



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

VIA ELECTRONIC MAIL

Romina Kirchmaier
Real Estate Specialist for Smartlink
85 Rangeway Road
Building 3, Suite 102
Billerica, MA 01862

RE: **EM-AT&T-151-180912** – AT&T notice of intent to modify an existing telecommunications facility located at 670 Captain Neville Drive, Waterbury, Connecticut.

Dear Ms. Kirchmaier:

The Connecticut Siting Council (Council) is in receipt of your correspondence of September 17, 2018 submitted in response to the Council's September 17, 2018 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

The submission renders the request for exempt modification complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/FC/IN



Robidoux, Evan

From: Romina Kirchmaier <romina.kirchmaier@smartlinkllc.com>
Sent: Monday, September 17, 2018 1:45 PM
To: Robidoux, Evan
Cc: CSC-DL Siting Council
Subject: RE: Council Incomplete Letter for EM-AT&T-151-180912-CaptainNevilleDr-Waterbury
Attachments: 10035324_DE125_180713_CTL01127.pdf

Hi Evan,

Please find the attached mount analysis dated July 13th, 2018 to complete your review of this exempt modification. I will be submitting a hard copy of this as well.

Thanks!



Romina Kirchmaier | Real Estate Specialist

Smartlink

85 Rangeway Road
Building 3, Suite 102
Billerica, MA 01862
(m) 617.908.4296
smartlinkllc.com

From: Robidoux, Evan
Sent: Monday, September 17, 2018 11:58 AM
To: Romina Kirchmaier
Cc: CSC-DL Siting Council
Subject: Council Incomplete Letter for EM-AT&T-151-180912-CaptainNevilleDr-Waterbury

Please see the attached correspondence.

Evan Robidoux
Clerk Typist
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Mount Analysis Report

July 13, 2018

Site Name	Waterbury Captain Neville Drive
Site Number	CTL01127
FA Number	10035324
PTN Number	2051A0GH61/ 2051A0GGAG/ 2051A0GJY7
PACE Number	MRCTB031786/ MRCTB031320/ MRCTB031377
Infinigy Job Number	499-006
Client	Smartlink
Proposed Carrier	AT&T
Site Location	670 Captain Neville Drive Waterbury, CT, 06705 41° 32' 03.57" N NAD83 72° 58' 08.40" W NAD83
Structure Type	Platform
Structural Usage	98.1%
Overall Result	Pass

Upon reviewing the results of this analysis, it is our opinion that the mount meets the specified TIA code requirements. The antenna mounts are therefore deemed adequate to support the existing and proposed loading as listed in this report.



Brenden Archer
Structural Engineer I

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Introduction

Infinigy Engineering has been requested to perform a mount analysis on the existing AT&T antenna supporting structures. All supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The antenna mounts were analyzed using RISA 3D v. 16.0.4 software.

Supporting Documentation

RFDS	AT&T RFDS ID #2307733, dated June 13, 2018
Construction Drawings	AT&T FA #10035324, dated February 11, 2015
Previous Analysis	Fullerton Engineering, dated May 27, 2016

Analysis Code Requirements

Wind Speed	97 mph (3-Second Gust, V_{asd})/ 125 mph (3-Second Gust, V_{ult})
Wind Speed w/ ice	50 mph (3-Second Gust) w/ 3/4" ice
TIA Revision	ANSI/TIA-222-G
Adopted IBC	2012 IBC
Structure Class	II
Exposure Category	B
Topographic Category	1
Calculated Crest Height	0 ft

Conclusion

Upon reviewing the results of this analysis, it is our opinion that the mount meets the specified TIA code requirements. The antenna mounts are therefore deemed adequate to support the existing and proposed loading as listed in this report.

If you have any questions, require additional information, or actual conditions differ from those as detailed in this report please contact me via the information below:

Brenden Archer
 Structural Engineer I | Infinigy
 1033 Watervliet Shaker Road, Albany, NY 12205
 (O) (518) 690-0790
barcher@infinigy.com | www.infinigy.com

Final Loading Configuration

Mount CL (ft)	Rad. HT (ft)	Vert O/S (ft)	Horiz. O/S (ft)	Qty.	Appurtenance	Carrier
155.0	155.0	0.0	12.0	3	Kathrein 800-10121	AT&T
			8.0	3	CCI OPA-65R-LCUU-H8	
			4.0	3	Kathrein 800-10966	
			0.0	2	CCI TPA-65R-LCUUUU-H8	
			0.0	1	Quintel QS66512-2	
			8.0	3	Ericsson RRUS-11	
			8.0	3	Ericsson RRUS-32	
			4.0	3	Ericsson RRUS-B14 4478	
			4.0	3	Ericsson RRUS-B5 4478	
			0.0	3	Ericsson RRUS-12 w/ A2	
			0.0	3	Ericsson RRUS-B66 4426	
			12.0	6	Powerwave LGP 21401	
			--	3	Raycap DC6-48-60-18-8F	

Structure Usages

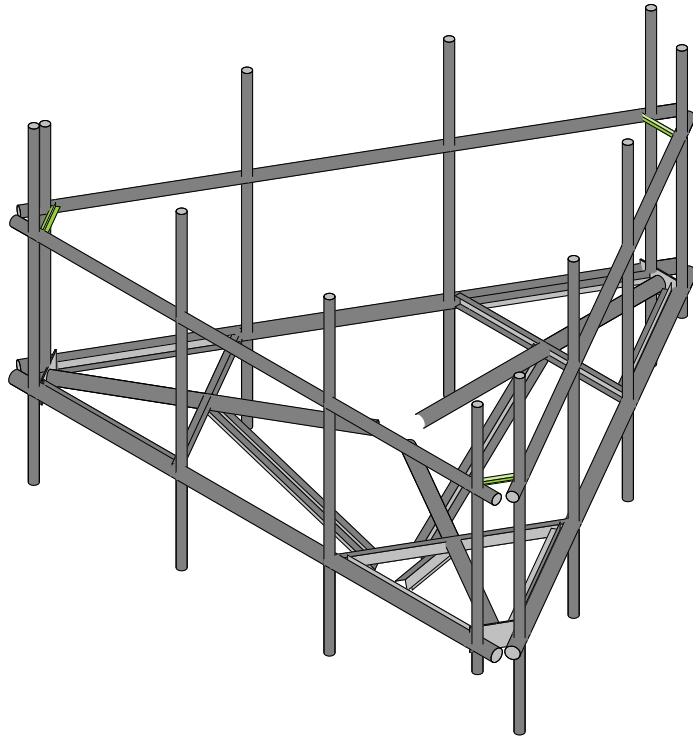
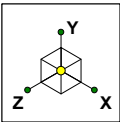
Mount Pipe	68.4%	Pass
Connection Plate	98.1%	Pass
Standoff	80.2%	Pass
Horizontal	56.9%	Pass
Result	98.1%	Pass

Assumptions and Limitations

Our structural calculations are completed assuming all information provided to Infinigy Engineering is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition of “like new” and all members, connections, anchors, and masonry to be free of corrosion and/or structural defects. The structure owner and/or contractor shall verify the structure’s condition prior to installation of any proposed equipment. If actual conditions differ from those described in this report Infinigy Engineering should be notified immediately to complete a revised evaluation.

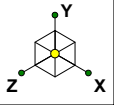
Our evaluation is completed using standard TIA, AISC, ACI, and ASCE methods and procedures. Our structural results are proprietary and should not be used by others as their own. Infinigy Engineering is not responsible for decisions made by others that are or are not based on our supplied assumptions and conclusions.

This report is an evaluation of the rooftop mounted equipment and/or antenna supporting structures to be proposed or modified as shown in the referenced construction drawings. Applicable building element adequacy to support these structures is also evaluated when the applied forces increase significantly based on engineering judgment.

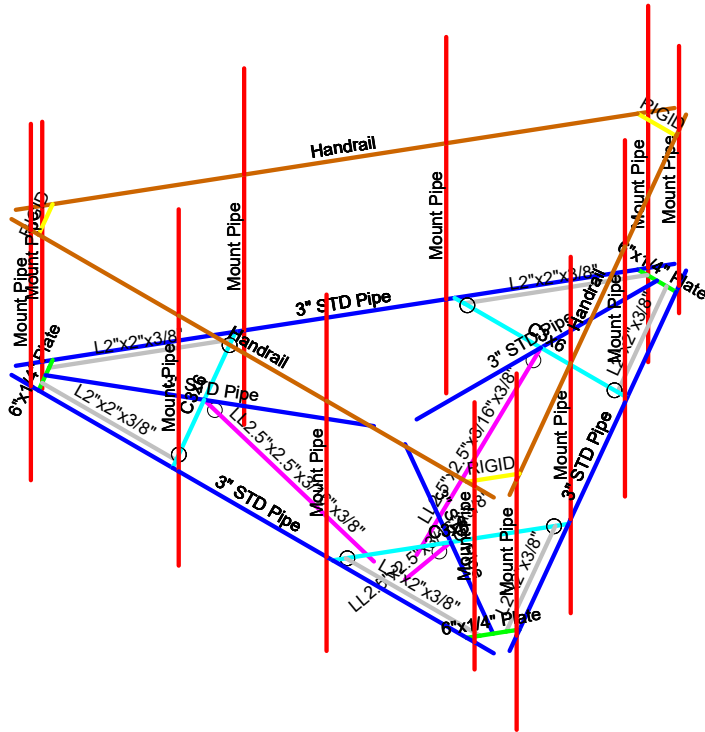


Envelope Only Solution

Infinigy Engineering, PLLC	CTL01127	Existing Configuration
BDA		July 5, 2018 at 11:06 AM
499-006		Existing_CTL01127.r3d



Section Sets	
■	3" STD Pipe
■	6"x1/4" Plate
■	Mount Pipe
■	L2"x2"x3/8"
■	LL2.5"x2.5"x3/16"x3/8"
■	C3x6
■	Handrail
■	RIGID

