Alex Murshteyn, Site Acquisition Consultant
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (508) 821-0159
AMurshteyn@centerlinecommunications.com

November 13, 2019

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

RE: Notice of Exempt Modification // Site: Canton CT (ATC: 411256)
14 Canton Springs Rd, Canton, CT 06019
N 41.8229 // W 72.8952

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless currently maintains 15 antennas at the 120-foot level on the existing 140-foot monopole tower, located at 14 Canton Springs Rd, Canton, CT. The Council approved Verizon Wireless use of the tower in 1999. The tower is owned by American Tower. The property is owned by Canton Volunteer Fire Company Inc. Verizon Wireless now intends to remove 3 of its existing antennas and to relocate 6 on side-by-side mounts for the LTE (700/850/1900/2100 MHz) replacements for its PCS/AWS/LTE upgrade. Additionally, Verizon Wireless will replace all of its remote radio head units (RRUs) with 6 new RRUs, remove 1 over-voltage protector (OVP) and remove and upgrade certain cabling; altogether updating leased equipment rights, as reflected by the final configuration outlined in the structural analysis and proposed hereby.

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 City of West Haven's chief elected official, First Selectman Beth Kandrysawtz, Neil S. Pade, its Town Planner and Director of Planning and Development, the ground owner Canton Volunteer Fire Company Inc., as well as American Tower, which is the 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). Enclosed to accommodate this filing are construction drawings dated October 24, 2019 and structural analysis dated September 6, 2019 by A.T. Engineering Service, PLLC, antenna mount analyses by Trylon dated August 27, 2019 (pre-

modification) and August 30, 2019 (post-modification), as well as radio frequency (RF) analysis table showing worst-case RF emission calculation by Verizon Wireless RF Design Engineering.

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 new 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, as shown in the attached structural analysis by A.T. Engineering Service, PLLC, dated September 6, 2019 and mount analyses dated August 27 and August 30, 2019.

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

Sincerely,

Alex Murshteyn, Site Acquisition Consultant
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (508) 821-0159
AMurshteyn@centerlinecommunications.com

Attachments

cc: Office of the First Selectman, Attn: Beth Kandrysawtz, First Selectman - as elected official
Neil S. Pade, AICP, Town Planner & Director of Planning and Development - as P&Z official
Canton Volunteer Fire Company - as ground owner
American Tower Corporation - as tower owner

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
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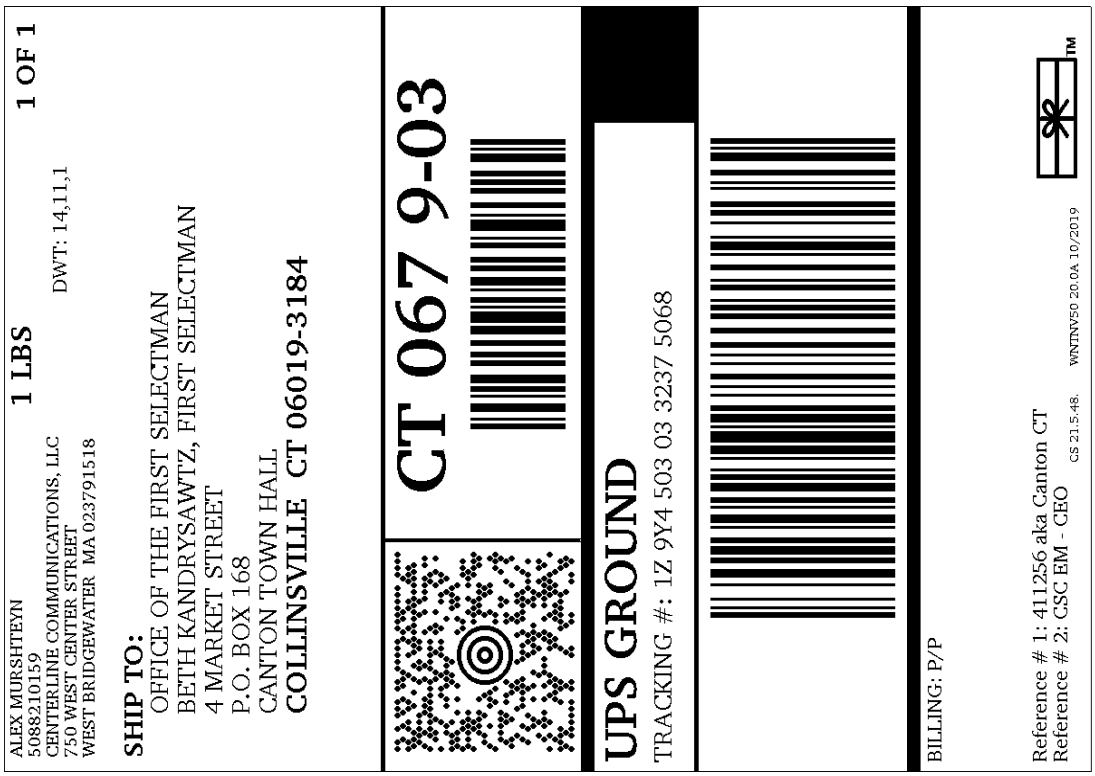
689 DEPOT ST
NORTH EASTON ,MA 02356

UPS Access Point™
TOWN LINE GENERAL STORE
450 E CENTER ST
WEST BRIDGEWATER ,MA 02379

FOLD HERE



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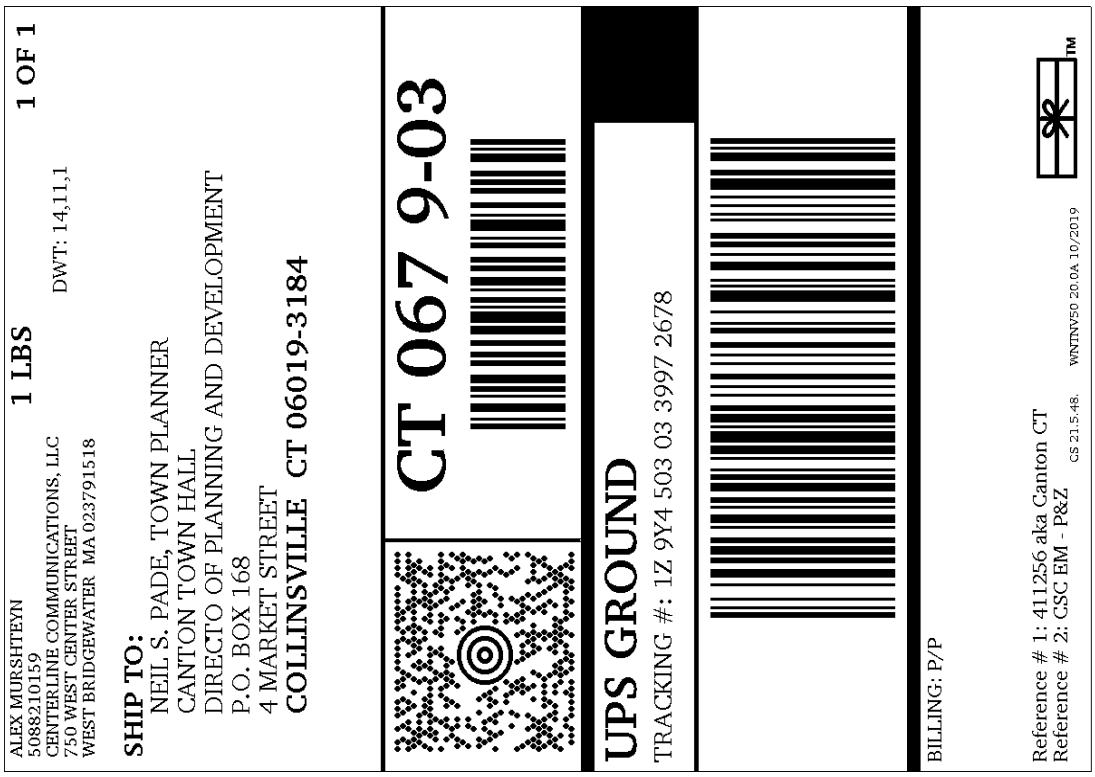

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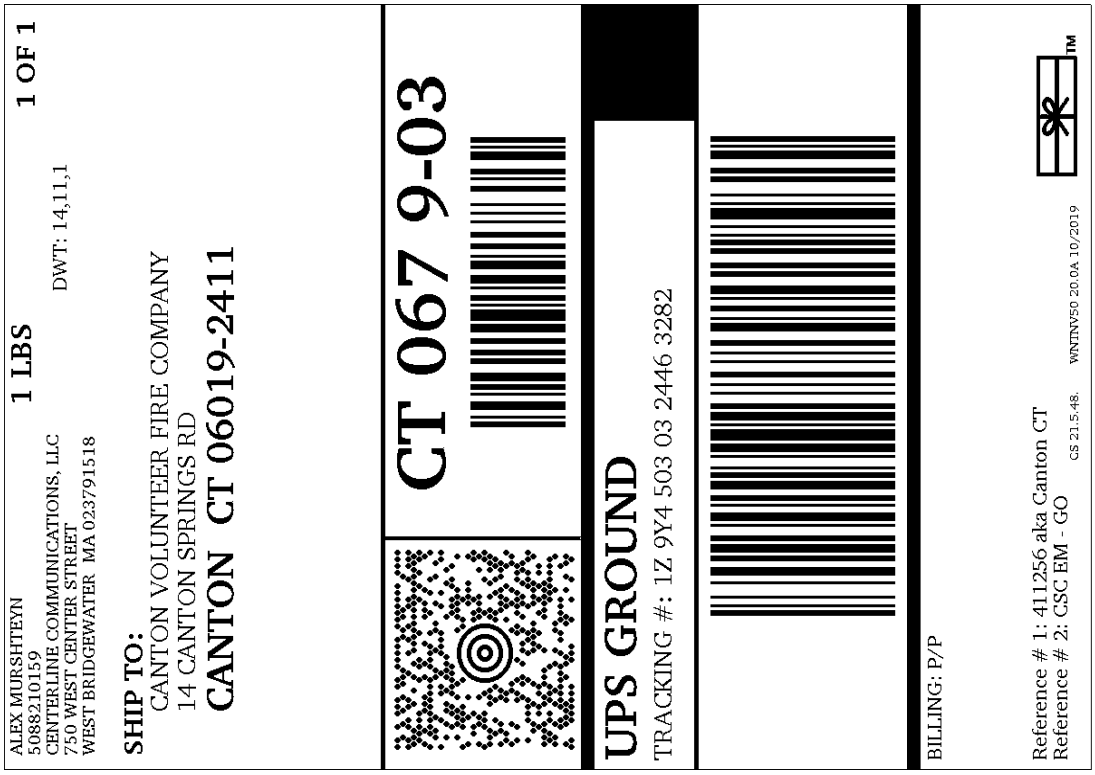

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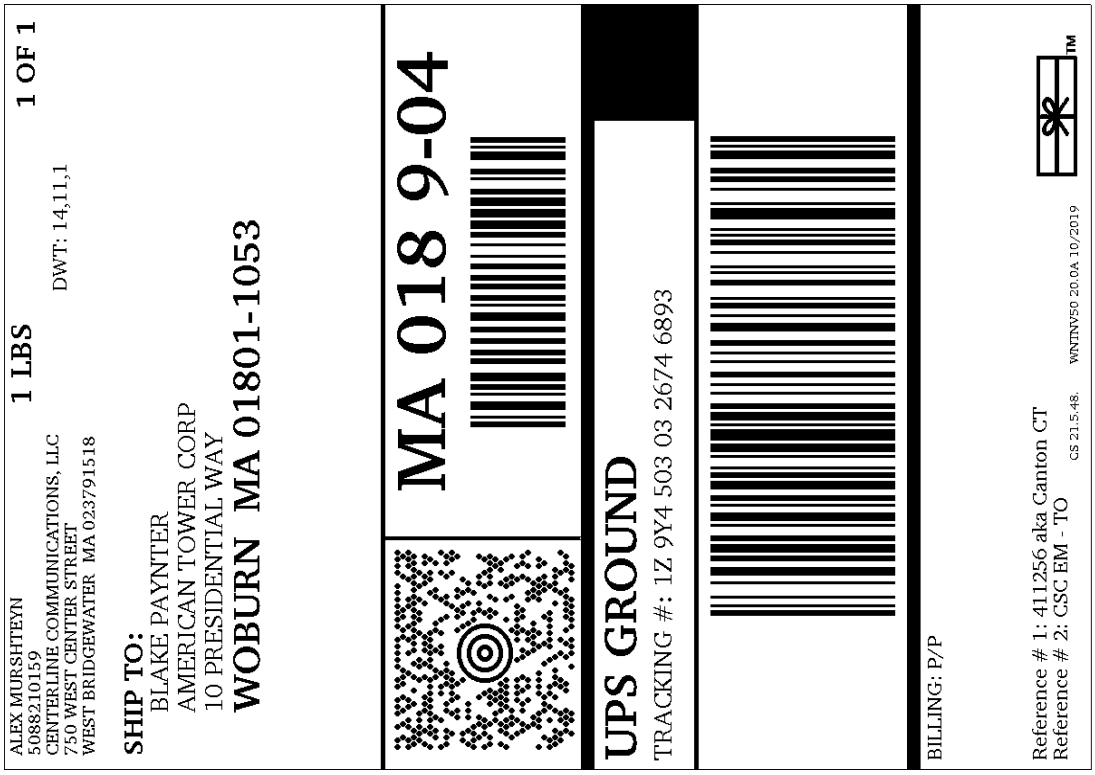


EM-BAM/SCLP-023-990917

FAX

Date 10/14/99

Number of pages including cover sheet 4

TO:
Steve Levine
CT. Siting Comm.

Phone 860-827-2944
Fax Phone 860-827-2950

FROM:
Lisa M. Houlihan
Town of Canton
4 Market Street
Collinsville, CT 06022

Phone 860-693-7856
Fax Phone 860-693-7853

CC:

REMARKS: ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please Comment

Hello Steve,

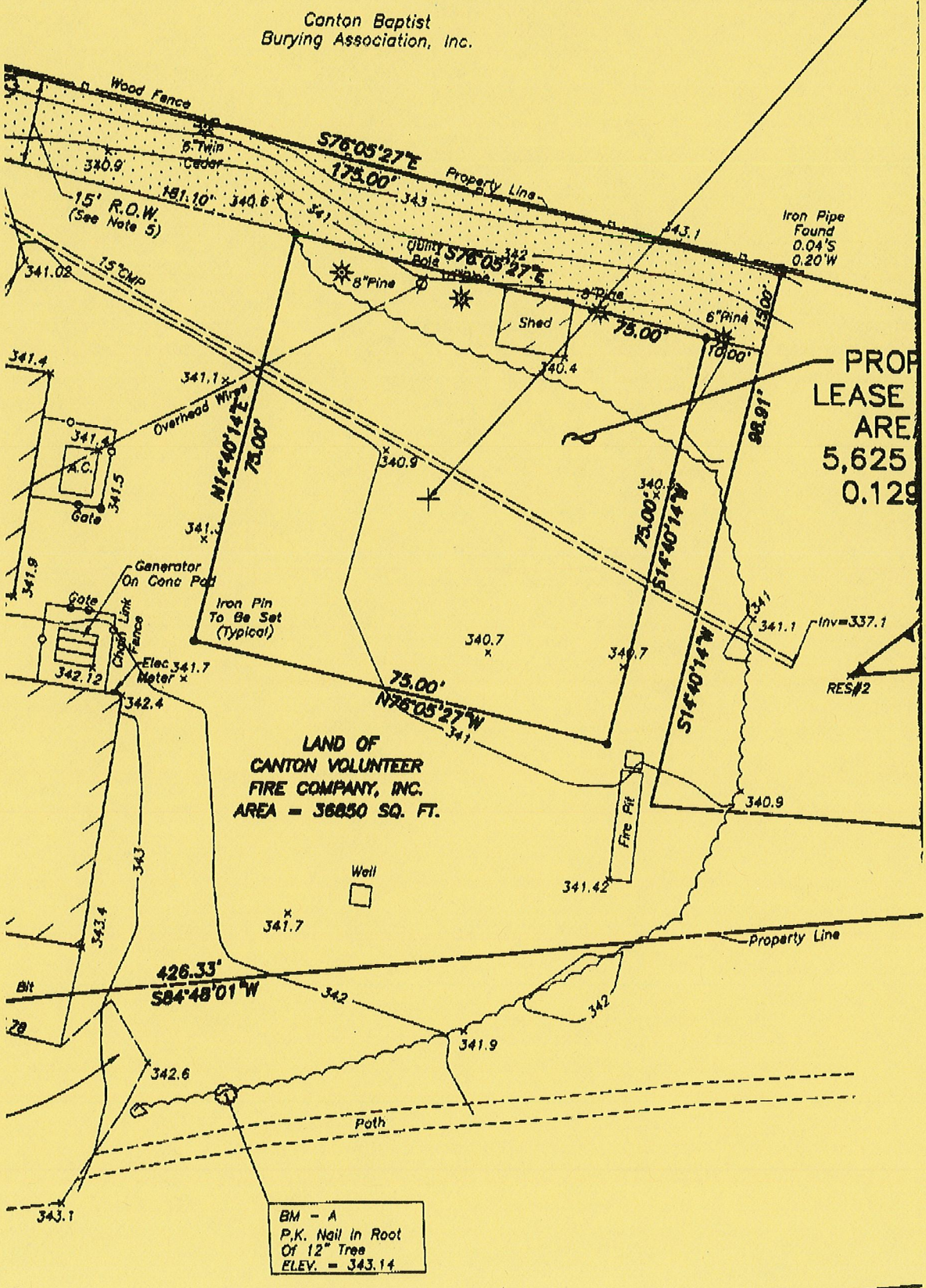
I hope the attached will assist you.

Please do not hesitate to call if you have any questions or if I may be of any further assistance.

Sincerely,

L.M.H.

PROPOSED TOWER LOCATION
LATITUDE 41°-49'-22.0"
LONGITUDE 72°-53'-44.2"
NAD 1927
ELEV = 341'
NGVD 1929



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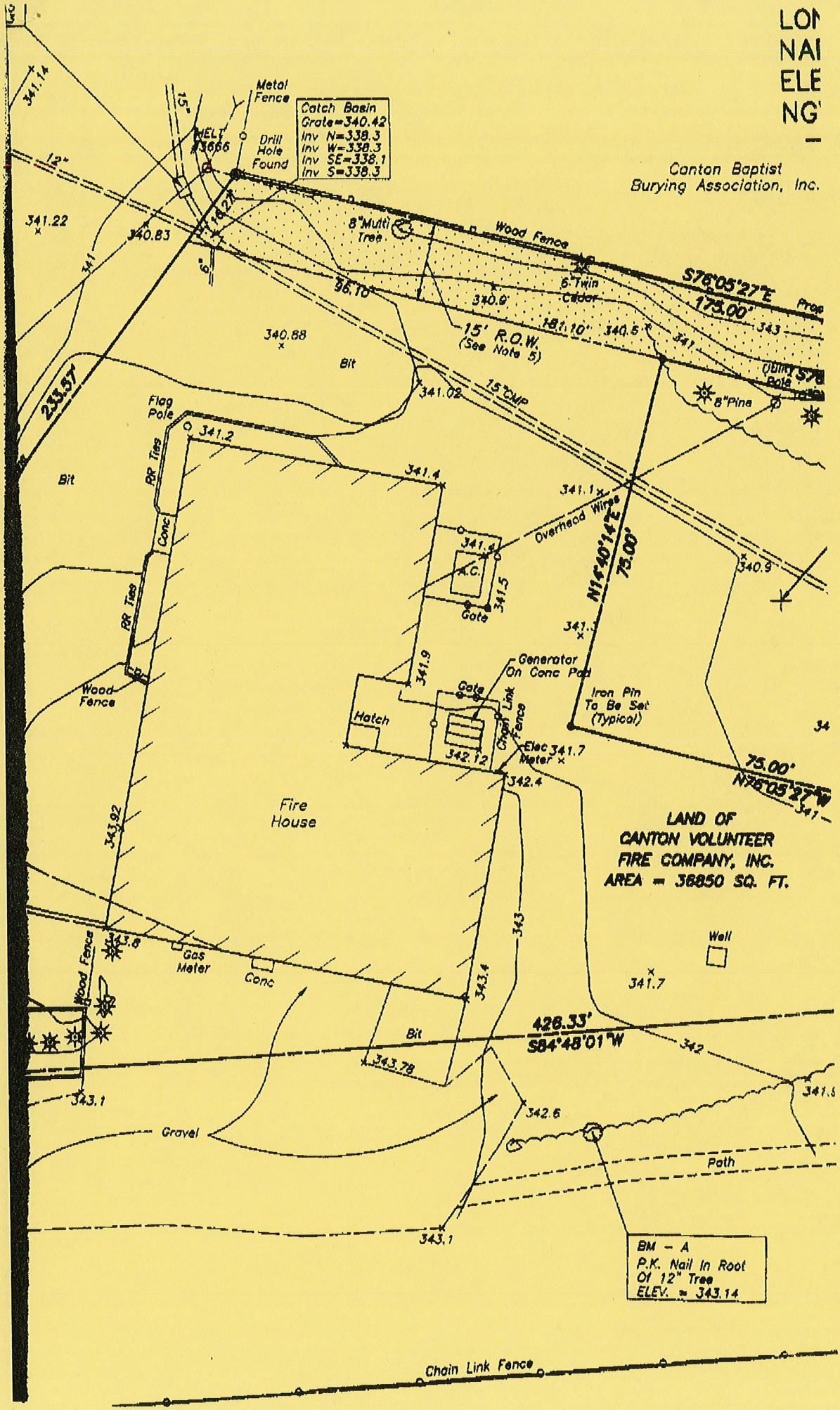

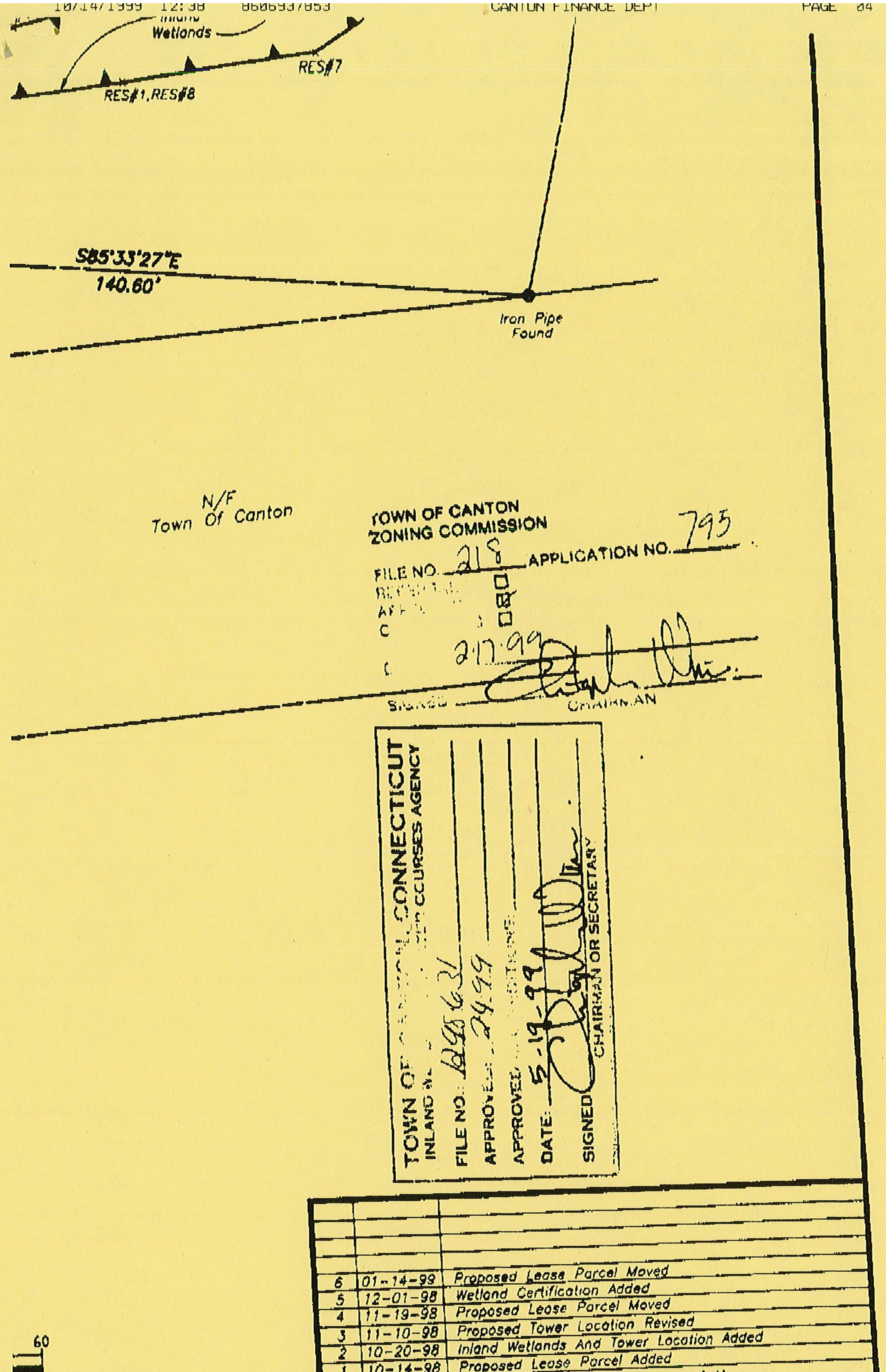

TOWN OF CANTON
ZONING COMMISSION
FILE NO. 218 APPLICATION NO. 795
2-17-99
SIGNED CHAIRMAN

TOWN OF CANTON CONNECTICUT
INLAND WETLANDS AND WATERCOURSES AGENCY
FILE NO. 98-631
APPROVED 2-4-99
APPROVED
DATE 5-19-99
SIGNED CHAIRMAN OR SECRETARY

No.	Date	Revision description
6	01-14-99	Proposed Lease Parcel Moved
5	12-01-98	Wetland Certification Added
4	11-19-98	Proposed Lease Parcel Moved
3	11-10-98	Proposed Tower Location Revised
2	10-20-98	Inland Wetlands And Tower Location Added
1	10-14-98	Proposed Lease Parcel Added

Embossed seal

NO. 14206
ORIGINAL
SURVEYOR.

URS Greiner

Scale: 1" = 20'
Date: SEPTEMBER 1998

Surveying and Mapping by:
URS Greiner, Inc. A·E·S
500 Enterprise Drive, P.O. Box 4002
Rocky Hill, Connecticut 06067-4002
Tel. (860) 529-8882

Field book #	Crew Chief	Search #	Project #
1398-65	G. NEVIN	3625	F30172421
Computed by	**Drawn by**	**Checked by**	**Map file #**
S. KALINKA	S. KALINKA	MG	T140-57

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

October 12, 1999

Sandy M. Carter
Manager - Regulatory
Bell Atlantic Mobile
20 Alexander Drive
Wallingford, CT 06492

Peter W. van Wilgen
Director – Real Estate Operations
Springwich Cellular Limited Partnership
500 Enterprise Drive
Rocky Hill, CT 06067-3900

RE: EM-BAM/SCLP-023-990917 - Cellco Partnership d/b/a Bell Atlantic Mobile and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications tower located at 14 Canton Springs Road in Canton, Connecticut.

Dear Ms. Carter and Mr. van Wilgen:

At a public meeting held on October 8, 1999, the Connecticut Siting Council (Council) ruled that the proposed use of this existing tower would not cause a significant change or alteration in the physical and environmental characteristics of the site, and pursuant to Section 16-50j-72 (c) would constitute a regulatory exemption.

The proposed modifications are to be implemented as specified here, in your notice dated September 17, 1999, and in additional information dated September 22, 1999. The modifications are in compliance with the exception criteria in Section 16-50j-72 (c) of the Regulations of Connecticut State Agencies as changes to an existing non-facility tower that have received all municipal zoning approvals and building permits and that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequency electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequency now used on this tower. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/SLL/sll

cc: Honorable Kathleen C. Corkum, First Selectman, Town of Canton
Eric Barz, Town Planner, Town of Canton

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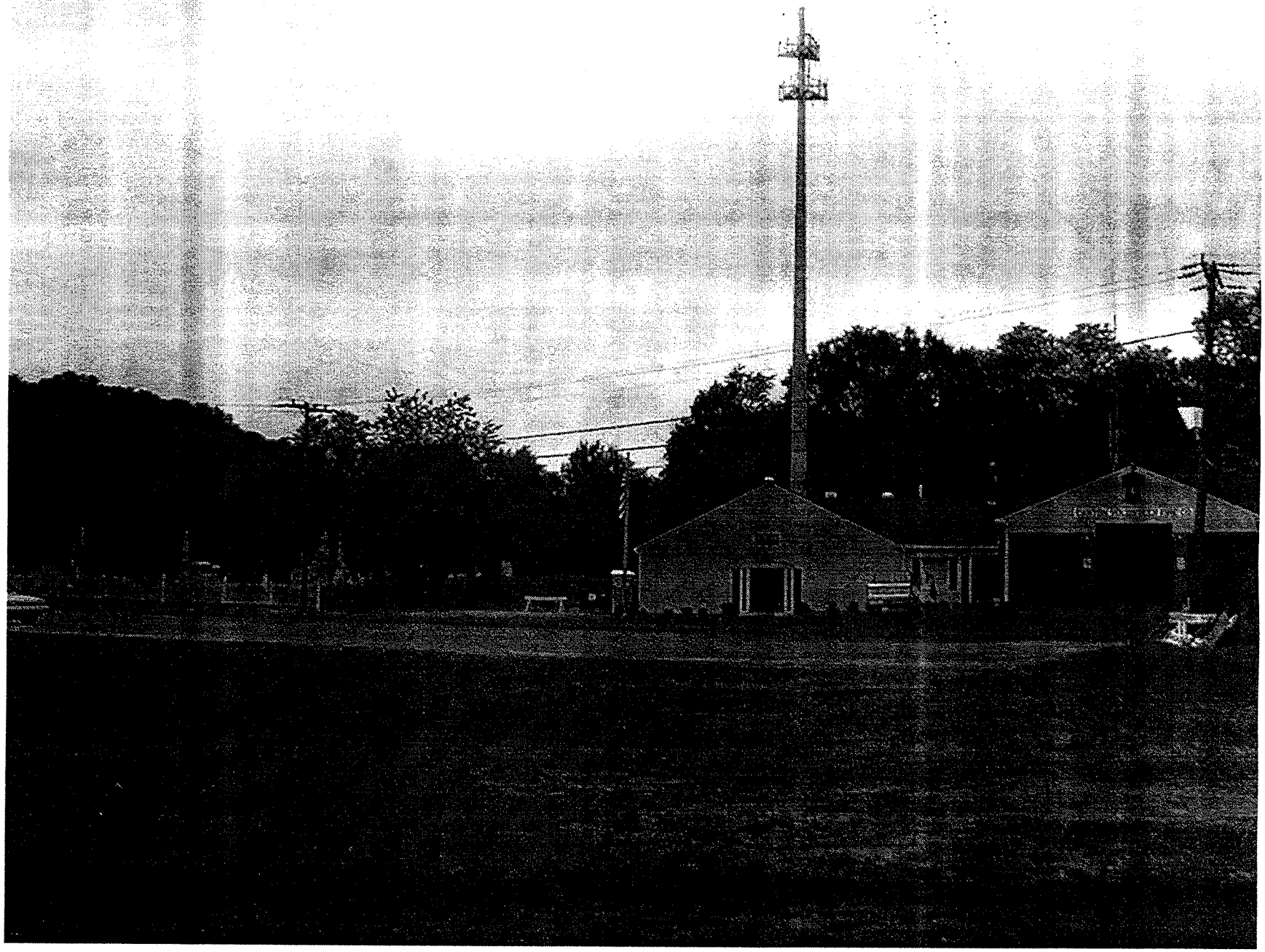


Canton
14 Canton Springs Rd
EM-bam/sclp-023-990917
September 28, 1999

September 22, 1999

To: Mr. Steve Levine, Siting Analyst
Connecticut Siting Council

Re: Request for Information
Canton Cell Site

As per your phone inquiry on September 21, 1999 in reference to the filing by Springwich Cellular Limited Partnership and Bell Atlantic Mobile to co-locate on an existing tower located in Canton, Connecticut, I am submitting the following information and answers:

1. Is the tower designed for the number of carriers and will it require extra strengthening?

Answer:

The tower is designed for five carriers in addition to the Town's equipment and will not require additional strengthening. I have a copy of the structure design and I am submitting it for your information and file.

2. What are the abutting land uses to the facility?

Answer:

The property of the Volunteer Fire Company is located in Canton's B-1 (Business) Zone District. The surrounding land uses in the area include: a cemetery use to the north; vacant land zoned Special Business to the east and west and partially developed Light Industrial zoned land to the southwest. The Plan of Development's land use plan for the area surrounding the Project Site includes: commercial uses to the north and northeast; industrial uses to the south, southeast and southwest and private institution open-space reserves directly to the north (cemetery). The Fire Company property is designated a community facility use.

3. Clarify the position on the tower of the carriers and the power density calculation.

Answer:

The correct position of the carriers is shown on page 2 of the submitted site plan. The platform on which Springwich Cellular Limited Partnership will mount their antennas is at the 130' level of the tower. Bell Atlantic Mobile will mount its platform for its antennas at the 120' level of the platform. The center of radiation for SCLP is 130' and the center of radiation for BAM is 120'. These two heights were transposed in the original application and should be corrected.

The power density calculation was done correctly placing SCLP at the 130' level of the tower and BAM at the 120' level of the tower.

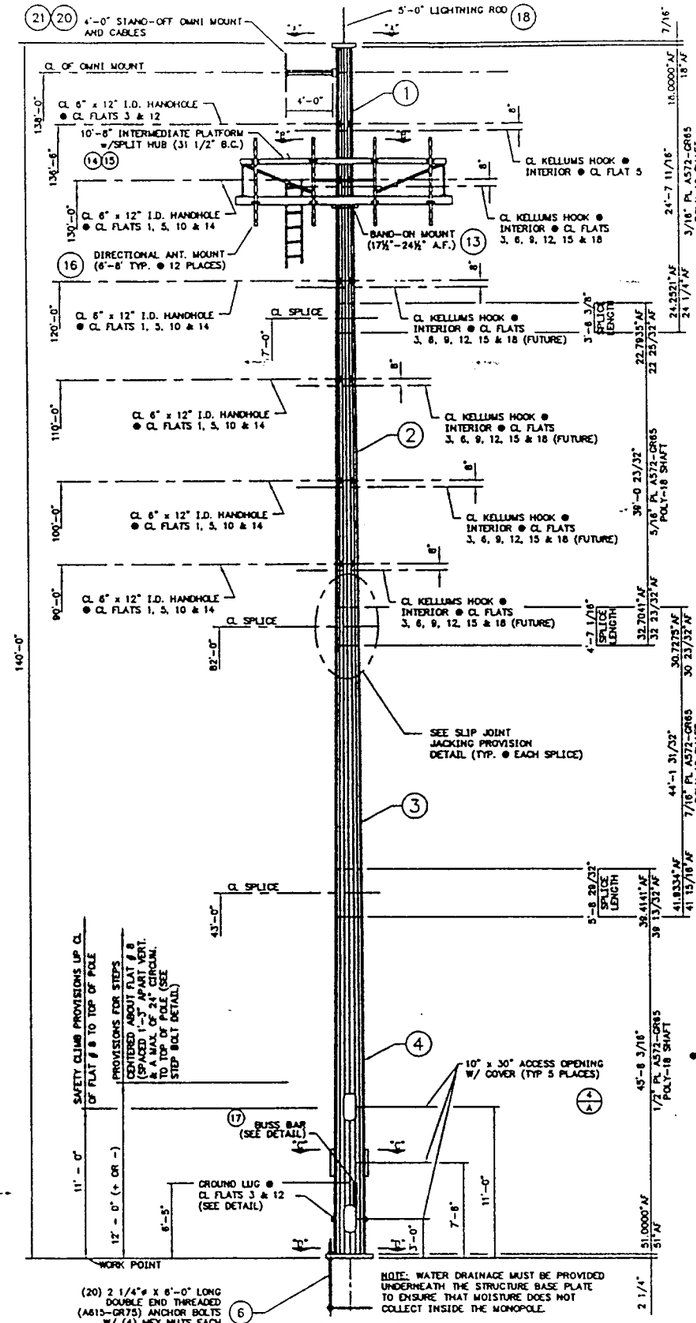
Please contact me if you require further information or have any questions.

Sandy Carter

Sandy Carter, Regulatory Manager
Bell Atlantic Mobile

cc: Peter van Wilgen

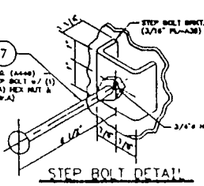
STRUCTURE & FOUNDATION
DESIGN CALCULATIONS
140' MONOPOLE
SITE: CANTON
EEI JOB #: 4960



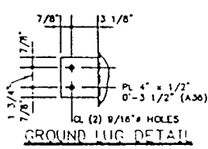
ERECTION VIEW 11

SCALE ——— NONE

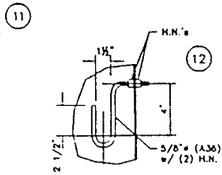
REF. DWG. USE TOP SETTING TEMPLATES 20-60.00T.SE



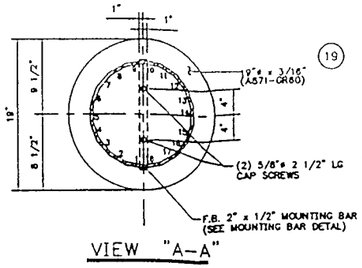
STEP BOLT DETAIL



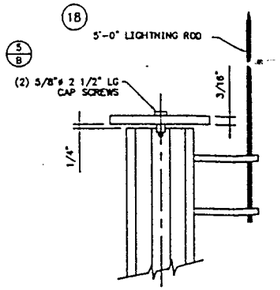
GROUND LUG DETAIL



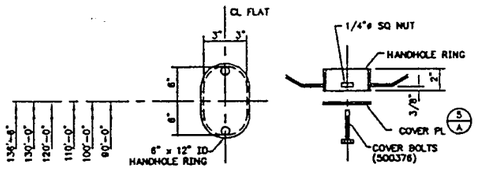
KELLUMS HOOK DETAIL



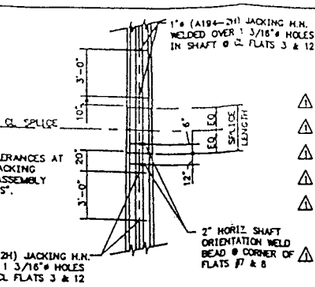
VIEW "A-A"



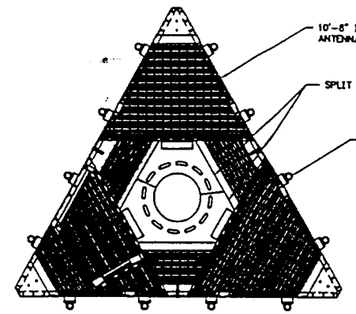
MOUNTING BAR DETAIL



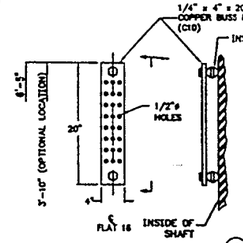
HANDHOLE DETAIL



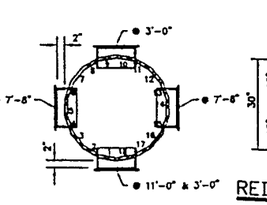
SLIP JOINT JACKING PROVISION DETAIL



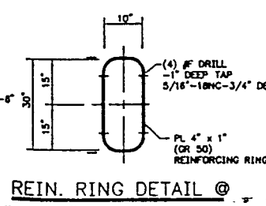
SECTION "B-B"



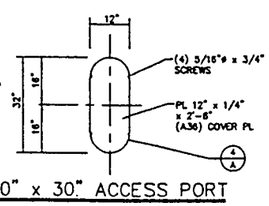
BUSS BAR DETAIL 17



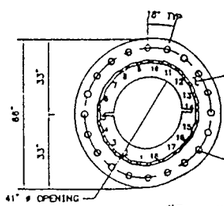
SECTION "C-C"



REIN. RING DETAIL @ 10" x 30" ACCESS OPENING



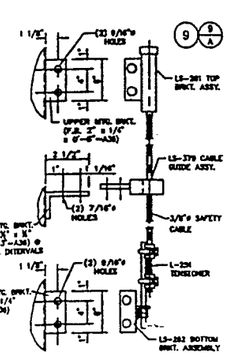
10" x 30" ACCESS PORT COVER PL DETAIL



SECTION "D-D"

ASSEMBLY MARKING PROCEDURE

EACH INDIVIDUAL ASSEMBLY SHALL HAVE A METAL TAG WELDED TO IT WHICH WILL BE ENGRAVED WITH THE ASSEMBLY MARK NO. AS SHOWN IN THE MATERIAL BLOCK. (MINIMUM OF 5/8" HIGH LETTERS)



SAFETY CLIMB ATTACHMENT DETAILS (LOCATED ALONG CL OF FLAT #8)

MATERIAL REQ'D. PER ASSEMBLY

GALV. WT.	QTY.	ITEM	MK. NO.	DESCRIPTION
--	1	1	--	SHAFT ASSY. (TOP SECTION)
--	1	2	--	SHAFT ASSY. (UP. MID. SECTION)
--	1	3	--	SHAFT ASSY. (LOW. MID. SECTION)
--	1	4	--	SHAFT ASSY. (BOTTOM SECTION)
25.00	5	A/A	C12669	12" x 32" ACCESS PORT COVER PL w/ (4)BOLTS (500822) & (4)WASHERS (5002341)
		5		HARDWARE AS FOLLOWS:
5.51	22	5/A	GS14842	6" x 12" HANDHOLE COVER PLATE w/ (2) BOLTS (500376)
	2	5/B		5/8"ø x 2½" LG. CAP SCREW
101.46	20	6	AB0600E-4	2 1/4"ø x 8'-0" LG. (A615-GR75) ANCHOR BOLTS w/ (4) HEX NUTS (A194-GR2H), EACH
1.08	-	7	S10006	5/8"ø X 8 1/2" LG. BUTTON HEAD STEP BOLT w/ (1) HEX & (1) SQUARE NUT EACH
	1	8		STRUCTURE ASSEMBLY AND ERECTION PROCEDURES
	1	9	DBI-130U	130'-0" SAFETY CLIMB
	1	9/A	DBI-10L	10'-0" SAFETY CLIMB KIT
	1	10	L2010	SAFETY CLIMB HARNESS
147.77	2	11	20-60.00T.SE	TOP SETTING TEMPLATE
1.50	7	12	GS13625	5/8"ø KELLUMS HOOK ASSY.
305.15	1	13	K10684	BAND-ON PLATFORM MOUNT (17½"-24½" A.F.) AND A 31½" BOLT CIRCLE
1331.79	1	14	K10495	10'-8" INTERMEDIATE STANDARD PLATFORM
354.27	1	15	K10500	SPLIT HUB FOR 10'-8" PLATFORM WITH A 31½" BOLT CIRCLE
34.44	12	16	K10006	6'-8" DIRECTIONAL ANTENNA MOUNT
7.50	1	17	K10062	BUSS BAR KIT
21.00	1	18	K10122	5'-0" LIGHTNING ROD
--	1	19	--	REMOVABLE COVER PLATE
--	1	20	--	CABLED-ON ANTENNA MOUNT w/2"ø x 3'-0" LG. PIPE & 4'-0" STAND-OFF
3.00	2	21	CBL4960-138	3/8"ø x 58 3/4" LG. CABLE WIRE w/(2) H.N., (2) F.W., (2) P.N. & (4) B.W.
	1	22		STRUCTURE IDENTIFICATION TAG

TOTAL GALV. STR. & ACCES. WT. ---#

TOTAL ANCHOR BOLT & TEMPLATE WT. ---#

GENERAL NOTES

1) ALL WELDS SHALL BE IN ACCORDANCE WITH A.W.S. D.1.1.
2) LONGITUDINAL SEAM WELDS IN FEMALE SECTION OF THE SLIP JOINT SHALL BE FULL PENETRATION WELDS.
3) FOR PROPER SHAFT ALIGNMENT, A 2" HORIZONTAL WELD BEAD AND A MARK NUMBER ARE POSITIONED ON EACH SHAFT AT EACH SPLICE. THE 2" HORIZONTAL WELD BEADS ARE ON MATCHING CORNERS. THE MARK NUMBER IS ON AN ADJACENT FLAT. THE HORIZONTAL WELD BEAD CORNERS SHALL BE ALIGNED TOP TO BOTTOM OF THE POLE. MATCH NUMBERS SHALL BE MATCHED FOR EACH SIDE.
4) FIELD ASSEMBLY NUTS (1" DIA) ARE LOCATED ON OPPOSING SECTION FLATS ABOVE AND BELOW SPLICES FOR JACKING SHAFTS TOGETHER.
5) THE BOTTOM OF THE UPPER SECTION SHALL BE TELESCOPED IN THE FIELD TO WITHIN 12" OF THE WELD ORIENTATION MARK ON THE LOWER SECTION.
6) A SLOT 1 1/2" x 4" IS REQUIRED AT THE TOP OF THE BOTTOM SECTION AND AT THE BOTTOM OF THE TOP SECTION FOR HANDLING DURING GALVANIZING.
7) GAP BETWEEN TOP OF FOOTING AND BOTTOM BASE PLATE SHALL BE FILLED WITH A NON-SHRINK GROUT.
8) POLES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
9) POLE TAPER = 0.2537 IN./FT.

DESIGN NOTES

DESIGNED IN ACCORDANCE WITH TIA/EIA 222-F
90 MPH BASIC WIND SPEED WITH 1/2" SIMULTANEOUS RADIAL ICE
CASE I - 90 MPH BASIC WIND SPEED WITH 1/2" SIMULTANEOUS ICE

STATE OF CONNECTICUT ★ MICHAEL R. MOREL ★ No. 21220 LICENSED PROFESSIONAL ENGINEER

SITE: CANTON
HARTFORD CO., CT

ENGINEERED ENDEAVORS INCORPORATED
* 7610 Jenther Drive Mentor, Ohio 44060
* (440) 918-1101

140'-0" MONOPOLE

REV.	DESCRIPTION	DATE	DWN.	CHK.	APP'D
1	STRUCTURE RE-DESIGN	5/21/99	S.S.		

DWN. S.S. 05-20-99 CHK. APP'D.
SCALE NONE SHT. 1 OF 1
DWG. GS51426

4960

ENGINEERED ENDEAVORS INCORPORATED

Structure 140' MONOPOLE

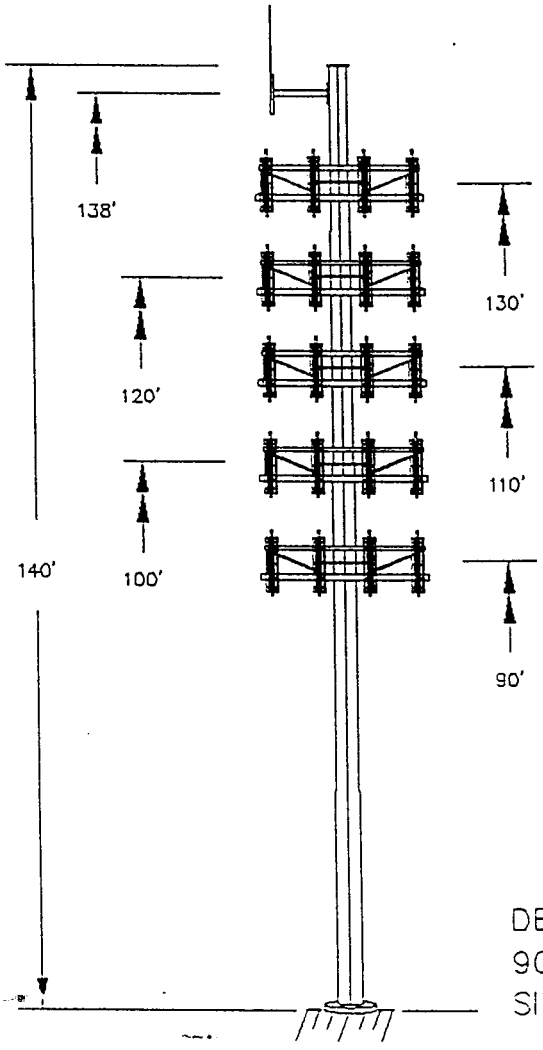
By L. PADGETT 5/13/99
Date

Checked

4960
Job/Quote No.

SITE LOCATION – HARTFORD COUNTY, CT
SITE NAME – CANTON

REVISION 1



ANTENNA LOADING:

(1) OMNIDIRECTIONAL ANTENNA (5 sf)
(1) 4' SIDE ARM MOUNT @ 138'

(12) ALP 9212 DIRECTIONAL ANTENNAS
STANDARD AMPS PLATFORM @ 130'

(12) ALP 9212 DIRECTIONAL ANTENNAS
STD AMPS PLATFORM @ 120' (FUTURE)

(12) ALP 9212 DIRECTIONAL ANTENNAS
STANDARD PLATFORM @ 110' (FUTURE)

(12) ALP 9212 DIRECTIONAL ANTENNAS
STANDARD PLATFORM @ 100' (FUTURE)

(12) ALP 9212 DIRECTIONAL ANTENNAS
STANDARD PLATFORM @ 90' (FUTURE)

DESIGN NOTES:

DESIGNED IN ACCORDANCE WITH TIA/EIA 222 F
90 MPH BASIC WIND SPEED WITH 1/2"
SIMULTANEOUS RADIAL ICE

CASE I – 90 MPH BASIC WIND SPEED WITH
1/2" SIMULTANEOUS ICE

NOTE: IT IS THE RESPONSIBILITY OF THE PURCHASER TO VERIFY THAT THE WIND LOADS AND DESIGN CRITERIA SPECIFIED MEET THE REQUIREMENTS OF ALL LOCAL BUILDING CODES

STATE OF CONNECTICUT
MICHAEL R. MORELLI
LICENSED PROFESSIONAL ENGINEER
No. 21220

ENGINEERED ENDEAVORS, INC.
7610 Jenther Drive * Mentor, Ohio 44060
Telephone: (440) 918-1101 * Fax: (440) 918-1108

Engineered Endeavors Inc.

7610 Jenther Drive
Mentor, Ohio 44060
Tel (440) 918-1101 Fax (440) 918-1108

Communications Structure Nonlinear Analysis and Design Program

10:56:51 05-13-1999
Revision 1.2 - 4/22/98
Engineer: L. PADGETT

Job Name 4960, REVISION 1
Structure 140' MONOPOLE
Location HARTFORD COUNTY, CT
Site CANTON

OD BOT	OD TOP	NUM. SIDES	THICK INCH	TAPER IN/FT	LENGTH FT	JOINT INCH	JOINT TYPE	YIELD KSI	WEIGHT LBS	JOINT HEIGHT
24.24	18.00	18	0.1875	0.252	24.79	43.00	SLIP	65.0	1038.	117.00
32.69	22.84	18	0.3125	0.252	39.13	56.00	SLIP	65.0	3581.	82.00
41.90	30.77	18	0.4375	0.252	44.21	69.00	SLIP	65.0	7407.	43.00
51.00	39.45	18	0.5000	0.252	45.88	0.00	BASEPL	65.0	10945.	0.00
			TOTAL TUBE WEIGHT						22971.	POUNDS
			POLE SHAFT LENGTH						140.00	FEET

E = 29600.0 KSI
UNIT WGT = 0.283 LBS/CU IN
AISC constants are used for stress reductions.
TUBE SECTIONS HAVE 18 SIDES AND ARE TREATED AS ROUND
Internal bend radius = 3 X T
Tube diameters are measured flat to flat.
Tube diameters are increased by 1.020 for wind across points.
Drag coefficients are increase by 1.300 for steps on the pole.
AISC Tube Shape Coefficient of 1.000 is applied.
ORIGINAL DATA FILE NAME H:\LAP\JOBS4\4960-140
REVISED DATA FILE NAME H:\LAP\JOBS4\4960-140

APPURTENANCES

DESCRIPTION	NUM.	ELEV.	Kz	AREA < WITHOUT ICE	WGT	Ca >	AREA < WITH ICE	WGT	Ca >	FACTOR
6' ARM (4" SQ. X 1/4	1	138.	1.505	2.00	80.	2.0000	2.50	160.	2.0000	1.00
OMNI ANTENNA	1	148.	1.535	3.33	40.	1.8000	5.00	70.	1.8000	1.00
ALP 9212-N	12	130.	1.480	4.33	27.	1.4000	4.78	55.	1.4000	0.75
STD AMPS PLATFORM	1	130.	1.480	33.75	2000.	1.0000	42.20	3000.	1.0000	1.00
ALP 9212-N	12	120.	1.446	4.33	27.	1.4000	4.78	55.	1.4000	0.75
STD AMPS PLATFORM	1	120.	1.446	33.75	2000.	1.0000	42.20	3000.	1.0000	1.00
ALP 9212-N	12	110.	1.411	3.90	27.	2.0000	4.24	55.	2.0000	0.75
STD AMPS PLATFORM	1	110.	1.411	33.75	2000.	1.0000	42.20	3000.	1.0000	1.00
ALP 9212-N	12	100.	1.373	3.90	27.	2.0000	4.24	55.	2.0000	0.75
STD AMPS PLATFORM	1	100.	1.373	33.75	2000.	1.0000	42.20	3000.	1.0000	1.00
ALP 9212-N	12	90.	1.332	3.90	27.	2.0000	4.24	55.	2.0000	0.75
STD AMPS PLATFORM	1	90.	1.332	33.75	2000.	1.0000	42.20	3000.	1.0000	1.00

LOAD CASE 1

90 MPH BASIC WIND WITH ICE

DEAD LOAD FACTOR 1.00 WIND PSF REDUCTION 1.00 RADIAL ICE 0.50 IN.

WIND VELOCITY 90 BOTTOM 20.91 PSF TOP 31.54 PSF
MAX BASE ROTATION 0.00 DEG

APPLIED APPURTENANCE FORCES

	ELEVATION FT	WEIGHT KIPS	WIND KIPS
6' ARM (4" SQ. X 1/4")	138.00	0.160	0.264
OMNI ANTENNA	148.00	0.070	0.484
ALP 9212-N	130.00	0.660	3.123
STD AMPS PLATFORM	130.00	3.000	2.188
ALP 9212-N	120.00	0.660	3.052
STD AMPS PLATFORM	120.00	3.000	2.139
ALP 9212-N	110.00	0.660	3.773
STD AMPS PLATFORM	110.00	3.000	2.086
ALP 9212-N	100.00	0.660	3.671
STD AMPS PLATFORM	100.00	3.000	2.030
ALP 9212-N	90.00	0.660	3.562
STD AMPS PLATFORM	90.00	3.000	1.970

TUBE PROPERTIES			MEMBER FORCES			STRESSES			STRESS	TOTAL	
ELEV FT	DIAM IN	WALL IN	SHEAR K	BENDING K-FT	AXIAL K	AXIAL KSI	BEND. KSI	ALLOW KSI	RATIOS	DEFL IN	TILT DEG
140.00	18.00	0.1875	0.55	3.87	0.05	0.00	1.00	58.65	0.02	101.4	6.18
138.00	18.50	0.1875	1.07	4.91	0.34	0.03	1.21	58.38	0.02	98.8	6.18
130.00	20.52	0.1875	7.28	13.45	3.75	0.31	2.68	57.43	0.04	88.6	6.14
120.00	23.04	0.1875	7.28	85.82	3.75	0.28	13.50	56.48	0.23	76.0	5.96
117.00	23.79	0.1875	13.22	125.28	7.12	0.51	18.47	59.69	0.32	72.4	5.86
TYPE OF JOINT: SLIP JOINT											
117.00	23.29	0.3125	13.59	125.30	7.74	0.34	11.76	61.50	0.19	72.4	5.86
110.00	25.05	0.3125	20.34	219.94	11.56	0.48	17.79	60.60	0.28	64.0	5.66
100.00	27.57	0.3125	27.01	422.43	15.73	0.59	28.11	59.52	0.44	52.6	5.26
90.00	30.09	0.3125	27.01	691.47	15.73	0.54	38.53	58.62	0.61	42.2	4.72
82.00	32.10	0.3125	33.38	957.65	20.04	0.64	46.78	63.02	0.75	34.7	4.21
TYPE OF JOINT: SLIP JOINT											
82.00	31.35	0.4375	34.15	957.64	22.60	0.53	35.48	62.01	0.55	34.7	4.21
67.00	35.13	0.4375	35.00	1468.78	25.18	0.53	43.15	60.58	0.67	22.7	3.40
55.00	38.15	0.4375	35.73	1888.18	27.68	0.53	46.89	59.64	0.73	15.0	2.72
43.00	41.17	0.4375	35.73	2316.60	27.68	0.49	49.27	64.63	0.77	9.0	2.05
TYPE OF JOINT: SLIP JOINT											
43.00	40.17	0.5000	36.52	2316.61	32.94	0.53	45.54	60.57	0.70	9.0	2.05
30.00	43.45	0.5000	37.14	2791.09	35.57	0.53	46.77	59.68	0.72	4.3	1.39
20.00	45.96	0.5000	37.14	3162.36	35.57	0.50	47.26	59.08	0.74	1.9	0.91
10.00	48.48	0.5000	37.69	3539.20	38.02	0.50	47.46	58.55	0.75	0.5	0.44
0.00	51.00	0.5000	38.70	3921.77	41.93	0.53	47.45	63.15	0.76	0.0	0.00

REACTION COMPONENTS (KIPS AND FT-KIPS)

TRANSVERSE SHEAR	VERTICAL FORCE	WIND SHEAR	MOMENT ABOUT TRANSVERSE	MOMENT ABOUT VERTICAL	MOMENT ABOUT WIND AXIS
0.000	41.932	-38.701	3921.773	0.000	0.000

BASE PLATE AT ELEVATION 0.00 FEET

TUBE DIAMETER	51.00	INCHES
DESIGN MOMENT	3921.8	KIP FT
DESIGN MOMENT IS 0. DEGREES FROM THE WIND DIRECTION		
BOLTS ARE ON THE KNUCKLES OF THE TUBE		
APPLIED AXIAL FORCE	41.9	KIPS
APPLIED SHEAR	38.70	KIPS

BOLT DATA

BOLT TYPE	A615 GR75	
BOLTS ARE EVENLY SPACED		
DIAMETER	2.250	INCHES
EFFECTIVE AREA	3.250	SQ IN
TOTAL LENGTH (DET)	6.0	FEET
MINIMUM EMBEDMENT	8.2	FEET
NUMBER OF BOLTS	20	
BOLT CIRCLE DIAMETER	60.00	INCHES
ALLOWABLE STRESS	60.0	KSI
APPLIED AXIAL STRESS	48.9	KSI
MAX BOLT FORCE	159.0	KIPS
BOLT BENDING STRESS	2.8	KSI
COMBINED BOLT STRESS	51.7	KSI
CLEARANCE UNDER PLATE	3.25	INCHES
BOLT WEIGHT	1692.0	POUNDS

PLATE DATA

DIAMETER OF PLATE	66.00	INCHES
MATERIAL	A871 GR60	
PROVIDED THICKNESS	2.250	INCHES
REQUIRED THICKNESS	2.019	INCHES
BOLT HOLE DIAMETER	2.625	INCHES
CENTER HOLE SIZE	41.00	INCHES
NET WEIGHT	1268.9	POUNDS
RAW STOCK WEIGHT	2773.7	POUNDS
SURFACE AREA	27.68	SQ FT
ALLOWABLE STRESS	59.99	KSI
MAX APPLIED STRESS	48.29	KSI
CONCRETE STRENGTH	3000.	PSI

Base Plate - use 66.00 inch ROUND x 2.250 inch A871 GR60 with (20) 2.250 diameter x 6.00 foot caged A615 GR75 double end threaded bolts w/(4) hex nuts each on a 60.00 inch bolt circle

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

September 20, 1999

Honorable Kathleen C. Corkum
First Selectman
Town of Canton
4 Market Street, P.O. Box 168
Collinsville, CT 06022

RE: EM-BAM/SCLP-023-990917 - Cellco Partnership d/b/a Bell Atlantic Mobile and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility located at 14 Canton Springs Road in Canton, Connecticut.

Dear Ms. Corkum:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for Friday, October 8, 1999, at 10:00 a.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,

Joel M. Rinebold
Executive Director

JMR/jlh

Enclosure: Notice of Intent

EM-BAM/SCLP-023-990917

SPRINGWICH CELLULAR LIMITED PARTNERSHIP
500 Enterprise Drive, 3rd Floor
Rocky Hill, CT. 06067
860/513-7700

BELL ATLANTIC MOBILE
20 Alexander Drive
Wallingford, CT. 06492
203/294-8519

September 17, 1999

HAND DELIVERED

Mr. Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: Bell Atlantic Mobile and Springwich Cellular Limited Partnership – Canton Cell Site

Dear Mr. Gelston:

Cellco Partnership d/b/a Bell Atlantic Mobile ("BAM") and Springwich Cellular Limited Partnership ("SCLP") (collectively, the "Applicants") plan to install cellular antennas and related equipment at the tower facility in Canton owned by the Canton Volunteer Fire Company, Inc. Please accept this letter as notice of intent, pursuant to R.C.S.A. Section 16-50j-73, of the placement of associated equipment on an existing non-facility tower pursuant to R.C.S.A. Section 16-60j-72(c). In further compliance with R.C.S.A. Section 16-50j-73, a copy of this letter is being sent to the First Selectman of Canton.

The existing non-facility tower is a 140' steel monopole tower located at 14 Canton Springs Road, Canton, Connecticut. The Volunteer Fire Company plans to install one 20' whip antenna at the top of the tower which has been approved by the Canton Zoning Board and provides emergency service communications for the Volunteer Fire Department. As shown on the attached drawings and as further described below, BAM and SCLP each propose to install antennas on the existing tower and to locate their equipment in the multi-tenant equipment shelter approved by the Zoning Board. The Town's radio equipment and an emergency use diesel fuel generator will also be located in this shared equipment shelter. The generator will be installed following receipt of the required DEP permit.

The addition of the Applicant's antennas and equipment to the tower site does not constitute a substantial environmental affect since such additions do not cause a significant change or alteration in the physical and environmental characteristics of the site (see attached site plan). Rather, the planned changes to the existing non-facility tower falls squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(c).

First, the height of the existing tower will be unaffected. BAM plans to install eight antennas, Swedcom Model ALP 110-11 to be mounted, four per sector on a triangular platform to be attached to the tower. The center of radiation will be 130' AGL. SCLP plans to install twelve antennas, Swedcom Model ALP 110-11 to be mounted, four per sector on a triangular platform to be attached to the tower. The center of radiation will be 120' AGL. A G.P.S. antenna will be mounted from the tower. The tower will not require any structural modification to support the proposed attachments.

Second, the proposed addition will not extend the site boundaries. The town has approved a multi-tenant equipment shelter located at the base of the tower which will contain the radio equipment of all carriers to be co-located on the monopole (see attached site plan).

Third, the proposed addition will not increase the noise levels at the existing compound facility be six decibels or more.

Fourth, the operation of the antennas will not increase the total frequency electromagnetic radiation power density, measured at the tower base, to a level at or above the applicable ANSI standards. "Worst-case" exposure calculations for a point at the base of the tower in relation to operation of each of BAM's, SCLP's and the Town's antenna arrays are as follows:

	Applicable ANSI Stnd.	Calculated "Worst-Case"	Percentage 0f Stnd.
BAM	0.583 mW/cm2	0.0474 mW/cm2	8.14%
SCLP	0.5867 mW/cm2	0.0404 mW/cm2	6.89%
FIRE DEPT	0.0013 mW/cm2	0.2 mW/cm2	0.64%

The collective "worst-case" exposure would be only 15.67% of the ANSI standards, as calculated for mixed frequency sites. Power density levels from shared use of the tower facility would thus be well below applicable ANSI standards.

Finally, the owner of the tower, Canton Volunteer Fire Company, Inc., has received the necessary municipal approvals and permits for the project for a multi-tenant monopole communications facility (see attached building/zoning permits). The Town's zoning approval included the proposed future attachment of the Applicant's antennas to the monopole and placement of related equipment in the multi-tenant equipment shelter. No further zoning approval is required. The Applicant will apply for any pertinent electrical permits.

For the foregoing reasons, the Applicant seeks a ruling that its proposed additions to the non-facility tower would not cause a significant change or alteration in the physical and environmental characteristics of the site pursuant to R.C.S.A. Section 16-50j-72(c)(1). The Applicant further submits that the changes comply with R.C.S.A. Section 16-50j-72(c), (2) through (5) and therefore request a determination that the placement of the antennas and equipment on the existing non-facility tower site does not constitute a substantial environmental effect under R.C.S.A. Section 16-50j-72(c).

Thank you for your consideration of this matter.

Pursuant to Connecticut General Statutes Section 16-50v-1(a) of the Regulations of Connecticut State Agencies, the Applicant has enclosed a check in the amount of $500.00 for the required filing fee.

Very truly yours,

Peter W. van Wilgen
Director-Real Estate Operations
Springwich Cellular Limited Partnership

Sandy M. Carter
Manager-Regulatory
Bell Atlantic Mobile

Attachments

cc: Honorable Kathleen C. Corkum, First Selectman

SPRINGWICH CELLULAR LIMITED PARTNERSHIP
500 Enterprise Drive, 3rd Floor
Rocky Hill, CT. 06067
860/513-7700

BELL ATLANTIC MOBILE
20 Alexander Drive
Wallingford, CT. 06492
203/294-8519

September 17, 1999

Honorable Kathleen C. Corkum
First Selectman
Town of Canton
Town Hall
4 Market Street
Canton, Connecticut 06022

Dear Mrs. Corkum:

This letter is to inform you that Cellco Partnership d/b/a Bell Atlantic Mobile ("BAM") and Springwich Cellular Limited Partnership ("SCLP") plan to install antennas and associated equipment at the existing tower facility located at 14 Canton Springs Road, Canton, Connecticut. As required by Section 16-50j-73 of the Regulations of the Connecticut State Agencies (R.C.S.A.), please accept this letter and the attached letter to the Connecticut Siting Council as notice on intent of the placement of the associated equipment on an existing non-facility tower pursuant to R.C.S.A. Section 16-50j-72 (c).

The attached letter fully sets forth the Company's proposal. However, if you have any questions or require any further information on the plans for this site or the Siting Council's procedures, please contact the undersigned at (203) 294-8519 or Mr. Joel Rinebold, Executive Director of the Connecticut Siting Council, at (860) 827-2935.

Sincerely,

Peter W. van Wilgen
Director-Real Estate Operations
Springwich Cellular Limited Partnership

Sandy M. Carter
Manager - Regulatory
Bell Atlantic Mobile

Enclosure

ZONING COMMISSION
Canton, Connecticut INC. 1806
4 Market Street, Collinsville, Connecticut 06022

February 26, 1999

Mr. Kenneth C. Baldwin
Robinson & Cole, LLP
One Commercial Plaza
280 Trumbull Street
Hartford, CT 06103-3597

1. RE: Special Exception and Site Plan Modification for Communications Tower and Facility, File #218, Apln 795; 14 Canton Springs Road; Canton Volunteer Fire Company, Inc., owner/applicant.

Dear Mr. Baldwin::

At a regular meeting held on Wednesday, February 17, 1999 at the Town Hall in Collinsville, the Canton Zoning Commission voted to approve the above-captioned request for a special exception and site plan modification in accordance with Canton Zoning Regulations §67.4.

This action of the Commission shall be effective 14 days after publication of the decision in the Hartford Courant on March 2, 1999.

RECORDING YOUR APPROVAL:

Enclosed you will find the Certificate of Action. In order to validate the certificate and make the action of the Commission effective, you must bring the original Certificate of Action to the Canton Town Clerk to be recorded on the Canton Land Records. Recording fees may be obtained by calling the Town Clerk's office at 693-7870.

Sincerely,

Eric M. Barz

Eric M. Barz, A.I.C.P.
Director of Planning and Community Development

Telephone (860) 693-7856

Fax (860) 693-7840

CERTIFICATE OF ACTION

CANTON ZONING COMMISSION

OWNER OF RECORD:	[	**ZONING FILE** *218*
Canton Volunteer Fire Company, Inc.	[	**APPLICATION** *795*
14 Canton Springs Road	[	**District** *B1*
Canton, CT 06019	[	**Map** *4-3* **Lot** *97*
APPLICANT: *Mr. Ralph Trumbull*	[	**Location** *14 Canton Springs Road*

APPROVAL OF SPECIAL EXCEPTION AND SITE PLAN MODIFICATION

As Secretary of the Canton Zoning Commission, I certify that at a regular meeting on February 17, 1999 the Zoning Commission approved your request for a special exception and site plan modification.

As approved, the Zoning Commission finds this application to be in conformance with Section 67.4 of the Canton Zoning Regulations.

Dated at Canton, Connecticut on February 26, 1999.

Douglas Kress, Secretary
CANTON ZONING COMMISSION

RECEIVED FOR RECORD AT CANTON, CT.

ON 03-01-99 AT 12:36PM

ATTEST: SHIRLEY C. KROMPEGAL, TOWN CLERK

2-sets plans #12/a1

TOWN OF CANTON --- BUILDING DEPARTMENT

4 Market Street Collinsville, Ct. 06022
Phone (860)693-7854 Fax (860)693-7840

BUILDING PERMIT APPLICATION

PERMIT # 99-134

PROPERTY INFORMATION

LOCATION: 14 Canton Springs Road
No. Street

ZONE: ______ MAP: ______ LOT: ______ LOT SIZE: ______ Sq.Ft.

OWNER: Canton Volunteer Fire Company, Inc. PHONE # ______

OWNER'S ADDRESS: 14 Canton Springs Road, Canton, CT 8/3/99
(If Different From Above) No. Street Town State Zip

CONTRACTOR INFORMATION

NAME: McPhee Electric LTd. LLC LICENSE # MCO.0090023 MARK GAUGER DAVID CASTAMAGNIO

COMPANY NAME: McPhee Electric Ltd. PHONE # 860-677-9797

ADDRESS: 505 Main Street Farmington CT 06032
No. Street Town State Zip

CONSTRUCTION INFORMATION

Type Of Work Proposed: New ☒ Alteration ☐ Addition ☐ Repair ☐ Other ______ (Specify) Estimated Cost $ 193,340.00

TYPE OF BUILDING: One Or Two Family Dwelling ☐ Multiple Family Dwelling ☐ Business Office ☐ Retail Outlet ☐ Industrial ☐ Restaurant ☐ Automotive Repair ☐ Garage ☐ Barn ☐ Shed ☐ Deck ☐ Place of Assembly ☒ Other Comm.Tower (Specify)

Structure Is To Be ______ Ft. Wide By ______ Ft. Long By ______ Ft. In Height (Must Conform With Zoning Limits)
Number of Floors ______ Total Square Footage ______ Room Count ______ No. Bedrooms ______ No. Bathrooms ______
Whirlpool ☐ Type Of Heat ______ Air Conditioning ☐ # Of Chimneys ______ # Of Fireplaces ______

EQUIPMENT ENCLOSED FIRE HOUSE

AFFIDAVIT AND AGREEMENT

I hereby certify that I am the owner of the property which is the subject of this application OR the authorized agent of the property owner; I agree to call at least 24 hours in advance for the required inspections; I agree to uncover and expose any work which is covered or concealed without inspector's approval; I understand that when a permit is issued it grants no right to violate any code, ordinance, or statute, regardless of what may be shown or omitted on the approved plans and specifications and regardless of any agreement with any official.

