810	-31.787	9.141	2.056	2.531	-0.236
270	39.763	13.747	-41.309	-7.977	-0.391	3.893	-0.083
300	45.914	0.000	-39.763	-22.957	-2.534	3.672	0.092
315	44.350	7.116	-34.850	-28.337	-3.303	2.970	0.173
330	39.763	13.747	-27.562	-31.787	-3.796	1.927	0.242

AM-X-CD-14-65-00T-RET - Elevation 143 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	22.957	23.810	7.977	-32.099	-3.220	0.515	-0.236
30	39.763	13.747	27.562	-31.787	-3.176	-2.286	-0.083
45	44.350	7.116	34.850	-28.337	-2.683	-3.328	0.005
60	45.914	0.000	39.763	-22.957	-1.913	-4.030	0.092
90	39.763	13.747	41.309	-7.977	0.229	-4.251	0.242
120	22.957	23.810	31.787	9.141	2.677	-2.890	0.328
135	11.884	26.557	23.570	17.057	3.809	-1.715	0.338
150	0.000	27.493	13.747	23.810	4.774	-0.310	0.325
180	22.957	23.810	-7.977	32.099	5.960	2.796	0.236
210	39.763	13.747	-27.562	31.787	5.915	5.597	0.083
225	44.350	7.116	-34.850	28.337	5.422	6.639	-0.005
240	45.914	0.000	-39.763	22.957	4.653	7.342	-0.092
270	39.763	13.747	-41.309	7.977	2.510	7.563	-0.242
300	22.957	23.810	-31.787	-9.141	0.062	6.201	-0.328
315	11.884	26.557	-23.570	-17.057	-1.069	5.026	-0.338
330	0.000	27.493	-13.747	-23.810	-2.035	3.622	-0.325

Raycap Surge Suppressor - Elevation 143 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	13.749	0.000	0.000	-13.749	-2.791	0.000	0.000
30	11.907	6.875	6.875	-11.907	-2.527	-0.983	-0.054
45	9.722	9.722	9.722	-9.722	-2.215	-1.390	-0.076
60	6.875	11.907	11.907	-6.875	-1.808	-1.703	-0.093
90	0.000	13.749	13.749	0.000	-0.825	-1.966	-0.108
120	6.875	11.907	11.907	6.875	0.158	-1.703	-0.093
135	9.722	9.722	9.722	9.722	0.566	-1.390	-0.076
150	11.907	6.875	6.875	11.907	0.878	-0.983	-0.054
180	13.749	0.000	0.000	13.749	1.141	0.000	0.000
210	11.907	6.875	-6.875	11.907	0.878	0.983	0.054
225	9.722	9.722	-9.722	9.722	0.566	1.390	0.076
240	6.875	11.907	-11.907	6.875	0.158	1.703	0.093
270	0.000	13.749	-13.749	0.000	-0.825	1.966	0.108
300	6.875	11.907	-11.907	-6.875	-1.808	1.703	0.093
315	9.722	9.722	-9.722	-9.722	-2.215	1.390	0.076
330	11.907	6.875	-6.875	-11.907	-2.527	0.983	0.054

RRUS-12 - Elevation 143 - None A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	26.236	0.000	0.000	-26.236	-3.752	0.000	0.000
30	26.236	0.000	13.118	-22.721	-3.249	-1.876	0.000
45	26.236	0.000	18.552	-18.552	-2.653	-2.653	0.000
60	26.236	0.000	22.721	-13.118	-1.876	-3.249	0.000
90	26.236	0.000	26.236	0.000	0.000	-3.752	0.000
120	26.236	0.000	22.721	13.118	1.876	-3.249	0.000
135	26.236	0.000	18.552	18.552	2.653	-2.653	0.000
150	26.236	0.000	13.118	22.721	3.249	-1.876	0.000
180	26.236	0.000	0.000	26.236	3.752	0.000	0.000
210	26.236	0.000	-13.118	22.721	3.249	1.876	0.000
225	26.236	0.000	-18.552	18.552	2.653	2.653	0.000
240	26.236	0.000	-22.721	13.118	1.876	3.249	0.000
270	26.236	0.000	-26.236	0.000	0.000	3.752	0.000
300	26.236	0.000	-22.721	-13.118	-1.876	3.249	0.000
315	26.236	0.000	-18.552	-18.552	-2.653	2.653	0.000

RRUS-12 - Elevation 143 - None A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	26.236	0.000	-13.118	-22.721	-3.249	1.876	0.000

RRUS-12 - Elevation 143 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	26.236	0.000	0.000	-26.236	-3.752	0.000	0.000
30	26.236	0.000	13.118	-22.721	-3.249	-1.876	0.000
45	26.236	0.000	18.552	-18.552	-2.653	-2.653	0.000
60	26.236	0.000	22.721	-13.118	-1.876	-3.249	0.000
90	26.236	0.000	26.236	0.000	0.000	-3.752	0.000
120	26.236	0.000	22.721	13.118	1.876	-3.249	0.000
135	26.236	0.000	18.552	18.552	2.653	-2.653	0.000
150	26.236	0.000	13.118	22.721	3.249	-1.876	0.000
180	26.236	0.000	0.000	26.236	3.752	0.000	0.000
210	26.236	0.000	-13.118	22.721	3.249	1.876	0.000
225	26.236	0.000	-18.552	18.552	2.653	2.653	0.000
240	26.236	0.000	-22.721	13.118	1.876	3.249	0.000
270	26.236	0.000	-26.236	0.000	0.000	3.752	0.000
300	26.236	0.000	-22.721	-13.118	-1.876	3.249	0.000
315	26.236	0.000	-18.552	-18.552	-2.653	2.653	0.000
330	26.236	0.000	-13.118	-22.721	-3.249	1.876	0.000

RRUS-12 - Elevation 143 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	26.236	0.000	0.000	-26.236	-3.752	0.000	0.000
30	26.236	0.000	13.118	-22.721	-3.249	-1.876	0.000
45	26.236	0.000	18.552	-18.552	-2.653	-2.653	0.000
60	26.236	0.000	22.721	-13.118	-1.876	-3.249	0.000
90	26.236	0.000	26.236	0.000	0.000	-3.752	0.000
120	26.236	0.000	22.721	13.118	1.876	-3.249	0.000
135	26.236	0.000	18.552	18.552	2.653	-2.653	0.000
150	26.236	0.000	13.118	22.721	3.249	-1.876	0.000
180	26.236	0.000	0.000	26.236	3.752	0.000	0.000
210	26.236	0.000	-13.118	22.721	3.249	1.876	0.000
225	26.236	0.000	-18.552	18.552	2.653	2.653	0.000
240	26.236	0.000	-22.721	13.118	1.876	3.249	0.000
270	26.236	0.000	-26.236	0.000	0.000	3.752	0.000
300	26.236	0.000	-22.721	-13.118	-1.876	3.249	0.000
315	26.236	0.000	-18.552	-18.552	-2.653	2.653	0.000
330	26.236	0.000	-13.118	-22.721	-3.249	1.876	0.000

2" Dia 10' Omni - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	20.420	35.369	0.000	-40.841	-5.433	-0.705	0.383
30	0.000	40.841	20.420	-35.369	-4.651	-3.625	0.442
45	10.570	39.449	28.879	-28.879	-3.723	-4.834	0.427
60	20.420	35.369	35.369	-20.420	-2.513	-5.762	0.383
90	35.369	20.420	40.841	0.000	0.407	-6.545	0.221
120	40.841	0.000	35.369	20.420	3.327	-5.762	0.000

2" Dia 10' Omni - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	39.449	10.570	28.879	28.879	4.536	-4.834	-0.114
150	35.369	20.420	20.420	35.369	5.465	-3.625	-0.221
180	20.420	35.369	0.000	40.841	6.247	-0.705	-0.383
210	0.000	40.841	-20.420	35.369	5.465	2.216	-0.442
225	10.570	39.449	-28.879	28.879	4.536	3.425	-0.427
240	20.420	35.369	-35.369	20.420	3.327	4.353	-0.383
270	35.369	20.420	-40.841	0.000	0.407	5.136	-0.221
300	40.841	0.000	-35.369	-20.420	-2.513	4.353	0.000
315	39.449	10.570	-28.879	-28.879	-3.723	3.425	0.114
330	35.369	20.420	-20.420	-35.369	-4.651	2.216	0.221

Pirod 4' Side Mount Standoff (1) - Elevation 143 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	77.167	0.000	0.000	-77.167	-11.035	0.000	0.000
30	77.167	0.000	38.584	-66.829	-9.556	-5.517	0.000
45	77.167	0.000	54.565	-54.565	-7.803	-7.803	0.000
60	77.167	0.000	66.829	-38.584	-5.517	-9.556	0.000
90	77.167	0.000	77.167	0.000	0.000	-11.035	0.000
120	77.167	0.000	66.829	38.584	5.517	-9.556	0.000
135	77.167	0.000	54.565	54.565	7.803	-7.803	0.000
150	77.167	0.000	38.584	66.829	9.556	-5.517	0.000
180	77.167	0.000	0.000	77.167	11.035	0.000	0.000
210	77.167	0.000	-38.584	66.829	9.556	5.517	0.000
225	77.167	0.000	-54.565	54.565	7.803	7.803	0.000
240	77.167	0.000	-66.829	38.584	5.517	9.556	0.000
270	77.167	0.000	-77.167	0.000	0.000	11.035	0.000
300	77.167	0.000	-66.829	-38.584	-5.517	9.556	0.000
315	77.167	0.000	-54.565	-54.565	-7.803	7.803	0.000
330	77.167	0.000	-38.584	-66.829	-9.556	5.517	0.000

3" Dia 20' Omni - Elevation 153 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	40.781	70.635	0.000	-81.562	-11.426	-1.824	0.591
30	0.000	81.562	40.781	-70.635	-9.754	-8.064	0.682
45	21.110	78.783	57.673	-57.673	-7.771	-10.648	0.659
60	40.781	70.635	70.635	-40.781	-5.186	-12.631	0.591
90	70.635	40.781	81.562	0.000	1.053	-14.303	0.341
120	81.562	0.000	70.635	40.781	7.293	-12.631	0.000
135	78.783	21.110	57.673	57.673	9.877	-10.648	-0.177
150	70.635	40.781	40.781	70.635	11.860	-8.064	-0.341
180	40.781	70.635	0.000	81.562	13.532	-1.824	-0.591
210	0.000	81.562	-40.781	70.635	11.860	4.415	-0.682
225	21.110	78.783	-57.673	57.673	9.877	7.000	-0.659
240	40.781	70.635	-70.635	40.781	7.293	8.983	-0.591
270	70.635	40.781	-81.562	0.000	1.053	10.655	-0.341
300	81.562	0.000	-70.635	-40.781	-5.186	8.983	0.000
315	78.783	21.110	-57.673	-57.673	-7.771	7.000	0.177
330	70.635	40.781	-40.781	-70.635	-9.754	4.415	0.341

1' Side Arm - Elevation 153 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	20.074	34.769	0.000	-40.148	-5.617	-0.911	0.274
30	0.000	40.148	20.074	-34.769	-4.794	-3.982	0.316
45	10.391	38.780	28.389	-28.389	-3.818	-5.254	0.305
60	20.074	34.769	34.769	-20.074	-2.545	-6.230	0.274
90	34.769	20.074	40.148	0.000	0.526	-7.053	0.158
120	40.148	0.000	34.769	20.074	3.597	-6.230	0.000
135	38.780	10.391	28.389	28.389	4.869	-5.254	-0.082
150	34.769	20.074	20.074	34.769	5.846	-3.982	-0.158
180	20.074	34.769	0.000	40.148	6.668	-0.911	-0.274
210	0.000	40.148	-20.074	34.769	5.846	2.160	-0.316
225	10.391	38.780	-28.389	28.389	4.869	3.433	-0.305
240	20.074	34.769	-34.769	20.074	3.597	4.409	-0.274
270	34.769	20.074	-40.148	0.000	0.526	5.232	-0.158
300	40.148	0.000	-34.769	-20.074	-2.545	4.409	0.000
315	38.780	10.391	-28.389	-28.389	-3.818	3.433	0.082
330	34.769	20.074	-20.074	-34.769	-4.794	2.160	0.158

1 Bay Dipole ANT400D - Elevation 151 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.501	0.000	0.000	-18.501	-3.568	0.000	0.000
30	16.023	5.168	5.168	-16.023	-3.194	-0.780	-0.039
45	13.082	7.309	7.309	-13.082	-2.750	-1.104	-0.055
60	9.251	8.951	8.951	-9.251	-2.171	-1.352	-0.067
90	0.000	10.336	10.336	0.000	-0.775	-1.561	-0.077
120	9.251	8.951	8.951	9.251	0.622	-1.352	-0.067
135	13.082	7.309	7.309	13.082	1.201	-1.104	-0.055
150	16.023	5.168	5.168	16.023	1.645	-0.780	-0.039
180	18.501	0.000	0.000	18.501	2.019	0.000	0.000
210	16.023	5.168	-5.168	16.023	1.645	0.780	0.039
225	13.082	7.309	-7.309	13.082	1.201	1.104	0.055
240	9.251	8.951	-8.951	9.251	0.622	1.352	0.067
270	0.000	10.336	-10.336	0.000	-0.775	1.561	0.077
300	9.251	8.951	-8.951	-9.251	-2.171	1.352	0.067
315	13.082	7.309	-7.309	-13.082	-2.750	1.104	0.055
330	16.023	5.168	-5.168	-16.023	-3.194	0.780	0.039

10'6"x4" Pipe Mount - Elevation 151 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	49.794	0.000	0.000	-49.794	-7.519	0.000	0.000
30	49.794	0.000	24.897	-43.123	-6.512	-3.759	0.000
45	49.794	0.000	35.210	-35.210	-5.317	-5.317	0.000
60	49.794	0.000	43.123	-24.897	-3.759	-6.512	0.000
90	49.794	0.000	49.794	0.000	0.000	-7.519	0.000
120	49.794	0.000	43.123	24.897	3.759	-6.512	0.000
135	49.794	0.000	35.210	35.210	5.317	-5.317	0.000
150	49.794	0.000	24.897	43.123	6.512	-3.759	0.000
180	49.794	0.000	0.000	49.794	7.519	0.000	0.000
210	49.794	0.000	-24.897	43.123	6.512	3.759	0.000
225	49.794	0.000	-35.210	35.210	5.317	5.317	0.000
240	49.794	0.000	-43.123	24.897	3.759	6.512	0.000
270	49.794	0.000	-49.794	0.000	0.000	7.519	0.000
300	49.794	0.000	-43.123	-24.897	-3.759	6.512	0.000
315	49.794	0.000	-35.210	-35.210	-5.317	5.317	0.000

10'6"x4" Pipe Mount - Elevation 151 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	49.794	0.000	-24.897	-43.123	-6.512	3.759	0.000

1.5" Dia 16' Omni - Elevation 155 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	40.893	70.828	0.000	-81.785	-11.749	-1.606	0.522
30	0.000	81.785	40.893	-70.828	-10.051	-7.944	0.603
45	21.168	78.998	57.831	-57.831	-8.037	-10.570	0.582
60	40.893	70.828	70.828	-40.893	-5.411	-12.584	0.522
90	70.828	40.893	81.785	0.000	0.927	-14.283	0.301
120	81.785	0.000	70.828	40.893	7.266	-12.584	0.000
135	78.998	21.168	57.831	57.831	9.891	-10.570	-0.156
150	70.828	40.893	40.893	70.828	11.906	-7.944	-0.301
180	40.893	70.828	0.000	81.785	13.604	-1.606	-0.522
210	0.000	81.785	-40.893	70.828	11.906	4.732	-0.603
225	21.168	78.998	-57.831	57.831	9.891	7.358	-0.582
240	40.893	70.828	-70.828	40.893	7.266	9.372	-0.522
270	70.828	40.893	-81.785	0.000	0.927	11.071	-0.301
300	81.785	0.000	-70.828	-40.893	-5.411	9.372	0.000
315	78.998	21.168	-57.831	-57.831	-8.037	7.358	0.156
330	70.828	40.893	-40.893	-70.828	-10.051	4.732	0.301

2" Dia 10' Omni - Elevation 157 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	20.961	36.306	0.000	-41.922	-6.310	0.471	-0.261
30	36.306	20.961	20.961	-36.306	-5.428	-2.820	-0.151
45	40.494	10.850	29.643	-29.643	-4.382	-4.183	-0.078
60	41.922	0.000	36.306	-20.961	-3.019	-5.229	0.000
90	36.306	20.961	41.922	0.000	0.272	-6.111	0.151
120	20.961	36.306	36.306	20.961	3.563	-5.229	0.261
135	10.850	40.494	29.643	29.643	4.926	-4.183	0.291
150	0.000	41.922	20.961	36.306	5.972	-2.820	0.301
180	20.961	36.306	0.000	41.922	6.854	0.471	0.261
210	36.306	20.961	-20.961	36.306	5.972	3.762	0.151
225	40.494	10.850	-29.643	29.643	4.926	5.125	0.078
240	41.922	0.000	-36.306	20.961	3.563	6.171	0.000
270	36.306	20.961	-41.922	0.000	0.272	7.053	-0.151
300	20.961	36.306	-36.306	-20.961	-3.019	6.171	-0.261
315	10.850	40.494	-29.643	-29.643	-4.382	5.125	-0.291
330	0.000	41.922	-20.961	-36.306	-5.428	3.762	-0.301

2' Sidearm - Elevation 157 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	19.600	33.948	0.000	-39.200	-5.685	0.814	-0.244
30	33.948	19.600	19.600	-33.948	-4.860	-2.263	-0.141
45	37.864	10.146	27.719	-27.719	-3.882	-3.538	-0.073
60	39.200	0.000	33.948	-19.600	-2.607	-4.516	0.000
90	33.948	19.600	39.200	0.000	0.470	-5.341	0.141
120	19.600	33.948	33.948	19.600	3.547	-4.516	0.244

2' Sidearm - Elevation 157 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	10.146	37.864	27.719	27.719	4.822	-3.538	0.272
150	0.000	39.200	19.600	33.948	5.800	-2.263	0.282
180	19.600	33.948	0.000	39.200	6.624	0.814	0.244
210	33.948	19.600	-19.600	33.948	5.800	3.891	0.141
225	37.864	10.146	-27.719	27.719	4.822	5.166	0.073
240	39.200	0.000	-33.948	19.600	3.547	6.144	0.000
270	33.948	19.600	-39.200	0.000	0.470	6.968	-0.141
300	19.600	33.948	-33.948	-19.600	-2.607	6.144	-0.244
315	10.146	37.864	-27.719	-27.719	-3.882	5.166	-0.272
330	0.000	39.200	-19.600	-33.948	-4.860	3.891	-0.282

10'x6" Dipole Antenna - Elevation 157 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	39.860	36.853	16.093	-51.846	-7.163	-0.834	-0.283
30	69.040	21.277	49.152	-52.946	-7.335	-6.024	-0.163
45	77.004	11.014	61.180	-48.040	-6.565	-7.913	-0.085
60	79.720	0.000	69.040	-39.860	-5.281	-9.147	0.000
90	69.040	21.277	70.429	-16.093	-1.549	-9.365	0.163
120	39.860	36.853	52.946	11.986	2.859	-6.620	0.283
135	20.633	41.104	38.421	25.281	4.946	-4.340	0.316
150	0.000	42.554	21.277	36.853	6.763	-1.648	0.327
180	39.860	36.853	-16.093	51.846	9.117	4.219	0.283
210	69.040	21.277	-49.152	52.946	9.290	9.409	0.163
225	77.004	11.014	-61.180	48.040	8.519	11.298	0.085
240	79.720	0.000	-69.040	39.860	7.235	12.532	0.000
270	69.040	21.277	-70.429	16.093	3.504	12.750	-0.163
300	39.860	36.853	-52.946	-11.986	-0.905	10.005	-0.283
315	20.633	41.104	-38.421	-25.281	-2.992	7.725	-0.316
330	0.000	42.554	-21.277	-36.853	-4.809	5.033	-0.327

1' Side Arm - Elevation 157 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	20.215	35.013	0.000	-40.429	-5.833	0.891	-0.269
30	35.013	20.215	20.215	-35.013	-4.983	-2.283	-0.155
45	39.052	10.464	28.588	-28.588	-3.974	-3.597	-0.080
60	40.429	0.000	35.013	-20.215	-2.659	-4.606	0.000
90	35.013	20.215	40.429	0.000	0.514	-5.457	0.155
120	20.215	35.013	35.013	20.215	3.688	-4.606	0.269
135	10.464	39.052	28.588	28.588	5.003	-3.597	0.300
150	0.000	40.429	20.215	35.013	6.011	-2.283	0.311
180	20.215	35.013	0.000	40.429	6.862	0.891	0.269
210	35.013	20.215	-20.215	35.013	6.011	4.064	0.155
225	39.052	10.464	-28.588	28.588	5.003	5.379	0.080
240	40.429	0.000	-35.013	20.215	3.688	6.388	0.000
270	35.013	20.215	-40.429	0.000	0.514	7.238	-0.155
300	20.215	35.013	-35.013	-20.215	-2.659	6.388	-0.269
315	10.464	39.052	-28.588	-28.588	-3.974	5.379	-0.300
330	0.000	40.429	-20.215	-35.013	-4.983	4.064	-0.311

3'4"x4" Pipe Mount - Elevation 157 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	13.352	0.000	0.000	-13.352	-2.096	0.000	0.000
30	13.352	0.000	6.676	-11.563	-1.815	-1.048	0.000
45	13.352	0.000	9.441	-9.441	-1.482	-1.482	0.000
60	13.352	0.000	11.563	-6.676	-1.048	-1.815	0.000
90	13.352	0.000	13.352	0.000	0.000	-2.096	0.000
120	13.352	0.000	11.563	6.676	1.048	-1.815	0.000
135	13.352	0.000	9.441	9.441	1.482	-1.482	0.000
150	13.352	0.000	6.676	11.563	1.815	-1.048	0.000
180	13.352	0.000	0.000	13.352	2.096	0.000	0.000
210	13.352	0.000	-6.676	11.563	1.815	1.048	0.000
225	13.352	0.000	-9.441	9.441	1.482	1.482	0.000
240	13.352	0.000	-11.563	6.676	1.048	1.815	0.000
270	13.352	0.000	-13.352	0.000	0.000	2.096	0.000
300	13.352	0.000	-11.563	-6.676	-1.048	1.815	0.000
315	13.352	0.000	-9.441	-9.441	-1.482	1.482	0.000
330	13.352	0.000	-6.676	-11.563	-1.815	1.048	0.000

(Inverted) 3" Dia 20' Omni - Elevation 160 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	41.294	71.522	0.000	-82.587	-12.072	-1.978	0.647
30	0.000	82.587	41.294	-71.522	-10.301	-8.585	0.747
45	21.375	79.773	58.398	-58.398	-8.201	-11.322	0.721
60	41.294	71.522	71.522	-41.294	-5.465	-13.422	0.647
90	71.522	41.294	82.587	0.000	1.142	-15.192	0.373
120	82.587	0.000	71.522	41.294	7.749	-13.422	0.000
135	79.773	21.375	58.398	58.398	10.486	-11.322	-0.193
150	71.522	41.294	41.294	71.522	12.586	-8.585	-0.373
180	41.294	71.522	0.000	82.587	14.356	-1.978	-0.647
210	0.000	82.587	-41.294	71.522	12.586	4.629	-0.747
225	21.375	79.773	-58.398	58.398	10.486	7.365	-0.721
240	41.294	71.522	-71.522	41.294	7.749	9.465	-0.647
270	71.522	41.294	-82.587	0.000	1.142	11.235	-0.373
300	82.587	0.000	-71.522	-41.294	-5.465	9.465	0.000
315	79.773	21.375	-58.398	-58.398	-8.201	7.365	0.193
330	71.522	41.294	-41.294	-71.522	-10.301	4.629	0.373

2' Sidearm - Elevation 160 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	19.692	34.107	0.000	-39.383	-5.840	-0.799	0.240
30	0.000	39.383	19.692	-34.107	-4.996	-3.949	0.277
45	10.193	38.041	27.848	-27.848	-3.995	-5.254	0.268
60	19.692	34.107	34.107	-19.692	-2.690	-6.256	0.240
90	34.107	19.692	39.383	0.000	0.461	-7.100	0.139
120	39.383	0.000	34.107	19.692	3.612	-6.256	0.000
135	38.041	10.193	27.848	27.848	4.917	-5.254	-0.072
150	34.107	19.692	19.692	34.107	5.918	-3.949	-0.139
180	19.692	34.107	0.000	39.383	6.762	-0.799	-0.240
210	0.000	39.383	-19.692	34.107	5.918	2.352	-0.277
225	10.193	38.041	-27.848	27.848	4.917	3.657	-0.268
240	19.692	34.107	-34.107	19.692	3.612	4.659	-0.240
270	34.107	19.692	-39.383	0.000	0.461	5.503	-0.139
300	39.383	0.000	-34.107	-19.692	-2.690	4.659	0.000
315	38.041	10.193	-27.848	-27.848	-3.995	3.657	0.072

2' Sidearm - Elevation 160 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	34.107	19.692	-19.692	-34.107	-4.996	2.352	0.139

(Inverted) 3" Dia 20' Omni - Elevation 160 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	41.294	71.522	0.000	-82.587	-12.072	-1.978	0.647
30	0.000	82.587	41.294	-71.522	-10.301	-8.585	0.747
45	21.375	79.773	58.398	-58.398	-8.201	-11.322	0.721
60	41.294	71.522	71.522	-41.294	-5.465	-13.422	0.647
90	71.522	41.294	82.587	0.000	1.142	-15.192	0.373
120	82.587	0.000	71.522	41.294	7.749	-13.422	0.000
135	79.773	21.375	58.398	58.398	10.486	-11.322	-0.193
150	71.522	41.294	41.294	71.522	12.586	-8.585	-0.373
180	41.294	71.522	0.000	82.587	14.356	-1.978	-0.647
210	0.000	82.587	-41.294	71.522	12.586	4.629	-0.747
225	21.375	79.773	-58.398	58.398	10.486	7.365	-0.721
240	41.294	71.522	-71.522	41.294	7.749	9.465	-0.647
270	71.522	41.294	-82.587	0.000	1.142	11.235	-0.373
300	82.587	0.000	-71.522	-41.294	-5.465	9.465	0.000
315	79.773	21.375	-58.398	-58.398	-8.201	7.365	0.193
330	71.522	41.294	-41.294	-71.522	-10.301	4.629	0.373

6' Side-Arm(1) - Elevation 166 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	146.207	146.207	0.000	-206.768	-37.418	0.000	0.000
30	53.516	199.723	103.384	-179.067	-32.820	-17.162	-0.700
45	0.000	206.768	146.207	-146.207	-27.365	-24.270	-0.989
60	53.516	199.723	179.067	-103.384	-20.256	-29.725	-1.212
90	146.207	146.207	206.768	0.000	-3.095	-34.324	-1.399
120	199.723	53.516	179.067	103.384	14.067	-29.725	-1.212
135	206.768	0.000	146.207	146.207	21.176	-24.270	-0.989
150	199.723	53.516	103.384	179.067	26.630	-17.162	-0.700
180	146.207	146.207	0.000	206.768	31.229	0.000	0.000
210	53.516	199.723	-103.384	179.067	26.630	17.162	0.700
225	0.000	206.768	-146.207	146.207	21.176	24.270	0.989
240	53.516	199.723	-179.067	103.384	14.067	29.725	1.212
270	146.207	146.207	-206.768	0.000	-3.095	34.324	1.399
300	199.723	53.516	-179.067	-103.384	-20.256	29.725	1.212
315	206.768	0.000	-146.207	-146.207	-27.365	24.270	0.989
330	199.723	53.516	-103.384	-179.067	-32.820	17.162	0.700

6' Side-Arm(1) - Elevation 166 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	199.723	53.516	0.000	-206.768	-32.776	-2.680	1.212
30	146.207	146.207	103.384	-179.067	-28.178	-19.842	1.399
45	103.384	179.067	146.207	-146.207	-22.723	-26.950	1.351
60	53.516	199.723	179.067	-103.384	-15.614	-32.405	1.212
90	53.516	199.723	206.768	0.000	1.547	-37.004	0.700
120	146.207	146.207	179.067	103.384	18.709	-32.405	0.000

6' Side-Arm(1) - Elevation 166 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	179.067	103.384	146.207	146.207	25.818	-26.950	-0.362
150	199.723	53.516	103.384	179.067	31.272	-19.842	-0.700
180	199.723	53.516	0.000	206.768	35.871	-2.680	-1.212
210	146.207	146.207	-103.384	179.067	31.272	14.482	-1.399
225	103.384	179.067	-146.207	146.207	25.818	21.590	-1.351
240	53.516	199.723	-179.067	103.384	18.709	27.045	-1.212
270	53.516	199.723	-206.768	0.000	1.547	31.644	-0.700
300	146.207	146.207	-179.067	-103.384	-15.614	27.045	0.000
315	179.067	103.384	-146.207	-146.207	-22.723	21.590	0.362
330	199.723	53.516	-103.384	-179.067	-28.178	14.482	0.700

(inverted) 10' 8 Bay Di-Pole - Elevation 166 - From Face B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	80.597	21.596	0.000	-83.440	-14.786	-1.620	0.534
30	80.597	21.596	41.720	-72.262	-12.931	-8.545	0.308
45	72.262	41.720	59.001	-59.001	-10.729	-11.414	0.159
60	59.001	59.001	72.262	-41.720	-7.861	-13.615	0.000
90	21.596	80.597	83.440	0.000	-0.935	-15.471	-0.308
120	21.596	80.597	72.262	41.720	5.990	-13.615	-0.534
135	41.720	72.262	59.001	59.001	8.859	-11.414	-0.595
150	59.001	59.001	41.720	72.262	11.060	-8.545	-0.616
180	80.597	21.596	0.000	83.440	12.916	-1.620	-0.534
210	80.597	21.596	-41.720	72.262	11.060	5.306	-0.308
225	72.262	41.720	-59.001	59.001	8.859	8.174	-0.159
240	59.001	59.001	-72.262	41.720	5.990	10.376	0.000
270	21.596	80.597	-83.440	0.000	-0.935	12.231	0.308
300	21.596	80.597	-72.262	-41.720	-7.861	10.376	0.534
315	41.720	72.262	-59.001	-59.001	-10.729	8.174	0.595
330	59.001	59.001	-41.720	-72.262	-12.931	5.306	0.616

(inverted) 2" Dia 10' Omni - Elevation 164 - From Face B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	21.218	36.751	0.000	-42.437	-7.242	-0.489	0.273
30	36.751	21.218	21.218	-36.751	-6.310	-3.969	0.158
45	40.991	10.983	30.007	-30.007	-5.204	-5.410	0.082
60	42.437	0.000	36.751	-21.218	-3.762	-6.516	0.000
90	36.751	21.218	42.437	0.000	-0.282	-7.449	-0.158
120	21.218	36.751	36.751	21.218	3.197	-6.516	-0.273
135	10.983	40.991	30.007	30.007	4.639	-5.410	-0.305
150	0.000	42.437	21.218	36.751	5.745	-3.969	-0.315
180	21.218	36.751	0.000	42.437	6.677	-0.489	-0.273
210	36.751	21.218	-21.218	36.751	5.745	2.991	-0.158
225	40.991	10.983	-30.007	30.007	4.639	4.432	-0.082
240	42.437	0.000	-36.751	21.218	3.197	5.538	0.000
270	36.751	21.218	-42.437	0.000	-0.282	6.470	0.158
300	21.218	36.751	-36.751	-21.218	-3.762	5.538	0.273
315	10.983	40.991	-30.007	-30.007	-5.204	4.432	0.305
330	0.000	42.437	-21.218	-36.751	-6.310	2.991	0.315

6' Side-Arm(1) - Elevation 164 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	53.336	199.053	0.000	-206.075	-32.229	-2.714	1.224
30	145.717	145.717	103.037	-178.466	-27.701	-19.612	1.413
45	178.466	103.037	145.717	-145.717	-22.330	-26.612	1.365
60	199.053	53.336	178.466	-103.037	-15.331	-31.983	1.224
90	199.053	53.336	206.075	0.000	1.567	-36.511	0.707
120	145.717	145.717	178.466	103.037	18.465	-31.983	0.000
135	103.037	178.466	145.717	145.717	25.465	-26.612	-0.366
150	53.336	199.053	103.037	178.466	30.836	-19.612	-0.707
180	53.336	199.053	0.000	206.075	35.363	-2.714	-1.224
210	145.717	145.717	-103.037	178.466	30.836	14.184	-1.413
225	178.466	103.037	-145.717	145.717	25.465	21.183	-1.365
240	199.053	53.336	-178.466	103.037	18.465	26.554	-1.224
270	199.053	53.336	-206.075	0.000	1.567	31.082	-0.707
300	145.717	145.717	-178.466	-103.037	-15.331	26.554	0.000
315	103.037	178.466	-145.717	-145.717	-22.330	21.183	0.366
330	53.336	199.053	-103.037	-178.466	-27.701	14.184	0.707

6' Side-Arm(1) - Elevation 164 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	53.336	199.053	0.000	-206.075	-32.229	2.714	-1.224
30	53.336	199.053	103.037	-178.466	-27.701	-14.184	-0.707
45	103.037	178.466	145.717	-145.717	-22.330	-21.183	-0.366
60	145.717	145.717	178.466	-103.037	-15.331	-26.554	0.000
90	199.053	53.336	206.075	0.000	1.567	-31.082	0.707
120	199.053	53.336	178.466	103.037	18.465	-26.554	1.224
135	178.466	103.037	145.717	145.717	25.465	-21.183	1.365
150	145.717	145.717	103.037	178.466	30.836	-14.184	1.413
180	53.336	199.053	0.000	206.075	35.363	2.714	1.224
210	53.336	199.053	-103.037	178.466	30.836	19.612	0.707
225	103.037	178.466	-145.717	145.717	25.465	26.612	0.366
240	145.717	145.717	-178.466	103.037	18.465	31.983	0.000
270	199.053	53.336	-206.075	0.000	1.567	36.511	-0.707
300	199.053	53.336	-178.466	-103.037	-15.331	31.983	-1.224
315	178.466	103.037	-145.717	-145.717	-22.330	26.612	-1.365
330	145.717	145.717	-103.037	-178.466	-27.701	19.612	-1.413

3'4"x4" Pipe Mount - Elevation 169 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	13.617	0.000	0.000	-13.617	-2.301	0.000	0.000
30	13.617	0.000	6.809	-11.793	-1.993	-1.151	0.000
45	13.617	0.000	9.629	-9.629	-1.627	-1.627	0.000
60	13.617	0.000	11.793	-6.809	-1.151	-1.993	0.000
90	13.617	0.000	13.617	0.000	0.000	-2.301	0.000
120	13.617	0.000	11.793	6.809	1.151	-1.993	0.000
135	13.617	0.000	9.629	9.629	1.627	-1.627	0.000
150	13.617	0.000	6.809	11.793	1.993	-1.151	0.000
180	13.617	0.000	0.000	13.617	2.301	0.000	0.000
210	13.617	0.000	-6.809	11.793	1.993	1.151	0.000
225	13.617	0.000	-9.629	9.629	1.627	1.627	0.000
240	13.617	0.000	-11.793	6.809	1.151	1.993	0.000
270	13.617	0.000	-13.617	0.000	0.000	2.301	0.000
300	13.617	0.000	-11.793	-6.809	-1.151	1.993	0.000
315	13.617	0.000	-9.629	-9.629	-1.627	1.627	0.000

3'4"x4" Pipe Mount - Elevation 169 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	13.617	0.000	-6.809	-11.793	-1.993	1.151	0.000

3'4"x4" Pipe Mount - Elevation 171 - None A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	13.660	0.000	0.000	-13.660	-2.336	0.000	0.000
30	13.660	0.000	6.830	-11.830	-2.023	-1.168	0.000
45	13.660	0.000	9.659	-9.659	-1.652	-1.652	0.000
60	13.660	0.000	11.830	-6.830	-1.168	-2.023	0.000
90	13.660	0.000	13.660	0.000	0.000	-2.336	0.000
120	13.660	0.000	11.830	6.830	1.168	-2.023	0.000
135	13.660	0.000	9.659	9.659	1.652	-1.652	0.000
150	13.660	0.000	6.830	11.830	2.023	-1.168	0.000
180	13.660	0.000	0.000	13.660	2.336	0.000	0.000
210	13.660	0.000	-6.830	11.830	2.023	1.168	0.000
225	13.660	0.000	-9.659	9.659	1.652	1.652	0.000
240	13.660	0.000	-11.830	6.830	1.168	2.023	0.000
270	13.660	0.000	-13.660	0.000	0.000	2.336	0.000
300	13.660	0.000	-11.830	-6.830	-1.168	2.023	0.000
315	13.660	0.000	-9.659	-9.659	-1.652	1.652	0.000
330	13.660	0.000	-6.830	-11.830	-2.023	1.168	0.000

3'4"x4" Pipe Mount - Elevation 176 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	13.765	0.000	0.000	-13.765	-2.423	0.000	0.000
30	13.765	0.000	6.883	-11.921	-2.098	-1.211	0.000
45	13.765	0.000	9.734	-9.734	-1.713	-1.713	0.000
60	13.765	0.000	11.921	-6.883	-1.211	-2.098	0.000
90	13.765	0.000	13.765	0.000	0.000	-2.423	0.000
120	13.765	0.000	11.921	6.883	1.211	-2.098	0.000
135	13.765	0.000	9.734	9.734	1.713	-1.713	0.000
150	13.765	0.000	6.883	11.921	2.098	-1.211	0.000
180	13.765	0.000	0.000	13.765	2.423	0.000	0.000
210	13.765	0.000	-6.883	11.921	2.098	1.211	0.000
225	13.765	0.000	-9.734	9.734	1.713	1.713	0.000
240	13.765	0.000	-11.921	6.883	1.211	2.098	0.000
270	13.765	0.000	-13.765	0.000	0.000	2.423	0.000
300	13.765	0.000	-11.921	-6.883	-1.211	2.098	0.000
315	13.765	0.000	-9.734	-9.734	-1.713	1.713	0.000
330	13.765	0.000	-6.883	-11.921	-2.098	1.211	0.000

432E-83I-01T TTA Unit - Elevation 178 - From Face A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	12.690	9.414	-6.283	-14.498	-2.832	1.554	-0.034
30	0.000	10.871	5.435	-9.414	-1.927	-0.532	-0.039
45	6.569	10.500	10.939	-5.809	-1.285	-1.512	-0.038
60	12.690	9.414	15.697	-1.808	-0.573	-2.359	-0.034
90	21.980	5.435	21.753	6.283	0.867	-3.437	-0.020
120	25.380	0.000	21.980	12.690	2.007	-3.477	0.000

432E-83I-01T TTA Unit - Elevation 178 - From Face A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	24.515	2.814	19.824	14.694	2.364	-3.093	0.010
150	21.980	5.435	16.317	15.697	2.543	-2.469	0.020
180	12.690	9.414	6.283	14.498	2.329	-0.683	0.034
210	0.000	10.871	-5.435	9.414	1.424	1.403	0.039
225	6.569	10.500	-10.939	5.809	0.783	2.382	0.038
240	12.690	9.414	-15.697	1.808	0.070	3.229	0.034
270	21.980	5.435	-21.753	-6.283	-1.370	4.307	0.020
300	25.380	0.000	-21.980	-12.690	-2.510	4.348	0.000
315	24.515	2.814	-19.824	-14.694	-2.867	3.964	-0.010
330	21.980	5.435	-16.317	-15.697	-3.045	3.340	-0.020

3" Dia 12' Omni - Elevation 180 - From Face A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	21.779	37.722	0.000	-43.558	-7.977	0.236	-0.134
30	0.000	43.558	21.779	-37.722	-6.926	-3.684	-0.155
45	11.274	42.073	30.800	-30.800	-5.680	-5.308	-0.150
60	21.779	37.722	37.722	-21.779	-4.057	-6.554	-0.134
90	37.722	21.779	43.558	0.000	-0.136	-7.604	-0.078
120	43.558	0.000	37.722	21.779	3.784	-6.554	0.000
135	42.073	11.274	30.800	30.800	5.408	-5.308	0.040
150	37.722	21.779	21.779	37.722	6.654	-3.684	0.078
180	21.779	37.722	0.000	43.558	7.704	0.236	0.134
210	0.000	43.558	-21.779	37.722	6.654	4.156	0.155
225	11.274	42.073	-30.800	30.800	5.408	5.780	0.150
240	21.779	37.722	-37.722	21.779	3.784	7.026	0.134
270	37.722	21.779	-43.558	0.000	-0.136	8.077	0.078
300	43.558	0.000	-37.722	-21.779	-4.057	7.026	0.000
315	42.073	11.274	-30.800	-30.800	-5.680	5.780	-0.040
330	37.722	21.779	-21.779	-37.722	-6.926	4.156	-0.078

3" Dia 12' Omni - Elevation 180 - From Face B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	21.779	37.722	0.000	-43.558	-8.073	-0.402	0.229
30	37.722	21.779	21.779	-37.722	-7.022	-4.322	0.132
45	42.073	11.274	30.800	-30.800	-5.776	-5.946	0.068
60	43.558	0.000	37.722	-21.779	-4.152	-7.192	0.000
90	37.722	21.779	43.558	0.000	-0.232	-8.243	-0.132
120	21.779	37.722	37.722	21.779	3.688	-7.192	-0.229
135	11.274	42.073	30.800	30.800	5.312	-5.946	-0.255
150	0.000	43.558	21.779	37.722	6.558	-4.322	-0.264
180	21.779	37.722	0.000	43.558	7.608	-0.402	-0.229
210	37.722	21.779	-21.779	37.722	6.558	3.518	-0.132
225	42.073	11.274	-30.800	30.800	5.312	5.142	-0.068
240	43.558	0.000	-37.722	21.779	3.688	6.388	0.000
270	37.722	21.779	-43.558	0.000	-0.232	7.438	0.132
300	21.779	37.722	-37.722	-21.779	-4.152	6.388	0.229
315	11.274	42.073	-30.800	-30.800	-5.776	5.142	0.255
330	0.000	43.558	-21.779	-37.722	-7.022	3.518	0.264

432E-83I-01T TTA Unit - Elevation 180 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	12.724	9.442	-6.299	-14.539	-1.771	-0.332	0.114
30	0.000	10.902	5.451	-9.442	-0.854	-2.446	0.132
45	6.586	10.531	10.969	-5.827	-0.203	-3.440	0.128
60	12.724	9.442	15.740	-1.815	0.519	-4.298	0.114
90	22.039	5.451	21.812	6.299	1.980	-5.391	0.066
120	25.448	0.000	22.039	12.724	3.136	-5.432	0.000
135	24.581	2.822	19.877	14.734	3.498	-5.043	-0.034
150	22.039	5.451	16.360	15.740	3.679	-4.410	-0.066
180	12.724	9.442	6.299	14.539	3.463	-2.599	-0.114
210	0.000	10.902	-5.451	9.442	2.545	-0.484	-0.132
225	6.586	10.531	-10.969	5.827	1.895	0.509	-0.128
240	12.724	9.442	-15.740	1.815	1.173	1.368	-0.114
270	22.039	5.451	-21.812	-6.299	-0.288	2.461	-0.066
300	25.448	0.000	-22.039	-12.724	-1.444	2.502	0.000
315	24.581	2.822	-19.877	-14.734	-1.806	2.113	0.034
330	22.039	5.451	-16.360	-15.740	-1.987	1.480	0.066

1 Bay Dipole ANT400D - Elevation 180 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	9.669	9.426	-3.661	-12.998	-1.960	0.001	0.067
30	0.000	10.884	5.442	-9.426	-1.317	-1.638	0.077
45	5.005	10.513	9.591	-6.602	-0.808	-2.385	0.075
60	9.669	9.426	13.087	-3.328	-0.219	-3.014	0.067
90	16.748	5.442	17.225	3.661	1.039	-3.759	0.039
120	19.339	0.000	16.748	9.669	2.120	-3.673	0.000
135	18.680	2.817	14.769	11.779	2.500	-3.317	-0.020
150	16.748	5.442	11.783	13.087	2.736	-2.779	-0.039
180	9.669	9.426	3.661	12.998	2.720	-1.317	-0.067
210	0.000	10.884	-5.442	9.426	2.077	0.321	-0.077
225	5.005	10.513	-9.591	6.602	1.568	1.068	-0.075
240	9.669	9.426	-13.087	3.328	0.979	1.697	-0.067
270	16.748	5.442	-17.225	-3.661	-0.279	2.442	-0.039
300	19.339	0.000	-16.748	-9.669	-1.360	2.356	0.000
315	18.680	2.817	-14.769	-11.779	-1.740	2.000	0.020
330	16.748	5.442	-11.783	-13.087	-1.976	1.463	0.039

