

Robidoux, Evan

From: Motel, Kristen <KMotel@CUDDYFEDER.COM>
Sent: Friday, October 25, 2019 3:27 PM
To: CSC-DL Siting Council; Bachman, Melanie
Cc: Mathews, Lisa A; Chiocchio, Lucia; Durkin, Julie
Subject: TS-CING-018-191017- AT&T Tower Share Request, 39 Carmen Hill Rd, Brookfield
Attachments: 10-25-19 Submission with Exhibits 1-3 in Response to Letter of Incompleteness Brookfield(4264160.1).pdf

Good Afternoon,

On behalf of our client, AT&T, we are providing the attached materials for the above-referenced matter in response to the Siting Council's Incomplete Notification dated October 22nd. 15 hard copies plus 1 original are being sent to your attention for delivery on Monday, 10/28. Please let me know if you have any questions.

Have a nice weekend,

Kristen



Kristen Motel,
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Kristen Motel
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October 25, 2019

VIA EMAIL AND OVERNIGHT DELIVERY

Members of the Connecticut Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: Tower Sharing Request by New Cingular Wireless PCS, LLC
TS-CING-018-191017
Premises: 39 Carmen Hill Road, Brookfield, Connecticut

Dear Members of the Siting Council:

This letter is respectfully submitted on behalf of our client, New Cingular Wireless PCS, LLC ("AT&T"), in connection with the request dated October 16, 2019 for an order from the Connecticut Siting Council (the "Council") to approve the proposed shared use of a communications tower and associated compound at the parcel identified as 39 Carmen Hill Road in the Town of Brookfield.

The Council issued a notice of incompleteness dated October 22, 2019 requesting a mount analysis, documentation on the original facility approval, a property card and parcel map. With this letter, AT&T hereby submits an electronic version, one original and fifteen hard copies of the following in response to the Council's request:

- Mount Analysis Report prepared by Ramaker & Associates, Inc. dated July 24, 2019 signed and sealed by James R. Skowronski, P.E. (CT License No. PEN.26266) demonstrating that the proposed antenna and equipment mounting structure can support the loading configuration;
- Brookfield Special Permit & Design Review Approval for construction of the existing communications tower, dated February 24, 1994; and
- Town of Brookfield Property Card and Parcel Map for the underlying property.

Thank you for your consideration of this request. Should the Council members or Staff have any



10/25/2019
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questions regarding the foregoing, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Kristen Motel", is written over a light blue horizontal line.

Kristen Motel

Attachments

cc: AT&T
Lucia Chiochio, Esq.
Julie Durkin

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RAMAKER
& ASSOCIATES, INC.
100% EMPLOYEE-OWNED

July 24, 2019

Robert Picard
Smartlink
85 Rangeway Road, Bldg. # 3, Suite 102
North Billerica, MA 01862

Ramaker & Associates, Inc.
855 Community Drive
Sauk City, WI 53583

SUBJECT: MOUNT ASSESSMENT

CARRIER: AT&T

SITE: BROOKFIELD-CARMEN HILL ROAD (CT2586)
ADDRESS: 39 CARMEN HILL ROAD
BROOKFIELD, FAIRFIELD COUNTY, CONNECTICUT 06804

LATITUDE: 41.4934380°
LONGITUDE: -73.4288160°
FA LOCATION CODE: 10128690
SCOPE: 1C/ 2C/ 3C/ 4C/ 5C
PACE NUMBER: MRCTB036751/ MRCTB039277/ MRCTB039271/ MRCTB039272/ MRCTB039270
PTN NUMBER: 2051A0LEPL/ 2051A0NNMH/ 2051A0NMA9/ 2051A0NM9C/ 2051A0NNMM

RAMAKER & ASSOCIATES PROJECT NUMBER: 44031

RESULTS: ANTENNA MOUNT: 60.2%

Dear Robert Picard:

Ramaker & Associates, Inc. (RAMAKER) respectfully submits this mount assessment for the above-mentioned site. The purpose of this report is to determine the structural integrity of the mounting structure with the proposed loading configurations. Engineering recommendations regarding the analysis results are provided in the following pages.