I HAVE READ AND AGREE TO ALL OF THE ABOVE

SIGNATURE OF APPLICANT: [signature] DATE: 7/26/99

DO NOT WRITE BELOW LINE --- OFFICE USE ONLY

CONSTRUCTION TYPE: Communication Tower USE GROUP: U ASSIGNED VALUE: $240,920 TOTAL FEE: $2,892

APPLICATION APPROVED ☒ DISAPPROVED ☐ REASON FOR DISAPPROVAL: ______

DATE: 7-28-99

[signature] Building Official rev/96

REMARKS:

White - File Yellow - Applicant Pink - Assessor

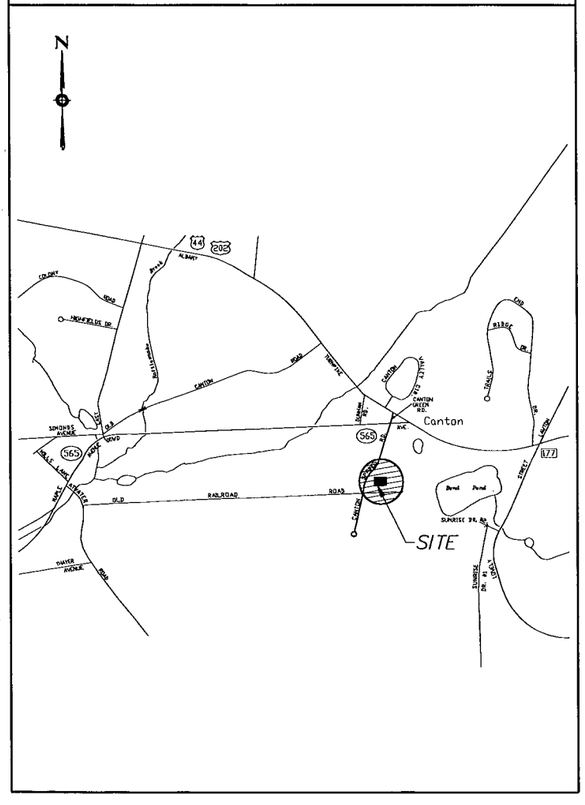
SPRINGWICH CELLULAR LIMITED PARTNERSHIP

Bell Atlantic Mobile

WIRELESS COMMUNICATIONS FACILITY

14 CANTON SPRINGS ROAD
CANTON, CONNECTICUT

VICINITY MAP — NO SCALE



PROJECT SUMMARY

SITE NAME:	CANTON FIRE DEPARTMENT
SITE ADDRESS:	14 CANTON SPRINGS ROAD CANTON, CT.
CURRENT ZONING:	B-1
GOVERNING CODE:	CONNECTICUT STATE BUILDING CODE CONNECTICUT STATE FIRE SAFETY CODE
JURISDICTION:	TOWN OF CANTON
PROPERTY OWNER:	CANTON VOLUNTEER FIRE COMPANY, INC.
APPLICANT:	SPRINGWICH CELLULAR LIMITED PARTNERSHIP 500 ENTERPRISE DRIVE ROCKY HILL, CT. 06067 BELL ATLANTIC MOBILE 20 ALEXANDER DRIVE WALLINGFORD, CT. 06492
ARCHITECT:	URS GREINER WOODWARD-CLYDE, INC. A.E.S. 500 ENTERPRISE DRIVE ROCKY HILL, CT 06067
M/E/P ENGINEER:	URS GREINER WOODWARD-CLYDE, INC. A.E.S. 500 ENTERPRISE DRIVE ROCKY HILL, CT 06067
SURVEYOR:	URS GREINER WOODWARD-CLYDE, INC. A.E.S. 500 ENTERPRISE DRIVE ROCKY HILL, CT 06067

LEGEND

SYMBOL	DESCRIPTION
	SECTION OR DETAIL NUMBER SHEET WHERE DETAIL/SECTION OCCURS
1	ELEVATION NUMBER
	SHEET WHERE ELEVATION OCCURS

ABBREVIATIONS

EXIST.	EXISTING
FF	FINISHED FLOOR
VIF	VERIFY IN FIELD
PTD	PAINTED

SHEET INDEX

SNET / Bell Atlantic Mobile

A&E FIRM
URS Greiner Woodward Clyde A-E-S
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

A&E SEAL

PROJECT NO: F301727.13/F03

DRAWN BY: CRS

CHECKED BY:

ISSUED FOR

	09-16-99	SITING COUNCIL

CANTON FIRE DEPARTMENT

14 CANTON SPRINGS ROAD
CANTON, CT

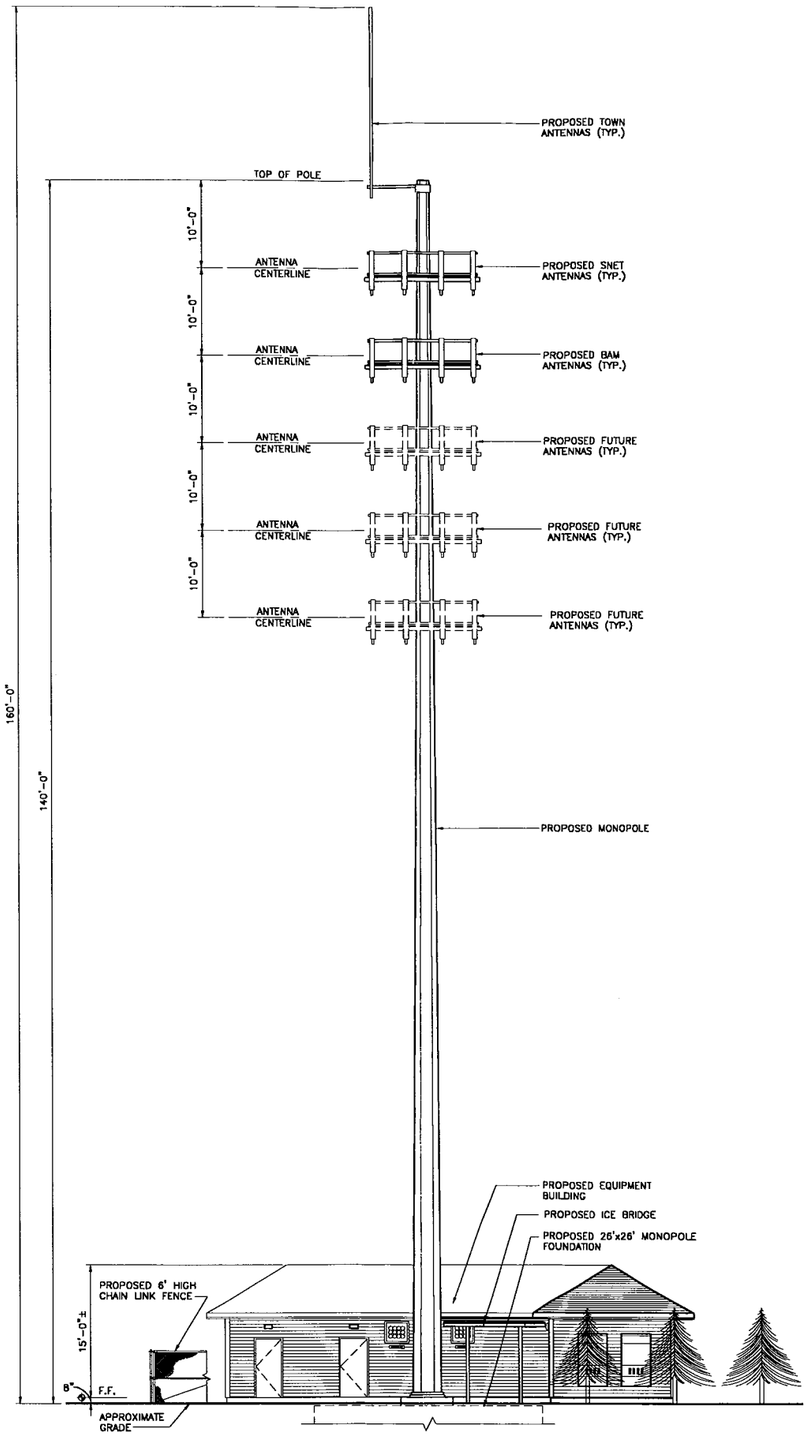
SCALE: AS NOTED

DATE: 09-16-99

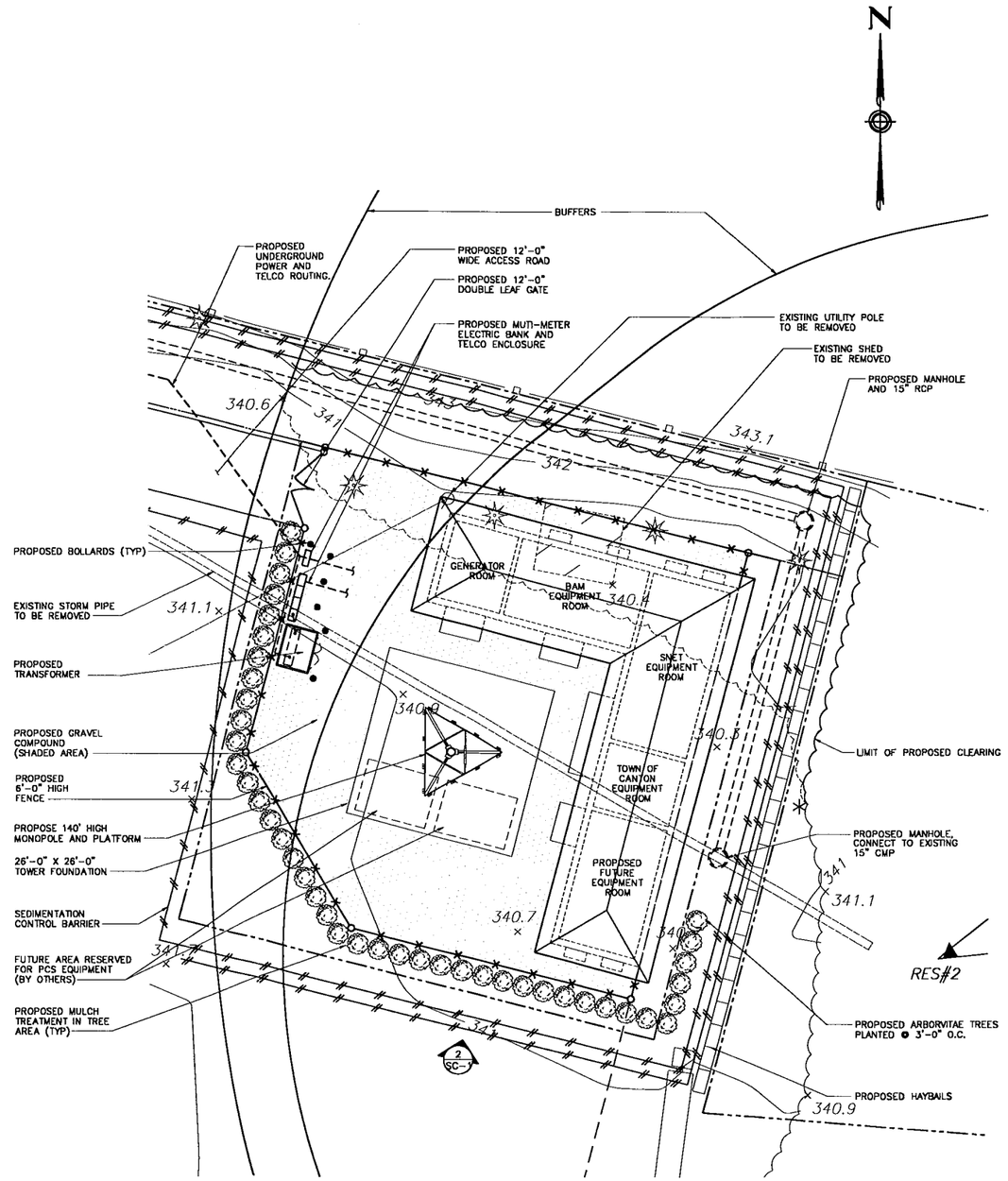
DRAWING 1 OF 2

TITLE SHEET

T-1



2 / SC-1 **TOWER/BUILDING ELEVATION-SOUTH**
SCALE: 1/8" = 1'-0"



1 / SC-1 **COMPOUND PLAN**
SCALE: 1" = 10'-0"

Bell Atlantic Mobile

A&E FIRM
URS Greiner Woodward Clyde A·E·S
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

A&E SEAL

PROJECT NO: F301727.13/F03

DRAWN BY: CRS

CHECKED BY:

ISSUED FOR

09-16-99	SITING COUNCIL

CANTON FIRE DEPARTMENT
14 CANTON SPRINGS ROAD
CANTON, CT

SCALE: AS NOTED

DATE: 09-16-99

DRAWING 2 OF 2

PARTIAL SITE PLAN AND TOWER/BUILDNG ELEVATION-SOUTH

SC-1

AMERICAN TOWER®
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Structural Analysis Report

Structure	:	**140 ft Monopole**
ATC Site Name	:	**CANTON CT, CT**
ATC Asset Number	:	**411256**
Engineering Number	:	**12977010_C3_03**
Proposed Carrier	:	**VERIZON WIRELESS**
Carrier Site Name	:	**Canton CT**
Carrier Site Number	:	**15775467**
Site Location	:	**14 CANTON SPRINGS ROAD** **Canton, CT 06019-2401** **41.822900,-72.895200**
County	:	**Hartford**
Date	:	**September 6, 2019**
Max Usage	:	**48%**
Result	:	**Pass**

Prepared By:
Cole Melody Koffi
Structural Engineer I

Reviewed By:

STATE OF CONNECTICUT
ESHA KAUSHAL MODI
32599
LICENSED
PROFESSIONAL ENGINEER

Authorized by "EOR"
08/26/2019 11:01 AM cosign

COA: PEC.0001553

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Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 140 ft monopole to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	EEI Project Drawing #GS51426, dated May 20, 1999
Foundation Drawing	EEI Project Drawing #F4960-140, dated May 21, 1999
Geotechnical Report	Clarence Welti Project #Banm Tower Site, dated November 23, 1998

Analysis

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

Basic Wind Speed:	93 mph (3-Second Gust, V_{ASD}) / 119 mph (3-Second Gust, V_{ULT})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-G / 2015 IBC / 2018 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	Ss = 0.18, S_1 = 0.06
Site Class:	D - Stiff Soil

Conclusion

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

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

Existing and Reserved Equipment

Elev.[1] (ft)	Qty	Antenna	Mount Type	Lines	Carrier
148.0	1	Generic 18' Omni	Stand-Off	(2) 7/8" Coax	TOWN OF CANTON
130.0	3	Raycap DC6-48-60-0-8F	Platform with Handrails	(2) 0.39" Fiber Trunk (6) 0.78" 8 AWG 6 (3) 3" conduit (12) 7/8" Coax	AT&T MOBILITY
	3	Ericsson RRUS 8843 B2, B66A			
	3	Kathrein Scala 840370799			
	3	Ericsson RRUS 32 (50.8 lbs)			
	3	Kathrein Scala 800-10121			
	1	Andrew SBNHH-1D65A (33.5 lbs)			
	2	CCI HPA-65R-BUU-H8			
	6	CCI DTMABP7819VG12A			
	3	Ericsson RRUS 4449 B5, B12			
120.0	1	VZW Unused Reserve: 18842 sq in	Platform with Handrails	(1) 1 5/8" Fiber (6) 1 5/8" Coax (1) 1/2" Coax	VERIZON WIRELESS
	1	RFS DB-T1-6Z-8AB-0Z			
	4	Antel LPA-80080/4CF ___			
	6	Commscope SBNHH-1D65B			
	2	Antel LPA-80063/4CF ___			
100.0	3	RFS ATMA4P4DBP-1A20	Low Profile Platform	(12) 1 5/8" Coax	T-MOBILE
	3	Commscope ATSBT-TOP-MF-4G			
	3	Andrew LNX-6515DS-A1M			
	3	RFS APXV18-209014-C-A20			
90.0	3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield	Platform with Handrails	(4) 1 1/4" Hybriflex Cable (1) 1/2" Coax	SPRINT NEXTEL
	3	Alcatel-Lucent 1900 MHz 4X45 RRH			
	3	Alcatel-Lucent 800 MHz RRH			
	3	Alcatel-Lucent RRH2x50-08			
	3	RFS APXVSPP18-C-A20			
	1	PCTEL GPS-TMG-HR-26N			
	3	Generic 12" x 12" Junction Box			

Equipment to be Removed

Elev.[1] (ft)	Qty	Antenna	Mount Type	Lines	Carrier
120.0	3	Samsung PCS/AWS Dual Band RRH	-	(1) 1 5/8" Fiber (10) 1 5/8" Coax	VERIZON WIRELESS
	3	Amphenol Antel BXA-70063-6CF-EDIN-2			
	1	RFS DB-T1-6Z-8AB-0Z			
	3	Samsung 700/850MHz Dual Band RRH			

Proposed Equipment

Elev.[1] (ft)	Qty	Antenna	Mount Type	Lines	Carrier
120.0	1	Generic GPS	Platform with Handrails	(1) 1/2" Coax	VERIZON WIRELESS
	3	Samsung B2/B66A RRH-BR049			
	3	Samsung B5/B13 RRH-BR04C			

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

Install proposed lines inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	39%	Pass
Shaft	43%	Pass
Base Plate	48%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	3,921.8	5,294.4	2,416.9	46%
Shear (Kips)	38.7	52.2	23.4	45%
* The design reactions are factored by 1.35 per ANSI/TIA-222-G, Sec. 15.5.1				

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
120.0	Generic GPS	VERIZON WIRELESS	0.894	0.867
	Samsung B2/B66A RRH-BR049			
	Samsung B5/B13 RRH-BR04C			

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

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Standard Conditions

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

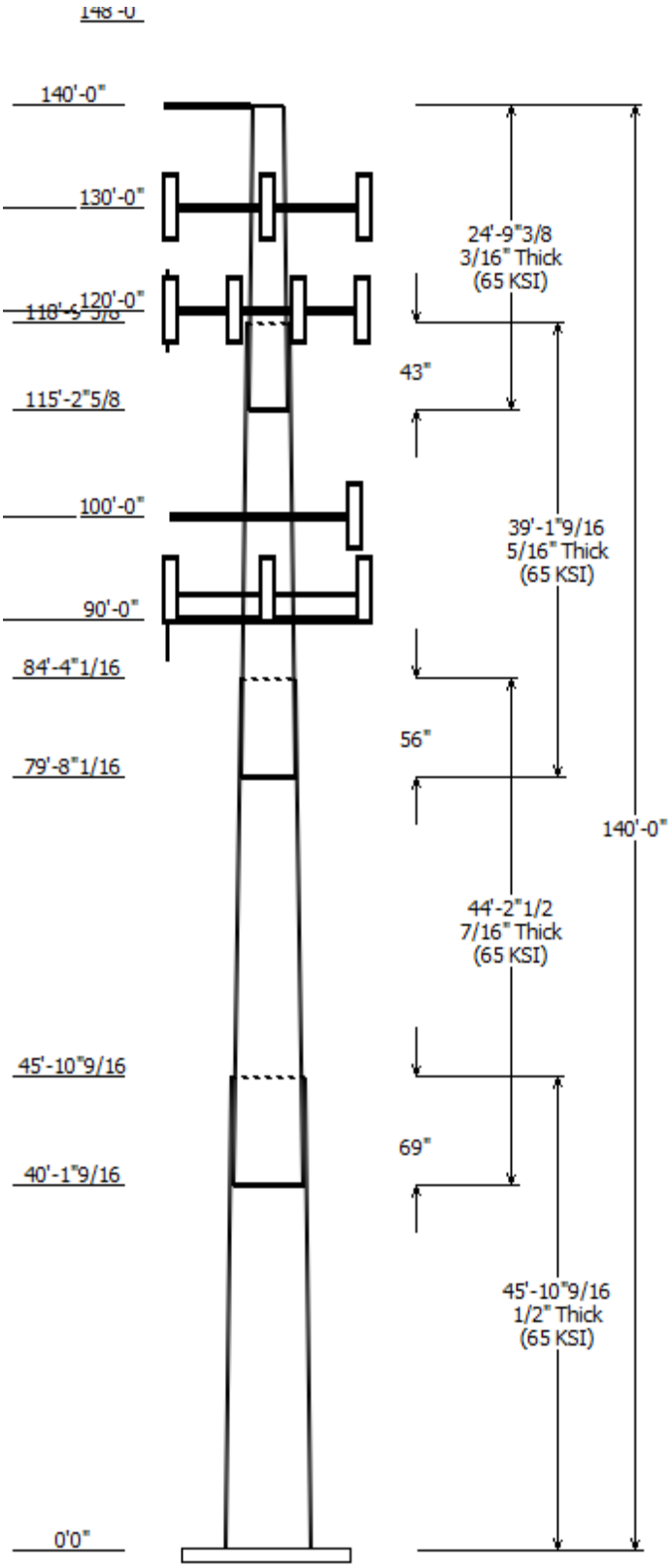
- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

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

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

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

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



Job Information

Client :	VERIZON WIRELESS		
Pole :	411256	Code:	ANSI/TIA-222-G
Location :	CANTON CT, CT		
Description :	140 ft Monopole	Struct Class :	II
Shape :	18 Sides	Exposure :	B
Height :	140.00 (ft)	Topo :	1
Base Elev (ft):	0.00		
Taper:	0.249107 (in/ft)		

Sections Properties

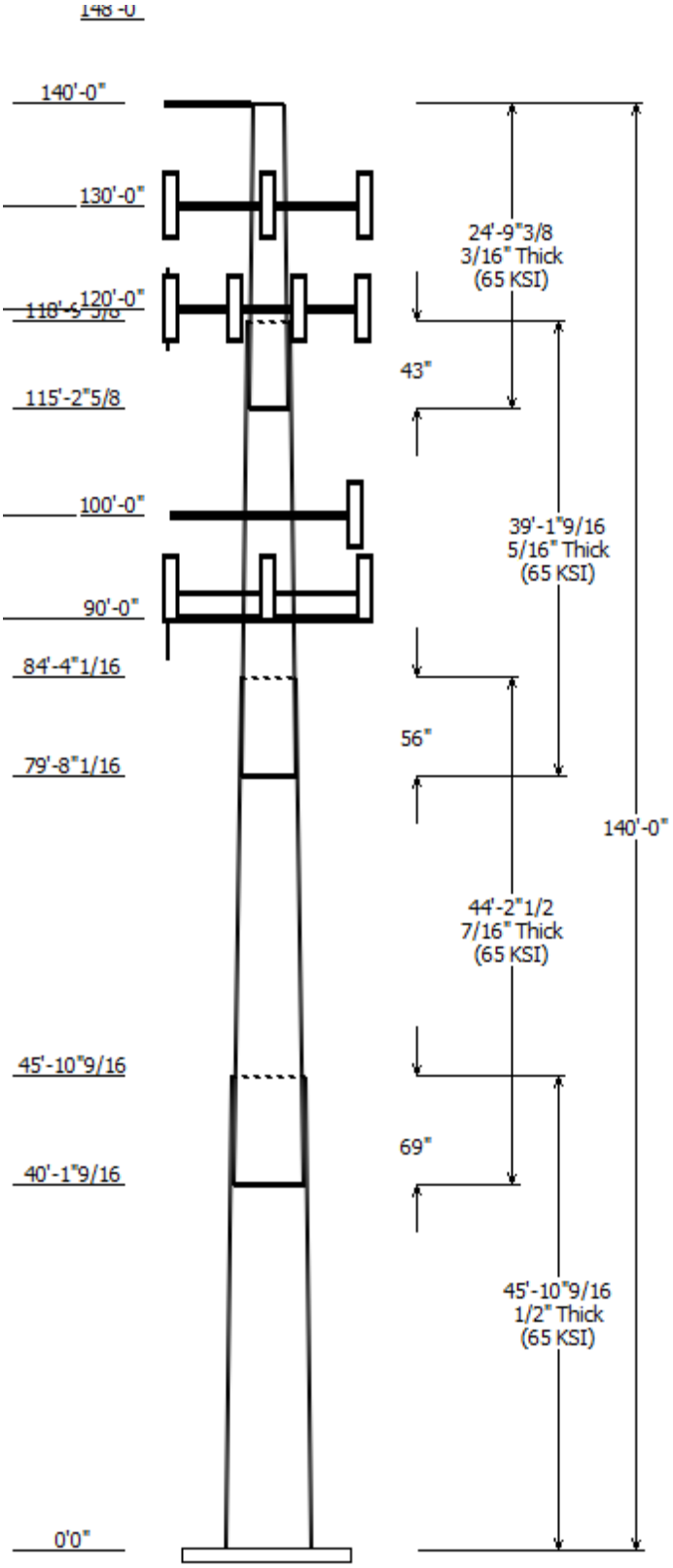
Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
1	45.880	39.57	51.00	0.500		0.000	18 Sides	65
2	44.210	30.86	41.87	0.438	Slip Joint	69.000	18 Sides	65
3	39.130	22.90	32.65	0.313	Slip Joint	56.000	18 Sides	65
4	24.780	18.00	24.17	0.188	Slip Joint	43.000	18 Sides	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
148.000	148.000	1	Generic 18' Omni
140.000	140.000	1	Stand-Off
130.000	130.000	1	Flat Platform w/ Handrails
130.000	130.000	3	Kathrein Scala 840370799
130.000	130.000	2	CCI HPA-65R-BUU-H8
130.000	130.000	1	Andrew SBNHH-1D65A (33.5
130.000	130.000	3	Kathrein Scala 800-10121
130.000	130.000	3	Ericsson RRUS 32 (50.8 lbs)
130.000	130.000	3	Ericsson RRUS 4449 B5, B12
130.000	130.000	3	Ericsson RRUS 8843 B2, B66A
130.000	130.000	1	Raycap DC6-48-60-0-8F
130.000	130.000	2	Raycap DC6-48-60-0-8F
130.000	130.000	6	CCI DTMABP7819VG12A
120.000	120.000	2	Antel LPA-80063/4CF ___
120.000	120.000	4	Antel LPA-80080/4CF ___
120.000	120.000	1	RFS DB-T1-6Z-8AB-0Z
120.000	120.000	3	Samsung B5/B13 RRH-BR04C
120.000	120.000	1	VZW Unused Reserve: 18842
120.000	120.000	1	Flat Platform w/ Handrails
120.000	120.000	3	Samsung B2/B66A RRH-BR049
120.000	120.000	1	Generic GPS
120.000	120.000	6	Commscope SBNHH-1D65B
100.000	100.000	1	Flat Low Profile Platform
100.000	100.000	3	Andrew LNX-6515DS-A1M
100.000	100.000	3	RFS APXV18-209014-C-A20
100.000	100.000	3	RFS ATMA4P4DBP-1A20
100.000	100.000	3	Commscope ATSBT-TOP-MF-
90.000	90.000	1	Generic Round Platform with
90.000	94.000	3	RFS APXVSPP18-C-A20
90.000	94.000	3	Alcatel-Lucent TD-RRH8x20-25
90.000	94.000	3	Alcatel-Lucent 1900 MHz 4X45
90.000	94.000	3	Alcatel-Lucent 800 MHz RRH
90.000	94.000	3	Alcatel-Lucent RRH2x50-08
90.000	90.000	3	Generic 12" x 12" Junction Box
90.000	90.000	1	PCTEL GPS-TMG-HR-26N

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	90.000	1 1/4" Hybriflex	No
0.000	90.000	1/2" Coax	No
0.000	100.0	1 5/8" Coax	No



0.000	120.0	1 5/8" (1.63"-	No
0.000	120.0	1 5/8" Coax	Yes
0.000	120.0	1/2" Coax	No
0.000	130.0	0.39" (10mm)	No
0.000	130.0	0.78" (19.7mm) 8	No
0.000	130.0	3" conduit	No
0.000	130.0	3" conduit	No
0.000	130.0	7/8" Coax	No
0.000	148.0	7/8" Coax	No

Load Cases

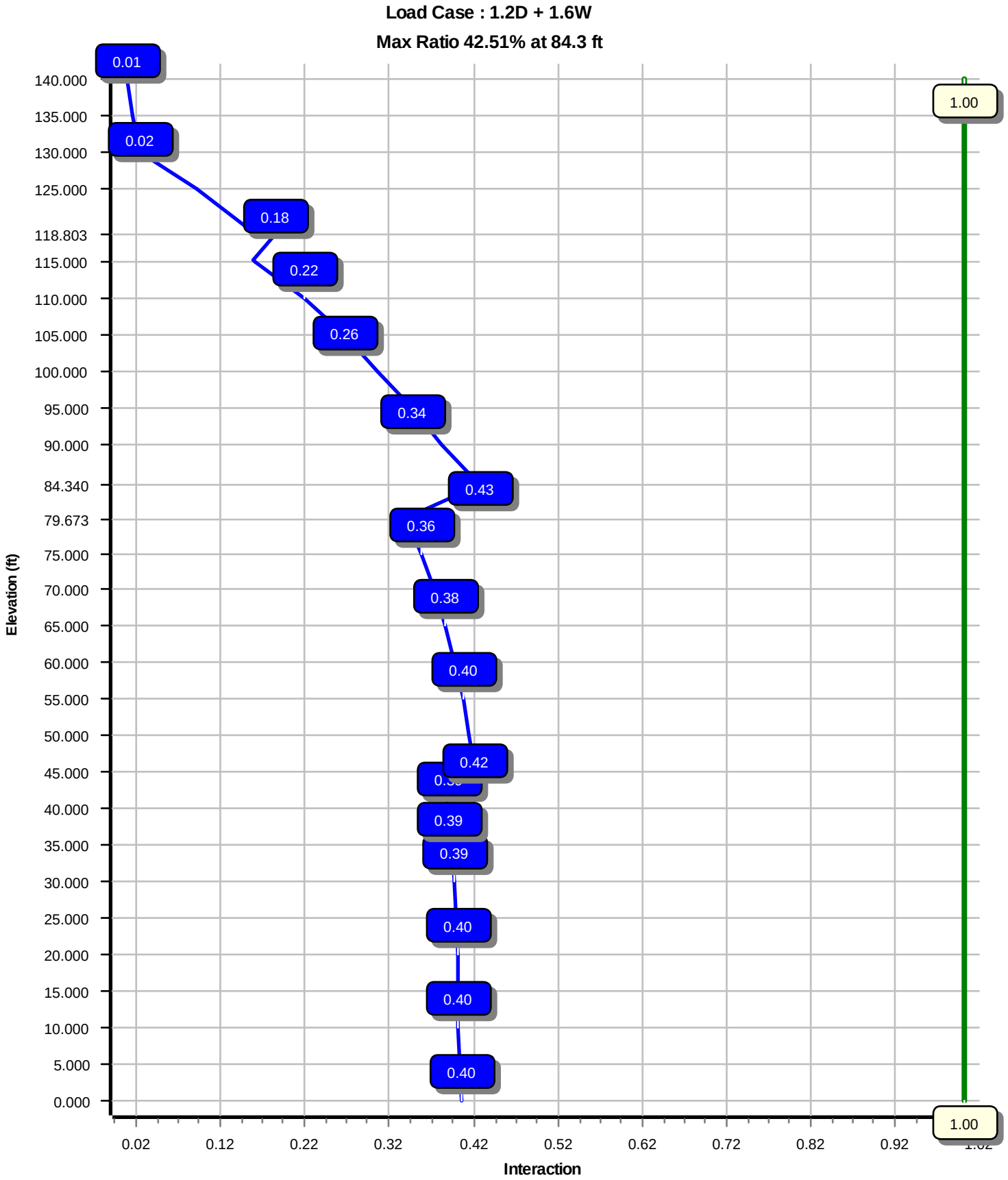
1.2D + 1.6W	93 mph with No Ice
0.9D + 1.6W	93 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Lateral
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal
1.0D + 1.0W	Serviceability 60 mph

Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	2416.92	23.44	50.63
0.9D + 1.6W	2392.65	23.42	37.97
1.2D + 1.0Di + 1.0Wi	1032.34	11.31	80.47
(1.2 + 0.2Sds) * DL + E ELFM	151.77	1.42	50.29
(1.2 + 0.2Sds) * DL + E EMAM	138.44	1.39	50.29
(0.9 - 0.2Sds) * DL + E ELFM	149.99	1.42	34.99
(0.9 - 0.2Sds) * DL + E EMAM	136.71	1.39	34.99
1.0D + 1.0W	559.07	5.45	42.21

Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
	0.00	0.000	0.000


Load Case : 1.2D + 1.6W
Max Ratio 42.51% at 84.3 ft
0.01
0.02
0.18
0.22
0.26
0.34
0.43
0.36
0.38
0.40
0.42
0.39
0.39
0.40
0.40
0.40
1.00
1.00
140.000
135.000
130.000
125.000
118.803
115.000
110.000
105.000
100.000
95.000
90.000
84.340
79.673
75.000
70.000
65.000
60.000
55.000
50.000
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
Elevation (ft)
0.02
0.12
0.22
0.32
0.42
0.52
0.62
0.72
0.82
0.92
Interaction

Site Number: 411256 | Code: ANSI/TIA-222-G |

Site Name: CANTON CT, CT | Engineering Number:12977010_C3_03 | 9/6/2019 3:12:05 PM

Customer: VERIZON WIRELESS

Analysis Parameters

Location :	Hartford County, CT	Height (ft) :	140
Code :	ANSI/TIA-222-G	Base Diameter (in) :	51.00
Shape :	18 Sides	Top Diameter (in) :	18.00
Pole Type :	Taper	Taper (in/ft) :	0.249
Pole Manfacturer :	EEI	Rotation (deg) :	0.00

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	93 mph
Exposure Category:	B	Design Wind Speed With Ice:	50 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0 ft	Design Ice Thickness:	1.00 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods				
Site Class:	D - Stiff Soil				
Period Based on Rayleigh Method (sec):	2.03				
T_L (sec):	6	p:	1	C_s:	0.034
S_s:	0.180	S_1:	0.064	C_s Max:	0.034
F_a:	1.600	F_v:	2.400	C_s Min:	0.030
S_{ds}:	0.192	S_{d1}:	0.102		

Load Cases

1.2D + 1.6W	93 mph with No Ice
0.9D + 1.6W	93 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2Sds) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in²)	Bottom Ix (in⁴)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (in²)	Top Ix (in⁴)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	45.880	0.5000	65		0.00	11,096	51.00	0.00	80.14	25821.9	16.57	102.00	39.57	45.88	62.00	11958.5	12.54	79.14	0.249107
2-18	44.210	0.4375	65	Slip	69.00	7,506	41.87	40.13	57.54	12485.6	15.47	95.72	30.86	84.34	42.25	4942.4	11.03	70.55	0.249107
3-18	39.130	0.3125	65	Slip	56.00	3,627	32.65	79.67	32.08	4238.6	17.01	104.49	22.90	118.80	22.41	1445.1	11.51	73.30	0.249107
4-18	24.780	0.1875	65	Slip	43.00	1,049	24.17	115.22	14.27	1037.5	21.32	128.92	18.00	140.00	10.60	424.9	15.52	96.00	0.249107
				Shaft Weight		23,278													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor
148.00	Generic 18' Omni	1	1.00	0.000	55.00	5.400	1.00	234.45	13.861	1.00
140.00	Stand-Off	1	1.00	0.000	100.00	3.000	1.00	164.59	5.076	1.00
130.00	CCI DTMABP7819VG12A	6	0.75	0.000	19.20	0.970	0.50	52.68	1.829	0.50
130.00	Raycap DC6-48-60-0-8F	2	0.75	0.000	32.80	1.360	1.00	109.22	2.232	1.00
130.00	Raycap DC6-48-60-0-8F	1	0.75	0.000	32.80	1.360	1.00	109.22	2.232	1.00
130.00	Ericsson RRUS 8843 B2, B66A	3	0.75	0.000	72.00	1.640	0.50	152.57	2.751	0.50
130.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.970	0.50	155.72	3.197	0.50
130.00	Ericsson RRUS 32 (50.8 lbs)	3	0.75	0.000	50.80	2.690	0.67	144.82	4.207	0.67
130.00	Kathrein Scala 800-10121	3	0.75	0.000	44.10	5.160	0.68	194.78	7.929	0.68
130.00	Andrew SBNHH-1D65A (33.5 lbs)	1	0.75	0.000	33.50	5.880	1.00	211.44	8.675	1.00
130.00	CCI HPA-65R-BUU-H8	2	0.75	0.000	68.00	12.980	0.75	405.77	17.687	0.75
130.00	Kathrein Scala 840370799	3	0.75	0.000	105.80	13.660	0.65	442.59	18.551	0.65
130.00	Flat Platform w/ Handrails	1	1.00	0.000	2,000.00	42.400	1.00	3,868.18	69.969	1.00
120.00	Generic GPS	1	1.00	0.000	10.00	0.900	1.00	48.21	1.735	1.00
120.00	Samsung B2/B66A RRH-BR049	3	0.75	0.000	84.40	1.880	0.50	167.71	3.062	0.50
120.00	Samsung B5/B13 RRH-BR04C	3	0.75	0.000	70.30	1.880	0.50	145.00	3.062	0.50
120.00	RFS DB-T1-6Z-8AB-0Z	1	0.75	0.000	44.00	4.800	0.72	208.37	6.656	0.72
120.00	Antel LPA-80080/4CF ___	4	0.75	0.000	12.00	5.400	0.62	200.06	3.748	0.62
120.00	Antel LPA-80063/4CF ___	2	0.75	0.000	20.00	6.140	0.82	301.91	7.524	0.82
120.00	Commscope SBNHH-1D65B	6	0.75	0.000	50.70	8.170	0.69	279.90	11.864	0.69
120.00	Flat Platform w/ Handrails	1	1.00	0.000	2,000.00	42.400	1.00	3,855.97	69.788	1.00
120.00	VZW Unused Reserve: 18842 sq	1	0.75	0.000	1,589.70	130.850	0.90	3,035.99	249.896	0.90
100.00	Commscope ATSBT-TOP-MF-4G	3	0.80	0.000	1.80	0.170	0.50	9.26	0.547	0.50
100.00	RFS ATMA4P4DBP-1A20	3	0.80	0.000	15.90	0.750	0.50	46.15	1.504	0.50
100.00	RFS APXV18-209014-C-A20	3	0.80	0.000	18.70	3.530	0.67	106.54	5.834	0.67
100.00	Andrew LNX-6515DS-A1M	3	0.80	0.000	49.80	11.410	0.70	342.96	15.560	0.70
100.00	Flat Low Profile Platform	1	1.00	0.000	1,500.00	26.100	1.00	2,329.13	50.533	1.00
90.00	PCTEL GPS-TMG-HR-26N	1	1.00	0.000	0.60	0.090	1.00	6.73	0.318	1.00
90.00	Generic 12" x 12" Junction Box	3	0.75	0.000	10.00	1.200	0.50	62.73	2.119	0.50
90.00	Alcatel-Lucent RRH2x50-08	3	0.75	4.000	52.90	1.700	0.50	127.92	2.791	0.50
90.00	Alcatel-Lucent 800 MHz RRH	3	0.75	4.000	53.00	2.130	0.67	146.44	3.366	0.67
90.00	Alcatel-Lucent 1900 MHz 4X45	3	0.75	4.000	60.00	2.320	0.67	162.02	3.687	0.67
90.00	Alcatel-Lucent TD-RRH8x20-25	3	0.75	4.000	70.00	4.050	0.61	189.64	5.732	0.61
90.00	RFS APXVSPP18-C-A20	3	0.75	4.000	57.00	8.020	0.69	275.38	11.550	0.69
90.00	Generic Round Platform with	1	1.00	0.000	2,000.00	27.200	1.00	3,640.41	58.146	1.00
Totals	Num Loadings:35	85			12,737.10			30,758.92		

Linear Appurtenance Properties

Load Case Azimuth (deg) : 190

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax / Row	Dist Between Rows (in)	Dist Between Cols (in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	148.00	2	7/8" Coax	1.09	0.33	N	0	0.00	0.00	0	0.00	N	TOWN OF CANTON
0.00	130.00	2	0.39" (10mm) Fiber	0.39	0.06	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY

0.00	130.00	6	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	130.00	1	3" conduit	3.50	7.58	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	130.00	2	3" conduit	3.50	7.58	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	130.00	12	7/8" Coax	1.09	0.33	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	120.00	1	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	120.00	6	1 5/8" Coax	1.98	0.82	N	6	0.50	0.50	80	0.50	Y	VERIZON WIRELESS
0.00	120.00	1	1/2" Coax	0.63	0.15	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	100.00	12	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	T-MOBILE
0.00	90.00	4	1 1/4" Hybriflex Cable	1.54	1.00	N	0	0.00	0.00	0	0.00	N	SPRINT NEXTEL
0.00	90.00	1	1/2" Coax	0.63	0.15	N	0	0.00	0.00	0	0.00	N	SPRINT NEXTEL

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)
0.00		0.5000	51.000	80.141	25,821.9	16.57	102.00	81.9	997.2	0.0	0.0
5.00		0.5000	49.754	78.164	23,958.0	16.14	99.51	82.4	948.4	0.0	1,346.7
10.00		0.5000	48.509	76.187	22,186.1	15.70	97.02	82.6	900.8	0.0	1,313.1
15.00		0.5000	47.263	74.211	20,503.7	15.26	94.53	82.6	854.5	0.0	1,279.4
20.00		0.5000	46.018	72.234	18,908.6	14.82	92.04	82.6	809.3	0.0	1,245.8
25.00		0.5000	44.772	70.258	17,398.5	14.38	89.54	82.6	765.4	0.0	1,212.2
30.00		0.5000	43.527	68.281	15,971.0	13.94	87.05	82.6	722.7	0.0	1,178.5
35.00		0.5000	42.281	66.304	14,623.7	13.50	84.56	82.6	681.2	0.0	1,144.9
40.00		0.5000	41.036	64.328	13,354.5	13.06	82.07	82.6	641.0	0.0	1,111.3
40.13	Bot - Section 2	0.5000	41.003	64.276	13,322.5	13.05	82.01	82.6	640.0	0.0	28.4
45.00		0.5000	39.790	62.351	12,160.9	12.62	79.58	82.6	602.0	0.0	1,988.8
45.88	Top - Section 1	0.4375	40.446	55.555	11,235.1	14.89	92.45	82.6	547.1	0.0	353.0
50.00		0.4375	39.420	54.130	10,392.5	14.48	90.10	82.6	519.3	0.0	768.9
55.00		0.4375	38.174	52.400	9,427.8	13.97	87.26	82.6	486.4	0.0	906.2
60.00		0.4375	36.929	50.671	8,524.8	13.47	84.41	82.6	454.7	0.0	876.8
65.00		0.4375	35.683	48.941	7,681.3	12.97	81.56	82.6	424.0	0.0	847.4
70.00		0.4375	34.438	47.212	6,895.4	12.47	78.71	82.6	394.4	0.0	818.0
75.00		0.4375	33.192	45.482	6,165.0	11.97	75.87	82.6	365.8	0.0	788.5
79.67	Bot - Section 3	0.4375	32.028	43.866	5,530.7	11.50	73.21	82.6	340.1	0.0	710.4
80.00		0.4375	31.946	43.753	5,488.1	11.46	73.02	82.6	338.4	0.0	84.3
84.34	Top - Section 2	0.3125	31.490	30.923	3,797.8	16.36	100.77	82.2	237.5	0.0	1,099.6
85.00		0.3125	31.326	30.760	3,738.0	16.26	100.24	82.3	235.0	0.0	69.3
90.00		0.3125	30.080	29.525	3,305.5	15.56	96.26	82.6	216.4	0.0	512.8
95.00		0.3125	28.835	28.290	2,907.7	14.86	92.27	82.6	198.6	0.0	491.8
100.0		0.3125	27.589	27.054	2,543.2	14.16	88.29	82.6	181.6	0.0	470.8
105.0		0.3125	26.344	25.819	2,210.4	13.45	84.30	82.6	165.3	0.0	449.8
110.0		0.3125	25.098	24.583	1,908.1	12.75	80.31	82.6	149.7	0.0	428.8
115.0		0.3125	23.853	23.348	1,634.6	12.05	76.33	82.6	135.0	0.0	407.8
115.2	Bot - Section 4	0.3125	23.798	23.294	1,623.3	12.02	76.15	82.6	134.3	0.0	17.5
118.8	Top - Section 3	0.1875	23.280	13.743	925.9	20.48	124.16	77.3	78.3	0.0	449.4
120.0		0.1875	22.982	13.565	890.5	20.20	122.57	77.6	76.3	0.0	55.6
125.0		0.1875	21.737	12.824	752.4	19.03	115.93	79.0	68.2	0.0	224.5
130.0		0.1875	20.491	12.083	629.3	17.86	109.29	80.4	60.5	0.0	211.9
135.0		0.1875	19.246	11.342	520.5	16.69	102.64	81.8	53.3	0.0	199.3
140.0		0.1875	18.000	10.600	424.9	15.52	96.00	82.6	46.5	0.0	186.7
											23,278.2

Site Number: 411256 Code: ANSI/TIA-222-G

Site Name: CANTON CT, CT Engineering Number:12977010_C3_03 9/6/2019 3:12:05 PM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.6W 93 mph with No Ice 22 Iterations

Gust Response Factor :1.10 Wind Importance Factor 1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		179.5	0.0					0.0	0.0	179.5	0.0	0.0	0.0
5.00		354.6	1,616.0					0.0	310.1	354.6	1,926.2	0.0	0.0
10.00		345.7	1,575.7					0.0	310.1	345.7	1,885.8	0.0	0.0
15.00		336.8	1,535.3					0.0	310.1	336.8	1,845.5	0.0	0.0
20.00		328.0	1,495.0					0.0	310.1	328.0	1,805.1	0.0	0.0
25.00		319.1	1,454.6					0.0	310.1	319.1	1,764.7	0.0	0.0
30.00		313.9	1,414.2					0.0	310.1	313.9	1,724.4	0.0	0.0
35.00		314.9	1,373.9					0.0	310.1	314.9	1,684.0	0.0	0.0
40.00		162.5	1,333.5					0.0	310.1	162.5	1,643.7	0.0	0.0
40.13	Bot - Section 2	162.6	34.1					0.0	8.1	162.6	42.2	0.0	0.0
45.00		187.1	2,386.6					0.0	302.1	187.1	2,688.7	0.0	0.0
45.88	Top - Section 1	162.8	423.6					0.0	54.6	162.8	478.2	0.0	0.0
50.00		296.5	922.6					0.0	255.6	296.5	1,178.2	0.0	0.0
55.00		323.6	1,087.5					0.0	310.1	323.6	1,397.6	0.0	0.0
60.00		321.0	1,052.2					0.0	310.1	321.0	1,362.3	0.0	0.0
65.00		317.3	1,016.9					0.0	310.1	317.3	1,327.0	0.0	0.0
70.00		312.8	981.6					0.0	310.1	312.8	1,291.7	0.0	0.0
75.00		297.7	946.2					0.0	310.1	297.7	1,256.4	0.0	0.0
79.67	Bot - Section 3	152.5	852.5					0.0	289.9	152.5	1,142.4	0.0	0.0
80.00		142.3	101.2					0.0	20.3	142.3	121.4	0.0	0.0
84.34	Top - Section 2	152.1	1,319.6					0.0	269.2	152.1	1,588.8	0.0	0.0
85.00		168.6	83.1					0.0	40.9	168.6	124.1	0.0	0.0
90.00	Appurtenance(s)	293.6	615.4	1,973.9	0.0	3,828.8	3,491.2	0.0	310.1	2,267.5	4,416.7	0.0	0.0
95.00		285.8	590.2					0.0	285.2	285.8	875.4	0.0	0.0
100.00	Appurtenance(s)	277.5	565.0	1,904.2	0.0	0.0	2,110.3	0.0	285.2	2,181.7	2,960.5	0.0	0.0
105.00		268.7	539.7					0.0	226.2	268.7	765.9	0.0	0.0
110.00		259.4	514.5					0.0	226.2	259.4	740.7	0.0	0.0
115.00		132.8	489.3					0.0	226.2	132.8	715.5	0.0	0.0
115.22	Bot - Section 4	95.5	20.9					0.0	10.0	95.5	30.9	0.0	0.0
118.80	Top - Section 3	119.6	539.3					0.0	162.1	119.6	701.4	0.0	0.0
120.00	Appurtenance(s)	148.8	66.7	6,991.7	0.0	0.0	5,400.0	0.0	54.1	7,140.5	5,520.9	0.0	0.0
125.00		233.0	269.4					0.0	186.1	233.0	455.5	0.0	0.0
130.00	Appurtenance(s)	222.2	254.3	4,047.5	0.0	0.0	4,097.0	0.0	186.1	4,269.7	4,537.4	0.0	0.0
135.00		210.9	239.1					0.0	4.0	210.9	243.1	0.0	0.0
140.00	Appurtenance(s)	102.6	224.0	120.8	0.0	0.0	120.0	0.0	4.0	223.4	347.9	0.0	0.0
								Totals:		23,340.6	50,590.3	0.00	0.00

Site Number: 411256 Code: ANSI/TIA-222-G

Site Name: CANTON CT, CT Engineering Number:12977010_C3_03 9/6/2019 3:12:09 PM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.6W 93 mph with No Ice 22 Iterations

Gust Response Factor :1.10 Wind Importance Factor 1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-50.63	-23.44	0.00	-2,416.92	0.00	2,416.92	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.403
5.00	-48.65	-23.20	0.00	-2,299.72	0.00	2,299.72	5,798.21	2,899.11	11,708.2	5,862.82	0.07	-0.13	0.401
10.00	-46.71	-22.95	0.00	-2,183.74	0.00	2,183.74	5,660.34	2,830.17	11,137.9	5,577.23	0.28	-0.26	0.400
15.00	-44.81	-22.71	0.00	-2,068.98	0.00	2,068.98	5,513.49	2,756.75	10,564.5	5,290.14	0.63	-0.40	0.399
20.00	-42.96	-22.48	0.00	-1,955.41	0.00	1,955.41	5,366.64	2,683.32	10,006.4	5,010.64	1.12	-0.54	0.398
25.00	-41.14	-22.24	0.00	-1,843.03	0.00	1,843.03	5,219.79	2,609.90	9,463.38	4,738.72	1.76	-0.68	0.397
30.00	-39.36	-22.01	0.00	-1,731.82	0.00	1,731.82	5,072.94	2,536.47	8,935.51	4,474.39	2.55	-0.83	0.395
35.00	-37.63	-21.77	0.00	-1,621.78	0.00	1,621.78	4,926.09	2,463.04	8,422.78	4,217.65	3.50	-0.98	0.392
40.00	-35.96	-21.62	0.00	-1,512.95	0.00	1,512.95	4,779.24	2,389.62	7,925.21	3,968.49	4.61	-1.13	0.389
40.13	-35.89	-21.51	0.00	-1,510.14	0.00	1,510.14	4,775.42	2,387.71	7,912.47	3,962.12	4.64	-1.13	0.389
45.00	-33.17	-21.32	0.00	-1,405.40	0.00	1,405.40	4,632.39	2,316.19	7,442.78	3,726.92	5.87	-1.29	0.384
45.88	-32.67	-21.19	0.00	-1,386.65	0.00	1,386.65	4,127.44	2,063.72	6,764.69	3,387.37	6.11	-1.31	0.417
50.00	-31.44	-20.95	0.00	-1,299.35	0.00	1,299.35	4,021.56	2,010.78	6,420.25	3,214.89	7.31	-1.45	0.412
55.00	-29.99	-20.68	0.00	-1,194.63	0.00	1,194.63	3,893.07	1,946.53	6,014.32	3,011.63	8.91	-1.62	0.404
60.00	-28.58	-20.40	0.00	-1,091.25	0.00	1,091.25	3,764.57	1,882.29	5,621.66	2,815.01	10.70	-1.79	0.395
65.00	-27.20	-20.12	0.00	-989.25	0.00	989.25	3,636.08	1,818.04	5,242.25	2,625.02	12.66	-1.96	0.384
70.00	-25.86	-19.84	0.00	-888.64	0.00	888.64	3,507.58	1,753.79	4,876.10	2,441.67	14.81	-2.14	0.371
75.00	-24.56	-19.57	0.00	-789.43	0.00	789.43	3,379.09	1,689.54	4,523.20	2,264.96	17.14	-2.31	0.356
79.67	-23.40	-19.40	0.00	-697.99	0.00	697.99	3,258.99	1,629.49	4,205.34	2,105.80	19.49	-2.47	0.339
80.00	-23.25	-19.29	0.00	-691.65	0.00	691.65	3,250.59	1,625.30	4,183.56	2,094.89	19.66	-2.48	0.337
84.34	-21.65	-19.10	0.00	-607.94	0.00	607.94	2,286.62	1,143.31	2,923.12	1,463.73	21.98	-2.63	0.425
85.00	-21.49	-18.97	0.00	-595.34	0.00	595.34	2,277.59	1,138.79	2,896.06	1,450.18	22.35	-2.65	0.420
90.00	-17.13	-16.55	0.00	-496.68	0.00	496.68	2,193.55	1,096.78	2,676.08	1,340.03	25.24	-2.86	0.379
95.00	-16.22	-16.27	0.00	-413.94	0.00	413.94	2,101.77	1,050.89	2,455.71	1,229.68	28.34	-3.06	0.345
100.00	-13.34	-13.97	0.00	-332.58	0.00	332.58	2,009.99	1,005.00	2,244.80	1,124.07	31.64	-3.24	0.303
105.00	-12.55	-13.69	0.00	-262.72	0.00	262.72	1,918.21	959.10	2,043.37	1,023.20	35.12	-3.40	0.264
110.00	-11.80	-13.42	0.00	-194.25	0.00	194.25	1,826.43	913.21	1,851.40	927.08	38.76	-3.55	0.216
115.00	-11.08	-13.25	0.00	-127.17	0.00	127.17	1,734.64	867.32	1,668.90	835.69	42.55	-3.67	0.159
115.22	-11.04	-13.16	0.00	-124.25	0.00	124.25	1,730.61	865.30	1,661.09	831.78	42.72	-3.68	0.156
118.80	-10.34	-13.00	0.00	-77.10	0.00	77.10	956.19	478.10	907.08	454.21	45.50	-3.74	0.181
120.00	-5.30	-5.52	0.00	-61.54	0.00	61.54	947.87	473.94	887.49	444.40	46.44	-3.76	0.144
125.00	-4.85	-5.26	0.00	-33.93	0.00	33.93	911.98	455.99	806.85	404.02	50.42	-3.83	0.089
130.00	-0.61	-0.70	0.00	-7.62	0.00	7.62	874.25	437.12	728.37	364.73	54.45	-3.87	0.022
135.00	-0.38	-0.47	0.00	-4.12	0.00	4.12	834.68	417.34	652.35	326.66	58.51	-3.88	0.013
140.00	0.00	-0.44	0.00	-1.77	0.00	1.77	787.55	393.77	574.90	287.88	62.58	-3.89	0.006

Site Number: 411256 | Code: ANSI/TIA-222-G |

Site Name: CANTON CT, CT | Engineering Number:12977010_C3_03 | 9/6/2019 3:12:09 PM

Customer: VERIZON WIRELESS

Load Case: 0.9D + 1.6W — 93 mph with No Ice (Reduced DL) — 22 Iterations

Gust Response Factor :1.10 — Wind Importance Factor 1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		179.5	0.0					0.0	0.0	179.5	0.0	0.0	0.0
5.00		354.6	1,212.0					0.0	232.6	354.6	1,444.6	0.0	0.0
10.00		345.7	1,181.8					0.0	232.6	345.7	1,414.4	0.0	0.0
15.00		336.8	1,151.5					0.0	232.6	336.8	1,384.1	0.0	0.0
20.00		328.0	1,121.2					0.0	232.6	328.0	1,353.8	0.0	0.0
25.00		319.1	1,091.0					0.0	232.6	319.1	1,323.6	0.0	0.0
30.00		313.9	1,060.7					0.0	232.6	313.9	1,293.3	0.0	0.0
35.00		314.9	1,030.4					0.0	232.6	314.9	1,263.0	0.0	0.0
40.00		162.5	1,000.2					0.0	232.6	162.5	1,232.8	0.0	0.0
40.13	Bot - Section 2	162.6	25.6					0.0	6.0	162.6	31.6	0.0	0.0
45.00		187.1	1,790.0					0.0	226.6	187.1	2,016.5	0.0	0.0
45.88	Top - Section 1	162.8	317.7					0.0	40.9	162.8	358.6	0.0	0.0
50.00		296.5	692.0					0.0	191.7	296.5	883.6	0.0	0.0
55.00		323.6	815.6					0.0	232.6	323.6	1,048.2	0.0	0.0
60.00		321.0	789.1					0.0	232.6	321.0	1,021.7	0.0	0.0
65.00		317.3	762.7					0.0	232.6	317.3	995.3	0.0	0.0
70.00		312.8	736.2					0.0	232.6	312.8	968.8	0.0	0.0
75.00		297.7	709.7					0.0	232.6	297.7	942.3	0.0	0.0
79.67	Bot - Section 3	152.5	639.4					0.0	217.4	152.5	856.8	0.0	0.0
80.00		142.3	75.9					0.0	15.2	142.3	91.1	0.0	0.0
84.34	Top - Section 2	152.1	989.7					0.0	201.9	152.1	1,191.6	0.0	0.0
85.00		168.6	62.3					0.0	30.7	168.6	93.0	0.0	0.0
90.00	Appurtenance(s)	293.6	461.6	1,973.9	0.0	3,828.8	2,618.4	0.0	232.6	2,267.5	3,312.5	0.0	0.0
95.00		285.8	442.6					0.0	213.9	285.8	656.6	0.0	0.0
100.00	Appurtenance(s)	277.5	423.7	1,904.2	0.0	0.0	1,582.7	0.0	213.9	2,181.7	2,220.4	0.0	0.0
105.00		268.7	404.8					0.0	169.6	268.7	574.5	0.0	0.0
110.00		259.4	385.9					0.0	169.6	259.4	555.5	0.0	0.0
115.00		132.8	367.0					0.0	169.6	132.8	536.6	0.0	0.0
115.22	Bot - Section 4	95.0	15.7					0.0	7.5	95.0	23.2	0.0	0.0
118.80	Top - Section 3	118.8	404.5					0.0	121.6	118.8	526.1	0.0	0.0
120.00	Appurtenance(s)	148.5	50.0	6,991.7	0.0	0.0	4,050.0	0.0	40.6	7,140.2	4,140.6	0.0	0.0
125.00		233.0	202.0					0.0	139.6	233.0	341.6	0.0	0.0
130.00	Appurtenance(s)	222.2	190.7	4,047.5	0.0	0.0	3,072.8	0.0	139.6	4,269.7	3,403.1	0.0	0.0
135.00		210.9	179.3					0.0	3.0	210.9	182.3	0.0	0.0
140.00	Appurtenance(s)	102.6	168.0	120.8	0.0	0.0	90.0	0.0	3.0	223.4	261.0	0.0	0.0
								Totals:		23,338.9	37,942.7	0.00	0.00

Site Number: 411256 Code: ANSI/TIA-222-G

Site Name: CANTON CT, CT Engineering Number:12977010_C3_03 9/6/2019 3:12:12 PM

Customer: VERIZON WIRELESS

Load Case: 0.9D + 1.6W 93 mph with No Ice (Reduced DL) 22 Iterations

Gust Response Factor :1.10 Wind Importance Factor 1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-37.97	-23.42	0.00	-2,392.65	0.00	2,392.65	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.397
5.00	-36.47	-23.15	0.00	-2,275.53	0.00	2,275.53	5,798.21	2,899.11	11,708.2	5,862.82	0.07	-0.13	0.394
10.00	-35.00	-22.88	0.00	-2,159.78	0.00	2,159.78	5,660.34	2,830.17	11,137.9	5,577.23	0.27	-0.26	0.393
15.00	-33.57	-22.62	0.00	-2,045.38	0.00	2,045.38	5,513.49	2,756.75	10,564.5	5,290.14	0.62	-0.40	0.393
20.00	-32.16	-22.36	0.00	-1,932.30	0.00	1,932.30	5,366.64	2,683.32	10,006.4	5,010.64	1.11	-0.53	0.392
25.00	-30.79	-22.10	0.00	-1,820.52	0.00	1,820.52	5,219.79	2,609.90	9,463.38	4,738.72	1.74	-0.67	0.390
30.00	-29.44	-21.84	0.00	-1,710.02	0.00	1,710.02	5,072.94	2,536.47	8,935.51	4,474.39	2.53	-0.82	0.388
35.00	-28.13	-21.58	0.00	-1,600.80	0.00	1,600.80	4,926.09	2,463.04	8,422.78	4,217.65	3.46	-0.97	0.385
40.00	-26.87	-21.43	0.00	-1,492.89	0.00	1,492.89	4,779.24	2,389.62	7,925.21	3,968.49	4.55	-1.12	0.382
40.13	-26.81	-21.31	0.00	-1,490.11	0.00	1,490.11	4,775.42	2,387.71	7,912.47	3,962.12	4.58	-1.12	0.382
45.00	-24.77	-21.12	0.00	-1,386.34	0.00	1,386.34	4,632.39	2,316.19	7,442.78	3,726.92	5.81	-1.27	0.377
45.88	-24.38	-20.98	0.00	-1,367.76	0.00	1,367.76	4,127.44	2,063.72	6,764.69	3,387.37	6.04	-1.30	0.410
50.00	-23.45	-20.72	0.00	-1,281.33	0.00	1,281.33	4,021.56	2,010.78	6,420.25	3,214.89	7.22	-1.43	0.404
55.00	-22.35	-20.44	0.00	-1,177.72	0.00	1,177.72	3,893.07	1,946.53	6,014.32	3,011.63	8.81	-1.60	0.397
60.00	-21.28	-20.15	0.00	-1,075.53	0.00	1,075.53	3,764.57	1,882.29	5,621.66	2,815.01	10.57	-1.77	0.388
65.00	-20.24	-19.86	0.00	-974.78	0.00	974.78	3,636.08	1,818.04	5,242.25	2,625.02	12.51	-1.94	0.377
70.00	-19.22	-19.57	0.00	-875.47	0.00	875.47	3,507.58	1,753.79	4,876.10	2,441.67	14.64	-2.11	0.364
75.00	-18.24	-19.29	0.00	-777.61	0.00	777.61	3,379.09	1,689.54	4,523.20	2,264.96	16.94	-2.28	0.349
79.67	-17.36	-19.13	0.00	-687.46	0.00	687.46	3,258.99	1,629.49	4,205.34	2,105.80	19.25	-2.44	0.332
80.00	-17.25	-19.01	0.00	-681.21	0.00	681.21	3,250.59	1,625.30	4,183.56	2,094.89	19.41	-2.45	0.331
84.34	-16.04	-18.82	0.00	-598.72	0.00	598.72	2,286.62	1,143.31	2,923.12	1,463.73	21.71	-2.59	0.416
85.00	-15.91	-18.69	0.00	-586.30	0.00	586.30	2,277.59	1,138.79	2,896.06	1,450.18	22.07	-2.62	0.412
90.00	-12.66	-16.31	0.00	-489.05	0.00	489.05	2,193.55	1,096.78	2,676.08	1,340.03	24.92	-2.82	0.371
95.00	-11.96	-16.03	0.00	-407.51	0.00	407.51	2,101.77	1,050.89	2,455.71	1,229.68	27.98	-3.01	0.337
100.00	-9.82	-13.76	0.00	-327.38	0.00	327.38	2,009.99	1,005.00	2,244.80	1,124.07	31.23	-3.19	0.296
105.00	-9.23	-13.48	0.00	-258.60	0.00	258.60	1,918.21	959.10	2,043.37	1,023.20	34.67	-3.36	0.258
110.00	-8.66	-13.21	0.00	-191.19	0.00	191.19	1,826.43	913.21	1,851.40	927.08	38.26	-3.50	0.211
115.00	-8.12	-13.05	0.00	-125.15	0.00	125.15	1,734.64	867.32	1,668.90	835.69	41.99	-3.62	0.155
115.22	-8.09	-12.96	0.00	-122.27	0.00	122.27	1,730.61	865.30	1,661.09	831.78	42.16	-3.62	0.152
118.80	-7.57	-12.81	0.00	-75.83	0.00	75.83	956.19	478.10	907.08	454.21	44.91	-3.69	0.176
120.00	-3.89	-5.42	0.00	-60.50	0.00	60.50	947.87	473.94	887.49	444.40	45.83	-3.70	0.140
125.00	-3.56	-5.17	0.00	-33.38	0.00	33.38	911.98	455.99	806.85	404.02	49.75	-3.78	0.087
130.00	-0.45	-0.69	0.00	-7.52	0.00	7.52	874.25	437.12	728.37	364.73	53.73	-3.82	0.021
135.00	-0.28	-0.46	0.00	-4.09	0.00	4.09	834.68	417.34	652.35	326.66	57.73	-3.83	0.013
140.00	0.00	-0.44	0.00	-1.77	0.00	1.77	787.55	393.77	574.90	287.88	61.75	-3.84	0.006

Site Number: 411256 Code: ANSI/TIA-222-G

Site Name: CANTON CT, CT Engineering Number:12977010_C3_03 9/6/2019 3:12:12 PM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph with 1.00 in Radial Ice 22 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00 Wind Importance Factor :1.00

Dead Load Factor :1.20 Ice Importance Factor :1.00

Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		63.5	0.0					0.0	0.0	63.5	0.0	0.0	0.0
5.00		125.9	2,112.5					164.5	394.0	290.4	2,506.5	0.0	0.0
10.00		123.6	2,118.3					161.9	402.6	285.4	2,520.9	0.0	0.0
15.00		121.0	2,093.2					158.7	407.1	279.7	2,500.3	0.0	0.0
20.00		118.3	2,058.0					155.4	410.2	273.6	2,468.2	0.0	0.0
25.00		115.5	2,017.5					151.9	412.6	267.5	2,430.2	0.0	0.0
30.00		114.1	1,973.7					148.5	414.6	262.5	2,388.3	0.0	0.0
35.00		114.9	1,927.6					148.4	416.3	263.3	2,343.9	0.0	0.0
40.00		59.4	1,879.8					150.9	417.8	210.2	2,297.6	0.0	0.0
40.13	Bot - Section 2	59.5	48.4					3.9	10.9	63.5	59.3	0.0	0.0
45.00		68.5	2,921.1					148.5	408.2	217.0	3,329.3	0.0	0.0
45.88	Top - Section 1	59.8	520.3					26.9	73.9	86.8	594.2	0.0	0.0
50.00		109.2	1,367.1					128.8	346.4	238.0	1,713.5	0.0	0.0
55.00		119.7	1,615.8					156.6	421.4	276.2	2,037.1	0.0	0.0
60.00		119.2	1,569.0					156.4	422.4	275.5	1,991.4	0.0	0.0
65.00		118.3	1,521.6					155.7	423.3	274.0	1,944.9	0.0	0.0
70.00		117.2	1,473.7					154.6	424.1	271.8	1,897.8	0.0	0.0
75.00		112.0	1,425.2					153.2	425.0	265.2	1,850.2	0.0	0.0
79.67	Bot - Section 3	57.6	1,288.4					141.5	397.9	199.1	1,686.3	0.0	0.0
80.00		53.8	132.2					9.8	27.8	63.7	160.1	0.0	0.0
84.34	Top - Section 2	57.6	1,720.6					129.7	370.1	187.3	2,090.7	0.0	0.0
85.00		64.1	144.0					19.9	56.3	84.0	200.3	0.0	0.0
90.00	Appurtenance(s)	112.1	1,061.0	647.2	0.0	1,027.8	6,269.8	149.4	427.1	908.7	7,758.0	0.0	0.0
95.00		109.8	1,021.2					146.8	402.9	256.6	1,424.0	0.0	0.0
100.00	Appurtenance(s)	107.3	981.0	585.0	0.0	0.0	3,613.3	143.9	403.5	836.2	4,997.7	0.0	0.0
105.00		104.7	940.5					140.8	345.0	245.5	1,285.5	0.0	0.0
110.00		101.8	899.8					137.5	345.6	239.3	1,245.4	0.0	0.0
115.00		52.4	858.8					134.0	346.1	186.3	1,205.0	0.0	0.0
115.22	Bot - Section 4	37.6	37.2					5.8	15.2	43.4	52.5	0.0	0.0
118.80	Top - Section 3	47.1	799.4					93.6	248.4	140.7	1,047.8	0.0	0.0
120.00	Appurtenance(s)	59.4	152.8	2,114.9	0.0	0.0	10,900.2	31.2	83.0	2,205.5	11,136.0	0.0	0.0
125.00		93.8	612.1					0.0	186.1	93.8	798.2	0.0	0.0
130.00	Appurtenance(s)	90.4	580.6	1,124.2	0.0	0.0	8,306.1	0.0	186.1	1,214.6	9,072.9	0.0	0.0
135.00		86.9	548.9					0.0	4.0	86.9	552.9	0.0	0.0
140.00	Appurtenance(s)	42.6	517.0	36.9	0.0	0.0	164.6	0.0	4.0	79.5	685.6	0.0	0.0
								Totals:		11,235.5	80,272.5	0.00	0.00

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph with 1.00 in Radial Ice 22 Iterations

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

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-80.47	-11.31	0.00	-1,032.34	0.00	1,032.34	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.182
5.00	-77.96	-11.10	0.00	-975.77	0.00	975.77	5,798.21	2,899.11	11,708.2	5,862.82	0.03	-0.06	0.180
10.00	-75.43	-10.88	0.00	-920.28	0.00	920.28	5,660.34	2,830.17	11,137.9	5,577.23	0.12	-0.11	0.178
15.00	-72.91	-10.67	0.00	-865.86	0.00	865.86	5,513.49	2,756.75	10,564.5	5,290.14	0.27	-0.17	0.177
20.00	-70.44	-10.46	0.00	-812.51	0.00	812.51	5,366.64	2,683.32	10,006.4	5,010.64	0.47	-0.23	0.175
25.00	-68.00	-10.25	0.00	-760.20	0.00	760.20	5,219.79	2,609.90	9,463.38	4,738.72	0.74	-0.29	0.173
30.00	-65.60	-10.05	0.00	-708.93	0.00	708.93	5,072.94	2,536.47	8,935.51	4,474.39	1.08	-0.35	0.171
35.00	-63.25	-9.84	0.00	-658.69	0.00	658.69	4,926.09	2,463.04	8,422.78	4,217.65	1.47	-0.41	0.169
40.00	-60.95	-9.64	0.00	-609.51	0.00	609.51	4,779.24	2,389.62	7,925.21	3,968.49	1.93	-0.47	0.166
40.13	-60.88	-9.61	0.00	-608.26	0.00	608.26	4,775.42	2,387.71	7,912.47	3,962.12	1.94	-0.47	0.166
45.00	-57.55	-9.40	0.00	-561.45	0.00	561.45	4,632.39	2,316.19	7,442.78	3,726.92	2.46	-0.53	0.163
45.88	-56.95	-9.34	0.00	-553.18	0.00	553.18	4,127.44	2,063.72	6,764.69	3,387.37	2.56	-0.54	0.177
50.00	-55.23	-9.14	0.00	-514.69	0.00	514.69	4,021.56	2,010.78	6,420.25	3,214.89	3.05	-0.60	0.174
55.00	-53.19	-8.91	0.00	-468.97	0.00	468.97	3,893.07	1,946.53	6,014.32	3,011.63	3.71	-0.66	0.169
60.00	-51.19	-8.67	0.00	-424.43	0.00	424.43	3,764.57	1,882.29	5,621.66	2,815.01	4.44	-0.73	0.164
65.00	-49.24	-8.43	0.00	-381.09	0.00	381.09	3,636.08	1,818.04	5,242.25	2,625.02	5.24	-0.80	0.159
70.00	-47.33	-8.18	0.00	-338.96	0.00	338.96	3,507.58	1,753.79	4,876.10	2,441.67	6.11	-0.86	0.152
75.00	-45.48	-7.94	0.00	-298.06	0.00	298.06	3,379.09	1,689.54	4,523.20	2,264.96	7.05	-0.93	0.145
79.67	-43.79	-7.73	0.00	-260.96	0.00	260.96	3,258.99	1,629.49	4,205.34	2,105.80	7.99	-0.99	0.137
80.00	-43.63	-7.69	0.00	-258.44	0.00	258.44	3,250.59	1,625.30	4,183.56	2,094.89	8.06	-0.99	0.137
84.34	-41.54	-7.49	0.00	-225.06	0.00	225.06	2,286.62	1,143.31	2,923.12	1,463.73	8.99	-1.05	0.172
85.00	-41.33	-7.43	0.00	-220.12	0.00	220.12	2,277.59	1,138.79	2,896.06	1,450.18	9.13	-1.06	0.170
90.00	-33.59	-6.42	0.00	-181.93	0.00	181.93	2,193.55	1,096.78	2,676.08	1,340.03	10.28	-1.13	0.151
95.00	-32.16	-6.17	0.00	-149.84	0.00	149.84	2,101.77	1,050.89	2,455.71	1,229.68	11.51	-1.21	0.137
100.00	-27.18	-5.26	0.00	-118.98	0.00	118.98	2,009.99	1,005.00	2,244.80	1,124.07	12.81	-1.27	0.119
105.00	-25.89	-5.01	0.00	-92.70	0.00	92.70	1,918.21	959.10	2,043.37	1,023.20	14.17	-1.33	0.104
110.00	-24.65	-4.76	0.00	-67.66	0.00	67.66	1,826.43	913.21	1,851.40	927.08	15.59	-1.38	0.087
115.00	-23.45	-4.55	0.00	-43.87	0.00	43.87	1,734.64	867.32	1,668.90	835.69	17.06	-1.42	0.066
115.22	-23.39	-4.51	0.00	-42.86	0.00	42.86	1,730.61	865.30	1,661.09	831.78	17.13	-1.42	0.065
118.80	-22.35	-4.35	0.00	-26.70	0.00	26.70	956.19	478.10	907.08	454.21	18.21	-1.45	0.082
120.00	-11.27	-1.87	0.00	-21.49	0.00	21.49	947.87	473.94	887.49	444.40	18.57	-1.45	0.060
125.00	-10.48	-1.76	0.00	-12.16	0.00	12.16	911.98	455.99	806.85	404.02	20.11	-1.48	0.042
130.00	-1.44	-0.31	0.00	-3.38	0.00	3.38	874.25	437.12	728.37	364.73	21.67	-1.49	0.011
135.00	-0.89	-0.21	0.00	-1.85	0.00	1.85	834.68	417.34	652.35	326.66	23.23	-1.50	0.007
140.00	0.00	-0.18	0.00	-0.82	0.00	0.82	787.55	393.77	574.90	287.88	24.81	-1.50	0.003

Load Case: 1.0D + 1.0W Serviceability 60 mph 21 Iterations

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

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		41.8	0.0					0.0	0.0	41.8	0.0	0.0	0.0
5.00		82.5	1,346.7					0.0	258.5	82.5	1,605.1	0.0	0.0
10.00		80.5	1,313.1					0.0	258.5	80.5	1,571.5	0.0	0.0
15.00		78.4	1,279.4					0.0	258.5	78.4	1,537.9	0.0	0.0
20.00		76.3	1,245.8					0.0	258.5	76.3	1,504.3	0.0	0.0
25.00		74.3	1,212.2					0.0	258.5	74.3	1,470.6	0.0	0.0
30.00		73.1	1,178.5					0.0	258.5	73.1	1,437.0	0.0	0.0
35.00		73.3	1,144.9					0.0	258.5	73.3	1,403.4	0.0	0.0
40.00		37.8	1,111.3					0.0	258.5	37.8	1,369.7	0.0	0.0
40.13	Bot - Section 2	37.8	28.4					0.0	6.7	37.8	35.2	0.0	0.0
45.00		43.5	1,988.8					0.0	251.7	43.5	2,240.6	0.0	0.0
45.88	Top - Section 1	37.9	353.0					0.0	45.5	37.9	398.5	0.0	0.0
50.00		69.0	768.9					0.0	213.0	69.0	981.8	0.0	0.0
55.00		75.3	906.2					0.0	258.5	75.3	1,164.7	0.0	0.0
60.00		74.7	876.8					0.0	258.5	74.7	1,135.3	0.0	0.0
65.00		73.9	847.4					0.0	258.5	73.9	1,105.8	0.0	0.0
70.00		72.8	818.0					0.0	258.5	72.8	1,076.4	0.0	0.0
75.00		69.3	788.5					0.0	258.5	69.3	1,047.0	0.0	0.0
79.67	Bot - Section 3	35.5	710.4					0.0	241.6	35.5	952.0	0.0	0.0
80.00		33.1	84.3					0.0	16.9	33.1	101.2	0.0	0.0
84.34	Top - Section 2	35.4	1,099.6					0.0	224.3	35.4	1,324.0	0.0	0.0
85.00		39.2	69.3					0.0	34.1	39.2	103.4	0.0	0.0
90.00	Appurtenance(s)	68.3	512.8	459.5	0.0	891.2	2,909.3	0.0	258.5	527.8	3,680.6	0.0	0.0
95.00		66.5	491.8					0.0	237.7	66.5	729.5	0.0	0.0
100.00	Appurtenance(s)	64.6	470.8	443.2	0.0	0.0	1,758.6	0.0	237.7	507.8	2,467.1	0.0	0.0
105.00		62.5	449.8					0.0	188.5	62.5	638.3	0.0	0.0
110.00		60.4	428.8					0.0	188.5	60.4	617.3	0.0	0.0
115.00		30.9	407.8					0.0	188.5	30.9	596.3	0.0	0.0
115.22	Bot - Section 4	22.1	17.5					0.0	8.3	22.1	25.8	0.0	0.0
118.80	Top - Section 3	27.6	449.4					0.0	135.1	27.6	584.5	0.0	0.0
120.00	Appurtenance(s)	34.6	55.6	1,627.4	0.0	0.0	4,500.0	0.0	45.1	1,662.0	4,600.7	0.0	0.0
125.00		54.2	224.5					0.0	155.1	54.2	379.6	0.0	0.0
130.00	Appurtenance(s)	51.7	211.9	942.1	0.0	0.0	3,414.2	0.0	155.1	993.8	3,781.2	0.0	0.0
135.00		49.1	199.3					0.0	3.3	49.1	202.6	0.0	0.0
140.00	Appurtenance(s)	23.9	186.7	28.1	0.0	0.0	100.0	0.0	3.3	52.0	290.0	0.0	0.0
								Totals:		5,432.42	42,158.5	0.00	0.00

Load Case: 1.0D + 1.0W Serviceability 60 mph 21 Iterations

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

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-42.21	-5.45	0.00	-559.07	0.00	559.07	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.098
5.00	-40.60	-5.39	0.00	-531.81	0.00	531.81	5,798.21	2,899.11	11,708.2	5,862.82	0.02	-0.03	0.098
10.00	-39.03	-5.33	0.00	-504.85	0.00	504.85	5,660.34	2,830.17	11,137.9	5,577.23	0.06	-0.06	0.097
15.00	-37.49	-5.27	0.00	-478.20	0.00	478.20	5,513.49	2,756.75	10,564.5	5,290.14	0.14	-0.09	0.097
20.00	-35.98	-5.21	0.00	-451.84	0.00	451.84	5,366.64	2,683.32	10,006.4	5,010.64	0.26	-0.12	0.097
25.00	-34.51	-5.16	0.00	-425.78	0.00	425.78	5,219.79	2,609.90	9,463.38	4,738.72	0.41	-0.16	0.096
30.00	-33.07	-5.10	0.00	-400.00	0.00	400.00	5,072.94	2,536.47	8,935.51	4,474.39	0.59	-0.19	0.096
35.00	-31.66	-5.04	0.00	-374.52	0.00	374.52	4,926.09	2,463.04	8,422.78	4,217.65	0.81	-0.23	0.095
40.00	-30.29	-5.00	0.00	-349.32	0.00	349.32	4,779.24	2,389.62	7,925.21	3,968.49	1.06	-0.26	0.094
40.13	-30.25	-4.98	0.00	-348.67	0.00	348.67	4,775.42	2,387.71	7,912.47	3,962.12	1.07	-0.26	0.094
45.00	-28.01	-4.93	0.00	-324.44	0.00	324.44	4,632.39	2,316.19	7,442.78	3,726.92	1.36	-0.30	0.093
45.88	-27.61	-4.90	0.00	-320.10	0.00	320.10	4,127.44	2,063.72	6,764.69	3,387.37	1.41	-0.30	0.101
50.00	-26.63	-4.84	0.00	-299.92	0.00	299.92	4,021.56	2,010.78	6,420.25	3,214.89	1.69	-0.33	0.100
55.00	-25.46	-4.78	0.00	-275.71	0.00	275.71	3,893.07	1,946.53	6,014.32	3,011.63	2.06	-0.37	0.098
60.00	-24.32	-4.71	0.00	-251.82	0.00	251.82	3,764.57	1,882.29	5,621.66	2,815.01	2.47	-0.41	0.096
65.00	-23.21	-4.65	0.00	-228.27	0.00	228.27	3,636.08	1,818.04	5,242.25	2,625.02	2.93	-0.45	0.093
70.00	-22.14	-4.58	0.00	-205.04	0.00	205.04	3,507.58	1,753.79	4,876.10	2,441.67	3.42	-0.49	0.090
75.00	-21.09	-4.51	0.00	-182.14	0.00	182.14	3,379.09	1,689.54	4,523.20	2,264.96	3.96	-0.53	0.087
79.67	-20.13	-4.48	0.00	-161.04	0.00	161.04	3,258.99	1,629.49	4,205.34	2,105.80	4.50	-0.57	0.083
80.00	-20.03	-4.45	0.00	-159.58	0.00	159.58	3,250.59	1,625.30	4,183.56	2,094.89	4.54	-0.57	0.082
84.34	-18.71	-4.41	0.00	-140.27	0.00	140.27	2,286.62	1,143.31	2,923.12	1,463.73	5.08	-0.61	0.104
85.00	-18.60	-4.38	0.00	-137.36	0.00	137.36	2,277.59	1,138.79	2,896.06	1,450.18	5.16	-0.61	0.103
90.00	-14.92	-3.82	0.00	-114.60	0.00	114.60	2,193.55	1,096.78	2,676.08	1,340.03	5.83	-0.66	0.092
95.00	-14.19	-3.75	0.00	-95.50	0.00	95.50	2,101.77	1,050.89	2,455.71	1,229.68	6.55	-0.71	0.084
100.00	-11.73	-3.22	0.00	-76.73	0.00	76.73	2,009.99	1,005.00	2,244.80	1,124.07	7.31	-0.75	0.074
105.00	-11.09	-3.16	0.00	-60.62	0.00	60.62	1,918.21	959.10	2,043.37	1,023.20	8.11	-0.79	0.065
110.00	-10.47	-3.10	0.00	-44.82	0.00	44.82	1,826.43	913.21	1,851.40	927.08	8.95	-0.82	0.054
115.00	-9.88	-3.06	0.00	-29.34	0.00	29.34	1,734.64	867.32	1,668.90	835.69	9.83	-0.85	0.041
115.22	-9.85	-3.04	0.00	-28.67	0.00	28.67	1,730.61	865.30	1,661.09	831.78	9.87	-0.85	0.040
118.80	-9.26	-3.00	0.00	-17.78	0.00	17.78	956.19	478.10	907.08	454.21	10.51	-0.86	0.049
120.00	-4.69	-1.27	0.00	-14.19	0.00	14.19	947.87	473.94	887.49	444.40	10.73	-0.87	0.037
125.00	-4.31	-1.21	0.00	-7.83	0.00	7.83	911.98	455.99	806.85	404.02	11.65	-0.88	0.024
130.00	-0.55	-0.16	0.00	-1.76	0.00	1.76	874.25	437.12	728.37	364.73	12.58	-0.89	0.005
135.00	-0.34	-0.11	0.00	-0.96	0.00	0.96	834.68	417.34	652.35	326.66	13.52	-0.90	0.003
140.00	0.00	-0.10	0.00	-0.41	0.00	0.41	787.55	393.77	574.90	287.88	14.46	-0.90	0.001

Equivalent Lateral Forces Method Analysis

(Based on ASCE7-10 Chapters 11, 12, 15)

Spectral Response Acceleration for Short Period (S_s):	0.18	
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06	
Long-Period Transition Period (T_L):	6	
Importance Factor (I_E):	1.00	
Site Coefficient F_a:	1.60	
Site Coeffiecient F_v:	2.40	
Response Modification Coefficient (R):	1.50	
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.19	
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10	
Seismic Response Coefficient (C_s):	0.03	
Upper Limit C_s	0.03	
Lower Limit C_s	0.03	
Period based on Rayleigh Method (sec):	2.03	
Redundancy Factor (p):	1.00	
Seismic Force Distribution Exponent (k):	1.77	
Total Unfactored Dead Load:	42.21	k
Seismic Base Shear (E):	1.42	k

Load Case (1.2 + 0.2Sds) * DL + E ELFM Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
34	137.50	190	1,134	0.012	17	235
33	132.50	203	1,133	0.012	17	251
32	127.50	367	1,918	0.020	28	454
31	122.50	380	1,848	0.019	27	470
30	119.40	101	469	0.005	7	125
29	117.01	585	2,625	0.027	38	724
28	115.11	26	112	0.001	2	32
27	112.50	596	2,498	0.026	36	738
26	107.50	617	2,386	0.025	35	764
25	102.50	638	2,269	0.023	33	790
24	97.50	709	2,305	0.024	34	877
23	92.50	730	2,163	0.022	32	903
22	87.50	771	2,073	0.021	30	955
21	84.67	103	262	0.003	4	128
20	82.17	1,324	3,185	0.033	46	1,640
19	79.84	101	231	0.002	3	125
18	77.34	952	2,057	0.021	30	1,179
17	72.50	1,047	2,019	0.021	29	1,297
16	67.50	1,076	1,830	0.019	27	1,333
15	62.50	1,106	1,641	0.017	24	1,369
14	57.50	1,135	1,454	0.015	21	1,406
13	52.50	1,165	1,270	0.013	19	1,442
12	47.94	982	912	0.009	13	1,216

11	45.44	398	337	0.003	5	493
10	42.56	2,241	1,687	0.017	25	2,775
9	40.06	35	24	0.000	0	44
8	37.50	1,370	825	0.008	12	1,696
7	32.50	1,403	656	0.007	10	1,738
6	27.50	1,437	500	0.005	7	1,780
5	22.50	1,471	359	0.004	5	1,821
4	17.50	1,504	236	0.002	3	1,863
3	12.50	1,538	133	0.001	2	1,905
2	7.50	1,572	55	0.001	1	1,946
1	2.50	1,605	8	0.000	0	1,988
Generic 18' Omni	140.00	55	339	0.003	5	68
Stand-Off	140.00	100	616	0.006	9	124
CCI DTMABP7819VG12A	130.00	115	623	0.006	9	143
Raycap DC6-48-60-0-8	130.00	66	355	0.004	5	81
Raycap DC6-48-60-0-8	130.00	33	177	0.002	3	41
Ericsson RRUS 8843 B	130.00	216	1,168	0.012	17	267
Ericsson RRUS 4449 B	130.00	213	1,152	0.012	17	264
Ericsson RRUS 32 (50	130.00	152	824	0.008	12	189
Kathrein Scala 800-1	130.00	132	715	0.007	10	164
Andrew SBNHH-1D65A (	130.00	34	181	0.002	3	41
CCI HPA-65R-BUU-H8	130.00	136	735	0.008	11	168
Kathrein Scala 84037	130.00	317	1,716	0.018	25	393
Flat Platform w/ Han	130.00	2,000	10,815	0.111	158	2,477
Generic GPS	120.00	10	47	0.000	1	12
Samsung B2/B66A RRH-	120.00	253	1,189	0.012	17	314
Samsung B5/B13 RRH-B	120.00	211	990	0.010	14	261
RFS DB-T1-6Z-8AB-0Z	120.00	44	207	0.002	3	54
Antel LPA-80080/4CF	120.00	48	225	0.002	3	59
Antel LPA-80063/4CF	120.00	40	188	0.002	3	50
Commscope SBNHH-1D65	120.00	304	1,428	0.015	21	377
Flat Platform w/ Han	120.00	2,000	9,389	0.096	137	2,477
VZW Unused Reserve:	120.00	1,590	7,463	0.077	109	1,969
Commscope ATSBT-TOP-	100.00	5	18	0.000	0	7
RFS ATMA4P4DBP-1A20	100.00	48	162	0.002	2	59
RFS APXV18-209014-C-	100.00	56	191	0.002	3	69
Andrew LNX-6515DS-A1	100.00	149	508	0.005	7	185
Flat Low Profile Pla	100.00	1,500	5,104	0.052	74	1,858
PCTEL GPS-TMG-HR-26N	90.00	1	2	0.000	0	1
Generic 12" x 12" Ju	90.00	30	85	0.001	1	37
Alcatel-Lucent RRH2x	90.00	159	448	0.005	7	197
Alcatel-Lucent 800 M	90.00	159	449	0.005	7	197
Alcatel-Lucent 1900	90.00	180	508	0.005	7	223
Alcatel-Lucent TD-RR	90.00	210	593	0.006	9	260
RFS APXVSPP18-C-A20	90.00	171	483	0.005	7	212
Generic Round Platfo	90.00	2,000	5,650	0.058	82	2,477
		42,214	97,357	1.000	1,418	52,277

Load Case (0.9 - 0.2Sds) * DL + E ELFM Seismic (Reduced DL) Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
34	137.50	190	1,134	0.012	17	164
33	132.50	203	1,133	0.012	17	175
32	127.50	367	1,918	0.020	28	316
31	122.50	380	1,848	0.019	27	327
30	119.40	101	469	0.005	7	87
29	117.01	585	2,625	0.027	38	504
28	115.11	26	112	0.001	2	22
27	112.50	596	2,498	0.026	36	514

26	107.50	617	2,386	0.025	35	532
25	102.50	638	2,269	0.023	33	550
24	97.50	709	2,305	0.024	34	610
23	92.50	730	2,163	0.022	32	629
22	87.50	771	2,073	0.021	30	665
21	84.67	103	262	0.003	4	89
20	82.17	1,324	3,185	0.033	46	1,141
19	79.84	101	231	0.002	3	87
18	77.34	952	2,057	0.021	30	820
17	72.50	1,047	2,019	0.021	29	902
16	67.50	1,076	1,830	0.019	27	927
15	62.50	1,106	1,641	0.017	24	953
14	57.50	1,135	1,454	0.015	21	978
13	52.50	1,165	1,270	0.013	19	1,003
12	47.94	982	912	0.009	13	846
11	45.44	398	337	0.003	5	343
10	42.56	2,241	1,687	0.017	25	1,930
9	40.06	35	24	0.000	0	30
8	37.50	1,370	825	0.008	12	1,180
7	32.50	1,403	656	0.007	10	1,209
6	27.50	1,437	500	0.005	7	1,238
5	22.50	1,471	359	0.004	5	1,267
4	17.50	1,504	236	0.002	3	1,296
3	12.50	1,538	133	0.001	2	1,325
2	7.50	1,572	55	0.001	1	1,354
1	2.50	1,605	8	0.000	0	1,383
Generic 18' Omni	140.00	55	339	0.003	5	47
Stand-Off	140.00	100	616	0.006	9	86
CCI DTMABP7819VG12A	130.00	115	623	0.006	9	99
Raycap DC6-48-60-0-8	130.00	66	355	0.004	5	57
Raycap DC6-48-60-0-8	130.00	33	177	0.002	3	28
Ericsson RRUS 8843 B	130.00	216	1,168	0.012	17	186
Ericsson RRUS 4449 B	130.00	213	1,152	0.012	17	184
Ericsson RRUS 32 (50	130.00	152	824	0.008	12	131
Kathrein Scala 800-1	130.00	132	715	0.007	10	114
Andrew SBNHH-1D65A (	130.00	34	181	0.002	3	29
CCI HPA-65R-BUU-H8	130.00	136	735	0.008	11	117
Kathrein Scala 84037	130.00	317	1,716	0.018	25	273
Flat Platform w/ Han	130.00	2,000	10,815	0.111	158	1,723
Generic GPS	120.00	10	47	0.000	1	9
Samsung B2/B66A RRH-	120.00	253	1,189	0.012	17	218
Samsung B5/B13 RRH-B	120.00	211	990	0.010	14	182
RFS DB-T1-6Z-8AB-0Z	120.00	44	207	0.002	3	38
Antel LPA-80080/4CF	120.00	48	225	0.002	3	41
Antel LPA-80063/4CF	120.00	40	188	0.002	3	34
Commscope SBNHH-1D65	120.00	304	1,428	0.015	21	262
Flat Platform w/ Han	120.00	2,000	9,389	0.096	137	1,723
VZW Unused Reserve:	120.00	1,590	7,463	0.077	109	1,370
Commscope ATSBT-TOP-	100.00	5	18	0.000	0	5
RFS ATMA4P4DBP-1A20	100.00	48	162	0.002	2	41
RFS APXV18-209014-C-	100.00	56	191	0.002	3	48
Andrew LNX-6515DS-A1	100.00	149	508	0.005	7	129
Flat Low Profile Pla	100.00	1,500	5,104	0.052	74	1,292
PCTEL GPS-TMG-HR-26N	90.00	1	2	0.000	0	1
Generic 12" x 12" Ju	90.00	30	85	0.001	1	26
Alcatel-Lucent RRH2x	90.00	159	448	0.005	7	137
Alcatel-Lucent 800 M	90.00	159	449	0.005	7	137
Alcatel-Lucent 1900	90.00	180	508	0.005	7	155
Alcatel-Lucent TD-RR	90.00	210	593	0.006	9	181
RFS APXVSPP18-C-A20	90.00	171	483	0.005	7	147
Generic Round Platfo	90.00	2,000	5,650	0.058	82	1,723
		42,214	97,357	1.000	1,418	36,371