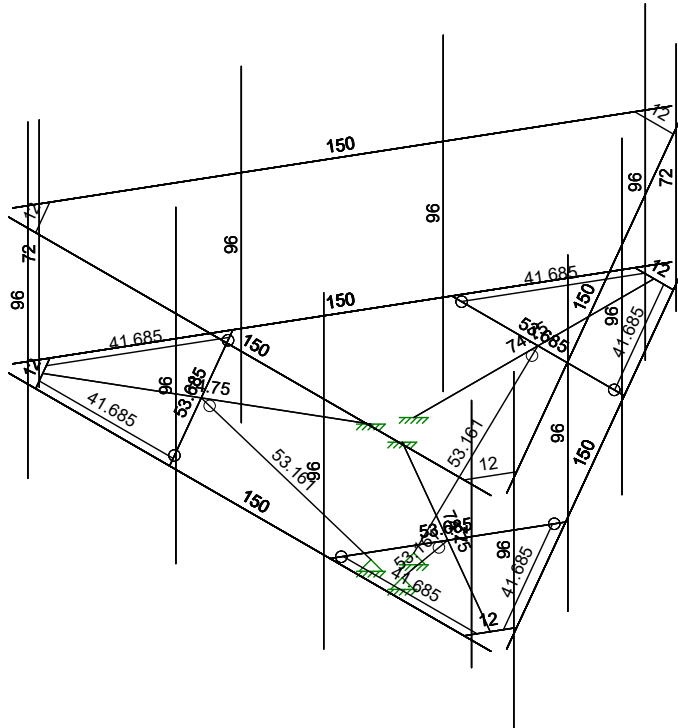
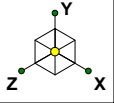


Envelope Only Solution

Infinigy Engineering, PLLC
BDA
499-006

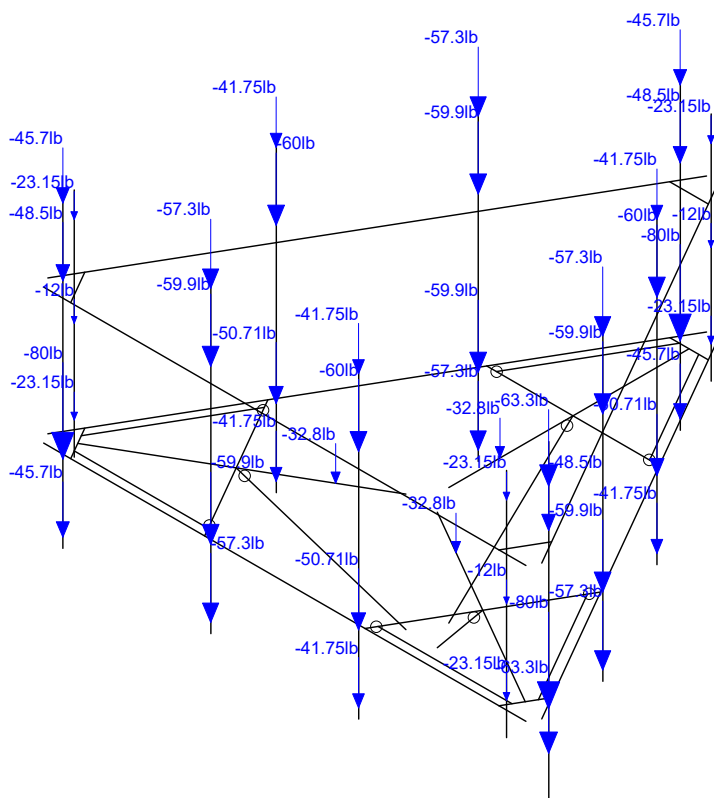
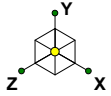
CTL01127

Existing Configuration
July 5, 2018 at 11:06 AM
Existing_CTL01127.r3d



Member Length (in) Displayed
Envelope Only Solution

Infinigy Engineering, PLLC	CTL01127	Existing Configuration
BDA		July 5, 2018 at 11:06 AM
499-006		Existing_CTL01127.r3d

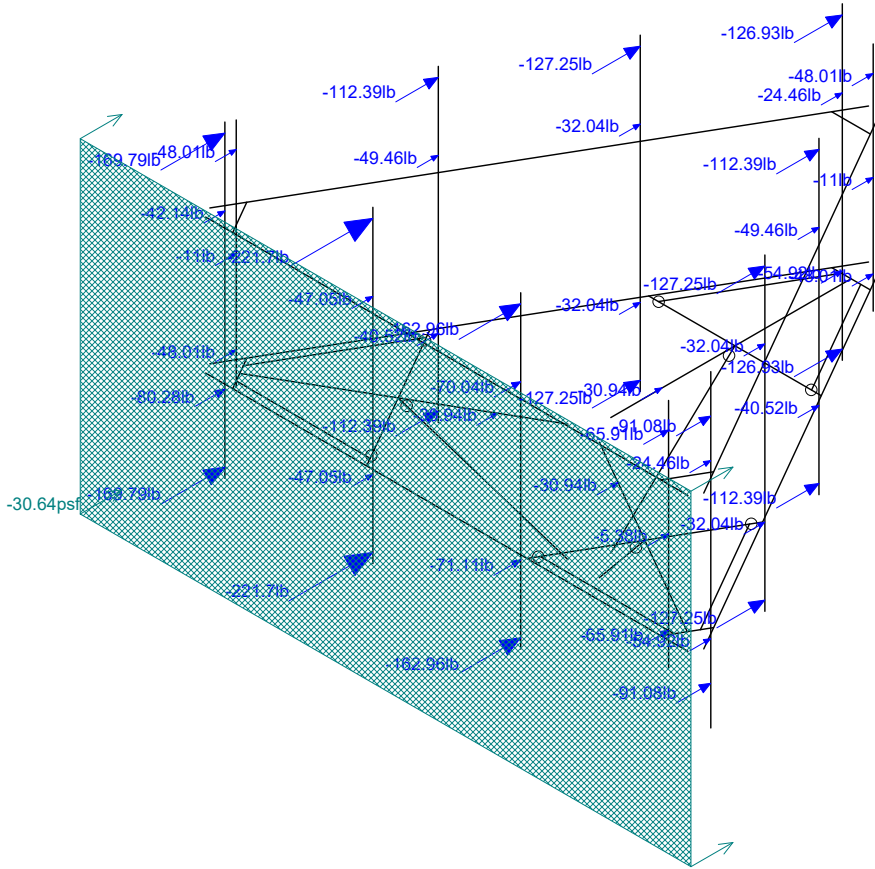
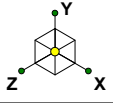


Loads: BLC 1, Self Weight
Envelope Only Solution

Infinigy Engineering, PLLC
BDA
499-006

CTL01127

Existing Configuration
July 13, 2018 at 9:22 AM
Existing_CTL01127.r3d



Loads: BLC 2, Wind Load AZI 000
Envelope Only Solution

Infinigy Engineering, PLLC

BDA

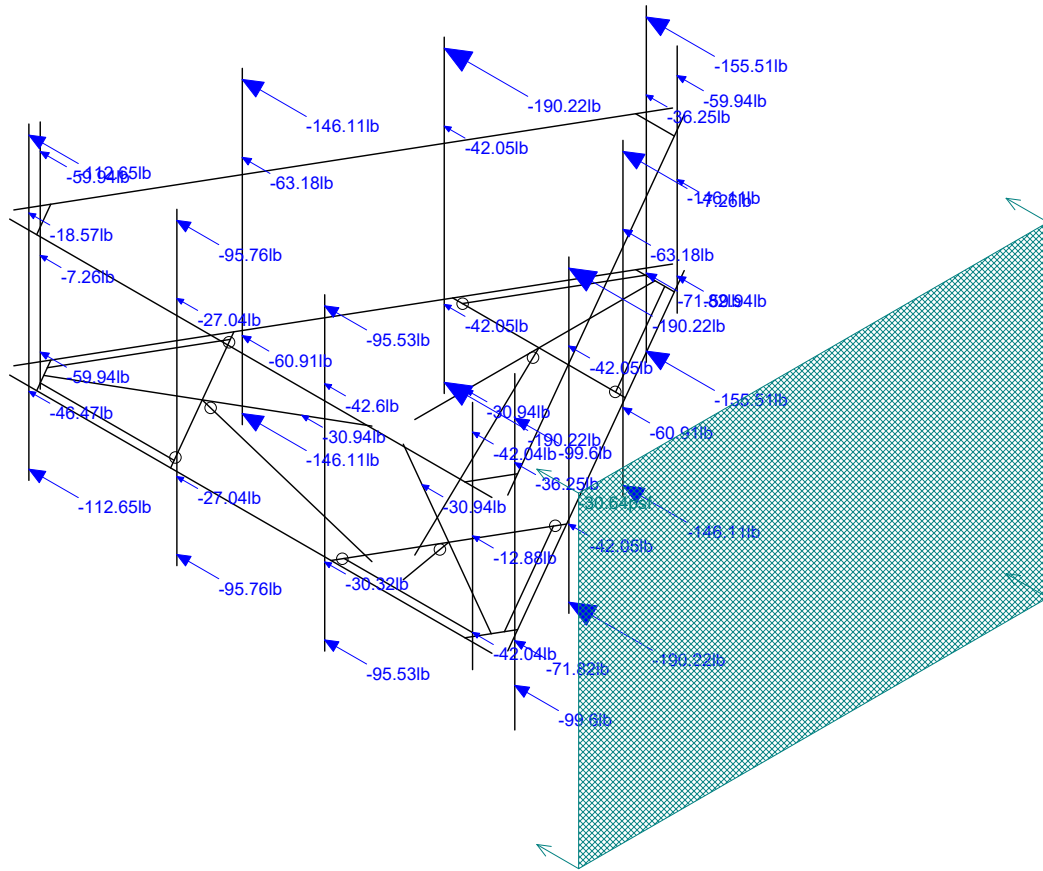
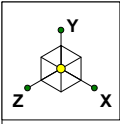
499-006