2" Dia 10' Omni - Elevation 181 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	21.813	37.781	0.000	-43.625	-7.644	-0.437	0.248
30	0.000	43.625	21.813	-37.781	-6.586	-4.385	0.287
45	11.291	42.139	30.848	-30.848	-5.331	-6.020	0.277
60	21.813	37.781	37.781	-21.813	-3.696	-7.275	0.248
90	37.781	21.813	43.625	0.000	0.252	-8.333	0.143
120	43.625	0.000	37.781	21.813	4.200	-7.275	0.000
135	42.139	11.291	30.848	30.848	5.835	-6.020	-0.074
150	37.781	21.813	21.813	37.781	7.090	-4.385	-0.143
180	21.813	37.781	0.000	43.625	8.148	-0.437	-0.248
210	0.000	43.625	-21.813	37.781	7.090	3.512	-0.287
225	11.291	42.139	-30.848	30.848	5.835	5.147	-0.277
240	21.813	37.781	-37.781	21.813	4.200	6.402	-0.248
270	37.781	21.813	-43.625	0.000	0.252	7.460	-0.143
300	43.625	0.000	-37.781	-21.813	-3.696	6.402	0.000
315	42.139	11.291	-30.848	-30.848	-5.331	5.147	0.074

2" Dia 10' Omni - Elevation 181 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	37.781	21.813	-21.813	-37.781	-6.586	3.512	0.143

2" Dia 10' Omni - Elevation 181 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	21.813	37.781	0.000	-43.625	-7.644	0.437	-0.248
30	37.781	21.813	21.813	-37.781	-6.586	-3.512	-0.143
45	42.139	11.291	30.848	-30.848	-5.331	-5.147	-0.074
60	43.625	0.000	37.781	-21.813	-3.696	-6.402	0.000
90	37.781	21.813	43.625	0.000	0.252	-7.460	0.143
120	21.813	37.781	37.781	21.813	4.200	-6.402	0.248
135	11.291	42.139	30.848	30.848	5.835	-5.147	0.277
150	0.000	43.625	21.813	37.781	7.090	-3.512	0.287
180	21.813	37.781	0.000	43.625	8.148	0.437	0.248
210	37.781	21.813	-21.813	37.781	7.090	4.385	0.143
225	42.139	11.291	-30.848	30.848	5.835	6.020	0.074
240	43.625	0.000	-37.781	21.813	4.200	7.275	0.000
270	37.781	21.813	-43.625	0.000	0.252	8.333	-0.143
300	21.813	37.781	-37.781	-21.813	-3.696	7.275	-0.248
315	11.291	42.139	-30.848	-30.848	-5.331	6.020	-0.277
330	0.000	43.625	-21.813	-37.781	-6.586	4.385	-0.287

10' - 2 Bay Dipole - Elevation 181 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	7.060	12.229	0.000	-14.121	-2.182	0.647	-0.080
30	12.229	7.060	7.060	-12.229	-1.840	-0.631	-0.046
45	13.640	3.655	9.985	-9.985	-1.434	-1.160	-0.024
60	14.121	0.000	12.229	-7.060	-0.904	-1.566	0.000
90	12.229	7.060	14.121	0.000	0.374	-1.909	0.046
120	7.060	12.229	12.229	7.060	1.652	-1.566	0.080
135	3.655	13.640	9.985	9.985	2.181	-1.160	0.090
150	0.000	14.121	7.060	12.229	2.587	-0.631	0.093
180	7.060	12.229	0.000	14.121	2.930	0.647	0.080
210	12.229	7.060	-7.060	12.229	2.587	1.925	0.046
225	13.640	3.655	-9.985	9.985	2.181	2.455	0.024
240	14.121	0.000	-12.229	7.060	1.652	2.861	0.000
270	12.229	7.060	-14.121	0.000	0.374	3.203	-0.046
300	7.060	12.229	-12.229	-7.060	-0.904	2.861	-0.080
315	3.655	13.640	-9.985	-9.985	-1.434	2.455	-0.090
330	0.000	14.121	-7.060	-12.229	-1.840	1.925	-0.093

20' 4-Bay Dipole - Elevation 181 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	85.482	0.000	0.000	-85.482	-17.149	0.000	0.000
30	74.029	42.741	42.741	-74.029	-15.076	-7.736	-0.281
45	60.445	60.445	60.445	-60.445	-12.617	-10.941	-0.397
60	42.741	74.029	74.029	-42.741	-9.413	-13.399	-0.487
90	0.000	85.482	85.482	0.000	-1.677	-15.472	-0.562
120	42.741	74.029	74.029	42.741	6.060	-13.399	-0.487

20' 4-Bay Dipole - Elevation 181 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	60.445	60.445	60.445	60.445	9.264	-10.941	-0.397
150	74.029	42.741	42.741	74.029	11.723	-7.736	-0.281
180	85.482	0.000	0.000	85.482	13.796	0.000	0.000
210	74.029	42.741	-42.741	74.029	11.723	7.736	0.281
225	60.445	60.445	-60.445	60.445	9.264	10.941	0.397
240	42.741	74.029	-74.029	42.741	6.060	13.399	0.487
270	0.000	85.482	-85.482	0.000	-1.677	15.472	0.562
300	42.741	74.029	-74.029	-42.741	-9.413	13.399	0.487
315	60.445	60.445	-60.445	-60.445	-12.617	10.941	0.397
330	74.029	42.741	-42.741	-74.029	-15.076	7.736	0.281

Lightning Rod 2"x15' - Elevation 181 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	64.453	0.000	0.000	-64.453	-11.666	0.000	0.000
30	64.453	0.000	32.227	-55.818	-10.103	-5.833	0.000
45	64.453	0.000	45.575	-45.575	-8.249	-8.249	0.000
60	64.453	0.000	55.818	-32.227	-5.833	-10.103	0.000
90	64.453	0.000	64.453	0.000	0.000	-11.666	0.000
120	64.453	0.000	55.818	32.227	5.833	-10.103	0.000
135	64.453	0.000	45.575	45.575	8.249	-8.249	0.000
150	64.453	0.000	32.227	55.818	10.103	-5.833	0.000
180	64.453	0.000	0.000	64.453	11.666	0.000	0.000
210	64.453	0.000	-32.227	55.818	10.103	5.833	0.000
225	64.453	0.000	-45.575	45.575	8.249	8.249	0.000
240	64.453	0.000	-55.818	32.227	5.833	10.103	0.000
270	64.453	0.000	-64.453	0.000	0.000	11.666	0.000
300	64.453	0.000	-55.818	-32.227	-5.833	10.103	0.000
315	64.453	0.000	-45.575	-45.575	-8.249	8.249	0.000
330	64.453	0.000	-32.227	-55.818	-10.103	5.833	0.000

3" Dia 20' Omni - Elevation 182.5 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	85.679	0.000	0.000	-85.679	-18.700	0.000	0.000
30	74.200	42.840	42.840	-74.200	-16.605	-7.818	-0.514
45	60.584	60.584	60.584	-60.584	-14.120	-11.057	-0.727
60	42.840	74.200	74.200	-42.840	-10.882	-13.542	-0.891
90	0.000	85.679	85.679	0.000	-3.064	-15.636	-1.028
120	42.840	74.200	74.200	42.840	4.755	-13.542	-0.891
135	60.584	60.584	60.584	60.584	7.993	-11.057	-0.727
150	74.200	42.840	42.840	74.200	10.478	-7.818	-0.514
180	85.679	0.000	0.000	85.679	12.573	0.000	0.000
210	74.200	42.840	-42.840	74.200	10.478	7.818	0.514
225	60.584	60.584	-60.584	60.584	7.993	11.057	0.727
240	42.840	74.200	-74.200	42.840	4.755	13.542	0.891
270	0.000	85.679	-85.679	0.000	-3.064	15.636	1.028
300	42.840	74.200	-74.200	-42.840	-10.882	13.542	0.891
315	60.584	60.584	-60.584	-60.584	-14.120	11.057	0.727
330	74.200	42.840	-42.840	-74.200	-16.605	7.818	0.514

1" Dia 8' Omni - Elevation 182 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	43.693	0.000	0.000	-43.693	-8.456	0.000	0.000
30	37.839	21.846	21.846	-37.839	-7.391	-3.976	-0.175
45	30.895	30.895	30.895	-30.895	-6.127	-5.623	-0.248
60	21.846	37.839	37.839	-21.846	-4.480	-6.887	-0.304
90	0.000	43.693	43.693	0.000	-0.504	-7.952	-0.351
120	21.846	37.839	37.839	21.846	3.472	-6.887	-0.304
135	30.895	30.895	30.895	30.895	5.119	-5.623	-0.248
150	37.839	21.846	21.846	37.839	6.382	-3.976	-0.175
180	43.693	0.000	0.000	43.693	7.448	0.000	0.000
210	37.839	21.846	-21.846	37.839	6.382	3.976	0.175
225	30.895	30.895	-30.895	30.895	5.119	5.623	0.248
240	21.846	37.839	-37.839	21.846	3.472	6.887	0.304
270	0.000	43.693	-43.693	0.000	-0.504	7.952	0.351
300	21.846	37.839	-37.839	-21.846	-4.480	6.887	0.304
315	30.895	30.895	-30.895	-30.895	-6.127	5.623	0.248
330	37.839	21.846	-21.846	-37.839	-7.391	3.976	0.175

6' Side-Arm(1) - Elevation 182.5 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	150.099	150.099	0.000	-212.273	-41.504	0.000	0.000
30	54.940	205.040	106.136	-183.834	-36.313	-19.370	-0.637
45	0.000	212.273	150.099	-150.099	-30.157	-27.393	-0.901
60	54.940	205.040	183.834	-106.136	-22.134	-33.550	-1.104
90	150.099	150.099	212.273	0.000	-2.764	-38.740	-1.274
120	205.040	54.940	183.834	106.136	16.606	-33.550	-1.104
135	212.273	0.000	150.099	150.099	24.629	-27.393	-0.901
150	205.040	54.940	106.136	183.834	30.786	-19.370	-0.637
180	150.099	150.099	0.000	212.273	35.976	0.000	0.000
210	54.940	205.040	-106.136	183.834	30.786	19.370	0.637
225	0.000	212.273	-150.099	150.099	24.629	27.393	0.901
240	54.940	205.040	-183.834	106.136	16.606	33.550	1.104
270	150.099	150.099	-212.273	0.000	-2.764	38.740	1.274
300	205.040	54.940	-183.834	-106.136	-22.134	33.550	1.104
315	212.273	0.000	-150.099	-150.099	-30.157	27.393	0.901
330	205.040	54.940	-106.136	-183.834	-36.313	19.370	0.637

6' Side-Arm(1) - Elevation 182.5 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	205.040	54.940	0.000	-212.273	-37.358	-2.394	1.104
30	150.099	150.099	106.136	-183.834	-32.168	-21.763	1.274
45	106.136	183.834	150.099	-150.099	-26.011	-29.787	1.231
60	54.940	205.040	183.834	-106.136	-17.988	-35.943	1.104
90	54.940	205.040	212.273	0.000	1.382	-41.133	0.637
120	150.099	150.099	183.834	106.136	20.752	-35.943	0.000
135	183.834	106.136	150.099	150.099	28.775	-29.787	-0.330
150	205.040	54.940	106.136	183.834	34.932	-21.763	-0.637
180	205.040	54.940	0.000	212.273	40.122	-2.394	-1.104
210	150.099	150.099	-106.136	183.834	34.932	16.976	-1.274
225	106.136	183.834	-150.099	150.099	28.775	25.000	-1.231
240	54.940	205.040	-183.834	106.136	20.752	31.156	-1.104
270	54.940	205.040	-212.273	0.000	1.382	36.346	-0.637
300	150.099	150.099	-183.834	-106.136	-17.988	31.156	0.000
315	183.834	106.136	-150.099	-150.099	-26.011	25.000	0.330

6' Side-Arm(1) - Elevation 182.5 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	205.040	54.940	-106.136	-183.834	-32.168	16.976	0.637

Discrete Appurtenance Totals - With Ice

Wind Azimuth °	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	13.755	-5519.592	-790.523	-0.291	1.945
30	2777.378	-4786.985	-684.030	-401.697	2.917
45	3920.685	-3912.668	-557.112	-567.804	3.118
60	4796.805	-2771.709	-391.538	-695.131	3.107
90	5530.931	-13.755	8.581	-801.968	2.465
120	4783.049	2747.884	409.115	-693.582	1.162
135	3901.233	3893.215	575.182	-565.614	0.368
150	2753.553	4773.229	702.741	-399.014	-0.452
180	-13.755	5519.592	810.783	2.807	-1.945
210	-2777.378	4786.985	704.290	404.213	-2.917
225	-3920.685	3912.668	577.373	570.320	-3.118
240	-4796.805	2771.709	411.798	697.647	-3.107
270	-5530.931	13.755	11.679	804.485	-2.465
300	-4783.049	-2747.884	-388.855	696.098	-1.162
315	-3901.233	-3893.215	-554.922	568.130	-0.368
330	-2753.553	-4773.229	-682.481	401.530	0.452

Discrete Appurtenance Pressures - Service $G_H = 0.850$

Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z ksf	C_AA_C Front ft²	C_AA_C Side ft²
2' Yagi	240.0000	30.950	-13.632	7.870	15.000	0.850	0.007	2.083	2.083
2" Dia 8' Omni	240.0000	5.000	-13.152	7.593	27.000	0.961	0.008	2.000	2.000
2' Standoff T-Arm (5' face width)	240.0000	91.000	-11.700	6.755	20.000	0.902	0.007	3.500	3.500
(Inverted) 1" Dia Omni	240.0000	5.000	-15.750	9.093	25.000	0.945	0.007	2.000	2.000
1" Dia Omni	240.0000	5.000	-15.750	9.093	29.000	0.975	0.008	2.000	2.000
Rohn 6' Side-Arm(1)	0.0000	140.000	0.000	0.000	26.000	0.953	0.007	10.600	10.600
GPS	0.0000	10.000	0.000	-11.470	75.000	1.191	0.009	1.000	1.000
3' Yagi	240.0000	30.950	-10.326	5.962	75.000	1.191	0.009	2.083	2.083
20' 4-Bay Dipole	240.0000	55.000	-9.460	5.462	77.000	1.198	0.009	4.000	4.000
1' Side Arm	240.0000	55.000	-8.053	4.649	122.000	1.320	0.010	2.500	2.500
3'4"x4" Pipe Mount	0.0000	36.000	0.000	0.000	109.250	1.289	0.010	0.862	0.862
12' Dipole	240.0000	40.000	-8.606	4.969	119.000	1.313	0.010	3.169	3.169
1' Side Arm	240.0000	55.000	-8.173	4.719	119.000	1.313	0.010	2.500	2.500
1'x1' Panel Antenna	120.0000	10.000	8.173	4.719	119.000	1.313	0.010	1.200	0.131
1' Side Arm	120.0000	55.000	8.173	4.719	119.000	1.313	0.010	2.500	2.500
2' Sidearm	0.0000	87.000	0.000	-9.660	125.000	1.326	0.010	3.900	3.900
2' Sidearm	120.0000	87.000	8.366	4.830	125.000	1.326	0.010	3.900	3.900
2' Sidearm	240.0000	87.000	-8.366	4.830	125.000	1.326	0.010	3.900	3.900
Ericsson TMA Unit	0.0000	38.946	0.000	-9.660	125.000	1.326	0.010	1.182	1.183
Ericsson TMA Unit	120.0000	38.946	8.366	4.830	125.000	1.326	0.010	1.182	1.183
Ericsson TMA Unit	240.0000	38.946	-8.366	4.830	125.000	1.326	0.010	1.182	1.183

tnxTower	Job	Page
	MODification - 180' Lattice Tower (CSP #36)	132 of 204
AECOM 500 Enterprise Drive, Suite 3B Rocky Hill, CT Phone: 860-529-8882 FAX: 860-529-3991	Project Westbrook, Connecticut	Date 14:47:48 09/29/17
	Client Site Acquisitions Inc / SAI-100	Designed by MCD

Description	Aiming Azimuth	Weight	$Offset_x$	$Offset_z$	z	K_z	q_z	C_AA_C Front	C_AA_C Side
	°	lb	ft	ft	ft		ksf	ft^2	ft^2
DBXNH-6565B-A2M	0.0000	46.300	0.000	-10.660	125.000	1.326	0.010	8.173	5.405
DBXNH-6565B-A2M	120.0000	46.300	9.232	5.330	125.000	1.326	0.010	8.173	5.405
DBXNH-6565B-A2M	240.0000	46.300	-9.232	5.330	125.000	1.326	0.010	8.173	5.405
DB950F65E-M	0.0000	30.000	0.000	-11.698	135.000	1.348	0.011	11.750	8.472
DB950F85E-M	120.0000	21.000	10.131	5.849	135.000	1.348	0.011	5.069	8.375
DB950F40T2E-M	240.0000	40.000	-10.131	5.849	135.000	1.348	0.011	12.204	9.250
Pirod 12' PCS T-Frame (1) 104569	0.0000	260.000	0.000	0.000	135.000	1.348	0.011	9.800	9.800
Pirod 12' PCS T-Frame (1) 104569	0.0000	260.000	0.000	0.000	135.000	1.348	0.011	9.800	9.800
Pirod 12' PCS T-Frame (1) 104569	0.0000	260.000	0.000	0.000	135.000	1.348	0.011	9.800	9.800
13' Sector Mount (1)	0.0000	220.000	0.000	-11.829	143.000	1.365	0.011	12.000	12.000
13' Sector Mount (1)	120.0000	220.000	10.244	5.914	143.000	1.365	0.011	12.000	12.000
13' Sector Mount (1)	240.0000	220.000	-10.244	5.914	143.000	1.365	0.011	12.000	12.000
7770 w mount pipe	0.0000	104.000	-6.000	-11.829	143.000	1.365	0.011	11.764	7.959
7770 w mount pipe	120.0000	104.000	13.244	0.718	143.000	1.365	0.011	11.764	7.959
7770 w mount pipe	240.0000	104.000	-7.244	11.111	143.000	1.365	0.011	11.764	7.959
TMA (shielded)	0.0000	14.600	0.000	-11.829	143.000	1.365	0.011	0.000	0.000
TMA (shielded)	120.0000	14.600	10.244	5.914	143.000	1.365	0.011	0.000	0.000
TMA (shielded)	240.0000	14.600	-10.244	5.914	143.000	1.365	0.011	0.000	0.000
RRUS-11	0.0000	50.000	0.000	0.000	143.000	1.365	0.011	2.566	1.068
RRUS-11	0.0000	50.000	0.000	0.000	143.000	1.365	0.011	2.566	1.068
RRUS-11	0.0000	50.000	0.000	0.000	143.000	1.365	0.011	2.566	1.068
AM-X-CD-14-65-00T-RET	0.0000	4.000	-2.000	-11.829	143.000	1.365	0.011	5.507	2.828
AM-X-CD-14-65-00T-RET	120.0000	4.000	11.244	4.182	143.000	1.365	0.011	5.507	2.828
AM-X-CD-14-65-00T-RET	240.0000	4.000	-9.244	7.646	143.000	1.365	0.011	5.507	2.828
Raycap Surge Suppressor	0.0000	20.000	0.000	-7.829	143.000	1.365	0.011	1.266	1.266
RRUS-12	0.0000	58.000	0.000	0.000	143.000	1.365	0.011	3.145	1.285
RRUS-12	0.0000	58.000	0.000	0.000	143.000	1.365	0.011	3.145	1.285
RRUS-12	0.0000	58.000	0.000	0.000	143.000	1.365	0.011	3.145	1.285
2" Dia 10' Omni	120.0000	10.000	9.378	5.414	143.000	1.365	0.011	2.000	2.000
Pirod 4' Side Mount Standoff (1)	0.0000	50.000	0.000	0.000	143.000	1.365	0.011	2.720	2.720
3" Dia 20' Omni	120.0000	55.000	7.246	4.183	153.000	1.384	0.011	4.000	4.000
1' Side Arm	120.0000	55.000	6.813	3.933	153.000	1.384	0.011	2.500	2.500
1 Bay Dipole ANT400D	0.0000	13.300	0.000	-7.459	151.000	1.380	0.011	1.879	0.518
10'6"x4" Pipe Mount	0.0000	114.000	0.000	0.000	151.000	1.380	0.011	3.048	3.048
1.5" Dia 16' Omni	120.0000	55.000	6.380	3.683	155.000	1.388	0.011	4.000	4.000
2" Dia 10' Omni	240.0000	10.000	-6.220	3.591	157.000	1.392	0.011	2.000	2.000
2' Sidearm	240.0000	87.000	-6.220	3.591	157.000	1.392	0.011	3.900	3.900
10'x6" Dipole Antenna	240.0000	46.000	-6.653	3.841	157.000	1.392	0.011	9.167	1.667
1' Side Arm	240.0000	55.000	-6.653	3.841	157.000	1.392	0.011	2.500	2.500
3'4"x4" Pipe Mount	0.0000	36.000	0.000	0.000	157.000	1.392	0.011	0.846	0.846
(Inverted) 3" Dia 20' Omni	120.0000	55.000	7.832	4.522	160.000	1.397	0.011	4.000	4.000
2' Sidearm	120.0000	87.000	6.100	3.522	160.000	1.397	0.011	3.900	3.900
(Inverted) 3" Dia 20' Omni	120.0000	55.000	7.832	4.522	160.000	1.397	0.011	4.000	4.000
6' Side-Arm(1)	-45.0000	140.000	0.000	-6.767	166.000	1.408	0.011	10.600	10.600
6' Side-Arm(1)	165.0000	140.000	5.860	3.383	166.000	1.408	0.011	10.600	10.600
(inverted) 10' 8 Bay Di-Pole	15.0000	55.000	6.394	-3.692	166.000	1.408	0.011	4.000	4.000
(inverted) 2" Dia 10' Omni	60.0000	10.000	6.434	-3.715	164.000	1.405	0.011	2.000	2.000
6' Side-Arm(1)	75.0000	140.000	5.940	3.429	164.000	1.405	0.011	10.600	10.600
6' Side-Arm(1)	285.0000	140.000	-5.940	3.429	164.000	1.405	0.011	10.600	10.600
3'4"x4" Pipe Mount	0.0000	36.000	0.000	0.000	169.000	1.413	0.011	0.843	0.843

Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z ksf	C_AA_C Front ft^2	C_AA_C Side ft^2
3'4"x4" Pipe Mount	0.0000	36.000	0.000	0.000	171.000	1.417	0.011	0.842	0.842
3'4"x4" Pipe Mount	0.0000	36.000	0.000	0.000	176.000	1.426	0.011	0.841	0.841
432E-83I-01T TTA Unit	300.0000	25.000	-3.123	-1.803	178.000	1.429	0.011	2.850	0.973
3" Dia 12' Omni	300.0000	10.000	-3.083	-1.780	180.000	1.432	0.011	2.000	2.000
3" Dia 12' Omni	60.0000	10.000	5.248	-3.030	180.000	1.432	0.011	2.000	2.000
432E-83I-01T TTA Unit	120.0000	25.000	10.496	6.060	180.000	1.432	0.011	2.850	0.973
1 Bay Dipole ANT400D	120.0000	13.300	6.166	3.560	180.000	1.432	0.011	1.879	0.518
2" Dia 10' Omni	120.0000	10.000	5.692	3.287	181.000	1.434	0.011	2.000	2.000
2" Dia 10' Omni	240.0000	10.000	-5.692	3.287	181.000	1.434	0.011	2.000	2.000
10' - 2 Bay Dipole	240.0000	10.000	-5.692	3.287	181.000	1.434	0.011	1.408	1.408
20' 4-Bay Dipole	0.0000	55.000	0.000	-6.573	181.000	1.434	0.011	4.000	4.000
Lightning Rod 2"x15'	0.0000	80.000	0.000	0.000	181.000	1.434	0.011	3.000	3.000
3" Dia 20' Omni	0.0000	55.000	0.000	-12.004	182.500	1.436	0.011	4.000	4.000
1" Dia 8' Omni	0.0000	5.000	0.000	-8.027	182.000	1.436	0.011	2.000	2.000
6' Side-Arm(1)	-45.0000	140.000	0.000	-6.004	182.500	1.436	0.011	10.600	10.600
6' Side-Arm(1)	165.0000	140.000	5.199	3.002	182.500	1.436	0.011	10.600	10.600
	Sum Weight:	5488.038							

Discrete Appurtenance Vectors - Service

2' Yagi - Elevation 15 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	5.894	10.208	0.000	-11.787	0.067	0.422	-0.161
30	10.208	5.894	5.894	-10.208	0.090	0.334	-0.093
45	11.386	3.051	8.335	-8.335	0.119	0.297	-0.048
60	11.787	0.000	10.208	-5.894	0.155	0.269	0.000
90	10.208	5.894	11.787	0.000	0.244	0.245	0.093
120	5.894	10.208	10.208	5.894	0.332	0.269	0.161
135	3.051	11.386	8.335	8.335	0.369	0.297	0.179
150	0.000	11.787	5.894	10.208	0.397	0.334	0.186
180	5.894	10.208	0.000	11.787	0.420	0.422	0.161
210	10.208	5.894	-5.894	10.208	0.397	0.510	0.093
225	11.386	3.051	-8.335	8.335	0.369	0.547	0.048
240	11.787	0.000	-10.208	5.894	0.332	0.575	0.000
270	10.208	5.894	-11.787	0.000	0.244	0.599	-0.093
300	5.894	10.208	-10.208	-5.894	0.155	0.575	-0.161
315	3.051	11.386	-8.335	-8.335	0.119	0.547	-0.179
330	0.000	11.787	-5.894	-10.208	0.090	0.510	-0.186

2" Dia 8' Omni - Elevation 27 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	6.397	11.080	0.000	-12.794	-0.307	0.066	-0.168
30	11.080	6.397	6.397	-11.080	-0.261	-0.107	-0.097
45	12.358	3.311	9.047	-9.047	-0.206	-0.178	-0.050
60	12.794	0.000	11.080	-6.397	-0.135	-0.233	0.000
90	11.080	6.397	12.794	0.000	0.038	-0.280	0.097
120	6.397	11.080	11.080	6.397	0.211	-0.233	0.168
135	3.311	12.358	9.047	9.047	0.282	-0.178	0.188
150	0.000	12.794	6.397	11.080	0.337	-0.107	0.194
180	6.397	11.080	0.000	12.794	0.383	0.066	0.168
210	11.080	6.397	-6.397	11.080	0.337	0.238	0.097

2" Dia 8' Omni - Elevation 27 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
225	12.358	3.311	-9.047	9.047	0.282	0.310	0.050
240	12.794	0.000	-11.080	6.397	0.211	0.365	0.000
270	11.080	6.397	-12.794	0.000	0.038	0.411	-0.097
300	6.397	11.080	-11.080	-6.397	-0.135	0.365	-0.168
315	3.311	12.358	-9.047	-9.047	-0.206	0.310	-0.188
330	0.000	12.794	-6.397	-11.080	-0.261	0.238	-0.194

2' Standoff T-Arm (5' face width) - Elevation 20 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	10.509	18.202	0.000	-21.018	0.194	1.065	-0.246
30	18.202	10.509	10.509	-18.202	0.251	0.855	-0.142
45	20.302	5.440	14.862	-14.862	0.317	0.767	-0.073
60	21.018	0.000	18.202	-10.509	0.405	0.701	0.000
90	18.202	10.509	21.018	0.000	0.615	0.644	0.142
120	10.509	18.202	18.202	10.509	0.825	0.701	0.246
135	5.440	20.302	14.862	14.862	0.912	0.767	0.274
150	0.000	21.018	10.509	18.202	0.979	0.855	0.284
180	10.509	18.202	0.000	21.018	1.035	1.065	0.246
210	18.202	10.509	-10.509	18.202	0.979	1.275	0.142
225	20.302	5.440	-14.862	14.862	0.912	1.362	0.073
240	21.018	0.000	-18.202	10.509	0.825	1.429	0.000
270	18.202	10.509	-21.018	0.000	0.615	1.485	-0.142
300	10.509	18.202	-18.202	-10.509	0.405	1.429	-0.246
315	5.440	20.302	-14.862	-14.862	0.317	1.362	-0.274
330	0.000	21.018	-10.509	-18.202	0.251	1.275	-0.284

(Inverted) 1" Dia Omni - Elevation 25 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	6.294	10.902	0.000	-12.588	-0.269	0.079	-0.198
30	10.902	6.294	6.294	-10.902	-0.227	-0.079	-0.114
45	12.159	3.258	8.901	-8.901	-0.177	-0.144	-0.059
60	12.588	0.000	10.902	-6.294	-0.112	-0.194	0.000
90	10.902	6.294	12.588	0.000	0.045	-0.236	0.114
120	6.294	10.902	10.902	6.294	0.203	-0.194	0.198
135	3.258	12.159	8.901	8.901	0.268	-0.144	0.221
150	0.000	12.588	6.294	10.902	0.318	-0.079	0.229
180	6.294	10.902	0.000	12.588	0.360	0.079	0.198
210	10.902	6.294	-6.294	10.902	0.318	0.236	0.114
225	12.159	3.258	-8.901	8.901	0.268	0.301	0.059
240	12.588	0.000	-10.902	6.294	0.203	0.351	0.000
270	10.902	6.294	-12.588	0.000	0.045	0.393	-0.114
300	6.294	10.902	-10.902	-6.294	-0.112	0.351	-0.198
315	3.258	12.159	-8.901	-8.901	-0.177	0.301	-0.221
330	0.000	12.588	-6.294	-10.902	-0.227	0.236	-0.229

1" Dia Omni - Elevation 29 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	6.494	11.248	0.000	-12.988	-0.331	0.079	-0.205

1" Dia Omni - Elevation 29 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
30	11.248	6.494	6.494	-11.248	-0.281	-0.110	-0.118
45	12.545	3.361	9.184	-9.184	-0.221	-0.188	-0.061
60	12.988	0.000	11.248	-6.494	-0.143	-0.247	0.000
90	11.248	6.494	12.988	0.000	0.045	-0.298	0.118
120	6.494	11.248	11.248	6.494	0.234	-0.247	0.205
135	3.361	12.545	9.184	9.184	0.312	-0.188	0.228
150	0.000	12.988	6.494	11.248	0.372	-0.110	0.236
180	6.494	11.248	0.000	12.988	0.422	0.079	0.205
210	11.248	6.494	-6.494	11.248	0.372	0.267	0.118
225	12.545	3.361	-9.184	9.184	0.312	0.345	0.061
240	12.988	0.000	-11.248	6.494	0.234	0.405	0.000
270	11.248	6.494	-12.988	0.000	0.045	0.455	-0.118
300	6.494	11.248	-11.248	-6.494	-0.143	0.405	-0.205
315	3.361	12.545	-9.184	-9.184	-0.221	0.345	-0.228
330	0.000	12.988	-6.494	-11.248	-0.281	0.267	-0.236

Rohn 6' Side-Arm(1) - Elevation 26 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	67.271	0.000	0.000	-67.271	-1.749	0.000	0.000
30	67.271	0.000	33.635	-58.258	-1.515	-0.875	0.000
45	67.271	0.000	47.568	-47.568	-1.237	-1.237	0.000
60	67.271	0.000	58.258	-33.635	-0.875	-1.515	0.000
90	67.271	0.000	67.271	0.000	0.000	-1.749	0.000
120	67.271	0.000	58.258	33.635	0.875	-1.515	0.000
135	67.271	0.000	47.568	47.568	1.237	-1.237	0.000
150	67.271	0.000	33.635	58.258	1.515	-0.875	0.000
180	67.271	0.000	0.000	67.271	1.749	0.000	0.000
210	67.271	0.000	-33.635	58.258	1.515	0.875	0.000
225	67.271	0.000	-47.568	47.568	1.237	1.237	0.000
240	67.271	0.000	-58.258	33.635	0.875	1.515	0.000
270	67.271	0.000	-67.271	0.000	0.000	1.749	0.000
300	67.271	0.000	-58.258	-33.635	-0.875	1.515	0.000
315	67.271	0.000	-47.568	-47.568	-1.237	1.237	0.000
330	67.271	0.000	-33.635	-58.258	-1.515	0.875	0.000

GPS - Elevation 75 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	7.932	0.000	0.000	-7.932	-0.710	0.000	0.000
30	6.869	3.966	3.966	-6.869	-0.630	-0.297	-0.045
45	5.609	5.609	5.609	-5.609	-0.535	-0.421	-0.064
60	3.966	6.869	6.869	-3.966	-0.412	-0.515	-0.079
90	0.000	7.932	7.932	0.000	-0.115	-0.595	-0.091
120	3.966	6.869	6.869	3.966	0.183	-0.515	-0.079
135	5.609	5.609	5.609	5.609	0.306	-0.421	-0.064
150	6.869	3.966	3.966	6.869	0.400	-0.297	-0.045
180	7.932	0.000	0.000	7.932	0.480	0.000	0.000
210	6.869	3.966	-3.966	6.869	0.400	0.297	0.045
225	5.609	5.609	-5.609	5.609	0.306	0.421	0.064
240	3.966	6.869	-6.869	3.966	0.183	0.515	0.079
270	0.000	7.932	-7.932	0.000	-0.115	0.595	0.091
300	3.966	6.869	-6.869	-3.966	-0.412	0.515	0.079
315	5.609	5.609	-5.609	-5.609	-0.535	0.421	0.064

GPS - Elevation 75 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	6.869	3.966	-3.966	-6.869	-0.630	0.297	0.045

3' Yagi - Elevation 75 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	8.260	14.306	0.000	-16.519	-1.054	0.320	-0.171
30	14.306	8.260	8.260	-14.306	-0.888	-0.300	-0.098
45	15.957	4.276	11.681	-11.681	-0.692	-0.556	-0.051
60	16.519	0.000	14.306	-8.260	-0.435	-0.753	0.000
90	14.306	8.260	16.519	0.000	0.185	-0.919	0.098
120	8.260	14.306	14.306	8.260	0.804	-0.753	0.171
135	4.276	15.957	11.681	11.681	1.061	-0.556	0.190
150	0.000	16.519	8.260	14.306	1.257	-0.300	0.197
180	8.260	14.306	0.000	16.519	1.423	0.320	0.171
210	14.306	8.260	-8.260	14.306	1.257	0.939	0.098
225	15.957	4.276	-11.681	11.681	1.061	1.196	0.051
240	16.519	0.000	-14.306	8.260	0.804	1.393	0.000
270	14.306	8.260	-16.519	0.000	0.185	1.559	-0.098
300	8.260	14.306	-14.306	-8.260	-0.435	1.393	-0.171
315	4.276	15.957	-11.681	-11.681	-0.692	1.196	-0.190
330	0.000	16.519	-8.260	-14.306	-0.888	0.939	-0.197

20' 4-Bay Dipole - Elevation 77 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	15.952	27.630	0.000	-31.904	-2.156	0.520	-0.302
30	27.630	15.952	15.952	-27.630	-1.827	-0.708	-0.174
45	30.817	8.257	22.560	-22.560	-1.437	-1.217	-0.090
60	31.904	0.000	27.630	-15.952	-0.928	-1.607	0.000
90	27.630	15.952	31.904	0.000	0.300	-1.936	0.174
120	15.952	27.630	27.630	15.952	1.529	-1.607	0.302
135	8.257	30.817	22.560	22.560	2.037	-1.217	0.337
150	0.000	31.904	15.952	27.630	2.428	-0.708	0.349
180	15.952	27.630	0.000	31.904	2.757	0.520	0.302
210	27.630	15.952	-15.952	27.630	2.428	1.749	0.174
225	30.817	8.257	-22.560	22.560	2.037	2.257	0.090
240	31.904	0.000	-27.630	15.952	1.529	2.648	0.000
270	27.630	15.952	-31.904	0.000	0.300	2.977	-0.174
300	15.952	27.630	-27.630	-15.952	-0.928	2.648	-0.302
315	8.257	30.817	-22.560	-22.560	-1.437	2.257	-0.337
330	0.000	31.904	-15.952	-27.630	-1.827	1.749	-0.349

1' Side Arm - Elevation 122 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	10.984	19.025	0.000	-21.969	-2.424	0.443	-0.177
30	19.025	10.984	10.984	-19.025	-2.065	-0.897	-0.102
45	21.220	5.686	15.534	-15.534	-1.639	-1.452	-0.053
60	21.969	0.000	19.025	-10.984	-1.084	-1.878	0.000
90	19.025	10.984	21.969	0.000	0.256	-2.237	0.102
120	10.984	19.025	19.025	10.984	1.596	-1.878	0.177

1' Side Arm - Elevation 122 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	5.686	21.220	15.534	15.534	2.151	-1.452	0.197
150	0.000	21.969	10.984	19.025	2.577	-0.897	0.204
180	10.984	19.025	0.000	21.969	2.936	0.443	0.177
210	19.025	10.984	-10.984	19.025	2.577	1.783	0.102
225	21.220	5.686	-15.534	15.534	2.151	2.338	0.053
240	21.969	0.000	-19.025	10.984	1.596	2.764	0.000
270	19.025	10.984	-21.969	0.000	0.256	3.123	-0.102
300	10.984	19.025	-19.025	-10.984	-1.084	2.764	-0.177
315	5.686	21.220	-15.534	-15.534	-1.639	2.338	-0.197
330	0.000	21.969	-10.984	-19.025	-2.065	1.783	-0.204

3'4"x4" Pipe Mount - Elevation 109.25 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	7.398	0.000	0.000	-7.398	-0.808	0.000	0.000
30	7.398	0.000	3.699	-6.407	-0.700	-0.404	0.000
45	7.398	0.000	5.231	-5.231	-0.572	-0.572	0.000
60	7.398	0.000	6.407	-3.699	-0.404	-0.700	0.000
90	7.398	0.000	7.398	0.000	0.000	-0.808	0.000
120	7.398	0.000	6.407	3.699	0.404	-0.700	0.000
135	7.398	0.000	5.231	5.231	0.572	-0.572	0.000
150	7.398	0.000	3.699	6.407	0.700	-0.404	0.000
180	7.398	0.000	0.000	7.398	0.808	0.000	0.000
210	7.398	0.000	-3.699	6.407	0.700	0.404	0.000
225	7.398	0.000	-5.231	5.231	0.572	0.572	0.000
240	7.398	0.000	-6.407	3.699	0.404	0.700	0.000
270	7.398	0.000	-7.398	0.000	0.000	0.808	0.000
300	7.398	0.000	-6.407	-3.699	-0.404	0.700	0.000
315	7.398	0.000	-5.231	-5.231	-0.572	0.572	0.000
330	7.398	0.000	-3.699	-6.407	-0.700	0.404	0.000

12' Dipole - Elevation 119 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	13.850	23.989	0.000	-27.700	-3.098	0.344	-0.238
30	23.989	13.850	13.850	-23.989	-2.656	-1.304	-0.138
45	26.756	7.169	19.587	-19.587	-2.132	-1.987	-0.071
60	27.700	0.000	23.989	-13.850	-1.449	-2.510	0.000
90	23.989	13.850	27.700	0.000	0.199	-2.952	0.138
120	13.850	23.989	23.989	13.850	1.847	-2.510	0.238
135	7.169	26.756	19.587	19.587	2.530	-1.987	0.266
150	0.000	27.700	13.850	23.989	3.053	-1.304	0.275
180	13.850	23.989	0.000	27.700	3.495	0.344	0.238
210	23.989	13.850	-13.850	23.989	3.053	1.992	0.138
225	26.756	7.169	-19.587	19.587	2.530	2.675	0.071
240	27.700	0.000	-23.989	13.850	1.847	3.199	0.000
270	23.989	13.850	-27.700	0.000	0.199	3.641	-0.138
300	13.850	23.989	-23.989	-13.850	-1.449	3.199	-0.238
315	7.169	26.756	-19.587	-19.587	-2.132	2.675	-0.266
330	0.000	27.700	-13.850	-23.989	-2.656	1.992	-0.275

1' Side Arm - Elevation 119 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	10.927	18.926	0.000	-21.854	-2.341	0.450	-0.179
30	18.926	10.927	10.927	-18.926	-1.993	-0.851	-0.103
45	21.109	5.656	15.453	-15.453	-1.579	-1.389	-0.053
60	21.854	0.000	18.926	-10.927	-1.041	-1.803	0.000
90	18.926	10.927	21.854	0.000	0.260	-2.151	0.103
120	10.927	18.926	18.926	10.927	1.560	-1.803	0.179
135	5.656	21.109	15.453	15.453	2.098	-1.389	0.199
150	0.000	21.854	10.927	18.926	2.512	-0.851	0.206
180	10.927	18.926	0.000	21.854	2.860	0.450	0.179
210	18.926	10.927	-10.927	18.926	2.512	1.750	0.103
225	21.109	5.656	-15.453	15.453	2.098	2.288	0.053
240	21.854	0.000	-18.926	10.927	1.560	2.702	0.000
270	18.926	10.927	-21.854	0.000	0.260	3.050	-0.103
300	10.927	18.926	-18.926	-10.927	-1.041	2.702	-0.179
315	5.656	21.109	-15.453	-15.453	-1.579	2.288	-0.199
330	0.000	21.854	-10.927	-18.926	-1.993	1.750	-0.206

1'x1' Panel Antenna - Elevation 119 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	5.245	0.988	-4.048	-3.478	-0.367	0.400	0.009
30	0.000	1.141	0.571	-0.988	-0.070	-0.150	0.011
45	2.715	1.102	2.902	0.403	0.095	-0.427	0.010
60	5.245	0.988	5.036	1.767	0.257	-0.681	0.009
90	9.084	0.571	8.153	4.048	0.529	-1.052	0.005
120	10.490	0.000	9.084	5.245	0.671	-1.163	0.000
135	10.132	0.295	8.627	5.322	0.681	-1.108	-0.003
150	9.084	0.571	7.582	5.036	0.647	-0.984	-0.005
180	5.245	0.988	4.048	3.478	0.461	-0.563	-0.009
210	0.000	1.141	-0.571	0.988	0.165	-0.014	-0.011
225	2.715	1.102	-2.902	-0.403	-0.001	0.264	-0.010
240	5.245	0.988	-5.036	-1.767	-0.163	0.518	-0.009
270	9.084	0.571	-8.153	-4.048	-0.435	0.888	-0.005
300	10.490	0.000	-9.084	-5.245	-0.577	0.999	0.000
315	10.132	0.295	-8.627	-5.322	-0.586	0.945	0.003
330	9.084	0.571	-7.582	-5.036	-0.552	0.821	0.005

1' Side Arm - Elevation 119 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	10.927	18.926	0.000	-21.854	-2.341	-0.450	0.179
30	0.000	21.854	10.927	-18.926	-1.993	-1.750	0.206
45	5.656	21.109	15.453	-15.453	-1.579	-2.288	0.199
60	10.927	18.926	18.926	-10.927	-1.041	-2.702	0.179
90	18.926	10.927	21.854	0.000	0.260	-3.050	0.103
120	21.854	0.000	18.926	10.927	1.560	-2.702	0.000
135	21.109	5.656	15.453	15.453	2.098	-2.288	-0.053
150	18.926	10.927	10.927	18.926	2.512	-1.750	-0.103
180	10.927	18.926	0.000	21.854	2.860	-0.450	-0.179
210	0.000	21.854	-10.927	18.926	2.512	0.851	-0.206
225	5.656	21.109	-15.453	15.453	2.098	1.389	-0.199
240	10.927	18.926	-18.926	10.927	1.560	1.803	-0.179
270	18.926	10.927	-21.854	0.000	0.260	2.151	-0.103
300	21.854	0.000	-18.926	-10.927	-1.041	1.803	0.000
315	21.109	5.656	-15.453	-15.453	-1.579	1.389	0.053

1' Side Arm - Elevation 119 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	18.926	10.927	-10.927	-18.926	-1.993	0.851	0.103

2' Sidearm - Elevation 125 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	34.447	0.000	0.000	-34.447	-5.146	0.000	0.000
30	29.832	17.223	17.223	-29.832	-4.569	-2.153	-0.166
45	24.358	24.358	24.358	-24.358	-3.885	-3.045	-0.235
60	17.223	29.832	29.832	-17.223	-2.993	-3.729	-0.288
90	0.000	34.447	34.447	0.000	-0.840	-4.306	-0.333
120	17.223	29.832	29.832	17.223	1.312	-3.729	-0.288
135	24.358	24.358	24.358	24.358	2.204	-3.045	-0.235
150	29.832	17.223	17.223	29.832	2.889	-2.153	-0.166
180	34.447	0.000	0.000	34.447	3.465	0.000	0.000
210	29.832	17.223	-17.223	29.832	2.889	2.153	0.166
225	24.358	24.358	-24.358	24.358	2.204	3.045	0.235
240	17.223	29.832	-29.832	17.223	1.312	3.729	0.288
270	0.000	34.447	-34.447	0.000	-0.840	4.306	0.333
300	17.223	29.832	-29.832	-17.223	-2.993	3.729	0.288
315	24.358	24.358	-24.358	-24.358	-3.885	3.045	0.235
330	29.832	17.223	-17.223	-29.832	-4.569	2.153	0.166