Load Case (1.2 + 0.2Sds) * DL + E ELFM Seismic Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-50.29	-1.42	0.00	-151.77	0.00	151.77	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.033
5.00	-48.34	-1.43	0.00	-144.66	0.00	144.66	5,798.21	2,899.11	11,708.2	5,862.82	0.00	-0.01	0.033
10.00	-46.44	-1.43	0.00	-137.52	0.00	137.52	5,660.34	2,830.17	11,137.9	5,577.23	0.02	-0.02	0.033
15.00	-44.58	-1.43	0.00	-130.36	0.00	130.36	5,513.49	2,756.75	10,564.5	5,290.14	0.04	-0.03	0.033
20.00	-42.75	-1.44	0.00	-123.19	0.00	123.19	5,366.64	2,683.32	10,006.4	5,010.64	0.07	-0.03	0.033
25.00	-40.97	-1.43	0.00	-116.01	0.00	116.01	5,219.79	2,609.90	9,463.38	4,738.72	0.11	-0.04	0.032
30.00	-39.24	-1.43	0.00	-108.85	0.00	108.85	5,072.94	2,536.47	8,935.51	4,474.39	0.16	-0.05	0.032
35.00	-37.54	-1.42	0.00	-101.70	0.00	101.70	4,926.09	2,463.04	8,422.78	4,217.65	0.22	-0.06	0.032
40.00	-37.50	-1.42	0.00	-94.60	0.00	94.60	4,779.24	2,389.62	7,925.21	3,968.49	0.29	-0.07	0.032
40.13	-34.72	-1.40	0.00	-94.41	0.00	94.41	4,775.42	2,387.71	7,912.47	3,962.12	0.29	-0.07	0.031
45.00	-34.23	-1.40	0.00	-87.60	0.00	87.60	4,632.39	2,316.19	7,442.78	3,726.92	0.37	-0.08	0.031
45.88	-33.01	-1.38	0.00	-86.37	0.00	86.37	4,127.44	2,063.72	6,764.69	3,387.37	0.38	-0.08	0.033
50.00	-31.57	-1.37	0.00	-80.67	0.00	80.67	4,021.56	2,010.78	6,420.25	3,214.89	0.46	-0.09	0.033
55.00	-30.16	-1.35	0.00	-73.82	0.00	73.82	3,893.07	1,946.53	6,014.32	3,011.63	0.56	-0.10	0.032
60.00	-28.79	-1.33	0.00	-67.07	0.00	67.07	3,764.57	1,882.29	5,621.66	2,815.01	0.67	-0.11	0.031
65.00	-27.46	-1.31	0.00	-60.42	0.00	60.42	3,636.08	1,818.04	5,242.25	2,625.02	0.80	-0.12	0.031
70.00	-26.16	-1.28	0.00	-53.89	0.00	53.89	3,507.58	1,753.79	4,876.10	2,441.67	0.93	-0.13	0.030
75.00	-24.98	-1.25	0.00	-47.50	0.00	47.50	3,379.09	1,689.54	4,523.20	2,264.96	1.07	-0.14	0.028
79.67	-24.86	-1.25	0.00	-41.66	0.00	41.66	3,258.99	1,629.49	4,205.34	2,105.80	1.22	-0.15	0.027
80.00	-23.22	-1.20	0.00	-41.25	0.00	41.25	3,250.59	1,625.30	4,183.56	2,094.89	1.23	-0.15	0.027
84.34	-23.09	-1.20	0.00	-36.05	0.00	36.05	2,286.62	1,143.31	2,923.12	1,463.73	1.37	-0.16	0.035
85.00	-22.14	-1.17	0.00	-35.26	0.00	35.26	2,277.59	1,138.79	2,896.06	1,450.18	1.40	-0.16	0.034
90.00	-17.63	-1.01	0.00	-29.42	0.00	29.42	2,193.55	1,096.78	2,676.08	1,340.03	1.58	-0.18	0.030
95.00	-16.75	-0.97	0.00	-24.40	0.00	24.40	2,101.77	1,050.89	2,455.71	1,229.68	1.77	-0.19	0.028
100.00	-13.78	-0.85	0.00	-19.53	0.00	19.53	2,009.99	1,005.00	2,244.80	1,124.07	1.97	-0.20	0.024
105.00	-13.02	-0.81	0.00	-15.30	0.00	15.30	1,918.21	959.10	2,043.37	1,023.20	2.18	-0.21	0.022
110.00	-12.28	-0.77	0.00	-11.26	0.00	11.26	1,826.43	913.21	1,851.40	927.08	2.41	-0.22	0.019
115.00	-12.25	-0.77	0.00	-7.39	0.00	7.39	1,734.64	867.32	1,668.90	835.69	2.64	-0.22	0.016
115.22	-11.53	-0.73	0.00	-7.22	0.00	7.22	1,730.61	865.30	1,661.09	831.78	2.65	-0.22	0.015
118.80	-11.40	-0.72	0.00	-4.61	0.00	4.61	956.19	478.10	907.08	454.21	2.82	-0.23	0.022
120.00	-5.36	-0.37	0.00	-3.74	0.00	3.74	947.87	473.94	887.49	444.40	2.87	-0.23	0.014
125.00	-4.90	-0.34	0.00	-1.91	0.00	1.91	911.98	455.99	806.85	404.02	3.12	-0.23	0.010
130.00	-0.43	-0.03	0.00	-0.23	0.00	0.23	874.25	437.12	728.37	364.73	3.36	-0.24	0.001
135.00	-0.19	-0.01	0.00	-0.07	0.00	0.07	834.68	417.34	652.35	326.66	3.61	-0.24	0.000
140.00	0.00	-0.01	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	3.86	-0.24	0.000

Load Case (0.9 - 0.2Sds) * DL + E ELFM Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-34.99	-1.42	0.00	-149.99	0.00	149.99	5,907.57	2,953.79	12,233.7	6,125.97	0.00	0.00	0.030
5.00	-33.63	-1.42	0.00	-142.89	0.00	142.89	5,798.21	2,899.11	11,708.2	5,862.82	0.00	-0.01	0.030
10.00	-32.31	-1.43	0.00	-135.77	0.00	135.77	5,660.34	2,830.17	11,137.9	5,577.23	0.02	-0.02	0.030
15.00	-31.01	-1.43	0.00	-128.63	0.00	128.63	5,513.49	2,756.75	10,564.5	5,290.14	0.04	-0.02	0.030
20.00	-29.75	-1.43	0.00	-121.50	0.00	121.50	5,366.64	2,683.32	10,006.4	5,010.64	0.07	-0.03	0.030
25.00	-28.51	-1.42	0.00	-114.37	0.00	114.37	5,219.79	2,609.90	9,463.38	4,738.72	0.11	-0.04	0.030
30.00	-27.30	-1.42	0.00	-107.25	0.00	107.25	5,072.94	2,536.47	8,935.51	4,474.39	0.16	-0.05	0.029
35.00	-26.12	-1.41	0.00	-100.17	0.00	100.17	4,926.09	2,463.04	8,422.78	4,217.65	0.22	-0.06	0.029
40.00	-26.09	-1.41	0.00	-93.13	0.00	93.13	4,779.24	2,389.62	7,925.21	3,968.49	0.29	-0.07	0.029
40.13	-24.16	-1.38	0.00	-92.95	0.00	92.95	4,775.42	2,387.71	7,912.47	3,962.12	0.29	-0.07	0.029
45.00	-23.81	-1.38	0.00	-86.21	0.00	86.21	4,632.39	2,316.19	7,442.78	3,726.92	0.36	-0.08	0.028
45.88	-22.97	-1.37	0.00	-84.99	0.00	84.99	4,127.44	2,063.72	6,764.69	3,387.37	0.38	-0.08	0.031
50.00	-21.96	-1.35	0.00	-79.36	0.00	79.36	4,021.56	2,010.78	6,420.25	3,214.89	0.45	-0.09	0.030
55.00	-20.98	-1.33	0.00	-72.59	0.00	72.59	3,893.07	1,946.53	6,014.32	3,011.63	0.55	-0.10	0.029
60.00	-20.03	-1.31	0.00	-65.93	0.00	65.93	3,764.57	1,882.29	5,621.66	2,815.01	0.66	-0.11	0.029
65.00	-19.10	-1.29	0.00	-59.37	0.00	59.37	3,636.08	1,818.04	5,242.25	2,625.02	0.78	-0.12	0.028
70.00	-18.20	-1.26	0.00	-52.94	0.00	52.94	3,507.58	1,753.79	4,876.10	2,441.67	0.92	-0.13	0.027
75.00	-17.38	-1.23	0.00	-46.65	0.00	46.65	3,379.09	1,689.54	4,523.20	2,264.96	1.06	-0.14	0.026
79.67	-17.29	-1.23	0.00	-40.90	0.00	40.90	3,258.99	1,629.49	4,205.34	2,105.80	1.20	-0.15	0.025
80.00	-16.15	-1.18	0.00	-40.50	0.00	40.50	3,250.59	1,625.30	4,183.56	2,094.89	1.21	-0.15	0.024
84.34	-16.06	-1.18	0.00	-35.39	0.00	35.39	2,286.62	1,143.31	2,923.12	1,463.73	1.35	-0.16	0.031
85.00	-15.40	-1.15	0.00	-34.61	0.00	34.61	2,277.59	1,138.79	2,896.06	1,450.18	1.38	-0.16	0.031
90.00	-12.26	-0.99	0.00	-28.88	0.00	28.88	2,193.55	1,096.78	2,676.08	1,340.03	1.55	-0.17	0.027
95.00	-11.65	-0.96	0.00	-23.94	0.00	23.94	2,101.77	1,050.89	2,455.71	1,229.68	1.74	-0.18	0.025
100.00	-9.59	-0.83	0.00	-19.16	0.00	19.16	2,009.99	1,005.00	2,244.80	1,124.07	1.94	-0.20	0.022
105.00	-9.06	-0.79	0.00	-15.01	0.00	15.01	1,918.21	959.10	2,043.37	1,023.20	2.15	-0.20	0.019
110.00	-8.54	-0.76	0.00	-11.04	0.00	11.04	1,826.43	913.21	1,851.40	927.08	2.37	-0.21	0.017
115.00	-8.52	-0.76	0.00	-7.25	0.00	7.25	1,734.64	867.32	1,668.90	835.69	2.60	-0.22	0.014
115.22	-8.02	-0.72	0.00	-7.09	0.00	7.09	1,730.61	865.30	1,661.09	831.78	2.61	-0.22	0.013
118.80	-7.93	-0.71	0.00	-4.52	0.00	4.52	956.19	478.10	907.08	454.21	2.77	-0.22	0.018
120.00	-3.73	-0.36	0.00	-3.67	0.00	3.67	947.87	473.94	887.49	444.40	2.83	-0.23	0.012
125.00	-3.41	-0.33	0.00	-1.88	0.00	1.88	911.98	455.99	806.85	404.02	3.07	-0.23	0.008
130.00	-0.30	-0.03	0.00	-0.23	0.00	0.23	874.25	437.12	728.37	364.73	3.31	-0.23	0.001
135.00	-0.13	-0.01	0.00	-0.07	0.00	0.07	834.68	417.34	652.35	326.66	3.55	-0.23	0.000
140.00	0.00	-0.01	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	3.80	-0.23	0.000

Equivalent Modal Analysis Method

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period (S_s):	0.18
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Importance Factor (I_E):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.19
Desing Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Period Based on Rayleigh Method (sec):	2.03
Redundancy Factor (p):	1.00

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
34	137.50	190	1.823	1.646	1.018	0.326	41	235
33	132.50	203	1.693	1.096	0.804	0.249	34	251
32	127.50	367	1.568	0.682	0.627	0.182	44	454
31	122.50	380	1.447	0.379	0.482	0.124	31	470
30	119.40	101	1.375	0.238	0.406	0.093	6	125
29	117.01	585	1.320	0.150	0.354	0.071	28	724
28	115.11	26	1.278	0.091	0.317	0.055	1	32
27	112.50	596	1.220	0.025	0.270	0.036	14	738
26	107.50	617	1.114	-0.061	0.196	0.006	2	764
25	102.50	638	1.013	-0.106	0.138	-0.015	-7	790
24	97.50	709	0.917	-0.121	0.094	-0.028	-13	877
23	92.50	730	0.825	-0.116	0.061	-0.032	-15	903
22	87.50	771	0.738	-0.098	0.038	-0.028	-14	955
21	84.67	103	0.691	-0.084	0.028	-0.023	-2	128
20	82.17	1,324	0.651	-0.071	0.021	-0.017	-15	1,640
19	79.84	101	0.615	-0.058	0.016	-0.010	-1	125
18	77.34	952	0.577	-0.044	0.012	-0.003	-2	1,179
17	72.50	1,047	0.507	-0.019	0.007	0.011	8	1,297
16	67.50	1,076	0.439	0.005	0.006	0.025	18	1,333
15	62.50	1,106	0.377	0.025	0.007	0.036	26	1,369
14	57.50	1,135	0.319	0.041	0.011	0.043	32	1,406
13	52.50	1,165	0.266	0.052	0.015	0.047	36	1,442
12	47.94	982	0.222	0.060	0.020	0.048	32	1,216
11	45.44	398	0.199	0.063	0.023	0.048	13	493
10	42.56	2,241	0.175	0.066	0.027	0.048	72	2,775
9	40.06	35	0.155	0.067	0.029	0.048	1	44
8	37.50	1,370	0.136	0.069	0.032	0.047	43	1,696
7	32.50	1,403	0.102	0.071	0.037	0.046	43	1,738
6	27.50	1,437	0.073	0.072	0.040	0.045	43	1,780
5	22.50	1,471	0.049	0.071	0.042	0.043	42	1,821
4	17.50	1,504	0.030	0.068	0.040	0.041	41	1,863
3	12.50	1,538	0.015	0.061	0.036	0.037	38	1,905
2	7.50	1,572	0.005	0.046	0.026	0.029	30	1,946
1	2.50	1,605	0.001	0.019	0.010	0.013	14	1,988

Generic 18' Omni	140.00	55	1.890	1.980	1.140	0.368	14	68
Stand-Off	140.00	100	1.890	1.980	1.140	0.368	25	124
CCI DTMABP7819VG12A	130.00	115	1.630	0.873	0.711	0.214	16	143
Raycap DC6-48-60-0-8	130.00	66	1.630	0.873	0.711	0.214	9	81
Raycap DC6-48-60-0-8	130.00	33	1.630	0.873	0.711	0.214	5	41
Ericsson RRUS 8843 B	130.00	216	1.630	0.873	0.711	0.214	31	267
Ericsson RRUS 4449 B	130.00	213	1.630	0.873	0.711	0.214	30	264
Ericsson RRUS 32 (50	130.00	152	1.630	0.873	0.711	0.214	22	189
Kathrein Scala 800-1	130.00	132	1.630	0.873	0.711	0.214	19	164
Andrew SBNHH-1D65A (	130.00	34	1.630	0.873	0.711	0.214	5	41
CCI HPA-65R-BUU-H8	130.00	136	1.630	0.873	0.711	0.214	19	168
Kathrein Scala 84037	130.00	317	1.630	0.873	0.711	0.214	45	393
Flat Platform w/ Han	130.00	2,000	1.630	0.873	0.711	0.214	286	2,477
Generic GPS	120.00	10	1.389	0.263	0.420	0.098	1	12
Samsung B2/B66A RRH-	120.00	253	1.389	0.263	0.420	0.098	17	314
Samsung B5/B13 RRH-B	120.00	211	1.389	0.263	0.420	0.098	14	261
RFS DB-T1-6Z-8AB-0Z	120.00	44	1.389	0.263	0.420	0.098	3	54
Antel LPA-80080/4CF	120.00	48	1.389	0.263	0.420	0.098	3	59
Antel LPA-80063/4CF	120.00	40	1.389	0.263	0.420	0.098	3	50
Commscope SBNHH-	120.00	304	1.389	0.263	0.420	0.098	20	377
Flat Platform w/ Han	120.00	2,000	1.389	0.263	0.420	0.098	131	2,477
VZW Unused Reserve:	120.00	1,590	1.389	0.263	0.420	0.098	104	1,969
Commscope ATSBT-	100.00	5	0.964	-0.117	0.114	-0.023	0	7
RFS ATMA4P4DBP-1A20	100.00	48	0.964	-0.117	0.114	-0.023	-1	59
RFS APXV18-209014-C-	100.00	56	0.964	-0.117	0.114	-0.023	-1	69
Andrew LNX-6515DS-A1	100.00	149	0.964	-0.117	0.114	-0.023	-2	185
Flat Low Profile Pla	100.00	1,500	0.964	-0.117	0.114	-0.023	-23	1,858
PCTEL GPS-TMG-HR-	90.00	1	0.781	-0.108	0.049	-0.030	0	1
Generic 12" x 12" Ju	90.00	30	0.781	-0.108	0.049	-0.030	-1	37
Alcatel-Lucent RRH2x	90.00	159	0.781	-0.108	0.049	-0.030	-3	197
Alcatel-Lucent 800 M	90.00	159	0.781	-0.108	0.049	-0.030	-3	197
Alcatel-Lucent 1900	90.00	180	0.781	-0.108	0.049	-0.030	-4	223
Alcatel-Lucent TD-RR	90.00	210	0.781	-0.108	0.049	-0.030	-4	260
RFS APXVSPP18-C-A20	90.00	171	0.781	-0.108	0.049	-0.030	-3	212
Generic Round Platfo	90.00	2,000	0.781	-0.108	0.049	-0.030	-41	2,477
		42,214	67.206	18.859	20.135	5.263	1,401	52,277

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
34	137.50	190	1.823	1.646	1.018	0.326	41	164
33	132.50	203	1.693	1.096	0.804	0.249	34	175
32	127.50	367	1.568	0.682	0.627	0.182	44	316
31	122.50	380	1.447	0.379	0.482	0.124	31	327
30	119.40	101	1.375	0.238	0.406	0.093	6	87
29	117.01	585	1.320	0.150	0.354	0.071	28	504
28	115.11	26	1.278	0.091	0.317	0.055	1	22
27	112.50	596	1.220	0.025	0.270	0.036	14	514
26	107.50	617	1.114	-0.061	0.196	0.006	2	532
25	102.50	638	1.013	-0.106	0.138	-0.015	-7	550
24	97.50	709	0.917	-0.121	0.094	-0.028	-13	610
23	92.50	730	0.825	-0.116	0.061	-0.032	-15	629
22	87.50	771	0.738	-0.098	0.038	-0.028	-14	665
21	84.67	103	0.691	-0.084	0.028	-0.023	-2	89
20	82.17	1,324	0.651	-0.071	0.021	-0.017	-15	1,141
19	79.84	101	0.615	-0.058	0.016	-0.010	-1	87
18	77.34	952	0.577	-0.044	0.012	-0.003	-2	820
17	72.50	1,047	0.507	-0.019	0.007	0.011	8	902

16	67.50	1,076	0.439	0.005	0.006	0.025	18	927
15	62.50	1,106	0.377	0.025	0.007	0.036	26	953
14	57.50	1,135	0.319	0.041	0.011	0.043	32	978
13	52.50	1,165	0.266	0.052	0.015	0.047	36	1,003
12	47.94	982	0.222	0.060	0.020	0.048	32	846
11	45.44	398	0.199	0.063	0.023	0.048	13	343
10	42.56	2,241	0.175	0.066	0.027	0.048	72	1,930
9	40.06	35	0.155	0.067	0.029	0.048	1	30
8	37.50	1,370	0.136	0.069	0.032	0.047	43	1,180
7	32.50	1,403	0.102	0.071	0.037	0.046	43	1,209
6	27.50	1,437	0.073	0.072	0.040	0.045	43	1,238
5	22.50	1,471	0.049	0.071	0.042	0.043	42	1,267
4	17.50	1,504	0.030	0.068	0.040	0.041	41	1,296
3	12.50	1,538	0.015	0.061	0.036	0.037	38	1,325
2	7.50	1,572	0.005	0.046	0.026	0.029	30	1,354
1	2.50	1,605	0.001	0.019	0.010	0.013	14	1,383
Generic 18' Omni	140.00	55	1.890	1.980	1.140	0.368	14	47
Stand-Off	140.00	100	1.890	1.980	1.140	0.368	25	86
CCI DTMABP7819VG12A	130.00	115	1.630	0.873	0.711	0.214	16	99
Raycap DC6-48-60-0-8	130.00	66	1.630	0.873	0.711	0.214	9	57
Raycap DC6-48-60-0-8	130.00	33	1.630	0.873	0.711	0.214	5	28
Ericsson RRUS 8843 B	130.00	216	1.630	0.873	0.711	0.214	31	186
Ericsson RRUS 4449 B	130.00	213	1.630	0.873	0.711	0.214	30	184
Ericsson RRUS 32 (50	130.00	152	1.630	0.873	0.711	0.214	22	131
Kathrein Scala 800-1	130.00	132	1.630	0.873	0.711	0.214	19	114
Andrew SBNHH-1D65A (	130.00	34	1.630	0.873	0.711	0.214	5	29
CCI HPA-65R-BUU-H8	130.00	136	1.630	0.873	0.711	0.214	19	117
Kathrein Scala 84037	130.00	317	1.630	0.873	0.711	0.214	45	273
Flat Platform w/ Han	130.00	2,000	1.630	0.873	0.711	0.214	286	1,723
Generic GPS	120.00	10	1.389	0.263	0.420	0.098	1	9
Samsung B2/B66A RRH-	120.00	253	1.389	0.263	0.420	0.098	17	218
Samsung B5/B13 RRH-B	120.00	211	1.389	0.263	0.420	0.098	14	182
RFS DB-T1-6Z-8AB-0Z	120.00	44	1.389	0.263	0.420	0.098	3	38
Antel LPA-80080/4CF	120.00	48	1.389	0.263	0.420	0.098	3	41
Antel LPA-80063/4CF	120.00	40	1.389	0.263	0.420	0.098	3	34
Commscope SBNHH-	120.00	304	1.389	0.263	0.420	0.098	20	262
Flat Platform w/ Han	120.00	2,000	1.389	0.263	0.420	0.098	131	1,723
VZW Unused Reserve:	120.00	1,590	1.389	0.263	0.420	0.098	104	1,370
Commscope ATSBT-	100.00	5	0.964	-0.117	0.114	-0.023	0	5
RFS ATMA4P4DBP-1A20	100.00	48	0.964	-0.117	0.114	-0.023	-1	41
RFS APXV18-209014-C-	100.00	56	0.964	-0.117	0.114	-0.023	-1	48
Andrew LNX-6515DS-A1	100.00	149	0.964	-0.117	0.114	-0.023	-2	129
Flat Low Profile Pla	100.00	1,500	0.964	-0.117	0.114	-0.023	-23	1,292
PCTEL GPS-TMG-HR-	90.00	1	0.781	-0.108	0.049	-0.030	0	1
Generic 12" x 12" Ju	90.00	30	0.781	-0.108	0.049	-0.030	-1	26
Alcatel-Lucent RRH2x	90.00	159	0.781	-0.108	0.049	-0.030	-3	137
Alcatel-Lucent 800 M	90.00	159	0.781	-0.108	0.049	-0.030	-3	137
Alcatel-Lucent 1900	90.00	180	0.781	-0.108	0.049	-0.030	-4	155
Alcatel-Lucent TD-RR	90.00	210	0.781	-0.108	0.049	-0.030	-4	181
RFS APXVSPP18-C-A20	90.00	171	0.781	-0.108	0.049	-0.030	-3	147
Generic Round Platfo	90.00	2,000	0.781	-0.108	0.049	-0.030	-41	1,723
		42,214	67.206	18.859	20.135	5.263	1,401	36,371

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-50.29	-1.39	0.00	-138.44	0.00	138.44	5,907.57	2,953.79	12,233.76	6,125.97	0.00	0.00	0.031
5.00	-48.34	-1.37	0.00	-131.49	0.00	131.49	5,798.21	2,899.11	11,708.23	5,862.82	0.00	-0.01	0.031
10.00	-46.44	-1.33	0.00	-124.66	0.00	124.66	5,660.34	2,830.17	11,137.90	5,577.23	0.02	-0.02	0.031
15.00	-44.58	-1.30	0.00	-117.99	0.00	117.99	5,513.49	2,756.75	10,564.58	5,290.14	0.04	-0.02	0.030
20.00	-42.75	-1.26	0.00	-111.50	0.00	111.50	5,366.64	2,683.32	10,006.41	5,010.64	0.06	-0.03	0.030
25.00	-40.97	-1.22	0.00	-105.19	0.00	105.19	5,219.79	2,609.90	9,463.38	4,738.72	0.10	-0.04	0.030
30.00	-39.24	-1.19	0.00	-99.07	0.00	99.07	5,072.94	2,536.47	8,935.51	4,474.39	0.15	-0.05	0.030
35.00	-37.54	-1.15	0.00	-93.14	0.00	93.14	4,926.09	2,463.04	8,422.78	4,217.65	0.20	-0.06	0.030
40.00	-37.50	-1.15	0.00	-87.41	0.00	87.41	4,779.24	2,389.62	7,925.21	3,968.49	0.26	-0.06	0.030
40.13	-34.72	-1.08	0.00	-87.26	0.00	87.26	4,775.42	2,387.71	7,912.47	3,962.12	0.26	-0.06	0.029
45.00	-34.23	-1.07	0.00	-82.02	0.00	82.02	4,632.39	2,316.19	7,442.78	3,726.92	0.34	-0.07	0.029
45.88	-33.01	-1.04	0.00	-81.08	0.00	81.08	4,127.44	2,063.72	6,764.69	3,387.37	0.35	-0.08	0.032
50.00	-31.57	-1.00	0.00	-76.81	0.00	76.81	4,021.56	2,010.78	6,420.25	3,214.89	0.42	-0.08	0.032
55.00	-30.16	-0.97	0.00	-71.80	0.00	71.80	3,893.07	1,946.53	6,014.32	3,011.63	0.51	-0.09	0.032
60.00	-28.79	-0.95	0.00	-66.94	0.00	66.94	3,764.57	1,882.29	5,621.66	2,815.01	0.61	-0.10	0.031
65.00	-27.46	-0.93	0.00	-62.19	0.00	62.19	3,636.08	1,818.04	5,242.25	2,625.02	0.73	-0.11	0.031
70.00	-26.16	-0.93	0.00	-57.52	0.00	57.52	3,507.58	1,753.79	4,876.10	2,441.67	0.85	-0.13	0.031
75.00	-24.98	-0.93	0.00	-52.88	0.00	52.88	3,379.09	1,689.54	4,523.20	2,264.96	0.99	-0.14	0.031
79.67	-24.86	-0.94	0.00	-48.52	0.00	48.52	3,258.99	1,629.49	4,205.34	2,105.80	1.13	-0.15	0.031
80.00	-23.22	-0.95	0.00	-48.21	0.00	48.21	3,250.59	1,625.30	4,183.56	2,094.89	1.14	-0.15	0.030
84.34	-23.09	-0.95	0.00	-44.09	0.00	44.09	2,286.62	1,143.31	2,923.12	1,463.73	1.28	-0.16	0.040
85.00	-22.14	-0.97	0.00	-43.47	0.00	43.47	2,277.59	1,138.79	2,896.06	1,450.18	1.30	-0.16	0.040
90.00	-17.63	-1.03	0.00	-38.63	0.00	38.63	2,193.55	1,096.78	2,676.08	1,340.03	1.48	-0.18	0.037
95.00	-16.75	-1.05	0.00	-33.46	0.00	33.46	2,101.77	1,050.89	2,455.71	1,229.68	1.67	-0.19	0.035
100.00	-13.78	-1.07	0.00	-28.22	0.00	28.22	2,009.99	1,005.00	2,244.80	1,124.07	1.88	-0.21	0.032
105.00	-13.02	-1.07	0.00	-22.85	0.00	22.85	1,918.21	959.10	2,043.37	1,023.20	2.11	-0.22	0.029
110.00	-12.28	-1.06	0.00	-17.49	0.00	17.49	1,826.43	913.21	1,851.40	927.08	2.35	-0.23	0.026
115.00	-12.25	-1.06	0.00	-12.20	0.00	12.20	1,734.64	867.32	1,668.90	835.69	2.60	-0.25	0.022
115.22	-11.52	-1.03	0.00	-11.97	0.00	11.97	1,730.61	865.30	1,661.09	831.78	2.61	-0.25	0.021
118.80	-11.40	-1.02	0.00	-8.29	0.00	8.29	956.19	478.10	907.08	454.21	2.80	-0.25	0.030
120.00	-5.36	-0.67	0.00	-7.06	0.00	7.06	947.87	473.94	887.49	444.40	2.86	-0.25	0.022
125.00	-4.90	-0.62	0.00	-3.72	0.00	3.72	911.98	455.99	806.85	404.02	3.13	-0.26	0.015
130.00	-0.43	-0.08	0.00	-0.60	0.00	0.60	874.25	437.12	728.37	364.73	3.41	-0.27	0.002
135.00	-0.19	-0.04	0.00	-0.19	0.00	0.19	834.68	417.34	652.35	326.66	3.69	-0.27	0.001
140.00	0.00	-0.04	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	3.97	-0.27	0.000

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-34.99	-1.39	0.00	-136.71	0.00	136.71	5,907.57	2,953.79	12,233.76	6,125.97	0.00	0.00	0.028
5.00	-33.63	-1.36	0.00	-129.77	0.00	129.77	5,798.21	2,899.11	11,708.23	5,862.82	0.00	-0.01	0.028
10.00	-32.31	-1.33	0.00	-122.95	0.00	122.95	5,660.34	2,830.17	11,137.90	5,577.23	0.02	-0.01	0.028
15.00	-31.01	-1.29	0.00	-116.31	0.00	116.31	5,513.49	2,756.75	10,564.58	5,290.14	0.04	-0.02	0.028
20.00	-29.75	-1.25	0.00	-109.84	0.00	109.84	5,366.64	2,683.32	10,006.41	5,010.64	0.06	-0.03	0.027
25.00	-28.51	-1.21	0.00	-103.57	0.00	103.57	5,219.79	2,609.90	9,463.38	4,738.72	0.10	-0.04	0.027
30.00	-27.30	-1.17	0.00	-97.50	0.00	97.50	5,072.94	2,536.47	8,935.51	4,474.39	0.14	-0.05	0.027
35.00	-26.12	-1.13	0.00	-91.63	0.00	91.63	4,926.09	2,463.04	8,422.78	4,217.65	0.20	-0.06	0.027
40.00	-26.09	-1.14	0.00	-85.96	0.00	85.96	4,779.24	2,389.62	7,925.21	3,968.49	0.26	-0.06	0.027
40.13	-24.16	-1.06	0.00	-85.81	0.00	85.81	4,775.42	2,387.71	7,912.47	3,962.12	0.26	-0.06	0.027
45.00	-23.81	-1.05	0.00	-80.63	0.00	80.63	4,632.39	2,316.19	7,442.78	3,726.92	0.33	-0.07	0.027
45.88	-22.97	-1.02	0.00	-79.71	0.00	79.71	4,127.44	2,063.72	6,764.69	3,387.37	0.34	-0.07	0.029
50.00	-21.96	-0.99	0.00	-75.50	0.00	75.50	4,021.56	2,010.78	6,420.25	3,214.89	0.41	-0.08	0.029
55.00	-20.99	-0.96	0.00	-70.57	0.00	70.57	3,893.07	1,946.53	6,014.32	3,011.63	0.50	-0.09	0.029
60.00	-20.03	-0.93	0.00	-65.79	0.00	65.79	3,764.57	1,882.29	5,621.66	2,815.01	0.60	-0.10	0.029
65.00	-19.10	-0.92	0.00	-61.13	0.00	61.13	3,636.08	1,818.04	5,242.25	2,625.02	0.72	-0.11	0.029
70.00	-18.20	-0.91	0.00	-56.55	0.00	56.55	3,507.58	1,753.79	4,876.10	2,441.67	0.84	-0.12	0.028
75.00	-17.38	-0.91	0.00	-52.00	0.00	52.00	3,379.09	1,689.54	4,523.20	2,264.96	0.98	-0.13	0.028
79.67	-17.29	-0.92	0.00	-47.73	0.00	47.73	3,258.99	1,629.49	4,205.34	2,105.80	1.11	-0.15	0.028
80.00	-16.15	-0.93	0.00	-47.43	0.00	47.43	3,250.59	1,625.30	4,183.56	2,094.89	1.12	-0.15	0.028
84.34	-16.06	-0.93	0.00	-43.40	0.00	43.40	2,286.62	1,143.31	2,923.12	1,463.73	1.26	-0.16	0.037
85.00	-15.40	-0.95	0.00	-42.78	0.00	42.78	2,277.59	1,138.79	2,896.06	1,450.18	1.28	-0.16	0.036
90.00	-12.26	-1.02	0.00	-38.05	0.00	38.05	2,193.55	1,096.78	2,676.08	1,340.03	1.46	-0.17	0.034
95.00	-11.65	-1.03	0.00	-32.97	0.00	32.97	2,101.77	1,050.89	2,455.71	1,229.68	1.65	-0.19	0.032
100.00	-9.59	-1.06	0.00	-27.82	0.00	27.82	2,009.99	1,005.00	2,244.80	1,124.07	1.85	-0.20	0.030
105.00	-9.06	-1.06	0.00	-22.53	0.00	22.53	1,918.21	959.10	2,043.37	1,023.20	2.07	-0.22	0.027
110.00	-8.54	-1.04	0.00	-17.25	0.00	17.25	1,826.43	913.21	1,851.40	927.08	2.31	-0.23	0.023
115.00	-8.52	-1.04	0.00	-12.04	0.00	12.04	1,734.64	867.32	1,668.90	835.69	2.56	-0.24	0.019
115.22	-8.02	-1.01	0.00	-11.82	0.00	11.82	1,730.61	865.30	1,661.09	831.78	2.57	-0.24	0.019
118.80	-7.93	-1.01	0.00	-8.19	0.00	8.19	956.19	478.10	907.08	454.21	2.75	-0.25	0.026
120.00	-3.73	-0.66	0.00	-6.99	0.00	6.99	947.87	473.94	887.49	444.40	2.82	-0.25	0.020
125.00	-3.41	-0.62	0.00	-3.68	0.00	3.68	911.98	455.99	806.85	404.02	3.08	-0.26	0.013
130.00	-0.30	-0.08	0.00	-0.60	0.00	0.60	874.25	437.12	728.37	364.73	3.36	-0.26	0.002
135.00	-0.13	-0.04	0.00	-0.19	0.00	0.19	834.68	417.34	652.35	326.66	3.63	-0.26	0.001
140.00	0.00	-0.04	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	3.91	-0.26	0.000

Analysis Summary

Load Case	Reactions Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Max Usage Elev (ft)	Interaction Ratio
1.2D + 1.6W	23.44	0.00	50.63	0.00	0.00	2416.92	84.34	0.43
0.9D + 1.6W	23.42	0.00	37.97	0.00	0.00	2392.65	84.34	0.42
1.2D + 1.0Di + 1.0Wi	11.31	0.00	80.47	0.00	0.00	1032.34	0.00	0.18
(1.2 + 0.2Sds) * DL + E ELFM	1.42	0.00	50.29	0.00	0.00	151.77	84.34	0.03
(1.2 + 0.2Sds) * DL + E EMAM	1.39	0.00	50.29	0.00	0.00	138.44	84.34	0.04
(0.9 - 0.2Sds) * DL + E ELFM	1.42	0.00	34.99	0.00	0.00	149.99	84.34	0.03
(0.9 - 0.2Sds) * DL + E EMAM	1.39	0.00	34.99	0.00	0.00	136.71	84.34	0.04
1.0D + 1.0W	5.45	0.00	42.21	0.00	0.00	559.07	84.34	0.10

Base Plate & Anchor Rod Analysis

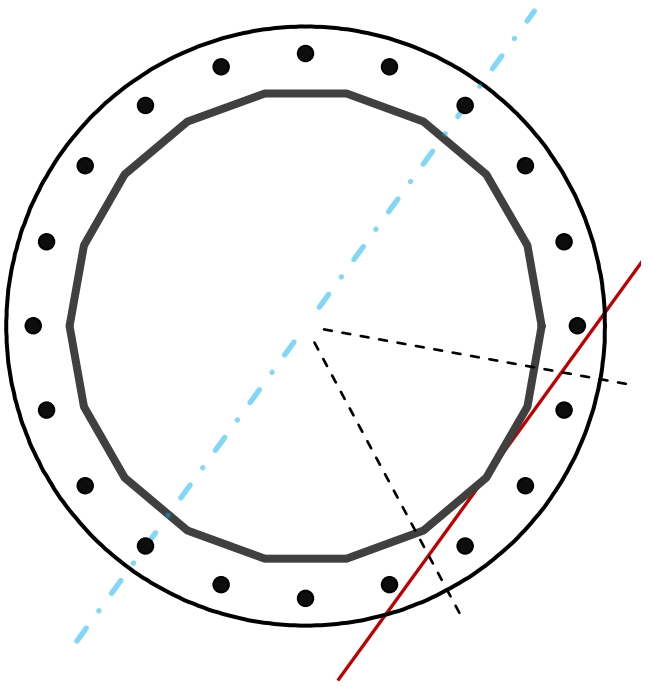
Pole Dimensions		
Number of Sides	18	-
Diameter	51	in
Thickness	0.5	in
Orientation Offset	0	°

Base Reactions		
Moment, Mu	2416.9	k-ft
Axial, Pu	50.6	k
Shear, Vu	23.4	k
Neutral Axis	234	°

Report Capacities		
Component	Capacity	Result
Base Plate	48%	Pass
Anchor Rods	39%	Pass
Dwyidag	-	-

Base Plate		
Shape	Round	-
Diameter, ø	66	in
Thickness	2 1/4	in
Grade	Other	
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Clip	N/A	in
Orientation Offset	0	°
Anchor Rod Detail	d	η=0.5
Clear Distance	3	in
Applied Moment, Mu	982.7	k
Bending Stress, ϕMn	2027.4	k

Original Anchor Rods		
Arrangement	Radial	-
Quantity	20	-
Diameter, ø	2 1/4	in
Bolt Circle	60	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	9.4	in
Orientation Offset		°
Applied Force, Pu	99.2	k
Anchor Rods, ϕPn	259.8	k



Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	23.4	2416.9	1.00
Anchor Rod Forces	23.4	2416.9	1.00
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	0.0	0.00
Stiffener Forces	0.0	0.0	0.00

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in^2	in^2	in^4	#	in^4
Pole	78.9231	4.3846	0.3672		25165.81
Bolt	3.9761	3.2477	0.8393	4.5	29245.99
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	0.0000	0.0000	0.0000		0.00
Stiffener	0.0000	0.0000	0.0000		0.00

Base Plate		
Shape	Round	-
Diameter, D	66	in
Thickness, t	2.25	in
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Base Plate Chord	41.893	in
Detail Type	d	-
Detail Factor	0.50	-
Clear Distance	3	-

Anchor Rods		
Anchor Rod Quantity, N	20	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	60	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	99.2	k
Applied Shear, Vu	0.6	k
Compressive Capacity, ϕPn	259.8	k
Tensile Capacity, ϕRnt	0.382	OK
Interaction Capacity	0.386	OK

External Base Plate		
Chord Length AA	35.773	in
Additional AA	4.500	in
Section Modulus, Z	50.970	in^3
Applied Moment, Mu	982.7	k-ft
Bending Capacity, ϕMn	2752.4	k-ft
Capacity, Mu/ϕMn	0.357	OK
Chord Length AB	34.612	in
Additional AB	4.500	in
Section Modulus, Z	49.502	in^3
Applied Moment, Mu	868.9	k-ft
Bending Capacity, ϕMn	2673.1	k-ft
Capacity, Mu/ϕMn	0.325	OK
Bend Line Length	29.664	in
Additional Bend Line	0.000	in
Section Modulus, Z	37.544	in^3
Applied Moment, Mu	982.7	k-ft
Bending Capacity, ϕMn	2027.4	k-ft
Capacity, Mu/ϕMn	0.485	OK

Internal Base Plate		
Arc Length	0.000	in
Section Modulus, Z	0.000	in^3
Moment Arm	0.000	in
Applied Moment, Mu	0.0	k-ft
Bending Capacity, ϕMn	0.0	k-ft
Capacity, Mu/ϕMn		

Trylon

Prepared For

AMERICAN TOWER

Mount Analysis Report

ATC # 411256

CANTON CT

8/27/2019

8-27-2019

FAIL - 107%

Trylon

Analysis Date: 08-27-2019

MOUNT ANALYSIS REPORT

ATC
10 Presidential Way Woburn, MA
01801

Attention: **Blake Paynter**

Subject: Analysis of the Existing Platform installed at 120-ft. elevation

Site Data:

Site Code:	411256
Site Name:	CANTON CT
Site Adress:	14 Canton Springs Road, Canton,Hartford, CT 06019
Structure Type	Monopole
Trylon job #:	152689

Dear Blake Paynter,

We have been provided with RF information, photos and sketches of the structure for above-referenced site. Verizon is proposing to change the equipment configuration on the existing mounting hardware.

A revised antenna, coax and miscellaneous equipment schematic have been provided to us. We have been asked to evaluate this information to determine whether or not the mounting apparatus is adequate to safely support the proposed loading change.

The structural evaluation refers to the Existing Platform installed at 120-ft. elevation on the existing Monopole located at 14 Canton Springs Road, Canton,Hartford, CT 06019.

RISA 3D (version 17), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

1. Source of data

Document Type	Source	Date
Mount Mapping	Trylon	08-21-2019
RFDS	Verizon	06-26-2019

2. Analysis Criteria

Standard	2015 IBC / ASCE 7-10 / TIA-222-H
Basic Design Wind Speed without Ice (mph)	119
Basic Design Wind Speed with Ice (mph)	50
Basic Design Ice Thickness (in)	2.00
Structure Risk Category	II
Exposure Category	C
Topographic Factor, Kzt	1
Seismic Response Coefficient	0.10
Maintenace Live Load at Mounting Pipe Location (lbs)	500

3. Final Equipment Configuration per sector

Mount Centerline 120 ft.

Antennas Centerline [ft]	# of Antennas	Antenna Manufacturer	Antenna Model	Height [in]	Width [in]	Thk. [in]	Weight [lbs]	FAN w/o ice [lbs]	FAN w/ ice [lbs]
120.1	2	Amphenol	LPA-80063/4CF	47.4	15.2	13.19	20	247.29	61.08
120	4	Andrew	SBNHH-1D65B.	72.72	23.7	7.1	127	590.48	130.44
120	4	Amphenol	LPA-80080/4CF	47.4	15.2	13.19	20	247.29	61.08
120.1	2	Andrew	SBNHH-1D65B.	72.72	23.7	7.1	127	590.48	130.44
120	3	Samsung	B5/B13 RRH-BR04C	15	15	8.1	70	40.77	14.65
120	3	Samsung	B2/B66A RRH-BR049	15	15	10	84	50.33	16.85

4. Standard Conditions for Providing Structural Consulting Services on Existing Structures

1) Mounting hardware is analyzed to the best of our ability using all information that is provided or can be obtained during fieldwork (if authorized by client). If the existing conditions are not as we have represented in this analysis, we should be contacted to evaluate the significance of the deviation and revise the assessment accordingly.

2) The structural analysis has been performed assuming that hardware is in "like new" condition. No allowance was made for excessive corrosion, damaged or missing structural members, loose bolts, misaligned parts, or any reduction in strength due to the age or fatigue of the product.

3) The structural analysis provided is an assessment of the primary load carrying capacity of the hardware. We provide a limited scope of service. In some cases we cannot verify the capacity of every weld, plate, connection detail, etc. In some cases, structural fabrication details are unknown at the time of our analysis, and the detailed field measurement of some of the required details may not be possible. In instances where we cannot perform connection capacity calculations, it is assumed that the existing manufactured connections develop the full capacity of the primary members being connected.

4) We cannot be held responsible for mounting hardware that is installed improperly or hardware that is loose or has a tendency of working loose over the lifetime of the mounting hardware. Our analysis has been performed assuming fully tightened connections, and proper installation and symmetry of the mounting hardware per manufacturer's instructions.

5) The structural analysis has been performed using information currently provided by the client and potentially field verified. We have been provided with a mounting arrangement for all telecommunications equipment, including antennas RRH's, TMA's, RRU's, diplexers, surge protection devices, etc. Our analysis has been based upon a particular mounting arrangement. We are not responsible for deviations in the mounting arrangement that may occur over time. If deviations in equipment type or mounting arrangements are proposed, then we should be contacted to revise the recommendations of this structural report.

6) We cannot be held responsible for temporary and unbalanced loads on mounting hardware. Our analysis is based on a particular mounting arrangement or as-built field condition. We are not responsible for the methods and means of how the mounting arrangement is accomplished by the contractor. These methods and means may include rigging of equipment or hardware to lift and locate, temporary hanging of equipment in locations other than the final arrangement, movement and tie off of tower riggers, personnel, and their equipment, etc.

7) Steel grade and strength is unknown and cannot be field tested. We cannot be held responsible for equipment manufactured from inferior steel or bolts. Our analysis assumes that standard structural grade steel has been used by the equipment manufacturer for all assembled parts of the mounting apparatus. Acceptable steels and connection components are specified by the American Institute of Steel Construction. It is assumed all welded connections are performed in the shop under the latest American Welding Society Code. No field welds are permitted or assumed for the existing premanufactured equipment.

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

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM 500 (GR B-46)
Pipe	ASTM A53 (GR 35)
Connection Bolts	ASTM A325

5. Analysis Results

Mount CL (ft.)	Component	% Capacity	Pass/Fail	Notes
120	Face Horizontals	47	Pass	1,2
	Standoff Members	71	Pass	1,2
	Bracings	107	Fail	1,2
	Antenna Pipes	25	Pass	1,2
	Connections	49	Pass	1,2

Structure Rating (max from all components) =	**107%**

Notes:

1. See additional documentation in "Appendix B - Analysis Output" for calculations supporting the % capacity consumed.
2. All sectors are typical

6. Conclusions and recommendations

Based on information provided, our calculations conclude that the Existing Verizon Platform located at 120-ft elevation on the existing Monopole at the specified address, is NOT ADEQUATE to safely support the proposed equipment, subject to the attached Standard Conditions on page 3.

Recommended reinforcement:

1. **Install (1) new "PV-VSK-B" Perfect vision kit connected to the Monopole tower at a distance of 29" above the existing top face horizontal connecting adjacent face horizontal to the tower & V-arm connecting 33" from ectreme end towards mount center.**

Note:

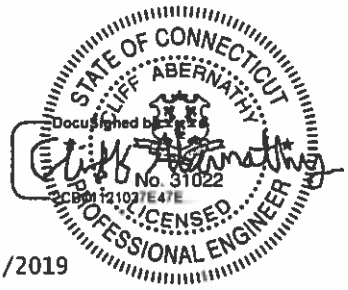
The existing OVP box RRFDC-3315-PF-48 is directly installed on tower , not considered for this analysis.
Andrew SBNHH-1D65B Antenna is mounted on Commscope BSAMNT-SBS-1-2 side by side Mounting kit.

Should you have any questions, comments or require additional information, please do not hesitate to call.

Sincerely,
Analysis performed by:

Sarathi

Reviewed by:

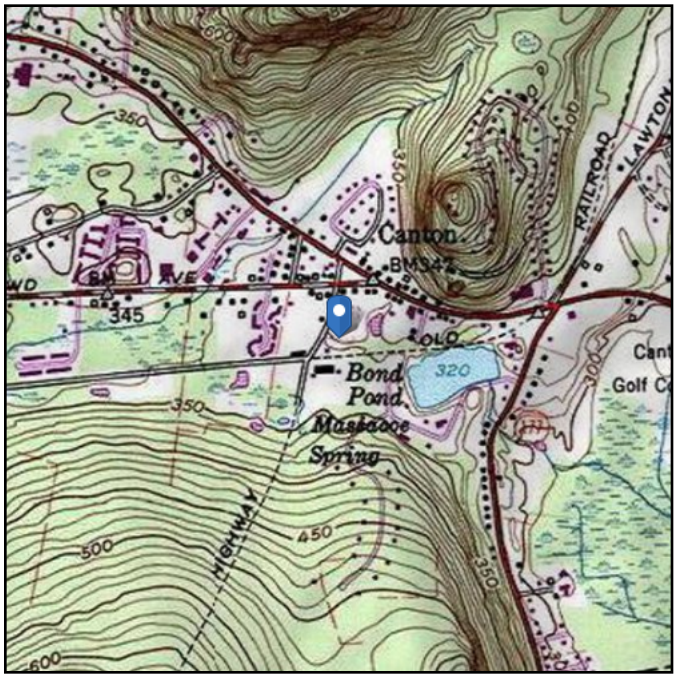


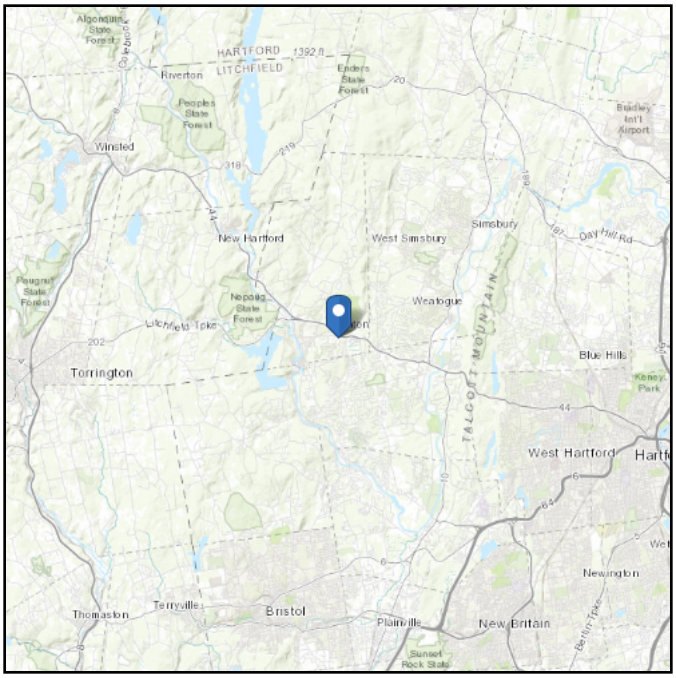
ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 339.34 ft (NAVD 88)
Latitude: 41.822876
Longitude: -72.895101





Wind

Results:

Wind Speed:	119 Vmph
10-year MRI	76 Vmph
25-year MRI	85 Vmph
50-year MRI	91 Vmph
100-year MRI	98 Vmph

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014

Date Accessed: Tue Aug 27 2019

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

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

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

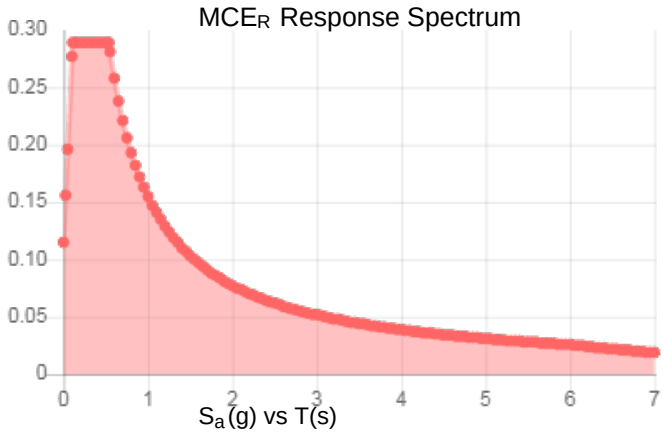
Seismic

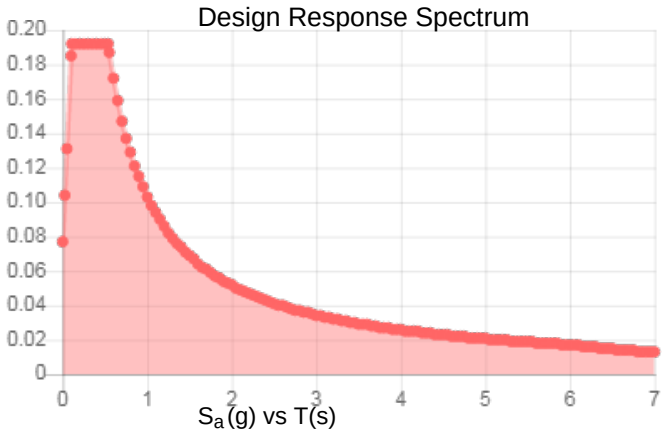
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.18	S_{DS} :	0.192
S_1 :	0.064	S_{D1} :	0.103
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.09
S_{MS} :	0.289	PGA_M :	0.145
S_{M1} :	0.155	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B





Data Accessed: Tue Aug 27 2019

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

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	5 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Tue Aug 27 2019

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

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

APPENDIX A

ADDITIONAL CALCULATIONS

Trylon

Analysis Date: 08-27-2019

Wind Input

Basic Design Wind Speed:	V =	119	mph
Basic Wind Speed with Ice:	Vi =	50	mph
Design Ice Thickness:	ti =	2	in
Antennas Center Line:	z =	120	ft.
Mean Elevation of Base of Structure above Sea Level:	zs=	339.34	ft.
Structure Risk Category:		II	
Exposure Category:		C	
Topographic Category:		1	
Height of crest:		0	ft.
Maintenance Live Load:		500	lbs.
ROOFTOP?		NO	
Height above roof:	zr=	0	ft.
Horizontal distance from windward face:	Xb=	0	ft.
Width of the windward face of the building:	Ws=	0	ft.
Height of the windward face of the building:	Hs=	0	ft.
Parapet height:		0	ft.
Wind direction probability factor:	Kd =	0.95	
Gust factor:	Gh =	1	
Shielding Factor:	Ka=	0.9	

Wind Calculations

Importance factor for ice thickness:	I=	1	
Exposure Category Coefficients:	zg=	900	ft.
	α'=	9.5	
	Kzmin=	0.85	
	Kc=	1	
Topographic Category Coefficients:	Kt=	1	
	f=	1	
	Kh=	-	
Velocity pressure coefficient:	Kz=	1.315	
Topographic Factor:	Kzt=	1	
Rooftop wind speed-up factor:	Ks=	1	
Ground Elevation Factor:	Ke=	0.98779	
Wind Velocity Pressure without ice:	qz =	44.740	lb./ft2
Wind Velocity Pressure with ice:	qz =	7.898	lb./ft2
Thickness of radial glaze ice at height z:	tiz =	2.276	in

Trylon

Analysis Date: 08-27-2019

Detailed Wind Force Calculation Sample

Manufacturer	**Amphenol**	
Model	**LPA-80063/4CF**	
Flat or Round	F	
Length of Normal Face	47.2	[in]
Width of Normal Face	5.5	[in]
Length of Transversal Face	47.2	[in]
Width of Transversal Face	13.2	[in]
Weight	12.00	[lbs.]
$\mathbf{A_N}$	259.60	[in^2]
$\mathbf{A_T}$	623.04	[in^2]
$\mathbf{C_{aN}}$	1.45	
$\mathbf{C_{aT}}$	1.25	

Wind Forces without ice

Wind Force 0 degrees	105.45	[lbs.]
Wind Force 30 degrees	133.44	[lbs.]
Wind Force 60 degrees	189.41	[lbs.]
Wind Force 90 degrees	217.39	[lbs.]
Wind Force 120 degrees	189.41	[lbs.]
Wind Force 150 degrees	133.44	[lbs.]

Wind Forces with ice

Wind Force 0 degrees	33.84	[lbs.]
Wind Force 30 degrees	39.19	[lbs.]
Wind Force 60 degrees	49.90	[lbs.]
Wind Force 90 degrees	55.26	[lbs.]
Wind Force 120 degrees	49.90	[lbs.]
Wind Force 150 degrees	39.19	[lbs.]
Weight of ice	181.26	[lbs.]

Member Distributed Loading

Section Set	Length	Width	θ	A_N	A_T	C_{aN}	C_{aT}	W.F.[lbs]	W.F.[lbs/in]
L3x3	138	3	0	414.00	0.00	2.00	1.20	231.529	1.67775
C5x2	61.5	5	0	307.50	0.00	1.58	1.20	135.569	2.20437
C5x2	15	5	0	75.00	0.00	1.22	1.20	25.6322	1.70882
C5x2	61.5	5	0	307.50	0.00	1.58	1.20	135.569	2.20437
C5x2	57	5	0	285.00	0.00	1.55	1.20	123.258	2.16243
C5x2	27.5	5	0	137.50	0.00	1.33	1.20	51.2645	1.86416
Tube 3x3	27.5	3	90	82.50	0.00	1.47	1.20	1.3E-31	4.6E-33
L3x3	20	3	90	60.00	0.00	1.39	1.20	8.7E-32	4.4E-33
L1.25x1.25	37	1.25	0	46.25	46.25	2.00	2.00	25.8653	0.69906
L1.25x1.25	37	1.25	0	46.25	46.25	2.00	2.00	25.8653	0.69906
L1.25x1.25	37	1.25	0	46.25	46.25	2.00	2.00	25.8653	0.69906
L1.25x1.25	37	1.25	0	46.25	46.25	2.00	2.00	25.8653	0.69906

SEISMIC CALCULATIONS

Seismic Input

S_S	0.18
S_1	0.064
S_{MS}	0.289
S_{M1}	0.155
$S_{DS} = 2/3\ S_{MS}$	0.193
$S_{D1} = 2/3\ S_{M1}$	0.103333333
ρ	1

Seismic Response Coefficient	
Tower Height (ft)	120
Mount Location (ft)	120
As (Amplification Factor)	1
R (Response modification coeficient)	2
I (Importance Factor)	1
Cs, min	0.01
Cs	0.10

CONNECTION CHECK

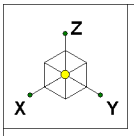
Weldment Connections Check

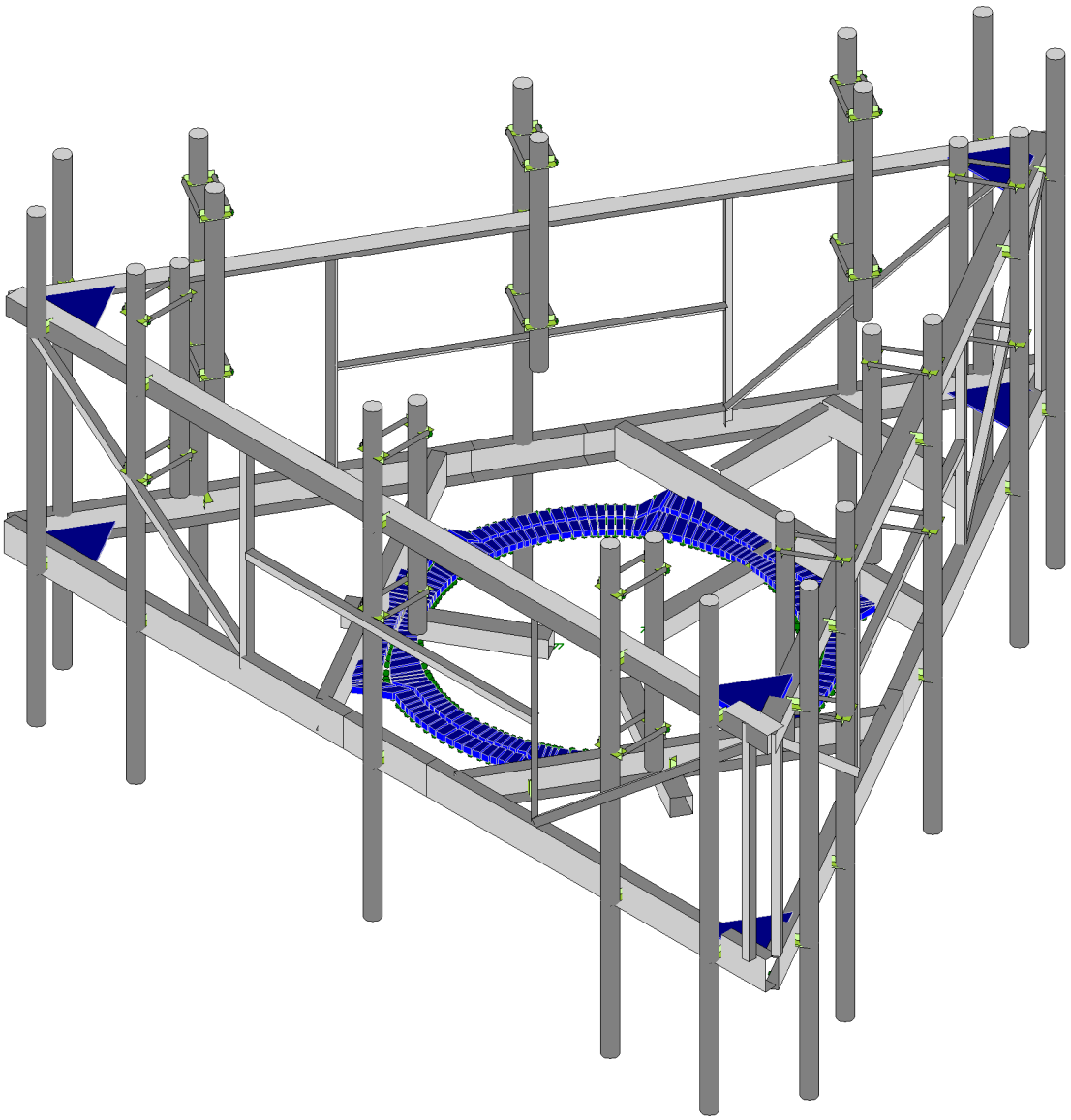
Reactions		
Tension Force (X)	12.52	[kips]
Shear Force (Y)	10.74	[kips]
Shear Force (Z)	4.7	[kips]
Torsional Moment (about x-x)	65.4	[kips-in]
Bending Moment (about y-y)	78.71	[kips-in]
Bending Moment (about z-z)	15.6	[kips-in]

Fillet Weld Check		
The standoff member is Round?	Yes	
Height, z-z	3	[in]
Width, y-y	3	[in]
Fillet weld Thickness (Assumed)	0.25	[in]
Weld Material Yield (Assumed)	70	[ksi]
Length of weldment	9.42	[in]
Section modulus in a line weld, y-y	28.27	[in^2]
Section modulus in a line weld, z-z	28.27	[in^2]
Fnw	63	ksi
Weld Force, y-y	4.14	kips/inch
Weld Force, z-z	2.20	kips/inch
ϕ*Rn	8.35	kips/inch
Weld Check	49.60%	PASS

APPENDIX B

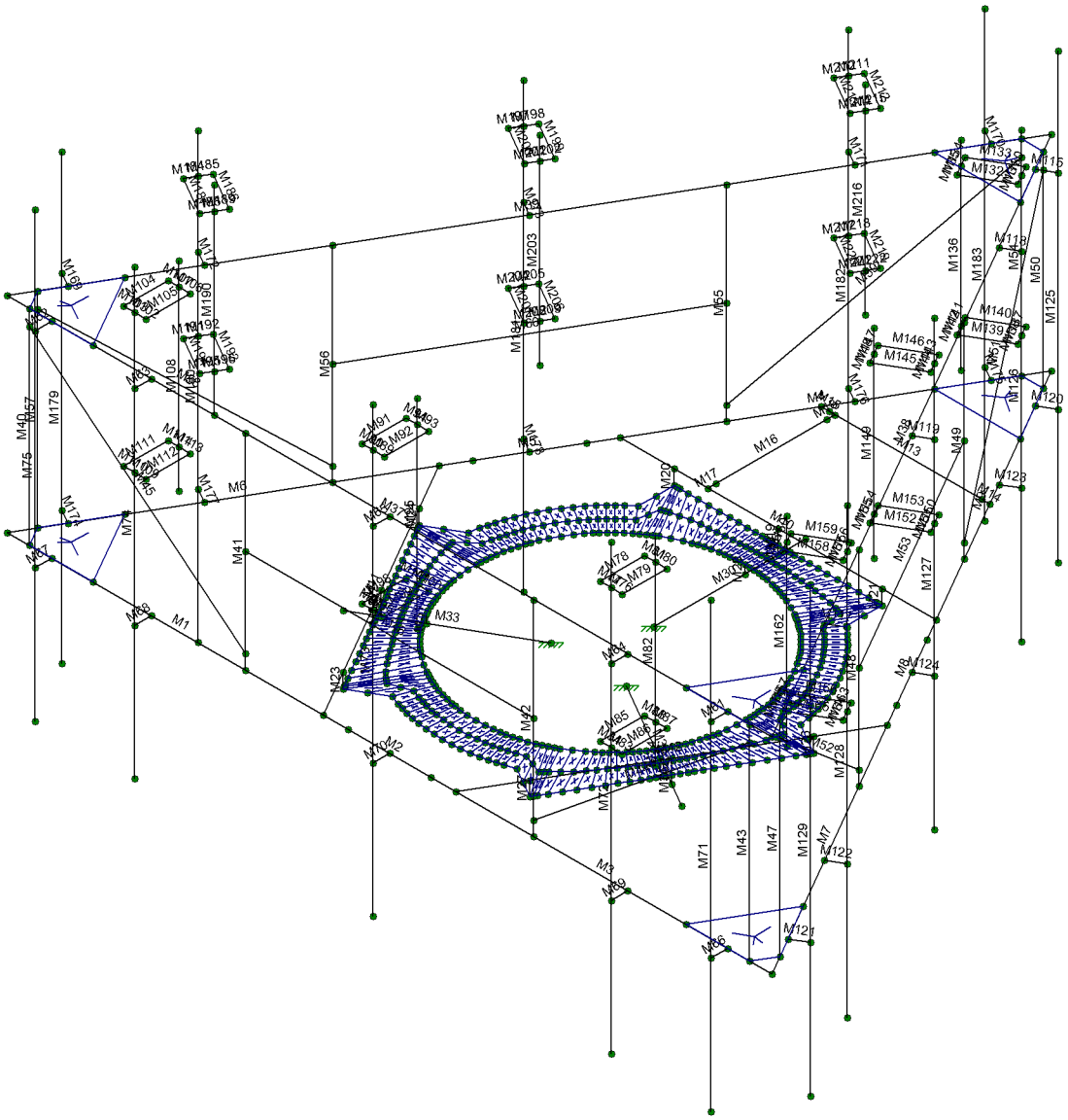
SOFTWARE OUTPUTS





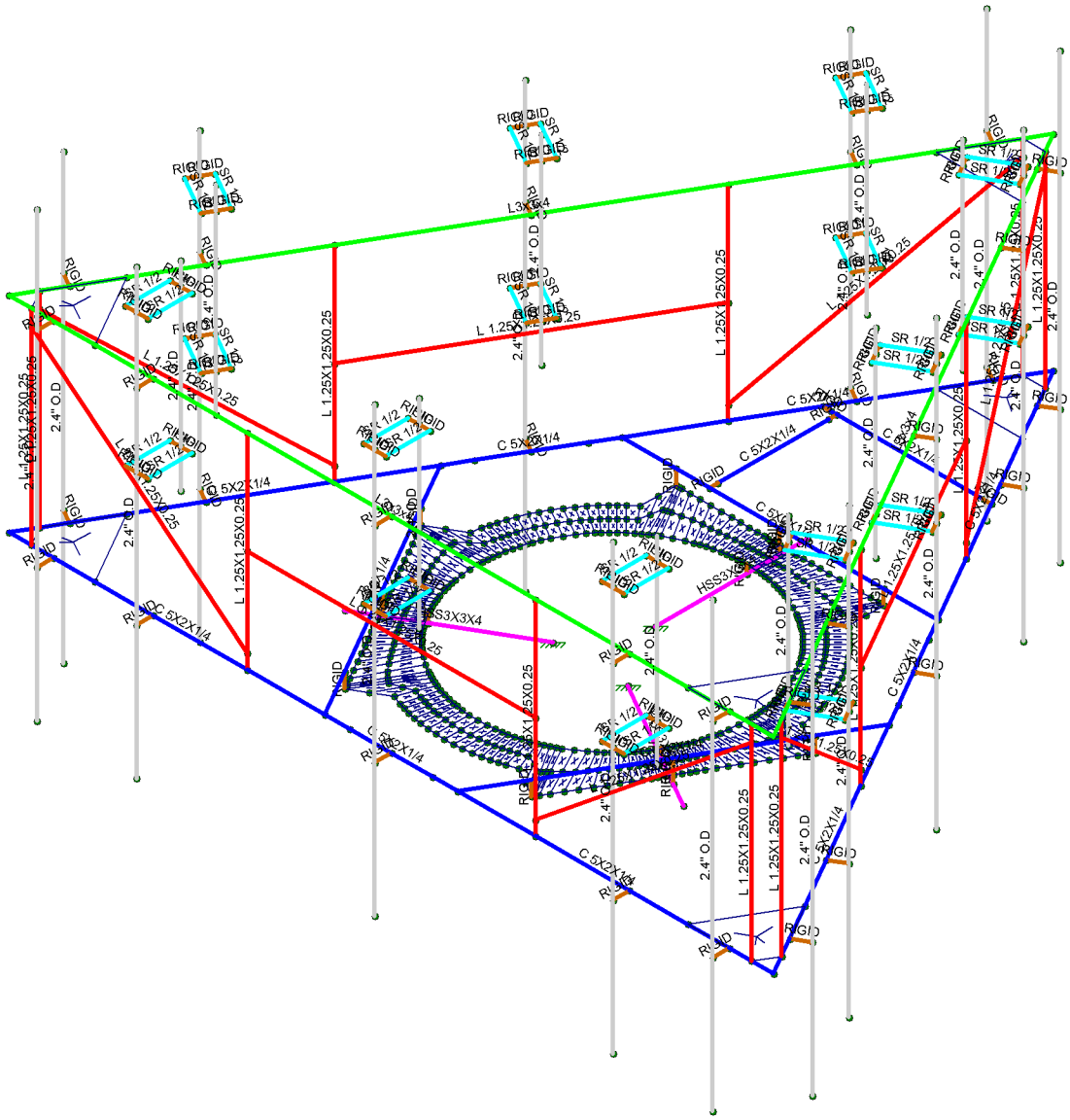
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT ANALYSIS_...	SK - 1
DST		Aug 27, 2019 at 7:58 PM
152689		CANTON CT.R3D



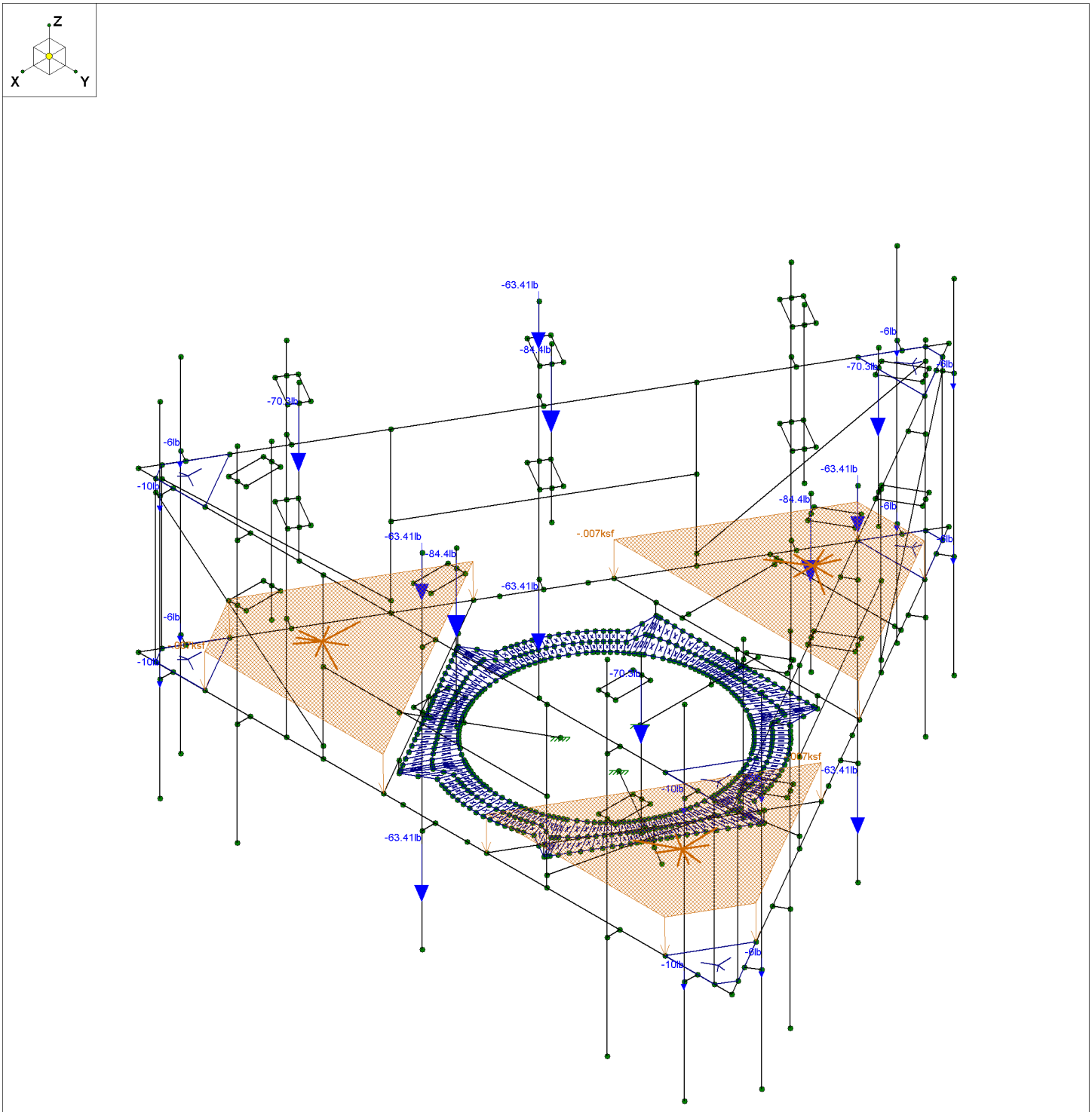
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT ANALYSIS_...	SK - 2
DST		Aug 27, 2019 at 7:59 PM
152689		CANTON CT.R3D



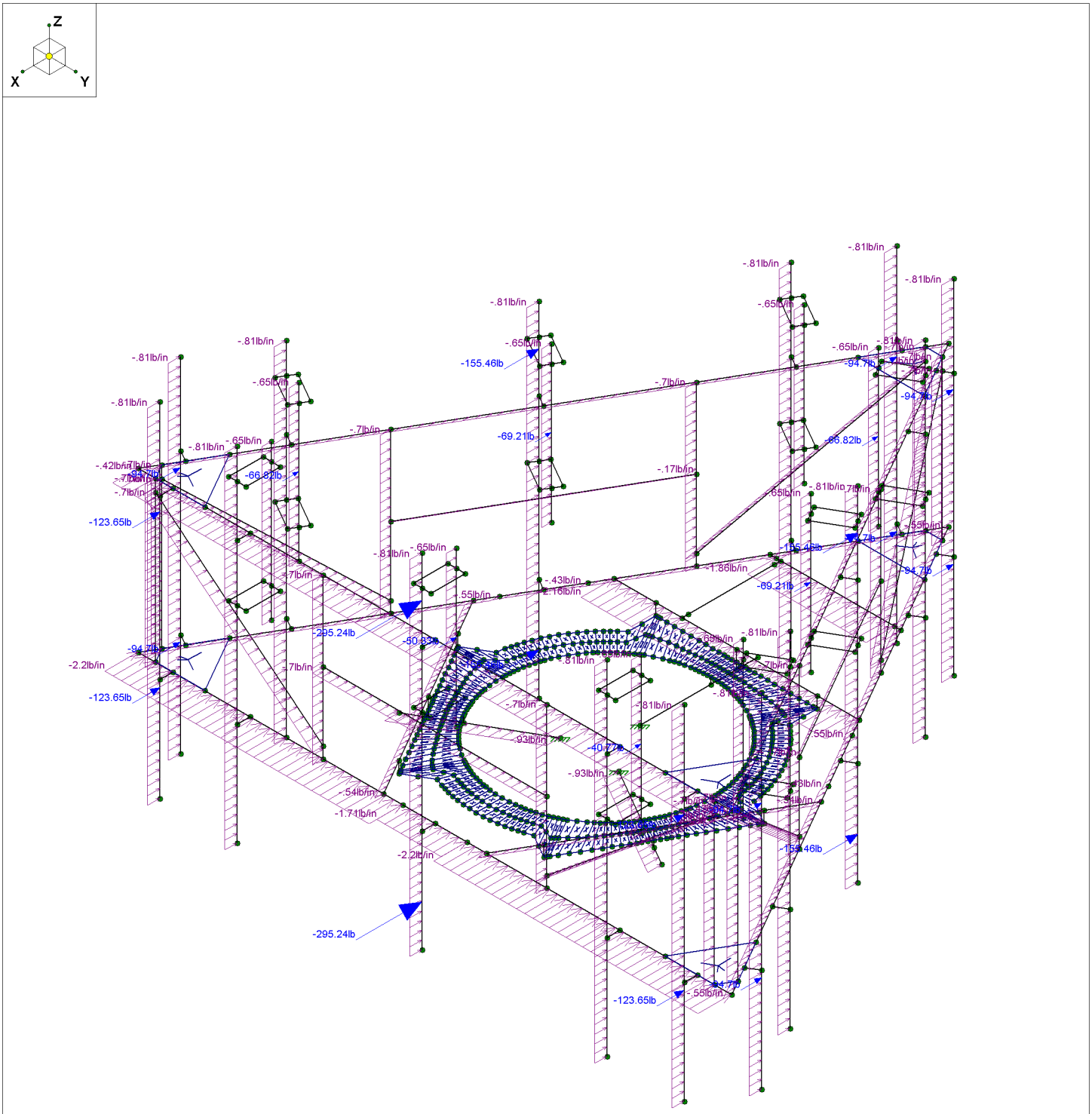
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT ANALYSIS_...	SK - 3
DST		Aug 27, 2019 at 7:59 PM
152689		CANTON CT.R3D



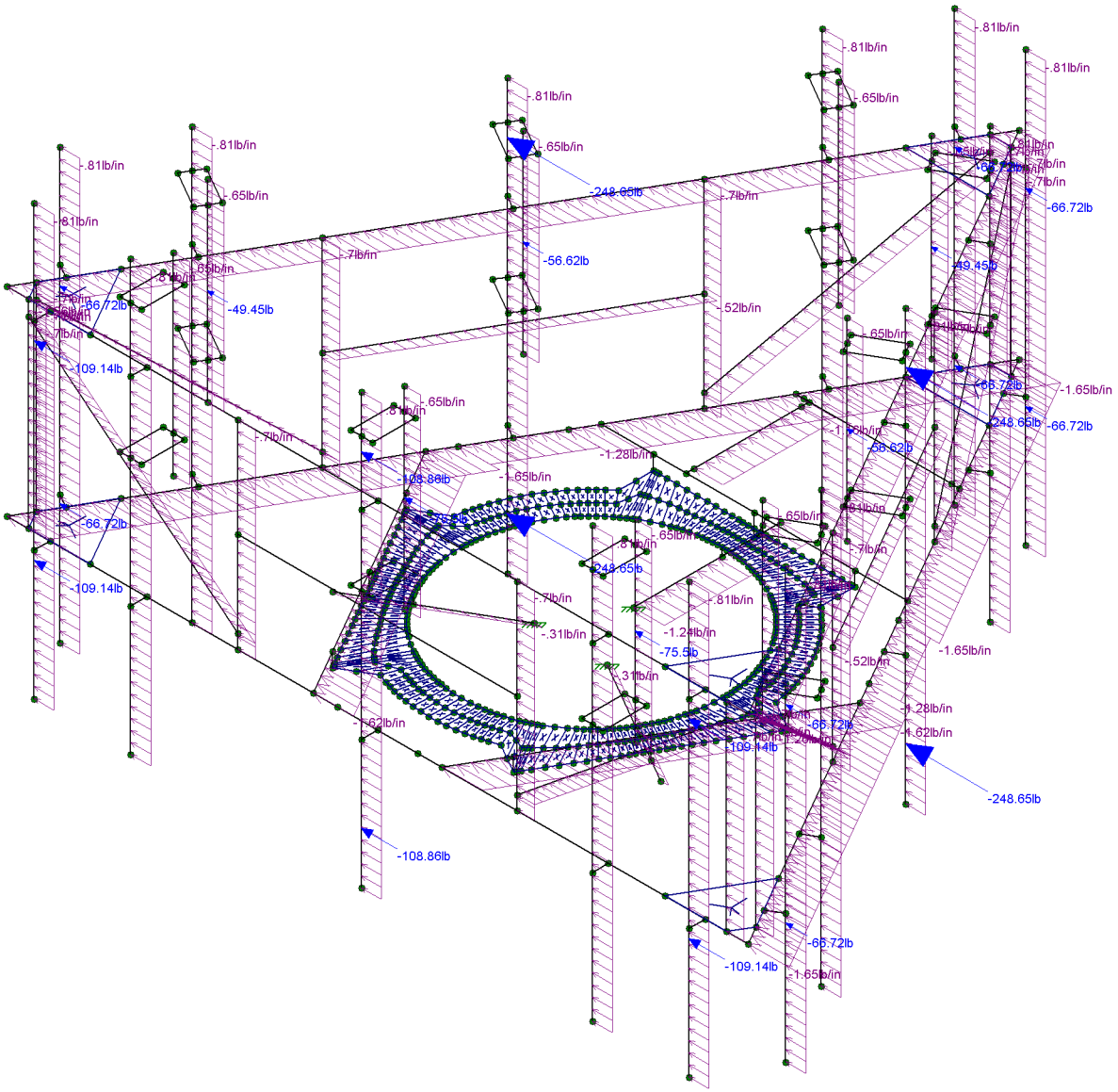
Loads: BLC 2, Weights
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT ANALYSIS_...	SK - 4
DST		Aug 27, 2019 at 7:59 PM
152689		CANTON CT.R3D



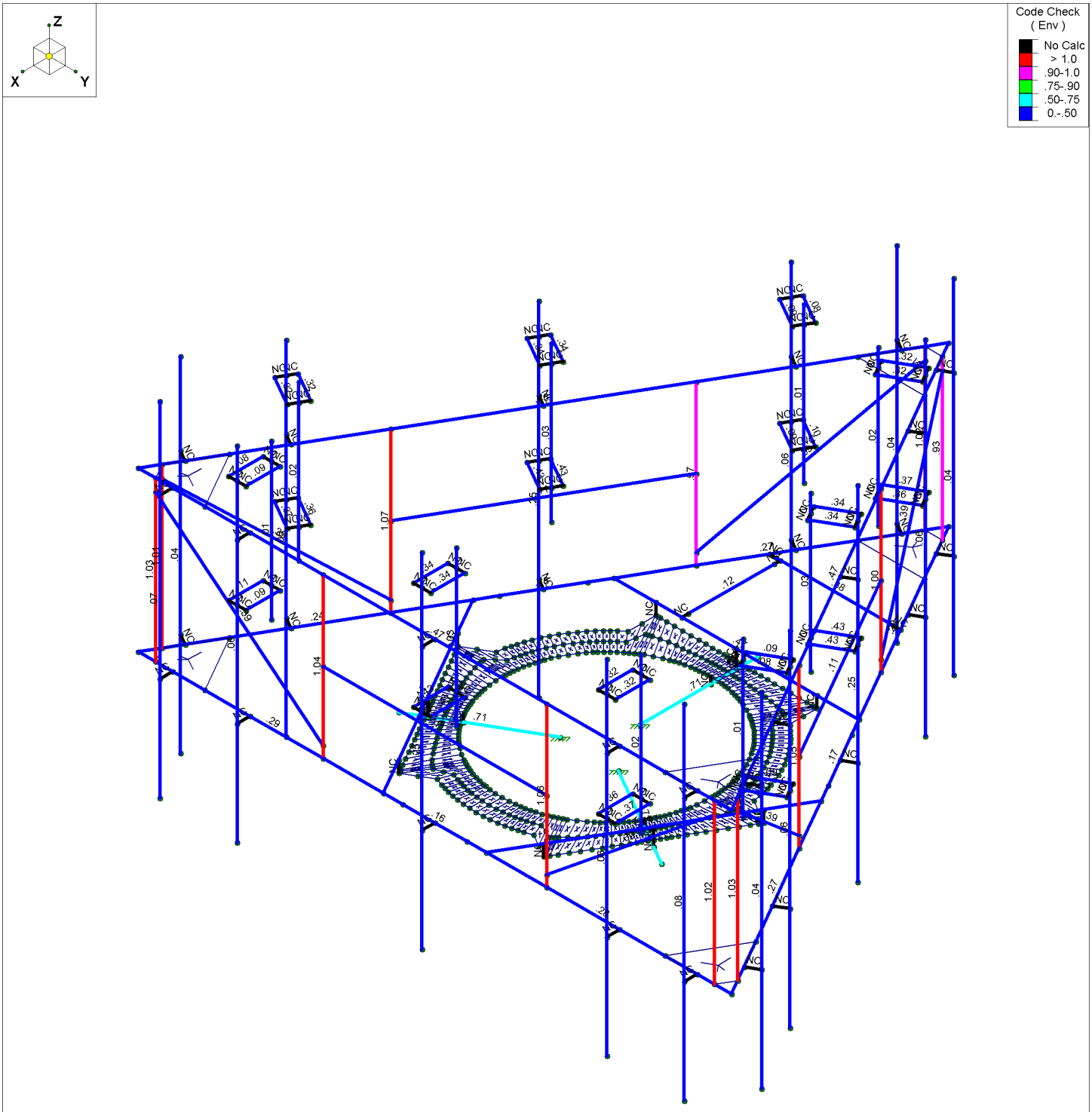
Loads: BLC 4, Wind 0°
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT ANALYSIS_...	SK - 5
DST		Aug 27, 2019 at 7:59 PM
152689		CANTON CT.R3D