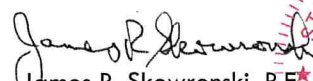
RAMAKER developed a finite element model of the mount(s) using RISA analysis software. All information contained herein is valid only for the described structure configuration and loading conditions. RAMAKER reserves the right to modify our recommendations should alterations to the mount loading occur.

If you have any questions or comments, please do not hesitate to contact our office.

Sincerely,

RAMAKER & ASSOCIATES, INC.


James M. Alvin
Structural Designer


James R. Skowronski, P.E.
Supervising Engineer

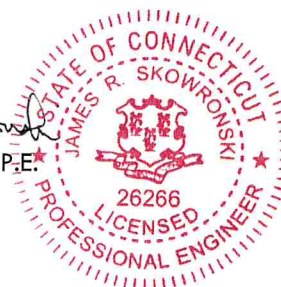


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ANALYSIS CRITERIA

State Building Code	2018 CT State Building Code
Adopted Building Code	2015 IBC
Referenced Standard	TIA-222-G
Risk Category	II
Ultimate Design Wind Speed, V_{ult}	120 mph (3 sec. gust)
Nominal Design Wind Speed, V_{asd}	93 mph (3 sec. gust)
Design Wind Speed w/ Ice	50 mph (3 sec. gust)
Ice Thickness	3/4 inch
Exposure Category	C
Topographic Feature	None

SUPPORTING DOCUMENTATION

- Construction drawings by RAMAKER, project number 44031
- Site visit(s) conducted by RAMAKER
- Other pertinent data procured or assumed by RAMAKER during site due diligence activities

MOUNT LOADING

RAMAKER understands that the loading to be used for this analysis will consist of the antennas and equipment configurations as shown in the following chart(s):

Antenna Mount – Alpha, Beta & Gamma Sectors				
Elevation	Position	Appurtenance	Mount Type	Status
165	1	(1) CCI TPA65R-BU8D	Sector Frame	Proposed
	2	(1) CCI HPA65R-BU8A		Proposed
	3	(1) Ericsson B14 4478		Proposed
		(1) Ericsson B5/B12 4449		
		(1) Ericsson B2/B66A 8843		
		(1) Raycap DC6 Squid		
		(1) Ericsson 4415 B30		
	(1) Ericsson RRUS E2700			
	4	(1) CCI TPA65R-BU8D		Proposed

MOUNT RESULTS

By engineering calculation and inspection, the **proposed** antenna and equipment mounting structure(s) are capable of supporting the loading configurations without causing an overstress condition in the antenna and equipment mounting structure(s). See **associated RAMAKER construction drawings for proposed mounting structure details**.

LIMITATIONS

The recommendations contained within this report were developed using the supporting documentation as previously described. All recommendations pertain only to the proposed antenna installation activities as described in this report. RAMAKER assumes no responsibility for failures caused by factors beyond our control. These include but are not limited to the following:

- Missing, corroding, and/or deteriorating members
- Improper manufacturing and/or construction
- Improper maintenance
- Member grades less than assumed grades shown below:

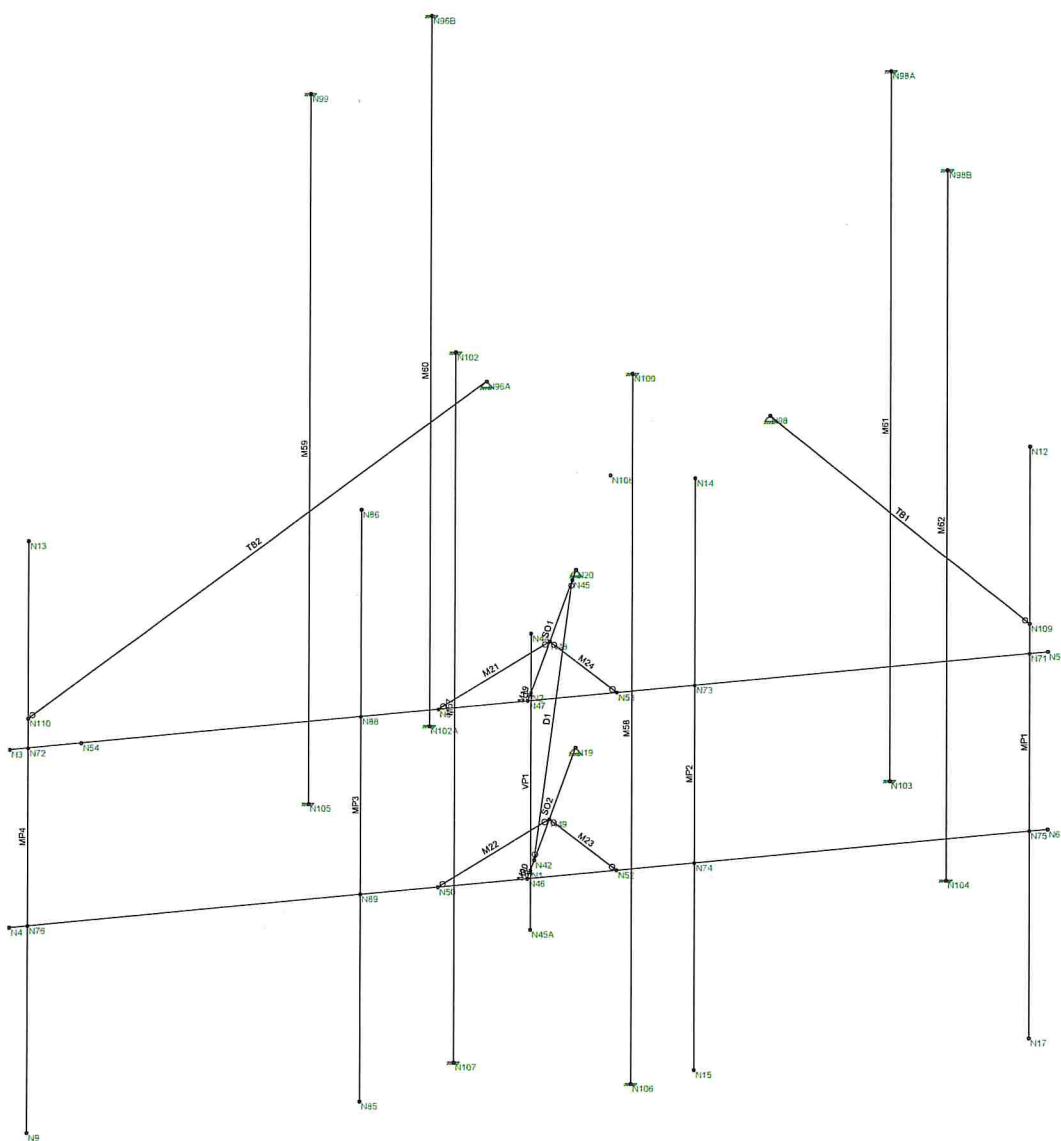
Assumed Steel Member Grades	
Angles/Plates/Channels/Solid Rods	ASTM A36, 36 ksi
Pipes	ASTM A53 Gr. B, 35 ksi
HSS (Square Tube)	ASTM A500 Gr. B, 46 ksi

RAMAKER is not responsible for verifying that the loading on the structure is consistent with the loading applied to the structure within this report. If there is any information contrary to that contained herein, or if there are any defects arising from the original design, material, fabrication and erection deficiencies, this report should be disregarded and RAMAKER should be contacted immediately. RAMAKER is not liable for any representation, recommendation, or conclusion not expressly stated herein.

This analysis pertains only to the mounting structure, and no analyses or conclusions were made regarding the supporting structure. Analysis and certification of the supporting structure is performed and submitted separately.