2' Sidearm - Elevation 125 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	17.223	29.832	0.000	-34.447	-3.886	-0.728	0.288
30	0.000	34.447	17.223	-29.832	-3.309	-2.881	0.333
45	8.916	33.273	24.358	-24.358	-2.624	-3.773	0.321
60	17.223	29.832	29.832	-17.223	-1.733	-4.457	0.288
90	29.832	17.223	34.447	0.000	0.420	-5.034	0.166
120	34.447	0.000	29.832	17.223	2.573	-4.457	0.000
135	33.273	8.916	24.358	24.358	3.465	-3.773	-0.086
150	29.832	17.223	17.223	29.832	4.149	-2.881	-0.166
180	17.223	29.832	0.000	34.447	4.726	-0.728	-0.288
210	0.000	34.447	-17.223	29.832	4.149	1.425	-0.333
225	8.916	33.273	-24.358	24.358	3.465	2.317	-0.321
240	17.223	29.832	-29.832	17.223	2.573	3.001	-0.288
270	29.832	17.223	-34.447	0.000	0.420	3.578	-0.166
300	34.447	0.000	-29.832	-17.223	-1.733	3.001	0.000
315	33.273	8.916	-24.358	-24.358	-2.624	2.317	0.086
330	29.832	17.223	-17.223	-29.832	-3.309	1.425	0.166

2' Sidearm - Elevation 125 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	17.223	29.832	0.000	-34.447	-3.886	0.728	-0.288
30	29.832	17.223	17.223	-29.832	-3.309	-1.425	-0.166
45	33.273	8.916	24.358	-24.358	-2.624	-2.317	-0.086
60	34.447	0.000	29.832	-17.223	-1.733	-3.001	0.000
90	29.832	17.223	34.447	0.000	0.420	-3.578	0.166
120	17.223	29.832	29.832	17.223	2.573	-3.001	0.288

2' Sidearm - Elevation 125 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	8.916	33.273	24.358	24.358	3.465	-2.317	0.321
150	0.000	34.447	17.223	29.832	4.149	-1.425	0.333
180	17.223	29.832	0.000	34.447	4.726	0.728	0.288
210	29.832	17.223	-17.223	29.832	4.149	2.881	0.166
225	33.273	8.916	-24.358	24.358	3.465	3.773	0.086
240	34.447	0.000	-29.832	17.223	2.573	4.457	0.000
270	29.832	17.223	-34.447	0.000	0.420	5.034	-0.166
300	17.223	29.832	-29.832	-17.223	-1.733	4.457	-0.288
315	8.916	33.273	-24.358	-24.358	-2.624	3.773	-0.321
330	0.000	34.447	-17.223	-29.832	-3.309	2.881	-0.333

Ericsson TMA Unit - Elevation 125 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	10.436	0.000	0.000	-10.436	-1.681	0.000	0.000
30	9.038	5.223	5.223	-9.038	-1.506	-0.653	-0.050
45	7.379	7.386	7.386	-7.379	-1.299	-0.923	-0.071
60	5.218	9.046	9.046	-5.218	-1.028	-1.131	-0.087
90	0.000	10.445	10.445	0.000	-0.376	-1.306	-0.101
120	5.218	9.046	9.046	5.218	0.276	-1.131	-0.087
135	7.379	7.386	7.386	7.379	0.546	-0.923	-0.071
150	9.038	5.223	5.223	9.038	0.754	-0.653	-0.050
180	10.436	0.000	0.000	10.436	0.928	0.000	0.000
210	9.038	5.223	-5.223	9.038	0.754	0.653	0.050
225	7.379	7.386	-7.386	7.379	0.546	0.923	0.071
240	5.218	9.046	-9.046	5.218	0.276	1.131	0.087
270	0.000	10.445	-10.445	0.000	-0.376	1.306	0.101
300	5.218	9.046	-9.046	-5.218	-1.028	1.131	0.087
315	7.379	7.386	-7.386	-7.379	-1.299	0.923	0.071
330	9.038	5.223	-5.223	-9.038	-1.506	0.653	0.050

Ericsson TMA Unit - Elevation 125 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	5.218	9.046	0.004	-10.443	-1.117	-0.326	0.087
30	0.000	10.445	5.223	-9.046	-0.943	-0.979	0.101
45	2.701	10.089	7.384	-7.387	-0.735	-1.249	0.097
60	5.218	9.046	9.042	-5.225	-0.465	-1.456	0.087
90	9.038	5.223	10.438	-0.004	0.188	-1.631	0.050
120	10.436	0.000	9.038	5.218	0.840	-1.456	0.000
135	10.080	2.703	7.378	7.381	1.111	-1.248	-0.026
150	9.038	5.223	5.216	9.042	1.318	-0.978	-0.050
180	5.218	9.046	-0.004	10.443	1.493	-0.325	-0.087
210	0.000	10.445	-5.223	9.046	1.319	0.327	-0.101
225	2.701	10.089	-7.384	7.387	1.112	0.597	-0.097
240	5.218	9.046	-9.042	5.225	0.841	0.804	-0.087
270	9.038	5.223	-10.438	0.004	0.189	0.979	-0.050
300	10.436	0.000	-9.038	-5.218	-0.464	0.804	0.000
315	10.080	2.703	-7.378	-7.381	-0.735	0.596	0.026
330	9.038	5.223	-5.216	-9.042	-0.942	0.326	0.050

Ericsson TMA Unit - Elevation 125 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	5.218	9.046	-0.004	-10.443	-1.117	0.326	-0.087
30	9.038	5.223	5.216	-9.042	-0.942	-0.326	-0.050
45	10.080	2.703	7.378	-7.381	-0.735	-0.596	-0.026
60	10.436	0.000	9.038	-5.218	-0.464	-0.804	0.000
90	9.038	5.223	10.438	0.004	0.189	-0.979	0.050
120	5.218	9.046	9.042	5.225	0.841	-0.804	0.087
135	2.701	10.089	7.384	7.387	1.112	-0.597	0.097
150	0.000	10.445	5.223	9.046	1.319	-0.327	0.101
180	5.218	9.046	0.004	10.443	1.493	0.325	0.087
210	9.038	5.223	-5.216	9.042	1.318	0.978	0.050
225	10.080	2.703	-7.378	7.381	1.111	1.248	0.026
240	10.436	0.000	-9.038	5.218	0.840	1.456	0.000
270	9.038	5.223	-10.438	-0.004	0.188	1.631	-0.050
300	5.218	9.046	-9.042	-5.225	-0.465	1.456	-0.087
315	2.701	10.089	-7.384	-7.387	-0.735	1.249	-0.097
330	0.000	10.445	-5.223	-9.046	-0.943	0.979	-0.101

DBXNH-6565B-A2M - Elevation 125 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	72.190	0.000	0.000	-72.190	-9.517	0.000	0.000
30	62.518	23.872	23.872	-62.518	-8.308	-2.984	-0.254
45	51.046	33.760	33.760	-51.046	-6.874	-4.220	-0.360
60	36.095	41.347	41.347	-36.095	-5.005	-5.168	-0.441
90	0.000	47.743	47.743	0.000	-0.494	-5.968	-0.509
120	36.095	41.347	41.347	36.095	4.018	-5.168	-0.441
135	51.046	33.760	33.760	51.046	5.887	-4.220	-0.360
150	62.518	23.872	23.872	62.518	7.321	-2.984	-0.254
180	72.190	0.000	0.000	72.190	8.530	0.000	0.000
210	62.518	23.872	-23.872	62.518	7.321	2.984	0.254
225	51.046	33.760	-33.760	51.046	5.887	4.220	0.360
240	36.095	41.347	-41.347	36.095	4.018	5.168	0.441
270	0.000	47.743	-47.743	0.000	-0.494	5.968	0.509
300	36.095	41.347	-41.347	-36.095	-5.005	5.168	0.441
315	51.046	33.760	-33.760	-51.046	-6.874	4.220	0.360
330	62.518	23.872	-23.872	-62.518	-8.308	2.984	0.254

DBXNH-6565B-A2M - Elevation 125 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	36.095	41.347	-10.586	-53.855	-6.485	0.896	0.441
30	0.000	47.743	23.872	-41.347	-4.922	-3.411	0.509
45	18.684	46.116	39.239	-30.596	-3.578	-5.332	0.492
60	36.095	41.347	51.932	-17.760	-1.973	-6.919	0.441
90	62.518	23.872	66.078	10.586	1.570	-8.687	0.254
120	72.190	0.000	62.518	36.095	4.759	-8.242	0.000
135	69.730	12.357	54.209	45.566	5.943	-7.204	-0.132
150	62.518	23.872	42.206	51.932	6.738	-5.703	-0.254
180	36.095	41.347	10.586	53.855	6.979	-1.751	-0.441
210	0.000	47.743	-23.872	41.347	5.415	2.557	-0.509
225	18.684	46.116	-39.239	30.596	4.071	4.477	-0.492
240	36.095	41.347	-51.932	17.760	2.467	6.064	-0.441
270	62.518	23.872	-66.078	-10.586	-1.076	7.832	-0.254
300	72.190	0.000	-62.518	-36.095	-4.265	7.387	0.000
315	69.730	12.357	-54.209	-45.566	-5.449	6.349	0.132

DBXNH-6565B-A2M - Elevation 125 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	62.518	23.872	-42.206	-51.932	-6.245	4.848	0.254

DBXNH-6565B-A2M - Elevation 125 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	36.095	41.347	10.586	-53.855	-6.485	-0.896	-0.441
30	62.518	23.872	42.206	-51.932	-6.245	-4.848	-0.254
45	69.730	12.357	54.209	-45.566	-5.449	-6.349	-0.132
60	72.190	0.000	62.518	-36.095	-4.265	-7.387	0.000
90	62.518	23.872	66.078	-10.586	-1.076	-7.832	0.254
120	36.095	41.347	51.932	17.760	2.467	-6.064	0.441
135	18.684	46.116	39.239	30.596	4.071	-4.477	0.492
150	0.000	47.743	23.872	41.347	5.415	-2.557	0.509
180	36.095	41.347	-10.586	53.855	6.979	1.751	0.441
210	62.518	23.872	-42.206	51.932	6.738	5.703	0.254
225	69.730	12.357	-54.209	45.566	5.943	7.204	0.132
240	72.190	0.000	-62.518	36.095	4.759	8.242	0.000
270	62.518	23.872	-66.078	10.586	1.570	8.687	-0.254
300	36.095	41.347	-51.932	-17.760	-1.973	6.919	-0.441
315	18.684	46.116	-39.239	-30.596	-3.578	5.332	-0.492
330	0.000	47.743	-23.872	-41.347	-4.922	3.411	-0.509

DB950F65E-M - Elevation 135 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	105.477	0.000	0.000	-105.477	-14.590	0.000	0.000
30	91.346	38.027	38.027	-91.346	-12.683	-5.134	-0.445
45	74.584	53.778	53.778	-74.584	-10.420	-7.260	-0.629
60	52.739	65.864	65.864	-52.739	-7.471	-8.892	-0.771
90	0.000	76.054	76.054	0.000	-0.351	-10.267	-0.890
120	52.739	65.864	65.864	52.739	6.769	-8.892	-0.771
135	74.584	53.778	53.778	74.584	9.718	-7.260	-0.629
150	91.346	38.027	38.027	91.346	11.981	-5.134	-0.445
180	105.477	0.000	0.000	105.477	13.889	0.000	0.000
210	91.346	38.027	-38.027	91.346	11.981	5.134	0.445
225	74.584	53.778	-53.778	74.584	9.718	7.260	0.629
240	52.739	65.864	-65.864	52.739	6.769	8.892	0.771
270	0.000	76.054	-76.054	0.000	-0.351	10.267	0.890
300	52.739	65.864	-65.864	-52.739	-7.471	8.892	0.771
315	74.584	53.778	-53.778	-74.584	-10.420	7.260	0.629
330	91.346	38.027	-38.027	-91.346	-12.683	5.134	0.445

DB950F85E-M - Elevation 135 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	22.754	65.108	12.849	-67.762	-9.025	-1.947	0.762
30	0.000	75.181	37.590	-65.108	-8.667	-5.287	0.879
45	11.778	72.619	46.510	-57.001	-7.572	-6.492	0.850
60	22.754	65.108	52.260	-45.009	-5.953	-7.268	0.762
90	39.411	37.590	52.926	-12.849	-1.612	-7.358	0.440
120	45.507	0.000	39.411	22.754	3.195	-5.533	0.000

DB950F85E-M - Elevation 135 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	43.957	19.458	28.339	38.830	5.365	-4.038	-0.228
150	39.411	37.590	15.335	52.260	7.178	-2.283	-0.440
180	22.754	65.108	-12.849	67.762	9.271	1.522	-0.762
210	0.000	75.181	-37.590	65.108	8.912	4.862	-0.879
225	11.778	72.619	-46.510	57.001	7.818	6.066	-0.850
240	22.754	65.108	-52.260	45.009	6.199	6.842	-0.762
270	39.411	37.590	-52.926	12.849	1.857	6.932	-0.440
300	45.507	0.000	-39.411	-22.754	-2.949	5.108	0.000
315	43.957	19.458	-28.339	-38.830	-5.119	3.613	0.228
330	39.411	37.590	-15.335	-52.260	-6.932	1.858	0.440

DB950F40T2E-M - Elevation 135 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	54.775	71.911	11.481	-89.664	-11.871	-1.145	-0.841
30	94.873	41.518	61.404	-83.392	-11.024	-7.884	-0.486
45	105.817	21.491	80.895	-71.521	-9.421	-10.516	-0.251
60	109.550	0.000	94.873	-54.775	-7.161	-12.403	0.000
90	94.873	41.518	102.922	-11.481	-1.316	-13.489	0.486
120	54.775	71.911	83.392	34.889	4.944	-10.853	0.841
135	28.354	80.206	64.658	55.284	7.697	-8.324	0.938
150	0.000	83.035	41.518	71.911	9.942	-5.200	0.971
180	54.775	71.911	-11.481	89.664	12.339	1.955	0.841
210	94.873	41.518	-61.404	83.392	11.492	8.695	0.486
225	105.817	21.491	-80.895	71.521	9.889	11.326	0.251
240	109.550	0.000	-94.873	54.775	7.629	13.213	0.000
270	94.873	41.518	-102.922	11.481	1.784	14.300	-0.486
300	54.775	71.911	-83.392	-34.889	-4.476	11.663	-0.841
315	28.354	80.206	-64.658	-55.284	-7.229	9.134	-0.938
330	0.000	83.035	-41.518	-71.911	-9.474	6.010	-0.971

Pirod 12' PCS T-Frame (1) 104569 - Elevation 135 - None A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	87.973	0.000	0.000	-87.973	-11.876	0.000	0.000
30	87.973	0.000	43.986	-76.187	-10.285	-5.938	0.000
45	87.973	0.000	62.206	-62.206	-8.398	-8.398	0.000
60	87.973	0.000	76.187	-43.986	-5.938	-10.285	0.000
90	87.973	0.000	87.973	0.000	0.000	-11.876	0.000
120	87.973	0.000	76.187	43.986	5.938	-10.285	0.000
135	87.973	0.000	62.206	62.206	8.398	-8.398	0.000
150	87.973	0.000	43.986	76.187	10.285	-5.938	0.000
180	87.973	0.000	0.000	87.973	11.876	0.000	0.000
210	87.973	0.000	-43.986	76.187	10.285	5.938	0.000
225	87.973	0.000	-62.206	62.206	8.398	8.398	0.000
240	87.973	0.000	-76.187	43.986	5.938	10.285	0.000
270	87.973	0.000	-87.973	0.000	0.000	11.876	0.000
300	87.973	0.000	-76.187	-43.986	-5.938	10.285	0.000
315	87.973	0.000	-62.206	-62.206	-8.398	8.398	0.000
330	87.973	0.000	-43.986	-76.187	-10.285	5.938	0.000

Pirod 12' PCS T-Frame (1) 104569 - Elevation 135 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	87.973	0.000	0.000	-87.973	-11.876	0.000	0.000
30	87.973	0.000	43.986	-76.187	-10.285	-5.938	0.000
45	87.973	0.000	62.206	-62.206	-8.398	-8.398	0.000
60	87.973	0.000	76.187	-43.986	-5.938	-10.285	0.000
90	87.973	0.000	87.973	0.000	0.000	-11.876	0.000
120	87.973	0.000	76.187	43.986	5.938	-10.285	0.000
135	87.973	0.000	62.206	62.206	8.398	-8.398	0.000
150	87.973	0.000	43.986	76.187	10.285	-5.938	0.000
180	87.973	0.000	0.000	87.973	11.876	0.000	0.000
210	87.973	0.000	-43.986	76.187	10.285	5.938	0.000
225	87.973	0.000	-62.206	62.206	8.398	8.398	0.000
240	87.973	0.000	-76.187	43.986	5.938	10.285	0.000
270	87.973	0.000	-87.973	0.000	0.000	11.876	0.000
300	87.973	0.000	-76.187	-43.986	-5.938	10.285	0.000
315	87.973	0.000	-62.206	-62.206	-8.398	8.398	0.000
330	87.973	0.000	-43.986	-76.187	-10.285	5.938	0.000

Pirod 12' PCS T-Frame (1) 104569 - Elevation 135 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	87.973	0.000	0.000	-87.973	-11.876	0.000	0.000
30	87.973	0.000	43.986	-76.187	-10.285	-5.938	0.000
45	87.973	0.000	62.206	-62.206	-8.398	-8.398	0.000
60	87.973	0.000	76.187	-43.986	-5.938	-10.285	0.000
90	87.973	0.000	87.973	0.000	0.000	-11.876	0.000
120	87.973	0.000	76.187	43.986	5.938	-10.285	0.000
135	87.973	0.000	62.206	62.206	8.398	-8.398	0.000
150	87.973	0.000	43.986	76.187	10.285	-5.938	0.000
180	87.973	0.000	0.000	87.973	11.876	0.000	0.000
210	87.973	0.000	-43.986	76.187	10.285	5.938	0.000
225	87.973	0.000	-62.206	62.206	8.398	8.398	0.000
240	87.973	0.000	-76.187	43.986	5.938	10.285	0.000
270	87.973	0.000	-87.973	0.000	0.000	11.876	0.000
300	87.973	0.000	-76.187	-43.986	-5.938	10.285	0.000
315	87.973	0.000	-62.206	-62.206	-8.398	8.398	0.000
330	87.973	0.000	-43.986	-76.187	-10.285	5.938	0.000

13' Sector Mount (1) - Elevation 143 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	109.035	0.000	0.000	-109.035	-18.194	0.000	0.000
30	94.427	54.518	54.518	-94.427	-16.105	-7.796	-0.645
45	77.100	77.100	77.100	-77.100	-13.628	-11.025	-0.912
60	54.518	94.427	94.427	-54.518	-10.398	-13.503	-1.117
90	0.000	109.035	109.035	0.000	-2.602	-15.592	-1.290
120	54.518	94.427	94.427	54.518	5.194	-13.503	-1.117
135	77.100	77.100	77.100	77.100	8.423	-11.025	-0.912
150	94.427	54.518	54.518	94.427	10.901	-7.796	-0.645
180	109.035	0.000	0.000	109.035	12.990	0.000	0.000
210	94.427	54.518	-54.518	94.427	10.901	7.796	0.645
225	77.100	77.100	-77.100	77.100	8.423	11.025	0.912
240	54.518	94.427	-94.427	54.518	5.194	13.503	1.117
270	0.000	109.035	-109.035	0.000	-2.602	15.592	1.290
300	54.518	94.427	-94.427	-54.518	-10.398	13.503	1.117
315	77.100	77.100	-77.100	-77.100	-13.628	11.025	0.912

13' Sector Mount (1) - Elevation 143 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	94.427	54.518	-54.518	-94.427	-16.105	7.796	0.645

13' Sector Mount (1) - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	54.518	94.427	0.000	-109.035	-14.291	-2.254	1.117
30	0.000	109.035	54.518	-94.427	-12.202	-10.050	1.290
45	28.220	105.320	77.100	-77.100	-9.724	-13.279	1.246
60	54.518	94.427	94.427	-54.518	-6.495	-15.757	1.117
90	94.427	54.518	109.035	0.000	1.301	-17.846	0.645
120	109.035	0.000	94.427	54.518	9.097	-15.757	0.000
135	105.320	28.220	77.100	77.100	12.326	-13.279	-0.334
150	94.427	54.518	54.518	94.427	14.804	-10.050	-0.645
180	54.518	94.427	0.000	109.035	16.893	-2.254	-1.117
210	0.000	109.035	-54.518	94.427	14.804	5.542	-1.290
225	28.220	105.320	-77.100	77.100	12.326	8.772	-1.246
240	54.518	94.427	-94.427	54.518	9.097	11.249	-1.117
270	94.427	54.518	-109.035	0.000	1.301	13.338	-0.645
300	109.035	0.000	-94.427	-54.518	-6.495	11.249	0.000
315	105.320	28.220	-77.100	-77.100	-9.724	8.772	0.334
330	94.427	54.518	-54.518	-94.427	-12.202	5.542	0.645

13' Sector Mount (1) - Elevation 143 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	54.518	94.427	0.000	-109.035	-14.291	2.254	-1.117
30	94.427	54.518	54.518	-94.427	-12.202	-5.542	-0.645
45	105.320	28.220	77.100	-77.100	-9.724	-8.772	-0.334
60	109.035	0.000	94.427	-54.518	-6.495	-11.249	0.000
90	94.427	54.518	109.035	0.000	1.301	-13.338	0.645
120	54.518	94.427	94.427	54.518	9.097	-11.249	1.117
135	28.220	105.320	77.100	77.100	12.326	-8.772	1.246
150	0.000	109.035	54.518	94.427	14.804	-5.542	1.290
180	54.518	94.427	0.000	109.035	16.893	2.254	1.117
210	94.427	54.518	-54.518	94.427	14.804	10.050	0.645
225	105.320	28.220	-77.100	77.100	12.326	13.279	0.334
240	109.035	0.000	-94.427	54.518	9.097	15.757	0.000
270	94.427	54.518	-109.035	0.000	1.301	17.846	-0.645
300	54.518	94.427	-94.427	-54.518	-6.495	15.757	-1.117
315	28.220	105.320	-77.100	-77.100	-9.724	13.279	-1.246
330	0.000	109.035	-54.518	-94.427	-12.202	10.050	-1.290

7770 w mount pipe - Elevation 143 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	106.890	0.000	0.000	-106.890	-16.515	0.624	-0.641
30	92.569	36.160	36.160	-92.569	-14.468	-4.547	-0.983
45	75.583	51.138	51.138	-75.583	-12.039	-6.689	-1.058
60	53.445	62.631	62.631	-53.445	-8.873	-8.332	-1.062
90	0.000	72.320	72.320	0.000	-1.230	-9.718	-0.855
120	53.445	62.631	62.631	53.445	6.412	-8.332	-0.420

7770 w mount pipe - Elevation 143 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	75.583	51.138	51.138	75.583	9.578	-6.689	-0.151
150	92.569	36.160	36.160	92.569	12.007	-4.547	0.128
180	106.890	0.000	0.000	106.890	14.055	0.624	0.641
210	92.569	36.160	-36.160	92.569	12.007	5.795	0.983
225	75.583	51.138	-51.138	75.583	9.578	7.937	1.058
240	53.445	62.631	-62.631	53.445	6.412	9.580	1.062
270	0.000	72.320	-72.320	0.000	-1.230	10.966	0.855
300	53.445	62.631	-62.631	-53.445	-8.873	9.580	0.420
315	75.583	51.138	-51.138	-75.583	-12.039	7.937	0.151
330	92.569	36.160	-36.160	-92.569	-14.468	5.795	-0.128

7770 w mount pipe - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	53.445	62.631	-14.969	-80.963	-11.503	0.763	1.062
30	0.000	72.320	36.160	-62.631	-8.882	-6.548	0.855
45	27.665	69.856	58.887	-46.665	-6.598	-9.798	0.660
60	53.445	62.631	77.600	-27.518	-3.860	-12.474	0.420
90	92.569	36.160	98.247	14.969	2.215	-15.427	-0.128
120	106.890	0.000	92.569	53.445	7.717	-14.615	-0.641
135	103.248	18.718	80.056	67.834	9.775	-12.825	-0.841
150	92.569	36.160	62.087	77.600	11.172	-10.256	-0.983
180	53.445	62.631	14.969	80.963	11.652	-3.518	-1.062
210	0.000	72.320	-36.160	62.631	9.031	3.794	-0.855
225	27.665	69.856	-58.887	46.665	6.748	7.043	-0.660
240	53.445	62.631	-77.600	27.518	4.010	9.719	-0.420
270	92.569	36.160	-98.247	-14.969	-2.066	12.672	0.128
300	106.890	0.000	-92.569	-53.445	-7.568	11.860	0.641
315	103.248	18.718	-80.056	-67.834	-9.626	10.071	0.841
330	92.569	36.160	-62.087	-77.600	-11.022	7.501	0.983

7770 w mount pipe - Elevation 143 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	53.445	62.631	14.969	-80.963	-10.422	-1.387	-0.420
30	92.569	36.160	62.087	-77.600	-9.941	-8.125	0.128
45	103.248	18.718	80.056	-67.834	-8.545	-10.695	0.398
60	106.890	0.000	92.569	-53.445	-6.487	-12.484	0.641
90	92.569	36.160	98.247	-14.969	-0.985	-13.296	0.983
120	53.445	62.631	77.600	27.518	5.091	-10.343	1.062
135	27.665	69.856	58.887	46.665	7.829	-7.667	0.992
150	0.000	72.320	36.160	62.631	10.112	-4.418	0.855
180	53.445	62.631	-14.969	80.963	12.733	2.894	0.420
210	92.569	36.160	-62.087	77.600	12.252	9.632	-0.128
225	103.248	18.718	-80.056	67.834	10.856	12.201	-0.398
240	106.890	0.000	-92.569	53.445	8.798	13.991	-0.641
270	92.569	36.160	-98.247	14.969	3.296	14.803	-0.983
300	53.445	62.631	-77.600	-27.518	-2.780	11.850	-1.062
315	27.665	69.856	-58.887	-46.665	-5.518	9.174	-0.992
330	0.000	72.320	-36.160	-62.631	-7.801	5.924	-0.855

TMA (shielded) - Elevation 143 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
30	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
45	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
60	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
90	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
120	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
135	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
150	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
180	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
210	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
225	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
240	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
270	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
300	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
315	0.000	0.000	0.000	0.000	-0.173	0.000	0.000
330	0.000	0.000	0.000	0.000	-0.173	0.000	0.000

TMA (shielded) - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
30	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
45	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
60	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
90	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
120	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
135	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
150	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
180	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
210	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
225	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
240	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
270	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
300	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
315	0.000	0.000	0.000	0.000	0.086	-0.150	0.000
330	0.000	0.000	0.000	0.000	0.086	-0.150	0.000

TMA (shielded) - Elevation 143 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.000	0.000	0.000	0.000	0.086	0.150	0.000
30	0.000	0.000	0.000	0.000	0.086	0.150	0.000
45	0.000	0.000	0.000	0.000	0.086	0.150	0.000
60	0.000	0.000	0.000	0.000	0.086	0.150	0.000
90	0.000	0.000	0.000	0.000	0.086	0.150	0.000
120	0.000	0.000	0.000	0.000	0.086	0.150	0.000
135	0.000	0.000	0.000	0.000	0.086	0.150	0.000
150	0.000	0.000	0.000	0.000	0.086	0.150	0.000
180	0.000	0.000	0.000	0.000	0.086	0.150	0.000
210	0.000	0.000	0.000	0.000	0.086	0.150	0.000
225	0.000	0.000	0.000	0.000	0.086	0.150	0.000
240	0.000	0.000	0.000	0.000	0.086	0.150	0.000
270	0.000	0.000	0.000	0.000	0.086	0.150	0.000
300	0.000	0.000	0.000	0.000	0.086	0.150	0.000
315	0.000	0.000	0.000	0.000	0.086	0.150	0.000

TMA (shielded) - Elevation 143 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	0.000	0.000	0.000	0.000	0.086	0.150	0.000

RRUS-11 - Elevation 143 - None A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	23.317	0.000	0.000	-23.317	-3.334	0.000	0.000
30	23.317	0.000	11.658	-20.193	-2.888	-1.667	0.000
45	23.317	0.000	16.488	-16.488	-2.358	-2.358	0.000
60	23.317	0.000	20.193	-11.658	-1.667	-2.888	0.000
90	23.317	0.000	23.317	0.000	0.000	-3.334	0.000
120	23.317	0.000	20.193	11.658	1.667	-2.888	0.000
135	23.317	0.000	16.488	16.488	2.358	-2.358	0.000
150	23.317	0.000	11.658	20.193	2.888	-1.667	0.000
180	23.317	0.000	0.000	23.317	3.334	0.000	0.000
210	23.317	0.000	-11.658	20.193	2.888	1.667	0.000
225	23.317	0.000	-16.488	16.488	2.358	2.358	0.000
240	23.317	0.000	-20.193	11.658	1.667	2.888	0.000
270	23.317	0.000	-23.317	0.000	0.000	3.334	0.000
300	23.317	0.000	-20.193	-11.658	-1.667	2.888	0.000
315	23.317	0.000	-16.488	-16.488	-2.358	2.358	0.000
330	23.317	0.000	-11.658	-20.193	-2.888	1.667	0.000

RRUS-11 - Elevation 143 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	23.317	0.000	0.000	-23.317	-3.334	0.000	0.000
30	23.317	0.000	11.658	-20.193	-2.888	-1.667	0.000
45	23.317	0.000	16.488	-16.488	-2.358	-2.358	0.000
60	23.317	0.000	20.193	-11.658	-1.667	-2.888	0.000
90	23.317	0.000	23.317	0.000	0.000	-3.334	0.000
120	23.317	0.000	20.193	11.658	1.667	-2.888	0.000
135	23.317	0.000	16.488	16.488	2.358	-2.358	0.000
150	23.317	0.000	11.658	20.193	2.888	-1.667	0.000
180	23.317	0.000	0.000	23.317	3.334	0.000	0.000
210	23.317	0.000	-11.658	20.193	2.888	1.667	0.000
225	23.317	0.000	-16.488	16.488	2.358	2.358	0.000
240	23.317	0.000	-20.193	11.658	1.667	2.888	0.000
270	23.317	0.000	-23.317	0.000	0.000	3.334	0.000
300	23.317	0.000	-20.193	-11.658	-1.667	2.888	0.000
315	23.317	0.000	-16.488	-16.488	-2.358	2.358	0.000
330	23.317	0.000	-11.658	-20.193	-2.888	1.667	0.000

RRUS-11 - Elevation 143 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	23.317	0.000	0.000	-23.317	-3.334	0.000	0.000
30	23.317	0.000	11.658	-20.193	-2.888	-1.667	0.000
45	23.317	0.000	16.488	-16.488	-2.358	-2.358	0.000
60	23.317	0.000	20.193	-11.658	-1.667	-2.888	0.000
90	23.317	0.000	23.317	0.000	0.000	-3.334	0.000
120	23.317	0.000	20.193	11.658	1.667	-2.888	0.000

RRUS-11 - Elevation 143 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	23.317	0.000	16.488	16.488	2.358	-2.358	0.000
150	23.317	0.000	11.658	20.193	2.888	-1.667	0.000
180	23.317	0.000	0.000	23.317	3.334	0.000	0.000
210	23.317	0.000	-11.658	20.193	2.888	1.667	0.000
225	23.317	0.000	-16.488	16.488	2.358	2.358	0.000
240	23.317	0.000	-20.193	11.658	1.667	2.888	0.000
270	23.317	0.000	-23.317	0.000	0.000	3.334	0.000
300	23.317	0.000	-20.193	-11.658	-1.667	2.888	0.000
315	23.317	0.000	-16.488	-16.488	-2.358	2.358	0.000
330	23.317	0.000	-11.658	-20.193	-2.888	1.667	0.000

AM-X-CD-14-65-00T-RET - Elevation 143 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	50.035	0.000	0.000	-50.035	-7.202	0.008	-0.100
30	43.332	12.847	12.847	-43.332	-6.244	-1.829	-0.239
45	35.380	18.168	18.168	-35.380	-5.107	-2.590	-0.286
60	25.018	22.252	22.252	-25.018	-3.625	-3.174	-0.313
90	0.000	25.694	25.694	0.000	-0.047	-3.666	-0.304
120	25.018	22.252	22.252	25.018	3.530	-3.174	-0.213
135	35.380	18.168	18.168	35.380	5.012	-2.590	-0.144
150	43.332	12.847	12.847	43.332	6.149	-1.829	-0.065
180	50.035	0.000	0.000	50.035	7.108	0.008	0.100
210	43.332	12.847	-12.847	43.332	6.149	1.845	0.239
225	35.380	18.168	-18.168	35.380	5.012	2.606	0.286
240	25.018	22.252	-22.252	25.018	3.530	3.190	0.313
270	0.000	25.694	-25.694	0.000	-0.047	3.682	0.304
300	25.018	22.252	-22.252	-25.018	-3.625	3.190	0.213
315	35.380	18.168	-18.168	-35.380	-5.107	2.606	0.144
330	43.332	12.847	-12.847	-43.332	-6.244	1.845	0.065

AM-X-CD-14-65-00T-RET - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	25.018	22.252	-10.540	-31.779	-4.528	1.462	0.313
30	0.000	25.694	12.847	-22.252	-3.165	-1.882	0.304
45	12.950	24.818	23.624	-15.018	-2.131	-3.423	0.268
60	25.018	22.252	32.792	-6.762	-0.950	-4.734	0.213
90	43.332	12.847	43.950	10.540	1.524	-6.330	0.065
120	50.035	0.000	43.332	25.018	3.594	-6.241	-0.100
135	48.330	6.650	38.530	29.924	4.296	-5.555	-0.175
150	43.332	12.847	31.103	32.792	4.706	-4.493	-0.239
180	25.018	22.252	10.540	31.779	4.561	-1.552	-0.313
210	0.000	25.694	-12.847	22.252	3.199	1.792	-0.304
225	12.950	24.818	-23.624	15.018	2.164	3.333	-0.268
240	25.018	22.252	-32.792	6.762	0.984	4.644	-0.213
270	43.332	12.847	-43.950	-10.540	-1.490	6.240	-0.065
300	50.035	0.000	-43.332	-25.018	-3.561	6.151	0.100
315	48.330	6.650	-38.530	-29.924	-4.262	5.465	0.175
330	43.332	12.847	-31.103	-32.792	-4.672	4.403	0.239

AM-X-CD-14-65-00T-RET - Elevation 143 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	25.018	22.252	10.540	-31.779	-4.514	-1.470	-0.213
30	43.332	12.847	31.103	-32.792	-4.659	-4.411	-0.065
45	48.330	6.650	38.530	-29.924	-4.249	-5.473	0.018
60	50.035	0.000	43.332	-25.018	-3.547	-6.159	0.100
90	43.332	12.847	43.950	-10.540	-1.477	-6.248	0.239
120	25.018	22.252	32.792	6.762	0.998	-4.652	0.313
135	12.950	24.818	23.624	15.018	2.178	-3.341	0.319
150	0.000	25.694	12.847	22.252	3.213	-1.800	0.304
180	25.018	22.252	-10.540	31.779	4.575	1.544	0.213
210	43.332	12.847	-31.103	32.792	4.720	4.485	0.065
225	48.330	6.650	-38.530	29.924	4.310	5.547	-0.018
240	50.035	0.000	-43.332	25.018	3.608	6.233	-0.100
270	43.332	12.847	-43.950	10.540	1.538	6.322	-0.239
300	25.018	22.252	-32.792	-6.762	-0.936	4.726	-0.313
315	12.950	24.818	-23.624	-15.018	-2.117	3.415	-0.319
330	0.000	25.694	-12.847	-22.252	-3.151	1.874	-0.304

Raycap Surge Suppressor - Elevation 143 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	11.507	0.000	0.000	-11.507	-1.802	0.000	0.000
30	9.965	5.753	5.753	-9.965	-1.582	-0.823	-0.045
45	8.137	8.137	8.137	-8.137	-1.320	-1.164	-0.064
60	5.753	9.965	9.965	-5.753	-0.979	-1.425	-0.078
90	0.000	11.507	11.507	0.000	-0.157	-1.645	-0.090
120	5.753	9.965	9.965	5.753	0.666	-1.425	-0.078
135	8.137	8.137	8.137	8.137	1.007	-1.164	-0.064
150	9.965	5.753	5.753	9.965	1.268	-0.823	-0.045
180	11.507	0.000	0.000	11.507	1.489	0.000	0.000
210	9.965	5.753	-5.753	9.965	1.268	0.823	0.045
225	8.137	8.137	-8.137	8.137	1.007	1.164	0.064
240	5.753	9.965	-9.965	5.753	0.666	1.425	0.078
270	0.000	11.507	-11.507	0.000	-0.157	1.645	0.090
300	5.753	9.965	-9.965	-5.753	-0.979	1.425	0.078
315	8.137	8.137	-8.137	-8.137	-1.320	1.164	0.064
330	9.965	5.753	-5.753	-9.965	-1.582	0.823	0.045

RRUS-12 - Elevation 143 - None A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	28.576	0.000	0.000	-28.576	-4.086	0.000	0.000
30	28.576	0.000	14.288	-24.748	-3.539	-2.043	0.000
45	28.576	0.000	20.207	-20.207	-2.890	-2.890	0.000
60	28.576	0.000	24.748	-14.288	-2.043	-3.539	0.000
90	28.576	0.000	28.576	0.000	0.000	-4.086	0.000
120	28.576	0.000	24.748	14.288	2.043	-3.539	0.000
135	28.576	0.000	20.207	20.207	2.890	-2.890	0.000
150	28.576	0.000	14.288	24.748	3.539	-2.043	0.000
180	28.576	0.000	0.000	28.576	4.086	0.000	0.000
210	28.576	0.000	-14.288	24.748	3.539	2.043	0.000
225	28.576	0.000	-20.207	20.207	2.890	2.890	0.000
240	28.576	0.000	-24.748	14.288	2.043	3.539	0.000
270	28.576	0.000	-28.576	0.000	0.000	4.086	0.000
300	28.576	0.000	-24.748	-14.288	-2.043	3.539	0.000
315	28.576	0.000	-20.207	-20.207	-2.890	2.890	0.000

RRUS-12 - Elevation 143 - None A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	28.576	0.000	-14.288	-24.748	-3.539	2.043	0.000

RRUS-12 - Elevation 143 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	28.576	0.000	0.000	-28.576	-4.086	0.000	0.000
30	28.576	0.000	14.288	-24.748	-3.539	-2.043	0.000
45	28.576	0.000	20.207	-20.207	-2.890	-2.890	0.000
60	28.576	0.000	24.748	-14.288	-2.043	-3.539	0.000
90	28.576	0.000	28.576	0.000	0.000	-4.086	0.000
120	28.576	0.000	24.748	14.288	2.043	-3.539	0.000
135	28.576	0.000	20.207	20.207	2.890	-2.890	0.000
150	28.576	0.000	14.288	24.748	3.539	-2.043	0.000
180	28.576	0.000	0.000	28.576	4.086	0.000	0.000
210	28.576	0.000	-14.288	24.748	3.539	2.043	0.000
225	28.576	0.000	-20.207	20.207	2.890	2.890	0.000
240	28.576	0.000	-24.748	14.288	2.043	3.539	0.000
270	28.576	0.000	-28.576	0.000	0.000	4.086	0.000
300	28.576	0.000	-24.748	-14.288	-2.043	3.539	0.000
315	28.576	0.000	-20.207	-20.207	-2.890	2.890	0.000
330	28.576	0.000	-14.288	-24.748	-3.539	2.043	0.000

RRUS-12 - Elevation 143 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	28.576	0.000	0.000	-28.576	-4.086	0.000	0.000
30	28.576	0.000	14.288	-24.748	-3.539	-2.043	0.000
45	28.576	0.000	20.207	-20.207	-2.890	-2.890	0.000
60	28.576	0.000	24.748	-14.288	-2.043	-3.539	0.000
90	28.576	0.000	28.576	0.000	0.000	-4.086	0.000
120	28.576	0.000	24.748	14.288	2.043	-3.539	0.000
135	28.576	0.000	20.207	20.207	2.890	-2.890	0.000
150	28.576	0.000	14.288	24.748	3.539	-2.043	0.000
180	28.576	0.000	0.000	28.576	4.086	0.000	0.000
210	28.576	0.000	-14.288	24.748	3.539	2.043	0.000
225	28.576	0.000	-20.207	20.207	2.890	2.890	0.000
240	28.576	0.000	-24.748	14.288	2.043	3.539	0.000
270	28.576	0.000	-28.576	0.000	0.000	4.086	0.000
300	28.576	0.000	-24.748	-14.288	-2.043	3.539	0.000
315	28.576	0.000	-20.207	-20.207	-2.890	2.890	0.000
330	28.576	0.000	-14.288	-24.748	-3.539	2.043	0.000

2" Dia 10' Omni - Elevation 143 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	9.086	15.738	0.000	-18.173	-2.545	-0.094	0.170
30	0.000	18.173	9.086	-15.738	-2.196	-1.393	0.197
45	4.703	17.553	12.850	-12.850	-1.783	-1.931	0.190
60	9.086	15.738	15.738	-9.086	-1.245	-2.344	0.170
90	15.738	9.086	18.173	0.000	0.054	-2.692	0.098
120	18.173	0.000	15.738	9.086	1.353	-2.344	0.000

2" Dia 10' Omni - Elevation 143 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	17.553	4.703	12.850	12.850	1.892	-1.931	-0.051
150	15.738	9.086	9.086	15.738	2.305	-1.393	-0.098
180	9.086	15.738	0.000	18.173	2.653	-0.094	-0.170
210	0.000	18.173	-9.086	15.738	2.305	1.206	-0.197
225	4.703	17.553	-12.850	12.850	1.892	1.744	-0.190
240	9.086	15.738	-15.738	9.086	1.353	2.157	-0.170
270	15.738	9.086	-18.173	0.000	0.054	2.505	-0.098
300	18.173	0.000	-15.738	-9.086	-1.245	2.157	0.000
315	17.553	4.703	-12.850	-12.850	-1.783	1.744	0.051
330	15.738	9.086	-9.086	-15.738	-2.196	1.206	0.098

Pirod 4' Side Mount Standoff (1) - Elevation 143 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	24.715	0.000	0.000	-24.715	-3.534	0.000	0.000
30	24.715	0.000	12.357	-21.404	-3.061	-1.767	0.000
45	24.715	0.000	17.476	-17.476	-2.499	-2.499	0.000
60	24.715	0.000	21.404	-12.357	-1.767	-3.061	0.000
90	24.715	0.000	24.715	0.000	0.000	-3.534	0.000
120	24.715	0.000	21.404	12.357	1.767	-3.061	0.000
135	24.715	0.000	17.476	17.476	2.499	-2.499	0.000
150	24.715	0.000	12.357	21.404	3.061	-1.767	0.000
180	24.715	0.000	0.000	24.715	3.534	0.000	0.000
210	24.715	0.000	-12.357	21.404	3.061	1.767	0.000
225	24.715	0.000	-17.476	17.476	2.499	2.499	0.000
240	24.715	0.000	-21.404	12.357	1.767	3.061	0.000
270	24.715	0.000	-24.715	0.000	0.000	3.534	0.000
300	24.715	0.000	-21.404	-12.357	-1.767	3.061	0.000
315	24.715	0.000	-17.476	-17.476	-2.499	2.499	0.000
330	24.715	0.000	-12.357	-21.404	-3.061	1.767	0.000

3" Dia 20' Omni - Elevation 153 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.433	31.927	0.000	-36.866	-5.410	-0.399	0.267
30	0.000	36.866	18.433	-31.927	-4.655	-3.219	0.308
45	9.542	35.610	26.068	-26.068	-3.758	-4.387	0.298
60	18.433	31.927	31.927	-18.433	-2.590	-5.283	0.267
90	31.927	18.433	36.866	0.000	0.230	-6.039	0.154
120	36.866	0.000	31.927	18.433	3.050	-5.283	0.000
135	35.610	9.542	26.068	26.068	4.219	-4.387	-0.080
150	31.927	18.433	18.433	31.927	5.115	-3.219	-0.154
180	18.433	31.927	0.000	36.866	5.871	-0.399	-0.267
210	0.000	36.866	-18.433	31.927	5.115	2.422	-0.308
225	9.542	35.610	-26.068	26.068	4.219	3.590	-0.298
240	18.433	31.927	-31.927	18.433	3.050	4.486	-0.267
270	31.927	18.433	-36.866	0.000	0.230	5.242	-0.154
300	36.866	0.000	-31.927	-18.433	-2.590	4.486	0.000
315	35.610	9.542	-26.068	-26.068	-3.758	3.590	0.080
330	31.927	18.433	-18.433	-31.927	-4.655	2.422	0.154

1' Side Arm - Elevation 153 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	11.521	19.954	0.000	-23.041	-3.309	-0.375	0.157
30	0.000	23.041	11.521	-19.954	-2.837	-2.137	0.181
45	5.964	22.256	16.293	-16.293	-2.276	-2.867	0.175
60	11.521	19.954	19.954	-11.521	-1.546	-3.428	0.157
90	19.954	11.521	23.041	0.000	0.216	-3.900	0.091
120	23.041	0.000	19.954	11.521	1.979	-3.428	0.000
135	22.256	5.964	16.293	16.293	2.709	-2.867	-0.047
150	19.954	11.521	11.521	19.954	3.269	-2.137	-0.091
180	11.521	19.954	0.000	23.041	3.742	-0.375	-0.157
210	0.000	23.041	-11.521	19.954	3.269	1.388	-0.181
225	5.964	22.256	-16.293	16.293	2.709	2.118	-0.175
240	11.521	19.954	-19.954	11.521	1.979	2.678	-0.157
270	19.954	11.521	-23.041	0.000	0.216	3.151	-0.091
300	23.041	0.000	-19.954	-11.521	-1.546	2.678	0.000
315	22.256	5.964	-16.293	-16.293	-2.276	2.118	0.047
330	19.954	11.521	-11.521	-19.954	-2.837	1.388	0.091