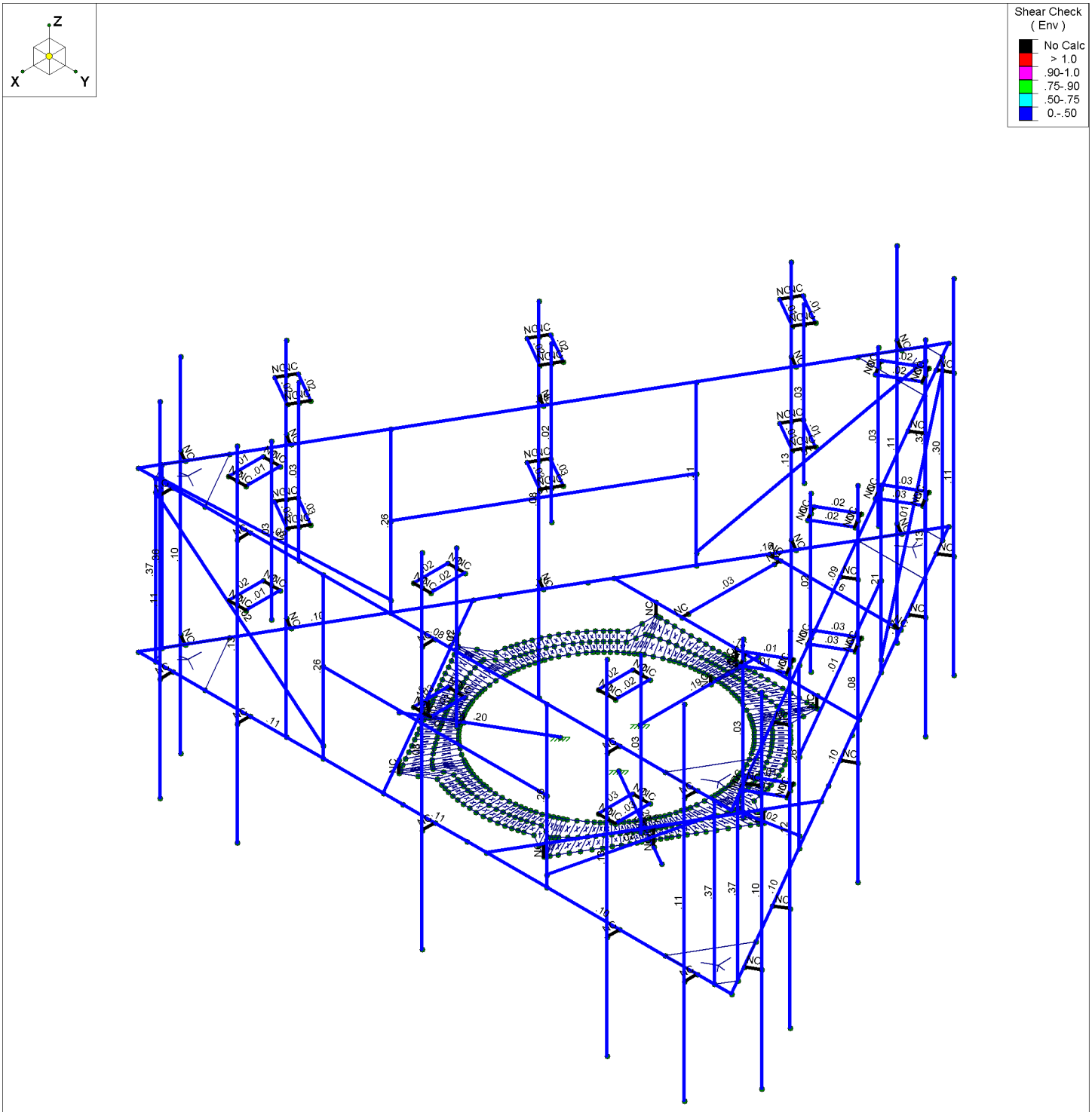
Loads: BLC 7, Wind 90°
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT ANALYSIS_...	SK - 6
DST		Aug 27, 2019 at 7:59 PM
152689		CANTON CT.R3D



Member Code Checks Displayed (Enveloped)
Loads: BLC 1, Self Weight
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT ANALYSIS_...	SK - 7
DST		Aug 27, 2019 at 8:00 PM
152689		CANTON CT.R3D



Member Shear Checks Displayed (Enveloped)
Loads: BLC 1, Self Weight
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT ANALYSIS_...	SK - 8
DST		Aug 27, 2019 at 8:00 PM
152689		CANTON CT.R3D

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	C 5X2X1/4	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical	2.125	.745	7.544	.042
2	L3x3x4	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.031
3	L 1.25X1.25X0...	L 1.25X1.25X0.25	Beam	Single Angle	A36 Gr.36	Typical	.563	.077	.077	.01
4	2.4" O.D	HSS 2.4X0.125	Column	Pipe	A53 Gr.B	Typical	.893	.58	.58	1.159
5	HSS3X3X4	HSS3X3X4_A1085	Beam	Tube	A500 Gr.B Rect	Typical	2.755	3.5	3.5	5.207
6	SR 1/2	SR 1/2	Beam	RECT	A36 Gr.36	Typical	.196	.003	.003	.006

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF1	8CU1.25X057	Beam	None	A653 SS Gr33	Typical	.581	.057	4.41	.00063

Design Size and Code Check Parameters

	Label	Max Depth[in]	Min Depth[in]	Max Width[in]	Min Width[in]	Max Bending Chk	Max Shear Chk
1	Typical					1	1

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N301	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N307	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N313	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N5	N1		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
2	M2	N1	N2		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
3	M3	N2	N6		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
4	M4	N9	N3		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
5	M5	N3	N4		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
6	M6	N4	N5		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
7	M7	N6	N7		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
8	M8	N7	N8		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
9	M9	N8	N9		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
10	M10	N16	N17		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
11	M11	N18	N19		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
12	M12	N20	N21		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
13	M13	N24	N22		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
14	M14	N22	N23			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
15	M15	N24	N25			RIGID	None	None	RIGID	Typical
16	M16	N28	N26			C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
17	M17	N26	N27			RIGID	None	None	RIGID	Typical
18	M18	N28	N29			RIGID	None	None	RIGID	Typical
19	M19	N282	N299			RIGID	None	None	RIGID	Typical
20	M20	N283	N284			RIGID	None	None	RIGID	Typical
21	M21	N285	N286			RIGID	None	None	RIGID	Typical
22	M22	N287	N305			RIGID	None	None	RIGID	Typical
23	M23	N288	N289			RIGID	None	None	RIGID	Typical
24	M24	N290	N291			RIGID	None	None	RIGID	Typical
25	M25	N292	N311			RIGID	None	None	RIGID	Typical
26	M26	N293	N294			RIGID	None	None	RIGID	Typical
27	M27	N295	N296			RIGID	None	None	RIGID	Typical
28	M28	N297	N298			RIGID	None	None	RIGID	Typical
29	M29	N299	N300			RIGID	None	None	RIGID	Typical
30	M30	N301	N302			HSS3X3X4	Beam	Tube	A500 Gr.B...	Typical
31	M31	N303	N304			RIGID	None	None	RIGID	Typical
32	M32	N305	N306			RIGID	None	None	RIGID	Typical
33	M33	N307	N308			HSS3X3X4	Beam	Tube	A500 Gr.B...	Typical
34	M34	N309	N310			RIGID	None	None	RIGID	Typical
35	M35	N311	N312			RIGID	None	None	RIGID	Typical
36	M36	N313	N314			HSS3X3X4	Beam	Tube	A500 Gr.B...	Typical
37	M37	N321	N322		90	L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
38	M38	N321	N323		180	L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
39	M39	N322	N323		90	L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
40	M40	N324	N325		90	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
41	M41	N326	N327			L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
42	M42	N328	N329		90	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
43	M43	N330	N331			L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
44	M44	N332	N333		90	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
45	M45	N334	N335		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
46	M46	N336	N337		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
47	M47	N338	N339		330	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
48	M48	N340	N341		240	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
49	M49	N342	N343		330	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
50	M50	N344	N345			L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
51	M51	N346	N347		90	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
52	M52	N348	N349		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
53	M53	N350	N351		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
54	M54	N352	N353		240	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
55	M55	N354	N355		120	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
56	M56	N356	N357		210	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
57	M57	N358	N359		120	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
58	M58	N360	N361		90	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
59	M59	N362	N363		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
60	M60	N364	N365		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
61	M61	N366	N367			RIGID	None	None	RIGID	Typical
62	M62	N368	N369			RIGID	None	None	RIGID	Typical
63	M63	N370	N371			RIGID	None	None	RIGID	Typical
64	M64	N372	N373			RIGID	None	None	RIGID	Typical
65	M65	N374	N375			RIGID	None	None	RIGID	Typical
66	M66	N376	N377			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
67	M67	N378	N379			RIGID	None	None	RIGID	Typical
68	M68	N380	N381			RIGID	None	None	RIGID	Typical
69	M69	N382	N383			RIGID	None	None	RIGID	Typical
70	M70	N384	N385			RIGID	None	None	RIGID	Typical
71	M71	N386	N387			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
72	M72	N388	N389			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
73	M73	N390	N391			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
74	M74	N392	N393			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
75	M75	N394	N395			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
76	M76	N396	N398			RIGID	None	None	RIGID	Typical
77	M77	N396	N397			RIGID	None	None	RIGID	Typical
78	M78	N397	N401			SR 1/2	Beam	RECT	A36 Gr.36	Typical
79	M79	N398	N399			SR 1/2	Beam	RECT	A36 Gr.36	Typical
80	M80	N400	N399			RIGID	None	None	RIGID	Typical
81	M81	N400	N401			RIGID	None	None	RIGID	Typical
82	M82	N402	N403			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
83	M83	N404	N406			RIGID	None	None	RIGID	Typical
84	M84	N404	N405			RIGID	None	None	RIGID	Typical
85	M85	N405	N409			SR 1/2	Beam	RECT	A36 Gr.36	Typical
86	M86	N406	N407			SR 1/2	Beam	RECT	A36 Gr.36	Typical
87	M87	N408	N407			RIGID	None	None	RIGID	Typical
88	M88	N408	N409			RIGID	None	None	RIGID	Typical
89	M89	N410	N412			RIGID	None	None	RIGID	Typical
90	M90	N410	N411			RIGID	None	None	RIGID	Typical
91	M91	N411	N415			SR 1/2	Beam	RECT	A36 Gr.36	Typical
92	M92	N412	N413			SR 1/2	Beam	RECT	A36 Gr.36	Typical
93	M93	N414	N413			RIGID	None	None	RIGID	Typical
94	M94	N414	N415			RIGID	None	None	RIGID	Typical
95	M95	N416	N417			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
96	M96	N418	N420			RIGID	None	None	RIGID	Typical
97	M97	N418	N419			RIGID	None	None	RIGID	Typical
98	M98	N419	N423			SR 1/2	Beam	RECT	A36 Gr.36	Typical
99	M99	N420	N421			SR 1/2	Beam	RECT	A36 Gr.36	Typical
100	M100	N422	N421			RIGID	None	None	RIGID	Typical
101	M101	N422	N423			RIGID	None	None	RIGID	Typical
102	M102	N424	N426			RIGID	None	None	RIGID	Typical
103	M103	N424	N425			RIGID	None	None	RIGID	Typical
104	M104	N425	N429			SR 1/2	Beam	RECT	A36 Gr.36	Typical
105	M105	N426	N427			SR 1/2	Beam	RECT	A36 Gr.36	Typical
106	M106	N428	N427			RIGID	None	None	RIGID	Typical
107	M107	N428	N429			RIGID	None	None	RIGID	Typical
108	M108	N430	N431			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
109	M109	N432	N434			RIGID	None	None	RIGID	Typical
110	M110	N432	N433			RIGID	None	None	RIGID	Typical
111	M111	N433	N437			SR 1/2	Beam	RECT	A36 Gr.36	Typical
112	M112	N434	N435			SR 1/2	Beam	RECT	A36 Gr.36	Typical
113	M113	N436	N435			RIGID	None	None	RIGID	Typical
114	M114	N436	N437			RIGID	None	None	RIGID	Typical
115	M115	N438	N439			RIGID	None	None	RIGID	Typical
116	M116	N440	N441			RIGID	None	None	RIGID	Typical
117	M117	N442	N443			RIGID	None	None	RIGID	Typical
118	M118	N444	N445			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
119	M119	N446	N447			RIGID	None	None	RIGID	Typical
120	M120	N448	N449			RIGID	None	None	RIGID	Typical
121	M121	N450	N451			RIGID	None	None	RIGID	Typical
122	M122	N452	N453			RIGID	None	None	RIGID	Typical
123	M123	N454	N455			RIGID	None	None	RIGID	Typical
124	M124	N456	N457			RIGID	None	None	RIGID	Typical
125	M125	N458	N459			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
126	M126	N460	N461			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
127	M127	N462	N463			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
128	M128	N464	N465			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
129	M129	N466	N467			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
130	M130	N468	N470			RIGID	None	None	RIGID	Typical
131	M131	N468	N469			RIGID	None	None	RIGID	Typical
132	M132	N469	N473			SR 1/2	Beam	RECT	A36 Gr.36	Typical
133	M133	N470	N471			SR 1/2	Beam	RECT	A36 Gr.36	Typical
134	M134	N472	N471			RIGID	None	None	RIGID	Typical
135	M135	N472	N473			RIGID	None	None	RIGID	Typical
136	M136	N474	N475			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
137	M137	N476	N478			RIGID	None	None	RIGID	Typical
138	M138	N476	N477			RIGID	None	None	RIGID	Typical
139	M139	N477	N481			SR 1/2	Beam	RECT	A36 Gr.36	Typical
140	M140	N478	N479			SR 1/2	Beam	RECT	A36 Gr.36	Typical
141	M141	N480	N479			RIGID	None	None	RIGID	Typical
142	M142	N480	N481			RIGID	None	None	RIGID	Typical
143	M143	N482	N484			RIGID	None	None	RIGID	Typical
144	M144	N482	N483			RIGID	None	None	RIGID	Typical
145	M145	N483	N487			SR 1/2	Beam	RECT	A36 Gr.36	Typical
146	M146	N484	N485			SR 1/2	Beam	RECT	A36 Gr.36	Typical
147	M147	N486	N485			RIGID	None	None	RIGID	Typical
148	M148	N486	N487			RIGID	None	None	RIGID	Typical
149	M149	N488	N489			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
150	M150	N490	N492			RIGID	None	None	RIGID	Typical
151	M151	N490	N491			RIGID	None	None	RIGID	Typical
152	M152	N491	N495			SR 1/2	Beam	RECT	A36 Gr.36	Typical
153	M153	N492	N493			SR 1/2	Beam	RECT	A36 Gr.36	Typical
154	M154	N494	N493			RIGID	None	None	RIGID	Typical
155	M155	N494	N495			RIGID	None	None	RIGID	Typical
156	M156	N496	N498			RIGID	None	None	RIGID	Typical
157	M157	N496	N497			RIGID	None	None	RIGID	Typical
158	M158	N497	N501			SR 1/2	Beam	RECT	A36 Gr.36	Typical
159	M159	N498	N499			SR 1/2	Beam	RECT	A36 Gr.36	Typical
160	M160	N500	N499			RIGID	None	None	RIGID	Typical
161	M161	N500	N501			RIGID	None	None	RIGID	Typical
162	M162	N502	N503			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
163	M163	N504	N506			RIGID	None	None	RIGID	Typical
164	M164	N504	N505			RIGID	None	None	RIGID	Typical
165	M165	N505	N509			SR 1/2	Beam	RECT	A36 Gr.36	Typical
166	M166	N506	N507			SR 1/2	Beam	RECT	A36 Gr.36	Typical
167	M167	N508	N507			RIGID	None	None	RIGID	Typical
168	M168	N508	N509			RIGID	None	None	RIGID	Typical
169	M169	N510	N511			RIGID	None	None	RIGID	Typical
170	M170	N512	N513			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
171	M171	N514	N515			RIGID	None	None	RIGID	Typical
172	M172	N516	N517			RIGID	None	None	RIGID	Typical
173	M173	N518	N519			RIGID	None	None	RIGID	Typical
174	M174	N520	N521			RIGID	None	None	RIGID	Typical
175	M175	N522	N523			RIGID	None	None	RIGID	Typical
176	M176	N524	N525			RIGID	None	None	RIGID	Typical
177	M177	N526	N527			RIGID	None	None	RIGID	Typical
178	M178	N528	N529			RIGID	None	None	RIGID	Typical
179	M179	N530	N531			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
180	M180	N532	N533			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
181	M181	N534	N535			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
182	M182	N536	N537			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
183	M183	N538	N539			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
184	M184	N540	N542			RIGID	None	None	RIGID	Typical
185	M185	N540	N541			RIGID	None	None	RIGID	Typical
186	M186	N541	N545			SR 1/2	Beam	RECT	A36 Gr.36	Typical
187	M187	N542	N543			SR 1/2	Beam	RECT	A36 Gr.36	Typical
188	M188	N544	N543			RIGID	None	None	RIGID	Typical
189	M189	N544	N545			RIGID	None	None	RIGID	Typical
190	M190	N546	N547			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
191	M191	N548	N550			RIGID	None	None	RIGID	Typical
192	M192	N548	N549			RIGID	None	None	RIGID	Typical
193	M193	N549	N553			SR 1/2	Beam	RECT	A36 Gr.36	Typical
194	M194	N550	N551			SR 1/2	Beam	RECT	A36 Gr.36	Typical
195	M195	N552	N551			RIGID	None	None	RIGID	Typical
196	M196	N552	N553			RIGID	None	None	RIGID	Typical
197	M197	N554	N556			RIGID	None	None	RIGID	Typical
198	M198	N554	N555			RIGID	None	None	RIGID	Typical
199	M199	N555	N559			SR 1/2	Beam	RECT	A36 Gr.36	Typical
200	M200	N556	N557			SR 1/2	Beam	RECT	A36 Gr.36	Typical
201	M201	N558	N557			RIGID	None	None	RIGID	Typical
202	M202	N558	N559			RIGID	None	None	RIGID	Typical
203	M203	N560	N561			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
204	M204	N562	N564			RIGID	None	None	RIGID	Typical
205	M205	N562	N563			RIGID	None	None	RIGID	Typical
206	M206	N563	N567			SR 1/2	Beam	RECT	A36 Gr.36	Typical
207	M207	N564	N565			SR 1/2	Beam	RECT	A36 Gr.36	Typical
208	M208	N566	N565			RIGID	None	None	RIGID	Typical
209	M209	N566	N567			RIGID	None	None	RIGID	Typical
210	M210	N568	N570			RIGID	None	None	RIGID	Typical
211	M211	N568	N569			RIGID	None	None	RIGID	Typical
212	M212	N569	N573			SR 1/2	Beam	RECT	A36 Gr.36	Typical
213	M213	N570	N571			SR 1/2	Beam	RECT	A36 Gr.36	Typical
214	M214	N572	N571			RIGID	None	None	RIGID	Typical
215	M215	N572	N573			RIGID	None	None	RIGID	Typical
216	M216	N574	N575			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
217	M217	N576	N578			RIGID	None	None	RIGID	Typical
218	M218	N576	N577			RIGID	None	None	RIGID	Typical
219	M219	N577	N581			SR 1/2	Beam	RECT	A36 Gr.36	Typical
220	M220	N578	N579			SR 1/2	Beam	RECT	A36 Gr.36	Typical
221	M221	N580	N579			RIGID	None	None	RIGID	Typical
222	M222	N580	N581			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M2						Yes				None
3	M3						Yes				None
4	M4						Yes				None
5	M5						Yes				None
6	M6						Yes				None
7	M7						Yes				None
8	M8						Yes				None
9	M9						Yes				None
10	M10						Yes				None
11	M11						Yes				None
12	M12						Yes				None
13	M13						Yes				None
14	M14						Yes	** NA **			None
15	M15						Yes	** NA **			None
16	M16						Yes				None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M19						Yes	** NA **			None
20	M20						Yes	** NA **			None
21	M21						Yes	** NA **			None
22	M22						Yes	** NA **			None
23	M23						Yes	** NA **			None
24	M24						Yes	** NA **			None
25	M25						Yes	** NA **			None
26	M26						Yes	** NA **			None
27	M27						Yes	** NA **			None
28	M28						Yes	** NA **			None
29	M29						Yes	** NA **			None
30	M30						Yes				None
31	M31						Yes	** NA **			None
32	M32						Yes	** NA **			None
33	M33						Yes				None
34	M34						Yes	** NA **			None
35	M35						Yes	** NA **			None
36	M36						Yes				None
37	M37						Yes				None
38	M38						Yes				None
39	M39						Yes				None
40	M40						Yes				None
41	M41						Yes				None
42	M42						Yes				None
43	M43						Yes				None
44	M44						Yes				None
45	M45						Yes				None
46	M46						Yes				None
47	M47						Yes				None
48	M48						Yes				None
49	M49						Yes				None
50	M50						Yes				None
51	M51						Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
52	M52						Yes				None
53	M53						Yes				None
54	M54						Yes				None
55	M55						Yes				None
56	M56						Yes				None
57	M57						Yes				None
58	M58						Yes				None
59	M59						Yes				None
60	M60						Yes				None
61	M61						Yes	** NA **			None
62	M62						Yes	** NA **			None
63	M63						Yes	** NA **			None
64	M64						Yes	** NA **			None
65	M65						Yes	** NA **			None
66	M66						Yes	** NA **			None
67	M67						Yes	** NA **			None
68	M68						Yes	** NA **			None
69	M69						Yes	** NA **			None
70	M70						Yes	** NA **			None
71	M71						Yes	** NA **			None
72	M72						Yes	** NA **			None
73	M73						Yes	** NA **			None
74	M74						Yes	** NA **			None
75	M75						Yes	** NA **			None
76	M76						Yes	** NA **			None
77	M77						Yes	** NA **			None
78	M78						Yes				None
79	M79						Yes				None
80	M80						Yes	** NA **			None
81	M81						Yes	** NA **			None
82	M82						Yes	** NA **			None
83	M83						Yes	** NA **			None
84	M84						Yes	** NA **			None
85	M85						Yes				None
86	M86						Yes				None
87	M87						Yes	** NA **			None
88	M88						Yes	** NA **			None
89	M89						Yes	** NA **			None
90	M90						Yes	** NA **			None
91	M91						Yes				None
92	M92						Yes				None
93	M93						Yes	** NA **			None
94	M94						Yes	** NA **			None
95	M95						Yes	** NA **			None
96	M96						Yes	** NA **			None
97	M97						Yes	** NA **			None
98	M98						Yes				None
99	M99						Yes				None
100	M100						Yes	** NA **			None
101	M101						Yes	** NA **			None
102	M102						Yes	** NA **			None
103	M103						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
104	M104						Yes				None
105	M105						Yes				None
106	M106						Yes	** NA **			None
107	M107						Yes	** NA **			None
108	M108						Yes	** NA **			None
109	M109						Yes	** NA **			None
110	M110						Yes	** NA **			None
111	M111						Yes				None
112	M112						Yes				None
113	M113						Yes	** NA **			None
114	M114						Yes	** NA **			None
115	M115						Yes	** NA **			None
116	M116						Yes	** NA **			None
117	M117						Yes	** NA **			None
118	M118						Yes	** NA **			None
119	M119						Yes	** NA **			None
120	M120						Yes	** NA **			None
121	M121						Yes	** NA **			None
122	M122						Yes	** NA **			None
123	M123						Yes	** NA **			None
124	M124						Yes	** NA **			None
125	M125						Yes	** NA **			None
126	M126						Yes	** NA **			None
127	M127						Yes	** NA **			None
128	M128						Yes	** NA **			None
129	M129						Yes	** NA **			None
130	M130						Yes	** NA **			None
131	M131						Yes	** NA **			None
132	M132						Yes				None
133	M133						Yes				None
134	M134						Yes	** NA **			None
135	M135						Yes	** NA **			None
136	M136						Yes	** NA **			None
137	M137						Yes	** NA **			None
138	M138						Yes	** NA **			None
139	M139						Yes				None
140	M140						Yes				None
141	M141						Yes	** NA **			None
142	M142						Yes	** NA **			None
143	M143						Yes	** NA **			None
144	M144						Yes	** NA **			None
145	M145						Yes				None
146	M146						Yes				None
147	M147						Yes	** NA **			None
148	M148						Yes	** NA **			None
149	M149						Yes	** NA **			None
150	M150						Yes	** NA **			None
151	M151						Yes	** NA **			None
152	M152						Yes				None
153	M153						Yes				None
154	M154						Yes	** NA **			None
155	M155						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
156	M156						Yes	** NA **			None
157	M157						Yes	** NA **			None
158	M158						Yes				None
159	M159						Yes				None
160	M160						Yes	** NA **			None
161	M161						Yes	** NA **			None
162	M162						Yes	** NA **			None
163	M163						Yes	** NA **			None
164	M164						Yes	** NA **			None
165	M165						Yes				None
166	M166						Yes				None
167	M167						Yes	** NA **			None
168	M168						Yes	** NA **			None
169	M169						Yes	** NA **			None
170	M170						Yes	** NA **			None
171	M171						Yes	** NA **			None
172	M172						Yes	** NA **			None
173	M173						Yes	** NA **			None
174	M174						Yes	** NA **			None
175	M175						Yes	** NA **			None
176	M176						Yes	** NA **			None
177	M177						Yes	** NA **			None
178	M178						Yes	** NA **			None
179	M179						Yes	** NA **			None
180	M180						Yes	** NA **			None
181	M181						Yes	** NA **			None
182	M182						Yes	** NA **			None
183	M183						Yes	** NA **			None
184	M184						Yes	** NA **			None
185	M185						Yes	** NA **			None
186	M186						Yes				None
187	M187						Yes				None
188	M188						Yes	** NA **			None
189	M189						Yes	** NA **			None
190	M190						Yes	** NA **			None
191	M191						Yes	** NA **			None
192	M192						Yes	** NA **			None
193	M193						Yes				None
194	M194						Yes				None
195	M195						Yes	** NA **			None
196	M196						Yes	** NA **			None
197	M197						Yes	** NA **			None
198	M198						Yes	** NA **			None
199	M199						Yes				None
200	M200						Yes				None
201	M201						Yes	** NA **			None
202	M202						Yes	** NA **			None
203	M203						Yes	** NA **			None
204	M204						Yes	** NA **			None
205	M205						Yes	** NA **			None
206	M206						Yes				None
207	M207						Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
208	M208						Yes	** NA **			None
209	M209						Yes	** NA **			None
210	M210						Yes	** NA **			None
211	M211						Yes	** NA **			None
212	M212						Yes				None
213	M213						Yes				None
214	M214						Yes	** NA **			None
215	M215						Yes	** NA **			None
216	M216						Yes	** NA **			None
217	M217						Yes	** NA **			None
218	M218						Yes	** NA **			None
219	M219						Yes				None
220	M220						Yes				None
221	M221						Yes	** NA **			None
222	M222						Yes	** NA **			None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
1	M1	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
2	M2	C 5X2X1/4	15			Lbyy			.65	.65		Lateral
3	M3	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
4	M4	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
5	M5	C 5X2X1/4	15			Lbyy			.65	.65		Lateral
6	M6	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
7	M7	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
8	M8	C 5X2X1/4	15			Lbyy			.65	.65		Lateral
9	M9	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
10	M10	C 5X2X1/4	57			Lbyy			.65	.65		Lateral
11	M11	C 5X2X1/4	57			Lbyy			.65	.65		Lateral
12	M12	C 5X2X1/4	57			Lbyy			.65	.65		Lateral
13	M13	C 5X2X1/4	27.5			Lbyy			.65	.65		Lateral
14	M16	C 5X2X1/4	20			Lbyy			.65	.65		Lateral
15	M30	HSS3X3X4	27.5			Lbyy						Lateral
16	M33	HSS3X3X4	27.5			Lbyy						Lateral
17	M36	HSS3X3X4	27.5			Lbyy						Lateral
18	M37	L3x3x4	138	107	52	Lbyy		107	.65	.813		Lateral
19	M38	L3x3x4	138	52	107	Lbyy		52	.65	.813		Lateral
20	M39	L3x3x4	138	107	52	Lbyy		107	.65	.813		Lateral
21	M40	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
22	M41	L 1.25X1.25...	37	18.5		Lbyy		18.5	.65	.65		Lateral
23	M42	L 1.25X1.25...	37		18.5	Lbyy			.65	.65		Lateral
24	M43	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
25	M44	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral
26	M45	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral
27	M46	L 1.25X1.25...	52			Lbyy			.65	.65		Lateral
28	M47	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
29	M48	L 1.25X1.25...	37	18.5		Lbyy		18.5	.65	.65		Lateral
30	M49	L 1.25X1.25...	37		18.5	Lbyy			.65	.65		Lateral
31	M50	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
32	M51	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
33	M52	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral
34	M53	L 1.25X1.25...	52			Lbyy			.65	.65		Lateral
35	M54	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
36	M55	L 1.25X1.25...	37	18.5		Lbyy		18.5	.65	.65		Lateral
37	M56	L 1.25X1.25...	37		18.5	Lbyy			.65	.65		Lateral
38	M57	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
39	M58	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral
40	M59	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral
41	M60	L 1.25X1.25...	52			Lbyy			.65	.65		Lateral
42	M71	2.4" O.D	80			Lbyy						Lateral
43	M72	2.4" O.D	80			Lbyy						Lateral
44	M73	2.4" O.D	80			Lbyy						Lateral
45	M74	2.4" O.D	80			Lbyy						Lateral
46	M75	2.4" O.D	80			Lbyy						Lateral
47	M78	SR 1/2	8			Lbyy						Lateral
48	M79	SR 1/2	8			Lbyy						Lateral
49	M82	2.4" O.D	36			Lbyy						Lateral
50	M85	SR 1/2	8			Lbyy						Lateral
51	M86	SR 1/2	8			Lbyy						Lateral
52	M91	SR 1/2	8			Lbyy						Lateral
53	M92	SR 1/2	8			Lbyy						Lateral
54	M95	2.4" O.D	36			Lbyy						Lateral
55	M98	SR 1/2	8			Lbyy						Lateral
56	M99	SR 1/2	8			Lbyy						Lateral
57	M104	SR 1/2	8			Lbyy						Lateral
58	M105	SR 1/2	8			Lbyy						Lateral
59	M108	2.4" O.D	36			Lbyy						Lateral
60	M111	SR 1/2	8			Lbyy						Lateral
61	M112	SR 1/2	8			Lbyy						Lateral
62	M125	2.4" O.D	80			Lbyy						Lateral
63	M126	2.4" O.D	80			Lbyy						Lateral
64	M127	2.4" O.D	80			Lbyy						Lateral
65	M128	2.4" O.D	80			Lbyy						Lateral
66	M129	2.4" O.D	80			Lbyy						Lateral
67	M132	SR 1/2	8			Lbyy						Lateral
68	M133	SR 1/2	8			Lbyy						Lateral
69	M136	2.4" O.D	36			Lbyy						Lateral
70	M139	SR 1/2	8			Lbyy						Lateral
71	M140	SR 1/2	8			Lbyy						Lateral
72	M145	SR 1/2	8			Lbyy						Lateral
73	M146	SR 1/2	8			Lbyy						Lateral
74	M149	2.4" O.D	36			Lbyy						Lateral
75	M152	SR 1/2	8			Lbyy						Lateral
76	M153	SR 1/2	8			Lbyy						Lateral
77	M158	SR 1/2	8			Lbyy						Lateral
78	M159	SR 1/2	8			Lbyy						Lateral
79	M162	2.4" O.D	36			Lbyy						Lateral
80	M165	SR 1/2	8			Lbyy						Lateral
81	M166	SR 1/2	8			Lbyy						Lateral
82	M179	2.4" O.D	80			Lbyy						Lateral
83	M180	2.4" O.D	80			Lbyy						Lateral
84	M181	2.4" O.D	80			Lbyy						Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
85	M182	2.4" O.D	80			Lbyy						Lateral
86	M183	2.4" O.D	80			Lbyy						Lateral
87	M186	SR 1/2	8			Lbyy						Lateral
88	M187	SR 1/2	8			Lbyy						Lateral
89	M190	2.4" O.D	36			Lbyy						Lateral
90	M193	SR 1/2	8			Lbyy						Lateral
91	M194	SR 1/2	8			Lbyy						Lateral
92	M199	SR 1/2	8			Lbyy						Lateral
93	M200	SR 1/2	8			Lbyy						Lateral
94	M203	2.4" O.D	36			Lbyy						Lateral
95	M206	SR 1/2	8			Lbyy						Lateral
96	M207	SR 1/2	8			Lbyy						Lateral
97	M212	SR 1/2	8			Lbyy						Lateral
98	M213	SR 1/2	8			Lbyy						Lateral
99	M216	2.4" O.D	36			Lbyy						Lateral
100	M219	SR 1/2	8			Lbyy						Lateral
101	M220	SR 1/2	8			Lbyy						Lateral

Cold Formed Steel Design Parameters

Label	Shape	Lengt...	Lbyy[in]	Lbzz[in]	Lcomp t...	Lcomp ...	L-torque...	Kyy	Kzz	Cm-...	Cm-...	Cb	R	a[in]	y sw...	z sw...
No Data to Print ...																

Joint Loads and Enforced Displacements (BLC 16 : Lm1)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-in), (in,rad), (lb*s^...
1	N367	L	Z	-500

Joint Loads and Enforced Displacements (BLC 17 : Lm2)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-in), (in,rad), (lb*s^...
1	N369	L	Z	-500

Joint Loads and Enforced Displacements (BLC 20 : Lv1)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-in), (in,rad), (lb*s^...
1	N320	L	Z	-250

Joint Loads and Enforced Displacements (BLC 21 : Lv2)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-in), (in,rad), (lb*s^...
1	N384	L	Z	-250

Member Point Loads (BLC 2 : Weights)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	Z	-10	22.3
2	M71	Z	-10	57.7
3	M73	Z	-63.41	9.64
4	M73	Z	-63.41	70.36
5	M75	Z	-10	22.3
6	M75	Z	-10	57.7

Member Point Loads (BLC 2 : Weights) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
7	M179	Z	-6	22.4
8	M179	Z	-6	57.6
9	M181	Z	-63.41	9.64
10	M181	Z	-63.41	70.36
11	M183	Z	-6	22.4
12	M183	Z	-6	57.6
13	M125	Z	-6	22.4
14	M125	Z	-6	57.6
15	M127	Z	-63.41	9.64
16	M127	Z	-63.41	70.36
17	M129	Z	-6	22.4
18	M129	Z	-6	57.6
19	M82	Z	-70.3	18
20	M95	Z	-84.4	18
21	M190	Z	-70.3	18
22	M203	Z	-84.4	18
23	M136	Z	-70.3	18
24	M149	Z	-84.4	18

Member Point Loads (BLC 3 : ICE Load)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	Z	-123	22.3
2	M71	Z	-123	57.7
3	M73	Z	-227.58	9.64
4	M73	Z	-227.58	70.36
5	M75	Z	-123	22.3
6	M75	Z	-123	57.7
7	M179	Z	-90.63	22.4
8	M179	Z	-90.63	57.6
9	M181	Z	-227.58	9.64
10	M181	Z	-227.58	70.36
11	M183	Z	-90.63	22.4
12	M183	Z	-90.63	57.6
13	M125	Z	-90.63	22.4
14	M125	Z	-90.63	57.6
15	M127	Z	-227.58	9.64
16	M127	Z	-227.58	70.36
17	M129	Z	-90.63	22.4
18	M129	Z	-90.63	57.6
19	M82	Z	-67.15	18
20	M95	Z	-70.56	18
21	M190	Z	-67.15	18
22	M203	Z	-70.56	18
23	M136	Z	-67.15	18
24	M149	Z	-70.56	18

Member Point Loads (BLC 4 : Wind 0Á)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-123.65	22.3
2	M71	X	-123.65	57.7
3	M73	X	-295.24	9.64

Member Point Loads (BLC 4 : Wind 0Á) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
4	M73	X	-295.24	70.36
5	M75	X	-123.65	22.3
6	M75	X	-123.65	57.7
7	M179	X	-94.7	22.4
8	M179	X	-94.7	57.6
9	M181	X	-155.46	9.64
10	M181	X	-155.46	70.36
11	M183	X	-94.7	22.4
12	M183	X	-94.7	57.6
13	M125	X	-94.7	22.4
14	M125	X	-94.7	57.6
15	M127	X	-155.46	9.64
16	M127	X	-155.46	70.36
17	M129	X	-94.7	22.4
18	M129	X	-94.7	57.6
19	M82	X	-40.77	18
20	M95	X	-50.33	18
21	M190	X	-66.82	18
22	M203	X	-69.21	18
23	M136	X	-66.82	18
24	M149	X	-69.21	18

Member Point Loads (BLC 5 : Wind 30Á)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-103.94	22.3
2	M71	X	-103.94	57.7
3	M73	X	-215.33	9.64
4	M73	X	-215.33	70.36
5	M75	X	-103.94	22.3
6	M75	X	-103.94	57.7
7	M179	X	-57.78	22.4
8	M179	X	-57.78	57.6
9	M181	X	-215.33	9.64
10	M181	X	-215.33	70.36
11	M183	X	-57.78	22.4
12	M183	X	-57.78	57.6
13	M125	X	-94.13	22.4
14	M125	X	-94.13	57.6
15	M127	X	-94.28	9.64
16	M127	X	-94.28	70.36
17	M129	X	-94.13	22.4
18	M129	X	-94.13	57.6
19	M82	X	-42.83	18
20	M95	X	-49.04	18
21	M190	X	-42.83	18
22	M203	X	-49.04	18
23	M136	X	-65.38	18
24	M149	X	-65.38	18
25	M71	Y	-60.01	22.3
26	M71	Y	-60.01	57.7
27	M73	Y	-124.32	9.64

Member Point Loads (BLC 5 : Wind 30Á) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
28	M73	Y	-124.32	70.36
29	M75	Y	-60.01	22.3
30	M75	Y	-60.01	57.7
31	M179	Y	-33.36	22.4
32	M179	Y	-33.36	57.6
33	M181	Y	-124.32	9.64
34	M181	Y	-124.32	70.36
35	M183	Y	-33.36	22.4
36	M183	Y	-33.36	57.6
37	M125	Y	-54.35	22.4
38	M125	Y	-54.35	57.6
39	M127	Y	-54.43	9.64
40	M127	Y	-54.43	70.36
41	M129	Y	-54.35	22.4
42	M129	Y	-54.35	57.6
43	M82	Y	-24.73	18
44	M95	Y	-28.31	18
45	M190	Y	-24.73	18
46	M203	Y	-28.31	18
47	M136	Y	-37.75	18
48	M149	Y	-37.75	18

Member Point Loads (BLC 6 : Wind 60Á)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-56.38	22.3
2	M71	X	-56.38	57.7
3	M73	X	-77.73	9.64
4	M73	X	-77.73	70.36
5	M75	X	-56.38	22.3
6	M75	X	-56.38	57.7
7	M179	X	-26.36	22.4
8	M179	X	-26.36	57.6
9	M181	X	-147.62	9.64
10	M181	X	-147.62	70.36
11	M183	X	-26.36	22.4
12	M183	X	-26.36	57.6
13	M125	X	-47.35	22.4
14	M125	X	-47.35	57.6
15	M127	X	-77.73	9.64
16	M127	X	-77.73	70.36
17	M129	X	-47.35	22.4
18	M129	X	-47.35	57.6
19	M82	X	-33.41	18
20	M95	X	-34.6	18
21	M190	X	-20.38	18
22	M203	X	-25.17	18
23	M136	X	-33.41	18
24	M149	X	-34.6	18
25	M71	Y	-97.66	22.3
26	M71	Y	-97.66	57.7
27	M73	Y	-134.63	9.64

Member Point Loads (BLC 6 : Wind 60Á) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
28	M73	Y	-134.63	70.36
29	M75	Y	-97.66	22.3
30	M75	Y	-97.66	57.7
31	M179	Y	-45.66	22.4
32	M179	Y	-45.66	57.6
33	M181	Y	-255.69	9.64
34	M181	Y	-255.69	70.36
35	M183	Y	-45.66	22.4
36	M183	Y	-45.66	57.6
37	M125	Y	-82.02	22.4
38	M125	Y	-82.02	57.6
39	M127	Y	-134.63	9.64
40	M127	Y	-134.63	70.36
41	M129	Y	-82.02	22.4
42	M129	Y	-82.02	57.6
43	M82	Y	-57.86	18
44	M95	Y	-59.94	18
45	M190	Y	-35.31	18
46	M203	Y	-43.59	18
47	M136	Y	-57.86	18
48	M149	Y	-59.94	18

Member Point Loads (BLC 7 : Wind 90Á)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	Y	-109.14	22.3
2	M71	Y	-109.14	57.7
3	M73	Y	-108.86	9.64
4	M73	Y	-108.86	70.36
5	M75	Y	-109.14	22.3
6	M75	Y	-109.14	57.7
7	M179	Y	-66.72	22.4
8	M179	Y	-66.72	57.6
9	M181	Y	-248.65	9.64
10	M181	Y	-248.65	70.36
11	M183	Y	-66.72	22.4
12	M183	Y	-66.72	57.6
13	M125	Y	-66.72	22.4
14	M125	Y	-66.72	57.6
15	M127	Y	-248.65	9.64
16	M127	Y	-248.65	70.36
17	M129	Y	-66.72	22.4
18	M129	Y	-66.72	57.6
19	M82	Y	-75.5	18
20	M95	Y	-75.5	18
21	M190	Y	-49.45	18
22	M203	Y	-56.62	18
23	M136	Y	-49.45	18
24	M149	Y	-56.62	18

Member Point Loads (BLC 8 : Wind 120Á)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]

Member Point Loads (BLC 8 : Wind 120Á) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	56.38	22.3
2	M71	X	56.38	57.7
3	M73	X	77.73	9.64
4	M73	X	77.73	70.36
5	M75	X	56.38	22.3
6	M75	X	56.38	57.7
7	M179	X	47.35	22.4
8	M179	X	47.35	57.6
9	M181	X	77.73	9.64
10	M181	X	77.73	70.36
11	M183	X	47.35	22.4
12	M183	X	47.35	57.6
13	M125	X	26.36	22.4
14	M125	X	26.36	57.6
15	M127	X	147.62	9.64
16	M127	X	147.62	70.36
17	M129	X	26.36	22.4
18	M129	X	26.36	57.6
19	M82	X	33.41	18
20	M95	X	34.6	18
21	M190	X	33.41	18
22	M203	X	34.6	18
23	M136	X	20.38	18
24	M149	X	25.17	18
25	M71	Y	-97.66	22.3
26	M71	Y	-97.66	57.7
27	M73	Y	-134.63	9.64
28	M73	Y	-134.63	70.36
29	M75	Y	-97.66	22.3
30	M75	Y	-97.66	57.7
31	M179	Y	-82.02	22.4
32	M179	Y	-82.02	57.6
33	M181	Y	-134.63	9.64
34	M181	Y	-134.63	70.36
35	M183	Y	-82.02	22.4
36	M183	Y	-82.02	57.6
37	M125	Y	-45.66	22.4
38	M125	Y	-45.66	57.6
39	M127	Y	-255.69	9.64
40	M127	Y	-255.69	70.36
41	M129	Y	-45.66	22.4
42	M129	Y	-45.66	57.6
43	M82	Y	-57.86	18
44	M95	Y	-59.94	18
45	M190	Y	-57.86	18
46	M203	Y	-59.94	18
47	M136	Y	-35.31	18
48	M149	Y	-43.59	18

Member Point Loads (BLC 9 : Wind 150Á)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]

Member Point Loads (BLC 9 : Wind 150Á) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	103.94	22.3
2	M71	X	103.94	57.7
3	M73	X	215.33	9.64
4	M73	X	215.33	70.36
5	M75	X	103.94	22.3
6	M75	X	103.94	57.7
7	M179	X	94.13	22.4
8	M179	X	94.13	57.6
9	M181	X	94.28	9.64
10	M181	X	94.28	70.36
11	M183	X	94.13	22.4
12	M183	X	94.13	57.6
13	M125	X	57.78	22.4
14	M125	X	57.78	57.6
15	M127	X	215.33	9.64
16	M127	X	215.33	70.36
17	M129	X	57.78	22.4
18	M129	X	57.78	57.6
19	M82	X	42.83	18
20	M95	X	49.04	18
21	M190	X	65.38	18
22	M203	X	65.38	18
23	M136	X	42.83	18
24	M149	X	49.04	18
25	M71	Y	-60.01	22.3
26	M71	Y	-60.01	57.7
27	M73	Y	-124.32	9.64
28	M73	Y	-124.32	70.36
29	M75	Y	-60.01	22.3
30	M75	Y	-60.01	57.7
31	M179	Y	-54.35	22.4
32	M179	Y	-54.35	57.6
33	M181	Y	-54.43	9.64
34	M181	Y	-54.43	70.36
35	M183	Y	-54.35	22.4
36	M183	Y	-54.35	57.6
37	M125	Y	-33.36	22.4
38	M125	Y	-33.36	57.6
39	M127	Y	-124.32	9.64
40	M127	Y	-124.32	70.36
41	M129	Y	-33.36	22.4
42	M129	Y	-33.36	57.6
43	M82	Y	-24.73	18
44	M95	Y	-28.31	18
45	M190	Y	-37.75	18
46	M203	Y	-37.75	18
47	M136	Y	-24.73	18
48	M149	Y	-28.31	18

Member Point Loads (BLC 10 : Wind 0Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]

Member Point Loads (BLC 10 : Wind 0Áwith ice) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-30.54	22.3
2	M71	X	-30.54	57.7
3	M73	X	-65.22	9.64
4	M73	X	-65.22	70.36
5	M75	X	-30.54	22.3
6	M75	X	-30.54	57.7
7	M179	X	-24.95	22.4
8	M179	X	-24.95	57.6
9	M181	X	-39.37	9.64
10	M181	X	-39.37	70.36
11	M183	X	-24.95	22.4
12	M183	X	-24.95	57.6
13	M125	X	-24.95	22.4
14	M125	X	-24.95	57.6
15	M127	X	-39.37	9.64
16	M127	X	-39.37	70.36
17	M129	X	-24.95	22.4
18	M129	X	-24.95	57.6
19	M82	X	-14.65	18
20	M95	X	-16.85	18
21	M190	X	-20.65	18
22	M203	X	-21.2	18
23	M136	X	-20.65	18
24	M149	X	-21.2	18

Member Point Loads (BLC 11 : Wind 30Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-25.84	22.3
2	M71	X	-25.84	57.7
3	M73	X	-49.02	9.64
4	M73	X	-49.02	70.36
5	M75	X	-25.84	22.3
6	M75	X	-25.84	57.7
7	M179	X	-16.97	22.4
8	M179	X	-16.97	57.6
9	M181	X	-49.02	9.64
10	M181	X	-49.02	70.36
11	M183	X	-16.97	22.4
12	M183	X	-16.97	57.6
13	M125	X	-23.93	22.4
14	M125	X	-23.93	57.6
15	M127	X	-26.63	9.64
16	M127	X	-26.63	70.36
17	M129	X	-23.93	22.4
18	M129	X	-23.93	57.6
19	M82	X	-14.42	18
20	M95	X	-15.85	18
21	M190	X	-14.42	18
22	M203	X	-15.85	18
23	M136	X	-19.61	18
24	M149	X	-19.61	18

Member Point Loads (BLC 11 : Wind 30Áwith ice) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
25	M71	Y	-14.92	22.3
26	M71	Y	-14.92	57.7
27	M73	Y	-28.3	9.64
28	M73	Y	-28.3	70.36
29	M75	Y	-14.92	22.3
30	M75	Y	-14.92	57.7
31	M179	Y	-9.8	22.4
32	M179	Y	-9.8	57.6
33	M181	Y	-28.3	9.64
34	M181	Y	-28.3	70.36
35	M183	Y	-9.8	22.4
36	M183	Y	-9.8	57.6
37	M125	Y	-13.81	22.4
38	M125	Y	-13.81	57.6
39	M127	Y	-15.37	9.64
40	M127	Y	-15.37	70.36
41	M129	Y	-13.81	22.4
42	M129	Y	-13.81	57.6
43	M82	Y	-8.33	18
44	M95	Y	-9.15	18
45	M190	Y	-8.33	18
46	M203	Y	-9.15	18
47	M136	Y	-11.32	18
48	M149	Y	-11.32	18

Member Point Loads (BLC 12 : Wind 60Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-14.22	22.3
2	M71	X	-14.22	57.7
3	M73	X	-19.68	9.64
4	M73	X	-19.68	70.36
5	M75	X	-14.22	22.3
6	M75	X	-14.22	57.7
7	M179	X	-8.46	22.4
8	M179	X	-8.46	57.6
9	M181	X	-32.61	9.64
10	M181	X	-32.61	70.36
11	M183	X	-8.46	22.4
12	M183	X	-8.46	57.6
13	M125	X	-12.48	22.4
14	M125	X	-12.48	57.6
15	M127	X	-19.68	9.64
16	M127	X	-19.68	70.36
17	M129	X	-12.48	22.4
18	M129	X	-12.48	57.6
19	M82	X	-10.32	18
20	M95	X	-10.6	18
21	M190	X	-7.33	18
22	M203	X	-8.43	18
23	M136	X	-10.32	18
24	M149	X	-10.6	18

Member Point Loads (BLC 12 : Wind 60Áwith ice) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
25	M71	Y	-24.62	22.3
26	M71	Y	-24.62	57.7
27	M73	Y	-34.09	9.64
28	M73	Y	-34.09	70.36
29	M75	Y	-24.62	22.3
30	M75	Y	-24.62	57.7
31	M179	Y	-14.65	22.4
32	M179	Y	-14.65	57.6
33	M181	Y	-56.48	9.64
34	M181	Y	-56.48	70.36
35	M183	Y	-14.65	22.4
36	M183	Y	-14.65	57.6
37	M125	Y	-21.61	22.4
38	M125	Y	-21.61	57.6
39	M127	Y	-34.09	9.64
40	M127	Y	-34.09	70.36
41	M129	Y	-21.61	22.4
42	M129	Y	-21.61	57.6
43	M82	Y	-17.88	18
44	M95	Y	-18.36	18
45	M190	Y	-12.69	18
46	M203	Y	-14.6	18
47	M136	Y	-17.88	18
48	M149	Y	-18.36	18

Member Point Loads (BLC 13 : Wind 90Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	Y	-27.73	22.3
2	M71	Y	-27.73	57.7
3	M73	Y	-30.75	9.64
4	M73	Y	-30.75	70.36
5	M75	Y	-27.73	22.3
6	M75	Y	-27.73	57.7
7	M179	Y	-19.6	22.4
8	M179	Y	-19.6	57.6
9	M181	Y	-56.6	9.64
10	M181	Y	-56.6	70.36
11	M183	Y	-19.6	22.4
12	M183	Y	-19.6	57.6
13	M125	Y	-19.6	22.4
14	M125	Y	-19.6	57.6
15	M127	Y	-56.6	9.64
16	M127	Y	-56.6	70.36
17	M129	Y	-19.6	22.4
18	M129	Y	-19.6	57.6
19	M82	Y	-22.64	18
20	M95	Y	-22.64	18
21	M190	Y	-16.65	18
22	M203	Y	-18.3	18
23	M136	Y	-16.65	18
24	M149	Y	-18.3	18

Member Point Loads (BLC 14 : Wind 120Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	14.22	22.3
2	M71	X	14.22	57.7
3	M73	X	19.68	9.64
4	M73	X	19.68	70.36
5	M75	X	14.22	22.3
6	M75	X	14.22	57.7
7	M179	X	12.48	22.4
8	M179	X	12.48	57.6
9	M181	X	19.68	9.64
10	M181	X	19.68	70.36
11	M183	X	12.48	22.4
12	M183	X	12.48	57.6
13	M125	X	8.46	22.4
14	M125	X	8.46	57.6
15	M127	X	32.61	9.64
16	M127	X	32.61	70.36
17	M129	X	8.46	22.4
18	M129	X	8.46	57.6
19	M82	X	10.32	18
20	M95	X	10.6	18
21	M190	X	10.32	18
22	M203	X	10.6	18
23	M136	X	7.33	18
24	M149	X	8.43	18
25	M71	Y	-24.62	22.3
26	M71	Y	-24.62	57.7
27	M73	Y	-34.09	9.64
28	M73	Y	-34.09	70.36
29	M75	Y	-24.62	22.3
30	M75	Y	-24.62	57.7
31	M179	Y	-21.61	22.4
32	M179	Y	-21.61	57.6
33	M181	Y	-34.09	9.64
34	M181	Y	-34.09	70.36
35	M183	Y	-21.61	22.4
36	M183	Y	-21.61	57.6
37	M125	Y	-14.65	22.4
38	M125	Y	-14.65	57.6
39	M127	Y	-56.48	9.64
40	M127	Y	-56.48	70.36
41	M129	Y	-14.65	22.4
42	M129	Y	-14.65	57.6
43	M82	Y	-17.88	18
44	M95	Y	-18.36	18
45	M190	Y	-17.88	18
46	M203	Y	-18.36	18
47	M136	Y	-12.69	18
48	M149	Y	-14.6	18

Member Point Loads (BLC 15 : Wind 150Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]

Member Point Loads (BLC 15 : Wind 150Áwith ice) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	25.84	22.3
2	M71	X	25.84	57.7
3	M73	X	49.02	9.64
4	M73	X	49.02	70.36
5	M75	X	25.84	22.3
6	M75	X	25.84	57.7
7	M179	X	23.93	22.4
8	M179	X	23.93	57.6
9	M181	X	26.63	9.64
10	M181	X	26.63	70.36
11	M183	X	23.93	22.4
12	M183	X	23.93	57.6
13	M125	X	16.97	22.4
14	M125	X	16.97	57.6
15	M127	X	49.02	9.64
16	M127	X	49.02	70.36
17	M129	X	16.97	22.4
18	M129	X	16.97	57.6
19	M82	X	14.42	18
20	M95	X	15.85	18
21	M190	X	19.61	18
22	M203	X	19.61	18
23	M136	X	14.42	18
24	M149	X	15.85	18
25	M71	Y	-14.92	22.3
26	M71	Y	-14.92	57.7
27	M73	Y	-28.3	9.64
28	M73	Y	-28.3	70.36
29	M75	Y	-14.92	22.3
30	M75	Y	-14.92	57.7
31	M179	Y	-13.81	22.4
32	M179	Y	-13.81	57.6
33	M181	Y	-15.37	9.64
34	M181	Y	-15.37	70.36
35	M183	Y	-13.81	22.4
36	M183	Y	-13.81	57.6
37	M125	Y	-9.8	22.4
38	M125	Y	-9.8	57.6
39	M127	Y	-28.3	9.64
40	M127	Y	-28.3	70.36
41	M129	Y	-9.8	22.4
42	M129	Y	-9.8	57.6
43	M82	Y	-8.33	18
44	M95	Y	-9.15	18
45	M190	Y	-11.32	18
46	M203	Y	-11.32	18
47	M136	Y	-8.33	18
48	M149	Y	-9.15	18

Member Point Loads (BLC 22 : Horizontal Seismic Load X)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]

Member Point Loads (BLC 22 : Horizontal Seismic Load X) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-10	22.3
2	M71	X	-10	57.7
3	M73	X	-63.41	9.64
4	M73	X	-63.41	70.36
5	M75	X	-10	22.3
6	M75	X	-10	57.7
7	M179	X	-6	22.4
8	M179	X	-6	57.6
9	M181	X	-63.41	9.64
10	M181	X	-63.41	70.36
11	M183	X	-6	22.4
12	M183	X	-6	57.6
13	M125	X	-6	22.4
14	M125	X	-6	57.6
15	M127	X	-63.41	9.64
16	M127	X	-63.41	70.36
17	M129	X	-6	22.4
18	M129	X	-6	57.6
19	M82	X	-70.3	18
20	M95	X	-84.4	18
21	M190	X	-70.3	18
22	M203	X	-84.4	18
23	M136	X	-70.3	18
24	M149	X	-84.4	18

Member Point Loads (BLC 23 : Horizontal Seismic Load Y)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	Y	-10	22.3
2	M71	Y	-10	57.7
3	M73	Y	-63.41	9.64
4	M73	Y	-63.41	70.36
5	M75	Y	-10	22.3
6	M75	Y	-10	57.7
7	M179	Y	-6	22.4
8	M179	Y	-6	57.6
9	M181	Y	-63.41	9.64
10	M181	Y	-63.41	70.36
11	M183	Y	-6	22.4
12	M183	Y	-6	57.6
13	M125	Y	-6	22.4
14	M125	Y	-6	57.6
15	M127	Y	-63.41	9.64
16	M127	Y	-63.41	70.36
17	M129	Y	-6	22.4
18	M129	Y	-6	57.6
19	M82	Y	-70.3	18
20	M95	Y	-84.4	18
21	M190	Y	-70.3	18
22	M203	Y	-84.4	18
23	M136	Y	-70.3	18
24	M149	Y	-84.4	18

Member Distributed Loads (BLC 3 : ICE Load)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	Z	-1.51	-1.51	0	0
2	M1	Z	-1.77	-1.77	0	0
3	M2	Z	-1.77	-1.77	0	0
4	M3	Z	-1.77	-1.77	0	0
5	M10	Z	-1.77	-1.77	0	0
6	M13	Z	-1.77	-1.77	0	0
7	M30	Z	-1.51	-1.51	0	0
8	M16	Z	-1.51	-1.51	0	0
9	M40	Z	-.94	-.94	0	0
10	M41	Z	-.94	-.94	0	0
11	M42	Z	-.94	-.94	0	0
12	M43	Z	-.94	-.94	0	0
13	M46	Z	-.94	-.94	0	0
14	M44	Z	-.94	-.94	0	0
15	M45	Z	-.94	-.94	0	0
16	M71	Z	-1.08	-1.08	0	0
17	M72	Z	-1.08	-1.08	0	0
18	M73	Z	-1.08	-1.08	0	0
19	M74	Z	-1.08	-1.08	0	0
20	M75	Z	-1.08	-1.08	0	0
21	M82	Z	-1.08	-1.08	0	0
22	M95	Z	-1.08	-1.08	0	0
23	M108	Z	-1.08	-1.08	0	0
24	M39	Z	-1.51	-1.51	0	0
25	M4	Z	-1.77	-1.77	0	0
26	M5	Z	-1.77	-1.77	0	0
27	M6	Z	-1.77	-1.77	0	0
28	M12	Z	-1.77	-1.77	0	0
29	M36	Z	-1.51	-1.51	0	0
30	M57	Z	-.94	-.94	0	0
31	M56	Z	-.94	-.94	0	0
32	M55	Z	-.94	-.94	0	0
33	M54	Z	-.94	-.94	0	0
34	M60	Z	-.94	-.94	0	0
35	M58	Z	-.94	-.94	0	0
36	M59	Z	-.94	-.94	0	0
37	M179	Z	-1.08	-1.08	0	0
38	M180	Z	-1.08	-1.08	0	0
39	M181	Z	-1.08	-1.08	0	0
40	M182	Z	-1.08	-1.08	0	0
41	M183	Z	-1.08	-1.08	0	0
42	M190	Z	-1.08	-1.08	0	0
43	M203	Z	-1.08	-1.08	0	0
44	M216	Z	-1.08	-1.08	0	0
45	M38	Z	-1.51	-1.51	0	0
46	M7	Z	-1.77	-1.77	0	0
47	M8	Z	-1.77	-1.77	0	0
48	M9	Z	-1.77	-1.77	0	0
49	M11	Z	-1.77	-1.77	0	0
50	M33	Z	-1.51	-1.51	0	0
51	M47	Z	-.94	-.94	0	0

Member Distributed Loads (BLC 3 : ICE Load) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
52	M48	Z	-.94	-.94	0	0
53	M49	Z	-.94	-.94	0	0
54	M50	Z	-.94	-.94	0	0
55	M53	Z	-.94	-.94	0	0
56	M51	Z	-.94	-.94	0	0
57	M52	Z	-.94	-.94	0	0
58	M125	Z	-1.08	-1.08	0	0
59	M126	Z	-1.08	-1.08	0	0
60	M127	Z	-1.08	-1.08	0	0
61	M128	Z	-1.08	-1.08	0	0
62	M129	Z	-1.08	-1.08	0	0
63	M136	Z	-1.08	-1.08	0	0
64	M149	Z	-1.08	-1.08	0	0
65	M162	Z	-1.08	-1.08	0	0

Member Distributed Loads (BLC 4 : Wind 0Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-1.68	-1.68	0	0
2	M1	X	-2.2	-2.2	0	0
3	M2	X	-1.71	-1.71	0	0
4	M3	X	-2.2	-2.2	0	0
5	M10	X	-2.16	-2.16	0	0
6	M13	X	-1.86	-1.86	0	0
7	M30	X	0	0	0	0
8	M16	X	0	0	0	0
9	M40	X	-.7	-.7	0	0
10	M41	X	-.7	-.7	0	0
11	M42	X	-.7	-.7	0	0
12	M43	X	-.7	-.7	0	0
13	M46	X	-.7	-.7	0	0
14	M44	X	-.7	-.7	0	0
15	M45	X	-.7	-.7	0	0
16	M71	X	-.81	-.81	0	0
17	M72	X	-.81	-.81	0	0
18	M73	X	-.81	-.81	0	0
19	M74	X	-.81	-.81	0	0
20	M75	X	-.81	-.81	0	0
21	M82	X	-.65	-.65	0	0
22	M95	X	-.65	-.65	0	0
23	M108	X	-.65	-.65	0	0
24	M39	X	-.42	-.42	0	0
25	M4	X	-.55	-.55	0	0
26	M5	X	-.43	-.43	0	0
27	M6	X	-.55	-.55	0	0
28	M12	X	-.54	-.54	0	0
29	M36	X	-.93	-.93	0	0
30	M57	X	-.7	-.7	0	0
31	M56	X	-.7	-.7	0	0
32	M55	X	-.7	-.7	0	0
33	M54	X	-.7	-.7	0	0
34	M60	X	-.17	-.17	0	0

Member Distributed Loads (BLC 4 : Wind 0Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
35	M58	X	-.7	-.7	0	0
36	M59	X	-.7	-.7	0	0
37	M179	X	-.81	-.81	0	0
38	M180	X	-.81	-.81	0	0
39	M181	X	-.81	-.81	0	0
40	M182	X	-.81	-.81	0	0
41	M183	X	-.81	-.81	0	0
42	M190	X	-.65	-.65	0	0
43	M203	X	-.65	-.65	0	0
44	M216	X	-.65	-.65	0	0
45	M38	X	-.42	-.42	0	0
46	M7	X	-.55	-.55	0	0
47	M8	X	-.43	-.43	0	0
48	M9	X	-.55	-.55	0	0
49	M11	X	-.54	-.54	0	0
50	M33	X	-.93	-.93	0	0
51	M47	X	-.7	-.7	0	0
52	M48	X	-.7	-.7	0	0
53	M49	X	-.7	-.7	0	0
54	M50	X	-.7	-.7	0	0
55	M53	X	-.17	-.17	0	0
56	M51	X	-.7	-.7	0	0
57	M52	X	-.7	-.7	0	0
58	M125	X	-.81	-.81	0	0
59	M126	X	-.81	-.81	0	0
60	M127	X	-.81	-.81	0	0
61	M128	X	-.81	-.81	0	0
62	M129	X	-.81	-.81	0	0
63	M136	X	-.65	-.65	0	0
64	M149	X	-.65	-.65	0	0
65	M162	X	-.65	-.65	0	0

Member Distributed Loads (BLC 5 : Wind 30Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-1.09	-1.09	0	0
2	M1	X	-1.43	-1.43	0	0
3	M2	X	-1.11	-1.11	0	0
4	M3	X	-1.43	-1.43	0	0
5	M10	X	-1.4	-1.4	0	0
6	M13	X	-1.21	-1.21	0	0
7	M30	X	-.27	-.27	0	0
8	M16	X	-.25	-.25	0	0
9	M40	X	-.61	-.61	0	0
10	M41	X	-.61	-.61	0	0
11	M42	X	-.61	-.61	0	0
12	M43	X	-.61	-.61	0	0
13	M46	X	-.45	-.45	0	0
14	M44	X	-.61	-.61	0	0
15	M45	X	-.61	-.61	0	0
16	M71	X	-.7	-.7	0	0
17	M72	X	-.7	-.7	0	0

Member Distributed Loads (BLC 5 : Wind 30Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
18	M73	X	-.7	-.7	0	0
19	M74	X	-.7	-.7	0	0
20	M75	X	-.7	-.7	0	0
21	M82	X	-.56	-.56	0	0
22	M95	X	-.56	-.56	0	0
23	M108	X	-.56	-.56	0	0
24	M39	X	-1.09	-1.09	0	0
25	M4	X	-1.43	-1.43	0	0
26	M5	X	-1.11	-1.11	0	0
27	M6	X	-1.43	-1.43	0	0
28	M12	X	-1.4	-1.4	0	0
29	M36	X	-.27	-.27	0	0
30	M57	X	-.61	-.61	0	0
31	M56	X	-.61	-.61	0	0
32	M55	X	-.61	-.61	0	0
33	M54	X	-.61	-.61	0	0
34	M60	X	-.45	-.45	0	0
35	M58	X	-.61	-.61	0	0
36	M59	X	-.61	-.61	0	0
37	M179	X	-.7	-.7	0	0
38	M180	X	-.7	-.7	0	0
39	M181	X	-.7	-.7	0	0
40	M182	X	-.7	-.7	0	0
41	M183	X	-.7	-.7	0	0
42	M190	X	-.56	-.56	0	0
43	M203	X	-.56	-.56	0	0
44	M216	X	-.56	-.56	0	0
45	M38	X	0	0	0	0
46	M7	X	0	0	0	0
47	M8	X	0	0	0	0
48	M9	X	0	0	0	0
49	M11	X	0	0	0	0
50	M33	X	-1.07	-1.07	0	0
51	M47	X	-.61	-.61	0	0
52	M48	X	-.61	-.61	0	0
53	M49	X	-.61	-.61	0	0
54	M50	X	-.61	-.61	0	0
55	M53	X	0	0	0	0
56	M51	X	-.61	-.61	0	0
57	M52	X	-.61	-.61	0	0
58	M125	X	-.7	-.7	0	0
59	M126	X	-.7	-.7	0	0
60	M127	X	-.7	-.7	0	0
61	M128	X	-.7	-.7	0	0
62	M129	X	-.7	-.7	0	0
63	M136	X	-.56	-.56	0	0
64	M149	X	-.56	-.56	0	0
65	M162	X	-.56	-.56	0	0
66	M37	Y	-.63	-.63	0	0
67	M1	Y	-.83	-.83	0	0
68	M2	Y	-.64	-.64	0	0
69	M3	Y	-.83	-.83	0	0

Member Distributed Loads (BLC 5 : Wind 30Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
70	M10	Y	-.81	-.81	0	0
71	M13	Y	-.7	-.7	0	0
72	M30	Y	-.15	-.15	0	0
73	M16	Y	-.15	-.15	0	0
74	M40	Y	-.35	-.35	0	0
75	M41	Y	-.35	-.35	0	0
76	M42	Y	-.35	-.35	0	0
77	M43	Y	-.35	-.35	0	0
78	M46	Y	-.26	-.26	0	0
79	M44	Y	-.35	-.35	0	0
80	M45	Y	-.35	-.35	0	0
81	M71	Y	-.4	-.4	0	0
82	M72	Y	-.4	-.4	0	0
83	M73	Y	-.4	-.4	0	0
84	M74	Y	-.4	-.4	0	0
85	M75	Y	-.4	-.4	0	0
86	M82	Y	-.33	-.33	0	0
87	M95	Y	-.33	-.33	0	0
88	M108	Y	-.33	-.33	0	0
89	M39	Y	-.63	-.63	0	0
90	M4	Y	-.83	-.83	0	0
91	M5	Y	-.64	-.64	0	0
92	M6	Y	-.83	-.83	0	0
93	M12	Y	-.81	-.81	0	0
94	M36	Y	-.15	-.15	0	0
95	M57	Y	-.35	-.35	0	0
96	M56	Y	-.35	-.35	0	0
97	M55	Y	-.35	-.35	0	0
98	M54	Y	-.35	-.35	0	0
99	M60	Y	-.26	-.26	0	0
100	M58	Y	-.35	-.35	0	0
101	M59	Y	-.35	-.35	0	0
102	M179	Y	-.4	-.4	0	0
103	M180	Y	-.4	-.4	0	0
104	M181	Y	-.4	-.4	0	0
105	M182	Y	-.4	-.4	0	0
106	M183	Y	-.4	-.4	0	0
107	M190	Y	-.33	-.33	0	0
108	M203	Y	-.33	-.33	0	0
109	M216	Y	-.33	-.33	0	0
110	M38	Y	0	0	0	0
111	M7	Y	0	0	0	0
112	M8	Y	0	0	0	0
113	M9	Y	0	0	0	0
114	M11	Y	0	0	0	0
115	M33	Y	-.62	-.62	0	0
116	M47	Y	-.35	-.35	0	0
117	M48	Y	-.35	-.35	0	0
118	M49	Y	-.35	-.35	0	0
119	M50	Y	-.35	-.35	0	0
120	M53	Y	0	0	0	0
121	M51	Y	-.35	-.35	0	0

Member Distributed Loads (BLC 5 : Wind 30Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
122	M52	Y	-.35	-.35	0	0
123	M125	Y	-.4	-.4	0	0
124	M126	Y	-.4	-.4	0	0
125	M127	Y	-.4	-.4	0	0
126	M128	Y	-.4	-.4	0	0
127	M129	Y	-.4	-.4	0	0
128	M136	Y	-.33	-.33	0	0
129	M149	Y	-.33	-.33	0	0
130	M162	Y	-.33	-.33	0	0

Member Distributed Loads (BLC 6 : Wind 60Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-.21	-.21	0	0
2	M1	X	-.28	-.28	0	0
3	M2	X	-.21	-.21	0	0
4	M3	X	-.28	-.28	0	0
5	M10	X	-.27	-.27	0	0
6	M13	X	-.23	-.23	0	0
7	M30	X	-.46	-.46	0	0
8	M16	X	-.44	-.44	0	0
9	M40	X	-.35	-.35	0	0
10	M41	X	-.35	-.35	0	0
11	M42	X	-.35	-.35	0	0
12	M43	X	-.35	-.35	0	0
13	M46	X	-.09	-.09	0	0
14	M44	X	-.35	-.35	0	0
15	M45	X	-.35	-.35	0	0
16	M71	X	-.4	-.4	0	0
17	M72	X	-.4	-.4	0	0
18	M73	X	-.4	-.4	0	0
19	M74	X	-.4	-.4	0	0
20	M75	X	-.4	-.4	0	0
21	M82	X	-.33	-.33	0	0
22	M95	X	-.33	-.33	0	0
23	M108	X	-.33	-.33	0	0
24	M39	X	-.84	-.84	0	0
25	M4	X	-1.1	-1.1	0	0
26	M5	X	-.85	-.85	0	0
27	M6	X	-1.1	-1.1	0	0
28	M12	X	-1.08	-1.08	0	0
29	M36	X	0	0	0	0
30	M57	X	-.35	-.35	0	0
31	M56	X	-.35	-.35	0	0
32	M55	X	-.35	-.35	0	0
33	M54	X	-.35	-.35	0	0
34	M60	X	-.35	-.35	0	0
35	M58	X	-.35	-.35	0	0
36	M59	X	-.35	-.35	0	0
37	M179	X	-.4	-.4	0	0
38	M180	X	-.4	-.4	0	0
39	M181	X	-.4	-.4	0	0

Member Distributed Loads (BLC 6 : Wind 60Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
40	M182	X	-.4	-.4	0	0
41	M183	X	-.4	-.4	0	0
42	M190	X	-.33	-.33	0	0
43	M203	X	-.33	-.33	0	0
44	M216	X	-.33	-.33	0	0
45	M38	X	-.21	-.21	0	0
46	M7	X	-.28	-.28	0	0
47	M8	X	-.21	-.21	0	0
48	M9	X	-.28	-.28	0	0
49	M11	X	-.27	-.27	0	0
50	M33	X	-.46	-.46	0	0
51	M47	X	-.35	-.35	0	0
52	M48	X	-.35	-.35	0	0
53	M49	X	-.35	-.35	0	0
54	M50	X	-.35	-.35	0	0
55	M53	X	-.09	-.09	0	0
56	M51	X	-.35	-.35	0	0
57	M52	X	-.35	-.35	0	0
58	M125	X	-.4	-.4	0	0
59	M126	X	-.4	-.4	0	0
60	M127	X	-.4	-.4	0	0
61	M128	X	-.4	-.4	0	0
62	M129	X	-.4	-.4	0	0
63	M136	X	-.33	-.33	0	0
64	M149	X	-.33	-.33	0	0
65	M162	X	-.33	-.33	0	0
66	M37	Y	-.36	-.36	0	0
67	M1	Y	-.48	-.48	0	0
68	M2	Y	-.37	-.37	0	0
69	M3	Y	-.48	-.48	0	0
70	M10	Y	-.47	-.47	0	0
71	M13	Y	-.4	-.4	0	0
72	M30	Y	-.8	-.8	0	0
73	M16	Y	-.75	-.75	0	0
74	M40	Y	-.61	-.61	0	0
75	M41	Y	-.61	-.61	0	0
76	M42	Y	-.61	-.61	0	0
77	M43	Y	-.61	-.61	0	0
78	M46	Y	-.15	-.15	0	0
79	M44	Y	-.61	-.61	0	0
80	M45	Y	-.61	-.61	0	0
81	M71	Y	-.7	-.7	0	0
82	M72	Y	-.7	-.7	0	0
83	M73	Y	-.7	-.7	0	0
84	M74	Y	-.7	-.7	0	0
85	M75	Y	-.7	-.7	0	0
86	M82	Y	-.56	-.56	0	0
87	M95	Y	-.56	-.56	0	0
88	M108	Y	-.56	-.56	0	0
89	M39	Y	-1.45	-1.45	0	0
90	M4	Y	-1.91	-1.91	0	0
91	M5	Y	-1.48	-1.48	0	0

Member Distributed Loads (BLC 6 : Wind 60Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
92	M6	Y	-1.91	-1.91	0	0
93	M12	Y	-1.87	-1.87	0	0
94	M36	Y	0	0	0	0
95	M57	Y	-.61	-.61	0	0
96	M56	Y	-.61	-.61	0	0
97	M55	Y	-.61	-.61	0	0
98	M54	Y	-.61	-.61	0	0
99	M60	Y	-.61	-.61	0	0
100	M58	Y	-.61	-.61	0	0
101	M59	Y	-.61	-.61	0	0
102	M179	Y	-.7	-.7	0	0
103	M180	Y	-.7	-.7	0	0
104	M181	Y	-.7	-.7	0	0
105	M182	Y	-.7	-.7	0	0
106	M183	Y	-.7	-.7	0	0
107	M190	Y	-.56	-.56	0	0
108	M203	Y	-.56	-.56	0	0
109	M216	Y	-.56	-.56	0	0
110	M38	Y	-.36	-.36	0	0
111	M7	Y	-.48	-.48	0	0
112	M8	Y	-.37	-.37	0	0
113	M9	Y	-.48	-.48	0	0
114	M11	Y	-.47	-.47	0	0
115	M33	Y	-.8	-.8	0	0
116	M47	Y	-.61	-.61	0	0
117	M48	Y	-.61	-.61	0	0
118	M49	Y	-.61	-.61	0	0
119	M50	Y	-.61	-.61	0	0
120	M53	Y	-.15	-.15	0	0
121	M51	Y	-.61	-.61	0	0
122	M52	Y	-.61	-.61	0	0
123	M125	Y	-.7	-.7	0	0
124	M126	Y	-.7	-.7	0	0
125	M127	Y	-.7	-.7	0	0
126	M128	Y	-.7	-.7	0	0
127	M129	Y	-.7	-.7	0	0
128	M136	Y	-.56	-.56	0	0
129	M149	Y	-.56	-.56	0	0
130	M162	Y	-.56	-.56	0	0

Member Distributed Loads (BLC 7 : Wind 90Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	Y	0	0	0	0
2	M1	Y	0	0	0	0
3	M2	Y	0	0	0	0
4	M3	Y	0	0	0	0
5	M10	Y	0	0	0	0
6	M13	Y	0	0	0	0
7	M30	Y	-1.24	-1.24	0	0
8	M16	Y	-1.16	-1.16	0	0
9	M40	Y	-.7	-.7	0	0

Member Distributed Loads (BLC 7 : Wind 90Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
10	M41	Y	-.7	-.7	0	0
11	M42	Y	-.7	-.7	0	0
12	M43	Y	-.7	-.7	0	0
13	M46	Y	0	0	0	0
14	M44	Y	-.7	-.7	0	0
15	M45	Y	-.7	-.7	0	0
16	M71	Y	-.81	-.81	0	0
17	M72	Y	-.81	-.81	0	0
18	M73	Y	-.81	-.81	0	0
19	M74	Y	-.81	-.81	0	0
20	M75	Y	-.81	-.81	0	0
21	M82	Y	-.65	-.65	0	0
22	M95	Y	-.65	-.65	0	0
23	M108	Y	-.65	-.65	0	0
24	M39	Y	-1.26	-1.26	0	0
25	M4	Y	-1.65	-1.65	0	0
26	M5	Y	-1.28	-1.28	0	0
27	M6	Y	-1.65	-1.65	0	0
28	M12	Y	-1.62	-1.62	0	0
29	M36	Y	-.31	-.31	0	0
30	M57	Y	-.7	-.7	0	0
31	M56	Y	-.7	-.7	0	0
32	M55	Y	-.7	-.7	0	0
33	M54	Y	-.7	-.7	0	0
34	M60	Y	-.52	-.52	0	0
35	M58	Y	-.7	-.7	0	0
36	M59	Y	-.7	-.7	0	0
37	M179	Y	-.81	-.81	0	0
38	M180	Y	-.81	-.81	0	0
39	M181	Y	-.81	-.81	0	0
40	M182	Y	-.81	-.81	0	0
41	M183	Y	-.81	-.81	0	0
42	M190	Y	-.65	-.65	0	0
43	M203	Y	-.65	-.65	0	0
44	M216	Y	-.65	-.65	0	0
45	M38	Y	-1.26	-1.26	0	0
46	M7	Y	-1.65	-1.65	0	0
47	M8	Y	-1.28	-1.28	0	0
48	M9	Y	-1.65	-1.65	0	0
49	M11	Y	-1.62	-1.62	0	0
50	M33	Y	-.31	-.31	0	0
51	M47	Y	-.7	-.7	0	0
52	M48	Y	-.7	-.7	0	0
53	M49	Y	-.7	-.7	0	0
54	M50	Y	-.7	-.7	0	0
55	M53	Y	-.52	-.52	0	0
56	M51	Y	-.7	-.7	0	0
57	M52	Y	-.7	-.7	0	0
58	M125	Y	-.81	-.81	0	0
59	M126	Y	-.81	-.81	0	0
60	M127	Y	-.81	-.81	0	0
61	M128	Y	-.81	-.81	0	0

Member Distributed Loads (BLC 7 : Wind 90Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
62	M129	Y	-.81	-.81	0	0
63	M136	Y	-.65	-.65	0	0
64	M149	Y	-.65	-.65	0	0
65	M162	Y	-.65	-.65	0	0

Member Distributed Loads (BLC 8 : Wind 120Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	.21	.21	0	0
2	M1	X	.28	.28	0	0
3	M2	X	.21	.21	0	0
4	M3	X	.28	.28	0	0
5	M10	X	.27	.27	0	0
6	M13	X	.23	.23	0	0
7	M30	X	.46	.46	0	0
8	M16	X	.44	.44	0	0
9	M40	X	.35	.35	0	0
10	M41	X	.35	.35	0	0
11	M42	X	.35	.35	0	0
12	M43	X	.35	.35	0	0
13	M46	X	.09	.09	0	0
14	M44	X	.35	.35	0	0
15	M45	X	.35	.35	0	0
16	M71	X	.4	.4	0	0
17	M72	X	.4	.4	0	0
18	M73	X	.4	.4	0	0
19	M74	X	.4	.4	0	0
20	M75	X	.4	.4	0	0
21	M82	X	.33	.33	0	0
22	M95	X	.33	.33	0	0
23	M108	X	.33	.33	0	0
24	M39	X	.21	.21	0	0
25	M4	X	.28	.28	0	0
26	M5	X	.21	.21	0	0
27	M6	X	.28	.28	0	0
28	M12	X	.27	.27	0	0
29	M36	X	.46	.46	0	0
30	M57	X	.35	.35	0	0
31	M56	X	.35	.35	0	0
32	M55	X	.35	.35	0	0
33	M54	X	.35	.35	0	0
34	M60	X	.09	.09	0	0
35	M58	X	.35	.35	0	0
36	M59	X	.35	.35	0	0
37	M179	X	.4	.4	0	0
38	M180	X	.4	.4	0	0
39	M181	X	.4	.4	0	0
40	M182	X	.4	.4	0	0
41	M183	X	.4	.4	0	0
42	M190	X	.33	.33	0	0
43	M203	X	.33	.33	0	0
44	M216	X	.33	.33	0	0

Member Distributed Loads (BLC 8 : Wind 120Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
45	M38	X	.84	.84	0	0
46	M7	X	1.1	1.1	0	0
47	M8	X	.85	.85	0	0
48	M9	X	1.1	1.1	0	0
49	M11	X	1.08	1.08	0	0
50	M33	X	0	0	0	0
51	M47	X	.35	.35	0	0
52	M48	X	.35	.35	0	0
53	M49	X	.35	.35	0	0
54	M50	X	.35	.35	0	0
55	M53	X	.35	.35	0	0
56	M51	X	.35	.35	0	0
57	M52	X	.35	.35	0	0
58	M125	X	.4	.4	0	0
59	M126	X	.4	.4	0	0
60	M127	X	.4	.4	0	0
61	M128	X	.4	.4	0	0
62	M129	X	.4	.4	0	0
63	M136	X	.33	.33	0	0
64	M149	X	.33	.33	0	0
65	M162	X	.33	.33	0	0
66	M37	Y	-.36	-.36	0	0
67	M1	Y	-.48	-.48	0	0
68	M2	Y	-.37	-.37	0	0
69	M3	Y	-.48	-.48	0	0
70	M10	Y	-.47	-.47	0	0
71	M13	Y	-.4	-.4	0	0
72	M30	Y	-.8	-.8	0	0
73	M16	Y	-.75	-.75	0	0
74	M40	Y	-.61	-.61	0	0
75	M41	Y	-.61	-.61	0	0
76	M42	Y	-.61	-.61	0	0
77	M43	Y	-.61	-.61	0	0
78	M46	Y	-.15	-.15	0	0
79	M44	Y	-.61	-.61	0	0
80	M45	Y	-.61	-.61	0	0
81	M71	Y	-.7	-.7	0	0
82	M72	Y	-.7	-.7	0	0
83	M73	Y	-.7	-.7	0	0
84	M74	Y	-.7	-.7	0	0
85	M75	Y	-.7	-.7	0	0
86	M82	Y	-.56	-.56	0	0
87	M95	Y	-.56	-.56	0	0
88	M108	Y	-.56	-.56	0	0
89	M39	Y	-.36	-.36	0	0
90	M4	Y	-.48	-.48	0	0
91	M5	Y	-.37	-.37	0	0
92	M6	Y	-.48	-.48	0	0
93	M12	Y	-.47	-.47	0	0
94	M36	Y	-.8	-.8	0	0
95	M57	Y	-.61	-.61	0	0
96	M56	Y	-.61	-.61	0	0

Member Distributed Loads (BLC 8 : Wind 120Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
97	M55	Y	-.61	-.61	0	0
98	M54	Y	-.61	-.61	0	0
99	M60	Y	-.15	-.15	0	0
100	M58	Y	-.61	-.61	0	0
101	M59	Y	-.61	-.61	0	0
102	M179	Y	-.7	-.7	0	0
103	M180	Y	-.7	-.7	0	0
104	M181	Y	-.7	-.7	0	0
105	M182	Y	-.7	-.7	0	0
106	M183	Y	-.7	-.7	0	0
107	M190	Y	-.56	-.56	0	0
108	M203	Y	-.56	-.56	0	0
109	M216	Y	-.56	-.56	0	0
110	M38	Y	-1.45	-1.45	0	0
111	M7	Y	-1.91	-1.91	0	0
112	M8	Y	-1.48	-1.48	0	0
113	M9	Y	-1.91	-1.91	0	0
114	M11	Y	-1.87	-1.87	0	0
115	M33	Y	0	0	0	0
116	M47	Y	-.61	-.61	0	0
117	M48	Y	-.61	-.61	0	0
118	M49	Y	-.61	-.61	0	0
119	M50	Y	-.61	-.61	0	0
120	M53	Y	-.61	-.61	0	0
121	M51	Y	-.61	-.61	0	0
122	M52	Y	-.61	-.61	0	0
123	M125	Y	-.7	-.7	0	0
124	M126	Y	-.7	-.7	0	0
125	M127	Y	-.7	-.7	0	0
126	M128	Y	-.7	-.7	0	0
127	M129	Y	-.7	-.7	0	0
128	M136	Y	-.56	-.56	0	0
129	M149	Y	-.56	-.56	0	0
130	M162	Y	-.56	-.56	0	0