ATTACHMENTS

- Analysis Figures
- Analysis Calculations

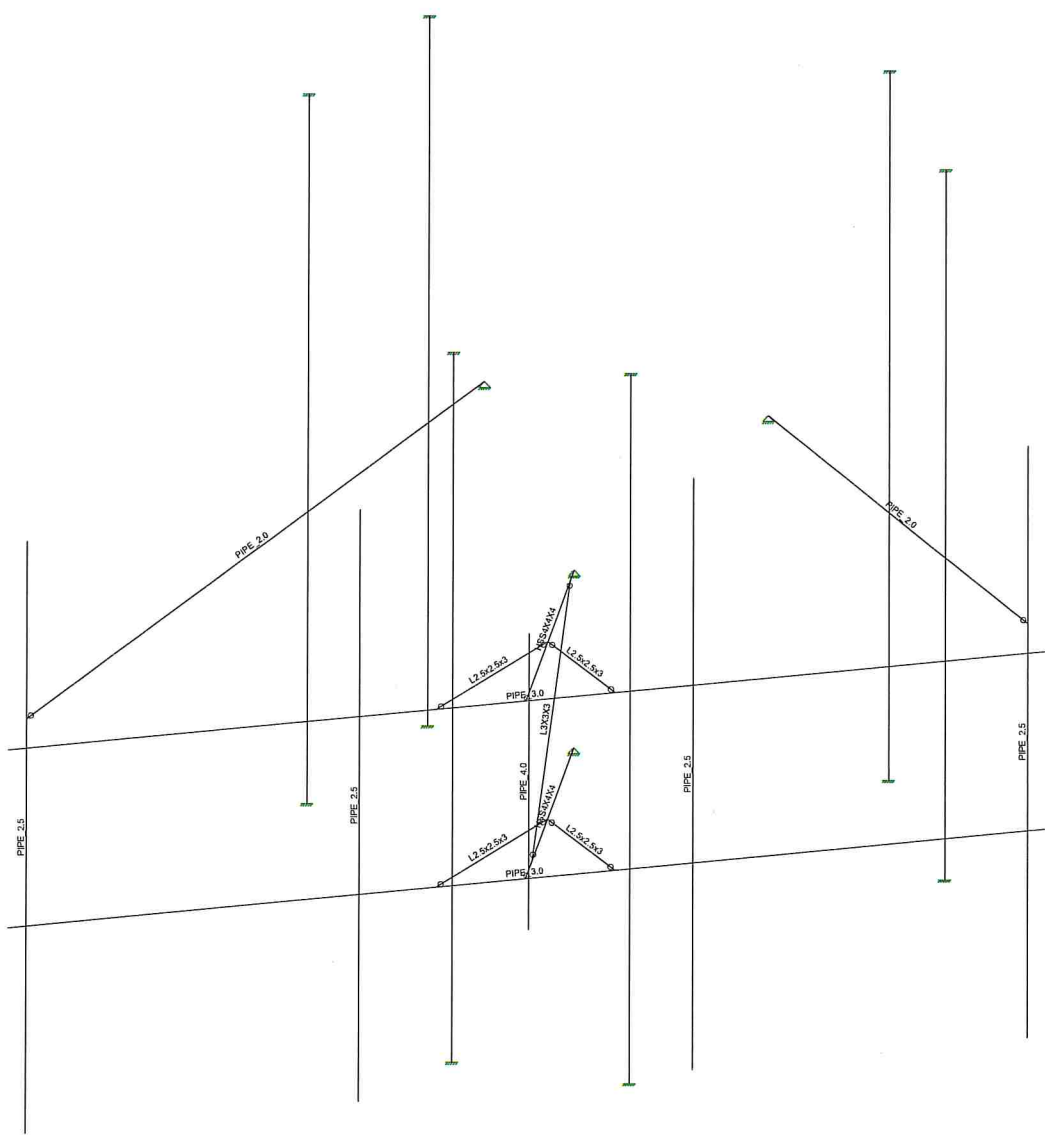


Envelope Only Solution

Ramaker & Associates, Inc.
JMA
44031

Brookfield-Carmen Hill Road (CT2586)

SK - 1
July 24, 2019 at 4:11 PM
44031 Mount_Rev2_T-Frame.r3d



Envelope Only Solution

Ramaker & Associates, Inc.

JMA

44031

Brookfield-Carmen Hill Road (CT2586)

SK - 2

July 24, 2019 at 4:12 PM

44031 Mount_Rev2_T-Frame.r3d



Company : Ramaker & Associates, Inc.
 Designer : JMA
 Job Number : 44031
 Model Name : Brookfield-Carmen Hill Road (CT2586)