1 Bay Dipole ANT400D - Elevation 151 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	17.270	0.000	0.000	-17.270	-2.707	0.000	0.000
30	14.956	2.379	2.379	-14.956	-2.358	-0.359	-0.018
45	12.212	3.364	3.364	-12.212	-1.943	-0.508	-0.025
60	8.635	4.120	4.120	-8.635	-1.403	-0.622	-0.031
90	0.000	4.757	4.757	0.000	-0.099	-0.718	-0.035
120	8.635	4.120	4.120	8.635	1.205	-0.622	-0.031
135	12.212	3.364	3.364	12.212	1.745	-0.508	-0.025
150	14.956	2.379	2.379	14.956	2.159	-0.359	-0.018
180	17.270	0.000	0.000	17.270	2.509	0.000	0.000
210	14.956	2.379	-2.379	14.956	2.159	0.359	0.018
225	12.212	3.364	-3.364	12.212	1.745	0.508	0.025
240	8.635	4.120	-4.120	8.635	1.205	0.622	0.031
270	0.000	4.757	-4.757	0.000	-0.099	0.718	0.035
300	8.635	4.120	-4.120	-8.635	-1.403	0.622	0.031
315	12.212	3.364	-3.364	-12.212	-1.943	0.508	0.025
330	14.956	2.379	-2.379	-14.956	-2.358	0.359	0.018

10'6"x4" Pipe Mount - Elevation 151 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	28.013	0.000	0.000	-28.013	-4.230	0.000	0.000
30	28.013	0.000	14.006	-24.260	-3.663	-2.115	0.000
45	28.013	0.000	19.808	-19.808	-2.991	-2.991	0.000
60	28.013	0.000	24.260	-14.006	-2.115	-3.663	0.000
90	28.013	0.000	28.013	0.000	0.000	-4.230	0.000
120	28.013	0.000	24.260	14.006	2.115	-3.663	0.000
135	28.013	0.000	19.808	19.808	2.991	-2.991	0.000
150	28.013	0.000	14.006	24.260	3.663	-2.115	0.000
180	28.013	0.000	0.000	28.013	4.230	0.000	0.000
210	28.013	0.000	-14.006	24.260	3.663	2.115	0.000
225	28.013	0.000	-19.808	19.808	2.991	2.991	0.000
240	28.013	0.000	-24.260	14.006	2.115	3.663	0.000
270	28.013	0.000	-28.013	0.000	0.000	4.230	0.000
300	28.013	0.000	-24.260	-14.006	-2.115	3.663	0.000
315	28.013	0.000	-19.808	-19.808	-2.991	2.991	0.000

10'6"x4" Pipe Mount - Elevation 151 - None B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	28.013	0.000	-14.006	-24.260	-3.663	2.115	0.000

1.5" Dia 16' Omni - Elevation 155 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.483	32.014	0.000	-36.967	-5.527	-0.351	0.236
30	0.000	36.967	18.483	-32.014	-4.760	-3.216	0.272
45	9.568	35.707	26.140	-26.140	-3.849	-4.403	0.263
60	18.483	32.014	32.014	-18.483	-2.662	-5.313	0.236
90	32.014	18.483	36.967	0.000	0.203	-6.081	0.136
120	36.967	0.000	32.014	18.483	3.068	-5.313	0.000
135	35.707	9.568	26.140	26.140	4.254	-4.403	-0.070
150	32.014	18.483	18.483	32.014	5.165	-3.216	-0.136
180	18.483	32.014	0.000	36.967	5.932	-0.351	-0.236
210	0.000	36.967	-18.483	32.014	5.165	2.514	-0.272
225	9.568	35.707	-26.140	26.140	4.254	3.701	-0.263
240	18.483	32.014	-32.014	18.483	3.068	4.611	-0.236
270	32.014	18.483	-36.967	0.000	0.203	5.379	-0.136
300	36.967	0.000	-32.014	-18.483	-2.662	4.611	0.000
315	35.707	9.568	-26.140	-26.140	-3.849	3.701	0.070
330	32.014	18.483	-18.483	-32.014	-4.760	2.514	0.136

2" Dia 10' Omni - Elevation 157 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	9.267	16.050	0.000	-18.533	-2.874	0.062	-0.115
30	16.050	9.267	9.267	-16.050	-2.484	-1.393	-0.067
45	17.902	4.797	13.105	-13.105	-2.022	-1.995	-0.034
60	18.533	0.000	16.050	-9.267	-1.419	-2.458	0.000
90	16.050	9.267	18.533	0.000	0.036	-2.848	0.067
120	9.267	16.050	16.050	9.267	1.491	-2.458	0.115
135	4.797	17.902	13.105	13.105	2.093	-1.995	0.129
150	0.000	18.533	9.267	16.050	2.556	-1.393	0.133
180	9.267	16.050	0.000	18.533	2.946	0.062	0.115
210	16.050	9.267	-9.267	16.050	2.556	1.517	0.067
225	17.902	4.797	-13.105	13.105	2.093	2.120	0.034
240	18.533	0.000	-16.050	9.267	1.491	2.582	0.000
270	16.050	9.267	-18.533	0.000	0.036	2.972	-0.067
300	9.267	16.050	-16.050	-9.267	-1.419	2.582	-0.115
315	4.797	17.902	-13.105	-13.105	-2.022	2.120	-0.129
330	0.000	18.533	-9.267	-16.050	-2.484	1.517	-0.133

2' Sidearm - Elevation 157 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.070	31.298	0.000	-36.140	-5.362	0.541	-0.225
30	31.298	18.070	18.070	-31.298	-4.601	-2.296	-0.130
45	34.909	9.354	25.555	-25.555	-3.700	-3.471	-0.067
60	36.140	0.000	31.298	-18.070	-2.525	-4.373	0.000
90	31.298	18.070	36.140	0.000	0.312	-5.133	0.130
120	18.070	31.298	31.298	18.070	3.149	-4.373	0.225

2' Sidearm - Elevation 157 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	9.354	34.909	25.555	25.555	4.325	-3.471	0.251
150	0.000	36.140	18.070	31.298	5.226	-2.296	0.260
180	18.070	31.298	0.000	36.140	5.986	0.541	0.225
210	31.298	18.070	-18.070	31.298	5.226	3.378	0.130
225	34.909	9.354	-25.555	25.555	4.325	4.553	0.067
240	36.140	0.000	-31.298	18.070	3.149	5.455	0.000
270	31.298	18.070	-36.140	0.000	0.312	6.215	-0.130
300	18.070	31.298	-31.298	-18.070	-2.525	5.455	-0.225
315	9.354	34.909	-25.555	-25.555	-3.700	4.553	-0.251
330	0.000	36.140	-18.070	-31.298	-4.601	3.378	-0.260

10'x6" Dipole Antenna - Elevation 157 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	42.472	13.375	30.095	-32.820	-4.976	-4.419	-0.103
30	73.564	7.722	59.847	-43.470	-6.648	-9.090	-0.059
45	82.050	3.997	69.059	-44.487	-6.808	-10.536	-0.031
60	84.945	0.000	73.564	-42.472	-6.491	-11.244	0.000
90	73.564	7.722	67.570	-30.095	-4.548	-10.302	0.059
120	42.472	13.375	43.470	-9.653	-1.339	-6.519	0.103
135	21.985	14.918	26.499	1.927	0.479	-3.854	0.115
150	0.000	15.445	7.722	13.375	2.277	-0.906	0.119
180	42.472	13.375	-30.095	32.820	5.329	5.031	0.103
210	73.564	7.722	-59.847	43.470	7.001	9.702	0.059
225	82.050	3.997	-69.059	44.487	7.161	11.148	0.031
240	84.945	0.000	-73.564	42.472	6.845	11.856	0.000
270	73.564	7.722	-67.570	30.095	4.902	10.914	-0.059
300	42.472	13.375	-43.470	9.653	1.692	7.131	-0.103
315	21.985	14.918	-26.499	-1.927	-0.126	4.466	-0.115
330	0.000	15.445	-7.722	-13.375	-1.923	1.518	-0.119

1' Side Arm - Elevation 157 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	11.583	20.063	0.000	-23.167	-3.426	0.366	-0.154
30	20.063	11.583	11.583	-20.063	-2.939	-1.453	-0.089
45	22.377	5.996	16.381	-16.381	-2.361	-2.206	-0.046
60	23.167	0.000	20.063	-11.583	-1.607	-2.784	0.000
90	20.063	11.583	23.167	0.000	0.211	-3.271	0.089
120	11.583	20.063	20.063	11.583	2.030	-2.784	0.154
135	5.996	22.377	16.381	16.381	2.783	-2.206	0.172
150	0.000	23.167	11.583	20.063	3.361	-1.453	0.178
180	11.583	20.063	0.000	23.167	3.848	0.366	0.154
210	20.063	11.583	-11.583	20.063	3.361	2.185	0.089
225	22.377	5.996	-16.381	16.381	2.783	2.938	0.046
240	23.167	0.000	-20.063	11.583	2.030	3.516	0.000
270	20.063	11.583	-23.167	0.000	0.211	4.003	-0.089
300	11.583	20.063	-20.063	-11.583	-1.607	3.516	-0.154
315	5.996	22.377	-16.381	-16.381	-2.361	2.938	-0.172
330	0.000	23.167	-11.583	-20.063	-2.939	2.185	-0.178

3'4"x4" Pipe Mount - Elevation 157 - None B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	7.838	0.000	0.000	-7.838	-1.231	0.000	0.000
30	7.838	0.000	3.919	-6.788	-1.066	-0.615	0.000
45	7.838	0.000	5.542	-5.542	-0.870	-0.870	0.000
60	7.838	0.000	6.788	-3.919	-0.615	-1.066	0.000
90	7.838	0.000	7.838	0.000	0.000	-1.231	0.000
120	7.838	0.000	6.788	3.919	0.615	-1.066	0.000
135	7.838	0.000	5.542	5.542	0.870	-0.870	0.000
150	7.838	0.000	3.919	6.788	1.066	-0.615	0.000
180	7.838	0.000	0.000	7.838	1.231	0.000	0.000
210	7.838	0.000	-3.919	6.788	1.066	0.615	0.000
225	7.838	0.000	-5.542	5.542	0.870	0.870	0.000
240	7.838	0.000	-6.788	3.919	0.615	1.066	0.000
270	7.838	0.000	-7.838	0.000	0.000	1.231	0.000
300	7.838	0.000	-6.788	-3.919	-0.615	1.066	0.000
315	7.838	0.000	-5.542	-5.542	-0.870	0.870	0.000
330	7.838	0.000	-3.919	-6.788	-1.066	0.615	0.000

(Inverted) 3" Dia 20' Omni - Elevation 160 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.607	32.229	0.000	-37.215	-5.706	-0.431	0.291
30	0.000	37.215	18.607	-32.229	-4.908	-3.408	0.337
45	9.632	35.947	26.315	-26.315	-3.962	-4.641	0.325
60	18.607	32.229	32.229	-18.607	-2.728	-5.587	0.291
90	32.229	18.607	37.215	0.000	0.249	-6.385	0.168
120	37.215	0.000	32.229	18.607	3.226	-5.587	0.000
135	35.947	9.632	26.315	26.315	4.459	-4.641	-0.087
150	32.229	18.607	18.607	32.229	5.405	-3.408	-0.168
180	18.607	32.229	0.000	37.215	6.203	-0.431	-0.291
210	0.000	37.215	-18.607	32.229	5.405	2.546	-0.337
225	9.632	35.947	-26.315	26.315	4.459	3.780	-0.325
240	18.607	32.229	-32.229	18.607	3.226	4.726	-0.291
270	32.229	18.607	-37.215	0.000	0.249	5.524	-0.168
300	37.215	0.000	-32.229	-18.607	-2.728	4.726	0.000
315	35.947	9.632	-26.315	-26.315	-3.962	3.780	0.087
330	32.229	18.607	-18.607	-32.229	-4.908	2.546	0.168

2' Sidearm - Elevation 160 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.142	31.423	0.000	-36.284	-5.499	-0.531	0.221
30	0.000	36.284	18.142	-31.423	-4.721	-3.433	0.256
45	9.391	35.048	25.657	-25.657	-3.799	-4.636	0.247
60	18.142	31.423	31.423	-18.142	-2.596	-5.558	0.221
90	31.423	18.142	36.284	0.000	0.306	-6.336	0.128
120	36.284	0.000	31.423	18.142	3.209	-5.558	0.000
135	35.048	9.391	25.657	25.657	4.412	-4.636	-0.066
150	31.423	18.142	18.142	31.423	5.334	-3.433	-0.128
180	18.142	31.423	0.000	36.284	6.112	-0.531	-0.221
210	0.000	36.284	-18.142	31.423	5.334	2.372	-0.256
225	9.391	35.048	-25.657	25.657	4.412	3.574	-0.247
240	18.142	31.423	-31.423	18.142	3.209	4.497	-0.221
270	31.423	18.142	-36.284	0.000	0.306	5.275	-0.128
300	36.284	0.000	-31.423	-18.142	-2.596	4.497	0.000
315	35.048	9.391	-25.657	-25.657	-3.799	3.574	0.066

2' Sidearm - Elevation 160 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	31.423	18.142	-18.142	-31.423	-4.721	2.372	0.128

(Inverted) 3" Dia 20' Omni - Elevation 160 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	18.607	32.229	0.000	-37.215	-5.706	-0.431	0.291
30	0.000	37.215	18.607	-32.229	-4.908	-3.408	0.337
45	9.632	35.947	26.315	-26.315	-3.962	-4.641	0.325
60	18.607	32.229	32.229	-18.607	-2.728	-5.587	0.291
90	32.229	18.607	37.215	0.000	0.249	-6.385	0.168
120	37.215	0.000	32.229	18.607	3.226	-5.587	0.000
135	35.947	9.632	26.315	26.315	4.459	-4.641	-0.087
150	32.229	18.607	18.607	32.229	5.405	-3.408	-0.168
180	18.607	32.229	0.000	37.215	6.203	-0.431	-0.291
210	0.000	37.215	-18.607	32.229	5.405	2.546	-0.337
225	9.632	35.947	-26.315	26.315	4.459	3.780	-0.325
240	18.607	32.229	-32.229	18.607	3.226	4.726	-0.291
270	32.229	18.607	-37.215	0.000	0.249	5.524	-0.168
300	37.215	0.000	-32.229	-18.607	-2.728	4.726	0.000
315	35.947	9.632	-26.315	-26.315	-3.962	3.780	0.087
330	32.229	18.607	-18.607	-32.229	-4.908	2.546	0.168

6' Side-Arm(1) - Elevation 166 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	70.277	70.277	0.000	-99.387	-17.445	0.000	0.000
30	25.723	96.000	49.693	-86.071	-15.235	-8.249	-0.336
45	0.000	99.387	70.277	-70.277	-12.613	-11.666	-0.476
60	25.723	96.000	86.071	-49.693	-9.196	-14.288	-0.582
90	70.277	70.277	99.387	0.000	-0.947	-16.498	-0.673
120	96.000	25.723	86.071	49.693	7.302	-14.288	-0.582
135	99.387	0.000	70.277	70.277	10.719	-11.666	-0.476
150	96.000	25.723	49.693	86.071	13.341	-8.249	-0.336
180	70.277	70.277	0.000	99.387	15.551	0.000	0.000
210	25.723	96.000	-49.693	86.071	13.341	8.249	0.336
225	0.000	99.387	-70.277	70.277	10.719	11.666	0.476
240	25.723	96.000	-86.071	49.693	7.302	14.288	0.582
270	70.277	70.277	-99.387	0.000	-0.947	16.498	0.673
300	96.000	25.723	-86.071	-49.693	-9.196	14.288	0.582
315	99.387	0.000	-70.277	-70.277	-12.613	11.666	0.476
330	96.000	25.723	-49.693	-86.071	-15.235	8.249	0.336

6' Side-Arm(1) - Elevation 166 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	96.000	25.723	0.000	-99.387	-16.025	-0.820	0.582
30	70.277	70.277	49.693	-86.071	-13.814	-9.069	0.673
45	49.693	86.071	70.277	-70.277	-11.192	-12.486	0.650
60	25.723	96.000	86.071	-49.693	-7.775	-15.108	0.582
90	25.723	96.000	99.387	0.000	0.474	-17.319	0.336
120	70.277	70.277	86.071	49.693	8.723	-15.108	0.000

6' Side-Arm(1) - Elevation 166 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	86.071	49.693	70.277	70.277	12.140	-12.486	-0.174
150	96.000	25.723	49.693	86.071	14.761	-9.069	-0.336
180	96.000	25.723	0.000	99.387	16.972	-0.820	-0.582
210	70.277	70.277	-49.693	86.071	14.761	7.429	-0.673
225	49.693	86.071	-70.277	70.277	12.140	10.846	-0.650
240	25.723	96.000	-86.071	49.693	8.723	13.467	-0.582
270	25.723	96.000	-99.387	0.000	0.474	15.678	-0.336
300	70.277	70.277	-86.071	-49.693	-7.775	13.467	0.000
315	86.071	49.693	-70.277	-70.277	-11.192	10.846	0.174
330	96.000	25.723	-49.693	-86.071	-13.814	7.429	0.336

(inverted) 10' 8 Bay Di-Pole - Elevation 166 - From Face B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	36.226	9.707	0.000	-37.504	-6.429	-0.352	0.240
30	36.226	9.707	18.752	-32.480	-5.595	-3.465	0.138
45	32.480	18.752	26.520	-26.520	-4.605	-4.754	0.072
60	26.520	26.520	32.480	-18.752	-3.316	-5.743	0.000
90	9.707	36.226	37.504	0.000	-0.203	-6.577	-0.138
120	9.707	36.226	32.480	18.752	2.910	-5.743	-0.240
135	18.752	32.480	26.520	26.520	4.199	-4.754	-0.267
150	26.520	26.520	18.752	32.480	5.189	-3.465	-0.277
180	36.226	9.707	0.000	37.504	6.023	-0.352	-0.240
210	36.226	9.707	-18.752	32.480	5.189	2.761	-0.138
225	32.480	18.752	-26.520	26.520	4.199	4.051	-0.072
240	26.520	26.520	-32.480	18.752	2.910	5.040	0.000
270	9.707	36.226	-37.504	0.000	-0.203	5.874	0.138
300	9.707	36.226	-32.480	-18.752	-3.316	5.040	0.240
315	18.752	32.480	-26.520	-26.520	-4.605	4.051	0.267
330	26.520	26.520	-18.752	-32.480	-5.595	2.761	0.277

(inverted) 2" Dia 10' Omni - Elevation 164 - From Face B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	9.352	16.198	0.000	-18.704	-3.105	-0.064	0.120
30	16.198	9.352	9.352	-16.198	-2.694	-1.598	0.069
45	18.067	4.841	13.226	-13.226	-2.206	-2.233	0.036
60	18.704	0.000	16.198	-9.352	-1.571	-2.721	0.000
90	16.198	9.352	18.704	0.000	-0.037	-3.132	-0.069
120	9.352	16.198	16.198	9.352	1.497	-2.721	-0.120
135	4.841	18.067	13.226	13.226	2.132	-2.233	-0.134
150	0.000	18.704	9.352	16.198	2.619	-1.598	-0.139
180	9.352	16.198	0.000	18.704	3.030	-0.064	-0.120
210	16.198	9.352	-9.352	16.198	2.619	1.469	-0.069
225	18.067	4.841	-13.226	13.226	2.132	2.105	-0.036
240	18.704	0.000	-16.198	9.352	1.497	2.592	0.000
270	16.198	9.352	-18.704	0.000	-0.037	3.003	0.069
300	9.352	16.198	-16.198	-9.352	-1.571	2.592	0.120
315	4.841	18.067	-13.226	-13.226	-2.206	2.105	0.134
330	0.000	18.704	-9.352	-16.198	-2.694	1.469	0.139

6' Side-Arm(1) - Elevation 164 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	25.658	95.755	0.000	-99.133	-15.778	-0.832	0.589
30	70.098	70.098	49.567	-85.852	-13.600	-8.961	0.680
45	85.852	49.567	70.098	-70.098	-11.016	-12.328	0.657
60	95.755	25.658	85.852	-49.567	-7.649	-14.911	0.589
90	95.755	25.658	99.133	0.000	0.480	-17.089	0.340
120	70.098	70.098	85.852	49.567	8.609	-14.911	0.000
135	49.567	85.852	70.098	70.098	11.976	-12.328	-0.176
150	25.658	95.755	49.567	85.852	14.560	-8.961	-0.340
180	25.658	95.755	0.000	99.133	16.738	-0.832	-0.589
210	70.098	70.098	-49.567	85.852	14.560	7.297	-0.680
225	85.852	49.567	-70.098	70.098	11.976	10.664	-0.657
240	95.755	25.658	-85.852	49.567	8.609	13.248	-0.589
270	95.755	25.658	-99.133	0.000	0.480	15.426	-0.340
300	70.098	70.098	-85.852	-49.567	-7.649	13.248	0.000
315	49.567	85.852	-70.098	-70.098	-11.016	10.664	0.176
330	25.658	95.755	-49.567	-85.852	-13.600	7.297	0.340

6' Side-Arm(1) - Elevation 164 - From Leg C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	25.658	95.755	0.000	-99.133	-15.778	0.832	-0.589
30	25.658	95.755	49.567	-85.852	-13.600	-7.297	-0.340
45	49.567	85.852	70.098	-70.098	-11.016	-10.664	-0.176
60	70.098	70.098	85.852	-49.567	-7.649	-13.248	0.000
90	95.755	25.658	99.133	0.000	0.480	-15.426	0.340
120	95.755	25.658	85.852	49.567	8.609	-13.248	0.589
135	85.852	49.567	70.098	70.098	11.976	-10.664	0.657
150	70.098	70.098	49.567	85.852	14.560	-7.297	0.680
180	25.658	95.755	0.000	99.133	16.738	0.832	0.589
210	25.658	95.755	-49.567	85.852	14.560	8.961	0.340
225	49.567	85.852	-70.098	70.098	11.976	12.328	0.176
240	70.098	70.098	-85.852	49.567	8.609	14.911	0.000
270	95.755	25.658	-99.133	0.000	0.480	17.089	-0.340
300	95.755	25.658	-85.852	-49.567	-7.649	14.911	-0.589
315	85.852	49.567	-70.098	-70.098	-11.016	12.328	-0.657
330	70.098	70.098	-49.567	-85.852	-13.600	8.961	-0.680

3'4"x4" Pipe Mount - Elevation 169 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	7.931	0.000	0.000	-7.931	-1.340	0.000	0.000
30	7.931	0.000	3.965	-6.868	-1.161	-0.670	0.000
45	7.931	0.000	5.608	-5.608	-0.948	-0.948	0.000
60	7.931	0.000	6.868	-3.965	-0.670	-1.161	0.000
90	7.931	0.000	7.931	0.000	0.000	-1.340	0.000
120	7.931	0.000	6.868	3.965	0.670	-1.161	0.000
135	7.931	0.000	5.608	5.608	0.948	-0.948	0.000
150	7.931	0.000	3.965	6.868	1.161	-0.670	0.000
180	7.931	0.000	0.000	7.931	1.340	0.000	0.000
210	7.931	0.000	-3.965	6.868	1.161	0.670	0.000
225	7.931	0.000	-5.608	5.608	0.948	0.948	0.000
240	7.931	0.000	-6.868	3.965	0.670	1.161	0.000
270	7.931	0.000	-7.931	0.000	0.000	1.340	0.000
300	7.931	0.000	-6.868	-3.965	-0.670	1.161	0.000
315	7.931	0.000	-5.608	-5.608	-0.948	0.948	0.000

3'4"x4" Pipe Mount - Elevation 169 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	7.931	0.000	-3.965	-6.868	-1.161	0.670	0.000

3'4"x4" Pipe Mount - Elevation 171 - None A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	7.946	0.000	0.000	-7.946	-1.359	0.000	0.000
30	7.946	0.000	3.973	-6.881	-1.177	-0.679	0.000
45	7.946	0.000	5.618	-5.618	-0.961	-0.961	0.000
60	7.946	0.000	6.881	-3.973	-0.679	-1.177	0.000
90	7.946	0.000	7.946	0.000	0.000	-1.359	0.000
120	7.946	0.000	6.881	3.973	0.679	-1.177	0.000
135	7.946	0.000	5.618	5.618	0.961	-0.961	0.000
150	7.946	0.000	3.973	6.881	1.177	-0.679	0.000
180	7.946	0.000	0.000	7.946	1.359	0.000	0.000
210	7.946	0.000	-3.973	6.881	1.177	0.679	0.000
225	7.946	0.000	-5.618	5.618	0.961	0.961	0.000
240	7.946	0.000	-6.881	3.973	0.679	1.177	0.000
270	7.946	0.000	-7.946	0.000	0.000	1.359	0.000
300	7.946	0.000	-6.881	-3.973	-0.679	1.177	0.000
315	7.946	0.000	-5.618	-5.618	-0.961	0.961	0.000
330	7.946	0.000	-3.973	-6.881	-1.177	0.679	0.000

3'4"x4" Pipe Mount - Elevation 176 - None C

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	7.982	0.000	0.000	-7.982	-1.405	0.000	0.000
30	7.982	0.000	3.991	-6.913	-1.217	-0.702	0.000
45	7.982	0.000	5.644	-5.644	-0.993	-0.993	0.000
60	7.982	0.000	6.913	-3.991	-0.702	-1.217	0.000
90	7.982	0.000	7.982	0.000	0.000	-1.405	0.000
120	7.982	0.000	6.913	3.991	0.702	-1.217	0.000
135	7.982	0.000	5.644	5.644	0.993	-0.993	0.000
150	7.982	0.000	3.991	6.913	1.217	-0.702	0.000
180	7.982	0.000	0.000	7.982	1.405	0.000	0.000
210	7.982	0.000	-3.991	6.913	1.217	0.702	0.000
225	7.982	0.000	-5.644	5.644	0.993	0.993	0.000
240	7.982	0.000	-6.913	3.991	0.702	1.217	0.000
270	7.982	0.000	-7.982	0.000	0.000	1.405	0.000
300	7.982	0.000	-6.913	-3.991	-0.702	1.217	0.000
315	7.982	0.000	-5.644	-5.644	-0.993	0.993	0.000
330	7.982	0.000	-3.991	-6.913	-1.217	0.702	0.000

432E-83I-01T TTA Unit - Elevation 178 - From Face A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	13.559	8.021	-7.731	-13.726	-2.488	1.454	-0.029
30	0.000	9.262	4.631	-8.021	-1.473	-0.746	-0.033
45	7.019	8.947	10.552	-4.239	-0.800	-1.800	-0.032
60	13.559	8.021	15.753	-0.167	-0.075	-2.726	-0.029
90	23.484	4.631	22.654	7.731	1.331	-3.954	-0.017
120	27.117	0.000	23.484	13.559	2.368	-4.102	0.000

432E-83I-01T TTA Unit - Elevation 178 - From Face A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	26.193	2.397	21.486	15.173	2.656	-3.746	0.009
150	23.484	4.631	18.022	15.753	2.759	-3.130	0.017
180	13.559	8.021	7.731	13.726	2.398	-1.298	0.029
210	0.000	9.262	-4.631	8.021	1.383	0.902	0.033
225	7.019	8.947	-10.552	4.239	0.709	1.956	0.032
240	13.559	8.021	-15.753	0.167	-0.015	2.882	0.029
270	23.484	4.631	-22.654	-7.731	-1.421	4.110	0.017
300	27.117	0.000	-23.484	-13.559	-2.459	4.258	0.000
315	26.193	2.397	-21.486	-15.173	-2.746	3.902	-0.009
330	23.484	4.631	-18.022	-15.753	-2.849	3.286	-0.017

3" Dia 12' Omni - Elevation 180 - From Face A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	9.537	16.519	0.000	-19.075	-3.451	0.031	-0.059
30	0.000	19.075	9.537	-16.519	-2.991	-1.686	-0.068
45	4.937	18.425	13.488	-13.488	-2.446	-2.397	-0.066
60	9.537	16.519	16.519	-9.537	-1.735	-2.943	-0.059
90	16.519	9.537	19.075	0.000	-0.018	-3.403	-0.034
120	19.075	0.000	16.519	9.537	1.699	-2.943	0.000
135	18.425	4.937	13.488	13.488	2.410	-2.397	0.018
150	16.519	9.537	9.537	16.519	2.956	-1.686	0.034
180	9.537	16.519	0.000	19.075	3.416	0.031	0.059
210	0.000	19.075	-9.537	16.519	2.956	1.748	0.068
225	4.937	18.425	-13.488	13.488	2.410	2.459	0.066
240	9.537	16.519	-16.519	9.537	1.699	3.004	0.059
270	16.519	9.537	-19.075	0.000	-0.018	3.464	0.034
300	19.075	0.000	-16.519	-9.537	-1.735	3.004	0.000
315	18.425	4.937	-13.488	-13.488	-2.446	2.459	-0.018
330	16.519	9.537	-9.537	-16.519	-2.991	1.748	-0.034

3" Dia 12' Omni - Elevation 180 - From Face B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	9.537	16.519	0.000	-19.075	-3.464	-0.052	0.100
30	16.519	9.537	9.537	-16.519	-3.004	-1.769	0.058
45	18.425	4.937	13.488	-13.488	-2.458	-2.480	0.030
60	19.075	0.000	16.519	-9.537	-1.747	-3.026	0.000
90	16.519	9.537	19.075	0.000	-0.030	-3.486	-0.058
120	9.537	16.519	16.519	9.537	1.686	-3.026	-0.100
135	4.937	18.425	13.488	13.488	2.397	-2.480	-0.112
150	0.000	19.075	9.537	16.519	2.943	-1.769	-0.116
180	9.537	16.519	0.000	19.075	3.403	-0.052	-0.100
210	16.519	9.537	-9.537	16.519	2.943	1.664	-0.058
225	18.425	4.937	-13.488	13.488	2.397	2.375	-0.030
240	19.075	0.000	-16.519	9.537	1.686	2.921	0.000
270	16.519	9.537	-19.075	0.000	-0.030	3.381	0.058
300	9.537	16.519	-16.519	-9.537	-1.747	2.921	0.100
315	4.937	18.425	-13.488	-13.488	-2.458	2.375	0.112
330	0.000	19.075	-9.537	-16.519	-3.004	1.664	0.116

432E-83I-01T TTA Unit - Elevation 180 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	13.591	8.040	-7.750	-13.758	-2.325	1.133	0.097
30	0.000	9.284	4.642	-8.040	-1.296	-1.098	0.113
45	7.035	8.968	10.576	-4.249	-0.613	-2.166	0.109
60	13.591	8.040	15.790	-0.168	0.121	-3.105	0.097
90	23.540	4.642	22.707	7.750	1.546	-4.350	0.056
120	27.181	0.000	23.540	13.591	2.598	-4.500	0.000
135	26.255	2.403	21.536	15.209	2.889	-4.139	-0.029
150	23.540	4.642	18.065	15.790	2.994	-3.514	-0.056
180	13.591	8.040	7.750	13.758	2.628	-1.657	-0.097
210	0.000	9.284	-4.642	8.040	1.599	0.573	-0.113
225	7.035	8.968	-10.576	4.249	0.916	1.641	-0.109
240	13.591	8.040	-15.790	0.168	0.182	2.580	-0.097
270	23.540	4.642	-22.707	-7.750	-1.243	3.825	-0.056
300	27.181	0.000	-23.540	-13.591	-2.295	3.975	0.000
315	26.255	2.403	-21.536	-15.209	-2.586	3.614	0.029
330	23.540	4.642	-18.065	-15.790	-2.691	2.989	0.056

1 Bay Dipole ANT400D - Elevation 180 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	8.960	4.275	-5.622	-8.182	-1.425	0.930	0.030
30	0.000	4.936	2.468	-4.275	-0.722	-0.526	0.035
45	4.638	4.768	6.401	-1.810	-0.279	-1.234	0.034
60	8.960	4.275	9.897	0.778	0.187	-1.864	0.030
90	15.520	2.468	14.674	5.622	1.059	-2.723	0.018
120	17.920	0.000	15.520	8.960	1.660	-2.876	0.000
135	17.310	1.278	14.352	9.761	1.804	-2.665	-0.009
150	15.520	2.468	12.206	9.897	1.829	-2.279	-0.018
180	8.960	4.275	5.622	8.182	1.520	-1.094	-0.030
210	0.000	4.936	-2.468	4.275	0.817	0.362	-0.035
225	4.638	4.768	-6.401	1.810	0.373	1.070	-0.034
240	8.960	4.275	-9.897	-0.778	-0.093	1.700	-0.030
270	15.520	2.468	-14.674	-5.622	-0.965	2.559	-0.018
300	17.920	0.000	-15.520	-8.960	-1.566	2.712	0.000
315	17.310	1.278	-14.352	-9.761	-1.710	2.501	0.009
330	15.520	2.468	-12.206	-9.897	-1.734	2.115	0.018

2" Dia 10' Omni - Elevation 181 - From Leg B

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	9.548	16.538	0.000	-19.097	-3.424	-0.057	0.109
30	0.000	19.097	9.548	-16.538	-2.961	-1.785	0.126
45	4.943	18.446	13.503	-13.503	-2.411	-2.501	0.121
60	9.548	16.538	16.538	-9.548	-1.695	-3.050	0.109
90	16.538	9.548	19.097	0.000	0.033	-3.513	0.063
120	19.097	0.000	16.538	9.548	1.761	-3.050	0.000
135	18.446	4.943	13.503	13.503	2.477	-2.501	-0.032
150	16.538	9.548	9.548	16.538	3.026	-1.785	-0.063
180	9.548	16.538	0.000	19.097	3.489	-0.057	-0.109
210	0.000	19.097	-9.548	16.538	3.026	1.671	-0.126
225	4.943	18.446	-13.503	13.503	2.477	2.387	-0.121
240	9.548	16.538	-16.538	9.548	1.761	2.937	-0.109
270	16.538	9.548	-19.097	0.000	0.033	3.400	-0.063
300	19.097	0.000	-16.538	-9.548	-1.695	2.937	0.000
315	18.446	4.943	-13.503	-13.503	-2.411	2.387	0.032

2" Dia 10' Omni - Elevation 181 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	16.538	9.548	-9.548	-16.538	-2.961	1.671	0.063

2" Dia 10' Omni - Elevation 181 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	9.548	16.538	0.000	-19.097	-3.424	0.057	-0.109
30	16.538	9.548	9.548	-16.538	-2.961	-1.671	-0.063
45	18.446	4.943	13.503	-13.503	-2.411	-2.387	-0.032
60	19.097	0.000	16.538	-9.548	-1.695	-2.937	0.000
90	16.538	9.548	19.097	0.000	0.033	-3.400	0.063
120	9.548	16.538	16.538	9.548	1.761	-2.937	0.109
135	4.943	18.446	13.503	13.503	2.477	-2.387	0.121
150	0.000	19.097	9.548	16.538	3.026	-1.671	0.126
180	9.548	16.538	0.000	19.097	3.489	0.057	0.109
210	16.538	9.548	-9.548	16.538	3.026	1.785	0.063
225	18.446	4.943	-13.503	13.503	2.477	2.501	0.032
240	19.097	0.000	-16.538	9.548	1.761	3.050	0.000
270	16.538	9.548	-19.097	0.000	0.033	3.513	-0.063
300	9.548	16.538	-16.538	-9.548	-1.695	3.050	-0.109
315	4.943	18.446	-13.503	-13.503	-2.411	2.501	-0.121
330	0.000	19.097	-9.548	-16.538	-2.961	1.785	-0.126

10' - 2 Bay Dipole - Elevation 181 - From Leg C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	6.724	11.646	0.000	-13.447	-2.401	0.057	-0.077
30	11.646	6.724	6.724	-11.646	-2.075	-1.160	-0.044
45	12.989	3.480	9.509	-9.509	-1.688	-1.664	-0.023
60	13.447	0.000	11.646	-6.724	-1.184	-2.051	0.000
90	11.646	6.724	13.447	0.000	0.033	-2.377	0.044
120	6.724	11.646	11.646	6.724	1.250	-2.051	0.077
135	3.480	12.989	9.509	9.509	1.754	-1.664	0.085
150	0.000	13.447	6.724	11.646	2.141	-1.160	0.088
180	6.724	11.646	0.000	13.447	2.467	0.057	0.077
210	11.646	6.724	-6.724	11.646	2.141	1.274	0.044
225	12.989	3.480	-9.509	9.509	1.754	1.778	0.023
240	13.447	0.000	-11.646	6.724	1.250	2.165	0.000
270	11.646	6.724	-13.447	0.000	0.033	2.491	-0.044
300	6.724	11.646	-11.646	-6.724	-1.184	2.165	-0.077
315	3.480	12.989	-9.509	-9.509	-1.688	1.778	-0.085
330	0.000	13.447	-6.724	-11.646	-2.075	1.274	-0.088

20' 4-Bay Dipole - Elevation 181 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	38.194	0.000	0.000	-38.194	-7.275	0.000	0.000
30	33.077	19.097	19.097	-33.077	-6.348	-3.457	-0.126
45	27.007	27.007	27.007	-27.007	-5.250	-4.888	-0.178
60	19.097	33.077	33.077	-19.097	-3.818	-5.987	-0.217
90	0.000	38.194	38.194	0.000	-0.362	-6.913	-0.251
120	19.097	33.077	33.077	19.097	3.095	-5.987	-0.217

20' 4-Bay Dipole - Elevation 181 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
135	27.007	27.007	27.007	27.007	4.527	-4.888	-0.178
150	33.077	19.097	19.097	33.077	5.625	-3.457	-0.126
180	38.194	0.000	0.000	38.194	6.552	0.000	0.000
210	33.077	19.097	-19.097	33.077	5.625	3.457	0.126
225	27.007	27.007	-27.007	27.007	4.527	4.888	0.178
240	19.097	33.077	-33.077	19.097	3.095	5.987	0.217
270	0.000	38.194	-38.194	0.000	-0.362	6.913	0.251
300	19.097	33.077	-33.077	-19.097	-3.818	5.987	0.217
315	27.007	27.007	-27.007	-27.007	-5.250	4.888	0.178
330	33.077	19.097	-19.097	-33.077	-6.348	3.457	0.126

Lightning Rod 2"x15' - Elevation 181 - None C							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	28.645	0.000	0.000	-28.645	-5.185	0.000	0.000
30	28.645	0.000	14.323	-24.808	-4.490	-2.592	0.000
45	28.645	0.000	20.255	-20.255	-3.666	-3.666	0.000
60	28.645	0.000	24.808	-14.323	-2.592	-4.490	0.000
90	28.645	0.000	28.645	0.000	0.000	-5.185	0.000
120	28.645	0.000	24.808	14.323	2.592	-4.490	0.000
135	28.645	0.000	20.255	20.255	3.666	-3.666	0.000
150	28.645	0.000	14.323	24.808	4.490	-2.592	0.000
180	28.645	0.000	0.000	28.645	5.185	0.000	0.000
210	28.645	0.000	-14.323	24.808	4.490	2.592	0.000
225	28.645	0.000	-20.255	20.255	3.666	3.666	0.000
240	28.645	0.000	-24.808	14.323	2.592	4.490	0.000
270	28.645	0.000	-28.645	0.000	0.000	5.185	0.000
300	28.645	0.000	-24.808	-14.323	-2.592	4.490	0.000
315	28.645	0.000	-20.255	-20.255	-3.666	3.666	0.000
330	28.645	0.000	-14.323	-24.808	-4.490	2.592	0.000

3" Dia 20' Omni - Elevation 182.5 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	38.260	0.000	0.000	-38.260	-7.643	0.000	0.000
30	33.134	19.130	19.130	-33.134	-6.707	-3.491	-0.230
45	27.054	27.054	27.054	-27.054	-5.598	-4.937	-0.325
60	19.130	33.134	33.134	-19.130	-4.151	-6.047	-0.398
90	0.000	38.260	38.260	0.000	-0.660	-6.982	-0.459
120	19.130	33.134	33.134	19.130	2.831	-6.047	-0.398
135	27.054	27.054	27.054	27.054	4.277	-4.937	-0.325
150	33.134	19.130	19.130	33.134	5.387	-3.491	-0.230
180	38.260	0.000	0.000	38.260	6.322	0.000	0.000
210	33.134	19.130	-19.130	33.134	5.387	3.491	0.230
225	27.054	27.054	-27.054	27.054	4.277	4.937	0.325
240	19.130	33.134	-33.134	19.130	2.831	6.047	0.398
270	0.000	38.260	-38.260	0.000	-0.660	6.982	0.459
300	19.130	33.134	-33.134	-19.130	-4.151	6.047	0.398
315	27.054	27.054	-27.054	-27.054	-5.598	4.937	0.325
330	33.134	19.130	-19.130	-33.134	-6.707	3.491	0.230

1" Dia 8' Omni - Elevation 182 - From Leg A

Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	19.119	0.000	0.000	-19.119	-3.520	0.000	0.000
30	16.558	9.559	9.559	-16.558	-3.054	-1.740	-0.077
45	13.519	13.519	13.519	-13.519	-2.501	-2.460	-0.109
60	9.559	16.558	16.558	-9.559	-1.780	-3.013	-0.133
90	0.000	19.119	19.119	0.000	-0.040	-3.480	-0.153
120	9.559	16.558	16.558	9.559	1.700	-3.013	-0.133
135	13.519	13.519	13.519	13.519	2.420	-2.460	-0.109
150	16.558	9.559	9.559	16.558	2.973	-1.740	-0.077
180	19.119	0.000	0.000	19.119	3.440	0.000	0.000
210	16.558	9.559	-9.559	16.558	2.973	1.740	0.077
225	13.519	13.519	-13.519	13.519	2.420	2.460	0.109
240	9.559	16.558	-16.558	9.559	1.700	3.013	0.133
270	0.000	19.119	-19.119	0.000	-0.040	3.480	0.153
300	9.559	16.558	-16.558	-9.559	-1.780	3.013	0.133
315	13.519	13.519	-13.519	-13.519	-2.501	2.460	0.109
330	16.558	9.559	-9.559	-16.558	-3.054	1.740	0.077

6' Side-Arm(1) - Elevation 182.5 - From Leg A							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	71.693	71.693	0.000	-101.389	-19.344	0.000	0.000
30	26.241	97.934	50.695	-87.806	-16.865	-9.252	-0.304
45	0.000	101.389	71.693	-71.693	-13.924	-13.084	-0.430
60	26.241	97.934	87.806	-50.695	-10.092	-16.025	-0.527
90	71.693	71.693	101.389	0.000	-0.840	-18.504	-0.609
120	97.934	26.241	87.806	50.695	8.411	-16.025	-0.527
135	101.389	0.000	71.693	71.693	12.243	-13.084	-0.430
150	97.934	26.241	50.695	87.806	15.184	-9.252	-0.304
180	71.693	71.693	0.000	101.389	17.663	0.000	0.000
210	26.241	97.934	-50.695	87.806	15.184	9.252	0.304
225	0.000	101.389	-71.693	71.693	12.243	13.084	0.430
240	26.241	97.934	-87.806	50.695	8.411	16.025	0.527
270	71.693	71.693	-101.389	0.000	-0.840	18.504	0.609
300	97.934	26.241	-87.806	-50.695	-10.092	16.025	0.527
315	101.389	0.000	-71.693	-71.693	-13.924	13.084	0.430
330	97.934	26.241	-50.695	-87.806	-16.865	9.252	0.304

6' Side-Arm(1) - Elevation 182.5 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	97.934	26.241	0.000	-101.389	-18.083	-0.728	0.527
30	71.693	71.693	50.695	-87.806	-15.604	-9.980	0.609
45	50.695	87.806	71.693	-71.693	-12.664	-13.812	0.588
60	26.241	97.934	87.806	-50.695	-8.832	-16.752	0.527
90	26.241	97.934	101.389	0.000	0.420	-19.231	0.304
120	71.693	71.693	87.806	50.695	9.672	-16.752	0.000
135	87.806	50.695	71.693	71.693	13.504	-13.812	-0.158
150	97.934	26.241	50.695	87.806	16.445	-9.980	-0.304
180	97.934	26.241	0.000	101.389	18.924	-0.728	-0.527
210	71.693	71.693	-50.695	87.806	16.445	8.524	-0.609
225	50.695	87.806	-71.693	71.693	13.504	12.356	-0.588
240	26.241	97.934	-87.806	50.695	9.672	15.297	-0.527
270	26.241	97.934	-101.389	0.000	0.420	17.776	-0.304
300	71.693	71.693	-87.806	-50.695	-8.832	15.297	0.000
315	87.806	50.695	-71.693	-71.693	-12.664	12.356	0.158

6' Side-Arm(1) - Elevation 182.5 - From Leg B							
Wind Azimuth °	F_a lb	F_s lb	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	97.934	26.241	-50.695	-87.806	-15.604	8.524	0.304