Member Distributed Loads (BLC 9 : Wind 150Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	1.09	1.09	0	0
2	M1	X	1.43	1.43	0	0
3	M2	X	1.11	1.11	0	0
4	M3	X	1.43	1.43	0	0
5	M10	X	1.4	1.4	0	0
6	M13	X	1.21	1.21	0	0
7	M30	X	.27	.27	0	0
8	M16	X	.25	.25	0	0
9	M40	X	.61	.61	0	0
10	M41	X	.61	.61	0	0
11	M42	X	.61	.61	0	0
12	M43	X	.61	.61	0	0
13	M46	X	.45	.45	0	0
14	M44	X	.61	.61	0	0

Member Distributed Loads (BLC 9 : Wind 150Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
15	M45	X	.61	.61	0	0
16	M71	X	.7	.7	0	0
17	M72	X	.7	.7	0	0
18	M73	X	.7	.7	0	0
19	M74	X	.7	.7	0	0
20	M75	X	.7	.7	0	0
21	M82	X	.56	.56	0	0
22	M95	X	.56	.56	0	0
23	M108	X	.56	.56	0	0
24	M39	X	0	0	0	0
25	M4	X	0	0	0	0
26	M5	X	0	0	0	0
27	M6	X	0	0	0	0
28	M12	X	0	0	0	0
29	M36	X	1.07	1.07	0	0
30	M57	X	.61	.61	0	0
31	M56	X	.61	.61	0	0
32	M55	X	.61	.61	0	0
33	M54	X	.61	.61	0	0
34	M60	X	0	0	0	0
35	M58	X	.61	.61	0	0
36	M59	X	.61	.61	0	0
37	M179	X	.7	.7	0	0
38	M180	X	.7	.7	0	0
39	M181	X	.7	.7	0	0
40	M182	X	.7	.7	0	0
41	M183	X	.7	.7	0	0
42	M190	X	.56	.56	0	0
43	M203	X	.56	.56	0	0
44	M216	X	.56	.56	0	0
45	M38	X	1.09	1.09	0	0
46	M7	X	1.43	1.43	0	0
47	M8	X	1.11	1.11	0	0
48	M9	X	1.43	1.43	0	0
49	M11	X	1.4	1.4	0	0
50	M33	X	.27	.27	0	0
51	M47	X	.61	.61	0	0
52	M48	X	.61	.61	0	0
53	M49	X	.61	.61	0	0
54	M50	X	.61	.61	0	0
55	M53	X	.45	.45	0	0
56	M51	X	.61	.61	0	0
57	M52	X	.61	.61	0	0
58	M125	X	.7	.7	0	0
59	M126	X	.7	.7	0	0
60	M127	X	.7	.7	0	0
61	M128	X	.7	.7	0	0
62	M129	X	.7	.7	0	0
63	M136	X	.56	.56	0	0
64	M149	X	.56	.56	0	0
65	M162	X	.56	.56	0	0
66	M37	Y	-.63	-.63	0	0

Member Distributed Loads (BLC 9 : Wind 150Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
67	M1	Y	-.83	-.83	0	0
68	M2	Y	-.64	-.64	0	0
69	M3	Y	-.83	-.83	0	0
70	M10	Y	-.81	-.81	0	0
71	M13	Y	-.7	-.7	0	0
72	M30	Y	-.15	-.15	0	0
73	M16	Y	-.15	-.15	0	0
74	M40	Y	-.35	-.35	0	0
75	M41	Y	-.35	-.35	0	0
76	M42	Y	-.35	-.35	0	0
77	M43	Y	-.35	-.35	0	0
78	M46	Y	-.26	-.26	0	0
79	M44	Y	-.35	-.35	0	0
80	M45	Y	-.35	-.35	0	0
81	M71	Y	-.4	-.4	0	0
82	M72	Y	-.4	-.4	0	0
83	M73	Y	-.4	-.4	0	0
84	M74	Y	-.4	-.4	0	0
85	M75	Y	-.4	-.4	0	0
86	M82	Y	-.33	-.33	0	0
87	M95	Y	-.33	-.33	0	0
88	M108	Y	-.33	-.33	0	0
89	M39	Y	0	0	0	0
90	M4	Y	0	0	0	0
91	M5	Y	0	0	0	0
92	M6	Y	0	0	0	0
93	M12	Y	0	0	0	0
94	M36	Y	-.62	-.62	0	0
95	M57	Y	-.35	-.35	0	0
96	M56	Y	-.35	-.35	0	0
97	M55	Y	-.35	-.35	0	0
98	M54	Y	-.35	-.35	0	0
99	M60	Y	0	0	0	0
100	M58	Y	-.35	-.35	0	0
101	M59	Y	-.35	-.35	0	0
102	M179	Y	-.4	-.4	0	0
103	M180	Y	-.4	-.4	0	0
104	M181	Y	-.4	-.4	0	0
105	M182	Y	-.4	-.4	0	0
106	M183	Y	-.4	-.4	0	0
107	M190	Y	-.33	-.33	0	0
108	M203	Y	-.33	-.33	0	0
109	M216	Y	-.33	-.33	0	0
110	M38	Y	-.63	-.63	0	0
111	M7	Y	-.83	-.83	0	0
112	M8	Y	-.64	-.64	0	0
113	M9	Y	-.83	-.83	0	0
114	M11	Y	-.81	-.81	0	0
115	M33	Y	-.15	-.15	0	0
116	M47	Y	-.35	-.35	0	0
117	M48	Y	-.35	-.35	0	0
118	M49	Y	-.35	-.35	0	0

Member Distributed Loads (BLC 9 : Wind 150Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
119	M50	Y	-.35	-.35	0	0
120	M53	Y	-.26	-.26	0	0
121	M51	Y	-.35	-.35	0	0
122	M52	Y	-.35	-.35	0	0
123	M125	Y	-.4	-.4	0	0
124	M126	Y	-.4	-.4	0	0
125	M127	Y	-.4	-.4	0	0
126	M128	Y	-.4	-.4	0	0
127	M129	Y	-.4	-.4	0	0
128	M136	Y	-.33	-.33	0	0
129	M149	Y	-.33	-.33	0	0
130	M162	Y	-.33	-.33	0	0

Member Distributed Loads (BLC 10 : Wind 0Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-.67	-.67	0	0
2	M1	X	-.66	-.66	0	0
3	M2	X	-.57	-.57	0	0
4	M3	X	-.66	-.66	0	0
5	M10	X	-.65	-.65	0	0
6	M13	X	-.58	-.58	0	0
7	M30	X	-.06	-.06	0	0
8	M16	X	-.08	-.08	0	0
9	M40	X	-.4	-.4	0	0
10	M41	X	-.4	-.4	0	0
11	M42	X	-.4	-.4	0	0
12	M43	X	-.4	-.4	0	0
13	M46	X	-.43	-.43	0	0
14	M44	X	-.42	-.42	0	0
15	M45	X	-.42	-.42	0	0
16	M71	X	-.31	-.31	0	0
17	M72	X	-.31	-.31	0	0
18	M73	X	-.31	-.31	0	0
19	M74	X	-.31	-.31	0	0
20	M75	X	-.31	-.31	0	0
21	M82	X	-.26	-.26	0	0
22	M95	X	-.26	-.26	0	0
23	M108	X	-.26	-.26	0	0
24	M39	X	-.18	-.18	0	0
25	M4	X	-.19	-.19	0	0
26	M5	X	-.24	-.24	0	0
27	M6	X	-.19	-.19	0	0
28	M12	X	-.19	-.19	0	0
29	M36	X	-.37	-.37	0	0
30	M57	X	-.4	-.4	0	0
31	M56	X	-.4	-.4	0	0
32	M55	X	-.4	-.4	0	0
33	M54	X	-.4	-.4	0	0
34	M60	X	-.13	-.13	0	0
35	M58	X	-.42	-.42	0	0
36	M59	X	-.42	-.42	0	0

Member Distributed Loads (BLC 10 : Wind 0Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
37	M179	X	-.31	-.31	0	0
38	M180	X	-.31	-.31	0	0
39	M181	X	-.31	-.31	0	0
40	M182	X	-.31	-.31	0	0
41	M183	X	-.31	-.31	0	0
42	M190	X	-.26	-.26	0	0
43	M203	X	-.26	-.26	0	0
44	M216	X	-.26	-.26	0	0
45	M38	X	-.18	-.18	0	0
46	M7	X	-.19	-.19	0	0
47	M8	X	-.24	-.24	0	0
48	M9	X	-.19	-.19	0	0
49	M11	X	-.19	-.19	0	0
50	M33	X	-.37	-.37	0	0
51	M47	X	-.4	-.4	0	0
52	M48	X	-.4	-.4	0	0
53	M49	X	-.4	-.4	0	0
54	M50	X	-.4	-.4	0	0
55	M53	X	-.13	-.13	0	0
56	M51	X	-.42	-.42	0	0
57	M52	X	-.42	-.42	0	0
58	M125	X	-.31	-.31	0	0
59	M126	X	-.31	-.31	0	0
60	M127	X	-.31	-.31	0	0
61	M128	X	-.31	-.31	0	0
62	M129	X	-.31	-.31	0	0
63	M136	X	-.26	-.26	0	0
64	M149	X	-.26	-.26	0	0
65	M162	X	-.26	-.26	0	0

Member Distributed Loads (BLC 11 : Wind 30Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-.44	-.44	0	0
2	M1	X	-.44	-.44	0	0
3	M2	X	-.4	-.4	0	0
4	M3	X	-.44	-.44	0	0
5	M10	X	-.43	-.43	0	0
6	M13	X	-.4	-.4	0	0
7	M30	X	-.14	-.14	0	0
8	M16	X	-.15	-.15	0	0
9	M40	X	-.35	-.35	0	0
10	M41	X	-.35	-.35	0	0
11	M42	X	-.35	-.35	0	0
12	M43	X	-.35	-.35	0	0
13	M46	X	-.28	-.28	0	0
14	M44	X	-.37	-.37	0	0
15	M45	X	-.37	-.37	0	0
16	M71	X	-.27	-.27	0	0
17	M72	X	-.27	-.27	0	0
18	M73	X	-.27	-.27	0	0
19	M74	X	-.27	-.27	0	0

Member Distributed Loads (BLC 11 : Wind 30Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
20	M75	X	-.27	-.27	0	0
21	M82	X	-.23	-.23	0	0
22	M95	X	-.23	-.23	0	0
23	M108	X	-.23	-.23	0	0
24	M39	X	-.44	-.44	0	0
25	M4	X	-.44	-.44	0	0
26	M5	X	-.4	-.4	0	0
27	M6	X	-.44	-.44	0	0
28	M12	X	-.43	-.43	0	0
29	M36	X	-.14	-.14	0	0
30	M57	X	-.35	-.35	0	0
31	M56	X	-.35	-.35	0	0
32	M55	X	-.35	-.35	0	0
33	M54	X	-.35	-.35	0	0
34	M60	X	-.28	-.28	0	0
35	M58	X	-.37	-.37	0	0
36	M59	X	-.37	-.37	0	0
37	M179	X	-.27	-.27	0	0
38	M180	X	-.27	-.27	0	0
39	M181	X	-.27	-.27	0	0
40	M182	X	-.27	-.27	0	0
41	M183	X	-.27	-.27	0	0
42	M190	X	-.23	-.23	0	0
43	M203	X	-.23	-.23	0	0
44	M216	X	-.23	-.23	0	0
45	M38	X	-.01	-.01	0	0
46	M7	X	-.03	-.03	0	0
47	M8	X	-.11	-.11	0	0
48	M9	X	-.03	-.03	0	0
49	M11	X	-.04	-.04	0	0
50	M33	X	-.41	-.41	0	0
51	M47	X	-.35	-.35	0	0
52	M48	X	-.35	-.35	0	0
53	M49	X	-.35	-.35	0	0
54	M50	X	-.35	-.35	0	0
55	M53	X	-.02	-.02	0	0
56	M51	X	-.37	-.37	0	0
57	M52	X	-.37	-.37	0	0
58	M125	X	-.27	-.27	0	0
59	M126	X	-.27	-.27	0	0
60	M127	X	-.27	-.27	0	0
61	M128	X	-.27	-.27	0	0
62	M129	X	-.27	-.27	0	0
63	M136	X	-.23	-.23	0	0
64	M149	X	-.23	-.23	0	0
65	M162	X	-.23	-.23	0	0
66	M37	Y	-.25	-.25	0	0
67	M1	Y	-.25	-.25	0	0
68	M2	Y	-.23	-.23	0	0
69	M3	Y	-.25	-.25	0	0
70	M10	Y	-.25	-.25	0	0
71	M13	Y	-.23	-.23	0	0

Member Distributed Loads (BLC 11 : Wind 30Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
72	M30	Y	-.08	-.08	0	0
73	M16	Y	-.09	-.09	0	0
74	M40	Y	-.2	-.2	0	0
75	M41	Y	-.2	-.2	0	0
76	M42	Y	-.2	-.2	0	0
77	M43	Y	-.2	-.2	0	0
78	M46	Y	-.16	-.16	0	0
79	M44	Y	-.21	-.21	0	0
80	M45	Y	-.21	-.21	0	0
81	M71	Y	-.16	-.16	0	0
82	M72	Y	-.16	-.16	0	0
83	M73	Y	-.16	-.16	0	0
84	M74	Y	-.16	-.16	0	0
85	M75	Y	-.16	-.16	0	0
86	M82	Y	-.13	-.13	0	0
87	M95	Y	-.13	-.13	0	0
88	M108	Y	-.13	-.13	0	0
89	M39	Y	-.25	-.25	0	0
90	M4	Y	-.25	-.25	0	0
91	M5	Y	-.23	-.23	0	0
92	M6	Y	-.25	-.25	0	0
93	M12	Y	-.25	-.25	0	0
94	M36	Y	-.08	-.08	0	0
95	M57	Y	-.2	-.2	0	0
96	M56	Y	-.2	-.2	0	0
97	M55	Y	-.2	-.2	0	0
98	M54	Y	-.2	-.2	0	0
99	M60	Y	-.16	-.16	0	0
100	M58	Y	-.21	-.21	0	0
101	M59	Y	-.21	-.21	0	0
102	M179	Y	-.16	-.16	0	0
103	M180	Y	-.16	-.16	0	0
104	M181	Y	-.16	-.16	0	0
105	M182	Y	-.16	-.16	0	0
106	M183	Y	-.16	-.16	0	0
107	M190	Y	-.13	-.13	0	0
108	M203	Y	-.13	-.13	0	0
109	M216	Y	-.13	-.13	0	0
110	M38	Y	-.01	-.01	0	0
111	M7	Y	-.02	-.02	0	0
112	M8	Y	-.07	-.07	0	0
113	M9	Y	-.02	-.02	0	0
114	M11	Y	-.02	-.02	0	0
115	M33	Y	-.24	-.24	0	0
116	M47	Y	-.2	-.2	0	0
117	M48	Y	-.2	-.2	0	0
118	M49	Y	-.2	-.2	0	0
119	M50	Y	-.2	-.2	0	0
120	M53	Y	-.01	-.01	0	0
121	M51	Y	-.21	-.21	0	0
122	M52	Y	-.21	-.21	0	0
123	M125	Y	-.16	-.16	0	0

Member Distributed Loads (BLC 11 : Wind 30Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
124	M126	Y	-.16	-.16	0	0
125	M127	Y	-.16	-.16	0	0
126	M128	Y	-.16	-.16	0	0
127	M129	Y	-.16	-.16	0	0
128	M136	Y	-.13	-.13	0	0
129	M149	Y	-.13	-.13	0	0
130	M162	Y	-.13	-.13	0	0

Member Distributed Loads (BLC 12 : Wind 60Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-.09	-.09	0	0
2	M1	X	-.1	-.1	0	0
3	M2	X	-.12	-.12	0	0
4	M3	X	-.1	-.1	0	0
5	M10	X	-.1	-.1	0	0
6	M13	X	-.1	-.1	0	0
7	M30	X	-.19	-.19	0	0
8	M16	X	-.18	-.18	0	0
9	M40	X	-.2	-.2	0	0
10	M41	X	-.2	-.2	0	0
11	M42	X	-.2	-.2	0	0
12	M43	X	-.2	-.2	0	0
13	M46	X	-.06	-.06	0	0
14	M44	X	-.21	-.21	0	0
15	M45	X	-.21	-.21	0	0
16	M71	X	-.16	-.16	0	0
17	M72	X	-.16	-.16	0	0
18	M73	X	-.16	-.16	0	0
19	M74	X	-.16	-.16	0	0
20	M75	X	-.16	-.16	0	0
21	M82	X	-.13	-.13	0	0
22	M95	X	-.13	-.13	0	0
23	M108	X	-.13	-.13	0	0
24	M39	X	-.33	-.33	0	0
25	M4	X	-.33	-.33	0	0
26	M5	X	-.28	-.28	0	0
27	M6	X	-.33	-.33	0	0
28	M12	X	-.32	-.32	0	0
29	M36	X	-.03	-.03	0	0
30	M57	X	-.2	-.2	0	0
31	M56	X	-.2	-.2	0	0
32	M55	X	-.2	-.2	0	0
33	M54	X	-.2	-.2	0	0
34	M60	X	-.21	-.21	0	0
35	M58	X	-.21	-.21	0	0
36	M59	X	-.21	-.21	0	0
37	M179	X	-.16	-.16	0	0
38	M180	X	-.16	-.16	0	0
39	M181	X	-.16	-.16	0	0
40	M182	X	-.16	-.16	0	0
41	M183	X	-.16	-.16	0	0

Member Distributed Loads (BLC 12 : Wind 60Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
42	M190	X	-.13	-.13	0	0
43	M203	X	-.13	-.13	0	0
44	M216	X	-.13	-.13	0	0
45	M38	X	-.09	-.09	0	0
46	M7	X	-.1	-.1	0	0
47	M8	X	-.12	-.12	0	0
48	M9	X	-.1	-.1	0	0
49	M11	X	-.1	-.1	0	0
50	M33	X	-.19	-.19	0	0
51	M47	X	-.2	-.2	0	0
52	M48	X	-.2	-.2	0	0
53	M49	X	-.2	-.2	0	0
54	M50	X	-.2	-.2	0	0
55	M53	X	-.06	-.06	0	0
56	M51	X	-.21	-.21	0	0
57	M52	X	-.21	-.21	0	0
58	M125	X	-.16	-.16	0	0
59	M126	X	-.16	-.16	0	0
60	M127	X	-.16	-.16	0	0
61	M128	X	-.16	-.16	0	0
62	M129	X	-.16	-.16	0	0
63	M136	X	-.13	-.13	0	0
64	M149	X	-.13	-.13	0	0
65	M162	X	-.13	-.13	0	0
66	M37	Y	-.15	-.15	0	0
67	M1	Y	-.17	-.17	0	0
68	M2	Y	-.21	-.21	0	0
69	M3	Y	-.17	-.17	0	0
70	M10	Y	-.17	-.17	0	0
71	M13	Y	-.18	-.18	0	0
72	M30	Y	-.32	-.32	0	0
73	M16	Y	-.32	-.32	0	0
74	M40	Y	-.35	-.35	0	0
75	M41	Y	-.35	-.35	0	0
76	M42	Y	-.35	-.35	0	0
77	M43	Y	-.35	-.35	0	0
78	M46	Y	-.11	-.11	0	0
79	M44	Y	-.37	-.37	0	0
80	M45	Y	-.37	-.37	0	0
81	M71	Y	-.27	-.27	0	0
82	M72	Y	-.27	-.27	0	0
83	M73	Y	-.27	-.27	0	0
84	M74	Y	-.27	-.27	0	0
85	M75	Y	-.27	-.27	0	0
86	M82	Y	-.23	-.23	0	0
87	M95	Y	-.23	-.23	0	0
88	M108	Y	-.23	-.23	0	0
89	M39	Y	-.58	-.58	0	0
90	M4	Y	-.57	-.57	0	0
91	M5	Y	-.49	-.49	0	0
92	M6	Y	-.57	-.57	0	0
93	M12	Y	-.56	-.56	0	0

Member Distributed Loads (BLC 12 : Wind 60Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
94	M36	Y	-.06	-.06	0	0
95	M57	Y	-.35	-.35	0	0
96	M56	Y	-.35	-.35	0	0
97	M55	Y	-.35	-.35	0	0
98	M54	Y	-.35	-.35	0	0
99	M60	Y	-.37	-.37	0	0
100	M58	Y	-.37	-.37	0	0
101	M59	Y	-.37	-.37	0	0
102	M179	Y	-.27	-.27	0	0
103	M180	Y	-.27	-.27	0	0
104	M181	Y	-.27	-.27	0	0
105	M182	Y	-.27	-.27	0	0
106	M183	Y	-.27	-.27	0	0
107	M190	Y	-.23	-.23	0	0
108	M203	Y	-.23	-.23	0	0
109	M216	Y	-.23	-.23	0	0
110	M38	Y	-.15	-.15	0	0
111	M7	Y	-.17	-.17	0	0
112	M8	Y	-.21	-.21	0	0
113	M9	Y	-.17	-.17	0	0
114	M11	Y	-.17	-.17	0	0
115	M33	Y	-.32	-.32	0	0
116	M47	Y	-.35	-.35	0	0
117	M48	Y	-.35	-.35	0	0
118	M49	Y	-.35	-.35	0	0
119	M50	Y	-.35	-.35	0	0
120	M53	Y	-.11	-.11	0	0
121	M51	Y	-.37	-.37	0	0
122	M52	Y	-.37	-.37	0	0
123	M125	Y	-.27	-.27	0	0
124	M126	Y	-.27	-.27	0	0
125	M127	Y	-.27	-.27	0	0
126	M128	Y	-.27	-.27	0	0
127	M129	Y	-.27	-.27	0	0
128	M136	Y	-.23	-.23	0	0
129	M149	Y	-.23	-.23	0	0
130	M162	Y	-.23	-.23	0	0

Member Distributed Loads (BLC 13 : Wind 90Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	Y	-.01	-.01	0	0
2	M1	Y	-.04	-.04	0	0
3	M2	Y	-.13	-.13	0	0
4	M3	Y	-.04	-.04	0	0
5	M10	Y	-.04	-.04	0	0
6	M13	Y	-.08	-.08	0	0
7	M30	Y	-.48	-.48	0	0
8	M16	Y	-.46	-.46	0	0
9	M40	Y	-.4	-.4	0	0
10	M41	Y	-.4	-.4	0	0
11	M42	Y	-.4	-.4	0	0

Member Distributed Loads (BLC 13 : Wind 90Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
12	M43	Y	-.4	-.4	0	0
13	M46	Y	-.03	-.03	0	0
14	M44	Y	-.42	-.42	0	0
15	M45	Y	-.42	-.42	0	0
16	M71	Y	-.31	-.31	0	0
17	M72	Y	-.31	-.31	0	0
18	M73	Y	-.31	-.31	0	0
19	M74	Y	-.31	-.31	0	0
20	M75	Y	-.31	-.31	0	0
21	M82	Y	-.26	-.26	0	0
22	M95	Y	-.26	-.26	0	0
23	M108	Y	-.26	-.26	0	0
24	M39	Y	-.51	-.51	0	0
25	M4	Y	-.5	-.5	0	0
26	M5	Y	-.46	-.46	0	0
27	M6	Y	-.5	-.5	0	0
28	M12	Y	-.5	-.5	0	0
29	M36	Y	-.17	-.17	0	0
30	M57	Y	-.4	-.4	0	0
31	M56	Y	-.4	-.4	0	0
32	M55	Y	-.4	-.4	0	0
33	M54	Y	-.4	-.4	0	0
34	M60	Y	-.33	-.33	0	0
35	M58	Y	-.42	-.42	0	0
36	M59	Y	-.42	-.42	0	0
37	M179	Y	-.31	-.31	0	0
38	M180	Y	-.31	-.31	0	0
39	M181	Y	-.31	-.31	0	0
40	M182	Y	-.31	-.31	0	0
41	M183	Y	-.31	-.31	0	0
42	M190	Y	-.26	-.26	0	0
43	M203	Y	-.26	-.26	0	0
44	M216	Y	-.26	-.26	0	0
45	M38	Y	-.51	-.51	0	0
46	M7	Y	-.5	-.5	0	0
47	M8	Y	-.46	-.46	0	0
48	M9	Y	-.5	-.5	0	0
49	M11	Y	-.5	-.5	0	0
50	M33	Y	-.17	-.17	0	0
51	M47	Y	-.4	-.4	0	0
52	M48	Y	-.4	-.4	0	0
53	M49	Y	-.4	-.4	0	0
54	M50	Y	-.4	-.4	0	0
55	M53	Y	-.33	-.33	0	0
56	M51	Y	-.42	-.42	0	0
57	M52	Y	-.42	-.42	0	0
58	M125	Y	-.31	-.31	0	0
59	M126	Y	-.31	-.31	0	0
60	M127	Y	-.31	-.31	0	0
61	M128	Y	-.31	-.31	0	0
62	M129	Y	-.31	-.31	0	0
63	M136	Y	-.26	-.26	0	0

Member Distributed Loads (BLC 13 : Wind 90Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
64	M149	Y	-.26	-.26	0	0
65	M162	Y	-.26	-.26	0	0

Member Distributed Loads (BLC 14 : Wind 120Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	.09	.09	0	0
2	M1	X	.1	.1	0	0
3	M2	X	.12	.12	0	0
4	M3	X	.1	.1	0	0
5	M10	X	.1	.1	0	0
6	M13	X	.1	.1	0	0
7	M30	X	.19	.19	0	0
8	M16	X	.18	.18	0	0
9	M40	X	.2	.2	0	0
10	M41	X	.2	.2	0	0
11	M42	X	.2	.2	0	0
12	M43	X	.2	.2	0	0
13	M46	X	.06	.06	0	0
14	M44	X	.21	.21	0	0
15	M45	X	.21	.21	0	0
16	M71	X	.16	.16	0	0
17	M72	X	.16	.16	0	0
18	M73	X	.16	.16	0	0
19	M74	X	.16	.16	0	0
20	M75	X	.16	.16	0	0
21	M82	X	.13	.13	0	0
22	M95	X	.13	.13	0	0
23	M108	X	.13	.13	0	0
24	M39	X	.09	.09	0	0
25	M4	X	.1	.1	0	0
26	M5	X	.12	.12	0	0
27	M6	X	.1	.1	0	0
28	M12	X	.1	.1	0	0
29	M36	X	.19	.19	0	0
30	M57	X	.2	.2	0	0
31	M56	X	.2	.2	0	0
32	M55	X	.2	.2	0	0
33	M54	X	.2	.2	0	0
34	M60	X	.06	.06	0	0
35	M58	X	.21	.21	0	0
36	M59	X	.21	.21	0	0
37	M179	X	.16	.16	0	0
38	M180	X	.16	.16	0	0
39	M181	X	.16	.16	0	0
40	M182	X	.16	.16	0	0
41	M183	X	.16	.16	0	0
42	M190	X	.13	.13	0	0
43	M203	X	.13	.13	0	0
44	M216	X	.13	.13	0	0
45	M38	X	.33	.33	0	0
46	M7	X	.33	.33	0	0

Member Distributed Loads (BLC 14 : Wind 120Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
47	M8	X	.28	.28	0	0
48	M9	X	.33	.33	0	0
49	M11	X	.32	.32	0	0
50	M33	X	.03	.03	0	0
51	M47	X	.2	.2	0	0
52	M48	X	.2	.2	0	0
53	M49	X	.2	.2	0	0
54	M50	X	.2	.2	0	0
55	M53	X	.21	.21	0	0
56	M51	X	.21	.21	0	0
57	M52	X	.21	.21	0	0
58	M125	X	.16	.16	0	0
59	M126	X	.16	.16	0	0
60	M127	X	.16	.16	0	0
61	M128	X	.16	.16	0	0
62	M129	X	.16	.16	0	0
63	M136	X	.13	.13	0	0
64	M149	X	.13	.13	0	0
65	M162	X	.13	.13	0	0
66	M37	Y	-.15	-.15	0	0
67	M1	Y	-.17	-.17	0	0
68	M2	Y	-.21	-.21	0	0
69	M3	Y	-.17	-.17	0	0
70	M10	Y	-.17	-.17	0	0
71	M13	Y	-.18	-.18	0	0
72	M30	Y	-.32	-.32	0	0
73	M16	Y	-.32	-.32	0	0
74	M40	Y	-.35	-.35	0	0
75	M41	Y	-.35	-.35	0	0
76	M42	Y	-.35	-.35	0	0
77	M43	Y	-.35	-.35	0	0
78	M46	Y	-.11	-.11	0	0
79	M44	Y	-.37	-.37	0	0
80	M45	Y	-.37	-.37	0	0
81	M71	Y	-.27	-.27	0	0
82	M72	Y	-.27	-.27	0	0
83	M73	Y	-.27	-.27	0	0
84	M74	Y	-.27	-.27	0	0
85	M75	Y	-.27	-.27	0	0
86	M82	Y	-.23	-.23	0	0
87	M95	Y	-.23	-.23	0	0
88	M108	Y	-.23	-.23	0	0
89	M39	Y	-.15	-.15	0	0
90	M4	Y	-.17	-.17	0	0
91	M5	Y	-.21	-.21	0	0
92	M6	Y	-.17	-.17	0	0
93	M12	Y	-.17	-.17	0	0
94	M36	Y	-.32	-.32	0	0
95	M57	Y	-.35	-.35	0	0
96	M56	Y	-.35	-.35	0	0
97	M55	Y	-.35	-.35	0	0
98	M54	Y	-.35	-.35	0	0

Member Distributed Loads (BLC 14 : Wind 120Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
99	M60	Y	-.11	-.11	0	0
100	M58	Y	-.37	-.37	0	0
101	M59	Y	-.37	-.37	0	0
102	M179	Y	-.27	-.27	0	0
103	M180	Y	-.27	-.27	0	0
104	M181	Y	-.27	-.27	0	0
105	M182	Y	-.27	-.27	0	0
106	M183	Y	-.27	-.27	0	0
107	M190	Y	-.23	-.23	0	0
108	M203	Y	-.23	-.23	0	0
109	M216	Y	-.23	-.23	0	0
110	M38	Y	-.58	-.58	0	0
111	M7	Y	-.57	-.57	0	0
112	M8	Y	-.49	-.49	0	0
113	M9	Y	-.57	-.57	0	0
114	M11	Y	-.56	-.56	0	0
115	M33	Y	-.06	-.06	0	0
116	M47	Y	-.35	-.35	0	0
117	M48	Y	-.35	-.35	0	0
118	M49	Y	-.35	-.35	0	0
119	M50	Y	-.35	-.35	0	0
120	M53	Y	-.37	-.37	0	0
121	M51	Y	-.37	-.37	0	0
122	M52	Y	-.37	-.37	0	0
123	M125	Y	-.27	-.27	0	0
124	M126	Y	-.27	-.27	0	0
125	M127	Y	-.27	-.27	0	0
126	M128	Y	-.27	-.27	0	0
127	M129	Y	-.27	-.27	0	0
128	M136	Y	-.23	-.23	0	0
129	M149	Y	-.23	-.23	0	0
130	M162	Y	-.23	-.23	0	0

Member Distributed Loads (BLC 15 : Wind 150Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	.44	.44	0	0
2	M1	X	.44	.44	0	0
3	M2	X	.4	.4	0	0
4	M3	X	.44	.44	0	0
5	M10	X	.43	.43	0	0
6	M13	X	.4	.4	0	0
7	M30	X	.14	.14	0	0
8	M16	X	.15	.15	0	0
9	M40	X	.35	.35	0	0
10	M41	X	.35	.35	0	0
11	M42	X	.35	.35	0	0
12	M43	X	.35	.35	0	0
13	M46	X	.28	.28	0	0
14	M44	X	.37	.37	0	0
15	M45	X	.37	.37	0	0
16	M71	X	.27	.27	0	0

Member Distributed Loads (BLC 15 : Wind 150Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
17	M72	X	.27	.27	0	0
18	M73	X	.27	.27	0	0
19	M74	X	.27	.27	0	0
20	M75	X	.27	.27	0	0
21	M82	X	.23	.23	0	0
22	M95	X	.23	.23	0	0
23	M108	X	.23	.23	0	0
24	M39	X	.01	.01	0	0
25	M4	X	.03	.03	0	0
26	M5	X	.11	.11	0	0
27	M6	X	.03	.03	0	0
28	M12	X	.04	.04	0	0
29	M36	X	.41	.41	0	0
30	M57	X	.35	.35	0	0
31	M56	X	.35	.35	0	0
32	M55	X	.35	.35	0	0
33	M54	X	.35	.35	0	0
34	M60	X	.02	.02	0	0
35	M58	X	.37	.37	0	0
36	M59	X	.37	.37	0	0
37	M179	X	.27	.27	0	0
38	M180	X	.27	.27	0	0
39	M181	X	.27	.27	0	0
40	M182	X	.27	.27	0	0
41	M183	X	.27	.27	0	0
42	M190	X	.23	.23	0	0
43	M203	X	.23	.23	0	0
44	M216	X	.23	.23	0	0
45	M38	X	.44	.44	0	0
46	M7	X	.44	.44	0	0
47	M8	X	.4	.4	0	0
48	M9	X	.44	.44	0	0
49	M11	X	.43	.43	0	0
50	M33	X	.14	.14	0	0
51	M47	X	.35	.35	0	0
52	M48	X	.35	.35	0	0
53	M49	X	.35	.35	0	0
54	M50	X	.35	.35	0	0
55	M53	X	.28	.28	0	0
56	M51	X	.37	.37	0	0
57	M52	X	.37	.37	0	0
58	M125	X	.27	.27	0	0
59	M126	X	.27	.27	0	0
60	M127	X	.27	.27	0	0
61	M128	X	.27	.27	0	0
62	M129	X	.27	.27	0	0
63	M136	X	.23	.23	0	0
64	M149	X	.23	.23	0	0
65	M162	X	.23	.23	0	0
66	M37	Y	-.25	-.25	0	0
67	M1	Y	-.25	-.25	0	0
68	M2	Y	-.23	-.23	0	0

Member Distributed Loads (BLC 15 : Wind 150Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
69	M3	Y	-.25	-.25	0	0
70	M10	Y	-.25	-.25	0	0
71	M13	Y	-.23	-.23	0	0
72	M30	Y	-.08	-.08	0	0
73	M16	Y	-.09	-.09	0	0
74	M40	Y	-.2	-.2	0	0
75	M41	Y	-.2	-.2	0	0
76	M42	Y	-.2	-.2	0	0
77	M43	Y	-.2	-.2	0	0
78	M46	Y	-.16	-.16	0	0
79	M44	Y	-.21	-.21	0	0
80	M45	Y	-.21	-.21	0	0
81	M71	Y	-.16	-.16	0	0
82	M72	Y	-.16	-.16	0	0
83	M73	Y	-.16	-.16	0	0
84	M74	Y	-.16	-.16	0	0
85	M75	Y	-.16	-.16	0	0
86	M82	Y	-.13	-.13	0	0
87	M95	Y	-.13	-.13	0	0
88	M108	Y	-.13	-.13	0	0
89	M39	Y	-.01	-.01	0	0
90	M4	Y	-.02	-.02	0	0
91	M5	Y	-.07	-.07	0	0
92	M6	Y	-.02	-.02	0	0
93	M12	Y	-.02	-.02	0	0
94	M36	Y	-.24	-.24	0	0
95	M57	Y	-.2	-.2	0	0
96	M56	Y	-.2	-.2	0	0
97	M55	Y	-.2	-.2	0	0
98	M54	Y	-.2	-.2	0	0
99	M60	Y	-.01	-.01	0	0
100	M58	Y	-.21	-.21	0	0
101	M59	Y	-.21	-.21	0	0
102	M179	Y	-.16	-.16	0	0
103	M180	Y	-.16	-.16	0	0
104	M181	Y	-.16	-.16	0	0
105	M182	Y	-.16	-.16	0	0
106	M183	Y	-.16	-.16	0	0
107	M190	Y	-.13	-.13	0	0
108	M203	Y	-.13	-.13	0	0
109	M216	Y	-.13	-.13	0	0
110	M38	Y	-.25	-.25	0	0
111	M7	Y	-.25	-.25	0	0
112	M8	Y	-.23	-.23	0	0
113	M9	Y	-.25	-.25	0	0
114	M11	Y	-.25	-.25	0	0
115	M33	Y	-.08	-.08	0	0
116	M47	Y	-.2	-.2	0	0
117	M48	Y	-.2	-.2	0	0
118	M49	Y	-.2	-.2	0	0
119	M50	Y	-.2	-.2	0	0
120	M53	Y	-.16	-.16	0	0

Member Distributed Loads (BLC 15 : Wind 150Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
121	M51	Y	-.21	-.21	0	0
122	M52	Y	-.21	-.21	0	0
123	M125	Y	-.16	-.16	0	0
124	M126	Y	-.16	-.16	0	0
125	M127	Y	-.16	-.16	0	0
126	M128	Y	-.16	-.16	0	0
127	M129	Y	-.16	-.16	0	0
128	M136	Y	-.13	-.13	0	0
129	M149	Y	-.13	-.13	0	0
130	M162	Y	-.13	-.13	0	0

Member Distributed Loads (BLC 24 : BLC 2 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M1	Z	-.618	-.363	6.15	27.675
2	M1	Z	-.363	-.109	27.675	49.2
3	M6	Z	-.148	-.622	12.3	26.65
4	M6	Z	-.622	-.594	26.65	41
5	M6	Z	-.594	-.081	41	55.35
6	M11	Z	-.669	-.502	0	28.5
7	M11	Z	-.502	-.334	28.5	57
8	M4	Z	-.089	-.185	6.15	17.22
9	M4	Z	-.185	-.173	17.22	28.29
10	M4	Z	-.173	-.182	28.29	39.36
11	M4	Z	-.182	-.157	39.36	50.43
12	M4	Z	-.157	-.01	50.43	61.5
13	M9	Z	-.003	-.188	0	11.07
14	M9	Z	-.188	-.326	11.07	22.14
15	M9	Z	-.326	-.245	22.14	33.21
16	M9	Z	-.245	-.179	33.21	44.28
17	M9	Z	-.179	-.117	44.28	55.35
18	M10	Z	-.167	-.176	0	11.4
19	M10	Z	-.176	-.322	11.4	22.8
20	M10	Z	-.322	-.498	22.8	34.2
21	M10	Z	-.498	-.37	34.2	45.6
22	M10	Z	-.37	-.041	45.6	57
23	M13	Z	-.043	-.436	0	5.5
24	M13	Z	-.436	-.779	5.5	11
25	M13	Z	-.779	-.921	11	16.5
26	M13	Z	-.921	-.739	16.5	22
27	M13	Z	-.739	-.38	22	27.5
28	M14	Z	-.103	-.077	0	.75
29	M14	Z	-.077	-.051	.75	1.5
30	M15	Z	-.014	-.077	0	1.5
31	M16	Z	-.185	-.406	0	4
32	M16	Z	-.406	-.638	4	8
33	M16	Z	-.638	-.695	8	12
34	M16	Z	-.695	-.51	12	16
35	M16	Z	-.51	-.272	16	20
36	M17	Z	-.041	-.041	0	1.475
37	M18	Z	-.18	-.096	0	.737
38	M18	Z	-.096	-.011	.737	1.475

Member Distributed Loads (BLC 24 : BLC 2 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
39	M3	Z	-.109	-.363	12.3	33.825
40	M3	Z	-.363	-.618	33.825	55.35
41	M7	Z	-.081	-.594	6.15	20.5
42	M7	Z	-.594	-.622	20.5	34.85
43	M7	Z	-.622	-.147	34.85	49.2
44	M12	Z	-.334	-.502	0	28.5
45	M12	Z	-.502	-.67	28.5	57

Member Distributed Loads (BLC 25 : BLC 3 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M1	Z	-2.913	-1.713	6.15	27.675
2	M1	Z	-1.713	-.513	27.675	49.2
3	M6	Z	-.696	-2.933	12.3	26.65
4	M6	Z	-2.933	-2.801	26.65	41
5	M6	Z	-2.801	-.381	41	55.35
6	M11	Z	-3.156	-2.365	0	28.5
7	M11	Z	-2.365	-1.574	28.5	57
8	M4	Z	-.417	-.871	6.15	17.22
9	M4	Z	-.871	-.817	17.22	28.29
10	M4	Z	-.817	-.858	28.29	39.36
11	M4	Z	-.858	-.738	39.36	50.43
12	M4	Z	-.738	-.047	50.43	61.5
13	M9	Z	-.015	-.887	0	11.07
14	M9	Z	-.887	-1.537	11.07	22.14
15	M9	Z	-1.537	-1.154	22.14	33.21
16	M9	Z	-1.154	-.845	33.21	44.28
17	M9	Z	-.845	-.55	44.28	55.35
18	M10	Z	-.787	-.83	0	11.4
19	M10	Z	-.83	-1.517	11.4	22.8
20	M10	Z	-1.517	-2.35	22.8	34.2
21	M10	Z	-2.35	-1.742	34.2	45.6
22	M10	Z	-1.742	-.195	45.6	57
23	M13	Z	-.201	-2.055	0	5.5
24	M13	Z	-2.055	-3.671	5.5	11
25	M13	Z	-3.671	-4.344	11	16.5
26	M13	Z	-4.344	-3.482	16.5	22
27	M13	Z	-3.482	-1.79	22	27.5
28	M14	Z	-.486	-.362	0	.75
29	M14	Z	-.362	-.239	.75	1.5
30	M15	Z	-.068	-.362	0	1.5
31	M16	Z	-.873	-1.913	0	4
32	M16	Z	-1.913	-3.007	4	8
33	M16	Z	-3.007	-3.274	8	12
34	M16	Z	-3.274	-2.406	12	16
35	M16	Z	-2.406	-1.283	16	20
36	M17	Z	-.196	-.196	0	1.475
37	M18	Z	-.85	-.451	0	.737
38	M18	Z	-.451	-.052	.737	1.475
39	M3	Z	-.514	-1.713	12.3	33.825
40	M3	Z	-1.713	-2.912	33.825	55.35
41	M7	Z	-.381	-2.8	6.15	20.5

Member Distributed Loads (BLC 25 : BLC 3 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
42	M7	Z	-2.8	-2.931	20.5	34.85
43	M7	Z	-2.931	-.693	34.85	49.2
44	M12	Z	-1.576	-2.366	0	28.5
45	M12	Z	-2.366	-3.157	28.5	57

Member Area Loads (BLC 2 : Weights)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N12	N13	N19	N18	Z	Two Way	-.007
2	N16	N10	N11	N17	Z	Two Way	-.007
3	N20	N14	N15	N21	Z	Two Way	-.007

Member Area Loads (BLC 3 : ICE Load)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N13	N19	N18	N12	Z	Two Way	-.033
2	N16	N10	N11	N17	Z	Two Way	-.033
3	N21	N20	N14	N15	Z	Two Way	-.033

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(Plate/Wall)
1	Self Weight	DL			-1					
2	Weights	DL					24		3	
3	ICE Load	DL					24	65	3	
4	Wind 0Á	WL					24	65		
5	Wind 30Á	WL					48	130		
6	Wind 60Á	WL					48	130		
7	Wind 90Á	WL					24	65		
8	Wind 120Á	WL					48	130		
9	Wind 150Á	WL					48	130		
10	Wind 0Áwith ice	WL					24	65		
11	Wind 30Áwith ice	WL					48	130		
12	Wind 60Áwith ice	WL					48	130		
13	Wind 90Áwith ice	WL					24	65		
14	Wind 120Áwith ice	WL					48	130		
15	Wind 150Áwith ice	WL					48	130		
16	Lm1	LL				1				
17	Lm2	LL				1				
18	Lm3	LL								
19	Lm4	LL								
20	Lv1	LL				1				
21	Lv2	LL				1				
22	Horizontal Seismic ...	ELX	-1				24			
23	Horizontal Seismic ...	ELY		-1			24			
24	BLC 2 Transient Ar...	None						45		
25	BLC 3 Transient Ar...	None						45		

Load Combinations

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
1	Dead Only	Yes	Y		1	1.4	2	1.4																		
2	1.2D+1.0W_0Á	Yes	Y		1	1.2	2	1.2	4	1																
3	1.2D+1.0W_3...	Yes	Y		1	1.2	2	1.2	5	1																
4	1.2D+1.0W_6...	Yes	Y		1	1.2	2	1.2	6	1																
5	1.2D+1.0W_9...	Yes	Y		1	1.2	2	1.2	7	1																
6	1.2D+1.0W_1...	Yes	Y		1	1.2	2	1.2	8	1																
7	1.2D+1.0W_1...	Yes	Y		1	1.2	2	1.2	9	1																
8	1.2D+1.0W_1...	Yes	Y		1	1.2	2	1.2	4	-1																
9	1.2D+1.0W_2...	Yes	Y		1	1.2	2	1.2	5	-1																
10	1.2D+1.0W_2...	Yes	Y		1	1.2	2	1.2	6	-1																
11	1.2D+1.0W_2...	Yes	Y		1	1.2	2	1.2	7	-1																
12	1.2D+1.0W_3...	Yes	Y		1	1.2	2	1.2	8	-1																
13	1.2D+1.0W_3...	Yes	Y		1	1.2	2	1.2	9	-1																
14	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	10	1	3	1														
15	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	11	1	3	1														
16	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	12	1	3	1														
17	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	13	1	3	1														
18	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	14	1	3	1														
19	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	15	1	3	1														
20	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	10	-1	3	1														
21	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	11	-1	3	1														
22	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	12	-1	3	1														
23	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	13	-1	3	1														
24	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	14	-1	3	1														
25	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	15	-1	3	1														
26	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	4	.064														
27	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	5	.064														
28	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	6	.064														
29	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	7	.064														
30	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	8	.064														
31	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	9	.064														
32	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	4	-.064														
33	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	5	-.064														
34	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	6	-.064														
35	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	7	-.064														
36	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	8	-.064														
37	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	9	-.064														
38	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	4	.064														
39	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	5	.064														
40	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	6	.064														
41	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	7	.064														
42	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	8	.064														
43	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	9	.064														
44	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	4	-.064														
45	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	5	-.064														
46	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	6	-.064														
47	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	7	-.064														
48	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	8	-.064														
49	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	9	-.064														
50	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	4	.064														
51	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	5	.064														

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
52	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	6	.064														
53	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	7	.064														
54	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	8	.064														
55	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	9	.064														
56	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	4	-.064														
57	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	5	-.064														
58	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	6	-.064														
59	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	7	-.064														
60	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	8	-.064														
61	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	9	-.064														
62	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	4	.064														
63	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	5	.064														
64	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	6	.064														
65	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	7	.064														
66	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	8	.064														
67	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	9	.064														
68	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	4	-.064														
69	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	5	-.064														
70	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	6	-.064														
71	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	7	-.064														
72	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	8	-.064														
73	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	9	-.064														
74	1.2D+1.5Lv1	Yes	Y		1	1.2	2	1.2	20	1.5																
75	1.2D+1.5Lv2	Yes	Y		1	1.2	2	1.2	21	1.5																
76	1.2D+1.0E_0Á	Yes	Y		1	1.239	2	1.239	22	.096	23															
77	1.2D+1.0E_30Á	Yes	Y		1	1.239	2	1.239	22	.083	23	.048														
78	1.2D+1.0E_60Á	Yes	Y		1	1.239	2	1.239	22	.048	23	.083														
79	1.2D+1.0E_90Á	Yes	Y		1	1.239	2	1.239	22		23	.096														
80	1.2D+1.0E_12...	Yes	Y		1	1.239	2	1.239	22	-.048	23	.083														
81	1.2D+1.0E_15...	Yes	Y		1	1.239	2	1.239	22	-.083	23	.048														
82	1.2D+1.0E_18...	Yes	Y		1	1.239	2	1.239	22	-.096	23															
83	1.2D+1.0E_21...	Yes	Y		1	1.239	2	1.239	22	-.083	23	-.048														
84	1.2D+1.0E_24...	Yes	Y		1	1.239	2	1.239	22	-.048	23	-.083														
85	1.2D+1.0E_27...	Yes	Y		1	1.239	2	1.239	22		23	-.096														
86	1.2D+1.0E_30...	Yes	Y		1	1.239	2	1.239	22	.048	23	-.083														
87	1.2D+1.0E_33...	Yes	Y		1	1.239	2	1.239	22	.083	23	-.048														

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Mem...	Shape	Code Check	Lo...	LC	Shear Ch...	Lo...	Dir	LC	phi*Pnc [l...	phi*Pnt...	phi*...	phi*Mn...	Cb	Eqn
1	M1	C 5X2X1/4	.286	57....	5	.107	57...	z	9	57955.099	68850	26.3...	113.623	1	H1-1b
2	M2	C 5X2X1/4	.161	0	6	.107	7.5	y	9	66090.763	68850	26.3...	117.956	1.761	H1-1b
3	M3	C 5X2X1/4	.283	4.4...	11	.105	4....	z	7	57955.099	68850	26.3...	113.623	1	H1-1b
4	M4	C 5X2X1/4	.267	57....	13	.159	30...	z	10	57955.099	68850	26.3...	113.623	1	H1-1b
5	M5	C 5X2X1/4	.181	15	15	.103	7.5	y	3	66090.763	68850	26.3...	117.956	1.266	H1-1b
6	M6	C 5X2X1/4	.241	4.4...	7	.100	4....	z	3	57955.099	68850	26.3...	113.623	1	H1-1b
7	M7	C 5X2X1/4	.269	57....	9	.105	57...	z	13	57955.099	68850	26.3...	113.623	1	H1-1b
8	M8	C 5X2X1/4	.173	0	25	.105	7.5	y	13	66090.763	68850	26.3...	117.956	1.261	H1-1b
9	M9	C 5X2X1/4	.277	4.4...	3	.166	31...	z	12	57955.099	68850	26.3...	113.623	1	H1-1b
10	M10	C 5X2X1/4	.474	28.5	25	.145	28...	y	14	54157.336	68850	26.3...	117.956	1.704	H1-1b
11	M11	C 5X2X1/4	.410	28.5	18	.121	9.5	y	18	54157.336	68850	26.3...	117.956	1.69	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Mem...	Shape	Code Check	Lo...	LC	Shear Ch...	Lo...	Dir	LC	phi*Pnc [l...	phi*Pnt...	phi*...	phi*Mn...	Cb	Eqn
12	M12	C 5X2X1/4	.407	28.5	22	.120	47...	y	22	54157.336	68850	26.3...	117.956	1.69	H1-1b
13	M13	C 5X2X1/4	.379	0	14	.165	.8...	z	21	61729.26	68850	26.3...	117.956	2.894	H1-1b
14	M16	C 5X2X1/4	.119	20	12	.028	10...	z	12	64389.16	68850	26.3...	117.956	1.106	H1-1b
15	M30	HSS3X3X4...	.708	0	14	.194	0	y	16	109580.0...	114057	117....	117.949	2.507	H1-1b
16	M33	HSS3X3X4...	.713	0	18	.200	0	z	3	109580.0...	114057	117....	117.949	2.495	H1-1b
17	M36	HSS3X3X4...	.713	0	22	.198	0	z	13	109580.0...	114057	117....	117.949	2.493	H1-1b
18	M37	L3X3X4	.467	69	8	.083	13...	y	10	22169.006	46656	20.2...	30.143	1	H2-1
19	M38	L3X3X4	.466	69	6	.086	4....	z	2	34854.506	46656	20.2...	30.143	1	H2-1
20	M39	L3X3X4	.456	69	4	.083	13...	y	6	22169.006	46656	20.2...	30.143	1	H2-1
21	M40	L 1.25X1.2...	1.027	0	9	.373	2....	z	9	10898.458	18225	2.842	6.605	4.591	H2-1
22	M41	L 1.25X1.2...	1.038	37	9	.260	37	y	9	15803.014	18225	2.842	6.605	3.859	H2-1
23	M42	L 1.25X1.2...	1.063	37	7	.262	37	z	7	10898.458	18225	2.842	6.605	3.858	H2-1
24	M43	L 1.25X1.2...	1.015	0	7	.366	2....	y	7	10898.458	18225	2.842	6.605	4.536	H2-1
25	M44	L 1.25X1.2...	.391	0	7	.015	50...	y	8	7069.927	18225	2.842	6.585	1.432	H2-1
26	M45	L 1.25X1.2...	.392	0	9	.016	50...	z	8	7069.927	18225	2.842	6.591	1.441	H2-1
27	M46	L 1.25X1.2...	.111	0	17	.007	52	y	23	6587.223	18225	2.842	6.605	2.114	H2-1
28	M47	L 1.25X1.2...	1.026	0	13	.373	2....	z	13	10898.458	18225	2.842	6.605	4.571	H2-1
29	M48	L 1.25X1.2...	1.046	37	2	.259	37	y	13	15803.014	18225	2.842	6.605	4.225	H2-1
30	M49	L 1.25X1.2...	1.001	37	10	.213	37	z	11	10898.458	18225	2.842	6.605	3.935	H2-1
31	M50	L 1.25X1.2...	.925	0	11	.305	0	z	11	10898.458	18225	2.842	6.605	2.411	H2-1
32	M51	L 1.25X1.2...	.394	0	11	.012	50...	z	24	7069.927	18225	2.842	6.605	1.543	H2-1
33	M52	L 1.25X1.2...	.391	0	13	.015	50...	z	12	7069.927	18225	2.842	6.593	1.445	H2-1
34	M53	L 1.25X1.2...	.114	0	21	.007	0	y	21	6587.223	18225	2.842	6.605	2.129	H2-1
35	M54	L 1.25X1.2...	1.022	0	5	.331	2....	z	5	10898.458	18225	2.842	6.605	3.574	H2-1
36	M55	L 1.25X1.2...	.970	37	6	.214	37	y	5	15803.014	18225	2.842	6.605	3.899	H2-1
37	M56	L 1.25X1.2...	1.070	37	2	.258	37	z	3	10898.458	18225	2.842	6.605	4.248	H2-1
38	M57	L 1.25X1.2...	1.010	0	3	.365	2....	y	3	10898.458	18225	2.842	6.605	4.568	H2-1
39	M58	L 1.25X1.2...	.388	0	3	.015	50...	y	4	7069.927	18225	2.842	6.587	1.435	H2-1
40	M59	L 1.25X1.2...	.394	0	5	.014	50...	z	4	7069.927	18225	2.842	6.605	1.546	H2-1
41	M60	L 1.25X1.2...	.109	0	25	.007	52	y	19	6587.223	18225	2.842	6.605	2.075	H2-1
42	M71	HSS 2.4X0....	.077	55....	37	.106	19...		13	16987.195	28141....	20.4	20.4	1.922	H1-1b
43	M72	HSS 2.4X0....	.064	55....	16	.131	55...		2	16987.195	28141....	20.4	20.4	2.286	H1-1b
44	M73	HSS 2.4X0....	.250	55....	2	.078	31...		5	16987.195	28141....	20.4	20.4	2.241	H1-1b
45	M74	HSS 2.4X0....	.058	55....	24	.128	55...		2	16987.195	28141....	20.4	20.4	2.182	H1-1b
46	M75	HSS 2.4X0....	.075	55....	39	.107	19...		9	16987.195	28141....	20.4	20.4	1.827	H1-1b
47	M78	SR 1/2	.324	8	23	.024	0		22	5095.684	6350.4	.622	.622	2.262	H1-1b
48	M79	SR 1/2	.318	8	16	.024	0		22	5095.684	6350.4	.622	.622	2.262	H1-1b
49	M82	HSS 2.4X0....	.024	17....	5	.035	28...		8	25407.254	28141....	20.4	20.4	1.546	H1-1b
50	M85	SR 1/2	.356	0	20	.028	0		25	5095.684	6350.4	.622	.622	2.266	H1-1b
51	M86	SR 1/2	.374	0	24	.029	0		25	5095.684	6350.4	.622	.622	2.265	H1-1b
52	M91	SR 1/2	.344	8	21	.020	0		22	5095.684	6350.4	.622	.622	2.267	H1-1b
53	M92	SR 1/2	.343	8	19	.020	0		22	5095.684	6350.4	.622	.622	2.267	H1-1b
54	M95	HSS 2.4X0....	.026	18....	5	.020	28...		11	25407.254	28141....	20.4	20.4	1.511	H1-1b
55	M98	SR 1/2	.427	0	25	.033	0		11	5095.684	6350.4	.622	.622	2.256	H1-1b
56	M99	SR 1/2	.428	0	15	.034	0		5	5095.684	6350.4	.622	.622	2.256	H1-1b
57	M104	SR 1/2	.079	8	14	.010	0		19	5095.684	6350.4	.622	.622	2.248	H1-1b
58	M105	SR 1/2	.086	8	20	.010	0		19	5095.684	6350.4	.622	.622	2.252	H1-1b
59	M108	HSS 2.4X0....	.006	28....	20	.030	28...		8	25407.254	28141....	20.4	20.4	1.062	H1-1b
60	M111	SR 1/2	.107	0	16	.015	0		14	5095.684	6350.4	.622	.622	2.27	H1-1b
61	M112	SR 1/2	.094	0	20	.014	0		14	5095.684	6350.4	.622	.622	2.269	H1-1b
62	M125	HSS 2.4X0....	.043	55....	16	.107	19...		11	16987.195	28141....	20.4	20.4	2.337	H1-1b
63	M126	HSS 2.4X0....	.062	55....	20	.127	55...		12	16987.195	28141....	20.4	20.4	1.668	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Mem...	Shape	Code Check	Lo...	LC	Shear Ch...	Lo...	Dir	LC	phi*Pnc [l...	phi*Pnt...	phi*...	phi*Mn...	Cb	Eqn
64	M127	HSS 2.4X0...	.248	55...	6	.079	31...		3	16987.195	28141....	20.4	20.4	1.361	H1-1b
65	M128	HSS 2.4X0...	.055	55...	16	.124	55...		6	16987.195	28141....	20.4	20.4	2.213	H1-1b
66	M129	HSS 2.4X0...	.038	55...	20	.102	19...		13	16987.195	28141....	20.4	20.4	2.589	H1-1b
67	M132	SR 1/2	.325	8	15	.025	0		14	5095.684	6350.4	.622	.622	2.262	H1-1b
68	M133	SR 1/2	.317	8	20	.024	0		14	5095.684	6350.4	.622	.622	2.262	H1-1b
69	M136	HSS 2.4X0...	.024	17...	9	.034	28...		12	25407.254	28141....	20.4	20.4	1.218	H1-1b
70	M139	SR 1/2	.357	0	24	.027	0		17	5095.684	6350.4	.622	.622	2.267	H1-1b
71	M140	SR 1/2	.372	0	16	.029	0		17	5095.684	6350.4	.622	.622	2.265	H1-1b
72	M145	SR 1/2	.345	8	25	.020	0		14	5095.684	6350.4	.622	.622	2.267	H1-1b
73	M146	SR 1/2	.342	8	23	.020	0		14	5095.684	6350.4	.622	.622	2.267	H1-1b
74	M149	HSS 2.4X0...	.026	18...	9	.020	28...		3	25407.254	28141....	20.4	20.4	1.178	H1-1b
75	M152	SR 1/2	.427	0	17	.034	0		3	5095.684	6350.4	.622	.622	2.256	H1-1b
76	M153	SR 1/2	.428	0	19	.034	0		9	5095.684	6350.4	.622	.622	2.256	H1-1b
77	M158	SR 1/2	.079	8	18	.009	0		23	5095.684	6350.4	.622	.622	2.248	H1-1b
78	M159	SR 1/2	.086	8	24	.010	0		23	5095.684	6350.4	.622	.622	2.253	H1-1b
79	M162	HSS 2.4X0...	.006	28...	24	.030	28...		12	25407.254	28141....	20.4	20.4	1.858	H1-1b
80	M165	SR 1/2	.106	0	20	.015	0		18	5095.684	6350.4	.622	.622	2.271	H1-1b
81	M166	SR 1/2	.093	0	24	.013	0		18	5095.684	6350.4	.622	.622	2.27	H1-1b
82	M179	HSS 2.4X0...	.043	55...	20	.099	19...		9	16987.195	28141....	20.4	20.4	2.331	H1-1b
83	M180	HSS 2.4X0...	.061	55...	24	.125	55...		10	16987.195	28141....	20.4	20.4	2.101	H1-1b
84	M181	HSS 2.4X0...	.247	55...	10	.078	31...		13	16987.195	28141....	20.4	20.4	1.388	H1-1b
85	M182	HSS 2.4X0...	.059	55...	20	.127	55...		4	16987.195	28141....	20.4	20.4	1.933	H1-1b
86	M183	HSS 2.4X0...	.039	55...	23	.107	19...		5	16987.195	28141....	20.4	20.4	2.33	H1-1b
87	M186	SR 1/2	.324	8	19	.024	0		18	5095.684	6350.4	.622	.622	2.262	H1-1b
88	M187	SR 1/2	.318	8	24	.023	0		18	5095.684	6350.4	.622	.622	2.262	H1-1b
89	M190	HSS 2.4X0...	.024	17...	13	.034	28...		4	25407.254	28141....	20.4	20.4	1.441	H1-1b
90	M193	SR 1/2	.356	0	16	.028	0		21	5095.684	6350.4	.622	.622	2.267	H1-1b
91	M194	SR 1/2	.373	0	20	.029	0		21	5095.684	6350.4	.622	.622	2.265	H1-1b
92	M199	SR 1/2	.343	8	17	.020	0		18	5095.684	6350.4	.622	.622	2.267	H1-1b
93	M200	SR 1/2	.344	8	15	.020	0		14	5095.684	6350.4	.622	.622	2.267	H1-1b
94	M203	HSS 2.4X0...	.026	18...	13	.019	28...		2	25407.254	28141....	20.4	20.4	1.383	H1-1b
95	M206	SR 1/2	.426	0	21	.033	0		7	5095.684	6350.4	.622	.622	2.256	H1-1b
96	M207	SR 1/2	.429	0	22	.034	0		13	5095.684	6350.4	.622	.622	2.254	H1-1b
97	M212	SR 1/2	.079	8	21	.010	0		15	5095.684	6350.4	.622	.622	2.25	H1-1b
98	M213	SR 1/2	.087	8	16	.011	0		15	5095.684	6350.4	.622	.622	2.253	H1-1b
99	M216	HSS 2.4X0...	.006	28...	16	.030	28...		4	25407.254	28141....	20.4	20.4	1.773	H1-1b
100	M219	SR 1/2	.104	0	24	.015	0		22	5095.684	6350.4	.622	.622	2.272	H1-1b
101	M220	SR 1/2	.093	0	16	.013	0		22	5095.684	6350.4	.622	.622	2.271	H1-1b

Envelope AISI S100-12: LRFD Cold Formed Steel Code Checks

Me...	Shape	Code Check	Loc[in]	LC	Shea...	Loc[...	Dir	LC	phi*P...	phi*...	phi*...	phi*...	Cb	C...	C...	Eqn
No Data to Print ...																

Trylon

Prepared For

AMERICAN TOWER

Mount Analysis Report

411256
CANTON CT

9/3/2019

8-30-2019

PASS - 77%

Trylon

Analysis Date: 08-30-2019

MOUNT ANALYSIS REPORT

ATC
10 Presidential Way Woburn, MA
01801

Attention: **Blake Paynter**

Subject: Analysis of the Existing Platform with proposed reinforcement installed at 120-ft. elevation

Site Data:

Site Code:	411256
Site Name:	CANTON CT
Site Adress:	14 Canton Springs Road, Canton,Hartford, CT 06019
Structure Type	Monopole
Trylon job #:	152689

Dear Blake Paynter,

We have been provided with RF information, photos and sketches of the structure for above-referenced site. Verizon is proposing to change the equipment configuration on the existing mounting hardware.

A revised antenna, coax and miscellaneous equipment schematic have been provided to us. We have been asked to evaluate this information to determine whether or not the mounting apparatus is adequate to safely support the proposed loading change.

The structural evaluation refers to the Existing Platform with proposed reinforcement installed at 120-ft. elevation on the existing Monopole located at 14 Canton Springs Road, Canton,Hartford, CT 06019.

RISA 3D (version 17), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

1. Source of data

Document Type	Source	Date
Mount Mapping	Trylon	08-21-2019
RFDS	Verizon	06-26-2019

2. Analysis Criteria

Standard	2015 IBC / ASCE 7-10 / TIA-222-H
Basic Design Wind Speed without Ice (mph)	119
Basic Design Wind Speed with Ice (mph)	50
Basic Design Ice Thickness (in)	2.00
Structure Risk Category	II
Exposure Category	C
Topographic Factor, Kzt	1
Seismic Response Coefficient	0.10
Maintenace Live Load at Mounting Pipe Location (lbs)	500

3. Final Equipment Configuration

Mount Centerline 120 ft.

Antennas Centerline [ft]	# of Antennas	Antenna Manufacturer	Antenna Model	Height [in]	Width [in]	Thk. [in]	Weight [lbs]	FAN w/o ice [lbs]	FAN w/ ice [lbs]
120.1	2	Amphenol	LPA-80063/4CF	47.4	15.2	13.19	20	247.29	61.08
120	4	Andrew	SBNHH-1D65B.	72.72	23.7	7.1	127	590.48	130.44
120	4	Amphenol	LPA-80080/4CF	47.4	15.2	13.19	20	247.29	61.08
120.1	2	Andrew	SBNHH-1D65B.	72.72	23.7	7.1	127	590.48	130.44
120	3	Samsung	B5/B13 RRH-BR04C	15	15	8.1	70	40.77	14.65
120	3	Samsung	B2/B66A RRH-BR049	15	15	10	84	50.33	16.85

* Denotes Andrew SBNHH-1D65B Antenna is mounted on Commscope BSAMNT-SBS-1-2 side by side Mounting kit.

4. Standard Conditions for Providing Structural Consulting Services on Existing Structures

1) Mounting hardware is analyzed to the best of our ability using all information that is provided or can be obtained during fieldwork (if authorized by client). If the existing conditions are not as we have represented in this analysis, we should be contacted to evaluate the significance of the deviation and revise the assessment accordingly.

2) The structural analysis has been performed assuming that hardware is in "like new" condition. No allowance was made for excessive corrosion, damaged or missing structural members, loose bolts, misaligned parts, or any reduction in strength due to the age or fatigue of the product.

3) The structural analysis provided is an assessment of the primary load carrying capacity of the hardware. We provide a limited scope of service. In some cases we cannot verify the capacity of every weld, plate, connection detail, etc. In some cases, structural fabrication details are unknown at the time of our analysis, and the detailed field measurement of some of the required details may not be possible. In instances where we cannot perform connection capacity calculations, it is assumed that the existing manufactured connections develop the full capacity of the primary members being connected.

4) We cannot be held responsible for mounting hardware that is installed improperly or hardware that is loose or has a tendency of working loose over the lifetime of the mounting hardware. Our analysis has been performed assuming fully tightened connections, and proper installation and symmetry of the mounting hardware per manufacturer's instructions.

5) The structural analysis has been performed using information currently provided by the client and potentially field verified. We have been provided with a mounting arrangement for all telecommunications equipment, including antennas RRH's, TMA's, RRU's, diplexers, surge protection devices, etc. Our analysis has been based upon a particular mounting arrangement. We are not responsible for deviations in the mounting arrangement that may occur over time. If deviations in equipment type or mounting arrangements are proposed, then we should be contacted to revise the recommendations of this structural report.

6) We cannot be held responsible for temporary and unbalanced loads on mounting hardware. Our analysis is based on a particular mounting arrangement or as-built field condition. We are not responsible for the methods and means of how the mounting arrangement is accomplished by the contractor. These methods and means may include rigging of equipment or hardware to lift and locate, temporary hanging of equipment in locations other than the final arrangement, movement and tie off of tower riggers, personnel, and their equipment, etc.

7) Steel grade and strength is unknown and cannot be field tested. We cannot be held responsible for equipment manufactured from inferior steel or bolts. Our analysis assumes that standard structural grade steel has been used by the equipment manufacturer for all assembled parts of the mounting apparatus. Acceptable steels and connection components are specified by the American Institute of Steel Construction. It is assumed all welded connections are performed in the shop under the latest American Welding Society Code. No field welds are permitted or assumed for the existing premanufactured equipment.

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

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM 500 (GR B-46)
Pipe	ASTM A53 (GR 35)
Connection Bolts	ASTM A325

5. Analysis Results

Mount CL (ft.)	Component	% Capacity	Pass/Fail	Notes
120	Face Horizontals	48	Pass	1,2
	Standoff Members	77	Pass	1,2
	Bracings	77	Pass	1,2
	Antenna Pipes	29	Pass	1,2
	Connections	34	Pass	1,2

Structure Rating (max from all components) =	**77%**

Notes:

1. See additional documentation in "Appendix B - Analysis Output" for calculations supporting the % capacity consumed.
2. All sectors are typical

Trylon

Analysis date: 08-30-2019

6. Conclusions and recommendations

Based on information provided, our calculations conclude that the Existing Verizon Platform with proposed reinforcement located at 120-ft elevation on the existing Monopole at the specified address, is ADEQUATE to safely support the proposed equipment, subject to the attached Standard Conditions on page 3.

Category	Classification
Mount Classification (w/ Ice, w/ Vertical Offset)	M500R(400) - 3[1]

Should you have any questions, comments or require additional information, please do not hesitate to call.

Sincerely,
Analysis performed by:

Sarathi

Reviewed by:

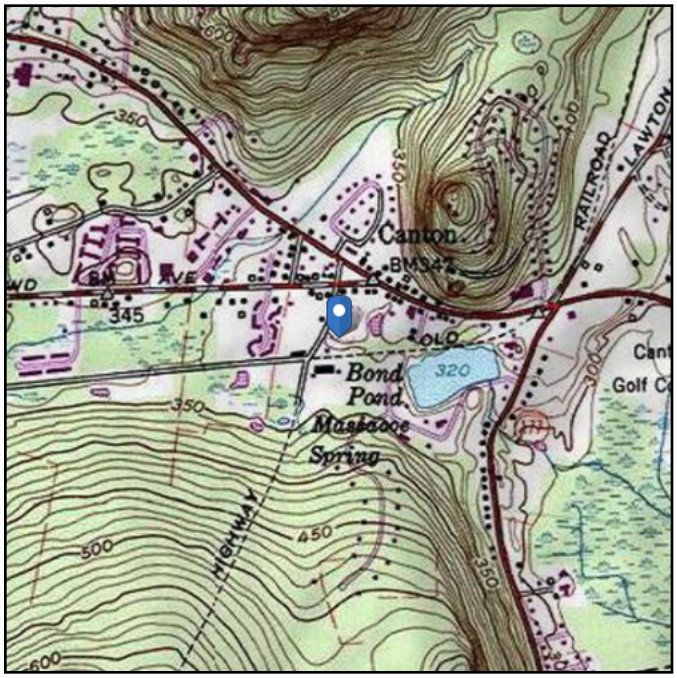
STATE OF CONNECTICUT
CLIFF ABERNATHY
No. 30080
LICENSED
PROFESSIONAL ENGINEER
9/3/2019

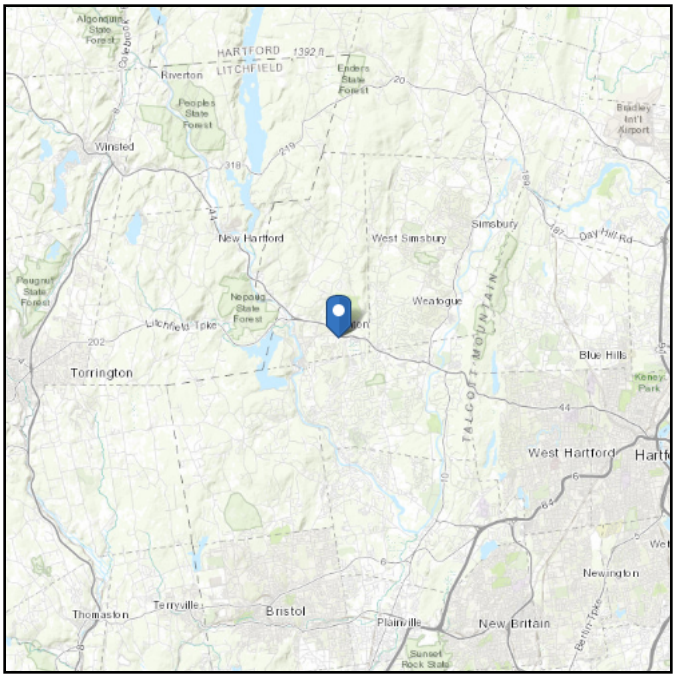
ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 339.34 ft (NAVD 88)
Latitude: 41.822876
Longitude: -72.895101





Wind

Results:

Wind Speed:	119 Vmph
10-year MRI	76 Vmph
25-year MRI	85 Vmph
50-year MRI	91 Vmph
100-year MRI	98 Vmph

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014

Date Accessed: Tue Aug 27 2019

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

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

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

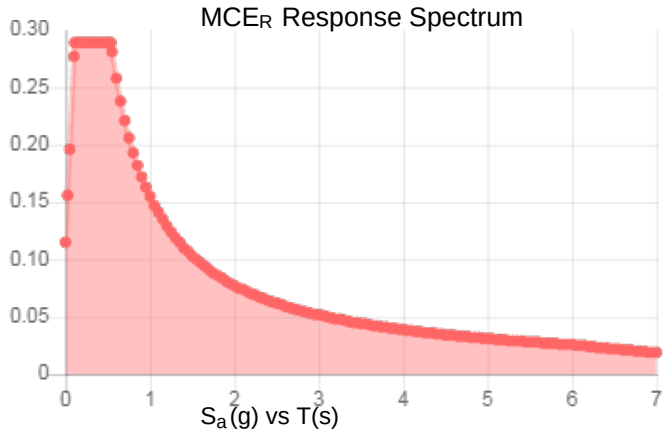
Seismic

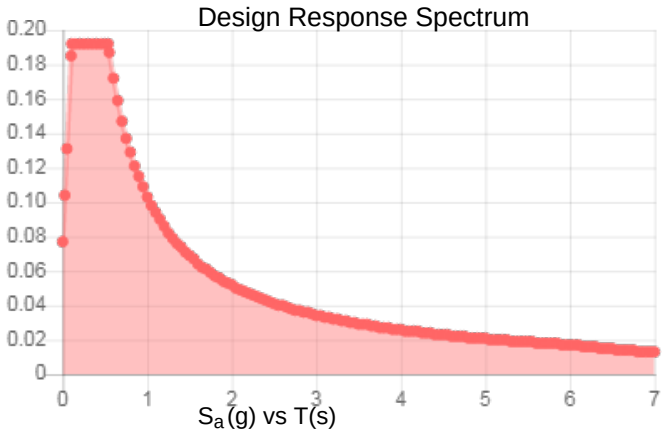
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.18	S_{DS} :	0.192
S_1 :	0.064	S_{D1} :	0.103
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.09
S_{MS} :	0.289	PGA_M :	0.145
S_{M1} :	0.155	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B





Data Accessed: Tue Aug 27 2019

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

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	5 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Tue Aug 27 2019

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

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

APPENDIX A

ADDITIONAL CALCULATIONS

Trylon

Analysis Date: 08-30-2019

Wind Input

Basic Design Wind Speed:	V =	119	mph
Basic Wind Speed with Ice:	Vi =	50	mph
Design Ice Thickness:	ti =	2	in
Antennas Center Line:	z =	120	ft.
Mean Elevation of Base of Structure above Sea Level:	zs=	339.34	ft.
Structure Risk Category:		II	
Exposure Category:		C	
Topographic Category:		1	
Height of crest:		0	ft.
Maintenance Live Load:		500	lbs.
ROOFTOP?		NO	
Height above roof:	zr=	0	ft.
Horizontal distance from windward face:	Xb=	0	ft.
Width of the windward face of the building:	Ws=	0	ft.
Height of the windward face of the building:	Hs=	0	ft.
Parapet height:		0	ft.
Wind direction probability factor:	Kd =	0.95	
Gust factor:	Gh =	1	
Shielding Factor:	Ka=	0.9	

Wind Calculations

Importance factor for ice thickness:	I=	1	
Exposure Category Coefficients:	zg=	900	ft.
	α'=	9.5	
	Kzmin=	0.85	
	Kc=	1	
Topographic Category Coefficients:	Kt=	1	
	f=	1	
	Kh=	-	
Velocity pressure coefficient:	Kz=	1.315	
Topographic Factor:	Kzt=	1	
Rooftop wind speed-up factor:	Ks=	1	
Ground Elevation Factor:	Ke=	0.98779	
Wind Velocity Pressure without ice:	qz =	44.740	lb./ft2
Wind Velocity Pressure with ice:	qz =	7.898	lb./ft2
Thickness of radial glaze ice at height z:	tiz =	2.276	in

Trylon

Analysis Date: 08-30-2019

Detailed Wind Force Calculation Sample

Manufacturer	**Amphenol**	
Model	**LPA-80063/4CF**	
Flat or Round	F	
Length of Normal Face	47.4	[in]
Width of Normal Face	15.2	[in]
Length of Transversal Face	47.4	[in]
Width of Transversal Face	13.19	[in]
Weight	20.00	[lbs.]
$\mathbf{A_N}$	720.48	[in^2]
$\mathbf{A_T}$	625.21	[in^2]
$\mathbf{C_{aN}}$	1.23	
$\mathbf{C_{aT}}$	1.25	

Wind Forces without ice

Wind Force 0 degrees	247.29	[lbs.]
Wind Force 30 degrees	240.04	[lbs.]
Wind Force 60 degrees	225.54	[lbs.]
Wind Force 90 degrees	218.28	[lbs.]
Wind Force 120 degrees	225.54	[lbs.]
Wind Force 150 degrees	240.04	[lbs.]

Wind Forces with ice

Wind Force 0 degrees	61.08	[lbs.]
Wind Force 30 degrees	59.67	[lbs.]
Wind Force 60 degrees	56.87	[lbs.]
Wind Force 90 degrees	55.46	[lbs.]
Wind Force 120 degrees	56.87	[lbs.]
Wind Force 150 degrees	59.67	[lbs.]
Weight of ice	246.00	[lbs.]