CTL01127

Existing Configuration

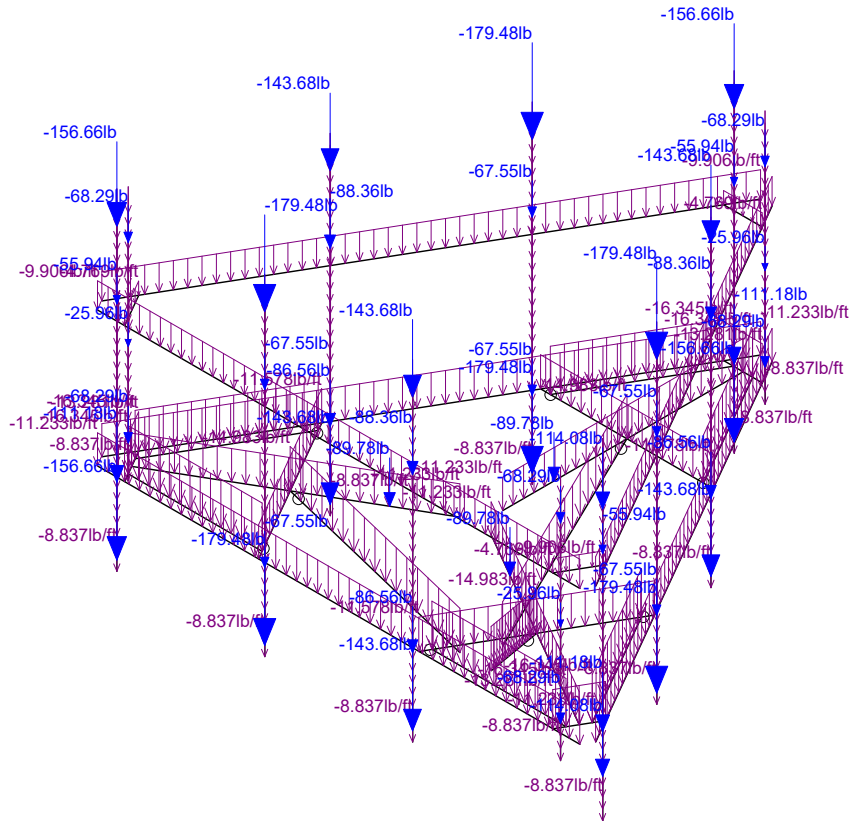
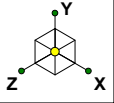
July 13, 2018 at 9:22 AM

Existing_CTL01127.r3d



Loads: BLC 3, Wind Load AZI 090
Envelope Only Solution

Infinigy Engineering, PLLC	CTL01127	Existing Configuration
BDA		July 13, 2018 at 9:22 AM
499-006		Existing_CTL01127.r3d



Loads: BLC 4, Ice Weight
Envelope Only Solution

Infinigy Engineering, PLLC

BDA

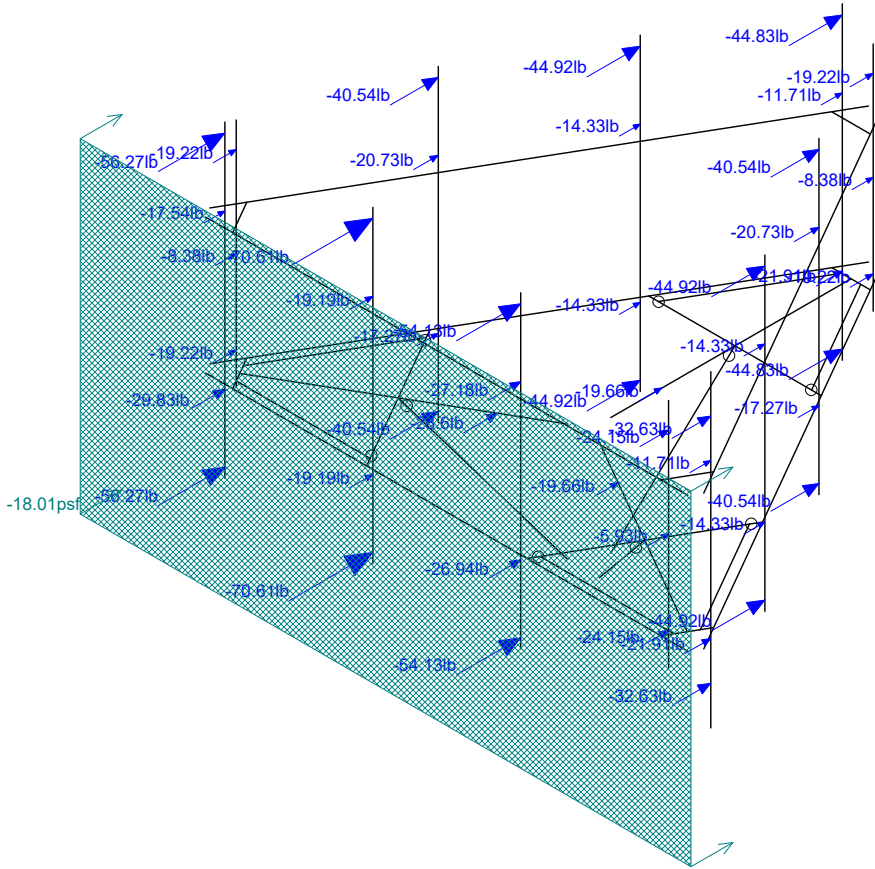
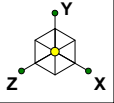
499-006

CTL01127

Existing Configuration

July 13, 2018 at 9:23 AM

Existing_CTL01127.r3d



Loads: BLC 5, Wind + Ice Load AZI 000
Envelope Only Solution

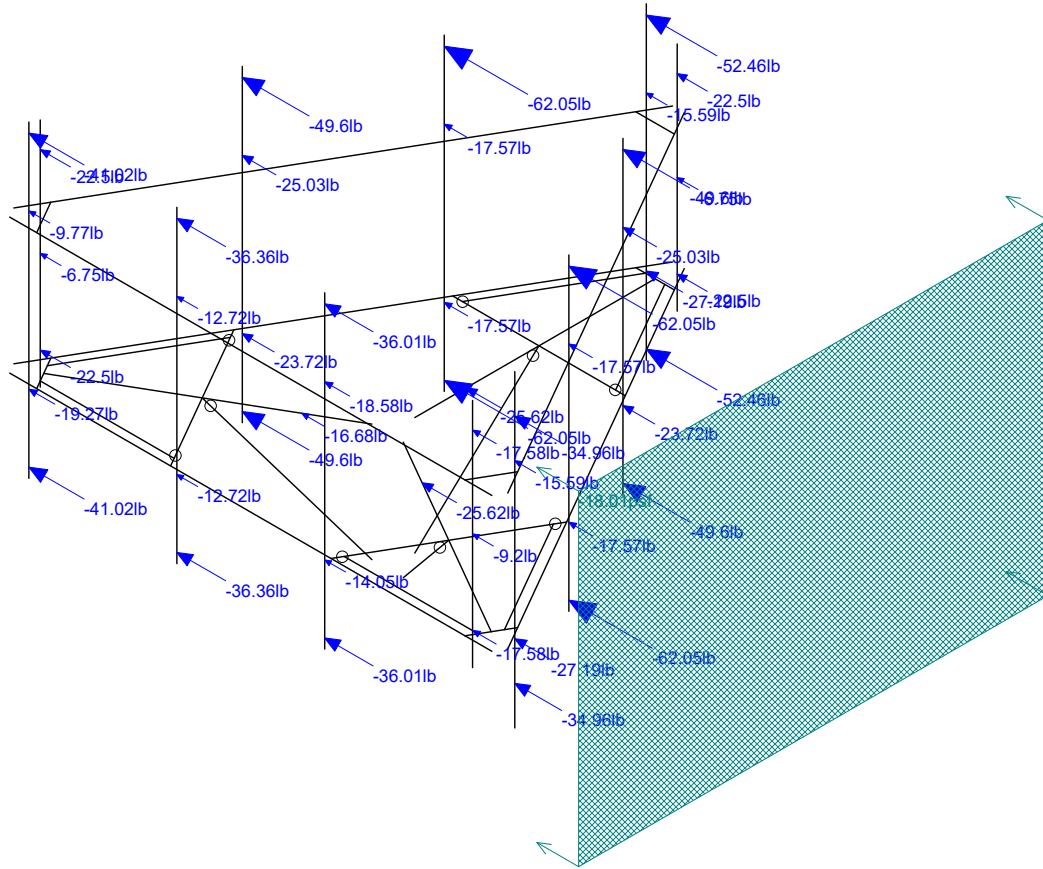
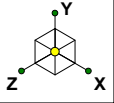
Infinigy Engineering, PLLC
BDA
499-006

CTL01127

Existing Configuration

July 13, 2018 at 9:23 AM

Existing_CTL01127.r3d



Loads: BLC 6, Wind + Ice Load AZI 090
Envelope Only Solution

Infinigy Engineering, PLLC

BDA

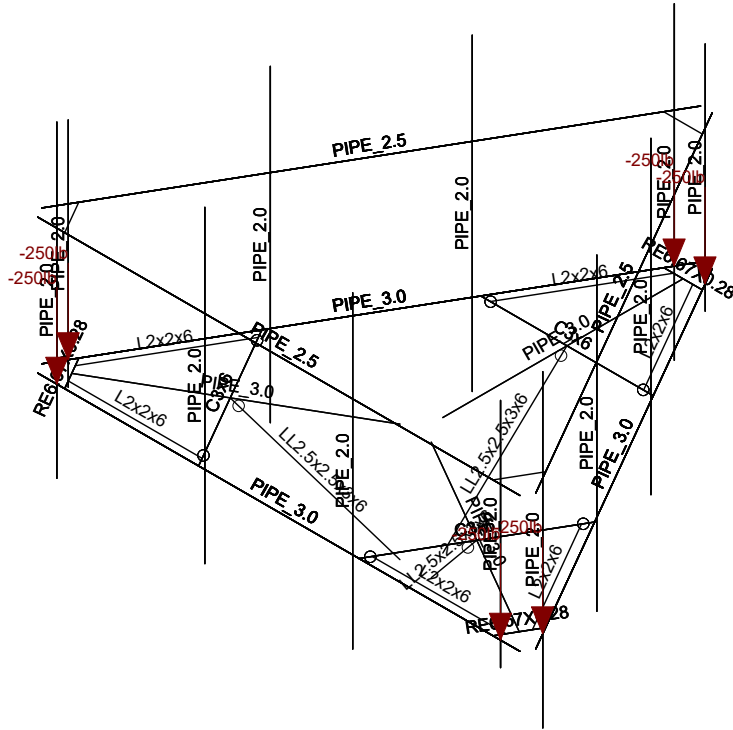
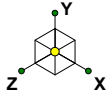
499-006