Discrete Appurtenance Totals - Service

Wind Azimuth °	V_x lb	V_z lb	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	29.273	-3360.955	-477.810	-3.827	0.635
30	1715.967	-2925.309	-415.220	-246.053	1.300
45	2411.591	-2397.254	-339.532	-345.999	1.509
60	2942.869	-1705.829	-240.478	-422.372	1.616
90	3381.232	-29.273	-0.405	-485.538	1.499
120	2913.596	1655.126	240.672	-418.627	0.980
135	2370.193	2355.855	340.917	-340.704	0.611
150	1665.265	2896.036	418.156	-239.567	0.199
180	-29.273	3360.955	484.490	3.662	-0.635
210	-1715.967	2925.309	421.900	245.888	-1.300
225	-2411.591	2397.254	346.212	345.834	-1.509
240	-2942.869	1705.829	247.158	422.207	-1.616
270	-3381.232	29.273	7.085	485.373	-1.499
300	-2913.596	-1655.126	-233.992	418.462	-0.980
315	-2370.193	-2355.855	-334.237	340.539	-0.611
330	-1665.265	-2896.036	-411.476	239.402	-0.199

Dish Pressures - No Ice

Elevation ft	Dish Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	K_z	A_A ft^2	q_z ksf
176.000	6' w/Radome	240.0000	380.000	-5.893	3.402	1.426	28.274	0.039
174.000	6' w/Radome	0.0000	380.000	0.000	-6.897	1.422	28.274	0.039
170.000	Andrew 6' w/Radome	240.0000	380.000	-6.133	3.541	1.415	28.274	0.039
109.250	4' Paraflector	120.0000	34.000	8.563	4.944	1.289	16.000	0.036
157.000	4' Paraflector	120.0000	34.000	6.653	3.841	1.392	16.000	0.038
		Sum Weight:	1208.000					

Dish Pressures - With Ice

Elevation ft	Dish Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	K_z	A_A ft^2	q_z ksf	t_z in
176.000	6' w/Radome	240.0000	628.267	-5.893	3.402	1.426	31.079	0.008	1.773
174.000	6' w/Radome	0.0000	627.984	0.000	-6.897	1.422	31.076	0.008	1.771
170.000	Andrew 6' w/Radome	240.0000	627.407	-6.133	3.541	1.415	31.070	0.008	1.767
109.250	4' Paraflector	120.0000	81.341	8.563	4.944	1.289	18.277	0.007	1.691
157.000	4' Paraflector	120.0000	83.089	6.653	3.841	1.392	18.362	0.008	1.753
		Sum	2048.089						

Elevation ft	Dish Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	K_z	A_A ft^2	q_z ksf	t_z in
		Weight:							

Dish Pressures - Service

Elevation ft	Dish Description	Aiming Azimuth °	Weight lb	$Offset_x$ ft	$Offset_z$ ft	K_z	A_A ft^2	q_z ksf
176.000	6' w/Radome	240.0000	380.000	-5.893	3.402	1.426	28.274	0.011
174.000	6' w/Radome	0.0000	380.000	0.000	-6.897	1.422	28.274	0.011
170.000	Andrew 6' w/Radome	240.0000	380.000	-6.133	3.541	1.415	28.274	0.011
109.250	4' Paraflector	120.0000	34.000	8.563	4.944	1.289	16.000	0.010
157.000	4' Paraflector	120.0000	34.000	6.653	3.841	1.392	16.000	0.011
		Sum Weight:	1208.000					

Force Totals

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Overturning Moments, M_x kip-ft	Sum of Overturning Moments, M_z kip-ft	Sum of Torques kip-ft
Leg Weight	13087.082					
Bracing Weight	26362.821					
Total Member Self-Weight	39449.903			3.415	10.863	
Total Weight	50640.254			3.415	10.863	
Wind 0 deg - No Ice		103.097	-63402.858	-6411.625	-2.325	-21.782
Wind 30 deg - No Ice		30206.027	-52153.432	-5317.151	-3076.163	-12.155
Wind 45 deg - No Ice		42282.476	-42231.980	-4311.870	-4315.145	-6.443
Wind 60 deg - No Ice		51279.742	-29630.190	-3029.530	-5242.296	-0.383
Wind 90 deg - No Ice		60233.485	-103.097	-9.773	-6140.347	11.254
Wind 120 deg - No Ice		54918.782	31612.145	3199.513	-5551.263	20.848
Wind 135 deg - No Ice		44351.870	44301.374	4490.752	-4487.197	23.321
Wind 150 deg - No Ice		30027.458	52050.335	5310.792	-3053.321	23.409
Wind 180 deg - No Ice		-103.097	59081.811	6046.463	24.050	20.117
Wind 210 deg - No Ice		-30206.027	52153.432	5323.980	3097.888	12.155
Wind 225 deg - No Ice		-42282.476	42231.980	4318.700	4336.870	6.443
Wind 240 deg - No Ice		-55021.879	31790.713	3222.355	5586.176	0.935
Wind 270 deg - No Ice		-60233.485	103.097	16.602	6162.072	-11.254
Wind 300 deg - No Ice		-51176.646	-29451.621	-3006.688	5250.834	-19.734
Wind 315 deg - No Ice		-44351.870	-44301.374	-4483.923	4508.922	-23.321
Wind 330 deg - No Ice		-30027.458	-52050.335	-5303.963	3075.047	-23.409
Member Ice	74528.786					
Total Weight Ice	209014.040			89.652	212.235	
Wind 0 deg - Ice		13.755	-30128.269	-2956.709	210.686	-13.737
Wind 30 deg - Ice		14809.431	-25627.111	-2509.550	-1290.596	-5.742
Wind 45 deg - Ice		20872.399	-20864.381	-2027.635	-1906.872	-1.180
Wind 60 deg - Ice		25479.727	-14713.000	-1404.233	-2375.930	3.428
Wind 90 deg - Ice		29595.037	-13.755	88.103	-2790.745	11.659
Wind 120 deg - Ice		26094.788	15052.222	1611.492	-2427.446	17.118
Wind 135 deg - Ice		21225.181	21217.163	2236.161	-1936.093	18.004
Wind 150 deg - Ice		14785.606	25613.356	2687.306	-1287.913	17.400
Wind 180 deg - Ice		-13.755	29402.174	3074.740	213.784	13.235
Wind 210 deg - Ice		-14809.431	25627.111	2688.855	1715.067	5.742
Wind 225 deg - Ice		-20872.399	20864.381	2206.939	2331.342	1.180
Wind 240 deg - Ice		-26108.544	15076.047	1614.175	2853.465	-3.381

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Overturning Moments, M_x kip-ft	Sum of Overturning Moments, M_z kip-ft	Sum of Torques kip-ft
Wind 270 deg - Ice		-29595.037	13.755	91.201	3215.215	-11.659
Wind 300 deg - Ice		-25465.972	-14689.175	-1401.550	2798.852	-16.663
Wind 315 deg - Ice		-21225.181	-21217.163	-2056.856	2360.564	-18.004
Wind 330 deg - Ice		-14785.606	-25613.356	-2508.001	1712.384	-17.400
Total Weight	50640.254			3.415	10.863	
Wind 0 deg - Service		29.273	-18002.586	-1817.845	0.212	-6.185
Wind 30 deg - Service		8576.689	-14808.428	-1507.080	-872.573	-3.451
Wind 45 deg - Service		12005.672	-11991.334	-1221.641	-1224.369	-1.829
Wind 60 deg - Service		14560.353	-8413.186	-857.534	-1487.624	-0.109
Wind 90 deg - Service		17102.675	-29.273	-0.105	-1742.616	3.195
Wind 120 deg - Service		15593.620	8975.942	911.139	-1575.352	5.920
Wind 135 deg - Service		12593.255	12578.917	1277.772	-1273.221	6.622
Wind 150 deg - Service		8525.986	14779.155	1510.614	-866.087	6.647
Wind 180 deg - Service		-29.273	16775.669	1719.500	7.701	5.712
Wind 210 deg - Service		-8576.689	14808.428	1514.359	880.485	3.451
Wind 225 deg - Service		-12005.672	11991.334	1228.920	1232.281	1.829
Wind 240 deg - Service		-15622.894	9026.644	917.624	1587.009	0.265
Wind 270 deg - Service		-17102.675	29.273	7.384	1750.529	-3.195
Wind 300 deg - Service		-14531.079	-8362.483	-851.048	1491.792	-5.603
Wind 315 deg - Service		-12593.255	-12578.917	-1270.494	1281.134	-6.622
Wind 330 deg - Service		-8525.986	-14779.155	-1503.336	874.000	-6.647

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 45 deg - No Ice
7	0.9 Dead+1.6 Wind 45 deg - No Ice
8	1.2 Dead+1.6 Wind 60 deg - No Ice
9	0.9 Dead+1.6 Wind 60 deg - No Ice
10	1.2 Dead+1.6 Wind 90 deg - No Ice
11	0.9 Dead+1.6 Wind 90 deg - No Ice
12	1.2 Dead+1.6 Wind 120 deg - No Ice
13	0.9 Dead+1.6 Wind 120 deg - No Ice
14	1.2 Dead+1.6 Wind 135 deg - No Ice
15	0.9 Dead+1.6 Wind 135 deg - No Ice
16	1.2 Dead+1.6 Wind 150 deg - No Ice
17	0.9 Dead+1.6 Wind 150 deg - No Ice
18	1.2 Dead+1.6 Wind 180 deg - No Ice
19	0.9 Dead+1.6 Wind 180 deg - No Ice
20	1.2 Dead+1.6 Wind 210 deg - No Ice
21	0.9 Dead+1.6 Wind 210 deg - No Ice
22	1.2 Dead+1.6 Wind 225 deg - No Ice
23	0.9 Dead+1.6 Wind 225 deg - No Ice
24	1.2 Dead+1.6 Wind 240 deg - No Ice
25	0.9 Dead+1.6 Wind 240 deg - No Ice
26	1.2 Dead+1.6 Wind 270 deg - No Ice
27	0.9 Dead+1.6 Wind 270 deg - No Ice
28	1.2 Dead+1.6 Wind 300 deg - No Ice
29	0.9 Dead+1.6 Wind 300 deg - No Ice
30	1.2 Dead+1.6 Wind 315 deg - No Ice

Comb. No.	Description
31	0.9 Dead+1.6 Wind 315 deg - No Ice
32	1.2 Dead+1.6 Wind 330 deg - No Ice
33	0.9 Dead+1.6 Wind 330 deg - No Ice
34	1.2 Dead+1.0 Ice
35	1.2 Dead+1.0 Wind 0 deg+1.0 Ice
36	1.2 Dead+1.0 Wind 30 deg+1.0 Ice
37	1.2 Dead+1.0 Wind 45 deg+1.0 Ice
38	1.2 Dead+1.0 Wind 60 deg+1.0 Ice
39	1.2 Dead+1.0 Wind 90 deg+1.0 Ice
40	1.2 Dead+1.0 Wind 120 deg+1.0 Ice
41	1.2 Dead+1.0 Wind 135 deg+1.0 Ice
42	1.2 Dead+1.0 Wind 150 deg+1.0 Ice
43	1.2 Dead+1.0 Wind 180 deg+1.0 Ice
44	1.2 Dead+1.0 Wind 210 deg+1.0 Ice
45	1.2 Dead+1.0 Wind 225 deg+1.0 Ice
46	1.2 Dead+1.0 Wind 240 deg+1.0 Ice
47	1.2 Dead+1.0 Wind 270 deg+1.0 Ice
48	1.2 Dead+1.0 Wind 300 deg+1.0 Ice
49	1.2 Dead+1.0 Wind 315 deg+1.0 Ice
50	1.2 Dead+1.0 Wind 330 deg+1.0 Ice
51	Dead+Wind 0 deg - Service
52	Dead+Wind 30 deg - Service
53	Dead+Wind 45 deg - Service
54	Dead+Wind 60 deg - Service
55	Dead+Wind 90 deg - Service
56	Dead+Wind 120 deg - Service
57	Dead+Wind 135 deg - Service
58	Dead+Wind 150 deg - Service
59	Dead+Wind 180 deg - Service
60	Dead+Wind 210 deg - Service
61	Dead+Wind 225 deg - Service
62	Dead+Wind 240 deg - Service
63	Dead+Wind 270 deg - Service
64	Dead+Wind 300 deg - Service
65	Dead+Wind 315 deg - Service
66	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	180 - 175	Leg	Max Tension	29	225.029	-0.596	0.210
			Max. Compression	46	-1802.307	0.004	-0.027
			Max. Mx	8	-160.199	-0.614	0.180
			Max. My	32	-651.761	-0.020	0.921
			Max. Vy	28	-925.706	0.000	0.000
			Max. Vx	10	1188.796	0.000	0.000
		Diagonal	Max Tension	15	1579.010	0.000	0.000
			Max. Compression	14	-1698.938	0.000	0.000
			Max. Mx	34	-201.947	0.134	0.000
			Max. My	34	-204.229	0.000	-0.004
			Max. Vy	34	71.978	0.000	0.000
			Max. Vx	34	2.253	0.000	0.000
		Top Girt	Max Tension	29	1385.140	0.000	0.000
			Max. Compression	12	-1413.701	0.023	0.005
			Max. Mx	38	-305.736	0.082	0.020
			Max. My	48	-371.976	0.082	0.020
			Max. Vy	38	77.467	0.082	0.020

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	48	5.123	0.000	0.000
T2	175 - 166.667	Leg	Max Tension	29	1509.160	-0.596	0.210
			Max. Compression	46	-4939.738	0.149	0.038
			Max. Mx	28	1314.449	-0.881	0.227
			Max. My	16	-1427.566	-0.023	1.169
			Max. Vy	18	-662.519	-0.599	-0.391
			Max. Vx	26	-960.766	-0.010	-0.559
		Diagonal	Max Tension	21	5003.594	0.000	0.000
			Max. Compression	20	-5109.917	0.000	0.000
			Max. Mx	34	-129.018	0.193	0.000
			Max. My	34	-101.073	0.000	-0.008
			Max. Vy	34	76.055	0.000	0.000
			Max. Vx	34	3.063	0.000	0.000
		Horizontal	Max Tension	6	3040.539	0.014	0.006
			Max. Compression	25	-3003.160	0.000	0.000
			Max. Mx	48	-100.376	0.075	0.024
			Max. My	48	75.148	0.075	0.024
			Max. Vy	48	66.449	0.075	0.024
			Max. Vx	46	-5.502	0.000	0.000
T3	166.667 - 158.333	Leg	Max Tension	29	7079.475	-0.877	0.227
			Max. Compression	24	-9674.000	0.781	0.328
			Max. Mx	28	6865.829	-0.881	0.227
			Max. My	32	-1816.676	-0.024	1.124
			Max. Vy	28	-870.740	-0.881	0.227
			Max. Vx	4	-1049.227	-0.023	-0.828
		Diagonal	Max Tension	5	7389.170	0.000	0.000
			Max. Compression	4	-7501.250	0.000	0.000
			Max. Mx	34	-159.922	0.207	0.000
			Max. My	34	-100.615	0.000	-0.008
			Max. Vy	34	-80.011	0.000	0.000
			Max. Vx	34	3.107	0.000	0.000
		Top Girt	Max Tension	6	4496.030	0.016	0.006
			Max. Compression	23	-4468.059	0.000	0.000
			Max. Mx	48	-175.975	0.086	0.026
			Max. My	46	461.647	0.082	0.026
			Max. Vy	48	-70.352	0.086	0.026
			Max. Vx	46	5.678	0.000	0.000
T4	158.333 - 150	Leg	Max Tension	29	15566.182	-0.730	0.118
			Max. Compression	12	-19759.336	0.320	-0.135
			Max. Mx	25	-18633.183	0.782	0.328
			Max. My	20	-1850.003	-0.037	0.980
			Max. Vy	25	644.532	0.782	0.328
			Max. Vx	22	738.947	-0.223	0.975
		Diagonal	Max Tension	11	8756.089	0.000	0.000
			Max. Compression	10	-8874.811	0.000	0.000
			Max. Mx	34	-141.530	0.222	0.000
			Max. My	34	-215.201	0.000	0.008
			Max. Vy	34	-83.905	0.000	0.000
			Max. Vx	34	-3.151	0.000	0.000
		Top Girt	Max Tension	10	5451.485	0.000	0.000
			Max. Compression	27	-5406.504	0.014	0.005
			Max. Mx	43	-231.955	0.097	0.028
			Max. My	48	-107.613	0.096	0.028
			Max. Vy	43	74.179	0.097	0.028
			Max. Vx	46	-5.854	0.000	0.000
T5	150 - 125	Leg	Max Tension	29	54444.126	0.087	0.056
			Max. Compression	24	-64977.177	-0.861	0.009
			Max. Mx	24	-31242.672	-1.299	-0.035
			Max. My	16	-3355.778	-0.127	-1.254
			Max. Vy	8	1194.150	-0.347	-0.021

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	20	-1584.716	-0.121	1.220
		Diagonal	Max Tension	11	15578.382	0.000	0.000
			Max. Compression	10	-15839.808	0.000	0.000
			Max. Mx	12	-663.168	-0.068	0.005
			Max. My	46	-608.718	-0.067	-0.015
			Max. Vy	46	67.546	-0.067	-0.015
			Max. Vx	46	-4.670	0.000	0.000
		Horizontal	Max Tension	10	10498.208	0.000	0.000
			Max. Compression	27	-10444.245	0.029	-0.000
			Max. Mx	43	-312.680	0.161	0.002
			Max. My	24	1330.287	0.010	-0.020
			Max. Vy	43	99.041	0.161	0.002
			Max. Vx	24	-3.215	0.012	-0.019
		Redund Horz 1 Bracing	Max Tension	24	1126.859	0.000	0.000
			Max. Compression	24	-1126.859	0.000	0.000
			Max. Mx	34	292.424	-0.026	0.000
			Max. My	34	405.870	0.000	0.001
			Max. Vy	34	28.850	0.000	0.000
			Max. Vx	34	0.666	0.000	0.000
		Redund Diag 1 Bracing	Max Tension	24	898.771	0.000	0.000
			Max. Compression	24	-898.771	0.000	0.000
			Max. Mx	34	214.860	-0.037	0.000
			Max. My	34	305.210	0.000	-0.001
			Max. Vy	34	-27.508	0.000	0.000
			Max. Vx	34	1.002	0.000	0.000
		Inner Bracing	Max Tension	25	4.218	0.000	0.000
			Max. Compression	38	-11.440	0.000	0.000
			Max. Mx	34	-9.614	-0.112	0.000
			Max. Vy	34	62.624	0.000	0.000
T6	125 - 100	Leg	Max Tension	29	113847.669	0.934	0.062
			Max. Compression	24	-132027.232	-1.417	0.018
			Max. Mx	24	-131916.182	1.987	-0.025
			Max. My	16	-7538.721	-0.188	-1.513
			Max. Vy	24	877.452	1.987	-0.025
			Max. Vx	16	-1108.060	-0.156	-1.073
		Diagonal	Max Tension	11	19408.129	-0.042	-0.004
			Max. Compression	10	-19833.374	0.000	0.000
			Max. Mx	26	9432.479	-0.111	-0.005
			Max. My	46	-701.688	-0.091	-0.018
			Max. Vy	47	82.820	-0.091	-0.018
			Max. Vx	46	-5.256	0.000	0.000
		Horizontal	Max Tension	10	13906.178	0.000	0.000
			Max. Compression	11	-13814.768	0.000	0.000
			Max. Mx	48	-422.224	0.228	0.004
			Max. My	24	1178.035	0.023	-0.033
			Max. Vy	48	-124.881	0.228	0.004
			Max. Vx	24	-4.770	0.022	-0.031
		Redund Horz 1 Bracing	Max Tension	24	2289.741	0.000	0.000
			Max. Compression	24	-2289.741	0.000	0.000
			Max. Mx	34	454.666	-0.033	0.000
			Max. My	34	613.314	0.000	0.001
			Max. Vy	34	32.114	0.000	0.000
			Max. Vx	34	-0.742	0.000	0.000
		Redund Diag 1 Bracing	Max Tension	24	1678.051	0.000	0.000
			Max. Compression	24	-1678.051	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	34	318.414	-0.044	0.000
			Max. My	34	429.519	0.000	-0.001
			Max. Vy	34	30.803	0.000	0.000
			Max. Vx	34	1.039	0.000	0.000
		Inner Bracing	Max Tension	25	6.867	0.000	0.000
			Max. Compression	38	-13.870	0.000	0.000
			Max. Mx	34	-11.140	-0.142	0.000
			Max. Vy	34	69.758	0.000	0.000
T7	100 - 91.6667	Leg	Max Tension	9	135752.530	1.047	-0.019
			Max. Compression	24	-156572.577	-1.456	0.013
			Max. Mx	24	-156438.972	2.036	-0.019
			Max. My	32	-8844.077	-0.195	1.532
			Max. Vy	24	896.976	2.036	-0.019
			Max. Vx	32	-655.769	-0.195	1.532
		Diagonal	Max Tension	11	20116.654	-0.052	-0.004
			Max. Compression	10	-20613.090	0.000	0.000
			Max. Mx	26	9848.857	-0.109	-0.006
			Max. My	48	-998.894	-0.057	-0.019
			Max. Vy	47	-85.559	-0.099	-0.019
			Max. Vx	46	5.294	0.000	0.000
		Horizontal	Max Tension	10	14707.551	0.000	0.000
			Max. Compression	11	-14608.448	0.000	0.000
			Max. Mx	48	-398.541	-0.335	-0.009
			Max. My	24	650.402	-0.049	0.060
			Max. Vy	48	-176.888	-0.335	-0.009
			Max. Vx	24	8.260	-0.049	0.060
		Redund Horz 1 Bracing	Max Tension	24	2715.271	0.000	0.000
			Max. Compression	24	-2715.271	0.000	0.000
			Max. Mx	34	505.722	-0.035	0.000
			Max. My	34	680.946	0.000	0.001
			Max. Vy	34	32.809	0.000	0.000
			Max. Vx	34	-0.758	0.000	0.000
		Redund Diag 1 Bracing	Max Tension	24	1863.865	0.000	0.000
			Max. Compression	24	-1863.865	0.000	0.000
			Max. Mx	34	352.397	-0.046	0.000
			Max. My	34	467.427	0.000	-0.002
			Max. Vy	34	-31.522	0.000	0.000
			Max. Vx	34	1.040	0.000	0.000
		Inner Bracing	Max Tension	25	12.731	0.000	0.000
			Max. Compression	8	-18.881	0.000	0.000
			Max. Mx	34	-12.574	-0.152	0.000
			Max. Vy	34	71.308	0.000	0.000
T8	91.6667 - 83.3333	Leg	Max Tension	9	158140.679	1.092	-0.014
			Max. Compression	24	-181865.860	-1.356	0.010
			Max. Mx	24	-181765.320	1.926	-0.016
			Max. My	32	-9789.533	-0.197	1.802
			Max. Vy	24	-887.926	1.926	-0.016
			Max. Vx	32	-765.320	-0.197	1.802
		Diagonal	Max Tension	11	20785.754	-0.031	-0.004
			Max. Compression	10	-21295.697	0.000	0.000
			Max. Mx	46	-777.121	-0.105	-0.019
			Max. My	46	-348.428	-0.103	0.019
			Max. Vy	46	88.290	-0.105	-0.019
			Max. Vx	48	-5.365	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Horizontal	Max Tension	10	15522.597	0.000	0.000
			Max. Compression	11	-15373.638	0.000	0.000
			Max. Mx	48	-342.506	-0.347	-0.010
			Max. My	24	696.526	-0.067	0.062
			Max. Vy	48	181.192	-0.347	-0.010
			Max. Vx	24	-8.195	-0.067	0.062
		Redund Horz 1 Bracing	Max Tension	24	3153.661	0.000	0.000
			Max. Compression	24	-3153.661	0.000	0.000
			Max. Mx	34	563.188	-0.037	0.000
			Max. My	34	752.467	0.000	0.001
			Max. Vy	34	-33.740	0.000	0.000
			Max. Vx	34	-0.779	0.000	0.000
		Redund Diag 1 Bracing	Max Tension	24	2125.169	0.000	0.000
			Max. Compression	24	-2125.169	0.000	0.000
			Max. Mx	34	387.971	-0.048	0.000
			Max. My	34	379.517	0.000	0.002
			Max. Vy	34	-32.467	0.000	0.000
			Max. Vx	34	-1.050	0.000	0.000
		Inner Bracing	Max Tension	25	12.395	0.000	0.000
			Max. Compression	8	-18.684	0.000	0.000
			Max. Mx	34	-12.809	-0.162	0.000
			Max. Vy	34	73.355	0.000	0.000
T9	83.3333 - 75	Leg	Max Tension	9	180629.668	0.996	-0.012
			Max. Compression	24	-207485.406	-2.601	0.010
			Max. Mx	24	-207485.406	-2.601	0.010
			Max. My	32	-10827.479	-0.339	3.127
			Max. Vy	24	1276.212	2.320	-0.013
			Max. Vx	32	-1250.120	-0.339	3.127
		Diagonal	Max Tension	11	21673.208	-0.037	-0.005
			Max. Compression	10	-22233.729	0.000	0.000
			Max. Mx	46	-785.845	-0.111	-0.020
			Max. My	48	-1861.923	-0.076	-0.020
			Max. Vy	46	-90.834	-0.111	-0.020
			Max. Vx	46	5.432	0.000	0.000
		Horizontal	Max Tension	10	16462.120	0.000	0.000
			Max. Compression	11	-16287.146	0.000	0.000
			Max. Mx	48	-275.498	-0.370	-0.009
			Max. My	24	999.435	-0.071	0.063
			Max. Vy	48	186.440	-0.370	-0.009
			Max. Vx	24	-8.129	-0.071	0.063
		Redund Horz 1 Bracing	Max Tension	24	3597.943	0.000	0.000
			Max. Compression	24	-3597.943	0.000	0.000
			Max. Mx	34	636.937	-0.040	0.000
			Max. My	34	829.790	0.000	0.001
			Max. Vy	34	-34.613	0.000	0.000
			Max. Vx	34	-0.799	0.000	0.000
		Redund Diag 1 Bracing	Max Tension	24	2383.540	0.000	0.000
			Max. Compression	24	-2383.540	0.000	0.000
			Max. Mx	34	421.953	-0.051	0.000
			Max. My	34	549.714	0.000	-0.002
			Max. Vy	34	33.354	0.000	0.000
			Max. Vx	34	-1.059	0.000	0.000
		Inner Bracing	Max Tension	25	12.043	0.000	0.000
			Max. Compression	8	-18.445	0.000	0.000
			Max. Mx	34	-13.063	-0.173	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	34	75.280	0.000	0.000
T10	75 - 50	Leg	Max Tension	9	237219.910	4.669	-0.002
			Max. Compression	24	-272180.406	-6.511	-0.005
			Max. Mx	24	-271948.584	8.067	-0.007
			Max. My	32	-11891.640	-0.528	3.618
			Max. Vy	24	2434.722	8.067	-0.007
			Max. Vx	32	997.714	-0.528	3.618
		Diagonal	Max Tension	11	29676.728	-0.241	-0.011
			Max. Compression	10	-30401.476	0.000	0.000
			Max. Mx	6	19481.400	-0.345	-0.014
			Max. My	46	-419.175	-0.187	0.039
			Max. Vy	47	-125.250	-0.213	-0.039
			Max. Vx	48	-8.396	0.000	0.000
		Horizontal	Max Tension	10	18607.708	0.000	0.000
			Max. Compression	11	-18521.012	0.000	0.000
			Max. Mx	48	-710.216	0.414	0.010
			Max. My	24	1355.110	-0.016	-0.067
			Max. Vy	48	-174.477	0.414	0.010
			Max. Vx	24	-7.749	-0.019	-0.065
		Redund Horz 1 Bracing	Max Tension	24	4721.435	0.000	0.000
			Max. Compression	24	-4721.435	0.000	0.000
			Max. Mx	34	782.334	-0.054	0.000
			Max. My	34	1004.866	0.000	0.001
			Max. Vy	34	42.980	0.000	0.000
			Max. Vx	34	-0.993	0.000	0.000
		Redund Diag 1 Bracing	Max Tension	24	3828.245	0.000	0.000
			Max. Compression	24	-3828.245	0.000	0.000
			Max. Mx	34	614.249	-0.080	0.000
			Max. My	34	788.969	0.000	-0.003
			Max. Vy	34	40.831	0.000	0.000
			Max. Vx	34	1.559	0.000	0.000
		Inner Bracing	Max Tension	25	11.323	0.000	0.000
			Max. Compression	38	-20.991	0.000	0.000
			Max. Mx	34	-16.413	-0.215	0.000
			Max. Vy	34	85.983	0.000	0.000
T11	50 - 37.5	Leg	Max Tension	9	273130.362	5.309	0.002
			Max. Compression	24	-313282.383	-6.114	-0.008
			Max. Mx	24	-313206.495	8.147	-0.002
			Max. My	32	-14675.781	-0.560	4.451
			Max. Vy	24	-2440.109	8.147	-0.002
			Max. Vx	32	-1150.724	-0.560	4.451
		Diagonal	Max Tension	11	30265.970	-0.193	-0.011
			Max. Compression	10	-31009.910	0.000	0.000
			Max. Mx	26	13632.170	-0.298	-0.015
			Max. My	48	-2623.654	-0.101	-0.040
			Max. Vy	47	127.520	-0.218	-0.040
			Max. Vx	46	8.349	0.000	0.000
		Horizontal	Max Tension	10	19572.547	0.000	0.000
			Max. Compression	11	-19465.237	0.000	0.000
			Max. Mx	48	-645.755	0.423	0.010
			Max. My	24	1104.244	0.013	-0.067
			Max. Vy	48	-175.634	0.423	0.010
			Max. Vx	24	7.312	0.013	-0.067
		Redund Horz 1 Bracing	Max Tension	24	5433.968	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	24	-5433.968	0.000	0.000
			Max. Mx	34	840.543	-0.057	0.000
			Max. My	34	1106.090	0.000	0.001
			Max. Vy	34	43.454	0.000	0.000
			Max. Vx	34	-1.004	0.000	0.000
		Redund Diag 1 Bracing	Max Tension	24	4142.861	0.000	0.000
			Max. Compression	24	-4142.861	0.000	0.000
			Max. Mx	34	663.733	-0.083	0.000
			Max. My	34	843.284	0.000	-0.003
			Max. Vy	34	41.384	0.000	0.000
			Max. Vx	34	1.530	0.000	0.000
		Inner Bracing	Max Tension	25	9.796	0.000	0.000
			Max. Compression	38	-20.815	0.000	0.000
			Max. Mx	34	-16.430	-0.228	0.000
			Max. Vy	34	86.930	0.000	0.000
T12	37.5 - 25	Leg	Max Tension	9	308837.681	4.912	0.005
			Max. Compression	24	-354520.300	-7.376	-0.010
			Max. Mx	24	-354154.648	8.866	0.001
			Max. My	32	-15685.968	-0.560	4.451
			Max. Vy	24	2729.556	8.866	0.001
			Max. Vx	32	-1325.236	-0.604	4.159
		Diagonal	Max Tension	11	31172.829	-0.261	-0.012
			Max. Compression	10	-32078.648	0.000	0.000
			Max. Mx	6	20435.210	-0.351	-0.016
			Max. My	48	-2843.531	-0.104	-0.041
			Max. Vy	48	131.618	-0.239	-0.041
			Max. Vx	40	-8.321	0.000	0.000
		Top Girt	Max Tension	10	20662.966	0.000	0.000
			Max. Compression	11	-20543.007	0.000	0.000
			Max. Mx	48	-655.615	-0.715	-0.016
			Max. My	24	1217.394	-0.038	0.115
			Max. Vy	48	275.694	-0.715	-0.016
			Max. Vx	24	12.441	-0.038	0.115
		Redund Horz 1 Bracing	Max Tension	24	6148.955	0.000	0.000
			Max. Compression	24	-6148.955	0.000	0.000
			Max. Mx	34	960.422	-0.060	0.000
			Max. My	34	1211.701	0.000	0.001
			Max. Vy	34	43.952	0.000	0.000
			Max. Vx	34	-1.015	0.000	0.000
		Redund Diag 1 Bracing	Max Tension	24	4563.469	0.000	0.000
			Max. Compression	24	-4563.469	0.000	0.000
			Max. Mx	34	712.781	-0.086	0.000
			Max. My	34	899.268	0.000	-0.003
			Max. Vy	34	41.954	0.000	0.000
			Max. Vx	34	-1.507	0.000	0.000
		Inner Bracing	Max Tension	11	350.992	0.000	0.000
			Max. Compression	10	-363.953	0.000	0.000
			Max. Mx	34	-6.266	-0.242	0.000
			Max. Vy	34	87.927	0.000	0.000
T13	25 - 12.5	Leg	Max Tension	9	344848.397	6.002	0.008
			Max. Compression	24	-396472.107	-7.235	-0.011
			Max. Mx	24	-396150.545	9.705	0.004
			Max. My	32	-18134.072	-0.610	5.113
			Max. Vy	24	-2839.902	9.705	0.004

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	32	-1328.864	-0.610	5.113
		Diagonal	Max Tension	5	32000.963	-0.193	0.013
			Max. Compression	4	-32882.777	0.000	0.000
			Max. Mx	6	23190.203	-0.278	-0.017
			Max. My	46	-511.876	-0.208	0.041
			Max. Vy	47	-123.794	-0.225	-0.041
			Max. Vx	48	-7.939	0.000	0.000
		Horizontal	Max Tension	4	21711.319	0.173	-0.004
			Max. Compression	5	-21511.699	0.130	-0.003
			Max. Mx	48	-601.456	0.512	0.008
			Max. My	24	1179.972	0.037	-0.067
			Max. Vy	48	-193.326	0.512	0.008
			Max. Vx	24	7.091	0.037	-0.067
		Redund Horz 1 Bracing	Max Tension	24	6876.647	0.000	0.000
			Max. Compression	24	-6876.647	0.000	0.000
			Max. Mx	34	1012.372	-0.063	0.000
			Max. My	34	1318.748	0.000	0.001
			Max. Vy	34	43.611	0.000	0.000
			Max. Vx	34	-1.007	0.000	0.000
		Redund Diag 1 Bracing	Max Tension	24	4979.090	0.000	0.000
			Max. Compression	24	-4979.090	0.000	0.000
			Max. Mx	34	760.540	-0.108	0.000
			Max. My	34	954.850	0.000	-0.004
			Max. Vy	34	51.963	0.000	0.000
			Max. Vx	34	-1.817	0.000	0.000
		Inner Bracing	Max Tension	25	7.436	0.000	0.000
			Max. Compression	38	-20.918	0.000	0.000
			Max. Mx	34	-16.988	-0.312	0.000
			Max. Vy	34	108.678	0.000	0.000
T14	12.5 - 0	Leg	Max Tension	9	381779.109	5.857	0.008
			Max. Compression	24	-439662.250	0.000	-0.000
			Max. Mx	24	-439392.770	8.632	0.005
			Max. My	32	-19409.976	-0.610	5.113
			Max. Vy	24	-2615.558	8.632	0.005
			Max. Vx	32	1206.081	-0.610	5.113
		Diagonal	Max Tension	5	32110.655	-0.240	0.013
			Max. Compression	4	-33112.976	0.000	0.000
			Max. Mx	6	20994.564	-0.320	-0.018
			Max. My	38	-1662.290	-0.119	-0.039
			Max. Vy	48	121.602	-0.232	-0.039
			Max. Vx	40	-7.543	0.000	0.000
		Top Girt	Max Tension	4	22433.434	-0.375	0.009
			Max. Compression	5	-22299.281	-0.281	0.007
			Max. Mx	48	-890.674	-0.858	-0.012
			Max. My	24	1617.032	-0.098	0.118
			Max. Vy	48	300.618	-0.858	-0.012
			Max. Vx	24	12.509	-0.098	0.118
		Redund Horz 1 Bracing	Max Tension	24	7624.191	0.000	0.000
			Max. Compression	24	-7624.191	0.000	0.000
			Max. Mx	34	1144.123	-0.061	0.000
			Max. My	34	1410.497	0.000	0.001
			Max. Vy	34	-40.849	0.000	0.000
			Max. Vx	34	-0.943	0.000	0.000
		Redund Diag 1 Bracing	Max Tension	24	5396.574	0.000	0.000
			Max. Compression	24	-5396.574	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	34	809.836	-0.105	0.000
			Max. My	34	998.382	0.000	-0.004
			Max. Vy	34	49.403	0.000	0.000
			Max. Vx	34	1.685	0.000	0.000
		Inner Bracing	Max Tension	21	380.238	0.000	0.000
			Max. Compression	20	-396.223	0.000	0.000
			Max. Mx	34	-6.660	-0.309	0.000
			Max. Vy	34	-103.130	0.000	0.000

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Leg C	Max. Vert	24	482636.636	49918.013	-28868.287
	Max. H_x	24	482636.636	49918.013	-28868.287
	Max. H_z	5	-367016.176	-36048.133	27663.761
	Min. Vert	9	-419582.250	-44378.243	25642.989
	Min. H_x	9	-419582.250	-44378.243	25642.989
	Min. H_z	20	403542.412	38364.307	-29004.366
Leg B	Max. Vert	12	479905.788	-50178.642	-28063.147
	Max. H_x	29	-418676.319	44621.098	24913.651
	Max. H_z	31	-406854.836	42110.850	26562.910
	Min. Vert	29	-418676.319	44621.098	24913.651
	Min. H_x	12	479905.788	-50178.642	-28063.147
	Min. H_z	12	479905.788	-50178.642	-28063.147
Leg A	Max. Vert	2	480146.864	-827.587	57519.076
	Max. H_x	27	14075.543	10557.238	1044.759
	Max. H_z	2	480146.864	-827.587	57519.076
	Min. Vert	19	-418501.739	753.054	-51126.312
	Min. H_x	10	21041.433	-10570.233	1613.942
	Min. H_z	19	-418501.739	753.054	-51126.312

Tower Mast Reaction Summary

Load Combination	Vertical lb	$Shear_x$ lb	$Shear_z$ lb	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	50640.254	0.000	-0.000	3.415	10.863	0.000
1.2 Dead+1.6 Wind 0 deg - No Ice	60768.304	164.954	-101444.571	-9956.927	-8.065	-34.852
0.9 Dead+1.6 Wind 0 deg - No Ice	45576.228	164.954	-101444.571	-9957.951	-11.324	-34.852
1.2 Dead+1.6 Wind 30 deg - No Ice	60768.304	48329.642	-83445.489	-8259.901	-4782.500	-19.449
0.9 Dead+1.6 Wind 30 deg - No Ice	45576.228	48329.642	-83445.489	-8260.925	-4785.759	-19.449
1.2 Dead+1.6 Wind 45 deg - No Ice	60768.304	67651.960	-67571.166	-6698.969	-6707.187	-10.309
0.9 Dead+1.6 Wind 45 deg - No Ice	45576.228	67651.960	-67571.166	-6699.993	-6710.446	-10.309
1.2 Dead+1.6 Wind 60 deg - No Ice	60768.304	82047.587	-47408.303	-4707.513	-8147.624	-0.612

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	lb	lb	lb	kip-ft	kip-ft	kip-ft
0.9 Dead+1.6 Wind 60 deg - No Ice	45576.228	82047.587	-47408.303	-4708.537	-8150.883	-0.612
1.2 Dead+1.6 Wind 90 deg - No Ice	60768.304	96373.575	-164.955	-17.003	-9541.488	18.006
0.9 Dead+1.6 Wind 90 deg - No Ice	45576.228	96373.575	-164.955	-18.027	-9544.747	18.006
1.2 Dead+1.6 Wind 120 deg - No Ice	60768.304	87870.050	50579.431	4966.336	-8623.927	33.357
0.9 Dead+1.6 Wind 120 deg - No Ice	45576.228	87870.050	50579.431	4965.312	-8627.185	33.357
1.2 Dead+1.6 Wind 135 deg - No Ice	60768.304	67418.679	67337.885	6677.324	-6677.347	37.314
0.9 Dead+1.6 Wind 135 deg - No Ice	45576.228	67418.679	67337.885	6676.299	-6680.606	37.314
1.2 Dead+1.6 Wind 150 deg - No Ice	60768.304	48043.933	83280.534	8246.996	-4745.953	37.455
0.9 Dead+1.6 Wind 150 deg - No Ice	45576.228	48043.933	83280.534	8245.971	-4749.212	37.455
1.2 Dead+1.6 Wind 180 deg - No Ice	60768.304	-164.954	94530.896	9390.771	34.136	32.187
0.9 Dead+1.6 Wind 180 deg - No Ice	45576.228	-164.954	94530.896	9389.747	30.877	32.187
1.2 Dead+1.6 Wind 210 deg - No Ice	60768.304	-48329.642	83445.489	8268.096	4808.570	19.449
0.9 Dead+1.6 Wind 210 deg - No Ice	45576.228	-48329.642	83445.489	8267.072	4805.311	19.449
1.2 Dead+1.6 Wind 225 deg - No Ice	60768.304	-67651.960	67571.166	6707.164	6733.258	10.309
0.9 Dead+1.6 Wind 225 deg - No Ice	45576.228	-67651.960	67571.166	6706.140	6729.999	10.309
1.2 Dead+1.6 Wind 240 deg - No Ice	60768.304	-88035.005	50865.140	5002.883	8671.097	1.495
0.9 Dead+1.6 Wind 240 deg - No Ice	45576.228	-88035.005	50865.140	5001.859	8667.838	1.495
1.2 Dead+1.6 Wind 270 deg - No Ice	60768.304	-96373.575	164.955	25.198	9567.558	-18.006
0.9 Dead+1.6 Wind 270 deg - No Ice	45576.228	-96373.575	164.955	24.174	9564.300	-18.006
1.2 Dead+1.6 Wind 300 deg - No Ice	60768.304	-81882.632	-47122.593	-4670.966	8152.594	-31.575
0.9 Dead+1.6 Wind 300 deg - No Ice	45576.228	-81882.632	-47122.593	-4671.990	8149.335	-31.575
1.2 Dead+1.6 Wind 315 deg - No Ice	60768.304	-67418.679	-67337.885	-6669.129	6703.417	-37.314
0.9 Dead+1.6 Wind 315 deg - No Ice	45576.228	-67418.679	-67337.885	-6670.153	6700.158	-37.314
1.2 Dead+1.6 Wind 330 deg - No Ice	60768.304	-48043.932	-83280.534	-8238.801	4772.023	-37.455
0.9 Dead+1.6 Wind 330 deg - No Ice	45576.228	-48043.932	-83280.534	-8239.825	4768.764	-37.455
1.2 Dead+1.0 Ice	219142.090	0.000	-0.000	90.335	214.408	0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice	219142.090	13.755	-30128.268	-2851.364	212.859	-13.737
1.2 Dead+1.0 Wind 30 deg+1.0 Ice	219142.090	14809.431	-25627.111	-2419.848	-1237.028	-5.742
1.2 Dead+1.0 Wind 45 deg+1.0 Ice	219142.090	20872.399	-20864.381	-1954.488	-1832.236	-1.180
1.2 Dead+1.0 Wind 60 deg+1.0 Ice	219142.090	25479.727	-14712.999	-1352.467	-2285.279	3.428
1.2 Dead+1.0 Wind 90 deg+1.0 Ice	219142.090	29595.037	-13.755	88.786	-2685.782	11.659

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	lb	lb	lb	kip-ft	kip-ft	kip-ft
1.2 Dead+1.0 Wind 120 deg+1.0 Ice	219142.090	26094.788	15052.222	1559.843	-2334.633	17.118
1.2 Dead+1.0 Wind 135 deg+1.0 Ice	219142.090	20852.946	20844.928	2132.968	-1830.045	18.004
1.2 Dead+1.0 Wind 150 deg+1.0 Ice	219142.090	14785.606	25613.356	2598.970	-1234.346	17.400
1.2 Dead+1.0 Wind 180 deg+1.0 Ice	219142.090	-13.755	29402.174	2973.256	215.957	13.236
1.2 Dead+1.0 Wind 210 deg+1.0 Ice	219142.090	-14809.431	25627.111	2600.518	1665.844	5.742
1.2 Dead+1.0 Wind 225 deg+1.0 Ice	219142.090	-20872.399	20864.381	2135.159	2261.051	1.180
1.2 Dead+1.0 Wind 240 deg+1.0 Ice	219142.090	-26108.543	15076.046	1562.526	2764.997	-3.381
1.2 Dead+1.0 Wind 270 deg+1.0 Ice	219142.090	-29595.036	13.755	91.884	3114.597	-11.659
1.2 Dead+1.0 Wind 300 deg+1.0 Ice	219142.090	-25465.972	-14689.174	-1349.784	2712.545	-16.663
1.2 Dead+1.0 Wind 315 deg+1.0 Ice	219142.090	-20852.946	-20844.928	-1952.298	2258.861	-18.004
1.2 Dead+1.0 Wind 330 deg+1.0 Ice	219142.090	-14785.606	-25613.356	-2418.299	1663.161	-17.400
Dead+Wind 0 deg - Service	50640.254	29.273	-18002.586	-1764.292	7.118	-6.185
Dead+Wind 30 deg - Service	50640.254	8576.689	-14808.428	-1463.133	-840.164	-3.451
Dead+Wind 45 deg - Service	50640.254	12005.672	-11991.334	-1186.127	-1181.723	-1.829
Dead+Wind 60 deg - Service	50640.254	14560.353	-8413.186	-832.719	-1437.347	-0.109
Dead+Wind 90 deg - Service	50640.254	17102.675	-29.273	-0.330	-1684.705	3.195
Dead+Wind 120 deg - Service	50640.254	15593.620	8975.942	884.025	-1521.872	5.920
Dead+Wind 135 deg - Service	50640.254	11964.273	11949.935	1187.661	-1176.428	6.622
Dead+Wind 150 deg - Service	50640.254	8525.986	14779.154	1466.218	-833.678	6.647
Dead+Wind 180 deg - Service	50640.254	-29.273	16775.669	1669.195	14.607	5.712
Dead+Wind 210 deg - Service	50640.254	-8576.689	14808.427	1469.963	861.889	3.451
Dead+Wind 225 deg - Service	50640.254	-12005.672	11991.334	1192.956	1203.449	1.829
Dead+Wind 240 deg - Service	50640.254	-15622.893	9026.644	890.511	1547.342	0.265
Dead+Wind 270 deg - Service	50640.254	-17102.675	29.273	7.159	1706.430	-3.195
Dead+Wind 300 deg - Service	50640.254	-14531.079	-8362.483	-826.233	1455.327	-5.603
Dead+Wind 315 deg - Service	50640.254	-11964.273	-11949.935	-1180.831	1198.153	-6.622
Dead+Wind 330 deg - Service	50640.254	-8525.986	-14779.154	-1459.389	855.404	-6.647