Member Distributed Loading

Section Set	Length	Width	θ	A_N	A_T	C_{aN}	C_{aT}	W.F.[lbs]	W.F.[lbs/in]
L3x3	138	3	0	414.00	0.00	2.00	1.20	231.529	1.67775
C5x2	61.5	5	0	307.50	0.00	1.58	1.20	135.569	2.20437
C5x2	15	5	0	75.00	0.00	1.22	1.20	25.6322	1.70882
C5x2	61.5	5	0	307.50	0.00	1.58	1.20	135.569	2.20437
C5x2	57	5	0	285.00	0.00	1.55	1.20	123.258	2.16243
C5x2	27.5	5	0	137.50	0.00	1.33	1.20	51.2645	1.86416
Tube 3x3	27.5	3	90	82.50	0.00	1.47	1.20	1.3E-31	4.6E-33
L3x3	20	3	90	60.00	0.00	1.39	1.20	8.7E-32	4.4E-33
L1.25x1.25	37	1.25	0	46.25	46.25	2.00	2.00	25.8653	0.69906
L1.25x1.25	37	1.25	0	46.25	46.25	2.00	2.00	25.8653	0.69906
L1.25x1.25	37	1.25	0	46.25	46.25	2.00	2.00	25.8653	0.69906
L1.25x1.25	37	1.25	0	46.25	46.25	2.00	2.00	25.8653	0.69906

SEISMIC CALCULATIONS

Seismic Input

S_S	0.18
S_1	0.064
S_{MS}	0.289
S_{M1}	0.155
$S_{DS} = 2/3\ S_{MS}$	0.193
$S_{D1} = 2/3\ S_{M1}$	0.103333333
ρ	1

Seismic Response Coefficient	
Tower Height (ft)	120
Mount Location (ft)	120
As (Amplification Factor)	1
R (Response modification coeficient)	2
I (Importance Factor)	1
Cs, min	0.01
Cs	0.10

CONNECTION CHECK

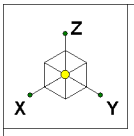
Weldment Connections Check

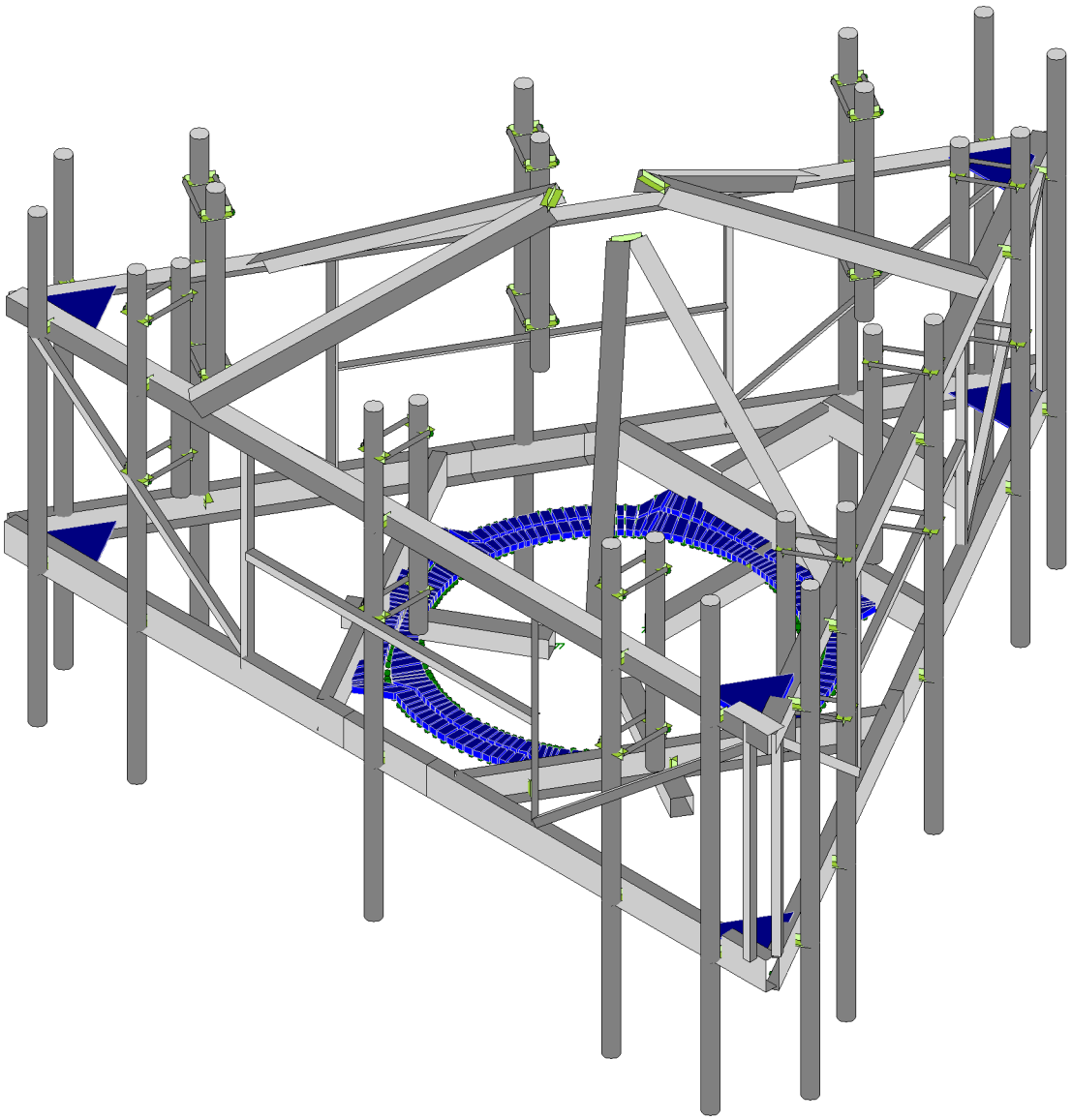
Reactions		
Tension Force (X)	12.21	[kips]
Shear Force (Y)	10.36	[kips]
Shear Force (Z)	4.85	[kips]
Torsional Moment (about x-x)	72.18	[kips-in]
Bending Moment (about y-y)	42.64	[kips-in]
Bending Moment (about z-z)	11.19	[kips-in]

Fillet Weld Check		
The standoff member is Round?	Yes	
Height, z-z	3	[in]
Width, y-y	3	[in]
Fillet weld Thickness (Assumed)	0.25	[in]
Weld Material Yield (Assumed)	70	[ksi]
Length of weldment	9.42	[in]
Section modulus in a line weld, y-y	28.27	[in^2]
Section modulus in a line weld, z-z	28.27	[in^2]
Fnw	63	ksi
Weld Force, y-y	2.85	kips/inch
Weld Force, z-z	2.02	kips/inch
ϕ*Rn	8.35	kips/inch
Weld Check	34.13%	PASS

APPENDIX B

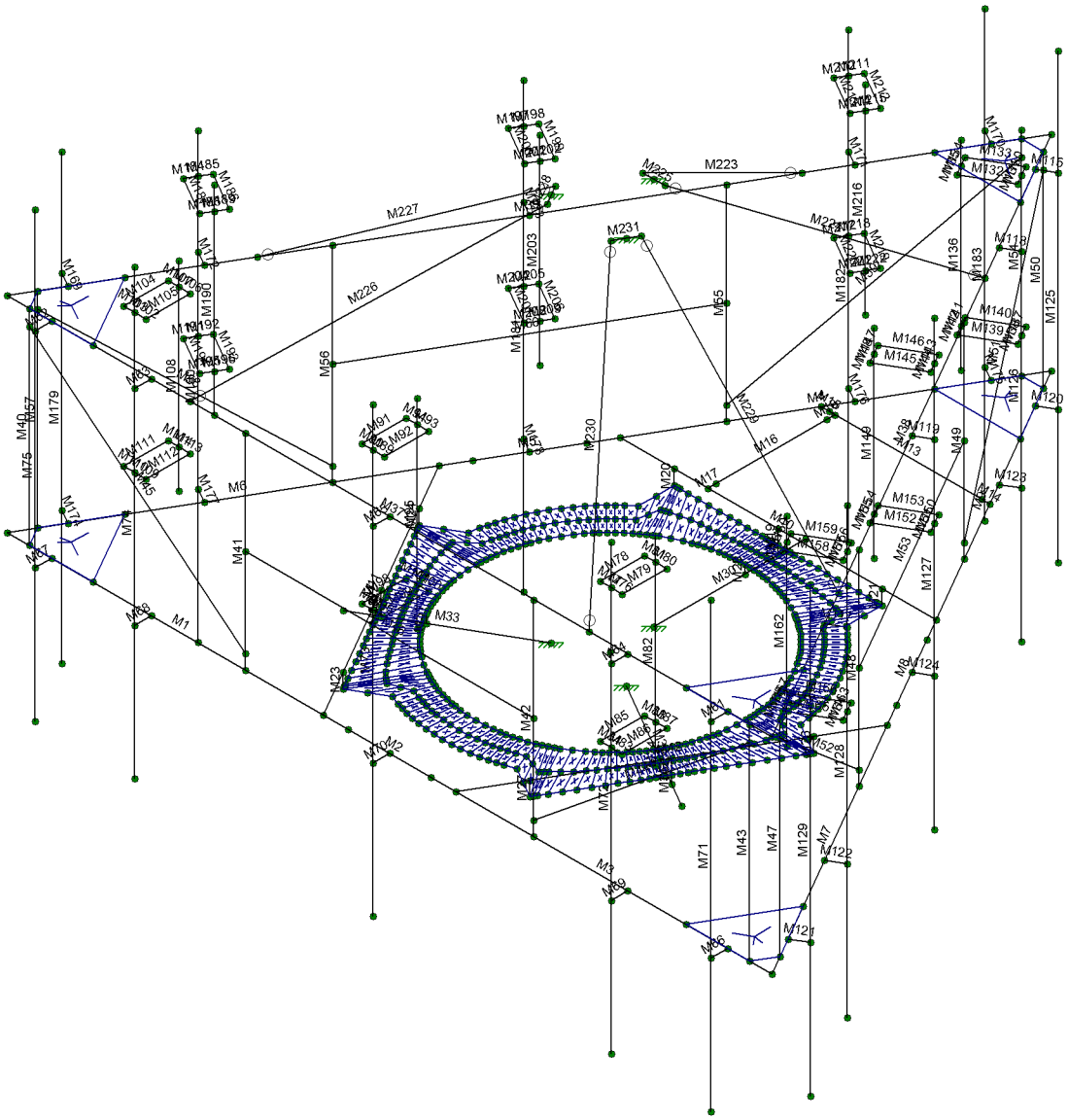
SOFTWARE OUTPUTS





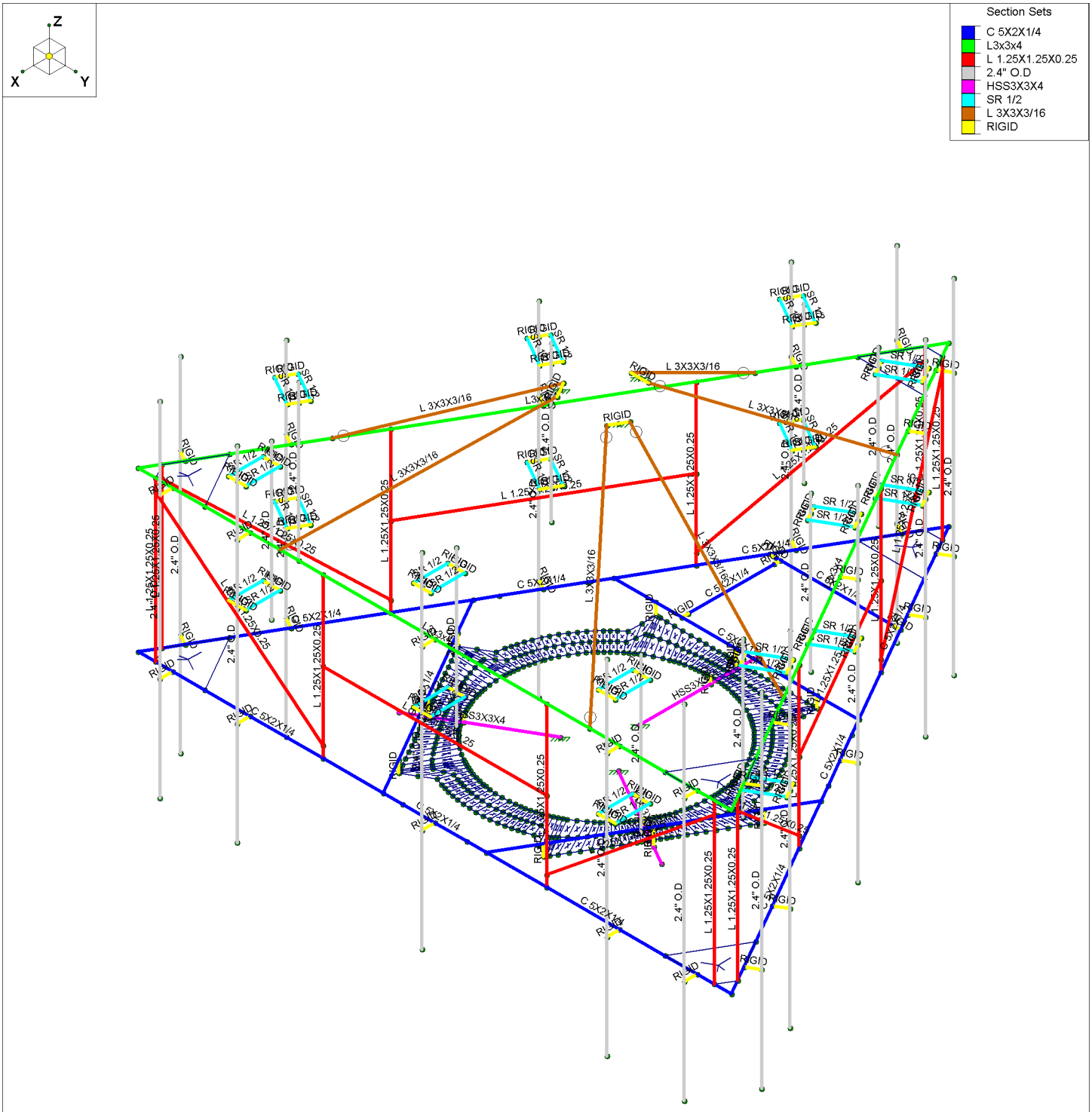
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT MODIFICATI...	SK - 1
DST		Aug 30, 2019 at 11:28 AM
152689		CANTON CT.R3D



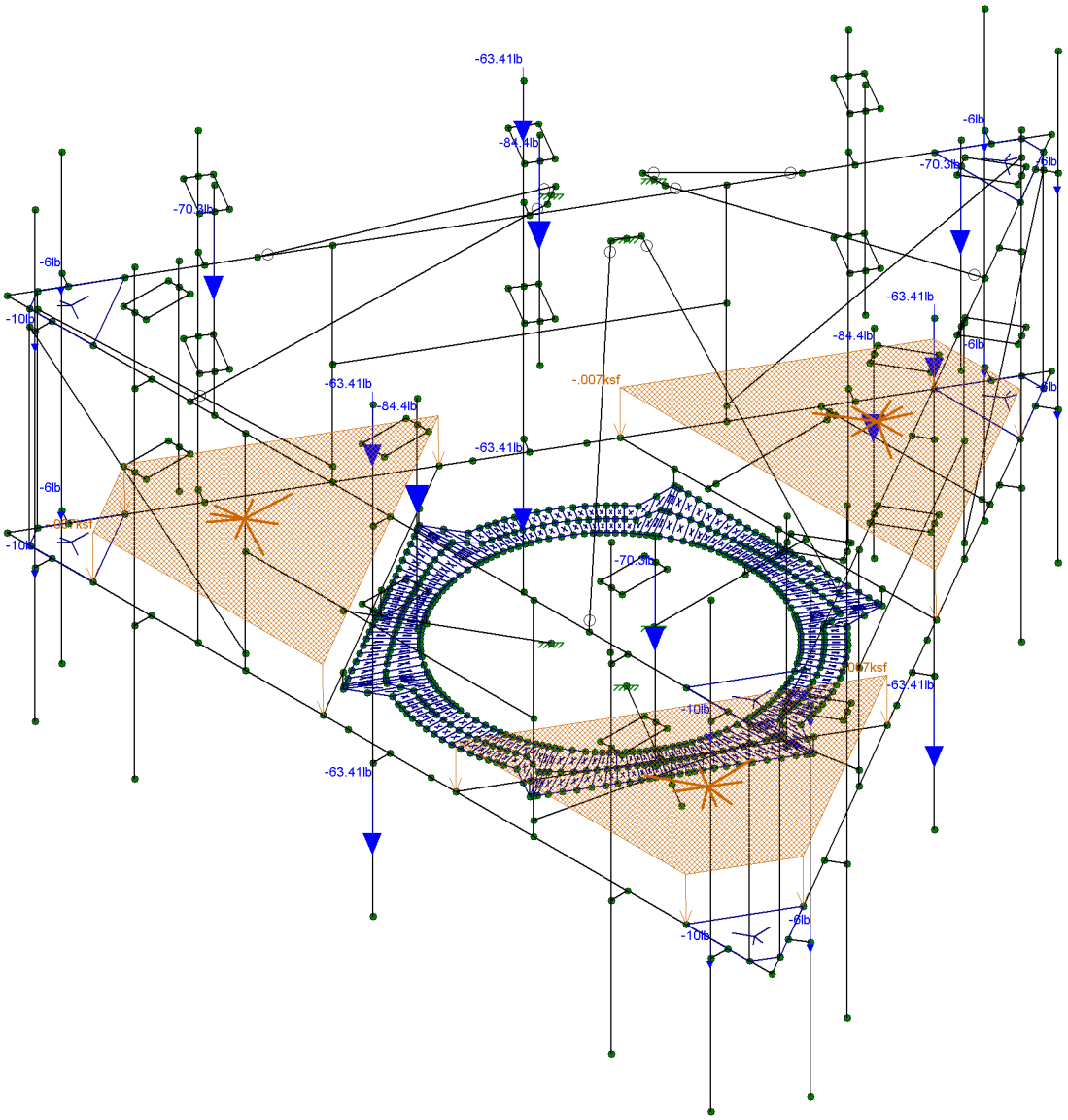
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT MODIFICATI...	SK - 2
DST		Aug 30, 2019 at 11:28 AM
152689		CANTON CT.R3D



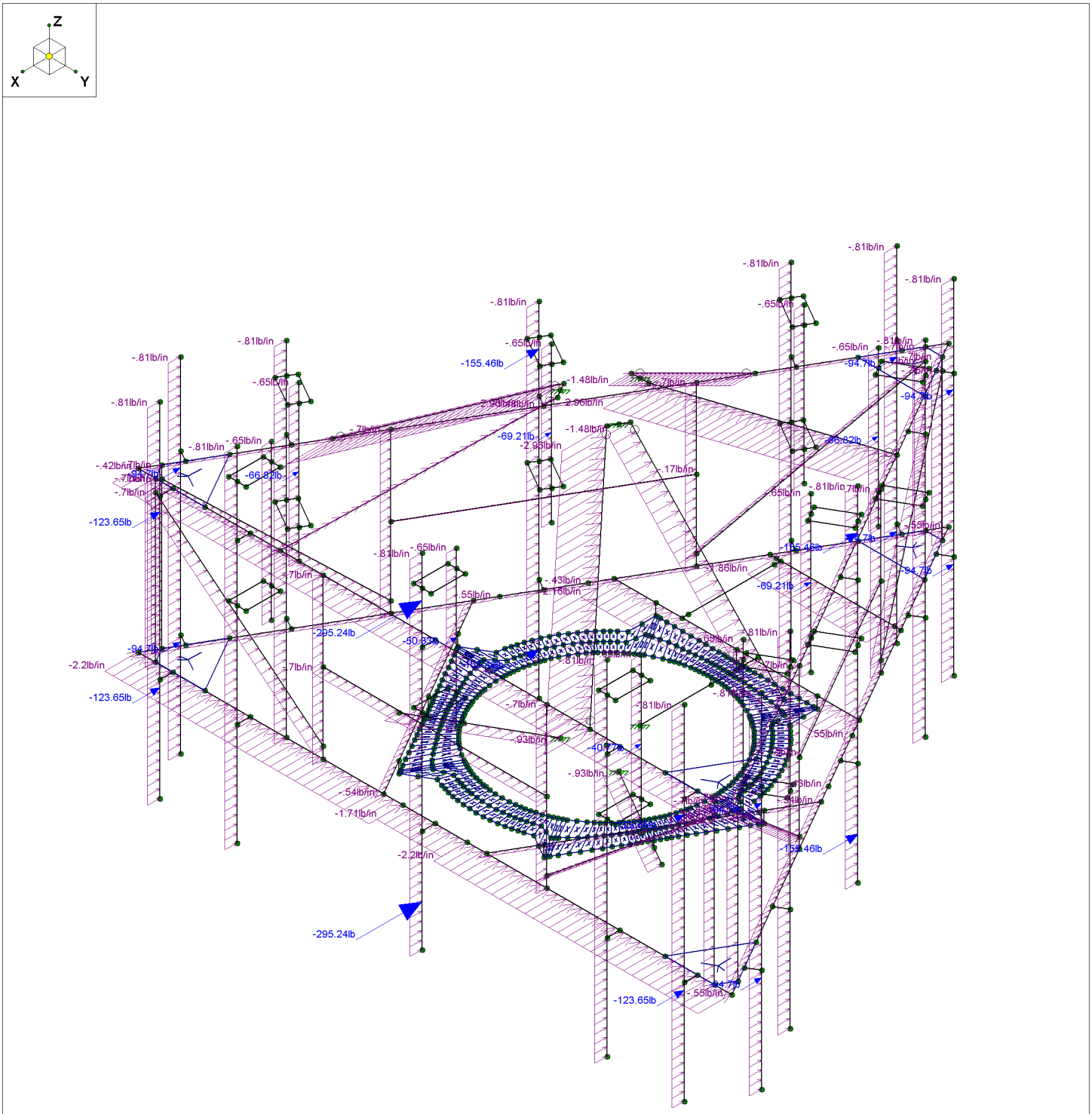
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT MODIFICATI...	SK - 3
DST		Aug 30, 2019 at 11:29 AM
152689		CANTON CT.R3D



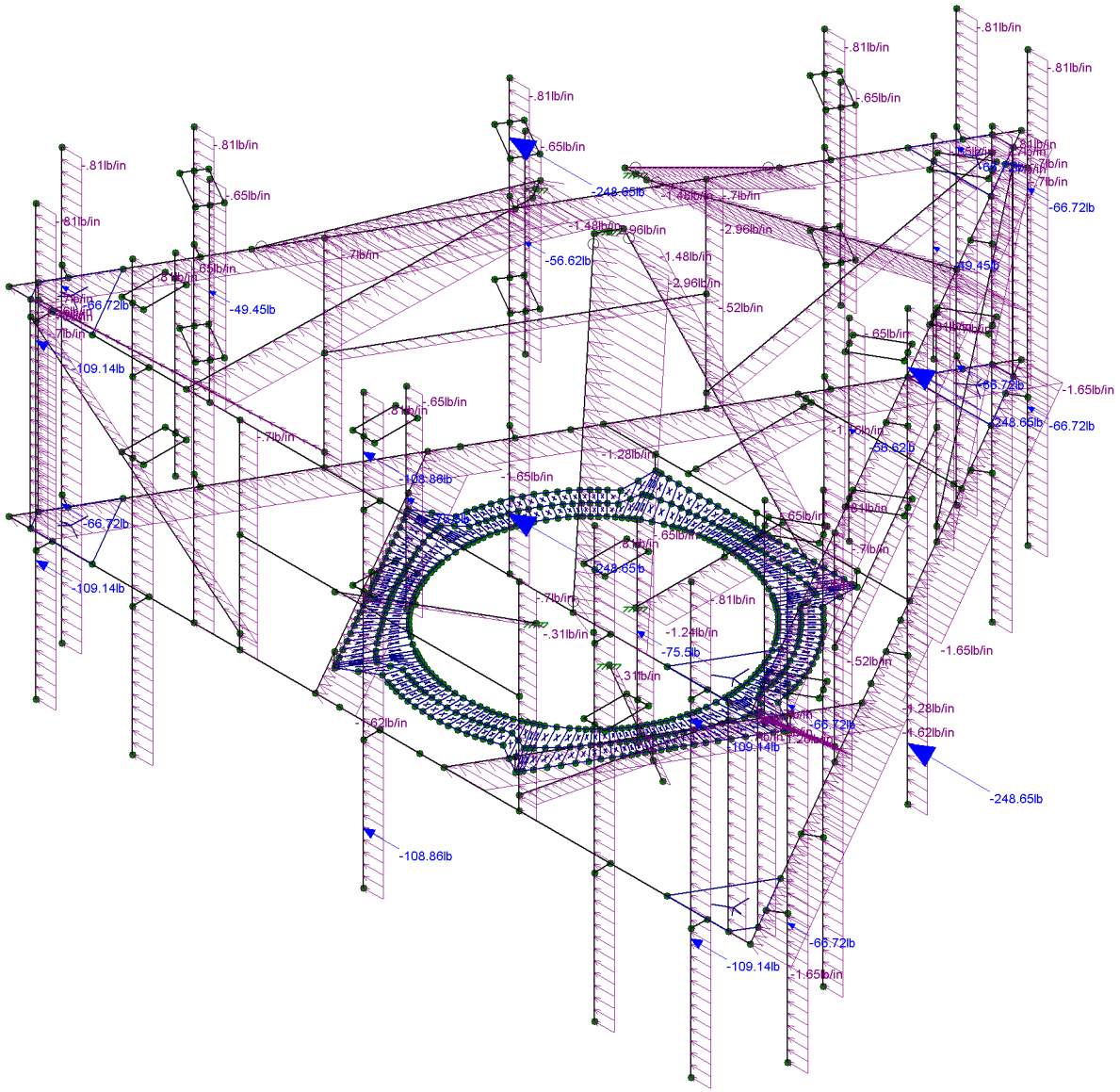
Loads: BLC 2, Weights
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT MODIFICATI...	SK - 4
DST		Aug 30, 2019 at 11:29 AM
152689		CANTON CT.R3D



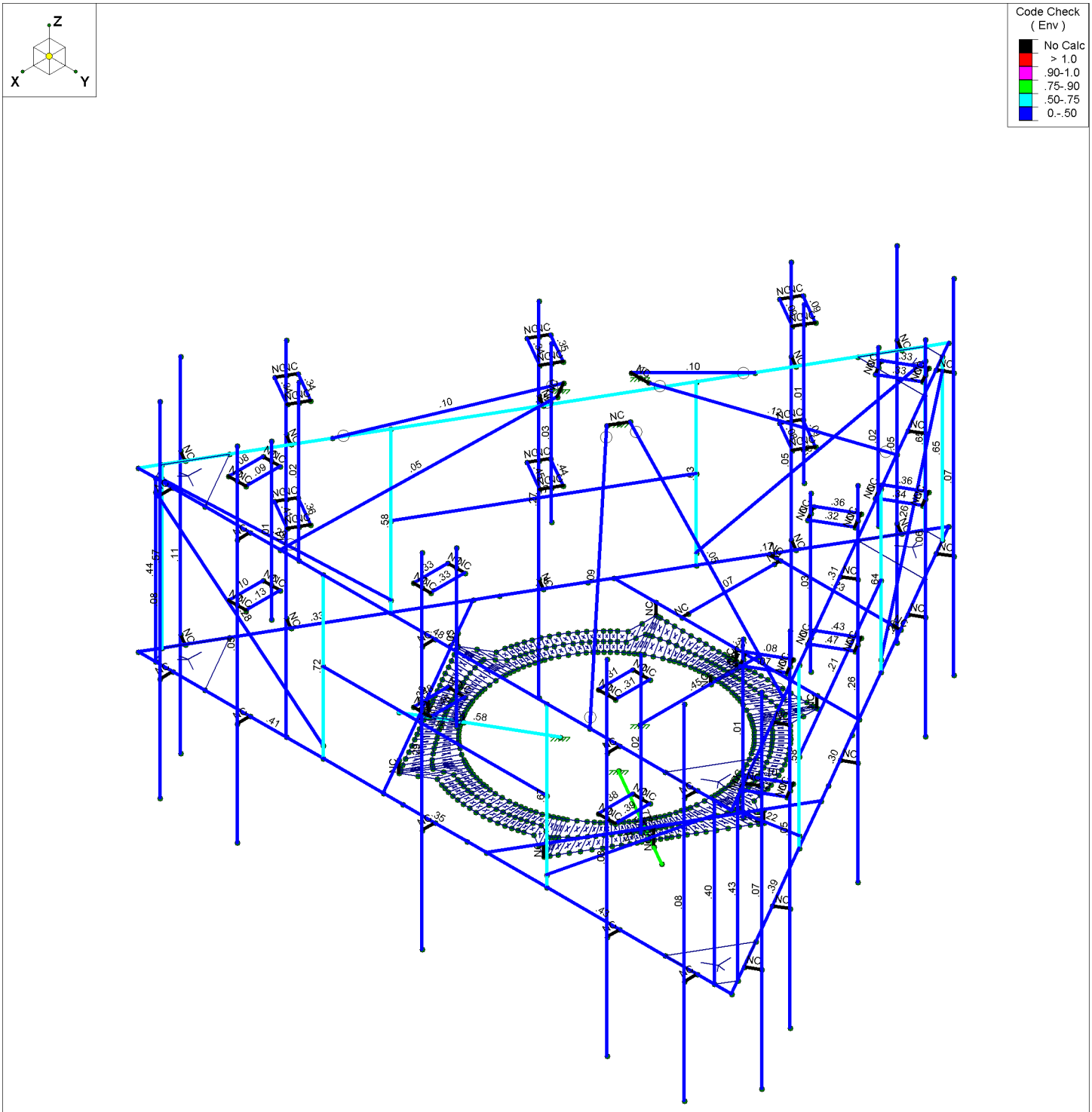
Loads: BLC 4, Wind 0°
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT MODIFICATI...	SK - 5
DST		Aug 30, 2019 at 11:29 AM
152689		CANTON CT.R3D



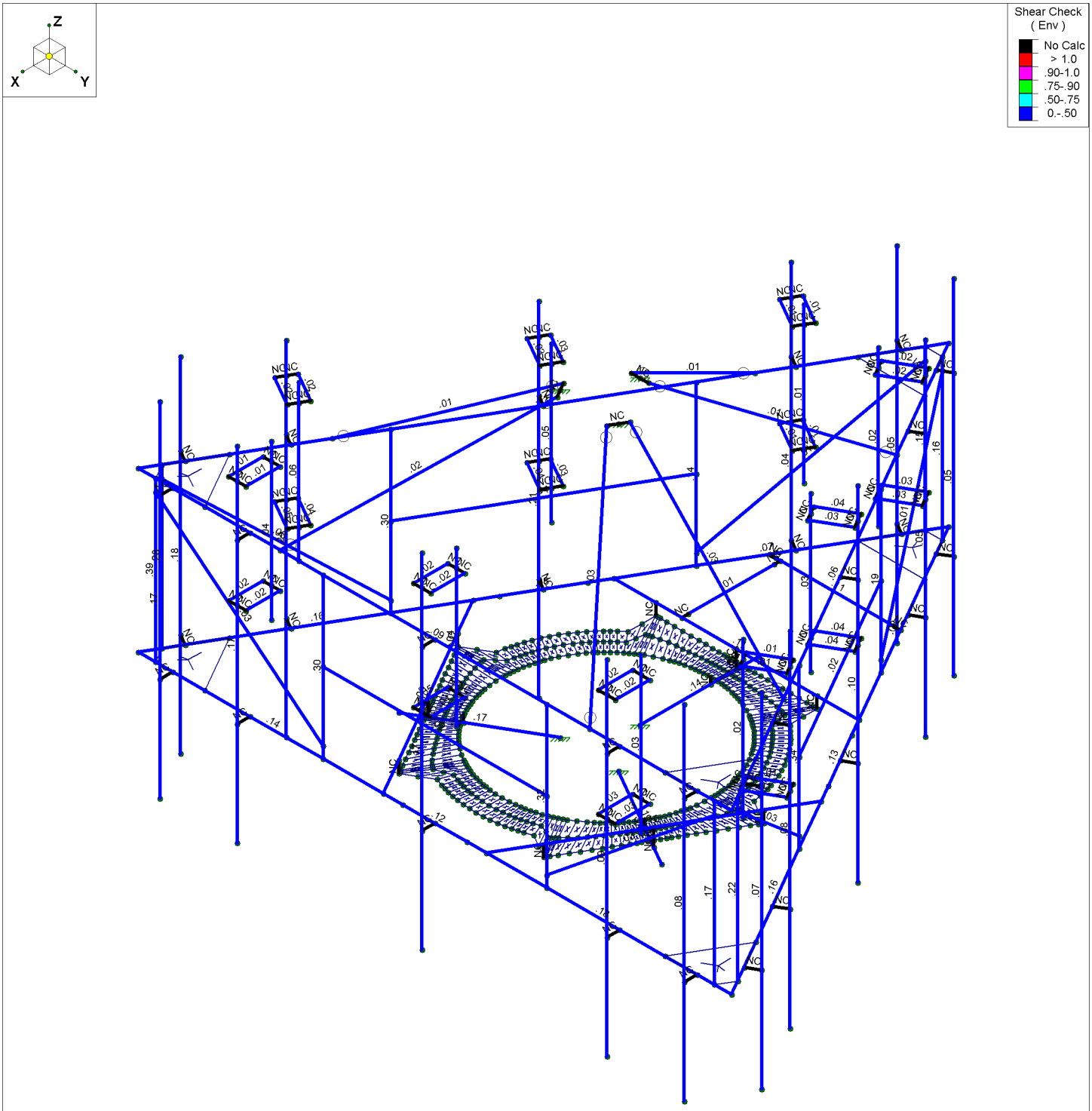
Loads: BLC 7, Wind 90°
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT MODIFICATI...	SK - 6
DST		Aug 30, 2019 at 11:29 AM
152689		CANTON CT.R3D



Member Code Checks Displayed (Enveloped)
Loads: BLC 1, Self Weight
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT MODIFICATI...	SK - 7
DST		Aug 30, 2019 at 11:30 AM
152689		CANTON CT.R3D



Member Shear Checks Displayed (Enveloped)
Loads: BLC 1, Self Weight
Envelope Only Solution

Trylon	VZW_CANTON CT_ATC_411256_MOUNT MODIFICATI...	SK - 8
DST		Aug 30, 2019 at 11:30 AM
152689		CANTON CT.R3D

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	C 5X2X1/4	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical	2.125	.745	7.544	.042
2	L3x3x4	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.031
3	L 1.25X1.25X0...	L 1.25X1.25X0.25	Beam	Single Angle	A36 Gr.36	Typical	.563	.077	.077	.01
4	2.4" O.D	HSS 2.4X0.125	Column	Pipe	A53 Gr.B	Typical	.893	.58	.58	1.159
5	HSS3X3X4	HSS3X3X4_A1085	Beam	Tube	A500 Gr.B Rect	Typical	2.755	3.5	3.5	5.207
6	SR 1/2	SR 1/2	Beam	RECT	A36 Gr.36	Typical	.196	.003	.003	.006
7	L 3X3X3/16	L3X3X3	Beam	Single Angle	A36 Gr.36	Typical	1.09	.948	.948	.014

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF1	8CU1.25X057	Beam	None	A653 SS Gr33	Typical	.581	.057	4.41	.00063

Design Size and Code Check Parameters

	Label	Max Depth[in]	Min Depth[in]	Max Width[in]	Min Width[in]	Max Bending Chk	Max Shear Chk
1	Typical					1	1

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N301	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N307	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N313	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N750						
5	N752	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	N759						
7	N760						
8	N761	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
9	N764						
10	N765						
11	N766	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
12	N769						
13	N770						

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N5	N1		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
2	M2	N1	N2		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
3	M3	N2	N6		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
4	M4	N9	N3		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
5	M5	N3	N4		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
6	M6	N4	N5		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
7	M7	N6	N7		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
8	M8	N7	N8		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
9	M9	N8	N9		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
10	M10	N16	N17		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
11	M11	N18	N19		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
12	M12	N20	N21		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
13	M13	N24	N22		180	C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
14	M14	N22	N23			RIGID	None	None	RIGID	Typical
15	M15	N24	N25			RIGID	None	None	RIGID	Typical
16	M16	N28	N26			C 5X2X1/4	Beam	Channel	A36 Gr.36	Typical
17	M17	N26	N27			RIGID	None	None	RIGID	Typical
18	M18	N28	N29			RIGID	None	None	RIGID	Typical
19	M19	N282	N299			RIGID	None	None	RIGID	Typical
20	M20	N283	N284			RIGID	None	None	RIGID	Typical
21	M21	N285	N286			RIGID	None	None	RIGID	Typical
22	M22	N287	N305			RIGID	None	None	RIGID	Typical
23	M23	N288	N289			RIGID	None	None	RIGID	Typical
24	M24	N290	N291			RIGID	None	None	RIGID	Typical
25	M25	N292	N311			RIGID	None	None	RIGID	Typical
26	M26	N293	N294			RIGID	None	None	RIGID	Typical
27	M27	N295	N296			RIGID	None	None	RIGID	Typical
28	M28	N297	N298			RIGID	None	None	RIGID	Typical
29	M29	N299	N300			RIGID	None	None	RIGID	Typical
30	M30	N301	N302			HSS3X3X4	Beam	Tube	A500 Gr.B...	Typical
31	M31	N303	N304			RIGID	None	None	RIGID	Typical
32	M32	N305	N306			RIGID	None	None	RIGID	Typical
33	M33	N307	N308			HSS3X3X4	Beam	Tube	A500 Gr.B...	Typical
34	M34	N309	N310			RIGID	None	None	RIGID	Typical
35	M35	N311	N312			RIGID	None	None	RIGID	Typical
36	M36	N313	N314			HSS3X3X4	Beam	Tube	A500 Gr.B...	Typical
37	M37	N321	N322		90	L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
38	M38	N321	N323		180	L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
39	M39	N322	N323		90	L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
40	M40	N324	N325		90	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
41	M41	N326	N327			L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
42	M42	N328	N329		90	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
43	M43	N330	N331			L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
44	M44	N332	N333		90	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
45	M45	N334	N335		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
46	M46	N336	N337		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
47	M47	N338	N339		330	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
48	M48	N340	N341		240	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
49	M49	N342	N343		330	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
50	M50	N344	N345			L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
51	M51	N346	N347		90	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
52	M52	N348	N349		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
53	M53	N350	N351		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
54	M54	N352	N353		240	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
55	M55	N354	N355		120	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
56	M56	N356	N357		210	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
57	M57	N358	N359		120	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
58	M58	N360	N361		90	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
59	M59	N362	N363		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
60	M60	N364	N365		180	L 1.25X1.25X0...	Beam	Single Angle	A36 Gr.36	Typical
61	M61	N366	N367			RIGID	None	None	RIGID	Typical
62	M62	N368	N369			RIGID	None	None	RIGID	Typical
63	M63	N370	N371			RIGID	None	None	RIGID	Typical
64	M64	N372	N373			RIGID	None	None	RIGID	Typical
65	M65	N374	N375			RIGID	None	None	RIGID	Typical
66	M66	N376	N377			RIGID	None	None	RIGID	Typical
67	M67	N378	N379			RIGID	None	None	RIGID	Typical
68	M68	N380	N381			RIGID	None	None	RIGID	Typical
69	M69	N382	N383			RIGID	None	None	RIGID	Typical
70	M70	N384	N385			RIGID	None	None	RIGID	Typical
71	M71	N386	N387			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
72	M72	N388	N389			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
73	M73	N390	N391			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
74	M74	N392	N393			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
75	M75	N394	N395			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
76	M76	N396	N398			RIGID	None	None	RIGID	Typical
77	M77	N396	N397			RIGID	None	None	RIGID	Typical
78	M78	N397	N401			SR 1/2	Beam	RECT	A36 Gr.36	Typical
79	M79	N398	N399			SR 1/2	Beam	RECT	A36 Gr.36	Typical
80	M80	N400	N399			RIGID	None	None	RIGID	Typical
81	M81	N400	N401			RIGID	None	None	RIGID	Typical
82	M82	N402	N403			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
83	M83	N404	N406			RIGID	None	None	RIGID	Typical
84	M84	N404	N405			RIGID	None	None	RIGID	Typical
85	M85	N405	N409			SR 1/2	Beam	RECT	A36 Gr.36	Typical
86	M86	N406	N407			SR 1/2	Beam	RECT	A36 Gr.36	Typical
87	M87	N408	N407			RIGID	None	None	RIGID	Typical
88	M88	N408	N409			RIGID	None	None	RIGID	Typical
89	M89	N410	N412			RIGID	None	None	RIGID	Typical
90	M90	N410	N411			RIGID	None	None	RIGID	Typical
91	M91	N411	N415			SR 1/2	Beam	RECT	A36 Gr.36	Typical
92	M92	N412	N413			SR 1/2	Beam	RECT	A36 Gr.36	Typical
93	M93	N414	N413			RIGID	None	None	RIGID	Typical
94	M94	N414	N415			RIGID	None	None	RIGID	Typical
95	M95	N416	N417			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
96	M96	N418	N420			RIGID	None	None	RIGID	Typical
97	M97	N418	N419			RIGID	None	None	RIGID	Typical
98	M98	N419	N423			SR 1/2	Beam	RECT	A36 Gr.36	Typical
99	M99	N420	N421			SR 1/2	Beam	RECT	A36 Gr.36	Typical
100	M100	N422	N421			RIGID	None	None	RIGID	Typical
101	M101	N422	N423			RIGID	None	None	RIGID	Typical
102	M102	N424	N426			RIGID	None	None	RIGID	Typical
103	M103	N424	N425			RIGID	None	None	RIGID	Typical
104	M104	N425	N429			SR 1/2	Beam	RECT	A36 Gr.36	Typical
105	M105	N426	N427			SR 1/2	Beam	RECT	A36 Gr.36	Typical
106	M106	N428	N427			RIGID	None	None	RIGID	Typical
107	M107	N428	N429			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
108	M108	N430	N431			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
109	M109	N432	N434			RIGID	None	None	RIGID	Typical
110	M110	N432	N433			RIGID	None	None	RIGID	Typical
111	M111	N433	N437			SR 1/2	Beam	RECT	A36 Gr.36	Typical
112	M112	N434	N435			SR 1/2	Beam	RECT	A36 Gr.36	Typical
113	M113	N436	N435			RIGID	None	None	RIGID	Typical
114	M114	N436	N437			RIGID	None	None	RIGID	Typical
115	M115	N438	N439			RIGID	None	None	RIGID	Typical
116	M116	N440	N441			RIGID	None	None	RIGID	Typical
117	M117	N442	N443			RIGID	None	None	RIGID	Typical
118	M118	N444	N445			RIGID	None	None	RIGID	Typical
119	M119	N446	N447			RIGID	None	None	RIGID	Typical
120	M120	N448	N449			RIGID	None	None	RIGID	Typical
121	M121	N450	N451			RIGID	None	None	RIGID	Typical
122	M122	N452	N453			RIGID	None	None	RIGID	Typical
123	M123	N454	N455			RIGID	None	None	RIGID	Typical
124	M124	N456	N457			RIGID	None	None	RIGID	Typical
125	M125	N458	N459			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
126	M126	N460	N461			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
127	M127	N462	N463			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
128	M128	N464	N465			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
129	M129	N466	N467			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
130	M130	N468	N470			RIGID	None	None	RIGID	Typical
131	M131	N468	N469			RIGID	None	None	RIGID	Typical
132	M132	N469	N473			SR 1/2	Beam	RECT	A36 Gr.36	Typical
133	M133	N470	N471			SR 1/2	Beam	RECT	A36 Gr.36	Typical
134	M134	N472	N471			RIGID	None	None	RIGID	Typical
135	M135	N472	N473			RIGID	None	None	RIGID	Typical
136	M136	N474	N475			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
137	M137	N476	N478			RIGID	None	None	RIGID	Typical
138	M138	N476	N477			RIGID	None	None	RIGID	Typical
139	M139	N477	N481			SR 1/2	Beam	RECT	A36 Gr.36	Typical
140	M140	N478	N479			SR 1/2	Beam	RECT	A36 Gr.36	Typical
141	M141	N480	N479			RIGID	None	None	RIGID	Typical
142	M142	N480	N481			RIGID	None	None	RIGID	Typical
143	M143	N482	N484			RIGID	None	None	RIGID	Typical
144	M144	N482	N483			RIGID	None	None	RIGID	Typical
145	M145	N483	N487			SR 1/2	Beam	RECT	A36 Gr.36	Typical
146	M146	N484	N485			SR 1/2	Beam	RECT	A36 Gr.36	Typical
147	M147	N486	N485			RIGID	None	None	RIGID	Typical
148	M148	N486	N487			RIGID	None	None	RIGID	Typical
149	M149	N488	N489			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
150	M150	N490	N492			RIGID	None	None	RIGID	Typical
151	M151	N490	N491			RIGID	None	None	RIGID	Typical
152	M152	N491	N495			SR 1/2	Beam	RECT	A36 Gr.36	Typical
153	M153	N492	N493			SR 1/2	Beam	RECT	A36 Gr.36	Typical
154	M154	N494	N493			RIGID	None	None	RIGID	Typical
155	M155	N494	N495			RIGID	None	None	RIGID	Typical
156	M156	N496	N498			RIGID	None	None	RIGID	Typical
157	M157	N496	N497			RIGID	None	None	RIGID	Typical
158	M158	N497	N501			SR 1/2	Beam	RECT	A36 Gr.36	Typical
159	M159	N498	N499			SR 1/2	Beam	RECT	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
160	M160	N500	N499			RIGID	None	None	RIGID	Typical
161	M161	N500	N501			RIGID	None	None	RIGID	Typical
162	M162	N502	N503			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
163	M163	N504	N506			RIGID	None	None	RIGID	Typical
164	M164	N504	N505			RIGID	None	None	RIGID	Typical
165	M165	N505	N509			SR 1/2	Beam	RECT	A36 Gr.36	Typical
166	M166	N506	N507			SR 1/2	Beam	RECT	A36 Gr.36	Typical
167	M167	N508	N507			RIGID	None	None	RIGID	Typical
168	M168	N508	N509			RIGID	None	None	RIGID	Typical
169	M169	N510	N511			RIGID	None	None	RIGID	Typical
170	M170	N512	N513			RIGID	None	None	RIGID	Typical
171	M171	N514	N515			RIGID	None	None	RIGID	Typical
172	M172	N516	N517			RIGID	None	None	RIGID	Typical
173	M173	N518	N519			RIGID	None	None	RIGID	Typical
174	M174	N520	N521			RIGID	None	None	RIGID	Typical
175	M175	N522	N523			RIGID	None	None	RIGID	Typical
176	M176	N524	N525			RIGID	None	None	RIGID	Typical
177	M177	N526	N527			RIGID	None	None	RIGID	Typical
178	M178	N528	N529			RIGID	None	None	RIGID	Typical
179	M179	N530	N531			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
180	M180	N532	N533			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
181	M181	N534	N535			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
182	M182	N536	N537			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
183	M183	N538	N539			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
184	M184	N540	N542			RIGID	None	None	RIGID	Typical
185	M185	N540	N541			RIGID	None	None	RIGID	Typical
186	M186	N541	N545			SR 1/2	Beam	RECT	A36 Gr.36	Typical
187	M187	N542	N543			SR 1/2	Beam	RECT	A36 Gr.36	Typical
188	M188	N544	N543			RIGID	None	None	RIGID	Typical
189	M189	N544	N545			RIGID	None	None	RIGID	Typical
190	M190	N546	N547			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
191	M191	N548	N550			RIGID	None	None	RIGID	Typical
192	M192	N548	N549			RIGID	None	None	RIGID	Typical
193	M193	N549	N553			SR 1/2	Beam	RECT	A36 Gr.36	Typical
194	M194	N550	N551			SR 1/2	Beam	RECT	A36 Gr.36	Typical
195	M195	N552	N551			RIGID	None	None	RIGID	Typical
196	M196	N552	N553			RIGID	None	None	RIGID	Typical
197	M197	N554	N556			RIGID	None	None	RIGID	Typical
198	M198	N554	N555			RIGID	None	None	RIGID	Typical
199	M199	N555	N559			SR 1/2	Beam	RECT	A36 Gr.36	Typical
200	M200	N556	N557			SR 1/2	Beam	RECT	A36 Gr.36	Typical
201	M201	N558	N557			RIGID	None	None	RIGID	Typical
202	M202	N558	N559			RIGID	None	None	RIGID	Typical
203	M203	N560	N561			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
204	M204	N562	N564			RIGID	None	None	RIGID	Typical
205	M205	N562	N563			RIGID	None	None	RIGID	Typical
206	M206	N563	N567			SR 1/2	Beam	RECT	A36 Gr.36	Typical
207	M207	N564	N565			SR 1/2	Beam	RECT	A36 Gr.36	Typical
208	M208	N566	N565			RIGID	None	None	RIGID	Typical
209	M209	N566	N567			RIGID	None	None	RIGID	Typical
210	M210	N568	N570			RIGID	None	None	RIGID	Typical
211	M211	N568	N569			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
212	M212	N569	N573			SR 1/2	Beam	RECT	A36 Gr.36	Typical
213	M213	N570	N571			SR 1/2	Beam	RECT	A36 Gr.36	Typical
214	M214	N572	N571			RIGID	None	None	RIGID	Typical
215	M215	N572	N573			RIGID	None	None	RIGID	Typical
216	M216	N574	N575			2.4" O.D	Column	Pipe	A53 Gr.B	Typical
217	M217	N576	N578			RIGID	None	None	RIGID	Typical
218	M218	N576	N577			RIGID	None	None	RIGID	Typical
219	M219	N577	N581			SR 1/2	Beam	RECT	A36 Gr.36	Typical
220	M220	N578	N579			SR 1/2	Beam	RECT	A36 Gr.36	Typical
221	M221	N580	N579			RIGID	None	None	RIGID	Typical
222	M222	N580	N581			RIGID	None	None	RIGID	Typical
223	M223	N760	N758		90	L 3X3X3/16	Beam	Single Angle	A36 Gr.36	Typical
224	M224	N759	N755		180	L 3X3X3/16	Beam	Single Angle	A36 Gr.36	Typical
225	M225	N760	N759			RIGID	None	None	RIGID	Typical
226	M226	N765	N763		90	L 3X3X3/16	Beam	Single Angle	A36 Gr.36	Typical
227	M227	N764	N762		180	L 3X3X3/16	Beam	Single Angle	A36 Gr.36	Typical
228	M228	N765	N764			RIGID	None	None	RIGID	Typical
229	M229	N770	N768		90	L 3X3X3/16	Beam	Single Angle	A36 Gr.36	Typical
230	M230	N769	N767		180	L 3X3X3/16	Beam	Single Angle	A36 Gr.36	Typical
231	M231	N770	N769			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M2						Yes				None
3	M3						Yes				None
4	M4						Yes				None
5	M5						Yes				None
6	M6						Yes				None
7	M7						Yes				None
8	M8						Yes				None
9	M9						Yes				None
10	M10						Yes				None
11	M11						Yes				None
12	M12						Yes				None
13	M13						Yes				None
14	M14						Yes	** NA **			None
15	M15						Yes	** NA **			None
16	M16						Yes				None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M19						Yes	** NA **			None
20	M20						Yes	** NA **			None
21	M21						Yes	** NA **			None
22	M22						Yes	** NA **			None
23	M23						Yes	** NA **			None
24	M24						Yes	** NA **			None
25	M25						Yes	** NA **			None
26	M26						Yes	** NA **			None
27	M27						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
28	M28						Yes	** NA **			None
29	M29						Yes	** NA **			None
30	M30						Yes				None
31	M31						Yes	** NA **			None
32	M32						Yes	** NA **			None
33	M33						Yes				None
34	M34						Yes	** NA **			None
35	M35						Yes	** NA **			None
36	M36						Yes				None
37	M37						Yes				None
38	M38						Yes				None
39	M39						Yes				None
40	M40						Yes				None
41	M41						Yes				None
42	M42						Yes				None
43	M43						Yes				None
44	M44						Yes				None
45	M45						Yes				None
46	M46						Yes				None
47	M47						Yes				None
48	M48						Yes				None
49	M49						Yes				None
50	M50						Yes				None
51	M51						Yes				None
52	M52						Yes				None
53	M53						Yes				None
54	M54						Yes				None
55	M55						Yes				None
56	M56						Yes				None
57	M57						Yes				None
58	M58						Yes				None
59	M59						Yes				None
60	M60						Yes				None
61	M61						Yes	** NA **			None
62	M62						Yes	** NA **			None
63	M63						Yes	** NA **			None
64	M64						Yes	** NA **			None
65	M65						Yes	** NA **			None
66	M66						Yes	** NA **			None
67	M67						Yes	** NA **			None
68	M68						Yes	** NA **			None
69	M69						Yes	** NA **			None
70	M70						Yes	** NA **			None
71	M71						Yes	** NA **			None
72	M72						Yes	** NA **			None
73	M73						Yes	** NA **			None
74	M74						Yes	** NA **			None
75	M75						Yes	** NA **			None
76	M76						Yes	** NA **			None
77	M77						Yes	** NA **			None
78	M78						Yes				None
79	M79						Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
80	M80						Yes	** NA **			None
81	M81						Yes	** NA **			None
82	M82						Yes	** NA **			None
83	M83						Yes	** NA **			None
84	M84						Yes	** NA **			None
85	M85						Yes				None
86	M86						Yes				None
87	M87						Yes	** NA **			None
88	M88						Yes	** NA **			None
89	M89						Yes	** NA **			None
90	M90						Yes	** NA **			None
91	M91						Yes				None
92	M92						Yes				None
93	M93						Yes	** NA **			None
94	M94						Yes	** NA **			None
95	M95						Yes	** NA **			None
96	M96						Yes	** NA **			None
97	M97						Yes	** NA **			None
98	M98						Yes				None
99	M99						Yes				None
100	M100						Yes	** NA **			None
101	M101						Yes	** NA **			None
102	M102						Yes	** NA **			None
103	M103						Yes	** NA **			None
104	M104						Yes				None
105	M105						Yes				None
106	M106						Yes	** NA **			None
107	M107						Yes	** NA **			None
108	M108						Yes	** NA **			None
109	M109						Yes	** NA **			None
110	M110						Yes	** NA **			None
111	M111						Yes				None
112	M112						Yes				None
113	M113						Yes	** NA **			None
114	M114						Yes	** NA **			None
115	M115						Yes	** NA **			None
116	M116						Yes	** NA **			None
117	M117						Yes	** NA **			None
118	M118						Yes	** NA **			None
119	M119						Yes	** NA **			None
120	M120						Yes	** NA **			None
121	M121						Yes	** NA **			None
122	M122						Yes	** NA **			None
123	M123						Yes	** NA **			None
124	M124						Yes	** NA **			None
125	M125						Yes	** NA **			None
126	M126						Yes	** NA **			None
127	M127						Yes	** NA **			None
128	M128						Yes	** NA **			None
129	M129						Yes	** NA **			None
130	M130						Yes	** NA **			None
131	M131						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
132	M132						Yes				None
133	M133						Yes				None
134	M134						Yes	** NA **			None
135	M135						Yes	** NA **			None
136	M136						Yes	** NA **			None
137	M137						Yes	** NA **			None
138	M138						Yes	** NA **			None
139	M139						Yes				None
140	M140						Yes				None
141	M141						Yes	** NA **			None
142	M142						Yes	** NA **			None
143	M143						Yes	** NA **			None
144	M144						Yes	** NA **			None
145	M145						Yes				None
146	M146						Yes				None
147	M147						Yes	** NA **			None
148	M148						Yes	** NA **			None
149	M149						Yes	** NA **			None
150	M150						Yes	** NA **			None
151	M151						Yes	** NA **			None
152	M152						Yes				None
153	M153						Yes				None
154	M154						Yes	** NA **			None
155	M155						Yes	** NA **			None
156	M156						Yes	** NA **			None
157	M157						Yes	** NA **			None
158	M158						Yes				None
159	M159						Yes				None
160	M160						Yes	** NA **			None
161	M161						Yes	** NA **			None
162	M162						Yes	** NA **			None
163	M163						Yes	** NA **			None
164	M164						Yes	** NA **			None
165	M165						Yes				None
166	M166						Yes				None
167	M167						Yes	** NA **			None
168	M168						Yes	** NA **			None
169	M169						Yes	** NA **			None
170	M170						Yes	** NA **			None
171	M171						Yes	** NA **			None
172	M172						Yes	** NA **			None
173	M173						Yes	** NA **			None
174	M174						Yes	** NA **			None
175	M175						Yes	** NA **			None
176	M176						Yes	** NA **			None
177	M177						Yes	** NA **			None
178	M178						Yes	** NA **			None
179	M179						Yes	** NA **			None
180	M180						Yes	** NA **			None
181	M181						Yes	** NA **			None
182	M182						Yes	** NA **			None
183	M183						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
184	M184						Yes	** NA **			None
185	M185						Yes	** NA **			None
186	M186						Yes				None
187	M187						Yes				None
188	M188						Yes	** NA **			None
189	M189						Yes	** NA **			None
190	M190						Yes	** NA **			None
191	M191						Yes	** NA **			None
192	M192						Yes	** NA **			None
193	M193						Yes				None
194	M194						Yes				None
195	M195						Yes	** NA **			None
196	M196						Yes	** NA **			None
197	M197						Yes	** NA **			None
198	M198						Yes	** NA **			None
199	M199						Yes				None
200	M200						Yes				None
201	M201						Yes	** NA **			None
202	M202						Yes	** NA **			None
203	M203						Yes	** NA **			None
204	M204						Yes	** NA **			None
205	M205						Yes	** NA **			None
206	M206						Yes				None
207	M207						Yes				None
208	M208						Yes	** NA **			None
209	M209						Yes	** NA **			None
210	M210						Yes	** NA **			None
211	M211						Yes	** NA **			None
212	M212						Yes				None
213	M213						Yes				None
214	M214						Yes	** NA **			None
215	M215						Yes	** NA **			None
216	M216						Yes	** NA **			None
217	M217						Yes	** NA **			None
218	M218						Yes	** NA **			None
219	M219						Yes				None
220	M220						Yes				None
221	M221						Yes	** NA **			None
222	M222						Yes	** NA **			None
223	M223	BenPIN	BenPIN				Yes	Default			None
224	M224	BenPIN	BenPIN				Yes	Default			None
225	M225						Yes	** NA **			None
226	M226	BenPIN	BenPIN				Yes	Default			None
227	M227	BenPIN	BenPIN				Yes	Default			None
228	M228						Yes	** NA **			None
229	M229	BenPIN	BenPIN				Yes	Default			None
230	M230	BenPIN	BenPIN				Yes	Default			None
231	M231						Yes	** NA **			None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
1	M1	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
2	M2	C 5X2X1/4	15			Lbyy			.65	.65		Lateral
3	M3	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
4	M4	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
5	M5	C 5X2X1/4	15			Lbyy			.65	.65		Lateral
6	M6	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
7	M7	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
8	M8	C 5X2X1/4	15			Lbyy			.65	.65		Lateral
9	M9	C 5X2X1/4	61.5	39	57	Lbyy		39	.65	.65		Lateral
10	M10	C 5X2X1/4	57			Lbyy			.65	.65		Lateral
11	M11	C 5X2X1/4	57			Lbyy			.65	.65		Lateral
12	M12	C 5X2X1/4	57			Lbyy			.65	.65		Lateral
13	M13	C 5X2X1/4	27.5			Lbyy			.65	.65		Lateral
14	M16	C 5X2X1/4	20			Lbyy			.65	.65		Lateral
15	M30	HSS3X3X4	27.5			Lbyy						Lateral
16	M33	HSS3X3X4	27.5			Lbyy						Lateral
17	M36	HSS3X3X4	27.5			Lbyy						Lateral
18	M37	L3x3x4	138	107	52	Lbyy		107	.65	.813		Lateral
19	M38	L3x3x4	138	52	107	Lbyy		52	.65	.813		Lateral
20	M39	L3x3x4	138	107	52	Lbyy		107	.65	.813		Lateral
21	M40	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
22	M41	L 1.25X1.25...	37	18.5		Lbyy		18.5	.65	.65		Lateral
23	M42	L 1.25X1.25...	37		18.5	Lbyy			.65	.65		Lateral
24	M43	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
25	M44	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral
26	M45	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral
27	M46	L 1.25X1.25...	52			Lbyy			.65	.65		Lateral
28	M47	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
29	M48	L 1.25X1.25...	37	18.5		Lbyy		18.5	.65	.65		Lateral
30	M49	L 1.25X1.25...	37		18.5	Lbyy			.65	.65		Lateral
31	M50	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
32	M51	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral
33	M52	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral
34	M53	L 1.25X1.25...	52			Lbyy			.65	.65		Lateral
35	M54	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
36	M55	L 1.25X1.25...	37	18.5		Lbyy		18.5	.65	.65		Lateral
37	M56	L 1.25X1.25...	37		18.5	Lbyy			.65	.65		Lateral
38	M57	L 1.25X1.25...	37			Lbyy			.65	.65		Lateral
39	M58	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral
40	M59	L 1.25X1.25...	50.193			Lbyy			.65	.65		Lateral
41	M60	L 1.25X1.25...	52			Lbyy			.65	.65		Lateral
42	M71	2.4" O.D	80			Lbyy						Lateral
43	M72	2.4" O.D	80			Lbyy						Lateral
44	M73	2.4" O.D	80			Lbyy						Lateral
45	M74	2.4" O.D	80			Lbyy						Lateral
46	M75	2.4" O.D	80			Lbyy						Lateral
47	M78	SR 1/2	8			Lbyy						Lateral
48	M79	SR 1/2	8			Lbyy						Lateral
49	M82	2.4" O.D	36			Lbyy						Lateral
50	M85	SR 1/2	8			Lbyy						Lateral
51	M86	SR 1/2	8			Lbyy						Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
52	M91	SR 1/2	8			Lbyy						Lateral
53	M92	SR 1/2	8			Lbyy						Lateral
54	M95	2.4" O.D	36			Lbyy						Lateral
55	M98	SR 1/2	8			Lbyy						Lateral
56	M99	SR 1/2	8			Lbyy						Lateral
57	M104	SR 1/2	8			Lbyy						Lateral
58	M105	SR 1/2	8			Lbyy						Lateral
59	M108	2.4" O.D	36			Lbyy						Lateral
60	M111	SR 1/2	8			Lbyy						Lateral
61	M112	SR 1/2	8			Lbyy						Lateral
62	M125	2.4" O.D	80			Lbyy						Lateral
63	M126	2.4" O.D	80			Lbyy						Lateral
64	M127	2.4" O.D	80			Lbyy						Lateral
65	M128	2.4" O.D	80			Lbyy						Lateral
66	M129	2.4" O.D	80			Lbyy						Lateral
67	M132	SR 1/2	8			Lbyy						Lateral
68	M133	SR 1/2	8			Lbyy						Lateral
69	M136	2.4" O.D	36			Lbyy						Lateral
70	M139	SR 1/2	8			Lbyy						Lateral
71	M140	SR 1/2	8			Lbyy						Lateral
72	M145	SR 1/2	8			Lbyy						Lateral
73	M146	SR 1/2	8			Lbyy						Lateral
74	M149	2.4" O.D	36			Lbyy						Lateral
75	M152	SR 1/2	8			Lbyy						Lateral
76	M153	SR 1/2	8			Lbyy						Lateral
77	M158	SR 1/2	8			Lbyy						Lateral
78	M159	SR 1/2	8			Lbyy						Lateral
79	M162	2.4" O.D	36			Lbyy						Lateral
80	M165	SR 1/2	8			Lbyy						Lateral
81	M166	SR 1/2	8			Lbyy						Lateral
82	M179	2.4" O.D	80			Lbyy						Lateral
83	M180	2.4" O.D	80			Lbyy						Lateral
84	M181	2.4" O.D	80			Lbyy						Lateral
85	M182	2.4" O.D	80			Lbyy						Lateral
86	M183	2.4" O.D	80			Lbyy						Lateral
87	M186	SR 1/2	8			Lbyy						Lateral
88	M187	SR 1/2	8			Lbyy						Lateral
89	M190	2.4" O.D	36			Lbyy						Lateral
90	M193	SR 1/2	8			Lbyy						Lateral
91	M194	SR 1/2	8			Lbyy						Lateral
92	M199	SR 1/2	8			Lbyy						Lateral
93	M200	SR 1/2	8			Lbyy						Lateral
94	M203	2.4" O.D	36			Lbyy						Lateral
95	M206	SR 1/2	8			Lbyy						Lateral
96	M207	SR 1/2	8			Lbyy						Lateral
97	M212	SR 1/2	8			Lbyy						Lateral
98	M213	SR 1/2	8			Lbyy						Lateral
99	M216	2.4" O.D	36			Lbyy						Lateral
100	M219	SR 1/2	8			Lbyy						Lateral
101	M220	SR 1/2	8			Lbyy						Lateral
102	M223	L 3X3X3/16	54.029			Lbyy						Lateral
103	M224	L 3X3X3/16	54.029			Lbyy						Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
104	M226	L 3X3X3/16	54.029			Lbyy						Lateral
105	M227	L 3X3X3/16	54.029			Lbyy						Lateral
106	M229	L 3X3X3/16	54.029			Lbyy						Lateral
107	M230	L 3X3X3/16	54.029			Lbyy						Lateral

Cold Formed Steel Design Parameters

Label	Shape	Lengt...	Lbyy[in]	Lbzz[in]	Lcomp t...	Lcomp ...	L-torque...	Kyy	Kzz	Cm-...	Cm-...	Cb	R	a[in]	y sw...	z sw...
No Data to Print ...																

Joint Loads and Enforced Displacements (BLC 16 : Lm1)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-in), (in,rad), (lb*s^...
1	N367	L	Z	-500

Joint Loads and Enforced Displacements (BLC 17 : Lm2)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-in), (in,rad), (lb*s^...
1	N369	L	Z	-500

Joint Loads and Enforced Displacements (BLC 20 : Lv1)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-in), (in,rad), (lb*s^...
1	N320	L	Z	-250

Joint Loads and Enforced Displacements (BLC 21 : Lv2)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-in), (in,rad), (lb*s^...
1	N384	L	Z	-250

Member Point Loads (BLC 2 : Weights)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	Z	-10	22.3
2	M71	Z	-10	57.7
3	M73	Z	-63.41	9.64
4	M73	Z	-63.41	70.36
5	M75	Z	-10	22.3
6	M75	Z	-10	57.7
7	M179	Z	-6	22.4
8	M179	Z	-6	57.6
9	M181	Z	-63.41	9.64
10	M181	Z	-63.41	70.36
11	M183	Z	-6	22.4
12	M183	Z	-6	57.6
13	M125	Z	-6	22.4
14	M125	Z	-6	57.6
15	M127	Z	-63.41	9.64
16	M127	Z	-63.41	70.36
17	M129	Z	-6	22.4
18	M129	Z	-6	57.6
19	M82	Z	-70.3	18

Member Point Loads (BLC 2 : Weights) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
20	M95	Z	-84.4	18
21	M190	Z	-70.3	18
22	M203	Z	-84.4	18
23	M136	Z	-70.3	18
24	M149	Z	-84.4	18

Member Point Loads (BLC 3 : ICE Load)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	Z	-123	22.3
2	M71	Z	-123	57.7
3	M73	Z	-227.58	9.64
4	M73	Z	-227.58	70.36
5	M75	Z	-123	22.3
6	M75	Z	-123	57.7
7	M179	Z	-90.63	22.4
8	M179	Z	-90.63	57.6
9	M181	Z	-227.58	9.64
10	M181	Z	-227.58	70.36
11	M183	Z	-90.63	22.4
12	M183	Z	-90.63	57.6
13	M125	Z	-90.63	22.4
14	M125	Z	-90.63	57.6
15	M127	Z	-227.58	9.64
16	M127	Z	-227.58	70.36
17	M129	Z	-90.63	22.4
18	M129	Z	-90.63	57.6
19	M82	Z	-67.15	18
20	M95	Z	-70.56	18
21	M190	Z	-67.15	18
22	M203	Z	-70.56	18
23	M136	Z	-67.15	18
24	M149	Z	-70.56	18

Member Point Loads (BLC 4 : Wind 0Á)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-123.65	22.3
2	M71	X	-123.65	57.7
3	M73	X	-295.24	9.64
4	M73	X	-295.24	70.36
5	M75	X	-123.65	22.3
6	M75	X	-123.65	57.7
7	M179	X	-94.7	22.4
8	M179	X	-94.7	57.6
9	M181	X	-155.46	9.64
10	M181	X	-155.46	70.36
11	M183	X	-94.7	22.4
12	M183	X	-94.7	57.6
13	M125	X	-94.7	22.4
14	M125	X	-94.7	57.6
15	M127	X	-155.46	9.64
16	M127	X	-155.46	70.36

Member Point Loads (BLC 4 : Wind 0Á) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
17	M129	X	-94.7	22.4
18	M129	X	-94.7	57.6
19	M82	X	-40.77	18
20	M95	X	-50.33	18
21	M190	X	-66.82	18
22	M203	X	-69.21	18
23	M136	X	-66.82	18
24	M149	X	-69.21	18

Member Point Loads (BLC 5 : Wind 30Á)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-103.94	22.3
2	M71	X	-103.94	57.7
3	M73	X	-215.33	9.64
4	M73	X	-215.33	70.36
5	M75	X	-103.94	22.3
6	M75	X	-103.94	57.7
7	M179	X	-57.78	22.4
8	M179	X	-57.78	57.6
9	M181	X	-215.33	9.64
10	M181	X	-215.33	70.36
11	M183	X	-57.78	22.4
12	M183	X	-57.78	57.6
13	M125	X	-94.13	22.4
14	M125	X	-94.13	57.6
15	M127	X	-94.28	9.64
16	M127	X	-94.28	70.36
17	M129	X	-94.13	22.4
18	M129	X	-94.13	57.6
19	M82	X	-42.83	18
20	M95	X	-49.04	18
21	M190	X	-42.83	18
22	M203	X	-49.04	18
23	M136	X	-65.38	18
24	M149	X	-65.38	18
25	M71	Y	-60.01	22.3
26	M71	Y	-60.01	57.7
27	M73	Y	-124.32	9.64
28	M73	Y	-124.32	70.36
29	M75	Y	-60.01	22.3
30	M75	Y	-60.01	57.7
31	M179	Y	-33.36	22.4
32	M179	Y	-33.36	57.6
33	M181	Y	-124.32	9.64
34	M181	Y	-124.32	70.36
35	M183	Y	-33.36	22.4
36	M183	Y	-33.36	57.6
37	M125	Y	-54.35	22.4
38	M125	Y	-54.35	57.6
39	M127	Y	-54.43	9.64
40	M127	Y	-54.43	70.36

Member Point Loads (BLC 5 : Wind 30Á (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
41	M129	Y	-54.35	22.4
42	M129	Y	-54.35	57.6
43	M82	Y	-24.73	18
44	M95	Y	-28.31	18
45	M190	Y	-24.73	18
46	M203	Y	-28.31	18
47	M136	Y	-37.75	18
48	M149	Y	-37.75	18

Member Point Loads (BLC 6 : Wind 60Á

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-56.38	22.3
2	M71	X	-56.38	57.7
3	M73	X	-77.73	9.64
4	M73	X	-77.73	70.36
5	M75	X	-56.38	22.3
6	M75	X	-56.38	57.7
7	M179	X	-26.36	22.4
8	M179	X	-26.36	57.6
9	M181	X	-147.62	9.64
10	M181	X	-147.62	70.36
11	M183	X	-26.36	22.4
12	M183	X	-26.36	57.6
13	M125	X	-47.35	22.4
14	M125	X	-47.35	57.6
15	M127	X	-77.73	9.64
16	M127	X	-77.73	70.36
17	M129	X	-47.35	22.4
18	M129	X	-47.35	57.6
19	M82	X	-33.41	18
20	M95	X	-34.6	18
21	M190	X	-20.38	18
22	M203	X	-25.17	18
23	M136	X	-33.41	18
24	M149	X	-34.6	18
25	M71	Y	-97.66	22.3
26	M71	Y	-97.66	57.7
27	M73	Y	-134.63	9.64
28	M73	Y	-134.63	70.36
29	M75	Y	-97.66	22.3
30	M75	Y	-97.66	57.7
31	M179	Y	-45.66	22.4
32	M179	Y	-45.66	57.6
33	M181	Y	-255.69	9.64
34	M181	Y	-255.69	70.36
35	M183	Y	-45.66	22.4
36	M183	Y	-45.66	57.6
37	M125	Y	-82.02	22.4
38	M125	Y	-82.02	57.6
39	M127	Y	-134.63	9.64
40	M127	Y	-134.63	70.36

Member Point Loads (BLC 6 : Wind 60Á) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
41	M129	Y	-82.02	22.4
42	M129	Y	-82.02	57.6
43	M82	Y	-57.86	18
44	M95	Y	-59.94	18
45	M190	Y	-35.31	18
46	M203	Y	-43.59	18
47	M136	Y	-57.86	18
48	M149	Y	-59.94	18

Member Point Loads (BLC 7 : Wind 90Á)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	Y	-109.14	22.3
2	M71	Y	-109.14	57.7
3	M73	Y	-108.86	9.64
4	M73	Y	-108.86	70.36
5	M75	Y	-109.14	22.3
6	M75	Y	-109.14	57.7
7	M179	Y	-66.72	22.4
8	M179	Y	-66.72	57.6
9	M181	Y	-248.65	9.64
10	M181	Y	-248.65	70.36
11	M183	Y	-66.72	22.4
12	M183	Y	-66.72	57.6
13	M125	Y	-66.72	22.4
14	M125	Y	-66.72	57.6
15	M127	Y	-248.65	9.64
16	M127	Y	-248.65	70.36
17	M129	Y	-66.72	22.4
18	M129	Y	-66.72	57.6
19	M82	Y	-75.5	18
20	M95	Y	-75.5	18
21	M190	Y	-49.45	18
22	M203	Y	-56.62	18
23	M136	Y	-49.45	18
24	M149	Y	-56.62	18

Member Point Loads (BLC 8 : Wind 120Á)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	56.38	22.3
2	M71	X	56.38	57.7
3	M73	X	77.73	9.64
4	M73	X	77.73	70.36
5	M75	X	56.38	22.3
6	M75	X	56.38	57.7
7	M179	X	47.35	22.4
8	M179	X	47.35	57.6
9	M181	X	77.73	9.64
10	M181	X	77.73	70.36
11	M183	X	47.35	22.4
12	M183	X	47.35	57.6
13	M125	X	26.36	22.4

Member Point Loads (BLC 8 : Wind 120Á) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
14	M125	X	26.36	57.6
15	M127	X	147.62	9.64
16	M127	X	147.62	70.36
17	M129	X	26.36	22.4
18	M129	X	26.36	57.6
19	M82	X	33.41	18
20	M95	X	34.6	18
21	M190	X	33.41	18
22	M203	X	34.6	18
23	M136	X	20.38	18
24	M149	X	25.17	18
25	M71	Y	-97.66	22.3
26	M71	Y	-97.66	57.7
27	M73	Y	-134.63	9.64
28	M73	Y	-134.63	70.36
29	M75	Y	-97.66	22.3
30	M75	Y	-97.66	57.7
31	M179	Y	-82.02	22.4
32	M179	Y	-82.02	57.6
33	M181	Y	-134.63	9.64
34	M181	Y	-134.63	70.36
35	M183	Y	-82.02	22.4
36	M183	Y	-82.02	57.6
37	M125	Y	-45.66	22.4
38	M125	Y	-45.66	57.6
39	M127	Y	-255.69	9.64
40	M127	Y	-255.69	70.36
41	M129	Y	-45.66	22.4
42	M129	Y	-45.66	57.6
43	M82	Y	-57.86	18
44	M95	Y	-59.94	18
45	M190	Y	-57.86	18
46	M203	Y	-59.94	18
47	M136	Y	-35.31	18
48	M149	Y	-43.59	18

Member Point Loads (BLC 9 : Wind 150Á)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	103.94	22.3
2	M71	X	103.94	57.7
3	M73	X	215.33	9.64
4	M73	X	215.33	70.36
5	M75	X	103.94	22.3
6	M75	X	103.94	57.7
7	M179	X	94.13	22.4
8	M179	X	94.13	57.6
9	M181	X	94.28	9.64
10	M181	X	94.28	70.36
11	M183	X	94.13	22.4
12	M183	X	94.13	57.6
13	M125	X	57.78	22.4

Member Point Loads (BLC 9 : Wind 150Á) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
14	M125	X	57.78	57.6
15	M127	X	215.33	9.64
16	M127	X	215.33	70.36
17	M129	X	57.78	22.4
18	M129	X	57.78	57.6
19	M82	X	42.83	18
20	M95	X	49.04	18
21	M190	X	65.38	18
22	M203	X	65.38	18
23	M136	X	42.83	18
24	M149	X	49.04	18
25	M71	Y	-60.01	22.3
26	M71	Y	-60.01	57.7
27	M73	Y	-124.32	9.64
28	M73	Y	-124.32	70.36
29	M75	Y	-60.01	22.3
30	M75	Y	-60.01	57.7
31	M179	Y	-54.35	22.4
32	M179	Y	-54.35	57.6
33	M181	Y	-54.43	9.64
34	M181	Y	-54.43	70.36
35	M183	Y	-54.35	22.4
36	M183	Y	-54.35	57.6
37	M125	Y	-33.36	22.4
38	M125	Y	-33.36	57.6
39	M127	Y	-124.32	9.64
40	M127	Y	-124.32	70.36
41	M129	Y	-33.36	22.4
42	M129	Y	-33.36	57.6
43	M82	Y	-24.73	18
44	M95	Y	-28.31	18
45	M190	Y	-37.75	18
46	M203	Y	-37.75	18
47	M136	Y	-24.73	18
48	M149	Y	-28.31	18

Member Point Loads (BLC 10 : Wind 0Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-30.54	22.3
2	M71	X	-30.54	57.7
3	M73	X	-65.22	9.64
4	M73	X	-65.22	70.36
5	M75	X	-30.54	22.3
6	M75	X	-30.54	57.7
7	M179	X	-24.95	22.4
8	M179	X	-24.95	57.6
9	M181	X	-39.37	9.64
10	M181	X	-39.37	70.36
11	M183	X	-24.95	22.4
12	M183	X	-24.95	57.6
13	M125	X	-24.95	22.4

Member Point Loads (BLC 10 : Wind 0Áwith ice) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
14	M125	X	-24.95	57.6
15	M127	X	-39.37	9.64
16	M127	X	-39.37	70.36
17	M129	X	-24.95	22.4
18	M129	X	-24.95	57.6
19	M82	X	-14.65	18
20	M95	X	-16.85	18
21	M190	X	-20.65	18
22	M203	X	-21.2	18
23	M136	X	-20.65	18
24	M149	X	-21.2	18

Member Point Loads (BLC 11 : Wind 30Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-25.84	22.3
2	M71	X	-25.84	57.7
3	M73	X	-49.02	9.64
4	M73	X	-49.02	70.36
5	M75	X	-25.84	22.3
6	M75	X	-25.84	57.7
7	M179	X	-16.97	22.4
8	M179	X	-16.97	57.6
9	M181	X	-49.02	9.64
10	M181	X	-49.02	70.36
11	M183	X	-16.97	22.4
12	M183	X	-16.97	57.6
13	M125	X	-23.93	22.4
14	M125	X	-23.93	57.6
15	M127	X	-26.63	9.64
16	M127	X	-26.63	70.36
17	M129	X	-23.93	22.4
18	M129	X	-23.93	57.6
19	M82	X	-14.42	18
20	M95	X	-15.85	18
21	M190	X	-14.42	18
22	M203	X	-15.85	18
23	M136	X	-19.61	18
24	M149	X	-19.61	18
25	M71	Y	-14.92	22.3
26	M71	Y	-14.92	57.7
27	M73	Y	-28.3	9.64
28	M73	Y	-28.3	70.36
29	M75	Y	-14.92	22.3
30	M75	Y	-14.92	57.7
31	M179	Y	-9.8	22.4
32	M179	Y	-9.8	57.6
33	M181	Y	-28.3	9.64
34	M181	Y	-28.3	70.36
35	M183	Y	-9.8	22.4
36	M183	Y	-9.8	57.6
37	M125	Y	-13.81	22.4

Member Point Loads (BLC 11 : Wind 30Áwith ice) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
38	M125	Y	-13.81	57.6
39	M127	Y	-15.37	9.64
40	M127	Y	-15.37	70.36
41	M129	Y	-13.81	22.4
42	M129	Y	-13.81	57.6
43	M82	Y	-8.33	18
44	M95	Y	-9.15	18
45	M190	Y	-8.33	18
46	M203	Y	-9.15	18
47	M136	Y	-11.32	18
48	M149	Y	-11.32	18

Member Point Loads (BLC 12 : Wind 60Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-14.22	22.3
2	M71	X	-14.22	57.7
3	M73	X	-19.68	9.64
4	M73	X	-19.68	70.36
5	M75	X	-14.22	22.3
6	M75	X	-14.22	57.7
7	M179	X	-8.46	22.4
8	M179	X	-8.46	57.6
9	M181	X	-32.61	9.64
10	M181	X	-32.61	70.36
11	M183	X	-8.46	22.4
12	M183	X	-8.46	57.6
13	M125	X	-12.48	22.4
14	M125	X	-12.48	57.6
15	M127	X	-19.68	9.64
16	M127	X	-19.68	70.36
17	M129	X	-12.48	22.4
18	M129	X	-12.48	57.6
19	M82	X	-10.32	18
20	M95	X	-10.6	18
21	M190	X	-7.33	18
22	M203	X	-8.43	18
23	M136	X	-10.32	18
24	M149	X	-10.6	18
25	M71	Y	-24.62	22.3
26	M71	Y	-24.62	57.7
27	M73	Y	-34.09	9.64
28	M73	Y	-34.09	70.36
29	M75	Y	-24.62	22.3
30	M75	Y	-24.62	57.7
31	M179	Y	-14.65	22.4
32	M179	Y	-14.65	57.6
33	M181	Y	-56.48	9.64
34	M181	Y	-56.48	70.36
35	M183	Y	-14.65	22.4
36	M183	Y	-14.65	57.6
37	M125	Y	-21.61	22.4

Member Point Loads (BLC 12 : Wind 60Áwith ice) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
38	M125	Y	-21.61	57.6
39	M127	Y	-34.09	9.64
40	M127	Y	-34.09	70.36
41	M129	Y	-21.61	22.4
42	M129	Y	-21.61	57.6
43	M82	Y	-17.88	18
44	M95	Y	-18.36	18
45	M190	Y	-12.69	18
46	M203	Y	-14.6	18
47	M136	Y	-17.88	18
48	M149	Y	-18.36	18

Member Point Loads (BLC 13 : Wind 90Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	Y	-27.73	22.3
2	M71	Y	-27.73	57.7
3	M73	Y	-30.75	9.64
4	M73	Y	-30.75	70.36
5	M75	Y	-27.73	22.3
6	M75	Y	-27.73	57.7
7	M179	Y	-19.6	22.4
8	M179	Y	-19.6	57.6
9	M181	Y	-56.6	9.64
10	M181	Y	-56.6	70.36
11	M183	Y	-19.6	22.4
12	M183	Y	-19.6	57.6
13	M125	Y	-19.6	22.4
14	M125	Y	-19.6	57.6
15	M127	Y	-56.6	9.64
16	M127	Y	-56.6	70.36
17	M129	Y	-19.6	22.4
18	M129	Y	-19.6	57.6
19	M82	Y	-22.64	18
20	M95	Y	-22.64	18
21	M190	Y	-16.65	18
22	M203	Y	-18.3	18
23	M136	Y	-16.65	18
24	M149	Y	-18.3	18

Member Point Loads (BLC 14 : Wind 120Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	14.22	22.3
2	M71	X	14.22	57.7
3	M73	X	19.68	9.64
4	M73	X	19.68	70.36
5	M75	X	14.22	22.3
6	M75	X	14.22	57.7
7	M179	X	12.48	22.4
8	M179	X	12.48	57.6
9	M181	X	19.68	9.64
10	M181	X	19.68	70.36

Member Point Loads (BLC 14 : Wind 120Áwith ice) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
11	M183	X	12.48	22.4
12	M183	X	12.48	57.6
13	M125	X	8.46	22.4
14	M125	X	8.46	57.6
15	M127	X	32.61	9.64
16	M127	X	32.61	70.36
17	M129	X	8.46	22.4
18	M129	X	8.46	57.6
19	M82	X	10.32	18
20	M95	X	10.6	18
21	M190	X	10.32	18
22	M203	X	10.6	18
23	M136	X	7.33	18
24	M149	X	8.43	18
25	M71	Y	-24.62	22.3
26	M71	Y	-24.62	57.7
27	M73	Y	-34.09	9.64
28	M73	Y	-34.09	70.36
29	M75	Y	-24.62	22.3
30	M75	Y	-24.62	57.7
31	M179	Y	-21.61	22.4
32	M179	Y	-21.61	57.6
33	M181	Y	-34.09	9.64
34	M181	Y	-34.09	70.36
35	M183	Y	-21.61	22.4
36	M183	Y	-21.61	57.6
37	M125	Y	-14.65	22.4
38	M125	Y	-14.65	57.6
39	M127	Y	-56.48	9.64
40	M127	Y	-56.48	70.36
41	M129	Y	-14.65	22.4
42	M129	Y	-14.65	57.6
43	M82	Y	-17.88	18
44	M95	Y	-18.36	18
45	M190	Y	-17.88	18
46	M203	Y	-18.36	18
47	M136	Y	-12.69	18
48	M149	Y	-14.6	18

Member Point Loads (BLC 15 : Wind 150Áwith ice)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	25.84	22.3
2	M71	X	25.84	57.7
3	M73	X	49.02	9.64
4	M73	X	49.02	70.36
5	M75	X	25.84	22.3
6	M75	X	25.84	57.7
7	M179	X	23.93	22.4
8	M179	X	23.93	57.6
9	M181	X	26.63	9.64
10	M181	X	26.63	70.36

Member Point Loads (BLC 15 : Wind 150Áwith ice) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
11	M183	X	23.93	22.4
12	M183	X	23.93	57.6
13	M125	X	16.97	22.4
14	M125	X	16.97	57.6
15	M127	X	49.02	9.64
16	M127	X	49.02	70.36
17	M129	X	16.97	22.4
18	M129	X	16.97	57.6
19	M82	X	14.42	18
20	M95	X	15.85	18
21	M190	X	19.61	18
22	M203	X	19.61	18
23	M136	X	14.42	18
24	M149	X	15.85	18
25	M71	Y	-14.92	22.3
26	M71	Y	-14.92	57.7
27	M73	Y	-28.3	9.64
28	M73	Y	-28.3	70.36
29	M75	Y	-14.92	22.3
30	M75	Y	-14.92	57.7
31	M179	Y	-13.81	22.4
32	M179	Y	-13.81	57.6
33	M181	Y	-15.37	9.64
34	M181	Y	-15.37	70.36
35	M183	Y	-13.81	22.4
36	M183	Y	-13.81	57.6
37	M125	Y	-9.8	22.4
38	M125	Y	-9.8	57.6
39	M127	Y	-28.3	9.64
40	M127	Y	-28.3	70.36
41	M129	Y	-9.8	22.4
42	M129	Y	-9.8	57.6
43	M82	Y	-8.33	18
44	M95	Y	-9.15	18
45	M190	Y	-11.32	18
46	M203	Y	-11.32	18
47	M136	Y	-8.33	18
48	M149	Y	-9.15	18

Member Point Loads (BLC 22 : Horizontal Seismic Load X)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	X	-10	22.3
2	M71	X	-10	57.7
3	M73	X	-63.41	9.64
4	M73	X	-63.41	70.36
5	M75	X	-10	22.3
6	M75	X	-10	57.7
7	M179	X	-6	22.4
8	M179	X	-6	57.6
9	M181	X	-63.41	9.64
10	M181	X	-63.41	70.36

Member Point Loads (BLC 22 : Horizontal Seismic Load X) (Continued)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
11	M183	X	-6	22.4
12	M183	X	-6	57.6
13	M125	X	-6	22.4
14	M125	X	-6	57.6
15	M127	X	-63.41	9.64
16	M127	X	-63.41	70.36
17	M129	X	-6	22.4
18	M129	X	-6	57.6
19	M82	X	-70.3	18
20	M95	X	-84.4	18
21	M190	X	-70.3	18
22	M203	X	-84.4	18
23	M136	X	-70.3	18
24	M149	X	-84.4	18

Member Point Loads (BLC 23 : Horizontal Seismic Load Y)

	Member Label	Direction	Magnitude[lb,k-in]	Location[in,%]
1	M71	Y	-10	22.3
2	M71	Y	-10	57.7
3	M73	Y	-63.41	9.64
4	M73	Y	-63.41	70.36
5	M75	Y	-10	22.3
6	M75	Y	-10	57.7
7	M179	Y	-6	22.4
8	M179	Y	-6	57.6
9	M181	Y	-63.41	9.64
10	M181	Y	-63.41	70.36
11	M183	Y	-6	22.4
12	M183	Y	-6	57.6
13	M125	Y	-6	22.4
14	M125	Y	-6	57.6
15	M127	Y	-63.41	9.64
16	M127	Y	-63.41	70.36
17	M129	Y	-6	22.4
18	M129	Y	-6	57.6
19	M82	Y	-70.3	18
20	M95	Y	-84.4	18
21	M190	Y	-70.3	18
22	M203	Y	-84.4	18
23	M136	Y	-70.3	18
24	M149	Y	-84.4	18