CTL01127

Existing Configuration

July 13, 2018 at 9:23 AM

Existing_CTL01127.r3d



Loads: BLC 7, Service Live 1
Envelope Only Solution

Infinigy Engineering, PLLC

BDA

499-006

CTL01127

Existing Configuration

July 5, 2018 at 11:08 AM

Existing_CTL01127.r3d

Site Name: CTL01127
 Client: Smartlink
 Carrier: AT&T
 Engineer: BDA
 Date: 7/13/2018



INFINIGY WIND LOAD CALCULATOR 3.0.2

Site Information Inputs:

Adopted Building Code: 2012 IBC
 Structure Load Standard: TIA-222-G
 Antenna Load Standard: TIA-222-G
 Structure Risk Category: II
 Structure Type: Mount - Platform
 Number of Sectors: 3
 Structure Shape 1: Round

Rooftop Inputs:

Rooftop Wind Speed-Up?: No

Wind Loading Inputs:

Design Wind Velocity: 97 mph (nominal 3-second gust)
 Wind Centerline 1 (z_1): 155.0 ft
 Side Face Angle (θ): 60 degrees
 Exposure Category: B
 Topographic Category: 1

Wind with No Ice		
q_z (psf)	Gh	F_{ST} (psf)
25.54	1.00	30.64

Wind with Ice		
q_z (psf)	Gh	F_{ST} (psf)
6.81	1.00	18.01

Ice Loading Inputs:

Is Ice Loading Needed?: Yes
 Ice Wind Velocity: 50 mph (nominal 3-second gust)
 Base Ice Thickness: 0.75 in

Input Appurtenance Information and Load Placements:

Appurtenance Name	Elevation (ft)	Total Quantity	K_a	Front Shape	Side Shape	q_z (psf)	EPA (ft^2)	Fz (lbs)	Fx (lbs)	Fz(60) (lbs)	Fx(30) (lbs)
Kathrein 800-10121	155.0	3	1.00	Flat	Flat	25.54	5.16	131.81	84.09	96.02	119.88
CCI OPA-65R-LCUU-H8	155.0	3	1.00	Flat	Flat	25.54	12.76	325.93	191.07	224.78	292.21
Kathrein 800-10966	155.0	3	1.00	Flat	Flat	25.54	17.36	443.40	191.53	254.50	380.43
CCI TPA-65R-LCUUUU-H8	155.0	2	1.00	Flat	Flat	25.54	13.30	339.59	225.30	253.87	311.02
Quintel QS66512-2	155.0	1	1.00	Flat	Flat	25.54	8.13	207.70	173.65	182.17	199.19
Ericsson RRUS-11	155.0	3	1.00	Flat	Flat	25.54	2.78	71.11	30.32	40.52	60.91
Ericsson RRUS-32	155.0	3	1.00	Flat	Flat	25.54	2.74	70.04	42.60	49.46	63.18
Ericsson RRUS-B14 4478	155.0	3	1.00	Flat	Flat	25.54	1.84	47.05	27.04	32.04	42.05
Ericsson RRUS-B5 4478	155.0	3	1.00	Flat	Flat	25.54	1.84	47.05	27.04	32.04	42.05
Ericsson RRUS-12 w/ A2	155.0	3	1.00	Flat	Flat	25.54	3.14	80.28	46.47	54.92	71.82
Ericsson RRUS-B66 4426	155.0	3	1.00	Flat	Flat	25.54	1.65	42.14	18.57	24.46	36.25
Powerwave LGP 21401	155.0	6	1.00	Flat	Flat	25.54	0.11	2.69	6.44	5.50	3.63
Raycap DC6-48-60-18-8F	155.0	3	1.00	Round	Round	25.54	1.21	30.94	30.94	30.94	30.94

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Rul...
1	M1	N1	N2			3" STD Pipe	Beam	None	A53 Gr.B	Typical
2	M2	N7	N6			6"x1/4" Plate	Beam	None	A36 Gr.36	Typical
3	M3	N4	N9			3" STD Pipe	Beam	None	A53 Gr.B	Typical
4	M4	N14	N13			6"x1/4" Plate	Beam	None	A36 Gr.36	Typical
5	M5	N5	N16			3" STD Pipe	Beam	None	A53 Gr.B	Typical
6	M6	N21	N20			6"x1/4" Plate	Beam	None	A36 Gr.36	Typical
7	M7	N14A	N15			3" STD Pipe	Beam	None	A53 Gr.B	Typical
8	M8	N17	N18			3" STD Pipe	Beam	None	A53 Gr.B	Typical
9	M9	N20A	N21A			3" STD Pipe	Beam	None	A53 Gr.B	Typical
10	M10	N20B	N21B			Handrail	Beam	None	A53 Gr.B	Typical
11	M11	N22	N23			Handrail	Beam	None	A53 Gr.B	Typical
12	M12	N24	N25			Handrail	Beam	None	A53 Gr.B	Typical
13	M13	N30A	N29		180	C3x6	Beam	None	A53 Gr.B	Typical
14	M14	N33	N32		180	C3x6	Beam	None	A53 Gr.B	Typical
15	M15	N36	N35		180	C3x6	Beam	None	A53 Gr.B	Typical
16	M16	N36A	N35A			RIGID	None	None	RIGID	Typical
17	M17	N38	N37			RIGID	None	None	RIGID	Typical
18	M18	N40	N39			RIGID	None	None	RIGID	Typical
19	M19	N41	N42			L2"x2"x3/8"	Beam	None	A36 Gr.36	Typical
20	M20	N43	N44		270	L2"x2"x3/8"	Beam	None	A36 Gr.36	Typical
21	M21	N46	N47			L2"x2"x3/8"	Beam	None	A36 Gr.36	Typical
22	M22	N48	N49		270	L2"x2"x3/8"	Beam	None	A36 Gr.36	Typical
23	M23	N51	N52			L2"x2"x3/8"	Beam	None	A36 Gr.36	Typical
24	M24	N53	N54		270	L2"x2"x3/8"	Beam	None	A36 Gr.36	Typical
25	MP1	N66	N62			Mount Pipe	Beam	None	A53 Gr.B	Typical
26	MP2	N68	N64			Mount Pipe	Beam	None	A53 Gr.B	Typical
27	MP3	N67	N63			Mount Pipe	Beam	None	A53 Gr.B	Typical
28	MP4	N65	N61			Mount Pipe	Beam	None	A53 Gr.B	Typical
29	MP9	N75	N71			Mount Pipe	Beam	None	A53 Gr.B	Typical
30	MP10	N77	N73			Mount Pipe	Beam	None	A53 Gr.B	Typical
31	MP11	N76	N72			Mount Pipe	Beam	None	A53 Gr.B	Typical
32	MP12	N74	N70			Mount Pipe	Beam	None	A53 Gr.B	Typical
33	MP5	N84	N80			Mount Pipe	Beam	None	A53 Gr.B	Typical
34	MP6	N86	N82			Mount Pipe	Beam	None	A53 Gr.B	Typical
35	MP7	N85	N81			Mount Pipe	Beam	None	A53 Gr.B	Typical
36	MP8	N83	N79			Mount Pipe	Beam	None	A53 Gr.B	Typical
37	M37	N28	N101			LL2.5"x2.5"x3/16"x3/8"	Beam	None	A36 Gr.36	Typical
38	M38	N26	N103			LL2.5"x2.5"x3/16"x3/8"	Beam	None	A36 Gr.36	Typical
39	M39	N30	N102			LL2.5"x2.5"x3/16"x3/8"	Beam	None	A36 Gr.36	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		3	36	0
3	Total General		3	36	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	L2x2x6	6	250.1	0
7	A36 Gr.36	LL2.5x2.5x3x6	3	159.5	0
8	A36 Gr.36	RE6.67X0.28	3	36	0
9	A53 Gr.B	C3x6	3	161.1	0
10	A53 Gr.B	PIPE 2.0	12	1080	.3
11	A53 Gr.B	PIPE 2.5	3	450	.2
12	A53 Gr.B	PIPE 3.0	6	674.2	.4

Material Takeoff (Continued)

	Material	Size	Pieces	Length[in]	Weight[K]
13	Total HR Steel		36	2810.9	1.2

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(...
1	Self Weight	DL		-1			48		
2	Wind Load AZI 000	WLZ					48	1	
3	Wind Load AZI 090	WLX					48	1	
4	Ice Weight	OL1					48	39	
5	Wind + Ice Load AZI 000	OL2					48	1	
6	Wind + Ice Load AZI 090	OL3					48	1	
7	Service Live 1	LL				6			
8	BLC 2 Transient Area Loads	None						38	
9	BLC 3 Transient Area Loads	None						32	
10	BLC 5 Transient Area Loads	None						38	
11	BLC 6 Transient Area Loads	None						32	