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	lb	lb	lb	lb	lb	lb	
1	0.000	-50640.254	0.000	-0.000	50640.254	0.000	0.000%
2	164.955	-60768.304	-101444.573	-164.954	60768.304	101444.571	0.000%
3	164.955	-45576.228	-101444.573	-164.954	45576.228	101444.571	0.000%
4	48329.643	-60768.304	-83445.491	-48329.642	60768.304	83445.489	0.000%
5	48329.643	-45576.228	-83445.491	-48329.642	45576.228	83445.489	0.000%
6	67651.961	-60768.304	-67571.167	-67651.960	60768.304	67571.166	0.000%
7	67651.961	-45576.228	-67571.167	-67651.960	45576.228	67571.166	0.000%
8	82047.587	-60768.304	-47408.304	-82047.587	60768.304	47408.303	0.000%
9	82047.587	-45576.228	-47408.304	-82047.587	45576.228	47408.303	0.000%
10	96373.576	-60768.304	-164.955	-96373.575	60768.304	164.955	0.000%
11	96373.576	-45576.228	-164.955	-96373.575	45576.228	164.955	0.000%
12	87870.051	-60768.304	50579.432	-87870.050	60768.304	-50579.431	0.000%
13	87870.051	-45576.228	50579.432	-87870.050	45576.228	-50579.431	0.000%
14	67418.680	-60768.304	67337.887	-67418.679	60768.304	-67337.885	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	% Error
15	67418.680	-45576.228	67337.887	-67418.679	45576.228	-67337.885	0.000%
16	48043.933	-60768.304	83280.536	-48043.933	60768.304	-83280.534	0.000%
17	48043.933	-45576.228	83280.536	-48043.933	45576.228	-83280.534	0.000%
18	-164.955	-60768.304	94530.897	164.954	60768.304	-94530.896	0.000%
19	-164.955	-45576.228	94530.897	164.954	45576.228	-94530.896	0.000%
20	-48329.643	-60768.304	83445.491	48329.642	60768.304	-83445.489	0.000%
21	-48329.643	-45576.228	83445.491	48329.642	45576.228	-83445.489	0.000%
22	-67651.961	-60768.304	67571.167	67651.960	60768.304	-67571.166	0.000%
23	-67651.961	-45576.228	67571.167	67651.960	45576.228	-67571.166	0.000%
24	-88035.006	-60768.304	50865.141	88035.005	60768.304	-50865.140	0.000%
25	-88035.006	-45576.228	50865.141	88035.005	45576.228	-50865.140	0.000%
26	-96373.576	-60768.304	164.955	96373.575	60768.304	-164.955	0.000%
27	-96373.576	-45576.228	164.955	96373.575	45576.228	-164.955	0.000%
28	-81882.633	-60768.304	-47122.594	81882.632	60768.304	47122.593	0.000%
29	-81882.633	-45576.228	-47122.594	81882.632	45576.228	47122.593	0.000%
30	-67418.680	-60768.304	-67337.887	67418.679	60768.304	67337.885	0.000%
31	-67418.680	-45576.228	-67337.887	67418.679	45576.228	67337.885	0.000%
32	-48043.933	-60768.304	-83280.536	48043.932	60768.304	83280.534	0.000%
33	-48043.933	-45576.228	-83280.536	48043.932	45576.228	83280.534	0.000%
34	0.000	-219142.090	0.000	-0.000	219142.090	0.000	0.000%
35	13.755	-219142.090	-30128.269	-13.755	219142.090	30128.268	0.000%
36	14809.431	-219142.090	-25627.111	-14809.431	219142.090	25627.111	0.000%
37	20872.399	-219142.090	-20864.381	-20872.399	219142.090	20864.381	0.000%
38	25479.727	-219142.090	-14713.000	-25479.727	219142.090	14712.999	0.000%
39	29595.037	-219142.090	-13.755	-29595.037	219142.090	13.755	0.000%
40	26094.788	-219142.090	15052.222	-26094.788	219142.090	-15052.222	0.000%
41	20852.946	-219142.090	20844.929	-20852.946	219142.090	-20844.928	0.000%
42	14785.606	-219142.090	25613.356	-14785.606	219142.090	-25613.356	0.000%
43	-13.755	-219142.090	29402.174	13.755	219142.090	-29402.174	0.000%
44	-14809.431	-219142.090	25627.111	14809.431	219142.090	-25627.111	0.000%
45	-20872.399	-219142.090	20864.381	20872.399	219142.090	-20864.381	0.000%
46	-26108.543	-219142.090	15076.047	26108.543	219142.090	-15076.046	0.000%
47	-29595.037	-219142.090	13.755	29595.036	219142.090	-13.755	0.000%
48	-25465.972	-219142.090	-14689.175	25465.972	219142.090	14689.174	0.000%
49	-20852.946	-219142.090	-20844.929	20852.946	219142.090	20844.928	0.000%
50	-14785.606	-219142.090	-25613.356	14785.606	219142.090	25613.356	0.000%
51	29.273	-50640.254	-18002.586	-29.273	50640.254	18002.586	0.000%
52	8576.689	-50640.254	-14808.428	-8576.689	50640.254	14808.428	0.000%
53	12005.672	-50640.254	-11991.334	-12005.672	50640.254	11991.334	0.000%
54	14560.353	-50640.254	-8413.186	-14560.353	50640.254	8413.186	0.000%
55	17102.675	-50640.254	-29.273	-17102.675	50640.254	29.273	0.000%
56	15593.620	-50640.254	8975.942	-15593.620	50640.254	-8975.942	0.000%
57	11964.273	-50640.254	11949.935	-11964.273	50640.254	-11949.935	0.000%
58	8525.986	-50640.254	14779.155	-8525.986	50640.254	-14779.154	0.000%
59	-29.273	-50640.254	16775.669	29.273	50640.254	-16775.669	0.000%
60	-8576.689	-50640.254	14808.428	8576.689	50640.254	-14808.427	0.000%
61	-12005.672	-50640.254	11991.334	12005.672	50640.254	-11991.334	0.000%
62	-15622.894	-50640.254	9026.644	15622.893	50640.254	-9026.644	0.000%
63	-17102.675	-50640.254	29.273	17102.675	50640.254	-29.273	0.000%
64	-14531.079	-50640.254	-8362.483	14531.079	50640.254	8362.483	0.000%
65	-11964.273	-50640.254	-11949.935	11964.273	50640.254	11949.935	0.000%
66	-8525.986	-50640.254	-14779.155	8525.986	50640.254	14779.154	0.000%

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	180 - 175	2.895	62	0.1161	0.0094
T2	175 - 166.667	2.773	62	0.1161	0.0098
T3	166.667 - 158.333	2.567	62	0.1159	0.0095
T4	158.333 - 150	2.358	62	0.1151	0.0089
T5	150 - 125	2.151	62	0.1134	0.0082
T6	125 - 100	1.561	62	0.1031	0.0066
T7	100 - 91.6667	1.037	62	0.0866	0.0049
T8	91.6667 - 83.3333	0.883	62	0.0806	0.0045
T9	83.3333 - 75	0.739	62	0.0753	0.0040
T10	75 - 50	0.603	62	0.0695	0.0036
T11	50 - 37.5	0.283	62	0.0472	0.0023
T12	37.5 - 25	0.164	62	0.0367	0.0017
T13	25 - 12.5	0.078	62	0.0253	0.0012
T14	12.5 - 0	0.020	56	0.0131	0.0005

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
182.500	3" Dia 20' Omni	62	2.895	0.1161	0.0094	177306
182.000	1" Dia 8' Omni	62	2.895	0.1161	0.0094	177306
181.000	2" Dia 10' Omni	62	2.895	0.1161	0.0094	177306
180.000	3" Dia 12' Omni	62	2.895	0.1161	0.0094	177306
178.000	432E-83I-01T TTA Unit	62	2.847	0.1161	0.0096	177306
176.000	6' w/Radome	62	2.798	0.1161	0.0097	177306
174.000	6' w/Radome	62	2.749	0.1161	0.0098	170969
171.000	3'4"x4" Pipe Mount	62	2.674	0.1161	0.0097	210344
170.000	Andrew 6' w/Radome	62	2.650	0.1161	0.0096	243062
169.000	3'4"x4" Pipe Mount	62	2.625	0.1160	0.0096	286637
166.000	6' Side-Arm(1)	62	2.550	0.1159	0.0094	511058
164.000	(inverted) 2" Dia 10' Omni	62	2.500	0.1158	0.0093	719319
160.000	(Inverted) 3" Dia 20' Omni	62	2.400	0.1154	0.0090	Inf
157.000	4' Paraflector	62	2.325	0.1149	0.0088	649083
153.000	3" Dia 20' Omni	62	2.225	0.1141	0.0084	234228
151.000	1 Bay Dipole ANT400D	62	2.176	0.1137	0.0083	178968
143.000	13' Sector Mount (1)	62	1.980	0.1112	0.0077	142960
135.000	(2) DB950F65E-M	62	1.790	0.1080	0.0072	136673
125.000	2' Sidearm	62	1.561	0.1031	0.0066	126046
122.000	1' Side Arm	62	1.494	0.1014	0.0064	115925
119.000	12' Dipole	62	1.428	0.0996	0.0062	105196
109.250	4' Paraflector	62	1.220	0.0932	0.0055	80579
76.000	3' Yagi	62	0.618	0.0703	0.0036	54365
75.000	GPS	62	0.603	0.0695	0.0036	52532
27.000	2" Dia 8' Omni	62	0.090	0.0272	0.0012	80306
26.000	Rohn 6' Side-Arm(1)	62	0.084	0.0262	0.0012	82370
20.000	2' Standoff T-Arm (5' face width)	62	0.051	0.0205	0.0009	58186
15.000	2' Yagi	62	0.029	0.0156	0.0007	42234

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	180 - 175	16.190	24	0.6458	0.0529
T2	175 - 166.667	15.511	24	0.6459	0.0551
T3	166.667 - 158.333	14.360	24	0.6454	0.0533
T4	158.333 - 150	13.200	24	0.6415	0.0502
T5	150 - 125	12.043	24	0.6323	0.0461
T6	125 - 100	8.747	24	0.5757	0.0374
T7	100 - 91.6667	5.814	24	0.4847	0.0278
T8	91.6667 - 83.3333	4.955	24	0.4510	0.0252
T9	83.3333 - 75	4.143	24	0.4217	0.0227
T10	75 - 50	3.383	24	0.3893	0.0202
T11	50 - 37.5	1.587	24	0.2643	0.0128
T12	37.5 - 25	0.919	24	0.2056	0.0093
T13	25 - 12.5	0.438	24	0.1416	0.0065
T14	12.5 - 0	0.113	25	0.0732	0.0030

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
182.500	3" Dia 20' Omni	24	16.190	0.6458	0.0529	34755
182.000	1" Dia 8' Omni	24	16.190	0.6458	0.0529	34755
181.000	2" Dia 10' Omni	24	16.190	0.6458	0.0529	34755
180.000	3" Dia 12' Omni	24	16.190	0.6458	0.0529	34755
178.000	432E-83I-01T TTA Unit	24	15.919	0.6459	0.0540	34755
176.000	6' w/Radome	24	15.647	0.6459	0.0549	34755
174.000	6' w/Radome	24	15.374	0.6459	0.0551	33546
171.000	3'4"x4" Pipe Mount	24	14.961	0.6459	0.0544	41523
170.000	Andrew 6' w/Radome	24	14.822	0.6458	0.0542	48161
169.000	3'4"x4" Pipe Mount	24	14.684	0.6457	0.0540	57072
166.000	6' Side-Arm(1)	24	14.267	0.6452	0.0530	103145
164.000	(inverted) 2" Dia 10' Omni	24	13.989	0.6446	0.0524	150542
160.000	(Inverted) 3" Dia 20' Omni	24	13.432	0.6426	0.0509	202432
157.000	4' Paraflector	24	13.014	0.6404	0.0496	121449
153.000	3" Dia 20' Omni	24	12.457	0.6362	0.0476	42494
151.000	1 Bay Dipole ANT400D	24	12.181	0.6337	0.0466	32669
143.000	13' Sector Mount (1)	24	11.090	0.6206	0.0432	26075
135.000	(2) DB950F65E-M	24	10.029	0.6032	0.0406	24935
125.000	2' Sidearm	24	8.747	0.5757	0.0374	22975
122.000	1' Side Arm	24	8.372	0.5664	0.0363	21073
119.000	12' Dipole	24	8.002	0.5565	0.0352	19065
109.250	4' Paraflector	24	6.842	0.5214	0.0313	14502
76.000	3' Yagi	24	3.470	0.3936	0.0205	9729
75.000	GPS	24	3.383	0.3893	0.0202	9400
27.000	2" Dia 8' Omni	24	0.504	0.1522	0.0070	14371
26.000	Rohn 6' Side-Arm(1)	24	0.471	0.1469	0.0068	14746
20.000	2' Standoff T-Arm (5' face width)	24	0.285	0.1148	0.0051	10396
15.000	2' Yagi	25	0.161	0.0873	0.0037	7534

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load lb	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	180	Diagonal	A325X	0.750	1	1579.010	17943.801	0.088 ✓	1	Member Block Shear
		Top Girt	A325X	0.625	2	692.570	10263.300	0.067 ✓	1	Member Block Shear
T2	175	Leg	A325X	0.750	6	274.430	29820.600	0.009 ✓	1	Bolt Tension
		Diagonal	A325X	0.750	1	5003.590	17943.801	0.279 ✓	1	Member Block Shear
		Horizontal	A325X	0.625	2	1520.270	7187.700	0.212 ✓	1	Member Block Shear
T3	166.667	Diagonal	A325X	0.750	1	7389.170	17943.801	0.412 ✓	1	Member Block Shear
		Top Girt	A325X	0.625	2	2248.020	7187.700	0.313 ✓	1	Member Block Shear
T4	158.333	Diagonal	A325X	0.750	1	8756.090	17943.801	0.488 ✓	1	Member Block Shear
		Top Girt	A325X	0.625	2	2725.740	7187.700	0.379 ✓	1	Member Block Shear
T5	150	Leg	A325X	0.750	6	4304.390	29820.600	0.144 ✓	1	Bolt Tension
		Diagonal	A325X	0.750	1	15578.400	29906.301	0.521 ✓	1	Member Block Shear
		Horizontal	A325X	0.625	2	5249.100	10263.300	0.511 ✓	1	Member Block Shear
T6	125	Leg	A325X	0.750	6	12136.800	29820.600	0.407 ✓	1	Bolt Tension
		Diagonal	A325X	0.750	1	19408.100	25230.000	0.769 ✓	1	Member Bearing
		Horizontal	A325X	0.625	2	6953.090	12829.100	0.542 ✓	1	Member Block Shear
T7	100	Leg	A325X	1.000	6	22625.400	53014.398	0.427 ✓	1	Bolt Tension
		Diagonal	A325X	0.750	1	20116.699	25230.000	0.797 ✓	1	Member Bearing
		Horizontal	A325X	0.625	2	7353.780	20526.600	0.358 ✓	1	Member Block Shear
T8	91.6667	Diagonal	A325X	0.750	1	20785.801	25230.000	0.824 ✓	1	Member Bearing
		Horizontal	A325X	0.625	2	7761.300	20526.600	0.378 ✓	1	Member Block Shear
T9	83.3333	Diagonal	A325X	0.750	1	21673.199	25230.000	0.859 ✓	1	Member Bearing
		Horizontal	A325X	0.625	2	8231.060	20526.600	0.401 ✓	1	Member Block Shear
T10	75	Leg	A325X	1.000	8	25282.500	53014.398	0.477 ✓	1	Bolt Tension
		Diagonal	A325X	0.750	1	29676.699	31537.500	0.941 ✓	1	Member Bearing
		Horizontal	A325X	0.625	2	9303.850	11622.700	0.800 ✓	1	Member Block Shear
T11	50	Leg	A325X	1.000	8	34141.301	53014.398	0.644 ✓	1	Bolt Tension
		Diagonal	A325X	1.000	1	30266.000	40675.801	0.744 ✓	1	Member Block Shear
		Horizontal	A325X	0.625	2	9786.270	11622.700	0.842 ✓	1	Member Block Shear
T12	37.5	Diagonal	A325X	1.000	1	31172.801	40675.801	0.766 ✓	1	Member Block Shear
		Top Girt	A325X	0.625	2	10331.500	23245.301	0.444 ✓	1	Member Block Shear
T13	25	Leg	A325X	1.000	8	43106.102	53014.398	0.813 ✓	1	Bolt Tension
		Diagonal	A325X	1.000	1	32001.000	33878.898	0.945 ✓	1	Member Block Shear
		Horizontal	A325X	0.625	2	10855.700	14528.300	0.747 ✓	1	Member Block Shear

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load lb	Ratio Load / Allowable	Allowable Ratio	Criteria
T14	12.5	Diagonal	A325X	1.000	1	32110.699	33878.898	0.948 ✔	1	Member Block Shear
		Top Girt	A325X	0.625	2	11216.700	29056.600	0.386 ✔	1	Member Block Shear

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $P_u / \phi P_n$
T1	180 - 175	Stainless P5x0.250	5.005	5.005	35.7 K=1.00	3.731	-1802.310	152928.000	0.012 [1] ✔
T2	175 - 166.667	Stainless P5x0.250	8.342	8.342	59.5 K=1.00	3.731	-4939.740	129561.000	0.038 [1] ✔
T3	166.667 - 158.333	Stainless P5x0.250	8.342	8.342	59.5 K=1.00	3.731	-9674.000	129561.000	0.075 [1] ✔
T4	158.333 - 150	Stainless P5x0.250	8.342	8.342	59.5 K=1.00	3.731	-19759.301	129561.000	0.153 [1] ✔
T5	150 - 125	Stainless P5x0.300	25.027	4.171	30.1 K=1.00	4.430	-64977.199	186589.000	0.348 [1] ✔
T6	125 - 100	Stainless P5x0.400	25.027	4.171	30.7 K=1.00	5.781	-132027.000	242845.000	0.544 [1] ✔
T7	100 - 91.6667	Stainless P5x0.500	8.342	4.171	31.3 K=1.00	7.069	-156573.000	296141.000	0.529 [1] ✔
T8	91.6667 - 83.3333	1/3 Pipe w/ 5"x0.5 Stainless	8.342	4.171	32.1 K=1.00	9.027	-181866.000	320254.000	0.568 [1] ✔
T9	83.3333 - 75	1/3 Pipe w/ 5"x0.5 Stainless	8.342	4.171	32.1 K=1.00	9.027	-207485.000	320254.000	0.648 [1] ✔
T10	75 - 50	Stainless P6.875x0.400	25.027	6.257	32.7 K=1.00	8.137	-272180.000	399956.000	0.681 [1] ✔
T11	50 - 37.5	Stainless P6.875x0.500	12.513	6.257	33.2 K=1.00	10.014	-313282.000	490874.000	0.638 [1] ✔
T12	37.5 - 25	Stainless P6.875x0.500	12.513	6.257	33.2 K=1.00	10.014	-354520.000	490874.000	0.722 [1] ✔
T13	25 - 12.5	Stainless P6.875x0.500	12.513	6.257	33.2 K=1.00	10.014	-396472.000	490874.000	0.808 [1] ✔
T14	12.5 - 0	Stainless P6.875x0.500	12.513	6.257	33.2 K=1.00	10.014	-439662.000	490874.000	0.896 [1] ✔

[1] $P_u / \phi P_n$ controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 175	2L2 1/2x2x3/16	7.434	6.882	104.5 K=1.00	1.620	-1698.940	29528.699	0.058 [1] ✔
T2	175 - 166.667	2L2 1/2x2x3/16	10.174	9.540	144.9 K=1.00	1.620	-5109.920	17428.199	0.293 [1] ✔
T3	166.667 - 158.333	2L2 1/2x2x3/16	10.369	9.748	148.1 K=1.00	1.620	-7501.250	16693.301	0.449 [1] ✔
T4	158.333 - 150	2L2 1/2x2x3/16	10.570	9.961	151.3 K=1.00	1.620	-8874.810	15986.600	0.555 [1] ✔
T5	150 - 125	2L2 1/2x2x5/16	11.213	10.631	157.7 K=1.00	2.620	-15839.800	23803.699	0.665 [1] ✔
T6	125 - 100	2L3x2 1/2x1/4	11.905	11.343	136.1 K=1.00	2.630	-19833.400	32070.900	0.618 [1] ✔
T7	100 - 91.6667	2L3x2 1/2x1/4	12.145	11.588	139.1 K=1.00	2.630	-20613.100	30726.000	0.671 [1] ✔
T8	91.6667 - 83.3333	2L3x2 1/2x1/4	12.390	11.838	142.1 K=1.00	2.630	-21295.699	29445.000	0.723 [1] ✔
T9	83.3333 - 75	2L3x2 1/2x1/4	12.639	12.091	145.1 K=1.00	2.630	-22233.699	28225.400	0.788 [1] ✔
T10	75 - 50	2L3 1/2x3x5/16	16.327	15.611	154.8 K=1.00	3.870	-30401.500	36473.898	0.834 [1] ✔
T11	50 - 37.5	2L3 1/2x3x5/16	16.653	15.887	157.6 K=1.00	3.870	-31009.900	35221.199	0.880 [1] ✔
T12	37.5 - 25	2L3 1/2x3x5/16	16.988	16.231	161.0 K=1.00	3.870	-32078.600	33740.199	0.951 [1] ✔
T13	25 - 12.5	2L3x3 1/2x5/16	17.330	16.583	130.9 K=1.00	3.870	-32882.801	50860.301	0.647 [1] ✔
T14	12.5 - 0	2L3x3 1/2x5/16	17.680	16.942	133.8 K=1.00	3.870	-33113.000	48872.500	0.678 [1] ✔

[1] P_u / ϕP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T2	175 - 166.667	L2 1/2x2 1/2x3/16	11.000	5.094	122.7 K=0.99	0.902	-3003.160	13230.200	0.227 [1] ✔
T5	150 - 125	L3x2 1/2x1/4	14.333	6.760	145.7 K=0.95	1.310	-10444.200	13945.100	0.749 [1] ✔
T6	125 - 100	L3x3x5/16	16.333	7.760	149.1 K=0.94	1.780	-13814.800	18094.000	0.763 [1] ✔
T7	100 - 91.6667	2L3x3x1/4	17.000	8.094	104.4 K=1.00	2.880	-14608.400	52550.199	0.278 [1] ✔
T8	91.6667 - 83.3333	2L3x3x1/4	17.667	8.427	108.7 K=1.00	2.880	-15373.600	50073.898	0.307 [1] ✔
T9	83.3333 - 75	2L3x3x1/4	18.333	8.760	113.0	2.880	-16287.100	47621.500	0.342 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T10	75 - 50	L4x4x1/4	20.000	9.516	138.0 K=0.96	1.940	-18521.000	22997.699	0.805 [1]
T11	50 - 37.5	L4x4x1/4	21.000	10.016	143.8 K=0.95	1.940	-19465.199	21194.900	0.918 [1]
T13	25 - 12.5	L4x4x5/16	23.000	11.016	155.9 K=0.93	2.400	-21511.699	22296.100	0.965 [1]

[1] $P_u / \phi P_n$ controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 175	L3x3x1/4	10.599	4.893	109.6 K=1.10	1.440	-1413.700	24791.500	0.057 [1]
T3	166.667 - 158.333	L2 1/2x2 1/2x3/16	11.667	5.427	128.9 K=0.98	0.902	-4468.060	12194.200	0.366 [1]
T4	158.333 - 150	L2 1/2x2 1/2x3/16	12.333	5.760	135.0 K=0.97	0.902	-5406.500	11179.200	0.484 [1]
T12	37.5 - 25	2L4x4x1/4	22.000	10.516	100.9 K=1.00	3.880	-20543.000	72328.898	0.284 [1]
T14	12.5 - 0	2L4x4x5/16	24.000	11.516	111.4 K=1.00	4.800	-22299.301	80880.398	0.276 [1]

[1] $P_u / \phi P_n$ controls

Redundant Horizontal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T5	150 - 125	L2x2x3/16	3.583	3.375	111.4 K=1.08	0.715	-1126.860	12054.300	0.093 [1]
T6	125 - 100	L2x2x3/16	4.083	3.875	119.0 K=1.01	0.715	-2289.740	10990.800	0.208 [1]
T7	100 - 91.6667	L2x2x3/16	4.250	4.042	123.1 K=1.00	0.715	-2715.270	10433.000	0.260 [1]
T8	91.6667 - 83.3333	L2x2x3/16	4.417	4.208	128.2 K=1.00	0.715	-3153.660	9755.500	0.323 [1]
T9	83.3333 - 75	L2x2x3/16	4.583	4.375	133.2 K=1.00	0.715	-3597.940	9097.250	0.395 [1]
T10	75 - 50	L2 1/2x2 1/2x3/16	5.000	4.714	117.1 K=1.03	0.902	-4721.430	14192.600	0.333 [1]
T11	50 - 37.5	L2 1/2x2 1/2x3/16	5.250	4.964	120.3 K=1.00	0.902	-5433.970	13637.000	0.398 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T12	37.5 - 25	L2 1/2x2 1/2x3/16	5.500	5.214	126.4 K=1.00	0.902	-6148.950	12604.700	0.488 [1]
T13	25 - 12.5	L2 1/2x2 1/2x3/16	5.750	5.464	132.4 K=1.00	0.902	-6876.650	11605.500	0.593 [1]
T14	12.5 - 0	L2 1/2x2 1/2x3/16	6.000	5.714	138.5 K=1.00	0.902	-7624.190	10621.400	0.718 [1]

[1] P_u / ϕP_n controls

Redundant Diagonal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T5	150 - 125	L2x2x3/16	5.389	5.061	154.1 K=1.00	0.715	-847.384	6798.980	0.125 [1]
T6	125 - 100	L2x2x3/16	5.719	5.415	164.9 K=1.00	0.715	-1603.560	5938.100	0.270 [1]
T7	100 - 91.6667	L2x2x3/16	5.835	5.537	168.6 K=1.00	0.715	-1863.860	5679.480	0.328 [1]
T8	91.6667 - 83.3333	L2x2x3/16	5.953	5.661	172.4 K=1.00	0.715	-2125.170	5433.940	0.391 [1]
T9	83.3333 - 75	L2x2x3/16	6.073	5.786	176.2 K=1.00	0.715	-2383.540	5200.860	0.458 [1]
T10	75 - 50	L2 1/2x2 1/2x3/16	7.851	7.378	178.9 K=1.00	0.902	-3707.030	6369.320	0.582 [1]
T11	50 - 37.5	L2 1/2x2 1/2x3/16	8.005	7.547	183.0 K=1.00	0.902	-4142.860	6087.970	0.680 [1]
T12	37.5 - 25	L2 1/2x2 1/2x3/16	8.164	7.718	187.1 K=1.00	0.902	-4563.470	5820.200	0.784 [1]
T13	25 - 12.5	L3x3x1/4	8.327	7.893	160.0 K=1.00	1.440	-4979.090	12708.200	0.392 [1]
T14	12.5 - 0	L3x3x1/4	8.494	8.071	163.6 K=1.00	1.440	-5396.570	12154.700	0.444 [1]

[1] P_u / ϕP_n controls

Inner Bracing Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T5	150 - 125	L2 1/2x2x3/16	7.167	7.167	201.4 K=1.00	0.809	-11.440	4505.540	0.003 [1]
T6	125 - 100	L2 1/2x2x3/16	8.167	8.167	229.5 K=1.00	0.809	-13.870	3469.700	0.004 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T7	100 - 91.6667	L2 1/2x2x3/16	8.500	8.500	238.9 K=1.00	0.809	-18.881	3202.900	0.006 [1]
T8	91.6667 - 83.3333	L2 1/2x2x3/16	8.833	8.833	248.2 K=1.00	0.809	-18.684	2965.740	0.006 [1]
T9	83.3333 - 75	L2 1/2x2x3/16	9.167	9.167	257.6 K=1.00	0.809	-18.445	2753.970	0.007 [1]
T10	75 - 50	KL/R > 250 (C) - 279 L2 1/2x2 1/2x3/16	10.000	10.000	242.4 K=1.00	0.902	-20.992	3467.320	0.006 [1]
T11	50 - 37.5	L2 1/2x2 1/2x3/16	10.500	10.500	254.5 K=1.00	0.902	-20.815	3144.960	0.007 [1]
T12	37.5 - 25	KL/R > 250 (C) - 357 L2 1/2x2 1/2x3/16	11.000	11.000	266.7 K=1.00	0.902	-363.953	2865.560	0.127 [1]
T13	25 - 12.5	KL/R > 250 (C) - 384 L3x3x1/4	11.500	11.500	233.1 K=1.00	1.440	-20.919	5986.700	0.003 [1]
T14	12.5 - 0	L3x3x1/4	12.000	12.000	243.2 K=1.00	1.440	-396.223	5498.200	0.072 [1]

[1] $P_u / \phi P_n$ controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 175	Stainless P5x0.250	5.005	5.005	35.7	3.731	225.029	167879.000	0.001 [1]
T2	175 - 166.667	Stainless P5x0.250	8.342	8.342	59.5	3.731	1509.160	167879.000	0.009 [1]
T3	166.667 - 158.333	Stainless P5x0.250	8.342	8.342	59.5	3.731	7079.480	167879.000	0.042 [1]
T4	158.333 - 150	Stainless P5x0.250	8.342	8.342	59.5	3.731	15566.200	167879.000	0.093 [1]
T5	150 - 125	Stainless P5x0.300	25.027	4.171	30.1	4.430	54444.102	199334.000	0.273 [1]
T6	125 - 100	Stainless P5x0.400	25.027	4.171	30.7	5.781	113848.000	260124.000	0.438 [1]
T7	100 - 91.6667	Stainless P5x0.500	8.342	4.171	31.3	7.069	135753.000	318086.000	0.427 [1]
T8	91.6667 - 83.3333	1/3 Pipe w/ 5"x0.5 Stainless	8.342	4.171	32.1	9.027	158141.000	341202.000	0.463 [1]
T9	83.3333 - 75	1/3 Pipe w/ 5"x0.5 Stainless	8.342	4.171	32.1	9.027	180630.000	341202.000	0.529 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T10	75 - 50	Stainless P6.875x0.400	25.027	6.257	32.7	8.137	237220.000	439383.000	0.540 [1] ✓
T11	50 - 37.5	Stainless P6.875x0.500	12.513	6.257	33.2	10.014	273130.000	540747.000	0.505 [1] ✓
T12	37.5 - 25	Stainless P6.875x0.500	12.513	6.257	33.2	10.014	308838.000	540747.000	0.571 [1] ✓
T13	25 - 12.5	Stainless P6.875x0.500	12.513	6.257	33.2	10.014	344848.000	540747.000	0.638 [1] ✓
T14	12.5 - 0	Stainless P6.875x0.500	12.513	6.257	33.2	10.014	381779.000	540747.000	0.706 [1] ✓

[1] P_u / ϕP_n controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 175	2L2 1/2x2x3/16	7.434	6.882	108.6	0.969	1579.010	42147.398	0.037 [1] ✓
T2	175 - 166.667	2L2 1/2x2x3/16	10.174	9.540	149.0	0.969	5003.590	42147.398	0.119 [1] ✓
T3	166.667 - 158.333	2L2 1/2x2x3/16	10.369	9.748	152.2	0.969	7389.170	42147.398	0.175 [1] ✓
T4	158.333 - 150	2L2 1/2x2x3/16	10.570	9.961	155.4	0.969	8756.090	42147.398	0.208 [1] ✓
T5	150 - 125	2L2 1/2x2x5/16	11.213	10.631	161.7	1.555	15578.400	67635.703	0.230 [1] ✓
T6	125 - 100	2L3x2 1/2x1/4	11.905	11.343	139.4	1.644	19408.100	71530.297	0.271 [1] ✓
T7	100 - 91.6667	2L3x2 1/2x1/4	12.145	11.588	142.3	1.644	20116.699	71530.297	0.281 [1] ✓
T8	91.6667 - 83.3333	2L3x2 1/2x1/4	12.390	11.838	145.3	1.644	20785.801	71530.297	0.291 [1] ✓
T9	83.3333 - 75	2L3x2 1/2x1/4	12.639	12.091	148.3	1.644	21673.199	71530.297	0.303 [1] ✓
T10	75 - 50	2L3 1/2x3x5/16	16.327	15.611	157.5	2.492	29676.699	108417.000	0.274 [1] ✓
T11	50 - 37.5	2L3 1/2x3x5/16	16.653	15.887	160.9	2.375	30266.000	103319.000	0.293 [1] ✓
T12	37.5 - 25	2L3 1/2x3x5/16	16.988	16.231	164.3	2.375	31172.801	103319.000	0.302 [1] ✓
T13	25 - 12.5	2L3x3 1/2x5/16	17.330	16.583	133.6	2.375	32001.000	103319.000	0.310 [1] ✓
T14	12.5 - 0	2L3x3 1/2x5/16	17.680	16.942	136.4	2.375	32110.699	103319.000	0.311 [1] ✓

[1] P_u / ϕP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T2	175 - 166.667	L2 1/2x2 1/2x3/16	11.000	5.094	122.4	0.571	3040.540	24839.900	0.122 [1] ✓
T5	150 - 125	L3x2 1/2x1/4	14.333	6.760	111.1	0.842	10498.200	36621.602	0.287 [1] ✓
T6	125 - 100	L3x3x5/16	16.333	7.760	103.6	1.159	13906.200	50426.000	0.276 [1] ✓
T7	100 - 91.6667	2L3x3x1/4	17.000	8.094	107.0	1.879	14707.600	81725.602	0.180 [1] ✓
T8	91.6667 - 83.3333	2L3x3x1/4	17.667	8.427	111.3	1.879	15522.600	81725.602	0.190 [1] ✓
T9	83.3333 - 75	2L3x3x1/4	18.333	8.760	115.6	1.879	16462.100	81725.602	0.201 [1] ✓
T10	75 - 50	L4x4x1/4	20.000	9.516	93.3	1.314	18607.699	57175.301	0.325 [1] ✓
T11	50 - 37.5	L4x4x1/4	21.000	10.016	98.1	1.314	19572.500	57175.301	0.342 [1] ✓
T13	25 - 12.5	L4x4x5/16	23.000	11.016	108.5	1.624	21711.301	70653.500	0.307 [1] ✓

[1] $P_u / \phi P_n$ controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 175	L3x3x1/4	10.599	4.893	98.5	0.939	1385.140	40862.801	0.034 [1] ✓
T3	166.667 - 158.333	L2 1/2x2 1/2x3/16	11.667	5.427	130.1	0.571	4496.030	24839.900	0.181 [1] ✓
T4	158.333 - 150	L2 1/2x2 1/2x3/16	12.333	5.760	137.9	0.571	5451.490	24839.900	0.219 [1] ✓
T12	37.5 - 25	2L4x4x1/4	22.000	10.516	102.8	2.629	20663.000	114351.000	0.181 [1] ✓
T14	12.5 - 0	2L4x4x5/16	24.000	11.516	113.4	3.248	22433.400	141307.000	0.159 [1] ✓

[1] $P_u / \phi P_n$ controls

Redundant Horizontal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T5	150 - 125	L2x2x3/16	3.583	3.375	65.6	0.715	1126.860	23166.000	0.049 [1] ✓
T6	125 - 100	L2x2x3/16	4.083	3.875	75.4	0.715	2289.740	23166.000	0.099 [1] ✓
T7	100 - 91.6667	L2x2x3/16	4.250	4.042	78.6	0.715	2715.270	23166.000	0.117 [1] ✓
T8	91.6667 - 83.3333	L2x2x3/16	4.417	4.208	81.8	0.715	3153.660	23166.000	0.136 [1] ✓
T9	83.3333 - 75	L2x2x3/16	4.583	4.375	85.1	0.715	3597.940	23166.000	0.155 [1] ✓
T10	75 - 50	L2 1/2x2 1/2x3/16	5.000	4.714	72.7	0.902	4721.430	29224.801	0.162 [1] ✓
T11	50 - 37.5	L2 1/2x2 1/2x3/16	5.250	4.964	76.6	0.902	5433.970	29224.801	0.186 [1] ✓
T12	37.5 - 25	L2 1/2x2 1/2x3/16	5.500	5.214	80.4	0.902	6148.950	29224.801	0.210 [1] ✓
T13	25 - 12.5	L2 1/2x2 1/2x3/16	5.750	5.464	84.3	0.902	6876.650	29224.801	0.235 [1] ✓
T14	12.5 - 0	L2 1/2x2 1/2x3/16	6.000	5.714	88.1	0.902	7624.190	29224.801	0.261 [1] ✓

[1] $P_u / \phi P_n$ controls

Redundant Diagonal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T5	150 - 125	L2x2x3/16	5.184	4.856	94.4	0.715	898.771	23166.000	0.039 [1] ✓
T6	125 - 100	L2x2x3/16	5.496	5.192	101.0	0.715	1678.050	23166.000	0.072 [1] ✓
T7	100 - 91.6667	L2x2x3/16	5.835	5.537	107.7	0.715	1863.860	23166.000	0.080 [1] ✓
T8	91.6667 - 83.3333	L2x2x3/16	5.953	5.661	110.1	0.715	2125.170	23166.000	0.092 [1] ✓
T9	83.3333 - 75	L2x2x3/16	6.073	5.786	112.5	0.715	2383.540	23166.000	0.103 [1] ✓
T10	75 - 50	L2 1/2x2 1/2x3/16	7.703	7.230	111.5	0.902	3828.250	29224.801	0.131 [1] ✓
T11	50 - 37.5	L2 1/2x2 1/2x3/16	8.005	7.547	116.4	0.902	4142.860	29224.801	0.142 [1] ✓
T12	37.5 - 25	L2 1/2x2 1/2x3/16	8.164	7.718	119.1	0.902	4563.470	29224.801	0.156 [1] ✓
T13	25 - 12.5	L3x3x1/4	8.327	7.893	101.8	1.440	4979.090	46656.000	0.107 [1] ✓
T14	12.5 - 0	L3x3x1/4	8.494	8.071	104.1	1.440	5396.570	46656.000	0.116 [1] ✓

[1] P_u / ϕP_n controls

Inner Bracing Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T5	150 - 125	L2 1/2x2x3/16	6.833	6.833	136.7	0.809	4.218	26211.600	0.000 [1] ✓
T6	125 - 100	L2 1/2x2x3/16	7.500	7.500	150.1	0.809	6.867	26211.600	0.000 [1] ✓
T7	100 - 91.6667	L2 1/2x2x3/16	8.500	8.500	170.1	0.809	12.731	26211.600	0.000 [1] ✓
T8	91.6667 - 83.3333	L2 1/2x2x3/16	8.833	8.833	176.7	0.809	12.395	26211.600	0.000 [1] ✓
T9	83.3333 - 75	L2 1/2x2x3/16	9.167	9.167	183.4	0.809	12.043	26211.600	0.000 [1] ✓
T10	75 - 50	L2 1/2x2 1/2x3/16	9.500	9.500	146.5	0.902	11.323	29224.801	0.000 [1] ✓
T11	50 - 37.5	L2 1/2x2 1/2x3/16	10.500	10.500	162.0	0.902	9.796	29224.801	0.000 [1] ✓
T12	37.5 - 25	L2 1/2x2 1/2x3/16	11.000	11.000	169.7	0.902	350.992	29224.801	0.012 [1] ✓
T13	25 - 12.5	L3x3x1/4	11.500	11.500	148.4	1.440	7.436	46656.000	0.000 [1] ✓
T14	12.5 - 0	L3x3x1/4	12.000	12.000	154.8	1.440	380.238	46656.000	0.008 [1] ✓