Member Distributed Loads (BLC 3 : ICE Load)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	Z	-1.51	-1.51	0	0
2	M1	Z	-1.77	-1.77	0	0
3	M2	Z	-1.77	-1.77	0	0
4	M3	Z	-1.77	-1.77	0	0
5	M10	Z	-1.77	-1.77	0	0
6	M13	Z	-1.77	-1.77	0	0

Member Distributed Loads (BLC 3 : ICE Load) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
7	M30	Z	-1.51	-1.51	0	0
8	M16	Z	-1.51	-1.51	0	0
9	M40	Z	-.94	-.94	0	0
10	M41	Z	-.94	-.94	0	0
11	M42	Z	-.94	-.94	0	0
12	M43	Z	-.94	-.94	0	0
13	M46	Z	-.94	-.94	0	0
14	M44	Z	-.94	-.94	0	0
15	M45	Z	-.94	-.94	0	0
16	M71	Z	-1.08	-1.08	0	0
17	M72	Z	-1.08	-1.08	0	0
18	M73	Z	-1.08	-1.08	0	0
19	M74	Z	-1.08	-1.08	0	0
20	M75	Z	-1.08	-1.08	0	0
21	M82	Z	-1.08	-1.08	0	0
22	M95	Z	-1.08	-1.08	0	0
23	M108	Z	-1.08	-1.08	0	0
24	M223	Z	-1.51	-1.51	0	0
25	M224	Z	-1.51	-1.51	0	0
26	M224	Z	-1.51	-1.51	0	0
27	M39	Z	-1.51	-1.51	0	0
28	M4	Z	-1.77	-1.77	0	0
29	M5	Z	-1.77	-1.77	0	0
30	M6	Z	-1.77	-1.77	0	0
31	M12	Z	-1.77	-1.77	0	0
32	M36	Z	-1.51	-1.51	0	0
33	M57	Z	-.94	-.94	0	0
34	M56	Z	-.94	-.94	0	0
35	M55	Z	-.94	-.94	0	0
36	M54	Z	-.94	-.94	0	0
37	M60	Z	-.94	-.94	0	0
38	M58	Z	-.94	-.94	0	0
39	M59	Z	-.94	-.94	0	0
40	M179	Z	-1.08	-1.08	0	0
41	M180	Z	-1.08	-1.08	0	0
42	M181	Z	-1.08	-1.08	0	0
43	M182	Z	-1.08	-1.08	0	0
44	M183	Z	-1.08	-1.08	0	0
45	M190	Z	-1.08	-1.08	0	0
46	M203	Z	-1.08	-1.08	0	0
47	M216	Z	-1.08	-1.08	0	0
48	M229	Z	-1.51	-1.51	0	0
49	M230	Z	-1.51	-1.51	0	0
50	M230	Z	-1.51	-1.51	0	0
51	M38	Z	-1.51	-1.51	0	0
52	M7	Z	-1.77	-1.77	0	0
53	M8	Z	-1.77	-1.77	0	0
54	M9	Z	-1.77	-1.77	0	0
55	M11	Z	-1.77	-1.77	0	0
56	M33	Z	-1.51	-1.51	0	0
57	M47	Z	-.94	-.94	0	0
58	M48	Z	-.94	-.94	0	0

Member Distributed Loads (BLC 3 : ICE Load) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
59	M49	Z	-.94	-.94	0	0
60	M50	Z	-.94	-.94	0	0
61	M53	Z	-.94	-.94	0	0
62	M51	Z	-.94	-.94	0	0
63	M52	Z	-.94	-.94	0	0
64	M125	Z	-1.08	-1.08	0	0
65	M126	Z	-1.08	-1.08	0	0
66	M127	Z	-1.08	-1.08	0	0
67	M128	Z	-1.08	-1.08	0	0
68	M129	Z	-1.08	-1.08	0	0
69	M136	Z	-1.08	-1.08	0	0
70	M149	Z	-1.08	-1.08	0	0
71	M162	Z	-1.08	-1.08	0	0
72	M226	Z	-1.51	-1.51	0	0
73	M227	Z	-1.51	-1.51	0	0
74	M227	Z	-1.51	-1.51	0	0

Member Distributed Loads (BLC 4 : Wind 0Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-1.68	-1.68	0	0
2	M1	X	-2.2	-2.2	0	0
3	M2	X	-1.71	-1.71	0	0
4	M3	X	-2.2	-2.2	0	0
5	M10	X	-2.16	-2.16	0	0
6	M13	X	-1.86	-1.86	0	0
7	M30	X	0	0	0	0
8	M16	X	0	0	0	0
9	M40	X	-.7	-.7	0	0
10	M41	X	-.7	-.7	0	0
11	M42	X	-.7	-.7	0	0
12	M43	X	-.7	-.7	0	0
13	M46	X	-.7	-.7	0	0
14	M44	X	-.7	-.7	0	0
15	M45	X	-.7	-.7	0	0
16	M71	X	-.81	-.81	0	0
17	M72	X	-.81	-.81	0	0
18	M73	X	-.81	-.81	0	0
19	M74	X	-.81	-.81	0	0
20	M75	X	-.81	-.81	0	0
21	M82	X	-.65	-.65	0	0
22	M95	X	-.65	-.65	0	0
23	M108	X	-.65	-.65	0	0
24	M223	X	-1.48	-1.48	0	0
25	M224	X	-1.48	-1.48	0	0
26	M224	X	-1.48	-1.48	0	0
27	M39	X	-.42	-.42	0	0
28	M4	X	-.55	-.55	0	0
29	M5	X	-.43	-.43	0	0
30	M6	X	-.55	-.55	0	0
31	M12	X	-.54	-.54	0	0
32	M36	X	-.93	-.93	0	0

Member Distributed Loads (BLC 4 : Wind 0Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
33	M57	X	-.7	-.7	0	0
34	M56	X	-.7	-.7	0	0
35	M55	X	-.7	-.7	0	0
36	M54	X	-.7	-.7	0	0
37	M60	X	-.17	-.17	0	0
38	M58	X	-.7	-.7	0	0
39	M59	X	-.7	-.7	0	0
40	M179	X	-.81	-.81	0	0
41	M180	X	-.81	-.81	0	0
42	M181	X	-.81	-.81	0	0
43	M182	X	-.81	-.81	0	0
44	M183	X	-.81	-.81	0	0
45	M190	X	-.65	-.65	0	0
46	M203	X	-.65	-.65	0	0
47	M216	X	-.65	-.65	0	0
48	M229	X	-1.48	-1.48	0	0
49	M230	X	-1.48	-1.48	0	0
50	M230	X	-1.48	-1.48	0	0
51	M38	X	-.42	-.42	0	0
52	M7	X	-.55	-.55	0	0
53	M8	X	-.43	-.43	0	0
54	M9	X	-.55	-.55	0	0
55	M11	X	-.54	-.54	0	0
56	M33	X	-.93	-.93	0	0
57	M47	X	-.7	-.7	0	0
58	M48	X	-.7	-.7	0	0
59	M49	X	-.7	-.7	0	0
60	M50	X	-.7	-.7	0	0
61	M53	X	-.17	-.17	0	0
62	M51	X	-.7	-.7	0	0
63	M52	X	-.7	-.7	0	0
64	M125	X	-.81	-.81	0	0
65	M126	X	-.81	-.81	0	0
66	M127	X	-.81	-.81	0	0
67	M128	X	-.81	-.81	0	0
68	M129	X	-.81	-.81	0	0
69	M136	X	-.65	-.65	0	0
70	M149	X	-.65	-.65	0	0
71	M162	X	-.65	-.65	0	0
72	M226	X	-1.48	-1.48	0	0
73	M227	X	-1.48	-1.48	0	0
74	M227	X	-1.48	-1.48	0	0

Member Distributed Loads (BLC 5 : Wind 30Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-1.09	-1.09	0	0
2	M1	X	-1.43	-1.43	0	0
3	M2	X	-1.11	-1.11	0	0
4	M3	X	-1.43	-1.43	0	0
5	M10	X	-1.4	-1.4	0	0
6	M13	X	-1.21	-1.21	0	0

Member Distributed Loads (BLC 5 : Wind 30Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
7	M30	X	-.27	-.27	0	0
8	M16	X	-.25	-.25	0	0
9	M40	X	-.61	-.61	0	0
10	M41	X	-.61	-.61	0	0
11	M42	X	-.61	-.61	0	0
12	M43	X	-.61	-.61	0	0
13	M46	X	-.45	-.45	0	0
14	M44	X	-.61	-.61	0	0
15	M45	X	-.61	-.61	0	0
16	M71	X	-.7	-.7	0	0
17	M72	X	-.7	-.7	0	0
18	M73	X	-.7	-.7	0	0
19	M74	X	-.7	-.7	0	0
20	M75	X	-.7	-.7	0	0
21	M82	X	-.56	-.56	0	0
22	M95	X	-.56	-.56	0	0
23	M108	X	-.56	-.56	0	0
24	M223	X	-1.28	-1.28	0	0
25	M224	X	-1.28	-1.28	0	0
26	M224	X	-1.28	-1.28	0	0
27	M39	X	-1.09	-1.09	0	0
28	M4	X	-1.43	-1.43	0	0
29	M5	X	-1.11	-1.11	0	0
30	M6	X	-1.43	-1.43	0	0
31	M12	X	-1.4	-1.4	0	0
32	M36	X	-.27	-.27	0	0
33	M57	X	-.61	-.61	0	0
34	M56	X	-.61	-.61	0	0
35	M55	X	-.61	-.61	0	0
36	M54	X	-.61	-.61	0	0
37	M60	X	-.45	-.45	0	0
38	M58	X	-.61	-.61	0	0
39	M59	X	-.61	-.61	0	0
40	M179	X	-.7	-.7	0	0
41	M180	X	-.7	-.7	0	0
42	M181	X	-.7	-.7	0	0
43	M182	X	-.7	-.7	0	0
44	M183	X	-.7	-.7	0	0
45	M190	X	-.56	-.56	0	0
46	M203	X	-.56	-.56	0	0
47	M216	X	-.56	-.56	0	0
48	M229	X	-1.28	-1.28	0	0
49	M230	X	-1.28	-1.28	0	0
50	M230	X	-1.28	-1.28	0	0
51	M38	X	0	0	0	0
52	M7	X	0	0	0	0
53	M8	X	0	0	0	0
54	M9	X	0	0	0	0
55	M11	X	0	0	0	0
56	M33	X	-1.07	-1.07	0	0
57	M47	X	-.61	-.61	0	0
58	M48	X	-.61	-.61	0	0

Member Distributed Loads (BLC 5 : Wind 30Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
59	M49	X	-.61	-.61	0	0
60	M50	X	-.61	-.61	0	0
61	M53	X	0	0	0	0
62	M51	X	-.61	-.61	0	0
63	M52	X	-.61	-.61	0	0
64	M125	X	-.7	-.7	0	0
65	M126	X	-.7	-.7	0	0
66	M127	X	-.7	-.7	0	0
67	M128	X	-.7	-.7	0	0
68	M129	X	-.7	-.7	0	0
69	M136	X	-.56	-.56	0	0
70	M149	X	-.56	-.56	0	0
71	M162	X	-.56	-.56	0	0
72	M226	X	-1.28	-1.28	0	0
73	M227	X	-1.28	-1.28	0	0
74	M227	X	-1.28	-1.28	0	0
75	M37	Y	-.63	-.63	0	0
76	M1	Y	-.83	-.83	0	0
77	M2	Y	-.64	-.64	0	0
78	M3	Y	-.83	-.83	0	0
79	M10	Y	-.81	-.81	0	0
80	M13	Y	-.7	-.7	0	0
81	M30	Y	-.15	-.15	0	0
82	M16	Y	-.15	-.15	0	0
83	M40	Y	-.35	-.35	0	0
84	M41	Y	-.35	-.35	0	0
85	M42	Y	-.35	-.35	0	0
86	M43	Y	-.35	-.35	0	0
87	M46	Y	-.26	-.26	0	0
88	M44	Y	-.35	-.35	0	0
89	M45	Y	-.35	-.35	0	0
90	M71	Y	-.4	-.4	0	0
91	M72	Y	-.4	-.4	0	0
92	M73	Y	-.4	-.4	0	0
93	M74	Y	-.4	-.4	0	0
94	M75	Y	-.4	-.4	0	0
95	M82	Y	-.33	-.33	0	0
96	M95	Y	-.33	-.33	0	0
97	M108	Y	-.33	-.33	0	0
98	M223	Y	-.74	-.74	0	0
99	M224	Y	-.74	-.74	0	0
100	M224	Y	-.74	-.74	0	0
101	M39	Y	-.63	-.63	0	0
102	M4	Y	-.83	-.83	0	0
103	M5	Y	-.64	-.64	0	0
104	M6	Y	-.83	-.83	0	0
105	M12	Y	-.81	-.81	0	0
106	M36	Y	-.15	-.15	0	0
107	M57	Y	-.35	-.35	0	0
108	M56	Y	-.35	-.35	0	0
109	M55	Y	-.35	-.35	0	0
110	M54	Y	-.35	-.35	0	0

Member Distributed Loads (BLC 5 : Wind 30Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
111	M60	Y	-.26	-.26	0	0
112	M58	Y	-.35	-.35	0	0
113	M59	Y	-.35	-.35	0	0
114	M179	Y	-.4	-.4	0	0
115	M180	Y	-.4	-.4	0	0
116	M181	Y	-.4	-.4	0	0
117	M182	Y	-.4	-.4	0	0
118	M183	Y	-.4	-.4	0	0
119	M190	Y	-.33	-.33	0	0
120	M203	Y	-.33	-.33	0	0
121	M216	Y	-.33	-.33	0	0
122	M229	Y	-.74	-.74	0	0
123	M230	Y	-.74	-.74	0	0
124	M230	Y	-.74	-.74	0	0
125	M38	Y	0	0	0	0
126	M7	Y	0	0	0	0
127	M8	Y	0	0	0	0
128	M9	Y	0	0	0	0
129	M11	Y	0	0	0	0
130	M33	Y	-.62	-.62	0	0
131	M47	Y	-.35	-.35	0	0
132	M48	Y	-.35	-.35	0	0
133	M49	Y	-.35	-.35	0	0
134	M50	Y	-.35	-.35	0	0
135	M53	Y	0	0	0	0
136	M51	Y	-.35	-.35	0	0
137	M52	Y	-.35	-.35	0	0
138	M125	Y	-.4	-.4	0	0
139	M126	Y	-.4	-.4	0	0
140	M127	Y	-.4	-.4	0	0
141	M128	Y	-.4	-.4	0	0
142	M129	Y	-.4	-.4	0	0
143	M136	Y	-.33	-.33	0	0
144	M149	Y	-.33	-.33	0	0
145	M162	Y	-.33	-.33	0	0
146	M226	Y	-.74	-.74	0	0
147	M227	Y	-.74	-.74	0	0
148	M227	Y	-.74	-.74	0	0

Member Distributed Loads (BLC 6 : Wind 60Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-.21	-.21	0	0
2	M1	X	-.28	-.28	0	0
3	M2	X	-.21	-.21	0	0
4	M3	X	-.28	-.28	0	0
5	M10	X	-.27	-.27	0	0
6	M13	X	-.23	-.23	0	0
7	M30	X	-.46	-.46	0	0
8	M16	X	-.44	-.44	0	0
9	M40	X	-.35	-.35	0	0
10	M41	X	-.35	-.35	0	0

Member Distributed Loads (BLC 6 : Wind 60Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
11	M42	X	-.35	-.35	0	0
12	M43	X	-.35	-.35	0	0
13	M46	X	-.09	-.09	0	0
14	M44	X	-.35	-.35	0	0
15	M45	X	-.35	-.35	0	0
16	M71	X	-.4	-.4	0	0
17	M72	X	-.4	-.4	0	0
18	M73	X	-.4	-.4	0	0
19	M74	X	-.4	-.4	0	0
20	M75	X	-.4	-.4	0	0
21	M82	X	-.33	-.33	0	0
22	M95	X	-.33	-.33	0	0
23	M108	X	-.33	-.33	0	0
24	M223	X	-.74	-.74	0	0
25	M224	X	-.74	-.74	0	0
26	M224	X	-.74	-.74	0	0
27	M39	X	-.84	-.84	0	0
28	M4	X	-1.1	-1.1	0	0
29	M5	X	-.85	-.85	0	0
30	M6	X	-1.1	-1.1	0	0
31	M12	X	-1.08	-1.08	0	0
32	M36	X	0	0	0	0
33	M57	X	-.35	-.35	0	0
34	M56	X	-.35	-.35	0	0
35	M55	X	-.35	-.35	0	0
36	M54	X	-.35	-.35	0	0
37	M60	X	-.35	-.35	0	0
38	M58	X	-.35	-.35	0	0
39	M59	X	-.35	-.35	0	0
40	M179	X	-.4	-.4	0	0
41	M180	X	-.4	-.4	0	0
42	M181	X	-.4	-.4	0	0
43	M182	X	-.4	-.4	0	0
44	M183	X	-.4	-.4	0	0
45	M190	X	-.33	-.33	0	0
46	M203	X	-.33	-.33	0	0
47	M216	X	-.33	-.33	0	0
48	M229	X	-.74	-.74	0	0
49	M230	X	-.74	-.74	0	0
50	M230	X	-.74	-.74	0	0
51	M38	X	-.21	-.21	0	0
52	M7	X	-.28	-.28	0	0
53	M8	X	-.21	-.21	0	0
54	M9	X	-.28	-.28	0	0
55	M11	X	-.27	-.27	0	0
56	M33	X	-.46	-.46	0	0
57	M47	X	-.35	-.35	0	0
58	M48	X	-.35	-.35	0	0
59	M49	X	-.35	-.35	0	0
60	M50	X	-.35	-.35	0	0
61	M53	X	-.09	-.09	0	0
62	M51	X	-.35	-.35	0	0

Member Distributed Loads (BLC 6 : Wind 60Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
63	M52	X	-.35	-.35	0	0
64	M125	X	-.4	-.4	0	0
65	M126	X	-.4	-.4	0	0
66	M127	X	-.4	-.4	0	0
67	M128	X	-.4	-.4	0	0
68	M129	X	-.4	-.4	0	0
69	M136	X	-.33	-.33	0	0
70	M149	X	-.33	-.33	0	0
71	M162	X	-.33	-.33	0	0
72	M226	X	-.74	-.74	0	0
73	M227	X	-.74	-.74	0	0
74	M227	X	-.74	-.74	0	0
75	M37	Y	-.36	-.36	0	0
76	M1	Y	-.48	-.48	0	0
77	M2	Y	-.37	-.37	0	0
78	M3	Y	-.48	-.48	0	0
79	M10	Y	-.47	-.47	0	0
80	M13	Y	-.4	-.4	0	0
81	M30	Y	-.8	-.8	0	0
82	M16	Y	-.75	-.75	0	0
83	M40	Y	-.61	-.61	0	0
84	M41	Y	-.61	-.61	0	0
85	M42	Y	-.61	-.61	0	0
86	M43	Y	-.61	-.61	0	0
87	M46	Y	-.15	-.15	0	0
88	M44	Y	-.61	-.61	0	0
89	M45	Y	-.61	-.61	0	0
90	M71	Y	-.7	-.7	0	0
91	M72	Y	-.7	-.7	0	0
92	M73	Y	-.7	-.7	0	0
93	M74	Y	-.7	-.7	0	0
94	M75	Y	-.7	-.7	0	0
95	M82	Y	-.56	-.56	0	0
96	M95	Y	-.56	-.56	0	0
97	M108	Y	-.56	-.56	0	0
98	M223	Y	-1.28	-1.28	0	0
99	M224	Y	-1.28	-1.28	0	0
100	M224	Y	-1.28	-1.28	0	0
101	M39	Y	-1.45	-1.45	0	0
102	M4	Y	-1.91	-1.91	0	0
103	M5	Y	-1.48	-1.48	0	0
104	M6	Y	-1.91	-1.91	0	0
105	M12	Y	-1.87	-1.87	0	0
106	M36	Y	0	0	0	0
107	M57	Y	-.61	-.61	0	0
108	M56	Y	-.61	-.61	0	0
109	M55	Y	-.61	-.61	0	0
110	M54	Y	-.61	-.61	0	0
111	M60	Y	-.61	-.61	0	0
112	M58	Y	-.61	-.61	0	0
113	M59	Y	-.61	-.61	0	0
114	M179	Y	-.7	-.7	0	0

Member Distributed Loads (BLC 6 : Wind 60Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
115	M180	Y	-.7	-.7	0	0
116	M181	Y	-.7	-.7	0	0
117	M182	Y	-.7	-.7	0	0
118	M183	Y	-.7	-.7	0	0
119	M190	Y	-.56	-.56	0	0
120	M203	Y	-.56	-.56	0	0
121	M216	Y	-.56	-.56	0	0
122	M229	Y	-1.28	-1.28	0	0
123	M230	Y	-1.28	-1.28	0	0
124	M230	Y	-1.28	-1.28	0	0
125	M38	Y	-.36	-.36	0	0
126	M7	Y	-.48	-.48	0	0
127	M8	Y	-.37	-.37	0	0
128	M9	Y	-.48	-.48	0	0
129	M11	Y	-.47	-.47	0	0
130	M33	Y	-.8	-.8	0	0
131	M47	Y	-.61	-.61	0	0
132	M48	Y	-.61	-.61	0	0
133	M49	Y	-.61	-.61	0	0
134	M50	Y	-.61	-.61	0	0
135	M53	Y	-.15	-.15	0	0
136	M51	Y	-.61	-.61	0	0
137	M52	Y	-.61	-.61	0	0
138	M125	Y	-.7	-.7	0	0
139	M126	Y	-.7	-.7	0	0
140	M127	Y	-.7	-.7	0	0
141	M128	Y	-.7	-.7	0	0
142	M129	Y	-.7	-.7	0	0
143	M136	Y	-.56	-.56	0	0
144	M149	Y	-.56	-.56	0	0
145	M162	Y	-.56	-.56	0	0
146	M226	Y	-1.28	-1.28	0	0
147	M227	Y	-1.28	-1.28	0	0
148	M227	Y	-1.28	-1.28	0	0

Member Distributed Loads (BLC 7 : Wind 90Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	Y	0	0	0	0
2	M1	Y	0	0	0	0
3	M2	Y	0	0	0	0
4	M3	Y	0	0	0	0
5	M10	Y	0	0	0	0
6	M13	Y	0	0	0	0
7	M30	Y	-1.24	-1.24	0	0
8	M16	Y	-1.16	-1.16	0	0
9	M40	Y	-.7	-.7	0	0
10	M41	Y	-.7	-.7	0	0
11	M42	Y	-.7	-.7	0	0
12	M43	Y	-.7	-.7	0	0
13	M46	Y	0	0	0	0
14	M44	Y	-.7	-.7	0	0

Member Distributed Loads (BLC 7 : Wind 90Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
15	M45	Y	-.7	-.7	0	0
16	M71	Y	-.81	-.81	0	0
17	M72	Y	-.81	-.81	0	0
18	M73	Y	-.81	-.81	0	0
19	M74	Y	-.81	-.81	0	0
20	M75	Y	-.81	-.81	0	0
21	M82	Y	-.65	-.65	0	0
22	M95	Y	-.65	-.65	0	0
23	M108	Y	-.65	-.65	0	0
24	M223	Y	-1.48	-1.48	0	0
25	M224	Y	-1.48	-1.48	0	0
26	M224	Y	-1.48	-1.48	0	0
27	M39	Y	-1.26	-1.26	0	0
28	M4	Y	-1.65	-1.65	0	0
29	M5	Y	-1.28	-1.28	0	0
30	M6	Y	-1.65	-1.65	0	0
31	M12	Y	-1.62	-1.62	0	0
32	M36	Y	-.31	-.31	0	0
33	M57	Y	-.7	-.7	0	0
34	M56	Y	-.7	-.7	0	0
35	M55	Y	-.7	-.7	0	0
36	M54	Y	-.7	-.7	0	0
37	M60	Y	-.52	-.52	0	0
38	M58	Y	-.7	-.7	0	0
39	M59	Y	-.7	-.7	0	0
40	M179	Y	-.81	-.81	0	0
41	M180	Y	-.81	-.81	0	0
42	M181	Y	-.81	-.81	0	0
43	M182	Y	-.81	-.81	0	0
44	M183	Y	-.81	-.81	0	0
45	M190	Y	-.65	-.65	0	0
46	M203	Y	-.65	-.65	0	0
47	M216	Y	-.65	-.65	0	0
48	M229	Y	-1.48	-1.48	0	0
49	M230	Y	-1.48	-1.48	0	0
50	M230	Y	-1.48	-1.48	0	0
51	M38	Y	-1.26	-1.26	0	0
52	M7	Y	-1.65	-1.65	0	0
53	M8	Y	-1.28	-1.28	0	0
54	M9	Y	-1.65	-1.65	0	0
55	M11	Y	-1.62	-1.62	0	0
56	M33	Y	-.31	-.31	0	0
57	M47	Y	-.7	-.7	0	0
58	M48	Y	-.7	-.7	0	0
59	M49	Y	-.7	-.7	0	0
60	M50	Y	-.7	-.7	0	0
61	M53	Y	-.52	-.52	0	0
62	M51	Y	-.7	-.7	0	0
63	M52	Y	-.7	-.7	0	0
64	M125	Y	-.81	-.81	0	0
65	M126	Y	-.81	-.81	0	0
66	M127	Y	-.81	-.81	0	0

Member Distributed Loads (BLC 7 : Wind 90Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
67	M128	Y	-.81	-.81	0	0
68	M129	Y	-.81	-.81	0	0
69	M136	Y	-.65	-.65	0	0
70	M149	Y	-.65	-.65	0	0
71	M162	Y	-.65	-.65	0	0
72	M226	Y	-1.48	-1.48	0	0
73	M227	Y	-1.48	-1.48	0	0
74	M227	Y	-1.48	-1.48	0	0

Member Distributed Loads (BLC 8 : Wind 120Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	.21	.21	0	0
2	M1	X	.28	.28	0	0
3	M2	X	.21	.21	0	0
4	M3	X	.28	.28	0	0
5	M10	X	.27	.27	0	0
6	M13	X	.23	.23	0	0
7	M30	X	.46	.46	0	0
8	M16	X	.44	.44	0	0
9	M40	X	.35	.35	0	0
10	M41	X	.35	.35	0	0
11	M42	X	.35	.35	0	0
12	M43	X	.35	.35	0	0
13	M46	X	.09	.09	0	0
14	M44	X	.35	.35	0	0
15	M45	X	.35	.35	0	0
16	M71	X	.4	.4	0	0
17	M72	X	.4	.4	0	0
18	M73	X	.4	.4	0	0
19	M74	X	.4	.4	0	0
20	M75	X	.4	.4	0	0
21	M82	X	.33	.33	0	0
22	M95	X	.33	.33	0	0
23	M108	X	.33	.33	0	0
24	M223	X	.74	.74	0	0
25	M224	X	.74	.74	0	0
26	M224	X	.74	.74	0	0
27	M39	X	.21	.21	0	0
28	M4	X	.28	.28	0	0
29	M5	X	.21	.21	0	0
30	M6	X	.28	.28	0	0
31	M12	X	.27	.27	0	0
32	M36	X	.46	.46	0	0
33	M57	X	.35	.35	0	0
34	M56	X	.35	.35	0	0
35	M55	X	.35	.35	0	0
36	M54	X	.35	.35	0	0
37	M60	X	.09	.09	0	0
38	M58	X	.35	.35	0	0
39	M59	X	.35	.35	0	0
40	M179	X	.4	.4	0	0

Member Distributed Loads (BLC 8 : Wind 120Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
41	M180	X	.4	.4	0	0
42	M181	X	.4	.4	0	0
43	M182	X	.4	.4	0	0
44	M183	X	.4	.4	0	0
45	M190	X	.33	.33	0	0
46	M203	X	.33	.33	0	0
47	M216	X	.33	.33	0	0
48	M229	X	.74	.74	0	0
49	M230	X	.74	.74	0	0
50	M230	X	.74	.74	0	0
51	M38	X	.84	.84	0	0
52	M7	X	1.1	1.1	0	0
53	M8	X	.85	.85	0	0
54	M9	X	1.1	1.1	0	0
55	M11	X	1.08	1.08	0	0
56	M33	X	0	0	0	0
57	M47	X	.35	.35	0	0
58	M48	X	.35	.35	0	0
59	M49	X	.35	.35	0	0
60	M50	X	.35	.35	0	0
61	M53	X	.35	.35	0	0
62	M51	X	.35	.35	0	0
63	M52	X	.35	.35	0	0
64	M125	X	.4	.4	0	0
65	M126	X	.4	.4	0	0
66	M127	X	.4	.4	0	0
67	M128	X	.4	.4	0	0
68	M129	X	.4	.4	0	0
69	M136	X	.33	.33	0	0
70	M149	X	.33	.33	0	0
71	M162	X	.33	.33	0	0
72	M226	X	.74	.74	0	0
73	M227	X	.74	.74	0	0
74	M227	X	.74	.74	0	0
75	M37	Y	-.36	-.36	0	0
76	M1	Y	-.48	-.48	0	0
77	M2	Y	-.37	-.37	0	0
78	M3	Y	-.48	-.48	0	0
79	M10	Y	-.47	-.47	0	0
80	M13	Y	-.4	-.4	0	0
81	M30	Y	-.8	-.8	0	0
82	M16	Y	-.75	-.75	0	0
83	M40	Y	-.61	-.61	0	0
84	M41	Y	-.61	-.61	0	0
85	M42	Y	-.61	-.61	0	0
86	M43	Y	-.61	-.61	0	0
87	M46	Y	-.15	-.15	0	0
88	M44	Y	-.61	-.61	0	0
89	M45	Y	-.61	-.61	0	0
90	M71	Y	-.7	-.7	0	0
91	M72	Y	-.7	-.7	0	0
92	M73	Y	-.7	-.7	0	0

Member Distributed Loads (BLC 8 : Wind 120Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
93	M74	Y	-.7	-.7	0	0
94	M75	Y	-.7	-.7	0	0
95	M82	Y	-.56	-.56	0	0
96	M95	Y	-.56	-.56	0	0
97	M108	Y	-.56	-.56	0	0
98	M223	Y	-1.28	-1.28	0	0
99	M224	Y	-1.28	-1.28	0	0
100	M224	Y	-1.28	-1.28	0	0
101	M39	Y	-.36	-.36	0	0
102	M4	Y	-.48	-.48	0	0
103	M5	Y	-.37	-.37	0	0
104	M6	Y	-.48	-.48	0	0
105	M12	Y	-.47	-.47	0	0
106	M36	Y	-.8	-.8	0	0
107	M57	Y	-.61	-.61	0	0
108	M56	Y	-.61	-.61	0	0
109	M55	Y	-.61	-.61	0	0
110	M54	Y	-.61	-.61	0	0
111	M60	Y	-.15	-.15	0	0
112	M58	Y	-.61	-.61	0	0
113	M59	Y	-.61	-.61	0	0
114	M179	Y	-.7	-.7	0	0
115	M180	Y	-.7	-.7	0	0
116	M181	Y	-.7	-.7	0	0
117	M182	Y	-.7	-.7	0	0
118	M183	Y	-.7	-.7	0	0
119	M190	Y	-.56	-.56	0	0
120	M203	Y	-.56	-.56	0	0
121	M216	Y	-.56	-.56	0	0
122	M229	Y	-1.28	-1.28	0	0
123	M230	Y	-1.28	-1.28	0	0
124	M230	Y	-1.28	-1.28	0	0
125	M38	Y	-1.45	-1.45	0	0
126	M7	Y	-1.91	-1.91	0	0
127	M8	Y	-1.48	-1.48	0	0
128	M9	Y	-1.91	-1.91	0	0
129	M11	Y	-1.87	-1.87	0	0
130	M33	Y	0	0	0	0
131	M47	Y	-.61	-.61	0	0
132	M48	Y	-.61	-.61	0	0
133	M49	Y	-.61	-.61	0	0
134	M50	Y	-.61	-.61	0	0
135	M53	Y	-.61	-.61	0	0
136	M51	Y	-.61	-.61	0	0
137	M52	Y	-.61	-.61	0	0
138	M125	Y	-.7	-.7	0	0
139	M126	Y	-.7	-.7	0	0
140	M127	Y	-.7	-.7	0	0
141	M128	Y	-.7	-.7	0	0
142	M129	Y	-.7	-.7	0	0
143	M136	Y	-.56	-.56	0	0
144	M149	Y	-.56	-.56	0	0

Member Distributed Loads (BLC 8 : Wind 120Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
145	M162	Y	-.56	-.56	0	0
146	M226	Y	-1.28	-1.28	0	0
147	M227	Y	-1.28	-1.28	0	0
148	M227	Y	-1.28	-1.28	0	0

Member Distributed Loads (BLC 9 : Wind 150Á)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	1.09	1.09	0	0
2	M1	X	1.43	1.43	0	0
3	M2	X	1.11	1.11	0	0
4	M3	X	1.43	1.43	0	0
5	M10	X	1.4	1.4	0	0
6	M13	X	1.21	1.21	0	0
7	M30	X	.27	.27	0	0
8	M16	X	.25	.25	0	0
9	M40	X	.61	.61	0	0
10	M41	X	.61	.61	0	0
11	M42	X	.61	.61	0	0
12	M43	X	.61	.61	0	0
13	M46	X	.45	.45	0	0
14	M44	X	.61	.61	0	0
15	M45	X	.61	.61	0	0
16	M71	X	.7	.7	0	0
17	M72	X	.7	.7	0	0
18	M73	X	.7	.7	0	0
19	M74	X	.7	.7	0	0
20	M75	X	.7	.7	0	0
21	M82	X	.56	.56	0	0
22	M95	X	.56	.56	0	0
23	M108	X	.56	.56	0	0
24	M223	X	1.28	1.28	0	0
25	M224	X	1.28	1.28	0	0
26	M224	X	1.28	1.28	0	0
27	M39	X	0	0	0	0
28	M4	X	0	0	0	0
29	M5	X	0	0	0	0
30	M6	X	0	0	0	0
31	M12	X	0	0	0	0
32	M36	X	1.07	1.07	0	0
33	M57	X	.61	.61	0	0
34	M56	X	.61	.61	0	0
35	M55	X	.61	.61	0	0
36	M54	X	.61	.61	0	0
37	M60	X	0	0	0	0
38	M58	X	.61	.61	0	0
39	M59	X	.61	.61	0	0
40	M179	X	.7	.7	0	0
41	M180	X	.7	.7	0	0
42	M181	X	.7	.7	0	0
43	M182	X	.7	.7	0	0
44	M183	X	.7	.7	0	0

Member Distributed Loads (BLC 9 : Wind 150Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
45	M190	X	.56	.56	0	0
46	M203	X	.56	.56	0	0
47	M216	X	.56	.56	0	0
48	M229	X	1.28	1.28	0	0
49	M230	X	1.28	1.28	0	0
50	M230	X	1.28	1.28	0	0
51	M38	X	1.09	1.09	0	0
52	M7	X	1.43	1.43	0	0
53	M8	X	1.11	1.11	0	0
54	M9	X	1.43	1.43	0	0
55	M11	X	1.4	1.4	0	0
56	M33	X	.27	.27	0	0
57	M47	X	.61	.61	0	0
58	M48	X	.61	.61	0	0
59	M49	X	.61	.61	0	0
60	M50	X	.61	.61	0	0
61	M53	X	.45	.45	0	0
62	M51	X	.61	.61	0	0
63	M52	X	.61	.61	0	0
64	M125	X	.7	.7	0	0
65	M126	X	.7	.7	0	0
66	M127	X	.7	.7	0	0
67	M128	X	.7	.7	0	0
68	M129	X	.7	.7	0	0
69	M136	X	.56	.56	0	0
70	M149	X	.56	.56	0	0
71	M162	X	.56	.56	0	0
72	M226	X	1.28	1.28	0	0
73	M227	X	1.28	1.28	0	0
74	M227	X	1.28	1.28	0	0
75	M37	Y	-.63	-.63	0	0
76	M1	Y	-.83	-.83	0	0
77	M2	Y	-.64	-.64	0	0
78	M3	Y	-.83	-.83	0	0
79	M10	Y	-.81	-.81	0	0
80	M13	Y	-.7	-.7	0	0
81	M30	Y	-.15	-.15	0	0
82	M16	Y	-.15	-.15	0	0
83	M40	Y	-.35	-.35	0	0
84	M41	Y	-.35	-.35	0	0
85	M42	Y	-.35	-.35	0	0
86	M43	Y	-.35	-.35	0	0
87	M46	Y	-.26	-.26	0	0
88	M44	Y	-.35	-.35	0	0
89	M45	Y	-.35	-.35	0	0
90	M71	Y	-.4	-.4	0	0
91	M72	Y	-.4	-.4	0	0
92	M73	Y	-.4	-.4	0	0
93	M74	Y	-.4	-.4	0	0
94	M75	Y	-.4	-.4	0	0
95	M82	Y	-.33	-.33	0	0
96	M95	Y	-.33	-.33	0	0

Member Distributed Loads (BLC 9 : Wind 150Á) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
97	M108	Y	-.33	-.33	0	0
98	M223	Y	-.74	-.74	0	0
99	M224	Y	-.74	-.74	0	0
100	M224	Y	-.74	-.74	0	0
101	M39	Y	0	0	0	0
102	M4	Y	0	0	0	0
103	M5	Y	0	0	0	0
104	M6	Y	0	0	0	0
105	M12	Y	0	0	0	0
106	M36	Y	-.62	-.62	0	0
107	M57	Y	-.35	-.35	0	0
108	M56	Y	-.35	-.35	0	0
109	M55	Y	-.35	-.35	0	0
110	M54	Y	-.35	-.35	0	0
111	M60	Y	0	0	0	0
112	M58	Y	-.35	-.35	0	0
113	M59	Y	-.35	-.35	0	0
114	M179	Y	-.4	-.4	0	0
115	M180	Y	-.4	-.4	0	0
116	M181	Y	-.4	-.4	0	0
117	M182	Y	-.4	-.4	0	0
118	M183	Y	-.4	-.4	0	0
119	M190	Y	-.33	-.33	0	0
120	M203	Y	-.33	-.33	0	0
121	M216	Y	-.33	-.33	0	0
122	M229	Y	-.74	-.74	0	0
123	M230	Y	-.74	-.74	0	0
124	M230	Y	-.74	-.74	0	0
125	M38	Y	-.63	-.63	0	0
126	M7	Y	-.83	-.83	0	0
127	M8	Y	-.64	-.64	0	0
128	M9	Y	-.83	-.83	0	0
129	M11	Y	-.81	-.81	0	0
130	M33	Y	-.15	-.15	0	0
131	M47	Y	-.35	-.35	0	0
132	M48	Y	-.35	-.35	0	0
133	M49	Y	-.35	-.35	0	0
134	M50	Y	-.35	-.35	0	0
135	M53	Y	-.26	-.26	0	0
136	M51	Y	-.35	-.35	0	0
137	M52	Y	-.35	-.35	0	0
138	M125	Y	-.4	-.4	0	0
139	M126	Y	-.4	-.4	0	0
140	M127	Y	-.4	-.4	0	0
141	M128	Y	-.4	-.4	0	0
142	M129	Y	-.4	-.4	0	0
143	M136	Y	-.33	-.33	0	0
144	M149	Y	-.33	-.33	0	0
145	M162	Y	-.33	-.33	0	0
146	M226	Y	-.74	-.74	0	0
147	M227	Y	-.74	-.74	0	0
148	M227	Y	-.74	-.74	0	0

Member Distributed Loads (BLC 10 : Wind 0Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-.67	-.67	0	0
2	M1	X	-.66	-.66	0	0
3	M2	X	-.57	-.57	0	0
4	M3	X	-.66	-.66	0	0
5	M10	X	-.65	-.65	0	0
6	M13	X	-.58	-.58	0	0
7	M30	X	-.06	-.06	0	0
8	M16	X	-.08	-.08	0	0
9	M40	X	-.4	-.4	0	0
10	M41	X	-.4	-.4	0	0
11	M42	X	-.4	-.4	0	0
12	M43	X	-.4	-.4	0	0
13	M46	X	-.43	-.43	0	0
14	M44	X	-.42	-.42	0	0
15	M45	X	-.42	-.42	0	0
16	M71	X	-.31	-.31	0	0
17	M72	X	-.31	-.31	0	0
18	M73	X	-.31	-.31	0	0
19	M74	X	-.31	-.31	0	0
20	M75	X	-.31	-.31	0	0
21	M82	X	-.26	-.26	0	0
22	M95	X	-.26	-.26	0	0
23	M108	X	-.26	-.26	0	0
24	M223	X	-.53	-.53	0	0
25	M224	X	-.53	-.53	0	0
26	M224	X	-.53	-.53	0	0
27	M39	X	-.18	-.18	0	0
28	M4	X	-.19	-.19	0	0
29	M5	X	-.24	-.24	0	0
30	M6	X	-.19	-.19	0	0
31	M12	X	-.19	-.19	0	0
32	M36	X	-.37	-.37	0	0
33	M57	X	-.4	-.4	0	0
34	M56	X	-.4	-.4	0	0
35	M55	X	-.4	-.4	0	0
36	M54	X	-.4	-.4	0	0
37	M60	X	-.13	-.13	0	0
38	M58	X	-.42	-.42	0	0
39	M59	X	-.42	-.42	0	0
40	M179	X	-.31	-.31	0	0
41	M180	X	-.31	-.31	0	0
42	M181	X	-.31	-.31	0	0
43	M182	X	-.31	-.31	0	0
44	M183	X	-.31	-.31	0	0
45	M190	X	-.26	-.26	0	0
46	M203	X	-.26	-.26	0	0
47	M216	X	-.26	-.26	0	0
48	M229	X	-.53	-.53	0	0
49	M230	X	-.53	-.53	0	0
50	M230	X	-.53	-.53	0	0
51	M38	X	-.18	-.18	0	0
52	M7	X	-.19	-.19	0	0

Member Distributed Loads (BLC 10 : Wind 0Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
53	M8	X	-.24	-.24	0	0
54	M9	X	-.19	-.19	0	0
55	M11	X	-.19	-.19	0	0
56	M33	X	-.37	-.37	0	0
57	M47	X	-.4	-.4	0	0
58	M48	X	-.4	-.4	0	0
59	M49	X	-.4	-.4	0	0
60	M50	X	-.4	-.4	0	0
61	M53	X	-.13	-.13	0	0
62	M51	X	-.42	-.42	0	0
63	M52	X	-.42	-.42	0	0
64	M125	X	-.31	-.31	0	0
65	M126	X	-.31	-.31	0	0
66	M127	X	-.31	-.31	0	0
67	M128	X	-.31	-.31	0	0
68	M129	X	-.31	-.31	0	0
69	M136	X	-.26	-.26	0	0
70	M149	X	-.26	-.26	0	0
71	M162	X	-.26	-.26	0	0
72	M226	X	-.53	-.53	0	0
73	M227	X	-.53	-.53	0	0
74	M227	X	-.53	-.53	0	0

Member Distributed Loads (BLC 11 : Wind 30Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-.44	-.44	0	0
2	M1	X	-.44	-.44	0	0
3	M2	X	-.4	-.4	0	0
4	M3	X	-.44	-.44	0	0
5	M10	X	-.43	-.43	0	0
6	M13	X	-.4	-.4	0	0
7	M30	X	-.14	-.14	0	0
8	M16	X	-.15	-.15	0	0
9	M40	X	-.35	-.35	0	0
10	M41	X	-.35	-.35	0	0
11	M42	X	-.35	-.35	0	0
12	M43	X	-.35	-.35	0	0
13	M46	X	-.28	-.28	0	0
14	M44	X	-.37	-.37	0	0
15	M45	X	-.37	-.37	0	0
16	M71	X	-.27	-.27	0	0
17	M72	X	-.27	-.27	0	0
18	M73	X	-.27	-.27	0	0
19	M74	X	-.27	-.27	0	0
20	M75	X	-.27	-.27	0	0
21	M82	X	-.23	-.23	0	0
22	M95	X	-.23	-.23	0	0
23	M108	X	-.23	-.23	0	0
24	M223	X	-.46	-.46	0	0
25	M224	X	-.46	-.46	0	0
26	M224	X	-.46	-.46	0	0

Member Distributed Loads (BLC 11 : Wind 30Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
27	M39	X	-.44	-.44	0	0
28	M4	X	-.44	-.44	0	0
29	M5	X	-.4	-.4	0	0
30	M6	X	-.44	-.44	0	0
31	M12	X	-.43	-.43	0	0
32	M36	X	-.14	-.14	0	0
33	M57	X	-.35	-.35	0	0
34	M56	X	-.35	-.35	0	0
35	M55	X	-.35	-.35	0	0
36	M54	X	-.35	-.35	0	0
37	M60	X	-.28	-.28	0	0
38	M58	X	-.37	-.37	0	0
39	M59	X	-.37	-.37	0	0
40	M179	X	-.27	-.27	0	0
41	M180	X	-.27	-.27	0	0
42	M181	X	-.27	-.27	0	0
43	M182	X	-.27	-.27	0	0
44	M183	X	-.27	-.27	0	0
45	M190	X	-.23	-.23	0	0
46	M203	X	-.23	-.23	0	0
47	M216	X	-.23	-.23	0	0
48	M229	X	-.46	-.46	0	0
49	M230	X	-.46	-.46	0	0
50	M230	X	-.46	-.46	0	0
51	M38	X	-.01	-.01	0	0
52	M7	X	-.03	-.03	0	0
53	M8	X	-.11	-.11	0	0
54	M9	X	-.03	-.03	0	0
55	M11	X	-.04	-.04	0	0
56	M33	X	-.41	-.41	0	0
57	M47	X	-.35	-.35	0	0
58	M48	X	-.35	-.35	0	0
59	M49	X	-.35	-.35	0	0
60	M50	X	-.35	-.35	0	0
61	M53	X	-.02	-.02	0	0
62	M51	X	-.37	-.37	0	0
63	M52	X	-.37	-.37	0	0
64	M125	X	-.27	-.27	0	0
65	M126	X	-.27	-.27	0	0
66	M127	X	-.27	-.27	0	0
67	M128	X	-.27	-.27	0	0
68	M129	X	-.27	-.27	0	0
69	M136	X	-.23	-.23	0	0
70	M149	X	-.23	-.23	0	0
71	M162	X	-.23	-.23	0	0
72	M226	X	-.46	-.46	0	0
73	M227	X	-.46	-.46	0	0
74	M227	X	-.46	-.46	0	0
75	M37	Y	-.25	-.25	0	0
76	M1	Y	-.25	-.25	0	0
77	M2	Y	-.23	-.23	0	0
78	M3	Y	-.25	-.25	0	0

Member Distributed Loads (BLC 11 : Wind 30Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
79	M10	Y	-.25	-.25	0	0
80	M13	Y	-.23	-.23	0	0
81	M30	Y	-.08	-.08	0	0
82	M16	Y	-.09	-.09	0	0
83	M40	Y	-.2	-.2	0	0
84	M41	Y	-.2	-.2	0	0
85	M42	Y	-.2	-.2	0	0
86	M43	Y	-.2	-.2	0	0
87	M46	Y	-.16	-.16	0	0
88	M44	Y	-.21	-.21	0	0
89	M45	Y	-.21	-.21	0	0
90	M71	Y	-.16	-.16	0	0
91	M72	Y	-.16	-.16	0	0
92	M73	Y	-.16	-.16	0	0
93	M74	Y	-.16	-.16	0	0
94	M75	Y	-.16	-.16	0	0
95	M82	Y	-.13	-.13	0	0
96	M95	Y	-.13	-.13	0	0
97	M108	Y	-.13	-.13	0	0
98	M223	Y	-.27	-.27	0	0
99	M224	Y	-.27	-.27	0	0
100	M224	Y	-.27	-.27	0	0
101	M39	Y	-.25	-.25	0	0
102	M4	Y	-.25	-.25	0	0
103	M5	Y	-.23	-.23	0	0
104	M6	Y	-.25	-.25	0	0
105	M12	Y	-.25	-.25	0	0
106	M36	Y	-.08	-.08	0	0
107	M57	Y	-.2	-.2	0	0
108	M56	Y	-.2	-.2	0	0
109	M55	Y	-.2	-.2	0	0
110	M54	Y	-.2	-.2	0	0
111	M60	Y	-.16	-.16	0	0
112	M58	Y	-.21	-.21	0	0
113	M59	Y	-.21	-.21	0	0
114	M179	Y	-.16	-.16	0	0
115	M180	Y	-.16	-.16	0	0
116	M181	Y	-.16	-.16	0	0
117	M182	Y	-.16	-.16	0	0
118	M183	Y	-.16	-.16	0	0
119	M190	Y	-.13	-.13	0	0
120	M203	Y	-.13	-.13	0	0
121	M216	Y	-.13	-.13	0	0
122	M229	Y	-.27	-.27	0	0
123	M230	Y	-.27	-.27	0	0
124	M230	Y	-.27	-.27	0	0
125	M38	Y	-.01	-.01	0	0
126	M7	Y	-.02	-.02	0	0
127	M8	Y	-.07	-.07	0	0
128	M9	Y	-.02	-.02	0	0
129	M11	Y	-.02	-.02	0	0
130	M33	Y	-.24	-.24	0	0

Member Distributed Loads (BLC 11 : Wind 30Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
131	M47	Y	-.2	-.2	0	0
132	M48	Y	-.2	-.2	0	0
133	M49	Y	-.2	-.2	0	0
134	M50	Y	-.2	-.2	0	0
135	M53	Y	-.01	-.01	0	0
136	M51	Y	-.21	-.21	0	0
137	M52	Y	-.21	-.21	0	0
138	M125	Y	-.16	-.16	0	0
139	M126	Y	-.16	-.16	0	0
140	M127	Y	-.16	-.16	0	0
141	M128	Y	-.16	-.16	0	0
142	M129	Y	-.16	-.16	0	0
143	M136	Y	-.13	-.13	0	0
144	M149	Y	-.13	-.13	0	0
145	M162	Y	-.13	-.13	0	0
146	M226	Y	-.27	-.27	0	0
147	M227	Y	-.27	-.27	0	0
148	M227	Y	-.27	-.27	0	0

Member Distributed Loads (BLC 12 : Wind 60Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	-.09	-.09	0	0
2	M1	X	-.1	-.1	0	0
3	M2	X	-.12	-.12	0	0
4	M3	X	-.1	-.1	0	0
5	M10	X	-.1	-.1	0	0
6	M13	X	-.1	-.1	0	0
7	M30	X	-.19	-.19	0	0
8	M16	X	-.18	-.18	0	0
9	M40	X	-.2	-.2	0	0
10	M41	X	-.2	-.2	0	0
11	M42	X	-.2	-.2	0	0
12	M43	X	-.2	-.2	0	0
13	M46	X	-.06	-.06	0	0
14	M44	X	-.21	-.21	0	0
15	M45	X	-.21	-.21	0	0
16	M71	X	-.16	-.16	0	0
17	M72	X	-.16	-.16	0	0
18	M73	X	-.16	-.16	0	0
19	M74	X	-.16	-.16	0	0
20	M75	X	-.16	-.16	0	0
21	M82	X	-.13	-.13	0	0
22	M95	X	-.13	-.13	0	0
23	M108	X	-.13	-.13	0	0
24	M223	X	-.27	-.27	0	0
25	M224	X	-.27	-.27	0	0
26	M224	X	-.27	-.27	0	0
27	M39	X	-.33	-.33	0	0
28	M4	X	-.33	-.33	0	0
29	M5	X	-.28	-.28	0	0
30	M6	X	-.33	-.33	0	0

Member Distributed Loads (BLC 12 : Wind 60Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
31	M12	X	-.32	-.32	0	0
32	M36	X	-.03	-.03	0	0
33	M57	X	-.2	-.2	0	0
34	M56	X	-.2	-.2	0	0
35	M55	X	-.2	-.2	0	0
36	M54	X	-.2	-.2	0	0
37	M60	X	-.21	-.21	0	0
38	M58	X	-.21	-.21	0	0
39	M59	X	-.21	-.21	0	0
40	M179	X	-.16	-.16	0	0
41	M180	X	-.16	-.16	0	0
42	M181	X	-.16	-.16	0	0
43	M182	X	-.16	-.16	0	0
44	M183	X	-.16	-.16	0	0
45	M190	X	-.13	-.13	0	0
46	M203	X	-.13	-.13	0	0
47	M216	X	-.13	-.13	0	0
48	M229	X	-.27	-.27	0	0
49	M230	X	-.27	-.27	0	0
50	M230	X	-.27	-.27	0	0
51	M38	X	-.09	-.09	0	0
52	M7	X	-.1	-.1	0	0
53	M8	X	-.12	-.12	0	0
54	M9	X	-.1	-.1	0	0
55	M11	X	-.1	-.1	0	0
56	M33	X	-.19	-.19	0	0
57	M47	X	-.2	-.2	0	0
58	M48	X	-.2	-.2	0	0
59	M49	X	-.2	-.2	0	0
60	M50	X	-.2	-.2	0	0
61	M53	X	-.06	-.06	0	0
62	M51	X	-.21	-.21	0	0
63	M52	X	-.21	-.21	0	0
64	M125	X	-.16	-.16	0	0
65	M126	X	-.16	-.16	0	0
66	M127	X	-.16	-.16	0	0
67	M128	X	-.16	-.16	0	0
68	M129	X	-.16	-.16	0	0
69	M136	X	-.13	-.13	0	0
70	M149	X	-.13	-.13	0	0
71	M162	X	-.13	-.13	0	0
72	M226	X	-.27	-.27	0	0
73	M227	X	-.27	-.27	0	0
74	M227	X	-.27	-.27	0	0
75	M37	Y	-.15	-.15	0	0
76	M1	Y	-.17	-.17	0	0
77	M2	Y	-.21	-.21	0	0
78	M3	Y	-.17	-.17	0	0
79	M10	Y	-.17	-.17	0	0
80	M13	Y	-.18	-.18	0	0
81	M30	Y	-.32	-.32	0	0
82	M16	Y	-.32	-.32	0	0

Member Distributed Loads (BLC 12 : Wind 60Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
83	M40	Y	-.35	-.35	0	0
84	M41	Y	-.35	-.35	0	0
85	M42	Y	-.35	-.35	0	0
86	M43	Y	-.35	-.35	0	0
87	M46	Y	-.11	-.11	0	0
88	M44	Y	-.37	-.37	0	0
89	M45	Y	-.37	-.37	0	0
90	M71	Y	-.27	-.27	0	0
91	M72	Y	-.27	-.27	0	0
92	M73	Y	-.27	-.27	0	0
93	M74	Y	-.27	-.27	0	0
94	M75	Y	-.27	-.27	0	0
95	M82	Y	-.23	-.23	0	0
96	M95	Y	-.23	-.23	0	0
97	M108	Y	-.23	-.23	0	0
98	M223	Y	-.46	-.46	0	0
99	M224	Y	-.46	-.46	0	0
100	M224	Y	-.46	-.46	0	0
101	M39	Y	-.58	-.58	0	0
102	M4	Y	-.57	-.57	0	0
103	M5	Y	-.49	-.49	0	0
104	M6	Y	-.57	-.57	0	0
105	M12	Y	-.56	-.56	0	0
106	M36	Y	-.06	-.06	0	0
107	M57	Y	-.35	-.35	0	0
108	M56	Y	-.35	-.35	0	0
109	M55	Y	-.35	-.35	0	0
110	M54	Y	-.35	-.35	0	0
111	M60	Y	-.37	-.37	0	0
112	M58	Y	-.37	-.37	0	0
113	M59	Y	-.37	-.37	0	0
114	M179	Y	-.27	-.27	0	0
115	M180	Y	-.27	-.27	0	0
116	M181	Y	-.27	-.27	0	0
117	M182	Y	-.27	-.27	0	0
118	M183	Y	-.27	-.27	0	0
119	M190	Y	-.23	-.23	0	0
120	M203	Y	-.23	-.23	0	0
121	M216	Y	-.23	-.23	0	0
122	M229	Y	-.46	-.46	0	0
123	M230	Y	-.46	-.46	0	0
124	M230	Y	-.46	-.46	0	0
125	M38	Y	-.15	-.15	0	0
126	M7	Y	-.17	-.17	0	0
127	M8	Y	-.21	-.21	0	0
128	M9	Y	-.17	-.17	0	0
129	M11	Y	-.17	-.17	0	0
130	M33	Y	-.32	-.32	0	0
131	M47	Y	-.35	-.35	0	0
132	M48	Y	-.35	-.35	0	0
133	M49	Y	-.35	-.35	0	0
134	M50	Y	-.35	-.35	0	0

Member Distributed Loads (BLC 12 : Wind 60Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
135	M53	Y	-.11	-.11	0	0
136	M51	Y	-.37	-.37	0	0
137	M52	Y	-.37	-.37	0	0
138	M125	Y	-.27	-.27	0	0
139	M126	Y	-.27	-.27	0	0
140	M127	Y	-.27	-.27	0	0
141	M128	Y	-.27	-.27	0	0
142	M129	Y	-.27	-.27	0	0
143	M136	Y	-.23	-.23	0	0
144	M149	Y	-.23	-.23	0	0
145	M162	Y	-.23	-.23	0	0
146	M226	Y	-.46	-.46	0	0
147	M227	Y	-.46	-.46	0	0
148	M227	Y	-.46	-.46	0	0

Member Distributed Loads (BLC 13 : Wind 90Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	Y	-.01	-.01	0	0
2	M1	Y	-.04	-.04	0	0
3	M2	Y	-.13	-.13	0	0
4	M3	Y	-.04	-.04	0	0
5	M10	Y	-.04	-.04	0	0
6	M13	Y	-.08	-.08	0	0
7	M30	Y	-.48	-.48	0	0
8	M16	Y	-.46	-.46	0	0
9	M40	Y	-.4	-.4	0	0
10	M41	Y	-.4	-.4	0	0
11	M42	Y	-.4	-.4	0	0
12	M43	Y	-.4	-.4	0	0
13	M46	Y	-.03	-.03	0	0
14	M44	Y	-.42	-.42	0	0
15	M45	Y	-.42	-.42	0	0
16	M71	Y	-.31	-.31	0	0
17	M72	Y	-.31	-.31	0	0
18	M73	Y	-.31	-.31	0	0
19	M74	Y	-.31	-.31	0	0
20	M75	Y	-.31	-.31	0	0
21	M82	Y	-.26	-.26	0	0
22	M95	Y	-.26	-.26	0	0
23	M108	Y	-.26	-.26	0	0
24	M223	Y	-.53	-.53	0	0
25	M224	Y	-.53	-.53	0	0
26	M224	Y	-.53	-.53	0	0
27	M39	Y	-.51	-.51	0	0
28	M4	Y	-.5	-.5	0	0
29	M5	Y	-.46	-.46	0	0
30	M6	Y	-.5	-.5	0	0
31	M12	Y	-.5	-.5	0	0
32	M36	Y	-.17	-.17	0	0
33	M57	Y	-.4	-.4	0	0
34	M56	Y	-.4	-.4	0	0

Member Distributed Loads (BLC 13 : Wind 90Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
35	M55	Y	-.4	-.4	0	0
36	M54	Y	-.4	-.4	0	0
37	M60	Y	-.33	-.33	0	0
38	M58	Y	-.42	-.42	0	0
39	M59	Y	-.42	-.42	0	0
40	M179	Y	-.31	-.31	0	0
41	M180	Y	-.31	-.31	0	0
42	M181	Y	-.31	-.31	0	0
43	M182	Y	-.31	-.31	0	0
44	M183	Y	-.31	-.31	0	0
45	M190	Y	-.26	-.26	0	0
46	M203	Y	-.26	-.26	0	0
47	M216	Y	-.26	-.26	0	0
48	M229	Y	-.53	-.53	0	0
49	M230	Y	-.53	-.53	0	0
50	M230	Y	-.53	-.53	0	0
51	M38	Y	-.51	-.51	0	0
52	M7	Y	-.5	-.5	0	0
53	M8	Y	-.46	-.46	0	0
54	M9	Y	-.5	-.5	0	0
55	M11	Y	-.5	-.5	0	0
56	M33	Y	-.17	-.17	0	0
57	M47	Y	-.4	-.4	0	0
58	M48	Y	-.4	-.4	0	0
59	M49	Y	-.4	-.4	0	0
60	M50	Y	-.4	-.4	0	0
61	M53	Y	-.33	-.33	0	0
62	M51	Y	-.42	-.42	0	0
63	M52	Y	-.42	-.42	0	0
64	M125	Y	-.31	-.31	0	0
65	M126	Y	-.31	-.31	0	0
66	M127	Y	-.31	-.31	0	0
67	M128	Y	-.31	-.31	0	0
68	M129	Y	-.31	-.31	0	0
69	M136	Y	-.26	-.26	0	0
70	M149	Y	-.26	-.26	0	0
71	M162	Y	-.26	-.26	0	0
72	M226	Y	-.53	-.53	0	0
73	M227	Y	-.53	-.53	0	0
74	M227	Y	-.53	-.53	0	0

Member Distributed Loads (BLC 14 : Wind 120Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	.09	.09	0	0
2	M1	X	.1	.1	0	0
3	M2	X	.12	.12	0	0
4	M3	X	.1	.1	0	0
5	M10	X	.1	.1	0	0
6	M13	X	.1	.1	0	0
7	M30	X	.19	.19	0	0
8	M16	X	.18	.18	0	0

Member Distributed Loads (BLC 14 : Wind 120Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
9	M40	X	.2	.2	0	0
10	M41	X	.2	.2	0	0
11	M42	X	.2	.2	0	0
12	M43	X	.2	.2	0	0
13	M46	X	.06	.06	0	0
14	M44	X	.21	.21	0	0
15	M45	X	.21	.21	0	0
16	M71	X	.16	.16	0	0
17	M72	X	.16	.16	0	0
18	M73	X	.16	.16	0	0
19	M74	X	.16	.16	0	0
20	M75	X	.16	.16	0	0
21	M82	X	.13	.13	0	0
22	M95	X	.13	.13	0	0
23	M108	X	.13	.13	0	0
24	M223	X	.27	.27	0	0
25	M224	X	.27	.27	0	0
26	M224	X	.27	.27	0	0
27	M39	X	.09	.09	0	0
28	M4	X	.1	.1	0	0
29	M5	X	.12	.12	0	0
30	M6	X	.1	.1	0	0
31	M12	X	.1	.1	0	0
32	M36	X	.19	.19	0	0
33	M57	X	.2	.2	0	0
34	M56	X	.2	.2	0	0
35	M55	X	.2	.2	0	0
36	M54	X	.2	.2	0	0
37	M60	X	.06	.06	0	0
38	M58	X	.21	.21	0	0
39	M59	X	.21	.21	0	0
40	M179	X	.16	.16	0	0
41	M180	X	.16	.16	0	0
42	M181	X	.16	.16	0	0
43	M182	X	.16	.16	0	0
44	M183	X	.16	.16	0	0
45	M190	X	.13	.13	0	0
46	M203	X	.13	.13	0	0
47	M216	X	.13	.13	0	0
48	M229	X	.27	.27	0	0
49	M230	X	.27	.27	0	0
50	M230	X	.27	.27	0	0
51	M38	X	.33	.33	0	0
52	M7	X	.33	.33	0	0
53	M8	X	.28	.28	0	0
54	M9	X	.33	.33	0	0
55	M11	X	.32	.32	0	0
56	M33	X	.03	.03	0	0
57	M47	X	.2	.2	0	0
58	M48	X	.2	.2	0	0
59	M49	X	.2	.2	0	0
60	M50	X	.2	.2	0	0

Member Distributed Loads (BLC 14 : Wind 120Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
61	M53	X	.21	.21	0	0
62	M51	X	.21	.21	0	0
63	M52	X	.21	.21	0	0
64	M125	X	.16	.16	0	0
65	M126	X	.16	.16	0	0
66	M127	X	.16	.16	0	0
67	M128	X	.16	.16	0	0
68	M129	X	.16	.16	0	0
69	M136	X	.13	.13	0	0
70	M149	X	.13	.13	0	0
71	M162	X	.13	.13	0	0
72	M226	X	.27	.27	0	0
73	M227	X	.27	.27	0	0
74	M227	X	.27	.27	0	0
75	M37	Y	-.15	-.15	0	0
76	M1	Y	-.17	-.17	0	0
77	M2	Y	-.21	-.21	0	0
78	M3	Y	-.17	-.17	0	0
79	M10	Y	-.17	-.17	0	0
80	M13	Y	-.18	-.18	0	0
81	M30	Y	-.32	-.32	0	0
82	M16	Y	-.32	-.32	0	0
83	M40	Y	-.35	-.35	0	0
84	M41	Y	-.35	-.35	0	0
85	M42	Y	-.35	-.35	0	0
86	M43	Y	-.35	-.35	0	0
87	M46	Y	-.11	-.11	0	0
88	M44	Y	-.37	-.37	0	0
89	M45	Y	-.37	-.37	0	0
90	M71	Y	-.27	-.27	0	0
91	M72	Y	-.27	-.27	0	0
92	M73	Y	-.27	-.27	0	0
93	M74	Y	-.27	-.27	0	0
94	M75	Y	-.27	-.27	0	0
95	M82	Y	-.23	-.23	0	0
96	M95	Y	-.23	-.23	0	0
97	M108	Y	-.23	-.23	0	0
98	M223	Y	-.46	-.46	0	0
99	M224	Y	-.46	-.46	0	0
100	M224	Y	-.46	-.46	0	0
101	M39	Y	-.15	-.15	0	0
102	M4	Y	-.17	-.17	0	0
103	M5	Y	-.21	-.21	0	0
104	M6	Y	-.17	-.17	0	0
105	M12	Y	-.17	-.17	0	0
106	M36	Y	-.32	-.32	0	0
107	M57	Y	-.35	-.35	0	0
108	M56	Y	-.35	-.35	0	0
109	M55	Y	-.35	-.35	0	0
110	M54	Y	-.35	-.35	0	0
111	M60	Y	-.11	-.11	0	0
112	M58	Y	-.37	-.37	0	0

Member Distributed Loads (BLC 14 : Wind 120Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
113	M59	Y	-.37	-.37	0	0
114	M179	Y	-.27	-.27	0	0
115	M180	Y	-.27	-.27	0	0
116	M181	Y	-.27	-.27	0	0
117	M182	Y	-.27	-.27	0	0
118	M183	Y	-.27	-.27	0	0
119	M190	Y	-.23	-.23	0	0
120	M203	Y	-.23	-.23	0	0
121	M216	Y	-.23	-.23	0	0
122	M229	Y	-.46	-.46	0	0
123	M230	Y	-.46	-.46	0	0
124	M230	Y	-.46	-.46	0	0
125	M38	Y	-.58	-.58	0	0
126	M7	Y	-.57	-.57	0	0
127	M8	Y	-.49	-.49	0	0
128	M9	Y	-.57	-.57	0	0
129	M11	Y	-.56	-.56	0	0
130	M33	Y	-.06	-.06	0	0
131	M47	Y	-.35	-.35	0	0
132	M48	Y	-.35	-.35	0	0
133	M49	Y	-.35	-.35	0	0
134	M50	Y	-.35	-.35	0	0
135	M53	Y	-.37	-.37	0	0
136	M51	Y	-.37	-.37	0	0
137	M52	Y	-.37	-.37	0	0
138	M125	Y	-.27	-.27	0	0
139	M126	Y	-.27	-.27	0	0
140	M127	Y	-.27	-.27	0	0
141	M128	Y	-.27	-.27	0	0
142	M129	Y	-.27	-.27	0	0
143	M136	Y	-.23	-.23	0	0
144	M149	Y	-.23	-.23	0	0
145	M162	Y	-.23	-.23	0	0
146	M226	Y	-.46	-.46	0	0
147	M227	Y	-.46	-.46	0	0
148	M227	Y	-.46	-.46	0	0

Member Distributed Loads (BLC 15 : Wind 150Áwith ice)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M37	X	.44	.44	0	0
2	M1	X	.44	.44	0	0
3	M2	X	.4	.4	0	0
4	M3	X	.44	.44	0	0
5	M10	X	.43	.43	0	0
6	M13	X	.4	.4	0	0
7	M30	X	.14	.14	0	0
8	M16	X	.15	.15	0	0
9	M40	X	.35	.35	0	0
10	M41	X	.35	.35	0	0
11	M42	X	.35	.35	0	0
12	M43	X	.35	.35	0	0

Member Distributed Loads (BLC 15 : Wind 150Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
13	M46	X	.28	.28	0	0
14	M44	X	.37	.37	0	0
15	M45	X	.37	.37	0	0
16	M71	X	.27	.27	0	0
17	M72	X	.27	.27	0	0
18	M73	X	.27	.27	0	0
19	M74	X	.27	.27	0	0
20	M75	X	.27	.27	0	0
21	M82	X	.23	.23	0	0
22	M95	X	.23	.23	0	0
23	M108	X	.23	.23	0	0
24	M223	X	.46	.46	0	0
25	M224	X	.46	.46	0	0
26	M224	X	.46	.46	0	0
27	M39	X	.01	.01	0	0
28	M4	X	.03	.03	0	0
29	M5	X	.11	.11	0	0
30	M6	X	.03	.03	0	0
31	M12	X	.04	.04	0	0
32	M36	X	.41	.41	0	0
33	M57	X	.35	.35	0	0
34	M56	X	.35	.35	0	0
35	M55	X	.35	.35	0	0
36	M54	X	.35	.35	0	0
37	M60	X	.02	.02	0	0
38	M58	X	.37	.37	0	0
39	M59	X	.37	.37	0	0
40	M179	X	.27	.27	0	0
41	M180	X	.27	.27	0	0
42	M181	X	.27	.27	0	0
43	M182	X	.27	.27	0	0
44	M183	X	.27	.27	0	0
45	M190	X	.23	.23	0	0
46	M203	X	.23	.23	0	0
47	M216	X	.23	.23	0	0
48	M229	X	.46	.46	0	0
49	M230	X	.46	.46	0	0
50	M230	X	.46	.46	0	0
51	M38	X	.44	.44	0	0
52	M7	X	.44	.44	0	0
53	M8	X	.4	.4	0	0
54	M9	X	.44	.44	0	0
55	M11	X	.43	.43	0	0
56	M33	X	.14	.14	0	0
57	M47	X	.35	.35	0	0
58	M48	X	.35	.35	0	0
59	M49	X	.35	.35	0	0
60	M50	X	.35	.35	0	0
61	M53	X	.28	.28	0	0
62	M51	X	.37	.37	0	0
63	M52	X	.37	.37	0	0
64	M125	X	.27	.27	0	0

Member Distributed Loads (BLC 15 : Wind 150Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
65	M126	X	.27	.27	0	0
66	M127	X	.27	.27	0	0
67	M128	X	.27	.27	0	0
68	M129	X	.27	.27	0	0
69	M136	X	.23	.23	0	0
70	M149	X	.23	.23	0	0
71	M162	X	.23	.23	0	0
72	M226	X	.46	.46	0	0
73	M227	X	.46	.46	0	0
74	M227	X	.46	.46	0	0
75	M37	Y	-.25	-.25	0	0
76	M1	Y	-.25	-.25	0	0
77	M2	Y	-.23	-.23	0	0
78	M3	Y	-.25	-.25	0	0
79	M10	Y	-.25	-.25	0	0
80	M13	Y	-.23	-.23	0	0
81	M30	Y	-.08	-.08	0	0
82	M16	Y	-.09	-.09	0	0
83	M40	Y	-.2	-.2	0	0
84	M41	Y	-.2	-.2	0	0
85	M42	Y	-.2	-.2	0	0
86	M43	Y	-.2	-.2	0	0
87	M46	Y	-.16	-.16	0	0
88	M44	Y	-.21	-.21	0	0
89	M45	Y	-.21	-.21	0	0
90	M71	Y	-.16	-.16	0	0
91	M72	Y	-.16	-.16	0	0
92	M73	Y	-.16	-.16	0	0
93	M74	Y	-.16	-.16	0	0
94	M75	Y	-.16	-.16	0	0
95	M82	Y	-.13	-.13	0	0
96	M95	Y	-.13	-.13	0	0
97	M108	Y	-.13	-.13	0	0
98	M223	Y	-.27	-.27	0	0
99	M224	Y	-.27	-.27	0	0
100	M224	Y	-.27	-.27	0	0
101	M39	Y	-.01	-.01	0	0
102	M4	Y	-.02	-.02	0	0
103	M5	Y	-.07	-.07	0	0
104	M6	Y	-.02	-.02	0	0
105	M12	Y	-.02	-.02	0	0
106	M36	Y	-.24	-.24	0	0
107	M57	Y	-.2	-.2	0	0
108	M56	Y	-.2	-.2	0	0
109	M55	Y	-.2	-.2	0	0
110	M54	Y	-.2	-.2	0	0
111	M60	Y	-.01	-.01	0	0
112	M58	Y	-.21	-.21	0	0
113	M59	Y	-.21	-.21	0	0
114	M179	Y	-.16	-.16	0	0
115	M180	Y	-.16	-.16	0	0
116	M181	Y	-.16	-.16	0	0

Member Distributed Loads (BLC 15 : Wind 150Áwith ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
117	M182	Y	-.16	-.16	0	0
118	M183	Y	-.16	-.16	0	0
119	M190	Y	-.13	-.13	0	0
120	M203	Y	-.13	-.13	0	0
121	M216	Y	-.13	-.13	0	0
122	M229	Y	-.27	-.27	0	0
123	M230	Y	-.27	-.27	0	0
124	M230	Y	-.27	-.27	0	0
125	M38	Y	-.25	-.25	0	0
126	M7	Y	-.25	-.25	0	0
127	M8	Y	-.23	-.23	0	0
128	M9	Y	-.25	-.25	0	0
129	M11	Y	-.25	-.25	0	0
130	M33	Y	-.08	-.08	0	0
131	M47	Y	-.2	-.2	0	0
132	M48	Y	-.2	-.2	0	0
133	M49	Y	-.2	-.2	0	0
134	M50	Y	-.2	-.2	0	0
135	M53	Y	-.16	-.16	0	0
136	M51	Y	-.21	-.21	0	0
137	M52	Y	-.21	-.21	0	0
138	M125	Y	-.16	-.16	0	0
139	M126	Y	-.16	-.16	0	0
140	M127	Y	-.16	-.16	0	0
141	M128	Y	-.16	-.16	0	0
142	M129	Y	-.16	-.16	0	0
143	M136	Y	-.13	-.13	0	0
144	M149	Y	-.13	-.13	0	0
145	M162	Y	-.13	-.13	0	0
146	M226	Y	-.27	-.27	0	0
147	M227	Y	-.27	-.27	0	0
148	M227	Y	-.27	-.27	0	0

Member Distributed Loads (BLC 24 : BLC 2 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M1	Z	-.618	-.363	6.15	27.675
2	M1	Z	-.363	-.109	27.675	49.2
3	M6	Z	-.148	-.622	12.3	26.65
4	M6	Z	-.622	-.594	26.65	41
5	M6	Z	-.594	-.081	41	55.35
6	M11	Z	-.669	-.502	0	28.5
7	M11	Z	-.502	-.334	28.5	57
8	M4	Z	-.089	-.185	6.15	17.22
9	M4	Z	-.185	-.173	17.22	28.29
10	M4	Z	-.173	-.182	28.29	39.36
11	M4	Z	-.182	-.157	39.36	50.43
12	M4	Z	-.157	-.01	50.43	61.5
13	M9	Z	-.003	-.188	0	11.07
14	M9	Z	-.188	-.326	11.07	22.14
15	M9	Z	-.326	-.245	22.14	33.21
16	M9	Z	-.245	-.179	33.21	44.28

Member Distributed Loads (BLC 24 : BLC 2 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
17	M9	Z	-.179	-.116	44.28	55.35
18	M10	Z	-.167	-.176	0	11.4
19	M10	Z	-.176	-.322	11.4	22.8
20	M10	Z	-.322	-.498	22.8	34.2
21	M10	Z	-.498	-.37	34.2	45.6
22	M10	Z	-.37	-.041	45.6	57
23	M13	Z	-.043	-.436	0	5.5
24	M13	Z	-.436	-.779	5.5	11
25	M13	Z	-.779	-.921	11	16.5
26	M13	Z	-.921	-.739	16.5	22
27	M13	Z	-.739	-.38	22	27.5
28	M14	Z	-.103	-.077	0	.75
29	M14	Z	-.077	-.051	.75	1.5
30	M15	Z	-.014	-.077	0	1.5
31	M16	Z	-.185	-.406	0	4
32	M16	Z	-.406	-.638	4	8
33	M16	Z	-.638	-.695	8	12
34	M16	Z	-.695	-.51	12	16
35	M16	Z	-.51	-.272	16	20
36	M17	Z	-.041	-.041	0	1.475
37	M18	Z	-.18	-.096	0	.737
38	M18	Z	-.096	-.011	.737	1.475
39	M3	Z	-.109	-.363	12.3	33.825
40	M3	Z	-.363	-.618	33.825	55.35
41	M7	Z	-.081	-.594	6.15	20.5
42	M7	Z	-.594	-.622	20.5	34.85
43	M7	Z	-.622	-.147	34.85	49.2
44	M12	Z	-.334	-.502	0	28.5
45	M12	Z	-.502	-.67	28.5	57

Member Distributed Loads (BLC 25 : BLC 3 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
1	M1	Z	-2.913	-1.713	6.15	27.675
2	M1	Z	-1.713	-.513	27.675	49.2
3	M6	Z	-.696	-2.933	12.3	26.65
4	M6	Z	-2.933	-2.801	26.65	41
5	M6	Z	-2.801	-.381	41	55.35
6	M11	Z	-3.156	-2.365	0	28.5
7	M11	Z	-2.365	-1.574	28.5	57
8	M4	Z	-.417	-.871	6.15	17.22
9	M4	Z	-.871	-.817	17.22	28.29
10	M4	Z	-.817	-.858	28.29	39.36
11	M4	Z	-.858	-.738	39.36	50.43
12	M4	Z	-.738	-.047	50.43	61.5
13	M9	Z	-.015	-.887	0	11.07
14	M9	Z	-.887	-1.537	11.07	22.14
15	M9	Z	-1.537	-1.155	22.14	33.21
16	M9	Z	-1.155	-.845	33.21	44.28
17	M9	Z	-.845	-.549	44.28	55.35
18	M10	Z	-.787	-.83	0	11.4
19	M10	Z	-.83	-1.517	11.4	22.8

Member Distributed Loads (BLC 25 : BLC 3 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/in,F,ksf]	End Magnitude[lb/in,F,ksf]	Start Location[in,%]	End Location[in,%]
20	M10	Z	-1.517	-2.35	22.8	34.2
21	M10	Z	-2.35	-1.742	34.2	45.6
22	M10	Z	-1.742	-.195	45.6	57
23	M13	Z	-.201	-2.055	0	5.5
24	M13	Z	-2.055	-3.671	5.5	11
25	M13	Z	-3.671	-4.344	11	16.5
26	M13	Z	-4.344	-3.482	16.5	22
27	M13	Z	-3.482	-1.79	22	27.5
28	M14	Z	-.486	-.362	0	.75
29	M14	Z	-.362	-.239	.75	1.5
30	M15	Z	-.068	-.362	0	1.5
31	M16	Z	-.873	-1.913	0	4
32	M16	Z	-1.913	-3.007	4	8
33	M16	Z	-3.007	-3.274	8	12
34	M16	Z	-3.274	-2.406	12	16
35	M16	Z	-2.406	-1.283	16	20
36	M17	Z	-.196	-.196	0	1.475
37	M18	Z	-.85	-.451	0	.737
38	M18	Z	-.451	-.052	.737	1.475
39	M3	Z	-.514	-1.713	12.3	33.825
40	M3	Z	-1.713	-2.912	33.825	55.35
41	M7	Z	-.381	-2.8	6.15	20.5
42	M7	Z	-2.8	-2.931	20.5	34.85
43	M7	Z	-2.931	-.693	34.85	49.2
44	M12	Z	-1.576	-2.366	0	28.5
45	M12	Z	-2.366	-3.157	28.5	57

Member Area Loads (BLC 2 : Weights)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N12	N13	N19	N18	Z	Two Way	-.007
2	N16	N10	N11	N17	Z	Two Way	-.007
3	N20	N14	N15	N21	Z	Two Way	-.007

Member Area Loads (BLC 3 : ICE Load)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N13	N19	N18	N12	Z	Two Way	-.033
2	N16	N10	N11	N17	Z	Two Way	-.033
3	N21	N20	N14	N15	Z	Two Way	-.033

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(Plate/Wall)
1	Self Weight	DL			-1					
2	Weights	DL					24		3	
3	ICE Load	DL					24	74	3	
4	Wind 0Á	WL					24	74		
5	Wind 30Á	WL					48	148		
6	Wind 60Á	WL					48	148		
7	Wind 90Á	WL					24	74		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(Plate/Wall)
8	Wind 120Á	WL					48	148		
9	Wind 150Á	WL					48	148		
10	Wind 0Áwith ice	WL					24	74		
11	Wind 30Áwith ice	WL					48	148		
12	Wind 60Áwith ice	WL					48	148		
13	Wind 90Áwith ice	WL					24	74		
14	Wind 120Áwith ice	WL					48	148		
15	Wind 150Áwith ice	WL					48	148		
16	Lm1	LL				1				
17	Lm2	LL				1				
18	Lm3	LL								
19	Lm4	LL								
20	Lv1	LL				1				
21	Lv2	LL				1				
22	Horizontal Seismic ...	ELX	-1				24			
23	Horizontal Seismic ...	ELY		-1			24			
24	BLC 2 Transient Ar...	None						45		
25	BLC 3 Transient Ar...	None						45		

Load Combinations

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
1	Dead Only	Yes	Y		1	1.4	2	1.4																		
2	1.2D+1.0W_0Á	Yes	Y		1	1.2	2	1.2	4	1																
3	1.2D+1.0W_3...	Yes	Y		1	1.2	2	1.2	5	1																
4	1.2D+1.0W_6...	Yes	Y		1	1.2	2	1.2	6	1																
5	1.2D+1.0W_9...	Yes	Y		1	1.2	2	1.2	7	1																
6	1.2D+1.0W_1...	Yes	Y		1	1.2	2	1.2	8	1																
7	1.2D+1.0W_1...	Yes	Y		1	1.2	2	1.2	9	1																
8	1.2D+1.0W_1...	Yes	Y		1	1.2	2	1.2	4	-1																
9	1.2D+1.0W_2...	Yes	Y		1	1.2	2	1.2	5	-1																
10	1.2D+1.0W_2...	Yes	Y		1	1.2	2	1.2	6	-1																
11	1.2D+1.0W_2...	Yes	Y		1	1.2	2	1.2	7	-1																
12	1.2D+1.0W_3...	Yes	Y		1	1.2	2	1.2	8	-1																
13	1.2D+1.0W_3...	Yes	Y		1	1.2	2	1.2	9	-1																
14	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	10	1	3	1														
15	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	11	1	3	1														
16	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	12	1	3	1														
17	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	13	1	3	1														
18	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	14	1	3	1														
19	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	15	1	3	1														
20	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	10	-1	3	1														
21	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	11	-1	3	1														
22	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	12	-1	3	1														
23	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	13	-1	3	1														
24	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	14	-1	3	1														
25	1.2D+1.0Di+1...	Yes	Y		1	1.2	2	1.2	15	-1	3	1														
26	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	4	.064														
27	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	5	.064														
28	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	6	.064														
29	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	7	.064														