Load Combinations

	Description	S...P...	S...B...Fa...	BLC	Fac...	BLC Fa...	B...F...	B...F...	B...F...	B...F...	B...F...	B...F...	B...F...	B...F...
1	1.4D	Y...Y	DL 1.4											
2	1.2D + 1.6W AZI 000	Y...Y	DL 1.2 WLZ 1.6											
3	1.2D + 1.6W AZI 030	Y...Y	DL 1.2 WLZ 1.3...W... .8											
4	1.2D + 1.6W AZI 060	Y...Y	DL 1.2 WLZ .8 W... 1.3...											
5	1.2D + 1.6W AZI 090	Y...Y	DL 1.2 W... 1.6											
6	1.2D + 1.6W AZI 120	Y...Y	DL 1.2 WLZ -.8 W... 1.3...											
7	1.2D + 1.6W AZI 150	Y...Y	DL 1.2 WLZ -1.3...W... .8											
8	1.2D + 1.6W AZI 180	Y...Y	DL 1.2 WLZ -1.6											
9	1.2D + 1.6W AZI 210	Y...Y	DL 1.2 WLZ -1.3...W... -.8											
10	1.2D + 1.6W AZI 240	Y...Y	DL 1.2 WLZ -.8 W... -1...											
11	1.2D + 1.6W AZI 270	Y...Y	DL 1.2 W... -1.6											
12	1.2D + 1.6W AZI 300	Y...Y	DL 1.2 WLZ .8 W... -1...											
13	1.2D + 1.6W AZI 330	Y...Y	DL 1.2 WLZ 1.3...W... -.8											
14	0.9D + 1.6W AZI 000	Y...Y	DL .9 WLZ 1.6											
15	0.9D + 1.6W AZI 030	Y...Y	DL .9 WLZ 1.3...W... .8											
16	0.9D + 1.6W AZI 060	Y...Y	DL .9 WLZ .8 W... 1.3...											
17	0.9D + 1.6W AZI 090	Y...Y	DL .9 W... 1.6											
18	0.9D + 1.6W AZI 120	Y...Y	DL .9 WLZ -.8 W... 1.3...											
19	0.9D + 1.6W AZI 150	Y...Y	DL .9 WLZ -1.3...W... .8											
20	0.9D + 1.6W AZI 180	Y...Y	DL .9 WLZ -1.6											
21	0.9D + 1.6W AZI 210	Y...Y	DL .9 WLZ -1.3...W... -.8											
22	0.9D + 1.6W AZI 240	Y...Y	DL .9 WLZ -.8 W... -1...											
23	0.9D + 1.6W AZI 270	Y...Y	DL .9 W... -1.6											
24	0.9D + 1.6W AZI 300	Y...Y	DL .9 WLZ .8 W... -1...											
25	0.9D + 1.6W AZI 330	Y...Y	DL .9 WLZ 1.3...W... -.8											
26	1.2D + 1.0Di	Y...Y	DL 1.2 OL1 1											
27	1.2D + 1.0Di + 1.0Wi AZI 000	Y...Y	DL 1.2 OL1 1 OL2 1											
28	1.2D + 1.0Di + 1.0Wi AZI 030	Y...Y	DL 1.2 OL1 1 OL2 .866... .5											
29	1.2D + 1.0Di + 1.0Wi AZI 060	Y...Y	DL 1.2 OL1 1 OL2 .5 ... .8...											
30	1.2D + 1.0Di + 1.0Wi AZI 090	Y...Y	DL 1.2 OL1 1 ... 1											
31	1.2D + 1.0Di + 1.0Wi AZI 120	Y...Y	DL 1.2 OL1 1 OL2 -.5 ... .8...											
32	1.2D + 1.0Di + 1.0Wi AZI 150	Y...Y	DL 1.2 OL1 1 OL2 -.866... .5											
33	1.2D + 1.0Di + 1.0Wi AZI 180	Y...Y	DL 1.2 OL1 1 OL2 -1											
34	1.2D + 1.0Di + 1.0Wi AZI 210	Y...Y	DL 1.2 OL1 1 OL2 -.866... -.5											
35	1.2D + 1.0Di + 1.0Wi AZI 240	Y...Y	DL 1.2 OL1 1 OL2 -.5 ... -....											
36	1.2D + 1.0Di + 1.0Wi AZI 270	Y...Y	DL 1.2 OL1 1 ... -1											

Load Combinations (Continued)

	Description	S...	P...	S...B...	Fa...	BLC	Fac...	BLC	Fa...	B...	F...	B...	F...	B...	F...	B...	F...	B...	F...
37	1.2D + 1.0Di + 1.0Wi AZI 300	Y...	Y	DL	1.2	OL1	1	OL2	.5	...	-...								
38	1.2D + 1.0Di + 1.0Wi AZI 330	Y...	Y	DL	1.2	OL1	1	OL2	.866	...	-.5								
39	1.2D + 1.5L + 1.0WL (30 mph) AZI 000	Y...	Y	DL	1.2	LL	1.5	WLZ	.111										
40	1.2D + 1.5L + 1.0WL (30 mph) AZI 030	Y...	Y	DL	1.2	LL	1.5	WLZ	.096	...	.0...								
41	1.2D + 1.5L + 1.0WL (30 mph) AZI 060	Y...	Y	DL	1.2	LL	1.5	WLZ	.056	...	.0...								
42	1.2D + 1.5L + 1.0WL (30 mph) AZI 090	Y...	Y	DL	1.2	LL	1.5			...	.1...								
43	1.2D + 1.5L + 1.0WL (30 mph) AZI 120	Y...	Y	DL	1.2	LL	1.5	WLZ	-.056	...	.0...								
44	1.2D + 1.5L + 1.0WL (30 mph) AZI 150	Y...	Y	DL	1.2	LL	1.5	WLZ	-.096	...	.0...								
45	1.2D + 1.5L + 1.0WL (30 mph) AZI 180	Y...	Y	DL	1.2	LL	1.5	WLZ	-.111										
46	1.2D + 1.5L + 1.0WL (30 mph) AZI 210	Y...	Y	DL	1.2	LL	1.5	WLZ	-.096	...	-...								
47	1.2D + 1.5L + 1.0WL (30 mph) AZI 240	Y...	Y	DL	1.2	LL	1.5	WLZ	-.056	...	-...								
48	1.2D + 1.5L + 1.0WL (30 mph) AZI 270	Y...	Y	DL	1.2	LL	1.5			...	-...								
49	1.2D + 1.5L + 1.0WL (30 mph) AZI 300	Y...	Y	DL	1.2	LL	1.5	WLZ	.056	...	-...								
50	1.2D + 1.5L + 1.0WL (30 mph) AZI 330	Y...	Y	DL	1.2	LL	1.5	WLZ	.096	...	-...								

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N101	max	1295.681	24	5221.888	31	2738.554	31	0	1	0	1	0	1
2		min	-4735.979	31	-1423.99	24	-742.26	24	0	1	0	1	0	1
3	N103	max	20.379	18	5225.802	27	1516.691	20	0	1	0	1	0	1
4		min	-20.286	22	-1449.99	20	-5473.415	27	0	1	0	1	0	1
5	N102	max	4652.9	35	5130.633	35	2688.934	35	0	1	0	1	0	1
6		min	-1231.602	16	-1355.207	16	-707.655	16	0	1	0	1	0	1
7	N1	max	7033.433	6	603.69	24	3435.47	24	622.597	4	2171.377	14	847.301	7
8		min	-4826.501	24	-964.898	6	-4752.3	6	-460.011	22	-2153.499	20	-537.917	25
9	N4	max	4879.492	16	583.279	16	3181.869	16	664.621	12	1113.947	21	509.28	15
10		min	-7240.001	10	-990.288	10	-4570.132	10	-447.334	18	-1130.251	15	-838.42	9
11	N5	max	1555.283	5	607.573	20	8556.084	2	559.116	20	3199.872	23	503.136	23
12		min	-1555.273	11	-971.572	2	-5970.298	20	-902.827	2	-3199.647	17	-511.695	5
13	Totals:	max	7938.372	17	11664.183	27	8121.8	14						
14		min	-7938.372	23	3101.062	20	-8121.8	8						

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

Member	Shape	Code Check	Loc[in]	LC	Shear Che...	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*P...	phi*M...	phi*M.....	Eqn	
1	M4	RE6.67X...	.981	6	5	.315	6	y	9	43366.053	60510...	352.9...	7871....	1 H1-1b
2	M6	RE6.67X...	.975	6	8	.328	6	y	13	43366.053	60510...	352.9...	7871....	1 H1-1b
3	M2	RE6.67X...	.957	6	13	.323	6	y	7	43366.053	60510...	352.9...	7871....	1 H1-1b
4	M14	C3x6	.802	26.842	32	.485	2.796	y	33	23334.107	55440	1100....	4567.5 ...	H1-1b
5	M13	C3x6	.798	26.842	38	.485	2.796	y	29	23334.107	55440	1100....	4567.5 ...	H1-1b
6	M15	C3x6	.782	26.842	34	.475	2.796	y	37	23334.107	55440	1100....	4567.5 ...	H1-1b
7	MP7	PIPE 2.0	.684	26	7	.106	26		8	24456.386	32130	1871....	1871....	1 H1-1b
8	MP6	PIPE 2.0	.663	26	13	.120	26		12	24456.386	32130	1871....	1871....	1 H1-1b
9	MP11	PIPE 2.0	.660	26	3	.119	26		4	24456.386	32130	1871....	1871....	1 H1-1b
10	MP10	PIPE 2.0	.642	26	9	.089	26		8	24456.386	32130	1871....	1871....	1 H1-1b
11	MP3	PIPE 2.0	.613	26	11	.096	26		9	24456.386	32130	1871....	1871....	1 H1-1b
12	MP2	PIPE 2.0	.592	26	5	.103	26		7	24456.386	32130	1871....	1871....	1 H1-1b
13	M5	PIPE 3.0	.569	0	5	.180	0		5	52975.118	65205	5748....	5748....	H1-1b
14	M3	PIPE 3.0	.475	38.154	10	.139	74.75		13	52975.118	65205	5748....	5748....	H1-1b
15	M1	PIPE 3.0	.468	38.154	6	.155	0		8	52975.106	65205	5748....	5748....	H1-1b
16	M10	PIPE 2.5	.421	140.625	2	.314	7.812		10	14558.85	50715	3596....	3596....	H1-1b
17	M24	L2x2x6	.402	0	19	.052	41.685	z	29	24023.283	44388	924.95	2141....	H2-1
18	M22	L2x2x6	.401	0	15	.052	41.685	z	37	24023.283	44388	924.95	2141....	H2-1
19	M12	PIPE 2.5	.400	9.375	3	.229	9.375		6	14558.85	50715	3596....	3596....	H1-1b
20	M20	L2x2x6	.396	0	23	.051	41.685	z	33	24023.283	44388	924.95	2141....	H2-1