[1] P_u / ϕP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T1	180 - 175	Leg	Stainless P5x0.250	1	-1802.310	152928.000	1.2	Pass
		Leg	Stainless P5x0.250	2	-1274.000	152928.000	1.3	Pass
		Leg	Stainless P5x0.250	3	-1769.470	152928.000	1.5	Pass
T2	175 - 166.667	Leg	Stainless P5x0.250	13	-4939.740	129561.000	3.8	Pass
		Leg	Stainless P5x0.250	14	-2633.480	129561.000	2.0	Pass
		Leg	Stainless P5x0.250	15	-3792.850	129561.000	2.9	Pass
T3	166.667 - 158.333	Leg	Stainless P5x0.250	25	-9674.000	129561.000	7.5	Pass
		Leg	Stainless P5x0.250	26	-9574.810	129561.000	7.4	Pass
		Leg	Stainless P5x0.250	27	-9462.510	129561.000	7.3	Pass
T4	158.333 - 150	Leg	Stainless P5x0.250	37	-19740.199	129561.000	15.2	Pass
		Leg	Stainless P5x0.250	38	-19759.301	129561.000	15.3	Pass
		Leg	Stainless P5x0.250	39	-19228.100	129561.000	14.8	Pass
T5	150 - 125	Leg	Stainless P5x0.300	49	-64977.199	186589.000	34.8	Pass
		Leg	Stainless P5x0.300	50	-64614.000	186589.000	34.6	Pass
		Leg	Stainless P5x0.300	51	-63954.801	186589.000	34.3	Pass
T6	125 - 100	Leg	Stainless P5x0.400	124	-132027.000	242845.000	54.4	Pass
		Leg	Stainless P5x0.400	125	-131003.000	242845.000	53.9	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
		Leg	Stainless P5x0.400	126	-130532.000	242845.000	53.8	Pass
T7	100 - 91.6667	Leg	Stainless P5x0.500	199	-156573.000	296141.000	52.9	Pass
		Leg	Stainless P5x0.500	200	-155388.000	296141.000	52.5	Pass
		Leg	Stainless P5x0.500	201	-154998.000	296141.000	52.3	Pass
T8	91.6667 - 83.3333	Leg	1/3 Pipe w/ 5"x0.5 Stainless	226	-181866.000	320254.000	56.8	Pass
		Leg	1/3 Pipe w/ 5"x0.5 Stainless	227	-180532.000	320254.000	56.4	Pass
		Leg	1/3 Pipe w/ 5"x0.5 Stainless	228	-180217.000	320254.000	56.3	Pass
T9	83.3333 - 75	Leg	1/3 Pipe w/ 5"x0.5 Stainless	253	-207485.000	320254.000	64.8	Pass
		Leg	1/3 Pipe w/ 5"x0.5 Stainless	254	-205907.000	320254.000	64.3	Pass
		Leg	1/3 Pipe w/ 5"x0.5 Stainless	255	-205664.000	320254.000	64.2	Pass
T10	75 - 50	Leg	Stainless P6.875x0.400	280	-272180.000	399956.000	68.1	Pass
		Leg	Stainless P6.875x0.400	281	-270276.000	399956.000	67.6	Pass
		Leg	Stainless P6.875x0.400	282	-270218.000	399956.000	67.6	Pass
T11	50 - 37.5	Leg	Stainless P6.875x0.500	331	-313282.000	490874.000	63.8	Pass
							64.4 (b)	
		Leg	Stainless P6.875x0.500	332	-311207.000	490874.000	63.4	Pass
							64.3 (b)	
		Leg	Stainless P6.875x0.500	333	-311233.000	490874.000	63.4	Pass
							64.2 (b)	
T12	37.5 - 25	Leg	Stainless P6.875x0.500	358	-354520.000	490874.000	72.2	Pass
		Leg	Stainless P6.875x0.500	359	-352265.000	490874.000	71.8	Pass
		Leg	Stainless P6.875x0.500	360	-352368.000	490874.000	71.8	Pass
T13	25 - 12.5	Leg	Stainless P6.875x0.500	385	-396472.000	490874.000	80.8	Pass
							81.3 (b)	
		Leg	Stainless P6.875x0.500	386	-393911.000	490874.000	80.2	Pass
							81.1 (b)	
		Leg	Stainless P6.875x0.500	387	-394086.000	490874.000	80.3	Pass
							81.1 (b)	
T14	12.5 - 0	Leg	Stainless P6.875x0.500	412	-439662.000	490874.000	89.6	Pass
		Leg	Stainless P6.875x0.500	413	-437003.000	490874.000	89.0	Pass
		Leg	Stainless P6.875x0.500	414	-437219.000	490874.000	89.1	Pass
T1	180 - 175	Diagonal	2L2 1/2x2x3/16	7	-955.260	29528.699	3.2	Pass
							4.6 (b)	
		Diagonal	2L2 1/2x2x3/16	8	-948.136	29528.699	3.2	Pass
							4.7 (b)	
		Diagonal	2L2 1/2x2x3/16	9	-1698.940	29528.699	5.8	Pass
							8.8 (b)	
		Diagonal	2L2 1/2x2x3/16	10	-1694.230	29528.699	5.7	Pass
							8.8 (b)	
		Diagonal	2L2 1/2x2x3/16	11	-1277.750	29528.699	4.3	Pass
							6.5 (b)	
		Diagonal	2L2 1/2x2x3/16	12	-1289.590	29528.699	4.4	Pass
							6.5 (b)	
T2	175 - 166.667	Diagonal	2L2 1/2x2x3/16	17	-3511.830	17428.199	20.2	Pass
		Diagonal	2L2 1/2x2x3/16	18	-3608.650	17428.199	20.7	Pass
		Diagonal	2L2 1/2x2x3/16	20	-3934.440	17428.199	22.6	Pass
		Diagonal	2L2 1/2x2x3/16	21	-3906.140	17428.199	22.4	Pass
		Diagonal	2L2 1/2x2x3/16	23	-5107.930	17428.199	29.3	Pass
		Diagonal	2L2 1/2x2x3/16	24	-5109.920	17428.199	29.3	Pass
T3	166.667 - 158.333	Diagonal	2L2 1/2x2x3/16	31	-6353.280	16693.301	38.1	Pass
		Diagonal	2L2 1/2x2x3/16	32	-6380.660	16693.301	38.2	Pass
		Diagonal	2L2 1/2x2x3/16	33	-6183.230	16693.301	37.0	Pass
		Diagonal	2L2 1/2x2x3/16	34	-6163.300	16693.301	36.9	Pass
		Diagonal	2L2 1/2x2x3/16	35	-7501.250	16693.301	44.9	Pass
		Diagonal	2L2 1/2x2x3/16	36	-7493.800	16693.301	44.9	Pass
T4	158.333 - 150	Diagonal	2L2 1/2x2x3/16	43	-8856.740	15986.600	55.4	Pass
		Diagonal	2L2 1/2x2x3/16	44	-8874.810	15986.600	55.5	Pass
		Diagonal	2L2 1/2x2x3/16	45	-7939.000	15986.600	49.7	Pass
		Diagonal	2L2 1/2x2x3/16	46	-7939.890	15986.600	49.7	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
		Diagonal	2L2 1/2x2x3/16	47	-8581.950	15986.600	53.7	Pass
		Diagonal	2L2 1/2x2x3/16	48	-8563.000	15986.600	53.6	Pass
T5	150 - 125	Diagonal	2L2 1/2x2x5/16	53	-15829.600	23803.699	66.5	Pass
		Diagonal	2L2 1/2x2x5/16	56	-15839.800	23803.699	66.5	Pass
		Diagonal	2L2 1/2x2x5/16	60	-14727.800	23803.699	61.9	Pass
		Diagonal	2L2 1/2x2x5/16	63	-14727.800	23803.699	61.9	Pass
		Diagonal	2L2 1/2x2x5/16	67	-15575.600	23803.699	65.4	Pass
		Diagonal	2L2 1/2x2x5/16	70	-15565.500	23803.699	65.4	Pass
		Diagonal	2L2 1/2x2x5/16	77	-14132.800	24821.100	56.9	Pass
		Diagonal	2L2 1/2x2x5/16	80	-14163.200	24821.100	57.1	Pass
		Diagonal	2L2 1/2x2x5/16	84	-13096.200	24821.100	52.8	Pass
		Diagonal	2L2 1/2x2x5/16	87	-13075.600	24821.100	52.7	Pass
		Diagonal	2L2 1/2x2x5/16	91	-13739.700	24821.100	55.4	Pass
		Diagonal	2L2 1/2x2x5/16	94	-13729.900	24821.100	55.3	Pass
		Diagonal	2L2 1/2x2x5/16	101	-10727.300	25875.699	41.5	Pass
		Diagonal	2L2 1/2x2x5/16	104	-10736.200	25875.699	41.5	Pass
		Diagonal	2L2 1/2x2x5/16	108	-9695.520	25875.699	37.5	Pass
		Diagonal	2L2 1/2x2x5/16	111	-9695.080	25875.699	37.5	Pass
		Diagonal	2L2 1/2x2x5/16	115	-10250.300	25875.699	39.6	Pass
		Diagonal	2L2 1/2x2x5/16	118	-10241.800	25875.699	39.6	Pass
T6	125 - 100	Diagonal	2L3x2 1/2x1/4	128	-19819.600	32070.900	61.8 76.9 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	131	-19833.400	32070.900	61.8 76.9 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	135	-18501.000	32070.900	57.7 71.7 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	138	-18500.000	32070.900	57.7 71.7 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	142	-19341.100	32070.900	60.3 74.9 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	145	-19328.400	32070.900	60.3 75.0 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	152	-18726.199	33446.602	56.0 72.7 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	155	-18742.699	33446.602	56.0 72.6 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	159	-17366.801	33446.602	51.9 67.2 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	162	-17364.400	33446.602	51.9 67.2 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	166	-18441.600	33446.602	55.1 71.4 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	169	-18427.600	33446.602	55.1 71.5 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	176	-17601.199	34758.102	50.6 68.3 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	179	-17614.699	34758.102	50.7 68.2 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	183	-16304.300	34758.102	46.9 63.1 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	186	-16305.100	34758.102	46.9 63.1 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	190	-17362.199	34758.102	50.0 67.2 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	193	-17348.000	34758.102	49.9 67.3 (b)	Pass
T7	100 - 91.6667	Diagonal	2L3x2 1/2x1/4	203	-20599.301	30726.000	67.0 79.7 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	206	-20613.100	30726.000	67.1 79.7 (b)	Pass
		Diagonal	2L3x2 1/2x1/4	210	-19312.400	30726.000	62.9	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
							74.6 (b)	
		Diagonal	2L3x2 1/2x1/4	213	-19311.199	30726.000	62.8	Pass
							74.6 (b)	
		Diagonal	2L3x2 1/2x1/4	217	-20194.900	30726.000	65.7	Pass
							78.0 (b)	
		Diagonal	2L3x2 1/2x1/4	220	-20182.301	30726.000	65.7	Pass
							78.1 (b)	
T8	91.6667 - 83.3333	Diagonal	2L3x2 1/2x1/4	230	-21281.600	29445.000	72.3	Pass
							82.4 (b)	
		Diagonal	2L3x2 1/2x1/4	233	-21295.699	29445.000	72.3	Pass
							82.3 (b)	
		Diagonal	2L3x2 1/2x1/4	237	-20027.100	29445.000	68.0	Pass
							77.4 (b)	
		Diagonal	2L3x2 1/2x1/4	240	-20025.500	29445.000	68.0	Pass
							77.4 (b)	
		Diagonal	2L3x2 1/2x1/4	244	-20950.400	29445.000	71.2	Pass
							80.9 (b)	
		Diagonal	2L3x2 1/2x1/4	247	-20937.900	29445.000	71.1	Pass
							81.0 (b)	
T9	83.3333 - 75	Diagonal	2L3x2 1/2x1/4	257	-22220.801	28225.400	78.7	Pass
							85.9 (b)	
		Diagonal	2L3x2 1/2x1/4	260	-22233.699	28225.400	78.8	Pass
							85.8 (b)	
		Diagonal	2L3x2 1/2x1/4	264	-20960.699	28225.400	74.3	Pass
							80.9 (b)	
		Diagonal	2L3x2 1/2x1/4	267	-20958.301	28225.400	74.3	Pass
							80.9 (b)	
		Diagonal	2L3x2 1/2x1/4	271	-21955.400	28225.400	77.8	Pass
							84.7 (b)	
		Diagonal	2L3x2 1/2x1/4	274	-21944.801	28225.400	77.7	Pass
							84.8 (b)	
T10	75 - 50	Diagonal	2L3 1/2x3x5/16	284	-30385.699	36473.898	83.3	Pass
							94.1 (b)	
		Diagonal	2L3 1/2x3x5/16	287	-30401.500	36473.898	83.4	Pass
							94.0 (b)	
		Diagonal	2L3 1/2x3x5/16	291	-28707.600	36473.898	78.7	Pass
							88.7 (b)	
		Diagonal	2L3 1/2x3x5/16	294	-28702.199	36473.898	78.7	Pass
							88.7 (b)	
		Diagonal	2L3 1/2x3x5/16	298	-30260.199	36473.898	83.0	Pass
							93.6 (b)	
		Diagonal	2L3 1/2x3x5/16	301	-30249.900	36473.898	82.9	Pass
							93.7 (b)	
		Diagonal	2L3 1/2x3x5/16	308	-29263.400	38001.398	77.0	Pass
							90.7 (b)	
		Diagonal	2L3 1/2x3x5/16	311	-29280.400	38001.398	77.1	Pass
							90.6 (b)	
		Diagonal	2L3 1/2x3x5/16	315	-27546.100	38001.398	72.5	Pass
							85.2 (b)	
		Diagonal	2L3 1/2x3x5/16	318	-27541.500	38001.398	72.5	Pass
							85.2 (b)	
		Diagonal	2L3 1/2x3x5/16	322	-29054.801	38001.398	76.5	Pass
							89.9 (b)	
		Diagonal	2L3 1/2x3x5/16	325	-29042.400	38001.398	76.4	Pass
							90.0 (b)	
T11	50 - 37.5	Diagonal	2L3 1/2x3x5/16	335	-30993.400	35221.199	88.0	Pass
		Diagonal	2L3 1/2x3x5/16	338	-31009.900	35221.199	88.0	Pass
		Diagonal	2L3 1/2x3x5/16	342	-29370.900	35221.199	83.4	Pass
		Diagonal	2L3 1/2x3x5/16	345	-29364.900	35221.199	83.4	Pass
		Diagonal	2L3 1/2x3x5/16	349	-30941.400	35221.199	87.8	Pass
		Diagonal	2L3 1/2x3x5/16	352	-30930.900	35221.199	87.8	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	øP$_{allow}$ lb	% Capacity	Pass Fail
T12	37.5 - 25	Diagonal	2L3 1/2x3x5/16	364	-32061.699	33740.199	95.0	Pass
		Diagonal	2L3 1/2x3x5/16	367	-32078.600	33740.199	95.1	Pass
		Diagonal	2L3 1/2x3x5/16	370	-30407.801	33740.199	90.1	Pass
		Diagonal	2L3 1/2x3x5/16	373	-30401.100	33740.199	90.1	Pass
		Diagonal	2L3 1/2x3x5/16	376	-32070.900	33740.199	95.1	Pass
		Diagonal	2L3 1/2x3x5/16	379	-32060.699	33740.199	95.0	Pass
T13	25 - 12.5	Diagonal	2L3x3 1/2x5/16	389	-32819.102	50860.301	64.5 94.3 (b)	Pass
		Diagonal	2L3x3 1/2x5/16	392	-32841.500	50860.301	64.6 94.2 (b)	Pass
		Diagonal	2L3x3 1/2x5/16	396	-30968.400	50860.301	60.9 88.8 (b)	Pass
		Diagonal	2L3x3 1/2x5/16	399	-30961.100	50860.301	60.9 88.8 (b)	Pass
		Diagonal	2L3x3 1/2x5/16	403	-32882.801	50860.301	64.7 94.4 (b)	Pass
		Diagonal	2L3x3 1/2x5/16	406	-32867.699	50860.301	64.6 94.5 (b)	Pass
T14	12.5 - 0	Diagonal	2L3x3 1/2x5/16	418	-33016.199	48872.500	67.6 94.6 (b)	Pass
		Diagonal	2L3x3 1/2x5/16	421	-33045.699	48872.500	67.6 94.5 (b)	Pass
		Diagonal	2L3x3 1/2x5/16	424	-31139.699	48872.500	63.7 88.9 (b)	Pass
		Diagonal	2L3x3 1/2x5/16	427	-31131.500	48872.500	63.7 89.0 (b)	Pass
		Diagonal	2L3x3 1/2x5/16	430	-33113.000	48872.500	67.8 94.7 (b)	Pass
		Diagonal	2L3x3 1/2x5/16	433	-33091.602	48872.500	67.7 94.8 (b)	Pass
T2	175 - 166.667	Horizontal	L2 1/2x2 1/2x3/16	16	-2429.920	13230.200	18.4	Pass
		Horizontal	L2 1/2x2 1/2x3/16	19	-2599.790	13230.200	19.7	Pass
		Horizontal	L2 1/2x2 1/2x3/16	22	-3003.160	13230.200	22.7	Pass
T5	150 - 125	Horizontal	L3x2 1/2x1/4	52	-10444.200	13945.100	74.9	Pass
		Horizontal	L3x2 1/2x1/4	59	-9690.310	13945.100	69.5	Pass
		Horizontal	L3x2 1/2x1/4	66	-10248.900	13945.100	73.5	Pass
		Horizontal	L3x2 1/2x1/4	76	-8951.150	15119.700	59.2	Pass
		Horizontal	L3x2 1/2x1/4	83	-8287.030	15119.700	54.8	Pass
		Horizontal	L3x2 1/2x1/4	90	-8721.440	15119.700	57.7	Pass
		Horizontal	L3x2 1/2x1/4	100	-6475.880	16449.100	39.4	Pass
		Horizontal	L3x2 1/2x1/4	107	-5781.150	16449.100	35.1	Pass
		Horizontal	L3x2 1/2x1/4	114	-6124.450	16449.100	37.2	Pass
T6	125 - 100	Horizontal	L3x3x5/16	127	-13814.800	18094.000	76.3	Pass
		Horizontal	L3x3x5/16	134	-12826.600	18094.000	70.9	Pass
		Horizontal	L3x3x5/16	141	-13433.600	18094.000	74.2	Pass
		Horizontal	L3x3x5/16	151	-12795.000	19418.801	65.9	Pass
		Horizontal	L3x3x5/16	158	-11785.600	19418.801	60.7	Pass
		Horizontal	L3x3x5/16	165	-12587.300	19418.801	64.8	Pass
		Horizontal	L3x3x5/16	175	-11731.400	20894.600	56.1	Pass
		Horizontal	L3x3x5/16	182	-10862.600	20894.600	52.0	Pass
		Horizontal	L3x3x5/16	189	-11564.600	20894.600	55.3	Pass
T7	100 - 91.6667	Horizontal	2L3x3x1/4	202	-14608.400	52550.199	27.8 35.8 (b)	Pass
		Horizontal	2L3x3x1/4	209	-13621.700	52550.199	25.9 33.4 (b)	Pass
		Horizontal	2L3x3x1/4	216	-14283.000	52550.199	27.2 35.0 (b)	Pass
T8	91.6667 - 83.3333	Horizontal	2L3x3x1/4	229	-15373.600	50073.898	30.7 37.8 (b)	Pass
		Horizontal	2L3x3x1/4	236	-14389.100	50073.898	28.7 35.4 (b)	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
		Horizontal	2L3x3x1/4	243	-15097.900	50073.898	30.2 37.1 (b)	Pass
T9	83.3333 - 75	Horizontal	2L3x3x1/4	256	-16287.100	47621.500	34.2 40.1 (b)	Pass
		Horizontal	2L3x3x1/4	263	-15291.100	47621.500	32.1 37.7 (b)	Pass
		Horizontal	2L3x3x1/4	270	-16059.700	47621.500	33.7 39.5 (b)	Pass
T10	75 - 50	Horizontal	L4x4x1/4	283	-18521.000	22997.699	80.5	Pass
		Horizontal	L4x4x1/4	290	-17395.600	22997.699	75.6	Pass
		Horizontal	L4x4x1/4	297	-18417.699	22997.699	80.1	Pass
		Horizontal	L4x4x1/4	307	-17496.100	24933.100	70.2 75.9 (b)	Pass
		Horizontal	L4x4x1/4	314	-16372.200	24933.100	65.7 71.1 (b)	Pass
		Horizontal	L4x4x1/4	321	-17339.500	24933.100	69.5 75.2 (b)	Pass
T11	50 - 37.5	Horizontal	L4x4x1/4	334	-19465.199	21194.900	91.8	Pass
		Horizontal	L4x4x1/4	341	-18338.500	21194.900	86.5	Pass
		Horizontal	L4x4x1/4	348	-19410.199	21194.900	91.6	Pass
T13	25 - 12.5	Horizontal	L4x4x5/16	388	-21488.100	22296.100	96.4	Pass
		Horizontal	L4x4x5/16	395	-20162.500	22296.100	90.4	Pass
		Horizontal	L4x4x5/16	402	-21511.699	22296.100	96.5	Pass
T1	180 - 175	Top Girt	L3x3x1/4	4	-913.242	24791.500	3.7 4.4 (b)	Pass
		Top Girt	L3x3x1/4	5	-1413.700	24791.500	5.7 6.7 (b)	Pass
		Top Girt	L3x3x1/4	6	-1180.180	24791.500	4.8 5.7 (b)	Pass
T3	166.667 - 158.333	Top Girt	L2 1/2x2 1/2x3/16	28	-4111.960	12194.200	33.7	Pass
		Top Girt	L2 1/2x2 1/2x3/16	29	-3948.840	12194.200	32.4	Pass
		Top Girt	L2 1/2x2 1/2x3/16	30	-4468.060	12194.200	36.6	Pass
T4	158.333 - 150	Top Girt	L2 1/2x2 1/2x3/16	40	-5406.500	11179.200	48.4	Pass
		Top Girt	L2 1/2x2 1/2x3/16	41	-4810.380	11179.200	43.0	Pass
		Top Girt	L2 1/2x2 1/2x3/16	42	-5220.550	11179.200	46.7	Pass
T12	37.5 - 25	Top Girt	2L4x4x1/4	361	-20543.000	72328.898	28.4 44.4 (b)	Pass
		Top Girt	2L4x4x1/4	362	-19387.301	72328.898	26.8 42.0 (b)	Pass
		Top Girt	2L4x4x1/4	363	-20530.400	72328.898	28.4 44.4 (b)	Pass
T14	12.5 - 0	Top Girt	2L4x4x5/16	415	-22252.699	80880.398	27.5 38.5 (b)	Pass
		Top Girt	2L4x4x5/16	416	-20861.600	80880.398	25.8 36.1 (b)	Pass
		Top Girt	2L4x4x5/16	417	-22299.301	80880.398	27.6 38.6 (b)	Pass
T5	150 - 125	Redund Horz 1 Bracing	L2x2x3/16	54	-1126.860	12054.300	9.3	Pass
		Redund Horz 1 Bracing	L2x2x3/16	57	-1120.580	12054.300	9.3	Pass
		Redund Horz 1 Bracing	L2x2x3/16	61	-1120.580	12054.300	9.3	Pass
		Redund Horz 1 Bracing	L2x2x3/16	64	-1109.130	12054.300	9.2	Pass
		Redund Horz 1 Bracing	L2x2x3/16	68	-1109.130	12054.300	9.2	Pass
		Redund Horz 1 Bracing	L2x2x3/16	71	-1126.860	12054.300	9.3	Pass
		Redund Horz 1	L2x2x3/16	78	-1126.860	12414.300	9.1	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
		Bracing						
		Redund Horz 1 Bracing	L2x2x3/16	81	-1120.580	12414.300	9.0	Pass
		Redund Horz 1 Bracing	L2x2x3/16	85	-1120.580	12414.300	9.0	Pass
		Redund Horz 1 Bracing	L2x2x3/16	88	-1109.130	12414.300	8.9	Pass
		Redund Horz 1 Bracing	L2x2x3/16	92	-1109.130	12414.300	8.9	Pass
		Redund Horz 1 Bracing	L2x2x3/16	95	-1126.860	12414.300	9.1	Pass
		Redund Horz 1 Bracing	L2x2x3/16	102	-1126.860	12776.400	8.8	Pass
		Redund Horz 1 Bracing	L2x2x3/16	105	-1120.580	12776.400	8.8	Pass
		Redund Horz 1 Bracing	L2x2x3/16	109	-1120.580	12776.400	8.8	Pass
		Redund Horz 1 Bracing	L2x2x3/16	112	-1109.130	12776.400	8.7	Pass
		Redund Horz 1 Bracing	L2x2x3/16	116	-1109.130	12776.400	8.7	Pass
		Redund Horz 1 Bracing	L2x2x3/16	119	-1126.860	12776.400	8.8	Pass
T6	125 - 100	Redund Horz 1 Bracing	L2x2x3/16	129	-2289.740	10990.800	20.8	Pass
		Redund Horz 1 Bracing	L2x2x3/16	132	-2271.980	10990.800	20.7	Pass
		Redund Horz 1 Bracing	L2x2x3/16	136	-2271.980	10990.800	20.7	Pass
		Redund Horz 1 Bracing	L2x2x3/16	139	-2263.820	10990.800	20.6	Pass
		Redund Horz 1 Bracing	L2x2x3/16	143	-2263.820	10990.800	20.6	Pass
		Redund Horz 1 Bracing	L2x2x3/16	146	-2289.740	10990.800	20.8	Pass
		Redund Horz 1 Bracing	L2x2x3/16	153	-2289.740	11342.100	20.2	Pass
		Redund Horz 1 Bracing	L2x2x3/16	156	-2271.980	11342.100	20.0	Pass
		Redund Horz 1 Bracing	L2x2x3/16	160	-2271.980	11342.100	20.0	Pass
		Redund Horz 1 Bracing	L2x2x3/16	163	-2263.820	11342.100	20.0	Pass
		Redund Horz 1 Bracing	L2x2x3/16	167	-2263.820	11342.100	20.0	Pass
		Redund Horz 1 Bracing	L2x2x3/16	170	-2289.740	11342.100	20.2	Pass
		Redund Horz 1 Bracing	L2x2x3/16	177	-2289.740	11696.700	19.6	Pass
		Redund Horz 1 Bracing	L2x2x3/16	180	-2271.980	11696.700	19.4	Pass
		Redund Horz 1 Bracing	L2x2x3/16	184	-2271.980	11696.700	19.4	Pass
		Redund Horz 1 Bracing	L2x2x3/16	187	-2263.820	11696.700	19.4	Pass
		Redund Horz 1 Bracing	L2x2x3/16	191	-2263.820	11696.700	19.4	Pass
		Redund Horz 1 Bracing	L2x2x3/16	194	-2289.740	11696.700	19.6	Pass
T7	100 - 91.6667	Redund Horz 1 Bracing	L2x2x3/16	204	-2715.270	10433.000	26.0	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
		Redund Horz 1 Bracing	L2x2x3/16	207	-2694.740	10433.000	25.8	Pass
		Redund Horz 1 Bracing	L2x2x3/16	211	-2694.740	10433.000	25.8	Pass
		Redund Horz 1 Bracing	L2x2x3/16	214	-2687.970	10433.000	25.8	Pass
		Redund Horz 1 Bracing	L2x2x3/16	218	-2687.970	10433.000	25.8	Pass
		Redund Horz 1 Bracing	L2x2x3/16	221	-2715.270	10433.000	26.0	Pass
T8	91.6667 - 83.3333	Redund Horz 1 Bracing	L2x2x3/16	231	-3153.660	9755.500	32.3	Pass
		Redund Horz 1 Bracing	L2x2x3/16	234	-3130.530	9755.500	32.1	Pass
		Redund Horz 1 Bracing	L2x2x3/16	238	-3130.530	9755.500	32.1	Pass
		Redund Horz 1 Bracing	L2x2x3/16	241	-3125.080	9755.500	32.0	Pass
		Redund Horz 1 Bracing	L2x2x3/16	245	-3125.080	9755.500	32.0	Pass
		Redund Horz 1 Bracing	L2x2x3/16	248	-3153.660	9755.500	32.3	Pass
T9	83.3333 - 75	Redund Horz 1 Bracing	L2x2x3/16	258	-3597.940	9097.250	39.5	Pass
		Redund Horz 1 Bracing	L2x2x3/16	261	-3570.570	9097.250	39.2	Pass
		Redund Horz 1 Bracing	L2x2x3/16	265	-3570.570	9097.250	39.2	Pass
		Redund Horz 1 Bracing	L2x2x3/16	268	-3566.350	9097.250	39.2	Pass
		Redund Horz 1 Bracing	L2x2x3/16	272	-3566.350	9097.250	39.2	Pass
		Redund Horz 1 Bracing	L2x2x3/16	275	-3597.940	9097.250	39.5	Pass
T10	75 - 50	Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	285	-4721.430	14192.600	33.3	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	288	-4688.410	14192.600	33.0	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	292	-4688.410	14192.600	33.0	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	295	-4687.400	14192.600	33.0	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	299	-4687.400	14192.600	33.0	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	302	-4721.430	14192.600	33.3	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	309	-4721.430	14725.900	32.1	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	312	-4688.410	14725.900	31.8	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	316	-4688.410	14725.900	31.8	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	319	-4687.400	14725.900	31.8	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	323	-4687.400	14725.900	31.8	Pass
		Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	326	-4721.430	14725.900	32.1	Pass
T11	50 - 37.5	Redund Horz 1 Bracing	L2 1/2x2 1/2x3/16	336	-5433.970	13637.000	39.8	Pass
		Redund Horz 1	L2 1/2x2 1/2x3/16	339	-5397.980	13637.000	39.6	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	343	-5397.980	13637.000	39.6	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	346	-5398.430	13637.000	39.6	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	350	-5398.430	13637.000	39.6	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	353	-5433.970	13637.000	39.8	Pass
		Bracing						
T12	37.5 - 25	Redund Horz 1	L2 1/2x2 1/2x3/16	365	-6148.950	12604.700	48.8	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	368	-6109.840	12604.700	48.5	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	371	-6109.840	12604.700	48.5	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	374	-6111.630	12604.700	48.5	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	377	-6111.630	12604.700	48.5	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	380	-6148.950	12604.700	48.8	Pass
		Bracing						
T13	25 - 12.5	Redund Horz 1	L2 1/2x2 1/2x3/16	390	-6876.650	11605.500	59.3	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	393	-6832.230	11605.500	58.9	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	397	-6832.230	11605.500	58.9	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	400	-6835.260	11605.500	58.9	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	404	-6835.260	11605.500	58.9	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	407	-6876.650	11605.500	59.3	Pass
		Bracing						
T14	12.5 - 0	Redund Horz 1	L2 1/2x2 1/2x3/16	419	-7624.190	10621.400	71.8	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	422	-7578.080	10621.400	71.3	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	425	-7578.080	10621.400	71.3	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	428	-7581.820	10621.400	71.4	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	431	-7581.820	10621.400	71.4	Pass
		Bracing						
		Redund Horz 1	L2 1/2x2 1/2x3/16	434	-7624.190	10621.400	71.8	Pass
		Bracing						
T5	150 - 125	Redund Diag 1	L2x2x3/16	55	-847.384	6798.980	12.5	Pass
		Bracing						
		Redund Diag 1	L2x2x3/16	58	-842.662	6798.980	12.4	Pass
		Bracing						
		Redund Diag 1	L2x2x3/16	62	-842.662	6798.980	12.4	Pass
		Bracing						
		Redund Diag 1	L2x2x3/16	65	-834.053	6798.980	12.3	Pass
		Bracing						
		Redund Diag 1	L2x2x3/16	69	-834.053	6798.980	12.3	Pass
		Bracing						
		Redund Diag 1	L2x2x3/16	72	-847.384	6798.980	12.5	Pass
		Bracing						
		Redund Diag 1	L2x2x3/16	79	-871.555	7087.540	12.3	Pass
		Bracing						
		Redund Diag 1	L2x2x3/16	82	-866.698	7087.540	12.2	Pass
		Bracing						

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
		Redund Diag 1 Bracing	L2x2x3/16	86	-866.698	7087.540	12.2	Pass
		Redund Diag 1 Bracing	L2x2x3/16	89	-857.843	7087.540	12.1	Pass
		Redund Diag 1 Bracing	L2x2x3/16	93	-857.843	7087.540	12.1	Pass
		Redund Diag 1 Bracing	L2x2x3/16	96	-871.555	7087.540	12.3	Pass
		Redund Diag 1 Bracing	L2x2x3/16	103	-898.771	7384.910	12.2	Pass
		Redund Diag 1 Bracing	L2x2x3/16	106	-893.763	7384.910	12.1	Pass
		Redund Diag 1 Bracing	L2x2x3/16	110	-893.763	7384.910	12.1	Pass
		Redund Diag 1 Bracing	L2x2x3/16	113	-884.631	7384.910	12.0	Pass
		Redund Diag 1 Bracing	L2x2x3/16	117	-884.631	7384.910	12.0	Pass
		Redund Diag 1 Bracing	L2x2x3/16	120	-898.771	7384.910	12.2	Pass
T6	125 - 100	Redund Diag 1 Bracing	L2x2x3/16	130	-1603.560	5938.100	27.0	Pass
		Redund Diag 1 Bracing	L2x2x3/16	133	-1591.120	5938.100	26.8	Pass
		Redund Diag 1 Bracing	L2x2x3/16	137	-1591.120	5938.100	26.8	Pass
		Redund Diag 1 Bracing	L2x2x3/16	140	-1585.410	5938.100	26.7	Pass
		Redund Diag 1 Bracing	L2x2x3/16	144	-1585.410	5938.100	26.7	Pass
		Redund Diag 1 Bracing	L2x2x3/16	147	-1603.560	5938.100	27.0	Pass
		Redund Diag 1 Bracing	L2x2x3/16	154	-1638.820	6193.480	26.5	Pass
		Redund Diag 1 Bracing	L2x2x3/16	157	-1626.110	6193.480	26.3	Pass
		Redund Diag 1 Bracing	L2x2x3/16	161	-1626.110	6193.480	26.3	Pass
		Redund Diag 1 Bracing	L2x2x3/16	164	-1620.270	6193.480	26.2	Pass
		Redund Diag 1 Bracing	L2x2x3/16	168	-1620.270	6193.480	26.2	Pass
		Redund Diag 1 Bracing	L2x2x3/16	171	-1638.820	6193.480	26.5	Pass
		Redund Diag 1 Bracing	L2x2x3/16	178	-1678.050	6458.880	26.0	Pass
		Redund Diag 1 Bracing	L2x2x3/16	181	-1665.030	6458.880	25.8	Pass
		Redund Diag 1 Bracing	L2x2x3/16	185	-1665.030	6458.880	25.8	Pass
		Redund Diag 1 Bracing	L2x2x3/16	188	-1659.050	6458.880	25.7	Pass
		Redund Diag 1 Bracing	L2x2x3/16	192	-1659.050	6458.880	25.7	Pass
		Redund Diag 1 Bracing	L2x2x3/16	195	-1678.050	6458.880	26.0	Pass
T7	100 - 91.6667	Redund Diag 1 Bracing	L2x2x3/16	205	-1863.860	5679.480	32.8	Pass
		Redund Diag 1 Bracing	L2x2x3/16	208	-1849.770	5679.480	32.6	Pass
		Redund Diag 1	L2x2x3/16	212	-1849.770	5679.480	32.6	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
		Bracing						
		Redund Diag 1 Bracing	L2x2x3/16	215	-1845.130	5679.480	32.5	Pass
		Redund Diag 1 Bracing	L2x2x3/16	219	-1845.130	5679.480	32.5	Pass
		Redund Diag 1 Bracing	L2x2x3/16	222	-1863.860	5679.480	32.8	Pass
T8	91.6667 - 83.3333	Redund Diag 1 Bracing	L2x2x3/16	232	-2125.170	5433.940	39.1	Pass
		Redund Diag 1 Bracing	L2x2x3/16	235	-2109.580	5433.940	38.8	Pass
		Redund Diag 1 Bracing	L2x2x3/16	239	-2109.580	5433.940	38.8	Pass
		Redund Diag 1 Bracing	L2x2x3/16	242	-2105.910	5433.940	38.8	Pass
		Redund Diag 1 Bracing	L2x2x3/16	246	-2105.910	5433.940	38.8	Pass
		Redund Diag 1 Bracing	L2x2x3/16	249	-2125.170	5433.940	39.1	Pass
T9	83.3333 - 75	Redund Diag 1 Bracing	L2x2x3/16	259	-2383.540	5200.860	45.8	Pass
		Redund Diag 1 Bracing	L2x2x3/16	262	-2365.410	5200.860	45.5	Pass
		Redund Diag 1 Bracing	L2x2x3/16	266	-2365.410	5200.860	45.5	Pass
		Redund Diag 1 Bracing	L2x2x3/16	269	-2362.610	5200.860	45.4	Pass
		Redund Diag 1 Bracing	L2x2x3/16	273	-2362.610	5200.860	45.4	Pass
		Redund Diag 1 Bracing	L2x2x3/16	276	-2383.540	5200.860	45.8	Pass
T10	75 - 50	Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	286	-3707.030	6369.320	58.2	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	289	-3681.100	6369.320	57.8	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	293	-3681.100	6369.320	57.8	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	296	-3680.300	6369.320	57.8	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	300	-3680.300	6369.320	57.8	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	303	-3707.030	6369.320	58.2	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	310	-3828.250	6633.980	57.7	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	313	-3801.470	6633.980	57.3	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	317	-3801.470	6633.980	57.3	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	320	-3800.650	6633.980	57.3	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	324	-3800.650	6633.980	57.3	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	327	-3828.250	6633.980	57.7	Pass
T11	50 - 37.5	Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	337	-4142.860	6087.970	68.0	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	340	-4115.420	6087.970	67.6	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	344	-4115.420	6087.970	67.6	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	347	-4115.760	6087.970	67.6	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	351	-4115.760	6087.970	67.6	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	354	-4142.860	6087.970	68.0	Pass
T12	37.5 - 25	Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	366	-4563.470	5820.200	78.4	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	369	-4534.440	5820.200	77.9	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	372	-4534.440	5820.200	77.9	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	375	-4535.770	5820.200	77.9	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	378	-4535.770	5820.200	77.9	Pass
		Redund Diag 1 Bracing	L2 1/2x2 1/2x3/16	381	-4563.470	5820.200	78.4	Pass
T13	25 - 12.5	Redund Diag 1 Bracing	L3x3x1/4	391	-4979.090	12708.200	39.2	Pass
		Redund Diag 1 Bracing	L3x3x1/4	394	-4946.930	12708.200	38.9	Pass
		Redund Diag 1 Bracing	L3x3x1/4	398	-4946.930	12708.200	38.9	Pass
		Redund Diag 1 Bracing	L3x3x1/4	401	-4949.120	12708.200	38.9	Pass
		Redund Diag 1 Bracing	L3x3x1/4	405	-4949.120	12708.200	38.9	Pass
		Redund Diag 1 Bracing	L3x3x1/4	408	-4979.090	12708.200	39.2	Pass
T14	12.5 - 0	Redund Diag 1 Bracing	L3x3x1/4	420	-5396.570	12154.700	44.4	Pass
		Redund Diag 1 Bracing	L3x3x1/4	423	-5363.930	12154.700	44.1	Pass
		Redund Diag 1 Bracing	L3x3x1/4	426	-5363.930	12154.700	44.1	Pass
		Redund Diag 1 Bracing	L3x3x1/4	429	-5366.580	12154.700	44.2	Pass
		Redund Diag 1 Bracing	L3x3x1/4	432	-5366.580	12154.700	44.2	Pass
		Redund Diag 1 Bracing	L3x3x1/4	435	-5396.570	12154.700	44.4	Pass
T5	150 - 125	Inner Bracing	L2 1/2x2x3/16	73	-11.356	4505.540	0.9	Pass
		Inner Bracing	L2 1/2x2x3/16	74	-11.354	4505.540	0.9	Pass
		Inner Bracing	L2 1/2x2x3/16	75	-11.440	4505.540	0.9	Pass
		Inner Bracing	L2 1/2x2x3/16	97	-11.040	4955.830	0.8	Pass
		Inner Bracing	L2 1/2x2x3/16	98	-11.025	4955.830	0.8	Pass
		Inner Bracing	L2 1/2x2x3/16	99	-11.104	4955.830	0.8	Pass
		Inner Bracing	L2 1/2x2x3/16	121	-10.281	5477.150	0.8	Pass
		Inner Bracing	L2 1/2x2x3/16	122	-10.263	5477.150	0.8	Pass
		Inner Bracing	L2 1/2x2x3/16	123	-10.337	5477.150	0.8	Pass
T6	125 - 100	Inner Bracing	L2 1/2x2x3/16	148	-13.728	3469.700	1.0	Pass
		Inner Bracing	L2 1/2x2x3/16	149	-13.732	3469.700	1.0	Pass
		Inner Bracing	L2 1/2x2x3/16	150	-13.870	3469.700	1.0	Pass
		Inner Bracing	L2 1/2x2x3/16	172	-13.392	3771.280	0.9	Pass
		Inner Bracing	L2 1/2x2x3/16	173	-13.393	3771.280	0.9	Pass
		Inner Bracing	L2 1/2x2x3/16	174	-13.531	3771.280	0.9	Pass
		Inner Bracing	L2 1/2x2x3/16	196	-13.054	4113.950	0.9	Pass
		Inner Bracing	L2 1/2x2x3/16	197	-13.053	4113.950	0.9	Pass
		Inner Bracing	L2 1/2x2x3/16	198	-13.190	4113.950	0.9	Pass
T7	100 - 91.6667	Inner Bracing	L2 1/2x2x3/16	223	-18.780	3202.900	1.0	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
		Inner Bracing	L2 1/2x2x3/16	224	-18.810	3202.900	1.0	Pass
		Inner Bracing	L2 1/2x2x3/16	225	-18.881	3202.900	1.0	Pass
T8	91.6667 - 83.3333	Inner Bracing	L2 1/2x2x3/16	250	-18.594	2965.740	1.0	Pass
		Inner Bracing	L2 1/2x2x3/16	251	-18.621	2965.740	1.0	Pass
		Inner Bracing	L2 1/2x2x3/16	252	-18.684	2965.740	1.0	Pass
T9	83.3333 - 75	Inner Bracing	L2 1/2x2x3/16	277	-18.364	2753.970	1.0	Pass
		Inner Bracing	L2 1/2x2x3/16	278	-18.388	2753.970	1.0	Pass
		Inner Bracing	L2 1/2x2x3/16	279	-18.445	2753.970	1.0	Pass
T10	75 - 50	Inner Bracing	L2 1/2x2 1/2x3/16	304	-20.736	3467.320	0.9	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	305	-20.765	3467.320	0.9	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	306	-20.992	3467.320	0.9	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	328	-20.293	3841.910	0.9	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	329	-20.320	3841.910	0.9	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	330	-20.551	3841.910	0.9	Pass
T11	50 - 37.5	Inner Bracing	L2 1/2x2 1/2x3/16	355	-20.566	3144.960	1.0	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	356	-20.597	3144.960	1.0	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	357	-20.815	3144.960	1.0	Pass
T12	37.5 - 25	Inner Bracing	L2 1/2x2 1/2x3/16	382	-363.928	2865.560	12.7	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	383	-363.740	2865.560	12.7	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	384	-363.953	2865.560	12.7	Pass
T13	25 - 12.5	Inner Bracing	L3x3x1/4	409	-20.682	5986.700	0.7	Pass
		Inner Bracing	L3x3x1/4	410	-20.715	5986.700	0.7	Pass
		Inner Bracing	L3x3x1/4	411	-20.919	5986.700	0.7	Pass
T14	12.5 - 0	Inner Bracing	L3x3x1/4	436	-395.355	5498.200	7.2	Pass
		Inner Bracing	L3x3x1/4	437	-396.203	5498.200	7.2	Pass
		Inner Bracing	L3x3x1/4	438	-396.223	5498.200	7.2	Pass
							Summary	
						Leg (T14)	89.6	Pass
						Diagonal (T12)	95.1	Pass
						Horizontal (T13)	96.5	Pass
						Top Girt (T4)	48.4	Pass
						Redund Horz 1 Bracing (T14)	71.8	Pass
						Redund Diag 1 Bracing (T12)	78.4	Pass
						Inner Bracing (T12)	12.7	Pass
						Bolt Checks	94.8	Pass
						RATING =	**96.5**	**Pass**

ANCHOR BOLT EVALUATION

AECOM

Job	180' Stainelss Lattice Tower - Westbrook, CT	Project No.	SAI-100	Page / Sheet	of / 1 of 4
Description	Westbrook CT - Anchor Bolt Analysis (TIA-222-G)	Computed by	MCD	Date	09/27/17
	Pre SAI-063 MODification Anchorage	Checked by		Date	

ANCHOR BOLT ANALYSIS

Input Data

Tower Reactions:

Uplift: $Uplift := 419.582 \cdot kips$ *user input*

Shear: $Shear := 57.664 \cdot kips$ *user input*

Compression: $Compression := 482.637 \cdot kips$ *user input*

Anchor Bolt Data:

Use ASTM A36 (actual material strength unknown therefore assume min design values)

Number of Anchor Bolts = N $N := 6$ *user input*

Bolt Ultimate Strength: $F_u := 58 \cdot ksi$ *user input*

Bolt Yield Strength: $Fy := 36 \cdot ksi$ *user input*

Bolt Modulus: $E := 29000 \cdot ksi$ *user input*

Thickness of Anchor Bolts $D := 1.75in$ *user input*

Threads per Inch: $n := 5$ *user input*

Coefficient of Friction: $\mu := 0.55$ *user input*

(for baseplate with grout ASCE 10-15)

Length from top of pier to bottom of leveling nut: $L_{ar} := 0in$ *user input*

Bolt Modulus: $E := 29000 \cdot ksi$ *user input*

Previously MODified Anchorage - Steel Bolts (Ref. SAI-063 Rev.1)

Number of Anchor Bolts = N $N_{M1} := 0$ *user input*

Bolt Ultimate Strength: $F_{u.M1} := 72.5 \cdot ksi$ *user input*

Bolt Yield Strength: $Fy_{M1} := 58 \cdot ksi$ *user input*

Bolt Modulus: $E_{M1} := 29000 \cdot ksi$ *user input*

Thickness of Anchor Bolts $D_{M1} := 1.25in$ *user input*

Threads per Inch: $n_{M1} := 7$ *user input*

Previously MODified Anchorage - Steel Bolts (Ref. NSS-015 Rev.2)

Number of Anchor Bolts = N $N_{M2} := 0$ *user input*

Bolt Ultimate Strength: $F_{u.M2} := 72.5 \cdot ksi$ *user input*

Bolt Yield Strength: $Fy_{M2} := 58 \cdot ksi$ *user input*

Bolt Modulus: $E_{M2} := 29000 \cdot ksi$ *user input*

Thickness of Anchor Bolts $D_{M2} := 1.25in$ *user input*

Threads per Inch: $n_{M2} := 7$ *user input*

Anchor Bolt Section Properties:

Gross Area of Bolt:

$A_{ge} := 6\frac{\pi}{4}\cdot D^2$ $\quad A_{ge} = 14.43\cdot in^2$ $\quad A_{g.pm} := 0\frac{\pi}{4}\cdot D_{M1}^{\ 2} + 0\frac{\pi}{4}\cdot D_{M2}^{\ 2}$ $\quad A_{g.pm} = 0\cdot in^2$

Net Area of Bolt:

$$A_{ne} := 6\cdot\left[\frac{\pi}{4}\cdot\left(D - \frac{0.9743\cdot in}{n}\right)^2\right] \qquad A_{n.pm} := 0\cdot\left[\frac{\pi}{4}\cdot\left(D_{M1} - \frac{0.9743\cdot in}{n_{M1}}\right)^2\right] + 0\cdot\left[\frac{\pi}{4}\cdot\left(D_{M2} - \frac{0.9743\cdot in}{n_{M2}}\right)^2\right]$$

$A_{ne} = 11.4\cdot in^2$ $\quad A_{n.pm} = 0\cdot in^2$

Net Diameter:

$D_{ne} := 6\left(D - \frac{0.9743in}{n}\right)$ $\quad D_{ne} = 9.33\cdot in$ $\quad D_{n.pm} := 0\cdot\left(D_{M1} - \frac{0.9743\cdot in}{n_{M1}}\right) + 0\cdot\left(D_{M2} - \frac{0.9743\cdot in}{n_{M2}}\right)$ $\quad D_{n.pm} = 0\cdot in$

Radius of Gyration of Bolt:

$$r_e := 6\cdot\frac{\left(D - \frac{0.9743in}{n}\right)}{4} \quad r_e = 2.33\cdot in \qquad r_{pm} := 0\cdot\frac{\left(D_{M1} - \frac{0.9743\cdot in}{n_{M1}}\right)}{4} + 0\cdot\frac{\left(D_{M2} - \frac{0.9743\cdot in}{n_{M2}}\right)}{4} \quad r_{pm} = 0\cdot in$$