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
30	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	8	.064														
31	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	9	.064														
32	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	4	-.064														
33	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	5	-.064														
34	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	6	-.064														
35	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	7	-.064														
36	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	8	-.064														
37	1.2D+1.5Lm1...	Yes	Y		1	1.2	2	1.2	16	1.5	9	-.064														
38	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	4	.064														
39	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	5	.064														
40	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	6	.064														
41	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	7	.064														
42	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	8	.064														
43	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	9	.064														
44	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	4	-.064														
45	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	5	-.064														
46	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	6	-.064														
47	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	7	-.064														
48	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	8	-.064														
49	1.2D+1.5Lm2...	Yes	Y		1	1.2	2	1.2	17	1.5	9	-.064														
50	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	4	.064														
51	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	5	.064														
52	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	6	.064														
53	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	7	.064														
54	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	8	.064														
55	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	9	.064														
56	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	4	-.064														
57	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	5	-.064														
58	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	6	-.064														
59	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	7	-.064														
60	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	8	-.064														
61	1.2D+1.5Lm3...	Yes	Y		1	1.2	2	1.2	18	1.5	9	-.064														
62	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	4	.064														
63	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	5	.064														
64	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	6	.064														
65	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	7	.064														
66	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	8	.064														
67	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	9	.064														
68	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	4	-.064														
69	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	5	-.064														
70	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	6	-.064														
71	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	7	-.064														
72	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	8	-.064														
73	1.2D+1.5Lm4...	Yes	Y		1	1.2	2	1.2	19	1.5	9	-.064														
74	1.2D+1.5Lv1	Yes	Y		1	1.2	2	1.2	20	1.5																
75	1.2D+1.5Lv2	Yes	Y		1	1.2	2	1.2	21	1.5																
76	1.2D+1.0E_0Á	Yes	Y		1	1.239	2	1.239	22	.096	23															
77	1.2D+1.0E_30Á	Yes	Y		1	1.239	2	1.239	22	.083	23	.048														
78	1.2D+1.0E_60Á	Yes	Y		1	1.239	2	1.239	22	.048	23	.083														
79	1.2D+1.0E_90Á	Yes	Y		1	1.239	2	1.239	22		23	.096														
80	1.2D+1.0E_12...	Yes	Y		1	1.239	2	1.239	22	-.048	23	.083														
81	1.2D+1.0E_15...	Yes	Y		1	1.239	2	1.239	22	-.083	23	.048														

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
82	1.2D+1.0E_18...	Yes	Y		1	1.239	2	1.239	22	-.096	23															
83	1.2D+1.0E_21...	Yes	Y		1	1.239	2	1.239	22	-.083	23	-.048														
84	1.2D+1.0E_24...	Yes	Y		1	1.239	2	1.239	22	-.048	23	-.083														
85	1.2D+1.0E_27...	Yes	Y		1	1.239	2	1.239	22		23	-.096														
86	1.2D+1.0E_30...	Yes	Y		1	1.239	2	1.239	22	.048	23	-.083														
87	1.2D+1.0E_33...	Yes	Y		1	1.239	2	1.239	22	.083	23	-.048														

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Mem...	Shape	Code Check	Lo...	LC	Shear Ch...	Lo...	Dir	LC	phi*Pnc [l...	phi*Pnt...	phi*...	phi*Mn...	Cb	Eqn
1	M36	HSS3X3X4...	.767	0	23	.189	0	y	20	109580.0...	114057	117....	117.949	2.45	H1-1b
2	M41	L 1.25X1.2...	.721	37	22	.300	37	y	21	15803.014	18225	2.842	6.605	2.731	H2-1
3	M42	L 1.25X1.2...	.671	37	6	.321	37	z	22	10898.458	18225	2.842	6.605	3.291	H2-1
4	M39	L3X3X4	.651	10...	10	.113	25...	y	19	22169.006	46656	20.2...	30.143	1	H2-1
5	M54	L 1.25X1.2...	.651	0	5	.150	2....	z	5	10898.458	18225	2.842	6.605	3.115	H2-1
6	M50	L 1.25X1.2...	.647	0	23	.157	0	z	11	10898.458	18225	2.842	6.605	3.362	H2-1
7	M49	L 1.25X1.2...	.637	37	22	.193	37	z	22	10898.458	18225	2.842	6.605	3.23	H2-1
8	M55	L 1.25X1.2...	.630	37	5	.136	37	y	5	15803.014	18225	2.842	6.605	3.833	H2-1
9	M56	L 1.25X1.2...	.579	37	2	.296	34...	z	10	10898.458	18225	2.842	6.605	3.129	H2-1
10	M33	HSS3X3X4...	.578	0	18	.170	0	y	20	109580.0...	114057	117....	117.949	2.584	H1-1b
11	M48	L 1.25X1.2...	.575	37	2	.337	37	y	25	15803.014	18225	2.842	6.605	3.149	H2-1
12	M57	L 1.25X1.2...	.573	0	2	.278	2....	y	7	10898.458	18225	2.842	6.605	4.444	H2-1
13	M98	SR 1/2	.479	0	25	.047	0		12	5095.684	6350.4	.622	.622	2.247	H1-1b
14	M37	L3X3X4	.478	69	7	.087	13...	y	19	22169.006	46656	20.2...	30.143	1	H2-1
15	M152	SR 1/2	.468	0	18	.043	0		21	5095.684	6350.4	.622	.622	2.25	H1-1b
16	M99	SR 1/2	.460	0	15	.043	0		6	5095.684	6350.4	.622	.622	2.247	H1-1b
17	M207	SR 1/2	.453	0	22	.036	0		19	5095.684	6350.4	.622	.622	2.251	H1-1b
18	M30	HSS3X3X4...	.448	0	23	.135	0	y	23	109580.0...	114057	117....	117.949	2.911	H1-1b
19	M206	SR 1/2	.440	0	22	.034	0		19	5095.684	6350.4	.622	.622	2.25	H1-1b
20	M40	L 1.25X1.2...	.440	0	20	.394	0	z	18	10898.458	18225	2.842	6.605	3.871	H2-1
21	M47	L 1.25X1.2...	.434	0	2	.221	2....	z	2	10898.458	18225	2.842	6.605	4.434	H2-1
22	M153	SR 1/2	.433	0	18	.041	0		21	5095.684	6350.4	.622	.622	2.248	H1-1b
23	M3	C 5X2X1/4	.431	5.1...	25	.175	5....	y	25	57955.099	68850	26.3...	113.623	1	H1-1b
24	M1	C 5X2X1/4	.413	57....	22	.135	42...	y	18	57955.099	68850	26.3...	113.623	1	H1-1b
25	M194	SR 1/2	.412	0	19	.047	0		18	5095.684	6350.4	.622	.622	2.269	H1-1b
26	M12	C 5X2X1/4	.410	28.5	22	.105	28...	y	25	54157.336	68850	26.3...	117.956	1.696	H1-1b
27	M43	L 1.25X1.2...	.399	0	12	.171	2....	y	6	10898.458	18225	2.842	6.605	4.157	H2-1
28	M7	C 5X2X1/4	.391	56....	20	.155	56...	y	22	57955.099	68850	26.3...	113.623	1	H1-1b
29	M86	SR 1/2	.387	0	24	.026	0		24	5095.684	6350.4	.622	.622	2.26	H1-1b
30	M85	SR 1/2	.377	0	17	.026	0		24	5095.684	6350.4	.622	.622	2.26	H1-1b
31	M10	C 5X2X1/4	.365	28.5	21	.106	28...	y	14	54157.336	68850	26.3...	117.956	1.782	H1-1b
32	M140	SR 1/2	.363	0	15	.029	0		23	5095.684	6350.4	.622	.622	2.271	H1-1b
33	M146	SR 1/2	.358	8	23	.037	0		22	5095.684	6350.4	.622	.622	2.264	H1-1b
34	M193	SR 1/2	.356	0	23	.043	0		18	5095.684	6350.4	.622	.622	2.262	H1-1b
35	M2	C 5X2X1/4	.350	15	19	.122	15	y	21	66090.763	68850	26.3...	117.956	1.141	H1-1b
36	M199	SR 1/2	.347	8	16	.030	0		7	5095.684	6350.4	.622	.622	2.267	H1-1b
37	M139	SR 1/2	.342	0	16	.028	0		23	5095.684	6350.4	.622	.622	2.269	H1-1b
38	M200	SR 1/2	.342	8	15	.030	0		2	5095.684	6350.4	.622	.622	2.266	H1-1b
39	M187	SR 1/2	.338	8	25	.024	0		25	5095.684	6350.4	.622	.622	2.263	H1-1b
40	M186	SR 1/2	.337	8	18	.023	0		25	5095.684	6350.4	.622	.622	2.266	H1-1b
41	M91	SR 1/2	.334	8	21	.021	0		23	5095.684	6350.4	.622	.622	2.262	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Mem...	Shape	Code Check	Lo...	LC	Shear Ch...	Lo...	Dir	LC	phi*Pnc [l...	phi*Pnt...	phi*...	phi*Mn...	Cb	Eqn
42	M11	C 5X2X1/4	.331	28.5	18	.094	9.5	y	17	54157.336	68850	26.3...	117.956	1.728	H1-1b
43	M6	C 5X2X1/4	.329	5.1...	20	.160	5....	z	10	57955.099	68850	26.3...	113.623	1	H1-1b
44	M133	SR 1/2	.327	8	21	.022	0		15	5095.684	6350.4	.622	.622	2.264	H1-1b
45	M92	SR 1/2	.326	8	21	.021	0		23	5095.684	6350.4	.622	.622	2.261	H1-1b
46	M132	SR 1/2	.326	8	14	.022	0		15	5095.684	6350.4	.622	.622	2.266	H1-1b
47	M145	SR 1/2	.323	8	25	.035	0		22	5095.684	6350.4	.622	.622	2.264	H1-1b
48	M38	L3X3X4	.314	69	6	.063	69	z	12	34854.506	46656	20.2...	30.143	1	H2-1
49	M79	SR 1/2	.311	8	16	.021	0		5	5095.684	6350.4	.622	.622	2.258	H1-1b
50	M78	SR 1/2	.310	8	23	.020	0		11	5095.684	6350.4	.622	.622	2.26	H1-1b
51	M8	C 5X2X1/4	.300	0	25	.131	0	y	24	66090.763	68850	26.3...	117.956	1.259	H1-1b
52	M73	HSS 2.4X0....	.292	55....	13	.166	55....		12	16987.195	28141....	20.4	20.4	1.939	H1-1b
53	M45	L 1.25X1.2...	.283	50....	21	.028	50....	y	18	7069.927	18225	2.842	6.605	2.115	H2-1
54	M181	HSS 2.4X0....	.270	55....	10	.211	55....		10	16987.195	28141....	20.4	20.4	1.356	H1-1b
55	M51	L 1.25X1.2...	.263	50....	23	.007	50....	z	14	7069.927	18225	2.842	6.605	2.085	H2-1
56	M127	HSS 2.4X0....	.262	55....	18	.104	32....		23	16987.195	28141....	20.4	20.4	2.255	H1-1b
57	M9	C 5X2X1/4	.261	5.1...	21	.082	5....	y	19	57955.099	68850	26.3...	113.623	1	H1-1b
58	M59	L 1.25X1.2...	.261	0	5	.010	0	z	4	7069.927	18225	2.842	6.605	1.464	H2-1
59	M58	L 1.25X1.2...	.229	0	2	.034	0	y	4	7069.927	18225	2.842	6.397	1.183	H2-1
60	M13	C 5X2X1/4	.229	.859	19	.111	.8...	z	19	61729.26	68850	26.3...	117.956	1.287	H1-1b
61	M52	L 1.25X1.2...	.218	50....	21	.033	50....	y	23	7069.927	18225	2.842	6.605	2.468	H2-1
62	M53	L 1.25X1.2...	.212	52	22	.022	52	y	23	6587.223	18225	2.842	6.605	2.042	H2-1
63	M44	L 1.25X1.2...	.207	50....	18	.034	50....	z	22	7069.927	18225	2.842	6.605	2.573	H2-1
64	M5	C 5X2X1/4	.183	15	22	.081	7.5	z	4	66090.763	68850	26.3...	117.956	1.307	H1-1b
65	M60	L 1.25X1.2...	.165	0	22	.038	0	z	10	6587.223	18225	2.842	6.605	3.081	H2-1
66	M4	C 5X2X1/4	.165	57....	11	.070	57....	z	4	57955.099	68850	26.3...	113.623	1	H1-1b
67	M180	HSS 2.4X0....	.154	55....	18	.238	32....		18	16987.195	28141....	20.4	20.4	1.841	H3-6
68	M46	L 1.25X1.2...	.146	0	4	.025	52	y	12	6587.223	18225	2.842	6.605	2.347	H2-1
69	M112	SR 1/2	.132	0	18	.020	0		18	5095.684	6350.4	.622	.622	2.264	H1-1b
70	M224	L3X3X3	.121	27....	5	.009	54....	y	19	21424.511	35316	15.8...	29.997	1.136	H2-1
71	M165	SR 1/2	.115	0	20	.013	0		20	5095.684	6350.4	.622	.622	2.26	H1-1b
72	M179	HSS 2.4X0....	.108	55....	18	.178	19....		18	16987.195	28141....	20.4	20.4	2.059	H1-1b
73	M111	SR 1/2	.104	0	24	.018	0		18	5095.684	6350.4	.622	.622	2.256	H1-1b
74	M166	SR 1/2	.104	0	14	.012	0		20	5095.684	6350.4	.622	.622	2.26	H1-1b
75	M227	L3X3X3	.100	27....	22	.010	0	z	9	21424.511	35316	15.8...	29.997	1.136	H2-1
76	M223	L3X3X3	.095	26....	10	.005	0	z	20	21424.573	35316	15.8...	29.997	1.136	H2-1
77	M105	SR 1/2	.094	8	18	.010	0		18	5095.684	6350.4	.622	.622	2.246	H1-1b
78	M230	L3X3X3	.093	27....	13	.030	54....	y	23	21424.511	35316	15.8...	29.997	1.136	H2-1
79	M213	SR 1/2	.093	0	14	.007	0		15	5095.684	6350.4	.622	.622	2.282	H1-1b
80	M219	SR 1/2	.092	0	21	.012	0		18	5095.684	6350.4	.622	.622	2.272	H1-1b
81	M212	SR 1/2	.088	0	14	.007	0		15	5095.684	6350.4	.622	.622	2.282	H1-1b
82	M71	HSS 2.4X0....	.084	55....	37	.076	19....		13	16987.195	28141....	20.4	20.4	2.349	H1-1b
83	M104	SR 1/2	.084	8	18	.009	0		18	5095.684	6350.4	.622	.622	2.241	H1-1b
84	M72	HSS 2.4X0....	.082	32.5	18	.091	32....		13	16987.195	28141....	20.4	20.4	2.816	H1-1b
85	M220	SR 1/2	.078	8	24	.011	0		18	5095.684	6350.4	.622	.622	2.25	H1-1b
86	M75	HSS 2.4X0....	.078	55....	39	.168	55....		18	16987.195	28141....	20.4	20.4	2.186	H1-1b
87	M159	SR 1/2	.077	8	24	.007	0		23	5095.684	6350.4	.622	.622	2.247	H1-1b
88	M158	SR 1/2	.072	8	14	.007	0		23	5095.684	6350.4	.622	.622	2.242	H1-1b
89	M129	HSS 2.4X0....	.068	55....	20	.070	19....		13	16987.195	28141....	20.4	20.4	2.35	H1-1b
90	M16	C 5X2X1/4	.066	20	12	.012	10....	z	23	64389.16	68850	26.3...	117.956	1.27	H1-1b
91	M125	HSS 2.4X0....	.065	55....	11	.048	55....		11	16987.195	28141....	20.4	20.4	2.503	H1-1b
92	M126	HSS 2.4X0....	.063	55....	22	.052	55....		23	16987.195	28141....	20.4	20.4	2.012	H1-1b
93	M226	L3X3X3	.055	27....	3	.015	0	z	7	21424.573	35316	15.8...	29.997	1.136	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Mem...	Shape	Code Check	Lo...	LC	Shear Ch...	Lo...	Dir	LC	phi*Pnc [l...	phi*Pnt...	phi*...	phi*Mn...	Cb	Eqn
94	M229	L3X3X3	.052	27....	7	.027	54....	z	24	21424.573	35316	15.8...	29.997	1.136	H2-1
95	M128	HSS 2.4X0....	.050	19....	20	.082	55....		13	16987.195	28141....	20.4	20.4	2.187	H1-1b
96	M74	HSS 2.4X0....	.050	19....	17	.167	55....		19	16987.195	28141....	20.4	20.4	2.205	H1-1b
97	M183	HSS 2.4X0....	.048	55....	5	.048	19....		11	16987.195	28141....	20.4	20.4	2.673	H1-1b
98	M182	HSS 2.4X0....	.048	55....	18	.043	55....		10	16987.195	28141....	20.4	20.4	3.051	H1-1b
99	M95	HSS 2.4X0....	.026	18....	11	.038	4....		12	25407.254	28141....	20.4	20.4	1.502	H1-1b
100	M149	HSS 2.4X0....	.025	28....	18	.026	28....		23	25407.254	28141....	20.4	20.4	1.544	H1-1b
101	M203	HSS 2.4X0....	.025	28....	22	.053	4....		10	25407.254	28141....	20.4	20.4	1.538	H1-1b
102	M136	HSS 2.4X0....	.025	18....	9	.016	28....		10	25407.254	28141....	20.4	20.4	1.221	H1-1b
103	M82	HSS 2.4X0....	.024	18....	11	.025	4....		13	25407.254	28141....	20.4	20.4	1.553	H1-1b
104	M190	HSS 2.4X0....	.024	18....	13	.057	28....		18	25407.254	28141....	20.4	20.4	1.459	H1-1b
105	M108	HSS 2.4X0....	.006	28....	20	.039	28....		19	25407.254	28141....	20.4	20.4	1.649	H1-1b
106	M162	HSS 2.4X0....	.006	28....	24	.020	28....		13	25407.254	28141....	20.4	20.4	1.859	H1-1b
107	M216	HSS 2.4X0....	.006	4.1...	14	.011	4....		10	25407.254	28141....	20.4	20.4	1.877	H1-1b

Envelope AISI S100-12: LRFD Cold Formed Steel Code Checks

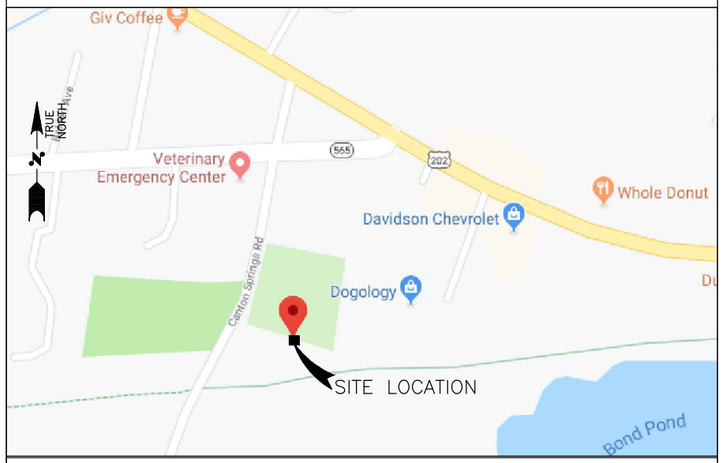
Me...	Shape	Code Check	Loc[in]	LC	Shea...	Loc[...	Dir	LC	phi*P...	phi*...	phi*...	phi*...	Cb	C...	C...	Eqn
No Data to Print ...																

APPENDIX C

MOUNT MODIFICATION REPORT

AMERICAN TOWER®

VICINITY MAP



DRIVING DIRECTIONS:

FROM BRADLEY INTERNATIONAL AIRPORT TAKE BRADLEY INTERNATIONAL AIRPORT TO SCHOEPHOESTER RD 0.8 MI, TAKE CT-20 W, HOLCOMB ST, WOLCOTT RD, US-202 S/HOPMEADOW ST, ... AND US-202 W/US-44 W/ALBANY TURNPIKE TO CANTON SPRINGS RD IN CANTON 17.2 MI, TURN LEFT ONTO CANTON SPRINGS RD. DESTINATION WILL BE ON THE LEFT.

GENERAL NOTES

1. THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION:
-ADA COMPLIANCE NOT REQUIRED.
-POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
-NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.

2. CONTRACTOR SHALL VERIFY ALL PLANS,EXISTING DIMENSIONS,AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.

BUILDING CODES

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL AUTHORITIES HAVING JURISDICTION

1. 2015 INTERNATIONAL BUILDING CODE
2. 2015 INTERNATIONAL ENERGY CONSERVATION CODE
3. 2009 INTERNATIONAL EXISTING BUILDING CODE
4. 2009 INTERNATIONAL RESIDENTIAL CODE
5. ANSI/TIA-222-h

IF YOU DIG IN ANY STATE DIAL 811
FOR THE LOCAL "ONE CALL CENTER"
IT'S THE LAW

SITE NAME:

CANTON CT

SITERRA PROJECT :

PLATFORM MOUNT REINFORCING

SITERRA SITE #:

–

ATC SITE #:

411256

SITE ADDRESS:

14 CANTON SPRINGS ROAD, CANTON, HARTFORD, CT 06019

SPECIAL STRUCTURAL NOTES

1. TOWER OWNER SHALL PROVIDE GLOBAL STRUCTURAL STABILITY ANALYSIS OF EXISTING ANTENNA SUPPORT STRUCTURE. GENERAL CONTRACTOR SCOPE OF WORK SHALL INCLUDE ALL REQUIRED STRUCTURAL MODIFICATIONS, RE-BUNDLING OF COAXIAL CABLES OR OTHER SPECIAL MODIFICATIONS AS OUTLINED THEREIN.

2. STRUCTURAL DESIGNS AND DETAILS FOR ANTENNA MOUNTS COMPLETED BY TRYLON TSF INC. ON BEHALF OF VERIZON ARE INCLUSIVE OF THE ENTIRE ANTENNA SUPPORT STRUCTURE (GLOBAL STRUCTURAL STABILITY ANALYSIS BY OTHERS), EXISTING TOWER PLATFORM, EXISTING ANTENNA MOUNTS AND ALL OTHER ASPECTS OF THE STRUCTURE THAT WILL SUPPORT THE VERIZON MODERNIZATION EQUIPMENT DEPLOYMENT AS DEPICTED HEREIN.

3. TRYLON TSF INC. ASSUMES THAT THE TOWER IS PROPERLY CONSTRUCTED AND MAINTAINED. ALL STRUCTURAL MEMBERS AND THEIR CONNECTION ARE ASSUMED TO BE IN GOOD CONDITION AND ARE FREE FROM DEFECTS WITH NO DETERIORATION TO ITS MEMBER CAPACITIES.

APPROVALS

CONSTRUCTION MANAGER	RF ENGINEER
LAND USE PLANNER	NETWORK OPERATION
PROPERTY OWNER	CONTRACTOR

PROJECT INFORMATION

SCOPE OF WORK: REINFORCE THE PLATFORM MOUNT AS FOLLOWS:

1. INSTALL (1) NEW PV-VSK-M PERFECT VISION KIT CONNECTED TO THE MONOPOLE TOWER AT A DISTANCE OF 29" ABOVE THE EXISTING TOP FACE HORIZONTAL CONNECTING ADJACENT FACE HORIZONTALS TO THE TOWER. THE ARMS OF THE PV-VSK-M WILL BE CONNECTED TO THE TOP HORIZONTAL AT A DISTANCE OF APROXIMATIVELY 33" FROM THE EDGE.

APPLICANT/LESSEE	
NAME:	VERIZON WIRELESS
ADDRESS:	400 FRIBERG PARKWAY WESTBOROUGH, MA 01854
CONTACT:	N/A
PHONE:	N/A
SITE OWNER	
NAME:	–
ADDRESS:	–
CONTACT:	N/A
PHONE:	N/A
DESIGN TEAM	
NAME:	TRYLON TSF
ADDRESS:	1825 W. WALNUT HILL LANE, SUITE 120 IRVING, TX 75038
CONTACT:	KATYA SERAVALLE
PHONE:	1-855-669-5421
TOWER OWNER:	AMERICAN TOWER CORPORATION
SITE NAME:	CANTON CT
SITERRA SITE #:	–
TOWER TYPE:	MONOPOLE
TOWER HEIGHT:	–
GROUND ELEVATION:	-± (AMSL)
LATITUDE:	41.822876
LONGITUDE:	-72.895101
COUNTY:	HARTFORD

SHEET INDEX

SHEET #	DESCRIPTION	REVISION #
T01	TITLE PAGE	A
C01	MOUNT REINFORCEMENT	A
C02	PART REINFORCEMENT DETAILS	A

verizon

126 W. GEMINI DRIVE
TEMPE, AZ 85263

AMERICAN TOWER®
A.T. ENGINEERING SERVICES, PPLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
(919)-466-0112

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	08/29/2019	FOR REVIEW	VNE

SITE INFORMATION

SITE NAME:
CANTON CT

SITERRA SITE #:
–

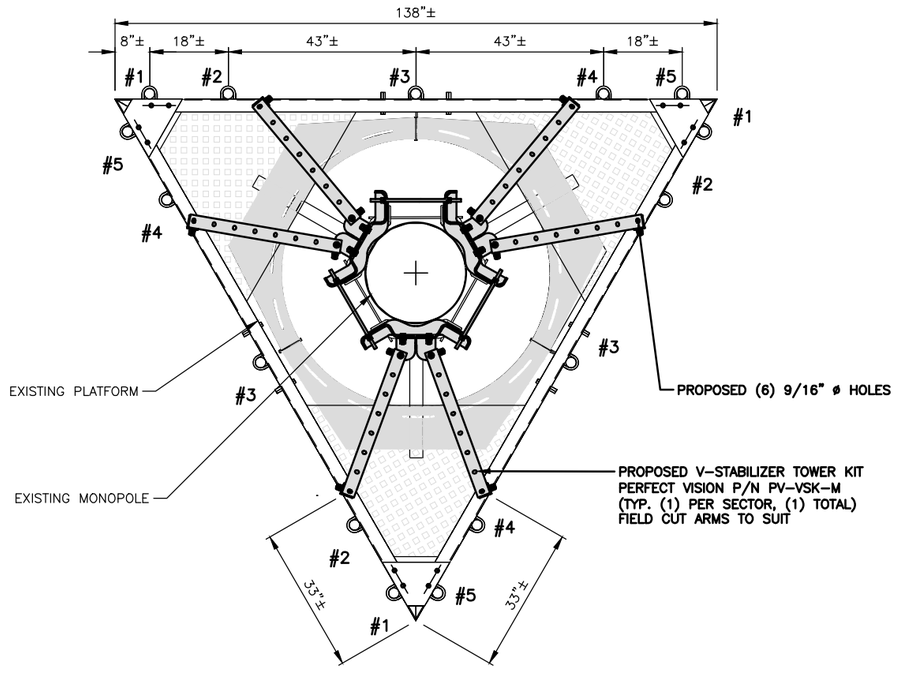
SITE ADDRESS:
14 CANTON SPRINGS ROAD, CANTON, HARTFORD, CT 06019

SHEET DESCRIPTION

TITLE PAGE

SHEET No.

T01



2
C01

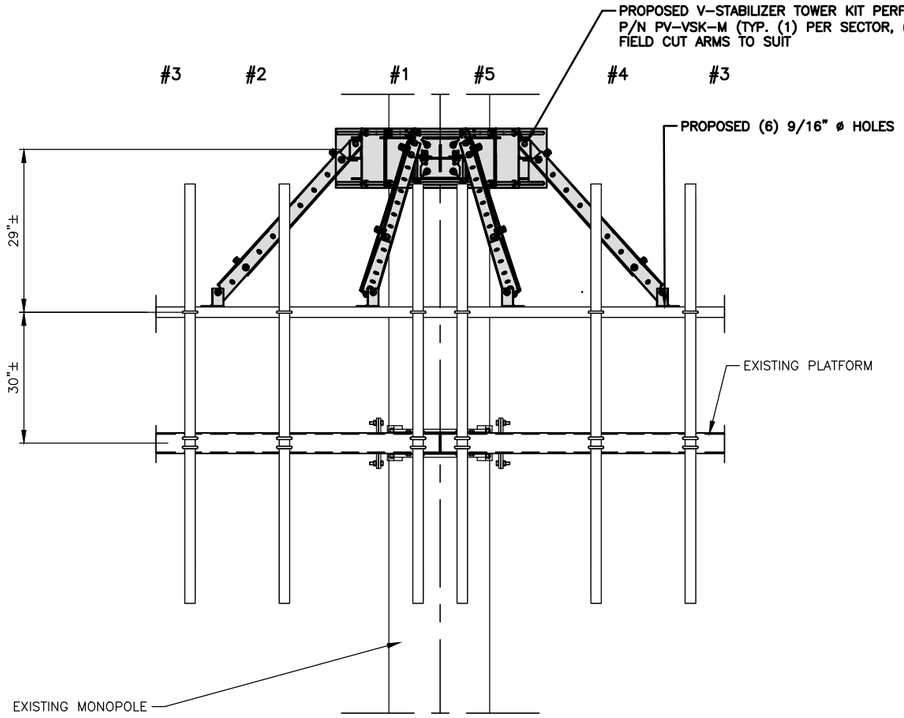
EQUIPMENT NOT SHOWN FOR CLARITY.

BILL OF MATERIALS		
QTY.	KIT NO./PART NO.	DESCRIPTION
1 (1 TOTAL)	PV-VSK-M	V-STABILIZER TOWER KIT

PARTS TO BE SUPPLIED BY PERFECT VISION.

1 C01 PROPOSED PLAN VIEW
SCALE: 3/4" = 1'-0"

0 0'-8" 1'-4" 2'-8" 4'-0"



EQUIPMENT NOT SHOWN FOR CLARITY.
ONLY ONE SECTOR SHOWN FOR CLARITY.

GENERAL NOTES:

1. APPLY TWO COATS OF GALVICON TO ALL FIELD CUT.

INSTALLATION NOTES:

1. INSTALL (1) NEW PV-VSK-M PERFECT VISION KIT CONNECTED TO THE MONOPOLE TOWER AT A DISTANCE OF 29" ABOVE THE EXISTING TOP FACE HORIZONTAL CONNECTING ADJACENT FACE HORIZONTALS TO THE TOWER. THE ARMS OF THE PV-VSK-M WILL BE CONNECTED TO THE TOP HORIZONTAL AT A DISTANCE OF APROXIMATIVELY 33" FROM THE EDGE.

2 C01 PROPOSED ELEVATION VIEW
SCALE: 3/4" = 1'-0"

0 0'-8" 1'-4" 2'-8" 4'-0"

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TEMPE, AZ 85263

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1-855-669-5421

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SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	08/29/2019	FOR REVIEW	VNE

SITE INFORMATION

SITE NAME:
CANTON CT

SITERRA SITE #:
–

SITE ADDRESS:
14 CANTON SPRINGS ROAD, CANTON, HARTFORD, CT 06019

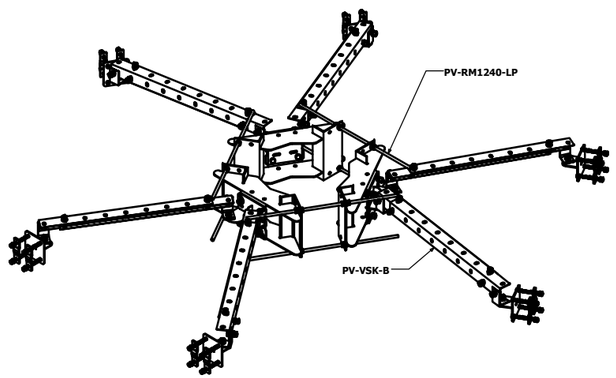
SHEET DESCRIPTION

MOUNT REINFORCEMENT

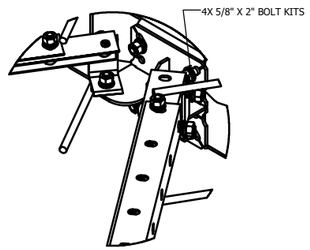
SHEET No.

C01

V-STABILIZER TOWER KIT	
PART NUMBER	DESCRIPTION
PV-VSK-M	**PERFECT VISION**



PV-VSK-M
MONOPOLE ATTACHMENT



MONOPOLE HARDWARE

V-Stabilizer Kit Master Assemblies

Part Number	Description	Weight	Included Parts					
			PV-VSK-B	PV-SMU2080-01	PV-SMU2016-01	PV-RM1240-LP	PV-RM1060	PV-RM1060-4
PV-VSK-T	V-Stabilizer Kit, Lattice Tower, up to 8" Leg	115 lbs	1	1	-	-	-	-
PV-VSK-TL	V-Stabilizer Kit, Lattice Tower, up to 16" Leg	130 lbs	1	-	1	-	-	-
PV-VSK-2-T	V-Stabilizer Kit, Dual Setup, Lattice Tower, up to 8" Leg	230 lbs	2	2	-	-	-	-
PV-VSK-2-TL	V-Stabilizer Kit, Dual Setup, Lattice Tower, up to 16" Leg	260 lbs	2	-	2	-	-	-
PV-VSK-M	V-Stabilizer Kit, Monopole, 3 Sector, 10"-45" Pole	415 lbs	3	-	-	1	-	-
PV-VSK-ML	V-Stabilizer Kit, Monopole, 3 Sector, 30"-60" Pole	630 lbs	3	-	-	-	1	-
PV-VSK-4-M	V-Stabilizer Kit, Monopole, 4 Sector, 10"-60" Pole	775 lbs	4	-	-	-	-	1

verizon

126 W. GEMINI DRIVE
TEMPE, AZ 85263

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Trylon

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IRVING, TEXAS 75038
1-855-669-5421

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	08/29/2019	FOR REVIEW	VNE

SITE INFORMATION

SITE NAME:
CANTON CT

SITERRA SITE #:
–

SITE ADDRESS:
14 CANTON SPRINGS ROAD, CANTON, HARTFORD, CT 06019

SHEET DESCRIPTION

PART REINFORCEMENT DETAILS

SHEET No.

C02

Site Name: Canton, CT
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW PCS	1970	1	6320	6320	120	0.1578	1.0	15.78%
VZW Cellular LTE	869	1	968	968	120	0.0242	0.579333333	4.17%
VZW Cellular	869	3	411	1233	120	0.0308	0.579333333	5.32%
VZW AWS	2145	1	6323	6323	120	0.1579	1.0	15.79%
VZW 700	746	1	2756	2756	120	0.0688	0.497333333	13.84%

Total Percentage of Maximum Permissible Exposure 54.90%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Section 1.13101 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case maximum values used, including the following assumptions:
1. closest accessible point is distance from antenna to base of pole;
2. continuous transmission from all available channels at full power for indefinite time period; and,
3. all RF energy is assumed to be directed solely to the base of the pole.

1-1992


Canton Springs Rd
Old Railroad Rd
14 CANTON SPRINGS ROAD
MBL : 31/164/0014
Owner : CANTON VOLUNTEER FIRE
Acres : 0.49
Land Use : Fire Station - Volunteer
Zoning : MCPF
Details
Quick Map
eQuality
FEMA
Google
BirdsEye Photo
Generate Mailing List:
100
Ft:
Submit

Documents and Maps

Quick Map

eQuality

Assessor Map

FEMA Panels

Some of these PDF maps are large (2-3 MB) and may take 20 seconds or more to load, even on a DSL connection.

Scroll Down For More Info

Detailed Parcel Information

Parcel No
31/164/0014

Unique ID
1640014

Owner
CANTON VOLUNTEER FIRE

Location
14 CANTON SPRINGS ROAD

MAILING ADDRESS
P.O. BOX 104
CANTON CT 06019

SUMMARY PARCEL INFORMATION & MAP DOCUMENTS

PARCEL VALUATIONS

	Appraised Value	Assessed Value
Buildings	463513	324460
Outbuildings	4000	2800
Extra Features		
Land	36750	25720
TOTAL:	504263	352980

PROPERTY INFORMATION

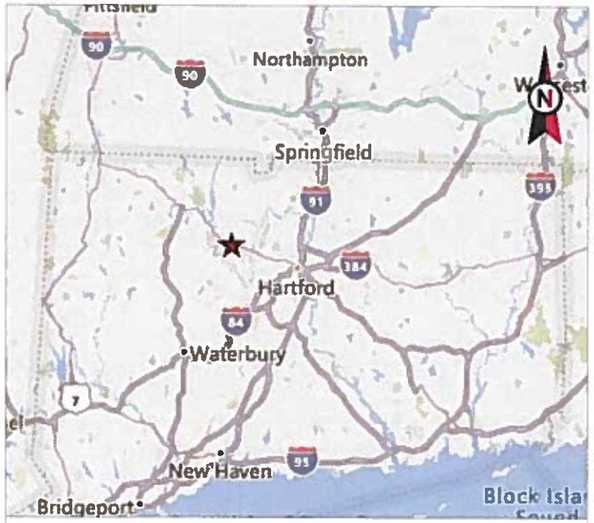
Land Acres	0.49
Land Use	Fire Station - Volunteer
Land Class	Commercial
Zoning	MCPF
Census Tract	
Neighborhood	C05
Lot Description	
Lot Setting	
Lot Utilities	
Street Description	

SALE INFORMATION

Sale Date	01/01/1900
Sale Price	0
Book / Page	059 /433

BUILDING AREA

Gross Building Area	
Total Living Area	5840
Roof Structure	Gable
Primary Exterior Wall Type	Wood Frame
Heating/Cooling Type	FHA
AC_Type	Central
Heating Fuel	UnKnown



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: CANTON CT
ATC SITE NUMBER: 411256
VERIZON SITE NAME: CANTON CT
VERIZON SITE NUMBER:467476
SITE ADDRESS: 14 CANTON SPRINGS ROAD CANTON, CT 06019

VERIZON WIRELESS
ANTENNA AMENDMENT DRAWINGS

LOCATION MAP

COMPLIANCE CODE

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

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

UTILITY COMPANIES

POWER COMPANY: NORTHEAST UTILITIES
PHONE: (800) 266-2000

TELEPHONE COMPANY: BELL ATLANTIC MOBILE
PHONE: (804)556-2338

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

PROJECT SUMMARY

SITE ADDRESS:

14 CANTON SPRINGS ROAD
CANTON, CT 06019
COUNTY: HARTFORD

GEOGRAPHIC COORDINATES:

LATITUDE: 41.822876
LONGITUDE: -72.895164
GROUND ELEVATION: 340' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEER:

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

PROPERTY OWNER:

CANTON VOLUNTEER FIRE COMPANY INC
14 CANTON SPRINGS RD
CANTON , CT 06019

APPLICANT:

VERIZON WIRELESS
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492

PROJECT DESCRIPTION

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

REMOVE (3) PANELS, (6) RRUs, (1) 1-5/8" HYBRID CABLES, (10) 1-5/8" COAX CABLES AND (1) OVP

INSTALL (6) RRUs, (3) SIDE BY SIDE MOUNTS, (1) 1/2" COAX CABLE, AND MOUNT MODIFICATIONS

EXISTING (12) PANELS, (6) 1-5/8" COAX CABLES, (1) 1-5/8" HYBRID CABLES, AND (1) OVP TO REMAIN

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.

PROJECT LOCATION DIRECTIONS

FROM MTSO TAKE 91 SOUTH TO 84 WEST FOLLOW 84 W TO EXIT 39 RTE 4 WEST. FOLLOW RTE 4 W FOR APPROX. 1 MILE TAKE A RIGHT ONTO RTE 10 NORTH(WATERVILLE RD.) FOLLOW RTE 10 N FOR APPROX. 5.4 MILES AND TAKE A LEFT ONTO RTE 44 WEST. FOLLOW FOR APPROX. 4.4 MILES AND TAKE A LEFT AT LIGHT TAKE YOUR FIRST LEFT ONTO CANTON SPRINGS RD. OUR TOWER IS ON THE LEFT APPROX 50 YARDS. NOTE: 1ST DOOR IS VERIZON GENERATOR & 3 RD DOOR IS CELL SITE DOOR.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	COVER SHEET	1	10/24/19	PM
G-002	GENERAL NOTES	0	10/09/19	PM
C-101	DETAILED SITE PLAN AND TOWER ELEVATION	0	10/09/19	PM
C-501	RF SCHEDULE AND ANTENNA INSTALLATION	1	10/24/19	PM
C-502	CONSTRUCTION DETAILS	0	10/09/19	PM
R-601	SUPPLEMENTAL			
T01	TITLE PAGE			
C01	PART REINFORCEMENT DETAILS			
C02	PART REINFORCEMENT DETAILS			

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

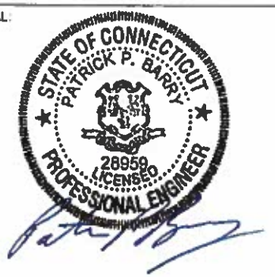
REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	PM	10/09/19
1	RELABLED PANELS	PM	10/24/19

ATC SITE NUMBER:
411256

ATC SITE NAME:
CANTON CT

SITE ADDRESS:
14 CANTON SPRINGS ROAD
CANTON, CT 06019

SEAL:



Authorized by "EOR"
Nov [illegible]
verizon Design

DRAWN BY:	PM
APPROVED BY:	PPB
DATE DRAWN:	10/09/19
ATC JOB NO:	12977010
CUSTOMER ID:	CANTON CT
CUSTOMER #:	467476

COVER SHEET

SHEET NUMBER:	REVISION:
G-001	1

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC MASTER SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON WIRELESS REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON WIRELESS REP PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON WIRELESS REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON WIRELESS REP IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
17. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
18. CONTRACTOR SHALL FURNISH VERIZON WIRELESS WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
19. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON WIRELESS REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
20. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON WIRELESS REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
21. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON WIRELESS SPECIFICATIONS AND REQUIREMENTS.
22. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON WIRELESS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
23. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
24. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
25. CONTRACTOR SHALL NOTIFY VERIZON WIRELESS REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
27. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
28. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON WIRELESS REP. ANY WORK FOUND BY THE VERIZON WIRELESS REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
29. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
   - A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
   - B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
   - C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
   - D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
   - E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
   - A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
   - B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
   - C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
   - D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
   - E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
   - F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
   - G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING ½" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

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

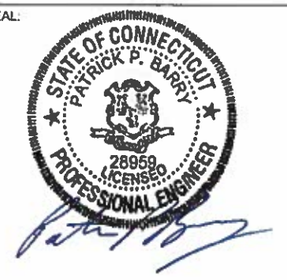
REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	PM	10/09/19
△			
△			
△			
△			

ATC SITE NUMBER:
411256

ATC SITE NAME:
CANTON CT

SITE ADDRESS:
14 CANTON SPRINGS ROAD
CANTON, CT 06019

SEAL:



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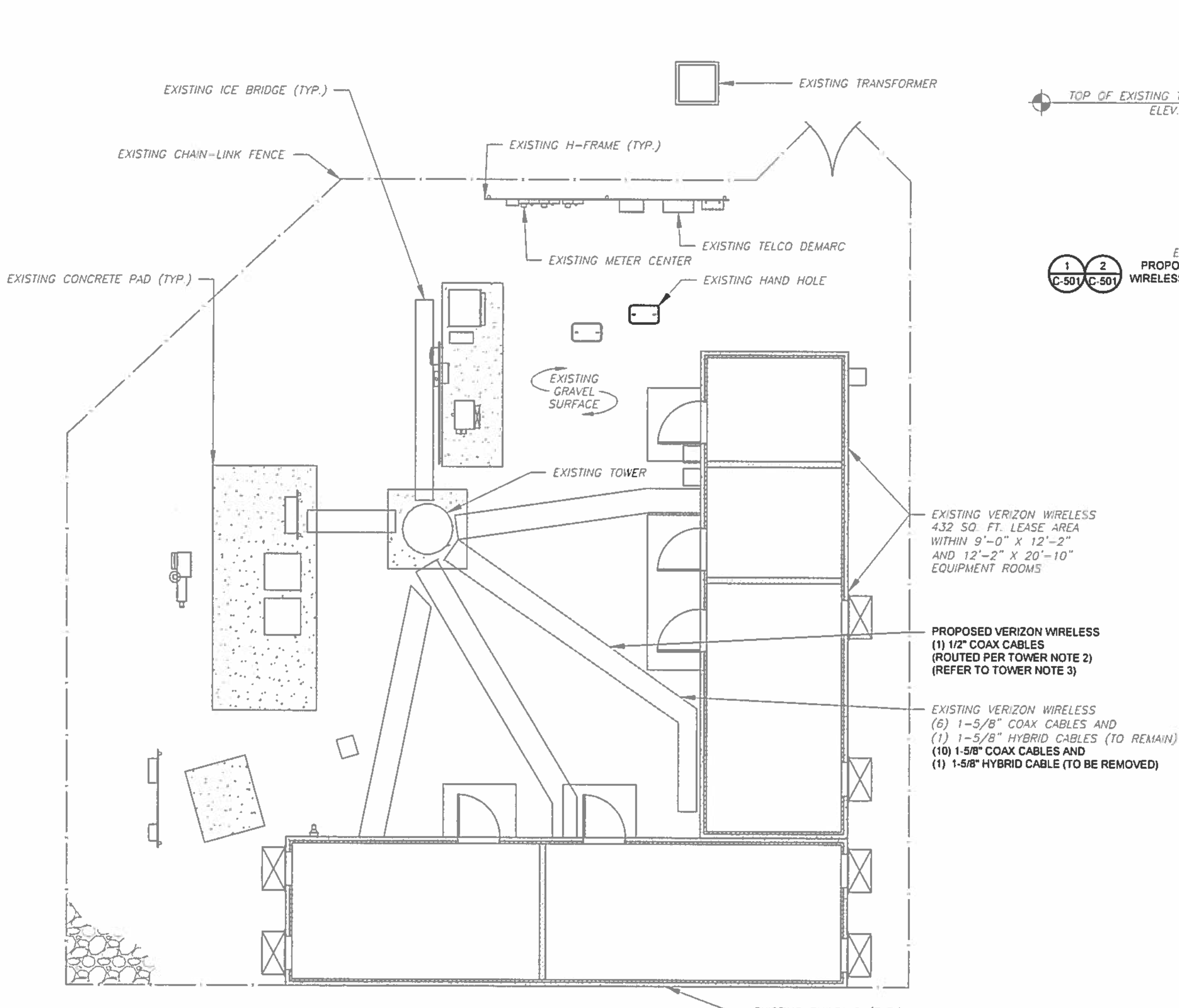
DRAWN BY:	PM
APPROVED BY:	PPB
DATE DRAWN:	10/09/19
ATC JOB NO:	12977010
CUSTOMER ID:	CANTON CT
CUSTOMER #:	467476

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, CABLE SUPPORTS, AND CABLES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE INSTALLING NEW CABLE SUPPORT STRUCTURES, COAX PORTS, OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.



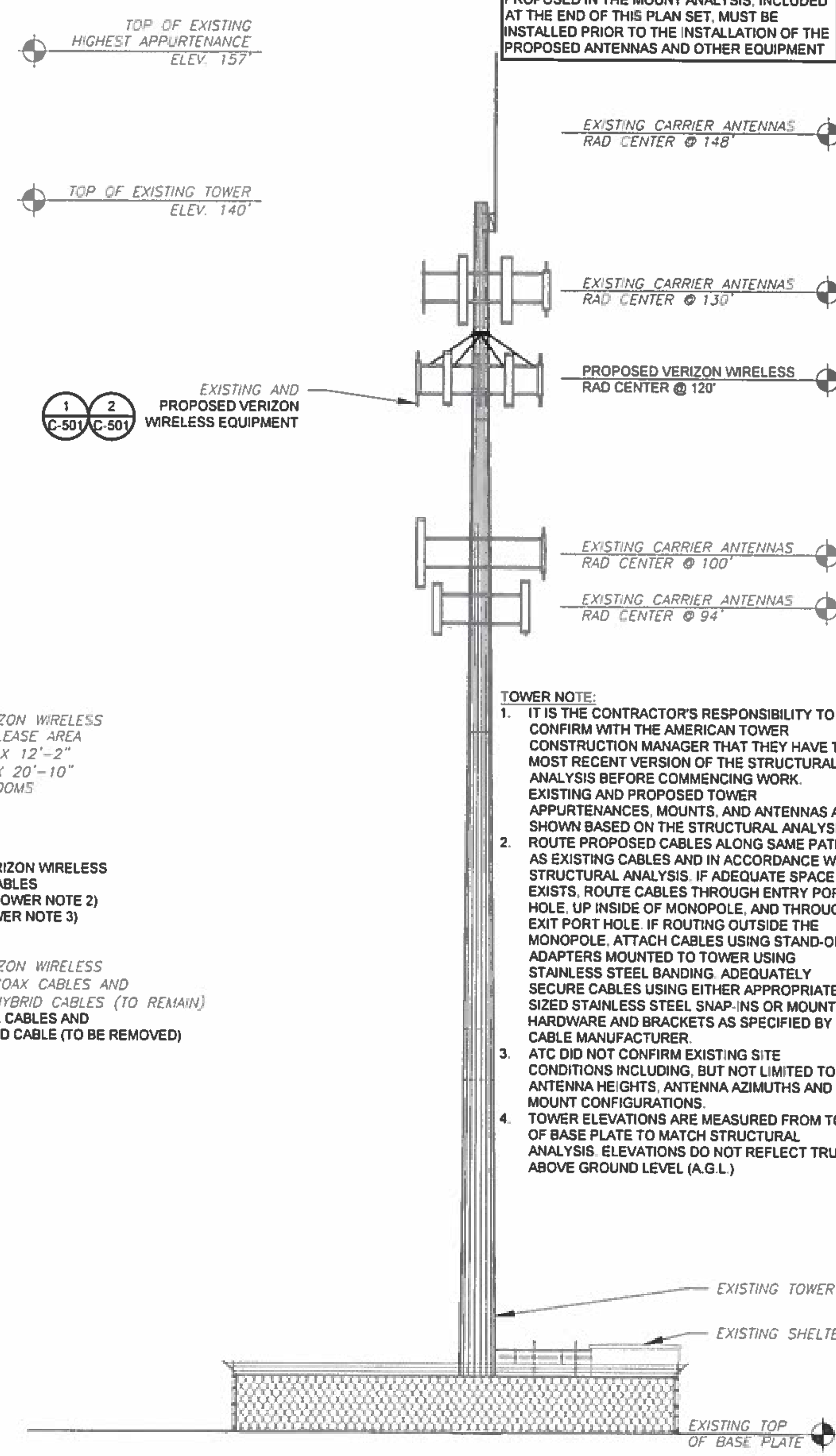
1 DETAILED SITE PLAN

SCALE: 1"=10' (11X17)
1"=5' (22X34)

PROPOSED CABLE LENGTH:

ESTIMATED LENGTH OF PROPOSED CABLE IS 174'. ESTIMATED LENGTH OF CABLE IS CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES).

PER MOUNT ANALYSIS COMPLETED BY TRYLON TSF INC., DATED 8/27/2019, THE EXISTING MOUNT CAN NOT ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT



2 TOWER ELEVATION

SCALE: NOT TO SCALE

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
3. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA HEIGHTS, ANTENNA AZIMUTHS AND MOUNT CONFIGURATIONS.
4. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)

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SUITE 100
CARY, NC 27518
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COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	PM	10/09/19

ATC SITE NUMBER:
411256

ATC SITE NAME:
CANTON CT

SITE ADDRESS:
14 CANTON SPRINGS ROAD
CANTON, CT 06019

SEAL:

STATE OF CONNECTICUT · PATRICK P. BARRY · 28959 · LICENSED · PROFESSIONAL ENGINEER

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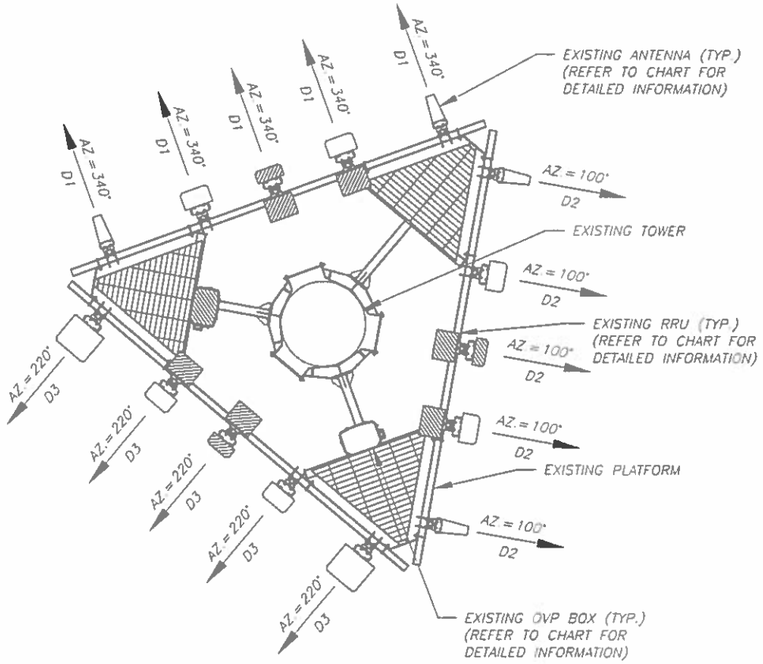
DRAWN BY:	PM
APPROVED BY:	PPB
DATE DRAWN:	10/09/19
ATC JOB NO:	12977010
CUSTOMER ID:	CANTON CT
CUSTOMER #:	467476

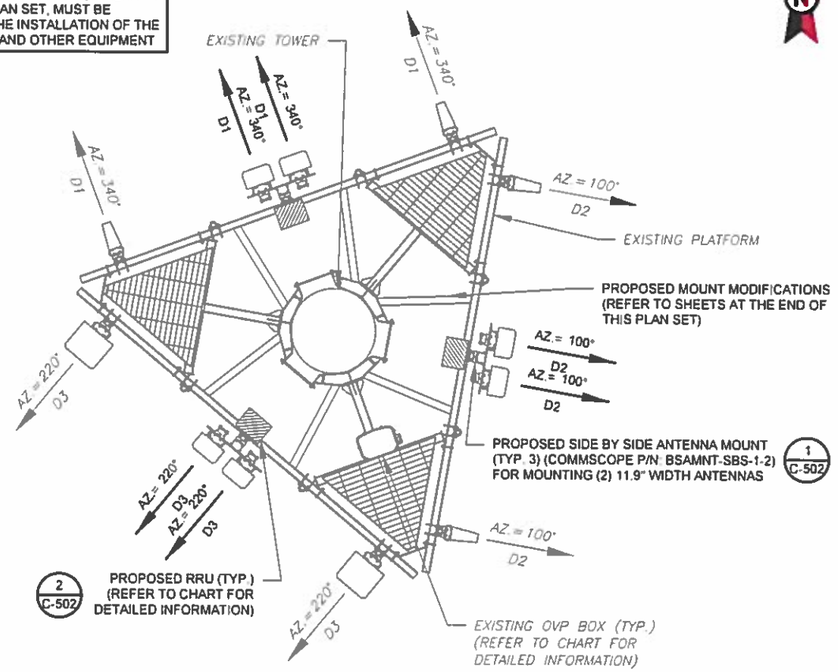
DETAILED SITE PLAN AND TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-101	0



1 CURRENT ANTENNA PLAN

PER MOUNT ANALYSIS COMPLETED BY TRYLON TSF INC., DATED 8/27/2019, THE EXISTING MOUNT CAN NOT ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT



2 FINAL ANTENNA PLAN

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
D1	120'	340°	A1	LPA-80080/4CF	850 CDMA	RMN	-	-
			A2	SBNHH-1D65B	700/850/1900 LTE	RMN	-	-
			A3	BXA-70063-6CF	2100 LTE	RMV	RRH 700/850MHZ DUAL BAND RRH	RMV
			A4	SBNHH-1D65B	2100 LTE	RMN	PCS/AWS DUAL BAND RRH	RMV
			A5	LPA-80080/4CF	850 CDMA	RMN	-	
D2	120'	100°	B1	LPA-80080/4CF	850 CDMA	RMN	-	-
			B2	SBNHH-1D65B	700/850/1900 LTE	RMN	RRH 700/850MHZ DUAL BAND RRH	RMV
			B3	BXA-70063-6CF	2100 LTE	RMV	PCS/AWS DUAL BAND RRH	RMV
			B4	SBNHH-1D65B	2100 LTE	RMN	-	-
			B5	LPA-80080/4CF	850 CDMA	RMN	-	
D3	120'	220°	C1	LPA-80063/4CF	850 CDMA	RMN	-	-
			C2	SBNHH-1D65B	700/850/1900 LTE	RMN	-	-
			C3	BXA-70063-6CF	2100 LTE	RMV	RRH 700/850MHZ DUAL BAND RRH	RMV
			C4	SBNHH-1D65B	2100 LTE	RMN	PCS/AWS DUAL BAND RRH	RMV
			C5	LPA-80063/4CF	850 CDMA	RMN		

NOTES

1. BASED ON APPROVED ATC APPLICATION 12977010, DATED 09/05/19. CONFIRM WITH VERIZON WIRELESS REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. ATC HAS NOT YET VERIFIED ANY EXISTING ANTENNA CONFIG OR MOUNT CONFIG. CONTRACTOR TO VERIFY MOUNT CONFIG HAS SUFFICIENT SPACE FOR PROPOSED LESSEE EQUIPMENT (EQUIP) (I.E. CLEARANCES, MOUNT PIPE, SUFFICIENT LENGTH, ETC.) ATC DID NOT ANALYZE ANTENNA MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY LESSEE LOADING.
3. ALL PROPOSED EQUIP INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH ATC'S CM.
4. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
5. POSITIONS START WITH FIRST PIPE ON THE LEFT SIDE (AS VIEWED FROM BEHIND THE MOUNT).

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
D1	120'	340°	A1	LPA-80080/4CF	850 CDMA	RMN	-	-
			A2	-	-	-	-	-
			A3	(2) SBNHH-1D65B	700/850/1900/2100 LTE	RMN	B5/B13 RRH-BR04C B2/B66A RRHBR049	ADD
			A4	-	-	-	-	-
			A5	LPA-80080/4CF	850 CDMA	RMN	-	-
D2	120'	100°	B1	LPA-80080/4CF	850 CDMA	RMN	-	-
			B2	-	-	-	-	-
			B3	(2) SBNHH-1D65B	700/850/1900/2100 LTE	RMN	B5/B13 RRH-BR04C B2/B66A RRHBR049	ADD
			B4	-	-	-	-	-
			B5	LPA-80080/4CF	850 CDMA	RMN	-	-
D3	120'	220°	C1	LPA-80063/4CF	850 CDMA	RMN	-	-
			C2	-	-	-	-	-
			C3	(2) SBNHH-1D65B	700/850/1900/2100 LTE	RMN	B5/B13 RRH-BR04C B2/B66A RRHBR049	ADD
			C4	-	-	-	-	-
			C5	LPA-80063/4CF	850 CDMA	RMN	-	-

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
(1) DB-T1-6Z-8AB-0Z	RMV	(10) 1-5/8"	(1) 1-5/8"	RMV
(1) DB-T1-6Z-8AB-0Z	RMN	(6) 1-5/8"	(1) 1-5/8"	RMN

STATUS ABBREVIATIONS
RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
DSC: TO BE DISCONNECTED & REMAIN
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS
FIBER DISTRIBUTION/OVP TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL FIBER DISTRIBUTION/OVP BOX		FINAL CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
(1) DB-T1-6Z-8AB-0Z	RMN	(6) 1-5/8"	(1) 1-5/8"	RMN
-	-	(1) 1/2"	-	ADD

3 EQUIPMENT SCHEDULES

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A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

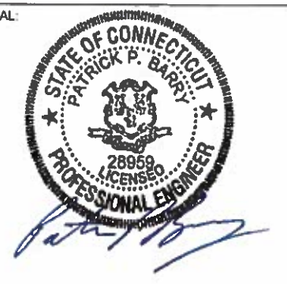
REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	PM	10/09/19
1	RELABLED PANELS	PM	10/24/19

ATC SITE NUMBER:
411256

ATC SITE NAME:
CANTON CT

SITE ADDRESS:
14 CANTON SPRINGS ROAD
CANTON, CT 06019

SEAL:



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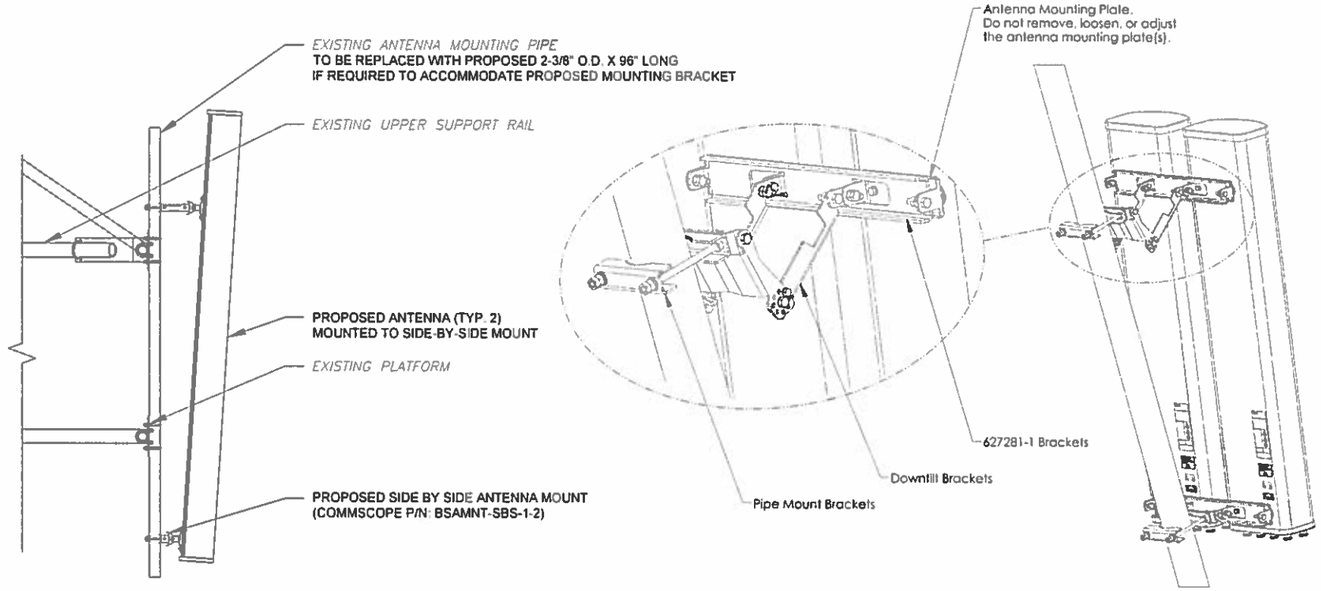
DRAWN BY:	PM
APPROVED BY:	PPB
DATE DRAWN:	10/09/19
ATC JOB NO:	12977010
CUSTOMER ID:	CANTON CT
CUSTOMER #:	467476

RF SCHEDULE AND ANTENNA INSTALLATION

SHEET NUMBER:	REVISION:
C-501	1

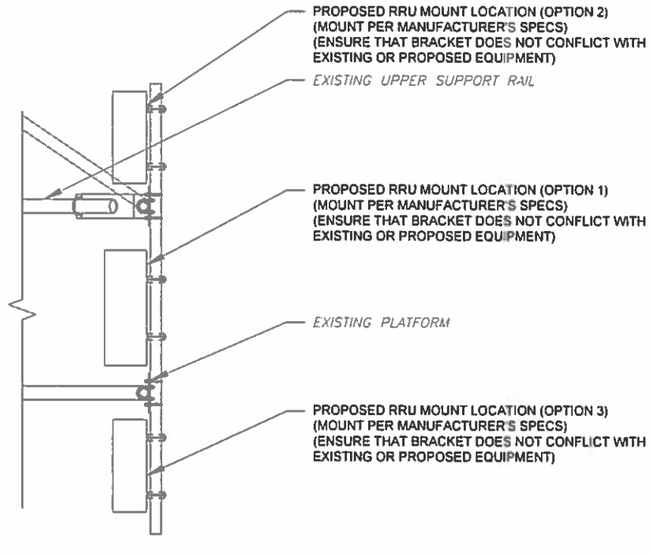


PROFILE VIEW

ISOMETRIC VIEW (BY MANUFACTURER)

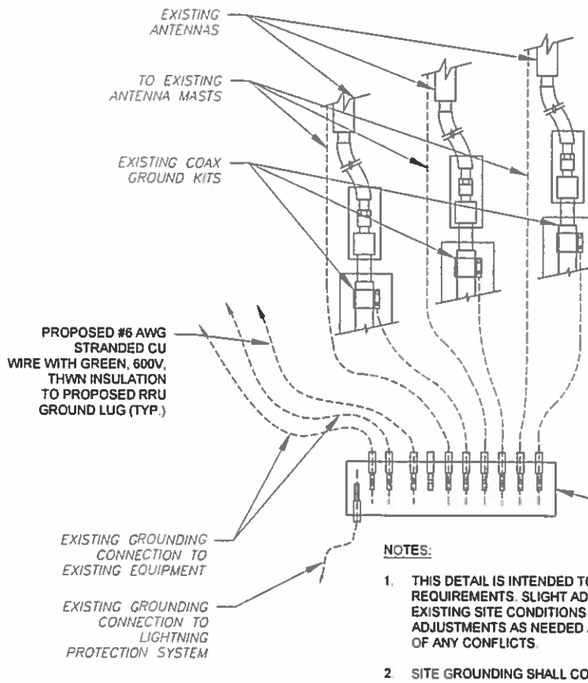
1 PROPOSED SIDE-BY-SIDE MOUNT

SCALE: NOT TO SCALE



2 PROPOSED RRU MOUNTING DETAIL - TYPICAL

SCALE: NOT TO SCALE



NOTES:

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

3 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: NOT TO SCALE

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

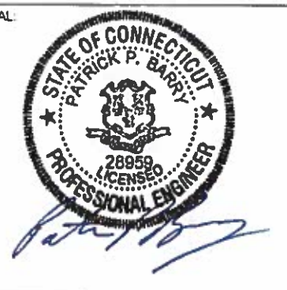
REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	PM	10/09/19

ATC SITE NUMBER:
411256

ATC SITE NAME:
CANTON CT

SITE ADDRESS:
14 CANTON SPRINGS ROAD
CANTON, CT 06019

SEAL:



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DRAWN BY:	PM
APPROVED BY:	PPB
DATE DRAWN:	10/09/19
ATC JOB NO:	12977010
CUSTOMER ID:	CANTON CT
CUSTOMER #:	467476

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-502	0

Trylon

Prepared For

AMERICAN TOWER

Mount Analysis Report

ATC # 411256

CANTON CT

8-27-2019

FAIL - 107%

STATE OF CONNECTICUT
CLIFF ABERNATHY
No. 31022
LICENSED PROFESSIONAL ENGINEER

8/27/2019

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6. Conclusions and recommendations

Based on information provided, our calculations conclude that the Existing Verizon Platform located at 120-ft elevation on the existing Monopole at the specified address, is NOT ADEQUATE to safely support the proposed equipment, subject to the attached Standard Conditions on page 3.

Recommended reinforcement:

1. **Install (1) new "PV-VSK-B" Perfect vision kit connected to the Monopole tower at a distance of 29" above the existing top face horizontal connecting adjacent face horizontal to the tower & V-arm connecting 33" from ectreme end towards mount center.**

Note:

The existing OVP box RRFDC-3315-PF-48 is directly installed on tower , not considered for this analysis.
Andrew SBNHH-1D65B Antenna is mounted on Commscope BSAMNT-SBS-1-2 side by side Mounting kit.

Should you have any questions, comments or require additional information, please do not hesitate to call.

Sincerely,
Analysis performed by:

Sarathi

Reviewed by:

STATE OF CONNECTICUT
CLIFF ABERNATHY
No. 31022
LICENSED PROFESSIONAL ENGINEER

8/27/2019

1825 W. Walnut Hill Lane Suite 120 Irving, Texas 75038

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

AMERICAN TOWER®

VICINITY MAP

DRIVING DIRECTIONS:

FROM BRADLEY INTERNATIONAL AIRPORT TAKE BRADLEY INTERNATIONAL AIRPORT TO SCHOEPHOESTER RD 0.8 MI, TAKE CT-20 W, HOLCOMB ST, WOLCOTT RD, US-202 S/HOPMEADOW ST, ... AND US-202 W/US-44 W/ALBANY TURNPIKE TO CANTON SPRINGS RD IN CANTON 17.2 MI, TURN LEFT ONTO CANTON SPRINGS RD. DESTINATION WILL BE ON THE LEFT.

GENERAL NOTES

1. THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION:
-ADA COMPLIANCE NOT REQUIRED.
-POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
-NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.

2. CONTRACTOR SHALL VERIFY ALL PLANS,EXISTING DIMENSIONS,AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.

BUILDING CODES

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL AUTHORITIES HAVING JURISDICTION
1. 2015 INTERNATIONAL BUILDING CODE
2. 2015 INTERNATIONAL ENERGY CONSERVATION CODE
3. 2009 INTERNATIONAL EXISTING BUILDING CODE
4. 2009 INTERNATIONAL RESIDENTIAL CODE
5. ANSI/TIA-222-h

IF YOU DIG IN ANY STATE DIAL 811
FOR THE LOCAL "ONE CALL CENTER"
IT'S THE LAW

SITE NAME:
CANTON CT

SITERRA PROJECT :
PLATFORM MOUNT REINFORCING

SITERRA SITE #:
–

ATC SITE #:
411256

SITE ADDRESS:
14 CANTON SPRINGS ROAD, CANTON, HARTFORD, CT 06019

SPECIAL STRUCTURAL NOTES

1. TOWER OWNER SHALL PROVIDE GLOBAL STRUCTURAL STABILITY ANALYSIS OF EXISTING ANTENNA SUPPORT STRUCTURE. GENERAL CONTRACTOR SCOPE OF WORK SHALL INCLUDE ALL REQUIRED STRUCTURAL MODIFICATIONS, RE-BUNDLING OF COAXIAL CABLES OR OTHER SPECIAL MODIFICATIONS AS OUTLINED THEREIN.

2. STRUCTURAL DESIGNS AND DETAILS FOR ANTENNA MOUNTS COMPLETED BY TRYLON TSF INC. ON BEHALF OF VERIZON ARE INCLUSIVE OF THE ENTIRE ANTENNA SUPPORT STRUCTURE (GLOBAL STRUCTURAL STABILITY ANALYSIS BY OTHERS), EXISTING TOWER PLATFORM, EXISTING ANTENNA MOUNTS AND ALL OTHER ASPECTS OF THE STRUCTURE THAT WILL SUPPORT THE VERIZON MODERNIZATION EQUIPMENT DEPLOYMENT AS DEPICTED HEREIN.

3. TRYLON TSF INC. ASSUMES THAT THE TOWER IS PROPERLY CONSTRUCTED AND MAINTAINED. ALL STRUCTURAL MEMBERS AND THEIR CONNECTION ARE ASSUMED TO BE IN GOOD CONDITION AND ARE FREE FROM DEFECTS WITH NO DETERIORATION TO ITS MEMBER CAPACITIES.

APPROVALS

CONSTRUCTION MANAGER	RF ENGINEER
LAND USE PLANNER	NETWORK OPERATION
PROPERTY OWNER	CONTRACTOR

PROJECT INFORMATION

SCOPE OF WORK:	REINFORCE THE PLATFORM MOUNT AS FOLLOWS: 1. INSTALL (1) NEW PV-VSK-M PERFECT VISION KIT CONNECTED TO THE MONOPOLE TOWER AT A DISTANCE OF 29" ABOVE THE EXISTING TOP FACE HORIZONTAL CONNECTING ADJACENT FACE HORIZONTALS TO THE TOWER. THE ARMS OF THE PV-VSK-M WILL BE CONNECTED TO THE TOP HORIZONTAL AT A DISTANCE OF APROXIMATIVELY 33" FROM THE EDGE.
APPLICANT/LESSEE	
NAME:	VERIZON WIRELESS
ADDRESS:	400 FRIBERG PARKWAY WESTBOROUGH, MA 01854
CONTACT:	N/A
PHONE:	N/A
SITE OWNER	
NAME:	–
ADDRESS:	–
CONTACT:	N/A
PHONE:	N/A
DESIGN TEAM	
NAME:	TRYLON TSF
ADDRESS:	1825 W. WALNUT HILL LANE, SUITE 120 IRVING, TX 75038
CONTACT:	KATYA SERAVALLE
PHONE:	1-855-669-5421
TOWER OWNER:	AMERICAN TOWER CORPORATION
SITE NAME:	CANTON CT
SITERRA SITE #:	–
TOWER TYPE:	MONOPOLE
TOWER HEIGHT:	–
GROUND ELEVATION:	–± (AMSL)
LATITUDE:	41.822876
LONGITUDE:	-72.895101
COUNTY:	HARTFORD

SHEET INDEX

SHEET #	DESCRIPTION	REVISION #
T01	TITLE PAGE	A
C01	MOUNT REINFORCEMENT	A
C02	PART REINFORCEMENT DETAILS	A

verizon
126 W. GEMINI DRIVE
TEMPE, AZ 85283

AMERICAN TOWER®
A.T. ENGINEERING SERVICES, PPLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
(919)-466-0112

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421

STATE OF CONNECTICUT
CLIFF ABERNATHY
Docusigned by:
P.E. No. 31022
LICENSED
PROFESSIONAL ENGINEER
9/3/2019

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	08/29/2019	FOR REVIEW	VHE

SITE INFORMATION

SITE NAME:
CANTON CT

SITERRA SITE #:
–

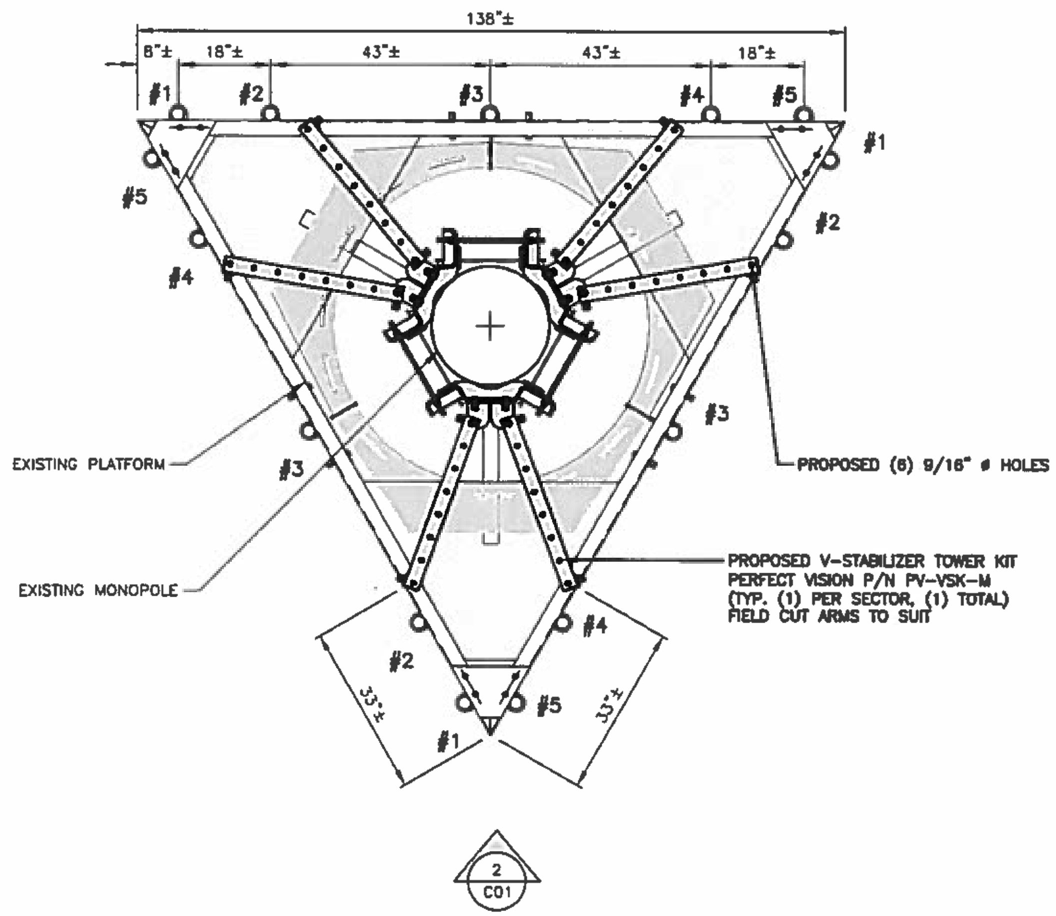
SITE ADDRESS:
14 CANTON SPRINGS ROAD, CANTON, HARTFORD, CT 06019

SHEET DESCRIPTION

TITLE PAGE

SHEET No.

T01

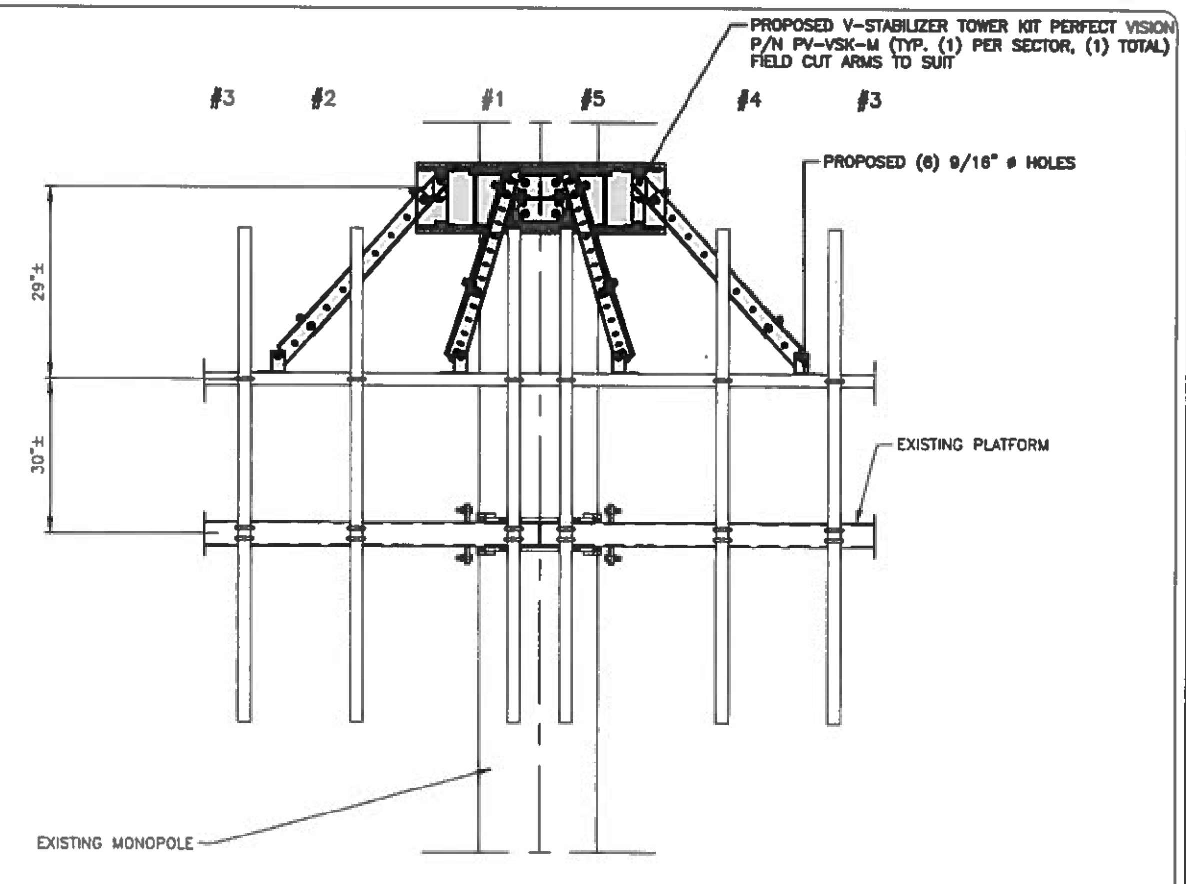


EQUIPMENT NOT SHOWN FOR CLARITY.

BILL OF MATERIALS		
QTY.	KIT NO./PART NO.	DESCRIPTION
1 (1 TOTAL)	PV-VSK-M	V-STABILIZER TOWER KIT

PARTS TO BE SUPPLIED BY PERFECT VISION.

1/C01 PROPOSED PLAN VIEW
SCALE: 3/4" = 1'-0"



EQUIPMENT NOT SHOWN FOR CLARITY.
ONLY ONE SECTOR SHOWN FOR CLARITY.

GENERAL NOTES:

1. APPLY TWO COATS OF GALVICON TO ALL FIELD CUT.

INSTALLATION NOTES:

1. INSTALL (1) NEW PV-VSK-M PERFECT VISION KIT CONNECTED TO THE MONOPOLE TOWER AT A DISTANCE OF 29" ABOVE THE EXISTING TOP FACE HORIZONTAL CONNECTING ADJACENT FACE HORIZONTALS TO THE TOWER. THE ARMS OF THE PV-VSK-M WILL BE CONNECTED TO THE TOP HORIZONTAL AT A DISTANCE OF APROXIMATIVELY 33" FROM THE EDGE.

2/C01 PROPOSED ELEVATION VIEW
SCALE: 3/4" = 1'-0"

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TEMPE, AZ 85263

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A.T. ENGINEERING SERVICES, PPLC
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Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421

STATE OF CONNECTICUT — CLIFF ABERNATHY — No. 31622 — LICENSED PROFESSIONAL ENGINEER
DocuSigned by: Cliff Abernathy
9/3/2019

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SUBMITTALS			
REV	DATE	DESCRIPTION	BY
A	08/29/2019	FOR REVIEW	VAE

SITE INFORMATION

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CANTON CT

SITERRA SITE #:
–

SITE ADDRESS:
14 CANTON SPRINGS ROAD, CANTON, HARTFORD, CT 06019

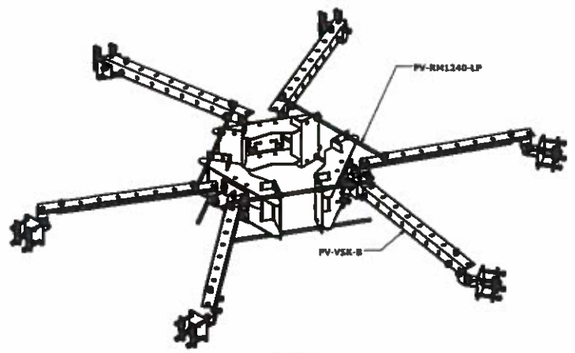
SHEET DESCRIPTION

MOUNT REINFORCEMENT

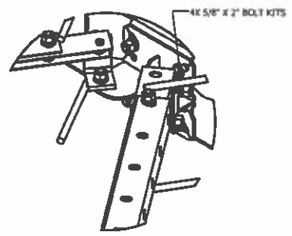
SHEET No.

C01

V-STABILIZER TOWER KIT	
PART NUMBER	DESCRIPTION
PV-VSK-M	PERFECT VISION



PV-VSK-M
MONOPOLE ATTACHMENT



MONOPOLE HARDWARE

V-Stabilizer Kit Master Assemblies			Included Parts					
Part Number	Description	Weight	PV-VSK-B	PV-SMU2080-G1	PV-SMU2016-G1	PV-RM1340-LP	PV-RM1060	PV-RM1060-4
PV VSK T	V Stabilizer Kit, Lattice Tower, up to 8" Leg	115 lbs	1	1	-	-	-	-
PV-VSK-TL	V-Stabilizer Kit, Lattice Tower, up to 16" Leg	130 lbs	1	-	1	-	-	-
PV-VSK-2-T	V-Stabilizer Kit, Dual Setup, Lattice Tower, up to 8" Leg	230 lbs	2	2	-	-	-	-
PV-VSK-2-TL	V-Stabilizer Kit, Dual Setup, Lattice Tower, up to 16" Leg	260 lbs	2	-	2	-	-	-
PV-VSK-M	V-Stabilizer Kit, Monopole, 3 Sector, 10"-45" Pole	415 lbs	3	-	-	1	-	-
PV-VSK-ML	V-Stabilizer Kit, Monopole, 3 Sector, 30"-60" Pole	630 lbs	3	-	-	-	1	-
PV-VSK-4-M	V-Stabilizer Kit, Monopole, 4 Sector, 10"-60" Pole	775 lbs	4	-	-	-	-	1

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STATE OF CONNECTICUT
CLIFF ABERNATHY
DocuSigned by:
NOV 2022
LICENSED
PROFESSIONAL ENGINEER
9/3/2019

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SHEET DESCRIPTION

PART REINFORCEMENT DETAILS

SHEET No.

C02