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

Member	Shape	Code Check	Loc[in]	LC	Shear Che...	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*P...	phi*M...	phi*M...	Eqn
21	M11	PIPE_2.5	.387	9.375	11	.341	7.812		2	14558.85	50715	3596....	H1-1b
22	MP8	PIPE_2.0	.367	26	6	.131	26		5	24456.386	32130	1871....	H1-1b
23	M23	L2x2x6	.361	0	17	.053	41.685	y	33	24023.283	44388	924.95	H2-1
24	M21	L2x2x6	.357	0	25	.053	41.685	y	29	24023.283	44388	924.95	H2-1
25	M19	L2x2x6	.354	0	21	.052	41.685	y	37	24023.283	44388	924.95	H2-1
26	MP9	PIPE_2.0	.353	7.5	10	.140	7.5		11	24456.386	32130	1871....	H1-1b
27	MP5	PIPE_2.0	.346	7.5	2	.134	7.5		3	24456.386	32130	1871....	H1-1b
28	MP12	PIPE_2.0	.339	26	3	.119	26		13	24456.386	32130	1871....	H1-1b
29	MP4	PIPE_2.0	.331	26	11	.127	26		9	24456.386	32130	1871....	H1-1b
30	MP1	PIPE_2.0	.313	7.5	6	.128	7.5		7	24456.386	32130	1871....	H1-1b
31	M8	PIPE_3.0	.224	96.875	11	.126	7.812		8	28250.649	65205	5748....	H1-1b
32	M7	PIPE_3.0	.206	96.875	7	.109	7.812		4	28250.649	65205	5748....	H1-1b
33	M9	PIPE_3.0	.205	96.875	3	.096	143.75		6	28250.649	65205	5748....	H1-1b
34	M38	LL2.5x2...	.177	53.161	27	.002	53.161	y	27	42740.943	58320	4643....	H1-1...
35	M37	LL2.5x2...	.177	53.161	31	.002	0	y	31	42740.942	58320	4643....	H1-1...
36	M39	LL2.5x2...	.174	53.161	35	.002	0	y	35	42740.943	58320	4643....	H1-1...

Hot Rolled Steel Section Sets

Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]	
1	3" STD Pipe	PIPE_3.0	Beam	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	6"x1/4" Plate	RE6.67X0.28	Beam	None	A36 Gr.36	Typical	1.868	.012	6.924	.048
3	Mount Pipe	PIPE_2.0	Beam	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
4	L2"x2"x3/8"	L2x2x6	Beam	None	A36 Gr.36	Typical	1.37	.476	.476	.066
5	LL2.5"x2.5"x3/16"...	LL2.5x2.5x3x6	Beam	None	A36 Gr.36	Typical	1.8	3.09	1.07	.023
6	C3x6	C3x6	Beam	None	A53 Gr.B	Typical	1.76	.3	2.07	.072
7	Handrail	PIPE_2.5	Beam	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89

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	N101	Reaction	Reaction	Reaction		
2	N103	Reaction	Reaction	Reaction		
3	N102	Reaction	Reaction	Reaction		
4	N1	Reaction	Reaction	Reaction	Reaction	Reaction
5	N4	Reaction	Reaction	Reaction	Reaction	Reaction
6	N5	Reaction	Reaction	Reaction	Reaction	Reaction

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	BenPIN	BenPIN			Yes			None
14	M14	BenPIN	BenPIN			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...
15	M15	BenPIN	BenPIN				Yes				None
16	M16						Yes	** NA **			None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M19						Yes				None
20	M20						Yes				None
21	M21						Yes				None
22	M22						Yes				None
23	M23						Yes				None
24	M24						Yes				None
25	MP1						Yes				None
26	MP2						Yes				None
27	MP3						Yes				None
28	MP4						Yes				None
29	MP9						Yes				None
30	MP10						Yes				None
31	MP11						Yes				None
32	MP12						Yes				None
33	MP5						Yes				None
34	MP6						Yes				None
35	MP7						Yes				None
36	MP8						Yes				None
37	M37	BenPIN					Yes				None
38	M38	BenPIN					Yes				None
39	M39	BenPIN					Yes				None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torq...	Kyy	Kzz	Cb	Function
1	M1	3" STD Pipe	74.75			Lbyy						Lateral
2	M2	6"x1/4" Plate	12	4	4	4	4	4				Lateral
3	M3	3" STD Pipe	74.75			Lbyy						Lateral
4	M4	6"x1/4" Plate	12	4	4	4	4	4				Lateral
5	M5	3" STD Pipe	74.75			Lbyy						Lateral
6	M6	6"x1/4" Plate	12	4	4	4	4	4				Lateral
7	M7	3" STD Pipe	150			Lbyy						Lateral
8	M8	3" STD Pipe	150			Lbyy						Lateral
9	M9	3" STD Pipe	150			Lbyy						Lateral
10	M10	Handrail	150			Lbyy						Lateral
11	M11	Handrail	150			Lbyy						Lateral
12	M12	Handrail	150			Lbyy						Lateral
13	M13	C3x6	53.685			Lbyy						Lateral
14	M14	C3x6	53.685			Lbyy						Lateral
15	M15	C3x6	53.685			Lbyy						Lateral
16	M19	L2"x2"x3/8"	41.685			Lbyy						Lateral
17	M20	L2"x2"x3/8"	41.685			Lbyy						Lateral
18	M21	L2"x2"x3/8"	41.685			Lbyy						Lateral
19	M22	L2"x2"x3/8"	41.685			Lbyy						Lateral
20	M23	L2"x2"x3/8"	41.685			Lbyy						Lateral
21	M24	L2"x2"x3/8"	41.685			Lbyy						Lateral
22	MP1	Mount Pipe	72	57.25	57.25	57.25	57.25	57.25				Lateral
23	MP2	Mount Pipe	96	57.25	57.25	57.25	57.25	57.25				Lateral
24	MP3	Mount Pipe	96	57.25	57.25	57.25	57.25	57.25				Lateral
25	MP4	Mount Pipe	96	57.25	57.25	57.25	57.25	57.25				Lateral
26	MP9	Mount Pipe	72	57.25	57.25	57.25	57.25	57.25				Lateral
27	MP10	Mount Pipe	96	57.25	57.25	57.25	57.25	57.25				Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torg...	Kyy	Kzz	Cb	Function
28	MP11	Mount Pipe	96	57.25	57.25	57.25	57.25	57.25				Lateral
29	MP12	Mount Pipe	96	57.25	57.25	57.25	57.25	57.25				Lateral
30	MP5	Mount Pipe	72	57.25	57.25	57.25	57.25	57.25				Lateral
31	MP6	Mount Pipe	96	57.25	57.25	57.25	57.25	57.25				Lateral
32	MP7	Mount Pipe	96	57.25	57.25	57.25	57.25	57.25				Lateral
33	MP8	Mount Pipe	96	57.25	57.25	57.25	57.25	57.25				Lateral
34	M37	LL2.5"x2.5"...	53.161			Lbyy						Lateral
35	M38	LL2.5"x2.5"...	53.161			Lbyy						Lateral
36	M39	LL2.5"x2.5"...	53.161			Lbyy						Lateral

Joint Loads and Enforced Displacements (BLC 7 : Service Live 1)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^...
1	N53A	L	Y	-250
2	N85A	L	Y	-250
3	N88	L	Y	-250
4	N89	L	Y	-250
5	N92	L	Y	-250
6	N55	L	Y	-250

Member Point Loads (BLC 1 : Self Weight)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	Y	-23.15	10
2	MP2	Y	-41.75	3
3	MP3	Y	-57.3	3
4	MP4	Y	-45.7	3
5	MP2	Y	-50.71	24
6	MP2	Y	-60	72
7	MP3	Y	-59.9	24
8	MP3	Y	-59.9	72
9	MP4	Y	-80	24
10	MP4	Y	-48.5	72
11	MP1	Y	-12	36
12	M1	Y	-32.8	16
13	MP1	Y	-23.15	64
14	MP2	Y	-41.75	93
15	MP3	Y	-57.3	93
16	MP4	Y	-45.7	93
17	MP5	Y	-23.15	10
18	MP6	Y	-41.75	3
19	MP7	Y	-57.3	3
20	MP8	Y	-45.7	3
21	MP6	Y	-50.71	24
22	MP6	Y	-60	72
23	MP7	Y	-59.9	24
24	MP7	Y	-59.9	72
25	MP8	Y	-80	24
26	MP8	Y	-48.5	72
27	MP5	Y	-12	36
28	M3	Y	-32.8	16
29	MP5	Y	-23.15	64
30	MP6	Y	-41.75	93
31	MP7	Y	-57.3	93
32	MP8	Y	-45.7	93
33	MP9	Y	-23.15	10

Member Point Loads (BLC 1 : Self Weight) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
34	MP10	Y	-41.75	3
35	MP11	Y	-57.3	3
36	MP12	Y	-63.3	12
37	MP10	Y	-50.71	24
38	MP10	Y	-60	72
39	MP11	Y	-59.9	24
40	MP11	Y	-59.9	72
41	MP12	Y	-80	24
42	MP12	Y	-48.5	72
43	MP9	Y	-12	36
44	M5	Y	-32.8	16
45	MP9	Y	-23.15	64
46	MP10	Y	-41.75	93
47	MP11	Y	-57.3	93
48	MP12	Y	-63.3	84

Member Point Loads (BLC 2 : Wind Load AZI 000)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	Z	-65.91	10
2	MP2	Z	-162.96	3
3	MP3	Z	-221.7	3
4	MP4	Z	-169.79	3
5	MP2	Z	-71.11	24
6	MP2	Z	-70.04	72
7	MP3	Z	-47.05	24
8	MP3	Z	-47.05	72
9	MP4	Z	-80.28	24
10	MP4	Z	-42.14	72
11	MP1	Z	-5.38	36
12	M1	Z	-30.94	16
13	MP1	Z	-65.91	64
14	MP2	Z	-162.96	93
15	MP3	Z	-221.7	93
16	MP4	Z	-169.79	93
17	MP5	Z	-48.01	10
18	MP6	Z	-112.39	3
19	MP7	Z	-127.25	3
20	MP8	Z	-126.93	3
21	MP6	Z	-40.52	24
22	MP6	Z	-49.46	72
23	MP7	Z	-32.04	24
24	MP7	Z	-32.04	72
25	MP8	Z	-54.92	24
26	MP8	Z	-24.46	72
27	MP5	Z	-11	36
28	M3	Z	-30.94	16
29	MP5	Z	-48.01	64
30	MP6	Z	-112.39	93
31	MP7	Z	-127.25	93
32	MP8	Z	-126.93	93
33	MP9	Z	-48.01	10
34	MP10	Z	-112.39	3
35	MP11	Z	-127.25	3
36	MP12	Z	-91.08	12
37	MP10	Z	-40.52	24
38	MP10	Z	-49.46	72