Plastic Section Modulus of Bolt:

$$Z_{xe} := 6\frac{\left(D - \frac{0.9743in}{n}\right)^3}{6} \quad Z_{xe} = 3.76\cdot in^3 \qquad Z_{x.pm} := 0\frac{\left(D_{M1} - \frac{0.9743\cdot in}{n_{M1}}\right)^3}{6} + 0\frac{\left(D_{M2} - \frac{0.9743\cdot in}{n_{M2}}\right)^3}{6} \quad Z_{x.pm} = 0\cdot in^3$$

Forces:

Tension Force:

$T_u := \frac{Uplift}{1}$

$T_u = 419.58\cdot kip$ $\quad T_{ub} := T_u$

Shear Force:

$V_u := \frac{Shear}{1}$

$V_u = 57.66\cdot kip$ $\quad V_{ub} := V_u$

Resistance Factor for Flexure (ANSI/TIA-222-G 4.7):

$\phi_f := 0.9$

Resistance Factor for Anchor Bolt (ANSI/TIA-222-G 4.5.4.2):

$\phi_b := 0.80$

Resistance Factor for Tension (ANSI/TIA-222-G 4.9.6.1):

$\phi_t := 0.75$ $\quad \phi_{t.pm} := 0.65$

Resistance Factor for Shear (ANSI/TIA-222-G 4.9.6.3):

$\phi_v := 0.75$ $\quad \phi_{v.pm} := 0.60$

ANSI/TIA-222-G 4.7.1 Flexural Members:

Nominal Flexure Strength, Mn:

$M_n := Fy \cdot Z_{xe} + Fy \cdot Z_{x.pm}$

$M_n = 11.28 \cdot ft \cdot kip$

$\phi_f \cdot M_n = 10.15 \cdot ft \cdot kip$

Applied Moment due to Shear (worst case lever arm), Mu:

$M_u := L_{ar} \cdot V_u$

$M_u = 0 \cdot ft \cdot kip$

Flexure Check:

$FlexureCheck := if\left(M_u \le \phi_f \cdot M_n, "OK", "NO\ GOOD"\right)$

FlexureCheck = "OK"

$\frac{M_u}{\phi_f \cdot M_n} = 0 \cdot \%$

ANSI/TIA-222-G 4.9.6.1 Tensile Strength:

Design Tensile Strength, Rnt:

$R_{nt} := F_u \cdot A_{ne}$ $\quad R_{nt.pm} := F_u \cdot A_{n.pm}$

$R_{nt} = 661.01 \cdot ft \cdot kip$ $\quad R_{nt.pm} = 0 \cdot ft \cdot kip$

$\phi_t \cdot R_{nt} = 495.76 \cdot ft \cdot kip$ $\quad \phi_{t.pm} \cdot R_{nt.pm} = 0 \cdot ft \cdot kip$

Tension Check:

$TensionCheck := if\left[T_u \le \left(\phi_t \cdot R_{nt} + \phi_{t.pm} \cdot R_{nt.pm}\right), "OK", "NO\ GOOD"\right]$

TensionCheck = "OK"

$\frac{T_u}{\phi_t \cdot R_{nt} + \phi_{t.pm} \cdot R_{nt.pm}} = 84.63 \cdot \%$

ANSI/TIA-222-G 4.9.6.3 Design Shear Strength:

Design Shear Strength, Rnv:

$R_{nv} := 0.45 \cdot F_u \cdot A_{ge}$ $\quad R_{nv.pm} := 0.45 \cdot F_u \cdot A_{g.pm}$

$R_{nv} = 376.67 \cdot ft \cdot kip$ $\quad R_{nv.pm} = 0 \cdot ft \cdot kip$

$\phi_v \cdot R_{nv} = 282.5 \cdot ft \cdot kip$ $\quad \phi_{v.pm} \cdot R_{nv.pm} = 0 \cdot ft \cdot kip$

Shear Check:

$ShearCheck := if\left[V_u \le \left(\phi_v \cdot R_{nv} + \phi_{v.pm} \cdot R_{nv.pm}\right), "OK", "NO\ GOOD"\right]$

ShearCheck = "OK"

$\frac{V_u}{\phi_v \cdot R_{nv} + \phi_{v.pm} \cdot R_{nv.pm}} = 20.41 \cdot \%$

ANSI/TIA-222-G 4.9.6.4 Combined Shear and Tension:

$$\left[\frac{V_{ub}}{(\phi_v \cdot R_{nv})}\right]^2 + \left[\frac{T_{ub}}{(\phi_t \cdot R_{nt})}\right]^2 \le 1$$

$$\left[\frac{V_{ub}}{(\phi_v \cdot R_{nv} + \phi_{v.pm} \cdot R_{nv.pm})}\right]^2 + \left[\frac{T_{ub}}{(\phi_t \cdot R_{nt} + \phi_{t.pm} \cdot R_{nt.pm})}\right]^2 = 0.76$$

Combined Shear and Tension Check:

$$\text{ShearAndTensionCheck} := \text{if}\left[\left[\frac{V_{ub}}{(\phi_v \cdot R_{nv} + \phi_{v.pm} \cdot R_{nv.pm})}\right]^2 + \left[\frac{T_{ub}}{(\phi_t \cdot R_{nt} + \phi_{t.pm} \cdot R_{nt.pm})}\right]^2 \le 1, \text{"OK"}, \text{"NO GOOD"}\right]$$

ShearAndTensionCheck = "OK"

ANSI/TIA-222-G 4.9.9 Anchor Rods (Capacity):

$$\frac{\left[T_u + \left(\frac{V_u}{\eta}\right)\right]}{\phi_b \cdot P_n} \le 1$$

$\eta := 0.55$ *user input from ANSI/TIA-222-G 4.9.9*

$$\frac{\left[T_u + \left(\frac{V_u}{\eta}\right)\right]}{(\phi_b \cdot F_u \cdot A_{ne}) + (\phi_t \cdot F_u \cdot A_{g.pm})} = 0.99$$

Capacity Check:

$$\text{CapacityCheck} := \text{if}\left[\frac{\left[T_u + \left(\frac{V_u}{\eta}\right)\right]}{(\phi_b \cdot F_u \cdot A_{ne}) + (\phi_t \cdot F_u \cdot A_{g.pm})} \le 1, \text{"OK"}, \text{"NO GOOD"}\right]$$

CapacityCheck = "OK"

NOTE: Because the reinforcement of additional bolts are within capacity, the anchor bolts are considered to be OK for the design loads. Compare the computed differences to determine forces on previous modifications under Strength design to check the capacity of the anchorage. Non-modified forces to Anchor Rods (Capacity) = 528.81 kips (force)

$$T_u + \left(\frac{V_u}{\eta}\right) = 524.43 \cdot \text{kip}$$

$$\phi_b \cdot F_{up} \cdot A_{ne} = \blacksquare \cdot \text{kip}$$

$$(\phi_b \cdot F_u \cdot A_{ne}) + (\phi_t \cdot F_u \cdot A_{g.pm}) = 528.81 \cdot \text{kip}$$

$$524.43\text{kip} - 528.81\text{kip} = -4380.00 \cdot \text{lbf}$$

Above force required for additional anchorage required for uplift resistance for Strength Design (LRFD) - see prevously instlled anchors for Strength design check. (Disregard above note if value is negative)

ANCHOR BOLT ANALYSIS

Input Data

Tower Reactions:

Uplift: $Uplift := 419.582 \cdot kips$ *user input*

Shear: $Shear := 57.664 \cdot kips$ *user input*

Compression: $Compression := 482.637 \cdot kips$ *user input*

Anchor Bolt Data:

Use ASTM A36 (actual material strength unknown therefore assume min design values)

Number of Anchor Bolts = N $N := 6$ *user input*

Bolt Ultimate Strength: $F_u := 58 \cdot ksi$ *user input*

Bolt Yield Strength: $Fy := 36 \cdot ksi$ *user input*

Bolt Modulus: $E := 29000 \cdot ksi$ *user input*

Thickness of Anchor Bolts $D := 1.75in$ *user input*

Threads per Inch: $n := 5$ *user input*

Coefficient of Friction: $\mu := 0.55$ *user input*

(for baseplate with grout ASCE 10-15)

Length from top of pier to bottom of leveling nut: $L_{ar} := 0in$ *user input*

Bolt Modulus: $E := 29000 \cdot ksi$ *user input*

Previously MODified Anchorage - Steel Bolts (Ref. SAI-063 Rev.1)

Number of Anchor Bolts = N $N_{M1} := 1$ *user input*

Bolt Ultimate Strength: $F_{u.M1} := 72.5 \cdot ksi$ *user input*

Bolt Yield Strength: $Fy_{M1} := 58 \cdot ksi$ *user input*

Bolt Modulus: $E_{M1} := 29000 \cdot ksi$ *user input*

Thickness of Anchor Bolts $D_{M1} := 1.25in$ *user input*

Threads per Inch: $n_{M1} := 7$ *user input*

Previously MODified Anchorage - Steel Bolts (Ref. NSS-015 Rev.2)

Number of Anchor Bolts = N $N_{M2} := 2$ *user input*

Bolt Ultimate Strength: $F_{u.M2} := 72.5 \cdot ksi$ *user input*

Bolt Yield Strength: $Fy_{M2} := 58 \cdot ksi$ *user input*

Bolt Modulus: $E_{M2} := 29000 \cdot ksi$ *user input*

Thickness of Anchor Bolts $D_{M2} := 1.25in$ *user input*

Threads per Inch: $n_{M2} := 7$ *user input*

Anchor Bolt Section Properties:

Gross Area of Bolt:

$A_{ge} := 6\frac{\pi}{4}\cdot D^2$ $\quad A_{ge} = 14.43\cdot in^2$ $\quad A_{g.pm} := 1\frac{\pi}{4}\cdot D_{M1}^{\ 2} + 2\frac{\pi}{4}\cdot D_{M2}^{\ 2}$ $\quad A_{g.pm} = 3.68\cdot in^2$

Net Area of Bolt:

$$A_{ne} := 6\cdot\left[\frac{\pi}{4}\cdot\left(D - \frac{0.9743\cdot in}{n}\right)^2\right]$$

$$A_{n.pm} := 1\cdot\left[\frac{\pi}{4}\cdot\left(D_{M1} - \frac{0.9743\cdot in}{n_{M1}}\right)^2\right] + 2\cdot\left[\frac{\pi}{4}\cdot\left(D_{M2} - \frac{0.9743\cdot in}{n_{M2}}\right)^2\right]$$

$A_{ne} = 11.4\cdot in^2$ $\quad A_{n.pm} = 2.91\cdot in^2$

Net Diameter:

$D_{ne} := 6\left(D - \frac{0.9743in}{n}\right)$ $\quad D_{ne} = 9.33\cdot in$ $\quad D_{n.pm} := 1\cdot\left(D_{M1} - \frac{0.9743\cdot in}{n_{M1}}\right) + 2\cdot\left(D_{M2} - \frac{0.9743\cdot in}{n_{M2}}\right)$ $\quad D_{n.pm} = 3.33\cdot in$

Radius of Gyration of Bolt:

$$r_e := 6\cdot\frac{\left(D - \frac{0.9743in}{n}\right)}{4} \quad r_e = 2.33\cdot in \qquad r_{pm} := 1\cdot\frac{\left(D_{M1} - \frac{0.9743\cdot in}{n_{M1}}\right)}{4} + 2\cdot\frac{\left(D_{M2} - \frac{0.9743\cdot in}{n_{M2}}\right)}{4} \quad r_{pm} = 0.83\cdot in$$

Plastic Section Modulus of Bolt:

$$Z_{xe} := 6\frac{\left(D - \frac{0.9743in}{n}\right)^3}{6} \quad Z_{xe} = 3.76\cdot in^3 \qquad Z_{x.pm} := 1\frac{\left(D_{M1} - \frac{0.9743\cdot in}{n_{M1}}\right)^3}{6} + 2\frac{\left(D_{M2} - \frac{0.9743\cdot in}{n_{M2}}\right)^3}{6} \quad Z_{x.pm} = 0.69\cdot in^3$$

Forces:

Tension Force:

$T_u := \frac{Uplift}{1}$

$T_u = 419.58\cdot kip$

$T_{ub} := T_u$

Shear Force:

$V_u := \frac{Shear}{1}$

$V_u = 57.66\cdot kip$ $\quad V_{ub} := V_u$

Resistance Factor for Flexure (ANSI/TIA-222-G 4.7):

$\phi_f := 0.9$

Resistance Factor for Anchor Bolt (ANSI/TIA-222-G 4.5.4.2):

$\phi_b := 0.80$

Resistance Factor for Tension (ANSI/TIA-222-G 4.9.6.1):

$\phi_t := 0.75$ $\quad \phi_{t.pm} := 0.65$

Resistance Factor for Shear (ANSI/TIA-222-G 4.9.6.3):

$\phi_v := 0.75$ $\quad \phi_{v.pm} := 0.60$

ANSI/TIA-222-G 4.7.1 Flexural Members:

Nominal Flexure Strength, Mn:

$M_n := Fy \cdot Z_{xe} + Fy \cdot Z_{x.pm}$

$M_n = 13.34 \cdot ft \cdot kip$

$\phi_f \cdot M_n = 12.01 \cdot ft \cdot kip$

Applied Moment due to Shear (worst case lever arm), Mu:

$M_u := L_{ar} \cdot V_u$

$M_u = 0 \cdot ft \cdot kip$

Flexure Check:

$FlexureCheck := if(M_u \le \phi_f \cdot M_n, "OK", "NO GOOD")$

FlexureCheck = "OK"

$$\frac{M_u}{\phi_f \cdot M_n} = 0 \cdot \%$$

ANSI/TIA-222-G 4.9.6.1 Tensile Strength:

Design Tensile Strength, Rnt:

$R_{nt} := F_u \cdot A_{ne}$ $\quad R_{nt.pm} := F_u \cdot A_{n.pm}$

$R_{nt} = 661.01 \cdot ft \cdot kip$ $\quad R_{nt.pm} = 168.63 \cdot ft \cdot kip$

$\phi_f \cdot R_{nt} = 495.76 \cdot ft \cdot kip$ $\quad \phi_{t.pm} \cdot R_{nt.pm} = 109.61 \cdot ft \cdot kip$

Tension Check:

$TensionCheck := if\left[T_u \le \left(\phi_f \cdot R_{nt} + \phi_{t.pm} \cdot R_{nt.pm}\right), "OK", "NO GOOD"\right]$

TensionCheck = "OK"

$$\frac{T_u}{\phi_f \cdot R_{nt} + \phi_{t.pm} \cdot R_{nt.pm}} = 69.31 \cdot \%$$

ANSI/TIA-222-G 4.9.6.3 Design Shear Strength:

Design Shear Strength, Rnv:

$R_{nv} := 0.45 \cdot F_u \cdot A_{ge}$ $\quad R_{nv.pm} := 0.45 \cdot F_u \cdot A_{g.pm}$

$R_{nv} = 376.67 \cdot ft \cdot kip$ $\quad R_{nv.pm} = 96.09 \cdot ft \cdot kip$

$\phi_v \cdot R_{nv} = 282.5 \cdot ft \cdot kip$ $\quad \phi_{v.pm} \cdot R_{nv.pm} = 57.65 \cdot ft \cdot kip$

Shear Check:

$ShearCheck := if\left[V_u \le \left(\phi_v \cdot R_{nv} + \phi_{v.pm} \cdot R_{nv.pm}\right), "OK", "NO GOOD"\right]$

ShearCheck = "OK"

$$\frac{V_u}{\phi_v \cdot R_{nv} + \phi_{v.pm} \cdot R_{nv.pm}} = 16.95 \cdot \%$$

ANSI/TIA-222-G 4.9.6.4 Combined Shear and Tension:

$$\left[\frac{V_{ub}}{(\phi_v \cdot R_{nv})}\right]^2 + \left[\frac{T_{ub}}{(\phi_t \cdot R_{nt})}\right]^2 \le 1$$

$$\left[\frac{V_{ub}}{(\phi_v \cdot R_{nv} + \phi_{v.pm} \cdot R_{nv.pm})}\right]^2 + \left[\frac{T_{ub}}{(\phi_t \cdot R_{nt} + \phi_{t.pm} \cdot R_{nt.pm})}\right]^2 = 0.51$$

Combined Shear and Tension Check:

$$\text{ShearAndTensionCheck} := \text{if}\left[\left[\frac{V_{ub}}{(\phi_v \cdot R_{nv} + \phi_{v.pm} \cdot R_{nv.pm})}\right]^2 + \left[\frac{T_{ub}}{(\phi_t \cdot R_{nt} + \phi_{t.pm} \cdot R_{nt.pm})}\right]^2 \le 1, \text{"OK"}, \text{"NO GOOD"}\right]$$

ShearAndTensionCheck = "OK"

ANSI/TIA-222-G 4.9.9 Anchor Rods (Capacity):

$$\frac{\left[T_u + \left(\frac{V_u}{\eta}\right)\right]}{\phi_b \cdot P_n} \le 1$$

$\eta := 0.55$ *user input from ANSI/TIA-222-G 4.9.9*

$$\frac{\left[T_u + \left(\frac{V_u}{\eta}\right)\right]}{(\phi_b \cdot F_u \cdot A_{ne}) + (\phi_t \cdot F_u \cdot A_{g.pm})} = 0.76$$

Capacity Check:

$$\text{CapacityCheck} := \text{if}\left[\frac{\left[T_u + \left(\frac{V_u}{\eta}\right)\right]}{(\phi_b \cdot F_u \cdot A_{ne}) + (\phi_t \cdot F_u \cdot A_{g.pm})} \le 1, \text{"OK"}, \text{"NO GOOD"}\right]$$

CapacityCheck = "OK"

NOTE: Because the reinforcement of additional bolts are within capacity, the anchor bolts are considered to be OK for the design loads. Compare the computed differences to determine forces on previous modifications under Strength design to check the capacity of the anchorage. Non-modified forces to Anchor Rods (Capacity) = 528.81 kips (force)

$$T_u + \left(\frac{V_u}{\eta}\right) = 524.43 \cdot \text{kip}$$

$$524.43\text{kip} - 528.81\text{kip} = -4380.00 \cdot \text{lbf}$$

$\phi_b \cdot F_{up} \cdot A_{ne} =$ ▮ kip

Above force required for additional anchorage required for uplift resistance for Strength Design (LRFD) - see prevously instlled anchors for Strength design check. (Disregard above note if value is negative)

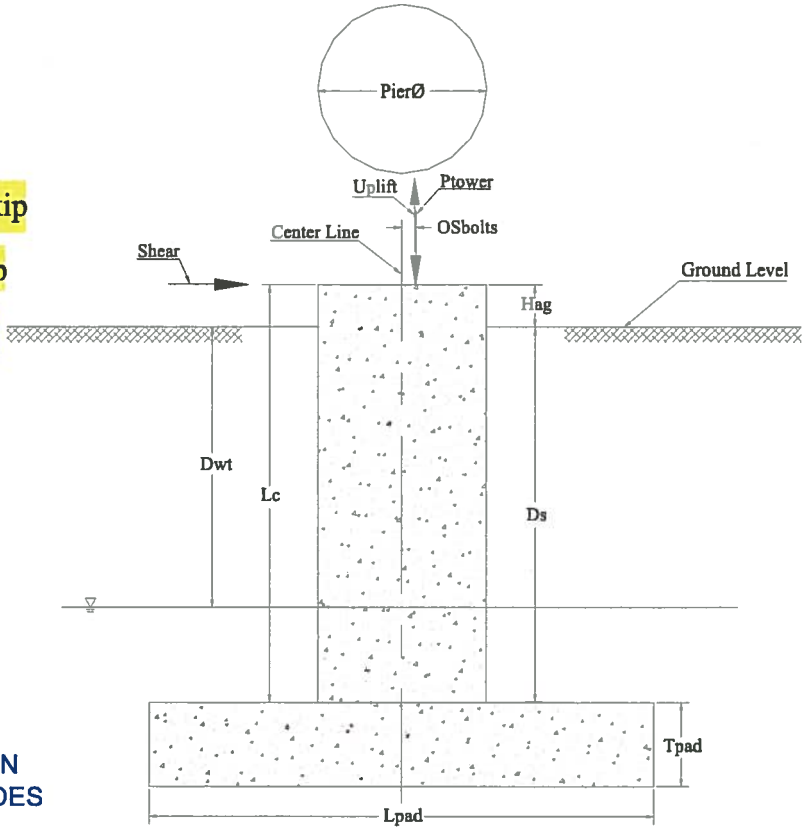
$$(\phi_b \cdot F_u \cdot A_{ne}) + (\phi_t \cdot F_u \cdot A_{g.pm}) = 688.96 \cdot \text{kip}$$

FOUNDATION ANALYSIS

AECOM

Job	180' Stainless Lattice Tower - Westbrook, CT	Project No.	SAI-100	Page	1 of 4
Description	Pier and Square Mat Foundation Analysis	Computed by	MCD	Date	09/27/17
	TIA-222-G	Checked by		Date	

DEFINE VARIABLES



$f'_c := 3 \cdot ksi$

$f_y := 60 \cdot ksi$

Max Compressive Force of Tower: $P_{Tower} := 482.637\,kip$

Max Uplift Force of Tower: $Uplift := 419.582\,kip$

Max Shear at Base of Tower: $Shear := 57.664\,kip$

Diameter of Pier: $Pier\phi := 4 \cdot ft$

Length of Pier: $L_c := 11 \cdot ft$

Height of Pier Above Grade: $H_{ag} := 1.0\,ft$

Length of Pad: $L_{Pad} := 16.25\,ft$

Thickness of Pad: $T_{Pad} := 2.0\,ft$

Distance to Water Table: $D_{wt} := 999\,ft$

NOTE: SET Dwt TO A VALUE GREATER THAN TOTAL DEPTH OF PAD IF WATER TABLE DOES NOT AFFECT FOOTING

Eccentricity of Anchor Bolts from Center Line of Pier: $OS_{bolts} := 11.5\,in$

Diameter of Reinforcing Bars in Pad: $d_{bar} := 1.00\,in$

$\gamma_s := 110 \frac{lb}{ft^3}$ $\gamma_c := 150 \frac{lb}{ft^3}$ $\gamma_w := 62.4 \frac{lb}{ft^3}$

Soil Internal Friction Angle: $\phi := 34 \cdot deg$

Ultimate Soil Pressure: $q_u := 6.0 \cdot ksf$

Active Pressure of Soil Acting along Length of Pier: $K_a := \frac{1 - \sin(\phi)}{1 + \sin(\phi)}$ $P_{Active} := \frac{1}{2} \cdot (L_c + T_{Pad})^2 \cdot Pier\phi \cdot \gamma_s \cdot K_a$ $P_{Active} = 10.51 \cdot kip$

Passive Pressure of Soil Acting along Length of Pier: $K_p := \frac{1 + \sin(\phi)}{1 - \sin(\phi)}$ $P_{Passive} := \frac{1}{2} \cdot (L_c + T_{Pad})^2 \cdot Pier\phi \cdot \gamma_s \cdot K_p$ $P_{Passive} = 131.51 \cdot kip$

Distance from Grade to Bottom of Pier: $D_s := L_c - H_{ag}$ $D_s = 10\,ft$

Area and Volume of Pier: $A_c := \frac{\pi \cdot Pier\phi^2}{4}$ $V_c := A_c \cdot L_c$ $V_c = 138.23\,ft^3$

Area and Volume of Pad: $A_p := L_{Pad}^2$ $V_p := T_{Pad} \cdot A_p$ $V_p = 528.13\,ft^3$

ULTIMATE SOIL PRESSURE

Assume water table is below bottom of footing

$D_{wtp} := if\left[\left(D_s + T_{Pad}\right) > D_{wt}, T_{Pad}, 0\cdot ft\right]$ $D_{wtp} = 0\,ft$

$W_p := \left(V_p\cdot\gamma_c\right) - D_{wtp}\cdot A_p\cdot\gamma_w$ $W_p = 79.22\cdot kip$

$D_{wtc} := if\left[D_s < D_{wt}, 0\cdot ft, \left(D_s - D_{wt}\right)\right]$ $D_{wtc} = 0\,ft$

$W_c := \left(V_c\cdot\gamma_c\right) - D_{wtc}\cdot A_c\cdot\gamma_w$ $W_c = 20.73\cdot kip$

$W_s := \left[\left(D_s\right)\cdot\left(A_p - A_c\right)\cdot\gamma_s\right]$ $W_s = 276.65\cdot kip$

$P_{Total} := W_p + W_c + W_s + P_{Tower}$ $P_{Total} = 859.24\cdot kip$

$q_{gr} := \frac{P_{Total}}{A_p}$ $q_{gr} = 3.25\cdot ksf$

$q_n := q_{gr} - \left(D_s + T_{Pad}\right)\cdot\gamma_s$ $q_n = 1.93\cdot ksf$

ANSI/TIA-222-G Reduction Factor
(Section 9.4.1(c)) (0.60 - Bearing)

$SoilPressure := if\left(q_n < q_u\cdot 0.60, \text{"Okay"}, \text{"No Good"}\right)$

$SoilPressure = \text{"Okay"}$

PUNCHING SHEAR

Critical section is located at a distance d/2 from the face of Pier

$$p_u := \left(\frac{P_{Tower} + V_c\cdot\gamma_c}{L_{Pad}^{\,2}}\right) + \left[\frac{Shear\cdot\left(L_c + T_{Pad}\right) + P_{Tower}\cdot OS_{bolts} + \left(P_{Active} - P_{Passive}\right)\cdot\frac{L_c + T_{Pad}}{3}}{\frac{1}{6}\cdot L_{Pad}^{\,3}}\right]$$

$p_u = 2.87\cdot ksf$

$d := T_{Pad} - \left(3\cdot in + d_{bar}\right)$ $d = 1.67\,ft$

$b_o := (Pier\phi + d)\cdot\pi$ $b_o = 17.8\,ft$

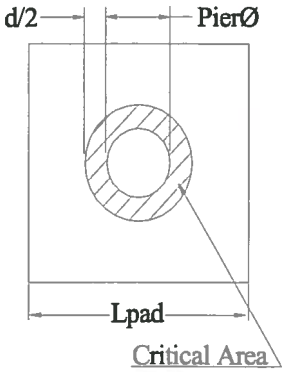
$$Aout_{bo} := L_{Pad}^{\,2} - \frac{\pi\cdot(Pier\phi + d)^2}{4}$$

$Aout_{bo} = 238.84\,ft^2$

$V_u := Aout_{bo}\cdot p_u$ $V_u = 685.01\cdot kip$

$$\phi V_c := 0.75\cdot 4\cdot\sqrt{f'_c\cdot\frac{lb}{in^2}}\cdot b_o\cdot d \quad \phi V_c = 702.05\cdot kip$$

$PunchingShear := if\left(V_u < \phi V_c, \text{"Okay"}, \text{"No Good "}\right)$ $PunchingShear = \text{"Okay"}$

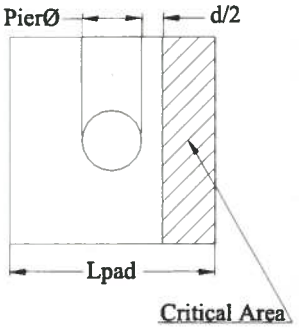


BEAM SHEAR

Critical section is located at a distance d/2 from the face of the Pier

$$V_u := p_u \cdot L_{Pad} \cdot \left(\frac{L_{Pad} - Pier\phi}{2} - \frac{d}{2} \right) \qquad V_u = 246.62 \cdot kip$$

$$\phi V_c := 0.75 \cdot 2 \cdot \sqrt{f'_c \cdot \frac{lb}{in^2}} \cdot L_{Pad} \cdot d \qquad \phi V_c = 320.42 \cdot kip$$



$$BeamShear := if\left(V_u < \phi V_c, \text{"Okay"}, \text{"No Good "} \right)$$

$$BeamShear = \text{"Okay"}$$

ACI 2011 Reduction Factor (0.75) for Beam Shear and Punching Shear - Permissible by TIA-222-G Standard Section 9.4.2.

BENDING

Critical section extends across width of footing at the face of Pier

$$A_{bar} := 0.79 \cdot in^2 \qquad NoOfBar := 20$$

$$As_{provided} := NoOfBar \cdot A_{bar} \qquad As_{provided} = 15.8 \cdot in^2$$

$$M_{Req} := p_u \cdot L_{Pad} \cdot \left(\frac{L_{Pad} - Pier\phi}{2} \right)^2 \cdot \frac{1}{2}$$

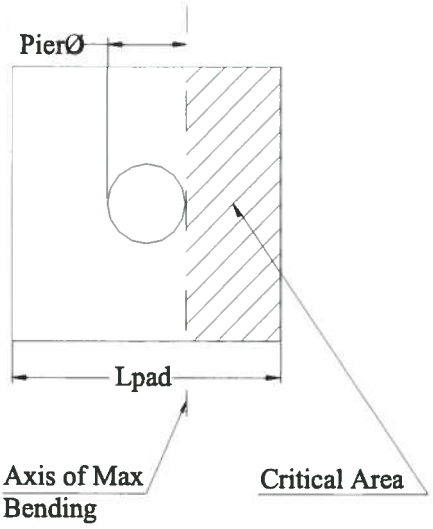
$$M_{Req} = 874.22 \cdot kip \cdot ft$$

$$a := \frac{As_{provided} \cdot f_y}{0.85 \cdot f'_c \cdot L_{Pad}}$$

$$a = 1.91 \cdot in$$

$$M_{Avail} := 0.9 \cdot As_{provided} \cdot f_y \left(d - \frac{a}{2} \right)$$

$$M_{Avail} = 1354.22 \cdot kip \cdot ft$$



$$Bending := if\left(M_{Avail} > M_{Req}, \text{"Okay"}, \text{"No Good"} \right)$$

$$Bending = \text{"Okay"}$$

ACI 2011 Reduction Factor (0.75) for Concrete Bending Moment) - Permissible by TIA-222-G Standard Section 9.4.2.

UPLIFT

$$Soil_1 := \left[\left(D_s\right)\cdot\left(L_{Pad}{}^2 - A_c\right)\cdot\gamma_s\right]$$

$$Soil_2 := 4\cdot\left[\left(D_s + T_{Pad}\right)^2\cdot L_{Pad}\cdot\frac{\tan(\phi)}{2}\right]\cdot\gamma_s$$

$$Soil_3 := 4\cdot\left[\left(D_s + T_{Pad}\right)^3\cdot\frac{\tan(\phi)^2}{3}\right]\cdot\gamma_s$$

$$WT_{soil} := Soil_1 + Soil_2 + Soil_3 \qquad WT_{soil} = 739.19\cdot kip$$

$$WT_{conc} := W_p + W_c \qquad WT_{conc} = 99.95\cdot kip$$

$$Uplift_{Res} := \left(WT_{soil} + WT_{conc}\right)\cdot 0.75 \qquad Uplift_{Res} = 629.36\cdot kip$$

ANSI/TIA-222-G Reduction Factor (0.75) (Section 9.4.1(c))

$$UpLiftCapacity_{Ult} := \frac{Uplift}{Uplift_{Res}} \qquad UpLiftCapacity_{Ult} = 0.667$$

$$UpliftCheck := if\left(Uplift < Uplift_{Res}, \text{"Okay"}, \text{"No Good"}\right)$$

$$UpliftCheck = \text{"Okay"}$$

CHECK OVERTURNING MOMENT - FACTORED LOAD CONDITIONS

$$OTM := Shear\cdot\left(L_c + T_{Pad}\right) + Uplift\cdot\left(\frac{L_{Pad}}{2} - OS_{bolts}\right) + P_{Active}\cdot\frac{L_c + T_{Pad}}{3} \qquad OTM = 3.8\times 10^3\cdot kip\cdot ft$$

$$RM := P_{Tower}\cdot\left(\frac{L_{Pad}}{2} - OS_{bolts}\right) + \left(WT_{conc} + Soil_1\right)\cdot\frac{L_{Pad}}{2} + P_{Passive}\cdot\frac{L_c + T_{Pad}}{3} \qquad RM = 7.09\times 10^3\cdot kip\cdot ft$$

$$Foundation_{OT} := \frac{OTM}{RM\cdot 0.75} \qquad Foundation_{OT} = 0.72$$

ANSI/TIA-222-G Reduction Factor (0.75) (Section 9.4.1(c))

$$OTMCheck := if\left(Foundation_{OT} < 1.0, \text{"Okay"}, \text{"No Good"}\right)$$

$$OTMCheck = \text{"Okay"}$$

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AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 45,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and collaborative technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments. A Fortune 500 company, AECOM serves clients in more than 100 countries and has annual revenue in excess of $6 billion.

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315 SPENCER PLAINS RD

Location	315 SPENCER PLAINS RD	**Mblu**	165/ / 015/ /
Acct#	S0513700	**Owner**	CONNECTICUT STATE OF
Assessment	$925,500	**Appraisal**	$1,322,140
PID	3667	**Building Count**	2

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$988,230	$333,910	$1,322,140

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$691,760	$233,740	$925,500

Owner of Record

Owner	CONNECTICUT STATE OF	**Sale Price**	$0
Co-Owner		**Certificate**	
Address	315 SPENCER PLAINS RD WESTBROOK, CT 06498	**Book & Page**	46/ 350
		Sale Date	01/01/1901
		Instrument	25

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
CONNECTICUT STATE OF	$0		46/ 350	25	01/01/1901

Building Information

Building 1 : Section 1

Year Built:	1958
Living Area:	8,282
Replacement Cost:	$1,272,938
Building Percent Good:	62
Replacement Cost Less Depreciation:	$789,220

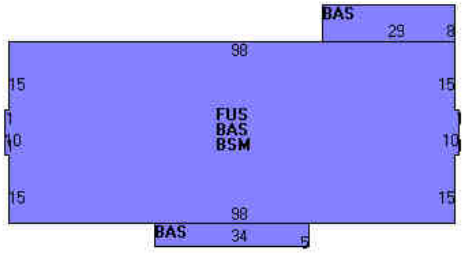
Building Attributes	
Field	**Description**
STYLE	Other State
MODEL	Comm/Ind

Building Photo

Grade	A
Stories:	1.0
Occupancy	1
Exterior Wall 1	Brick
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Linoleum
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Hot Water
AC Percent	100
Foundation	Poured Conc
Bldg Use	Exempt Comm
Total Rooms	0
Total Bedrms	0
Total Fixtures	4
% Sprinklers	0
1st Floor Use:	
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	

(http://images.vgsi.com/photos2/WestbrookCTPhotos//\00\00\07/37.JPG)

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	4,342	4,342
FUS	Finished Upper Story	3,940	3,940
BSM	Basement	3,940	0
		12,222	8,282

Building 2 : Section 1

Year Built: 1958
Living Area: 5,832
Replacement Cost: $290,737
Building Percent Good: 62
Replacement Cost Less Depreciation: $180,260

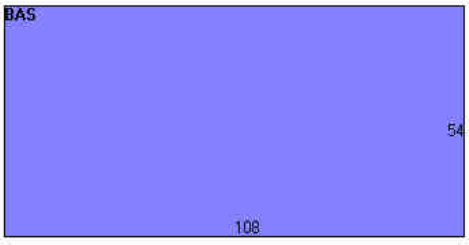
Building Photo

Building Attributes : Bldg 2 of 2	
Field	**Description**
STYLE	Comm Garage
MODEL	Serv Station
Grade	C+
Stories:	1.0
Occupancy	0

Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Minimum
Interior Wall 2	
Interior Floor 1	Concrete
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Forced Hot Air
AC Percent	0
Foundation	Slab
Bldg Use	Exempt Ind
Total Rooms	0
Total Bedrms	0
Total Fixtures	4
% Sprinklers	0
1st Floor Use:	
Heat/AC	NONE
Frame Type	REINF. CONCR
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	20
% Comn Wall	

(http://images.vgsi.com/photos2/WestbrookCTPhotos//\00\00\00/22.JPG)

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	5,832	5,832
		5,832	5,832

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	920
Description	Exempt Comm
Zone	LDR
Neighborhood	COM
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	3.2
Depth	
Assessed Value	$233,740
Appraised Value	$333,910

Outbuildings

Outbuildings							Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**	**Comment**
PAV1	Paving			25000 S.F.	$18,750	1	

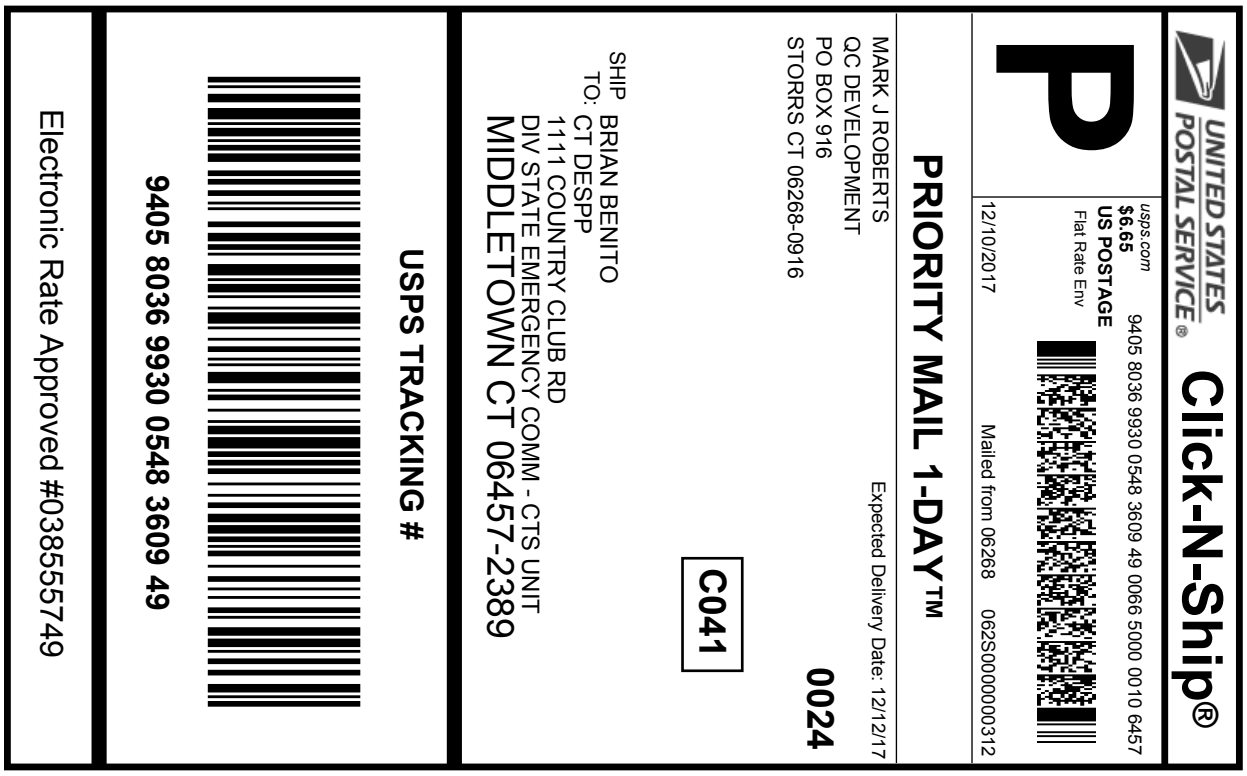
Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$988,230	$333,910	$1,322,140
2015	$991,320	$318,010	$1,309,330
2014	$991,320	$318,010	$1,309,330

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$691,760	$233,740	$925,500
2015	$693,930	$222,610	$916,540
2014	$693,930	$222,610	$916,540

Google Maps 315 Spencer Plain Rd

Map data ©2017 Google 100 ft



Cut on dotted line.

Instructions

1. **Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.**
2. **Place your label so it does not wrap around the edge of the package.**
3. **Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.**
4. **To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.**
5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # / Insurance Number:
9405 8036 9930 0548 3609 49

Trans. #:	421546114
Print Date:	12/09/2017
Ship Date:	12/10/2017
Expected Delivery Date:	12/12/2017
Insured Value:	$50.00

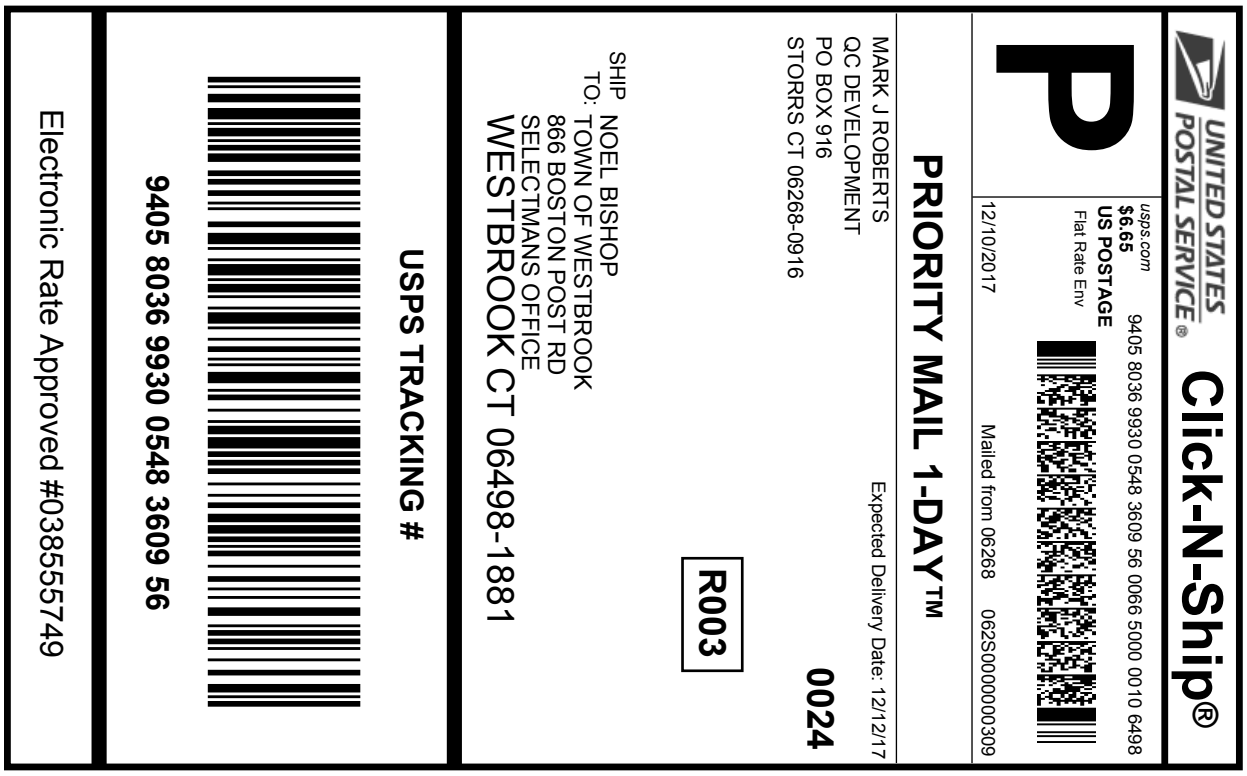
Priority Mail® Postage:	**$6.65**
Insurance Fee	**$0.00**
Total	**$6.65**

From: MARK J ROBERTS
QC DEVELOPMENT
PO BOX 916
STORRS CT 06268-0916

To: BRIAN BENITO
CT DESPP
1111 COUNTRY CLUB RD
DIV STATE EMERGENCY COMM - CTS UNIT
MIDDLETOWN CT 06457-2389

* 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.

Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com



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5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # / Insurance Number:
9405 8036 9930 0548 3609 56

Trans. #:	421546114
Print Date:	12/09/2017
Ship Date:	12/10/2017
Expected Delivery Date:	12/12/2017
Insured Value:	$50.00

Priority Mail® Postage:	**$6.65**
Insurance Fee	**$0.00**
Total	**$6.65**

From: MARK J ROBERTS
QC DEVELOPMENT
PO BOX 916
STORRS CT 06268-0916

To: NOEL BISHOP
TOWN OF WESTBROOK
866 BOSTON POST RD
SELECTMANS OFFICE
WESTBROOK CT 06498-1881

* 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.

UNITED STATES POSTAL SERVICE®

Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com

DIV. SITE ACQUISITION, LLC
27 NORTHWESTERN DRIVE
SALEM, NH 03079

BANK OF AMERICA 54-49/114

54270

Pay: **********Six hundred twenty-five dollars and no cents

DATE	CHECK NO.	AMOUNT
July 8, 2016	54270	$********625.00

PAY TO THE ORDER OF

Connecticut Siting Council
10 Franklin Sq
New Britain, CT 06051

⑈054270⑈ ⑆011400495⑆ 000089877441⑈

SAI
DIV. SITE ACQUISITION, LLC

54270

CONN03 ~~Connecticut Siting Council~~

DATE	INVOICE NO.	DESCRIPTION	INVOICE AMOUNT	DEDUCTION	BALANCE
7-08-16	CR070816A	CT2047-CSC Filing Fe	625.00		625.00

CHECK DATE	7-08-16	CHECK NUMBER	54270	TOTALS	625.00		625.00