Member Point Loads (BLC 2 : Wind Load AZI 000) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
39	MP11	Z	-32.04	24
40	MP11	Z	-32.04	72
41	MP12	Z	-54.92	24
42	MP12	Z	-24.46	72
43	MP9	Z	-11	36
44	M5	Z	-30.94	16
45	MP9	Z	-48.01	64
46	MP10	Z	-112.39	93
47	MP11	Z	-127.25	93
48	MP12	Z	-91.08	84

Member Point Loads (BLC 3 : Wind Load AZI 090)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	-42.04	10
2	MP2	X	-95.53	3
3	MP3	X	-95.76	3
4	MP4	X	-112.65	3
5	MP2	X	-30.32	24
6	MP2	X	-42.6	72
7	MP3	X	-27.04	24
8	MP3	X	-27.04	72
9	MP4	X	-46.47	24
10	MP4	X	-18.57	72
11	MP1	X	-12.88	36
12	M1	X	-30.94	16
13	MP1	X	-42.04	64
14	MP2	X	-95.53	93
15	MP3	X	-95.76	93
16	MP4	X	-112.65	93
17	MP5	X	-59.94	10
18	MP6	X	-146.11	3
19	MP7	X	-190.22	3
20	MP8	X	-155.51	3
21	MP6	X	-60.91	24
22	MP6	X	-63.18	72
23	MP7	X	-42.05	24
24	MP7	X	-42.05	72
25	MP8	X	-71.82	24
26	MP8	X	-36.25	72
27	MP5	X	-7.26	36
28	M3	X	-30.94	16
29	MP5	X	-59.94	64
30	MP6	X	-146.11	93
31	MP7	X	-190.22	93
32	MP8	X	-155.51	93
33	MP9	X	-59.94	10
34	MP10	X	-146.11	3
35	MP11	X	-190.22	3
36	MP12	X	-99.6	12
37	MP10	X	-60.91	24
38	MP10	X	-63.18	72
39	MP11	X	-42.05	24
40	MP11	X	-42.05	72
41	MP12	X	-71.82	24
42	MP12	X	-36.25	72
43	MP9	X	-7.26	36

Member Point Loads (BLC 3 : Wind Load AZI 090) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
44	M5	X	-30.94	16
45	MP9	X	-59.94	64
46	MP10	X	-146.11	93
47	MP11	X	-190.22	93
48	MP12	X	-99.6	84

Member Point Loads (BLC 4 : Ice Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	Y	-68.29	10
2	MP2	Y	-143.68	3
3	MP3	Y	-179.48	3
4	MP4	Y	-156.66	3
5	MP2	Y	-86.56	24
6	MP2	Y	-88.36	72
7	MP3	Y	-67.55	24
8	MP3	Y	-67.55	72
9	MP4	Y	-111.18	24
10	MP4	Y	-55.94	72
11	MP1	Y	-25.96	36
12	M1	Y	-89.78	16
13	MP1	Y	-68.29	64
14	MP2	Y	-143.68	93
15	MP3	Y	-179.48	93
16	MP4	Y	-156.66	93
17	MP5	Y	-68.29	10
18	MP6	Y	-143.68	3
19	MP7	Y	-179.48	3
20	MP8	Y	-156.66	3
21	MP6	Y	-86.56	24
22	MP6	Y	-88.36	72
23	MP7	Y	-67.55	24
24	MP7	Y	-67.55	72
25	MP8	Y	-111.18	24
26	MP8	Y	-55.94	72
27	MP5	Y	-25.96	36
28	M3	Y	-89.78	16
29	MP5	Y	-68.29	64
30	MP6	Y	-143.68	93
31	MP7	Y	-179.48	93
32	MP8	Y	-156.66	93
33	MP9	Y	-68.29	10
34	MP10	Y	-143.68	3
35	MP11	Y	-179.48	3
36	MP12	Y	-114.08	12
37	MP10	Y	-86.56	24
38	MP10	Y	-88.36	72
39	MP11	Y	-67.55	24
40	MP11	Y	-67.55	72
41	MP12	Y	-111.18	24
42	MP12	Y	-55.94	72
43	MP9	Y	-25.96	36
44	M5	Y	-89.78	16
45	MP9	Y	-68.29	64
46	MP10	Y	-143.68	93
47	MP11	Y	-179.48	93
48	MP12	Y	-114.08	84

Member Point Loads (BLC 5 : Wind + Ice Load AZI 000)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in. %]
1	MP1	Z	-24.15	10
2	MP2	Z	-54.13	3
3	MP3	Z	-70.61	3
4	MP4	Z	-56.27	3
5	MP2	Z	-26.94	24
6	MP2	Z	-27.18	72
7	MP3	Z	-19.19	24
8	MP3	Z	-19.19	72
9	MP4	Z	-29.83	24
10	MP4	Z	-17.54	72
11	MP1	Z	-5.93	36
12	M1	Z	-28.6	16
13	MP1	Z	-24.15	64
14	MP2	Z	-54.13	93
15	MP3	Z	-70.61	93
16	MP4	Z	-56.27	93
17	MP5	Z	-19.22	10
18	MP6	Z	-40.54	3
19	MP7	Z	-44.92	3
20	MP8	Z	-44.83	3
21	MP6	Z	-17.27	24
22	MP6	Z	-20.73	72
23	MP7	Z	-14.33	24
24	MP7	Z	-14.33	72
25	MP8	Z	-21.91	24
26	MP8	Z	-11.71	72
27	MP5	Z	-8.38	36
28	M3	Z	-19.66	16
29	MP5	Z	-19.22	64
30	MP6	Z	-40.54	93
31	MP7	Z	-44.92	93
32	MP8	Z	-44.83	93
33	MP9	Z	-19.22	10
34	MP10	Z	-40.54	3
35	MP11	Z	-44.92	3
36	MP12	Z	-32.63	12
37	MP10	Z	-17.27	24
38	MP10	Z	-20.73	72
39	MP11	Z	-14.33	24
40	MP11	Z	-14.33	72
41	MP12	Z	-21.91	24
42	MP12	Z	-11.71	72
43	MP9	Z	-8.38	36
44	M5	Z	-19.66	16
45	MP9	Z	-19.22	64
46	MP10	Z	-40.54	93
47	MP11	Z	-44.92	93
48	MP12	Z	-32.63	84

Member Point Loads (BLC 6 : Wind + Ice Load AZI 090)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in. %]
1	MP1	X	-17.58	10
2	MP2	X	-36.01	3
3	MP3	X	-36.36	3
4	MP4	X	-41.02	3
5	MP2	X	-14.05	24

Member Point Loads (BLC 6 : Wind + Ice Load AZI 090) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
6	MP2	X	-18.58	72
7	MP3	X	-12.72	24
8	MP3	X	-12.72	72
9	MP4	X	-19.27	24
10	MP4	X	-9.77	72
11	MP1	X	-9.2	36
12	M1	X	-16.68	16
13	MP1	X	-17.58	64
14	MP2	X	-36.01	93
15	MP3	X	-36.36	93
16	MP4	X	-41.02	93
17	MP5	X	-22.5	10
18	MP6	X	-49.6	3
19	MP7	X	-62.05	3
20	MP8	X	-52.46	3
21	MP6	X	-23.72	24
22	MP6	X	-25.03	72
23	MP7	X	-17.57	24
24	MP7	X	-17.57	72
25	MP8	X	-27.19	24
26	MP8	X	-15.59	72
27	MP5	X	-6.75	36
28	M3	X	-25.62	16
29	MP5	X	-22.5	64
30	MP6	X	-49.6	93
31	MP7	X	-62.05	93
32	MP8	X	-52.46	93
33	MP9	X	-22.5	10
34	MP10	X	-49.6	3
35	MP11	X	-62.05	3
36	MP12	X	-34.96	12
37	MP10	X	-23.72	24
38	MP10	X	-25.03	72
39	MP11	X	-17.57	24
40	MP11	X	-17.57	72
41	MP12	X	-27.19	24
42	MP12	X	-15.59	72
43	MP9	X	-6.75	36
44	M5	X	-25.62	16
45	MP9	X	-22.5	64
46	MP10	X	-49.6	93
47	MP11	X	-62.05	93
48	MP12	X	-34.96	84

Member Distributed Loads (BLC 4 : Ice Weight)

	Member Label	Direction	Start Magnitude[lb/ft.F,psf]	End Magnitude[lb/ft.F,psf]	Start Location[in...]	End Location[in...]
1	M1	Y	-11.233	-11.233	0	%100
2	M2	Y	-13.281	-13.281	0	%100
3	M3	Y	-11.233	-11.233	0	%100
4	M4	Y	-13.281	-13.281	0	%100
5	M5	Y	-11.233	-11.233	0	%100
6	M6	Y	-13.281	-13.281	0	%100
7	M7	Y	-11.233	-11.233	0	%100
8	M8	Y	-11.233	-11.233	0	%100
9	M9	Y	-11.233	-11.233	0	%100

Member Distributed Loads (BLC 4 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
10	M10	Y	-9.906	-9.906	0	%100
11	M11	Y	-9.906	-9.906	0	%100
12	M12	Y	-9.906	-9.906	0	%100
13	M13	Y	-11.578	-11.578	0	%100
14	M14	Y	-11.578	-11.578	0	%100
15	M15	Y	-11.578	-11.578	0	%100
16	M16	Y	-4.769	-4.769	0	%100
17	M17	Y	-4.769	-4.769	0	%100
18	M18	Y	-4.769	-4.769	0	%100
19	M19	Y	-16.345	-16.345	0	%100
20	M20	Y	-16.345	-16.345	0	%100
21	M21	Y	-16.345	-16.345	0	%100
22	M22	Y	-16.345	-16.345	0	%100
23	M23	Y	-16.345	-16.345	0	%100
24	M24	Y	-16.345	-16.345	0	%100
25	MP1	Y	-8.837	-8.837	0	%100
26	MP2	Y	-8.837	-8.837	0	%100
27	MP3	Y	-8.837	-8.837	0	%100
28	MP4	Y	-8.837	-8.837	0	%100
29	MP9	Y	-8.837	-8.837	0	%100
30	MP10	Y	-8.837	-8.837	0	%100
31	MP11	Y	-8.837	-8.837	0	%100
32	MP12	Y	-8.837	-8.837	0	%100
33	MP5	Y	-8.837	-8.837	0	%100
34	MP6	Y	-8.837	-8.837	0	%100
35	MP7	Y	-8.837	-8.837	0	%100
36	MP8	Y	-8.837	-8.837	0	%100
37	M37	Y	-14.983	-14.983	0	%100
38	M38	Y	-14.983	-14.983	0	%100
39	M39	Y	-14.983	-14.983	0	%100

Member Distributed Loads (BLC 8 : BLC 2 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M1	Z	-7.739	-7.739	0	74.75
2	M2	Z	-8.515	-8.515	0	12
3	M3	Z	-7.739	-7.739	0	74.75
4	M4	Z	-8.515	-8.515	0	12
5	M6	Z	-17.031	-17.031	0	12
6	M7	Z	-4.468	-4.468	0	150
7	M8	Z	-8.937	-8.937	0	150
8	M9	Z	-4.468	-4.468	0	150
9	M10	Z	-3.677	-3.677	0	150
10	M11	Z	-7.354	-7.354	0	150
11	M12	Z	-3.677	-3.677	0	150
12	M13	Z	-7.66	-7.66	0	53.685
13	M14	Z	-3.83	-3.83	0	53.685
14	M15	Z	-3.83	-3.83	0	53.685
15	M16	Z	0	0	0	12
16	M17	Z	0	0	0	12
17	M18	Z	0	0	0	12
18	M19	Z	-5.107	-5.107	0	41.685
19	M20	Z	-2.553	-2.553	0	41.685
20	M21	Z	-2.553	-2.553	0	41.685
21	M22	Z	-2.553	-2.553	0	41.685
22	M23	Z	-2.553	-2.553	0	41.685
23	M24	Z	-5.107	-5.107	0	41.685

Member Distributed Loads (BLC 8 : BLC 2 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
24	MP1	Z	-6.077	-6.077	0	72
25	MP2	Z	-6.077	-6.077	0	90
26	MP3	Z	-6.077	-6.077	0	90
27	MP4	Z	-6.077	-6.077	0	90
28	MP9	Z	-6.077	-6.077	0	72
29	MP10	Z	-6.077	-6.077	0	90
30	MP11	Z	-6.077	-6.077	0	90
31	MP12	Z	-6.077	-6.077	0	90
32	MP5	Z	-6.077	-6.077	0	72
33	MP6	Z	-6.077	-6.077	0	90
34	MP7	Z	-6.077	-6.077	0	90
35	MP8	Z	-6.077	-6.077	0	90
36	M37	Z	-7.72	-7.72	0	53.161
37	M38	Z	-8.766	-8.766	0	53.161
38	M39	Z	-7.72	-7.72	0	53.161

Member Distributed Loads (BLC 9 : BLC 3 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M1	X	-4.468	-4.468	0	74.75
2	M2	X	-14.749	-14.749	0	12
3	M3	X	-4.468	-4.468	0	74.75
4	M4	X	-14.749	-14.749	0	12
5	M5	X	-8.937	-8.937	0	74.75
6	M7	X	-7.739	-7.739	0	150
7	M9	X	-7.739	-7.739	0	150
8	M10	X	-6.368	-6.368	0	150
9	M12	X	-6.368	-6.368	0	150
10	M14	X	-6.634	-6.634	0	53.685
11	M15	X	-6.634	-6.634	0	53.685
12	M16	X	0	0	0	12
13	M17	X	0	0	0	12
14	M20	X	-4.423	-4.423	0	41.685
15	M21	X	-4.423	-4.423	0	41.685
16	M22	X	-4.423	-4.423	0	41.685
17	M23	X	-4.423	-4.423	0	41.685
18	MP1	X	-6.077	-6.077	0	72
19	MP2	X	-6.077	-6.077	0	90
20	MP3	X	-6.077	-6.077	0	90
21	MP4	X	-6.077	-6.077	0	90
22	MP9	X	-6.077	-6.077	0	72
23	MP10	X	-6.077	-6.077	0	90
24	MP11	X	-6.077	-6.077	0	90
25	MP12	X	-6.077	-6.077	0	90
26	MP5	X	-6.077	-6.077	0	72
27	MP6	X	-6.077	-6.077	0	90
28	MP7	X	-6.077	-6.077	0	90
29	MP8	X	-6.077	-6.077	0	90
30	M37	X	-7.591	-7.591	0	53.161
31	M38	X	-6.383	-6.383	0	53.161
32	M39	X	-7.591	-7.591	0	53.161

Member Distributed Loads (BLC 10 : BLC 5 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...]	End Location[in...]
1	M1	Z	-4.549	-4.549	0	74.75
2	M2	Z	-5.005	-5.005	0	12
3	M3	Z	-4.549	-4.549	0	74.75

Member Distributed Loads (BLC 10 : BLC 5 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...	End Location[in...
4	M4	Z	-5.005	-5.005	0	12
5	M6	Z	-10.011	-10.011	0	12
6	M7	Z	-2.626	-2.626	0	150
7	M8	Z	-5.253	-5.253	0	150
8	M9	Z	-2.626	-2.626	0	150
9	M10	Z	-2.161	-2.161	0	150
10	M11	Z	-4.322	-4.322	0	150
11	M12	Z	-2.161	-2.161	0	150
12	M13	Z	-4.502	-4.502	0	53.685
13	M14	Z	-2.251	-2.251	0	53.685
14	M15	Z	-2.251	-2.251	0	53.685
15	M16	Z	0	0	0	12
16	M17	Z	0	0	0	12
17	M18	Z	0	0	0	12
18	M19	Z	-3.002	-3.002	0	41.685
19	M20	Z	-1.501	-1.501	0	41.685
20	M21	Z	-1.501	-1.501	0	41.685
21	M22	Z	-1.501	-1.501	0	41.685
22	M23	Z	-1.501	-1.501	0	41.685
23	M24	Z	-3.002	-3.002	0	41.685
24	MP1	Z	-3.572	-3.572	0	72
25	MP2	Z	-3.572	-3.572	0	90
26	MP3	Z	-3.572	-3.572	0	90
27	MP4	Z	-3.572	-3.572	0	90
28	MP9	Z	-3.572	-3.572	0	72
29	MP10	Z	-3.572	-3.572	0	90
30	MP11	Z	-3.572	-3.572	0	90
31	MP12	Z	-3.572	-3.572	0	90
32	MP5	Z	-3.572	-3.572	0	72
33	MP6	Z	-3.572	-3.572	0	90
34	MP7	Z	-3.572	-3.572	0	90
35	MP8	Z	-3.572	-3.572	0	90
36	M37	Z	-4.537	-4.537	0	53.161
37	M38	Z	-5.152	-5.152	0	53.161
38	M39	Z	-4.537	-4.537	0	53.161

Member Distributed Loads (BLC 11 : BLC 6 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...	End Location[in...
1	M1	X	-2.626	-2.626	0	74.75
2	M2	X	-8.669	-8.669	0	12
3	M3	X	-2.626	-2.626	0	74.75
4	M4	X	-8.669	-8.669	0	12
5	M5	X	-5.253	-5.253	0	74.75
6	M7	X	-4.549	-4.549	0	150
7	M9	X	-4.549	-4.549	0	150
8	M10	X	-3.743	-3.743	0	150
9	M12	X	-3.743	-3.743	0	150
10	M14	X	-3.899	-3.899	0	53.685
11	M15	X	-3.899	-3.899	0	53.685
12	M16	X	0	0	0	12
13	M17	X	0	0	0	12
14	M20	X	-2.6	-2.6	0	41.685
15	M21	X	-2.6	-2.6	0	41.685
16	M22	X	-2.6	-2.6	0	41.685
17	M23	X	-2.6	-2.6	0	41.685
18	MP1	X	-3.572	-3.572	0	72

Member Distributed Loads (BLC 11 : BLC 6 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in...	End Location[in...
19	MP2	X	-3.572	-3.572	0	90
20	MP3	X	-3.572	-3.572	0	90
21	MP4	X	-3.572	-3.572	0	90
22	MP9	X	-3.572	-3.572	0	72
23	MP10	X	-3.572	-3.572	0	90
24	MP11	X	-3.572	-3.572	0	90
25	MP12	X	-3.572	-3.572	0	90
26	MP5	X	-3.572	-3.572	0	72
27	MP6	X	-3.572	-3.572	0	90
28	MP7	X	-3.572	-3.572	0	90
29	MP8	X	-3.572	-3.572	0	90
30	M37	X	-4.462	-4.462	0	53.161
31	M38	X	-3.752	-3.752	0	53.161
32	M39	X	-4.462	-4.462	0	53.161

Member Area Loads (BLC 2 : Wind Load AZI 000)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N106	N105	N108	N109	Z	Open Structure	-30.64

Member Area Loads (BLC 3 : Wind Load AZI 090)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N108	N111	N112	N109	X	Open Structure	-30.64

Member Area Loads (BLC 5 : Wind + Ice Load AZI 000)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N106	N105	N108	N109	Z	Open Structure	-18.01

Member Area Loads (BLC 6 : Wind + Ice Load AZI 090)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N108	N109	N112	N111	X	Open Structure	-18.01