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Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
3	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.42	29000	11154	.3	.65	.49	42	1.4	58	1.3
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.4	58	1.3
6	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Pipe 2.0	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Pipe 2.5	PIPE 2.5	Beam	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
3	Pipe 3.0	PIPE 3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
4	Pipe 4.0	PIPE 4.0	Beam	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
5	HSS4x4x1/4	HSS4X4X4	Beam	SquareTube	A500 Gr.46	Typical	3.37	7.8	7.8	12.8
6	L3x3x3/16	L3X3X3	Beam	Single Angle	A36 Gr.36	Typical	1.09	.948	.948	.014
7	L2.5x2.5x3	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical	.901	.535	.535	.011

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	TH	N3	N5		180	Pipe 3.0	Beam	Pipe	A53 Gr. B	Typical
2	BH	N4	N6		270	Pipe 3.0	Beam	Pipe	A53 Gr. B	Typical
3	MP4	N9	N13			Pipe 2.5	Beam	Pipe	A53 Gr. B	Typical
4	MP2	N15	N14			Pipe 2.5	Beam	Pipe	A53 Gr. B	Typical
5	MP1	N17	N12			Pipe 2.5	Beam	Pipe	A53 Gr. B	Typical
6	TB2	N110	N96A			Pipe 2.0	Beam	Pipe	A53 Gr. B	Typical
7	SO1	N2	N20			HSS4x4x1/4	Beam	SquareTube	A500 Gr.46	Typical
8	SO2	N1	N19			HSS4x4x1/4	Beam	SquareTube	A500 Gr.46	Typical
9	TB1	N109	N98			Pipe 2.0	Beam	Pipe	A53 Gr. B	Typical
10	MP3	N85	N86			Pipe 2.5	Beam	Pipe	A53 Gr. B	Typical
11	M57	N107	N102			RIGID	None	None	RIGID	Typical
12	M58	N106	N100			RIGID	None	None	RIGID	Typical
13	M59	N105	N99			RIGID	None	None	RIGID	Typical
14	M60	N102A	N96B			RIGID	None	None	RIGID	Typical
15	M61	N103	N98A			RIGID	None	None	RIGID	Typical
16	M62	N104	N98B			RIGID	None	None	RIGID	Typical
17	D1	N42	N45			L3x3x3/16	Beam	Single Angle	A36 Gr.36	Typical
18	VP1	N45A	N44			Pipe 4.0	Beam	Pipe	A53 Gr. B	Typical
19	M19	N2	N47			RIGID	None	None	RIGID	Typical
20	M20	N1	N46			RIGID	None	None	RIGID	Typical
21	M21	N48	N51		270	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical
22	M22	N49	N50		180	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical
23	M23	N49	N52		90	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical
24	M24	N48	N53			L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Mem...	Surface(P...
1	Antenna Dead	None					12		
2	Antenna Wind 0	None					24		
3	Antenna Wind 30	None					24		
4	Antenna Wind 45	None					24		
5	Antenna Wind 60	None					24		



Company : Ramaker & Associates, Inc.
 Designer : JMA
 Job Number : 44031
 Model Name : Brookfield-Carmen Hill Road (CT2586)

July 24, 2019
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Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Mem..Surface(P...
6 Antenna Wind 90	None					24	
7 Antenna Wind 120	None					24	
8 Antenna Wind 135	None					24	
9 Antenna Wind 150	None					24	
10 Antenna Wind 180	None					24	
11 Antenna Wind 210	None					24	
12 Antenna Wind 225	None					24	
13 Antenna Wind 240	None					24	
14 Antenna Wind 270	None					24	
15 Antenna Wind 300	None					24	
16 Antenna Wind 315	None					24	
17 Antenna Wind 330	None					24	
18 Antenna Ice Dead	None					12	
19 Antenna Wind w/Ice 0	None					24	
20 Antenna Wind w/Ice 30	None					24	
21 Antenna Wind w/Ice 45	None					24	
22 Antenna Wind w/Ice 60	None					24	
23 Antenna Wind w/Ice 90	None					24	
24 Antenna Wind w/Ice 120	None					24	
25 Antenna Wind w/Ice 135	None					24	
26 Antenna Wind w/Ice 150	None					24	
27 Antenna Wind w/Ice 180	None					24	
28 Antenna Wind w/Ice 210	None					24	
29 Antenna Wind w/Ice 225	None					24	
30 Antenna Wind w/Ice 240	None					24	
31 Antenna Wind w/Ice 270	None					24	
32 Antenna Wind w/Ice 300	None					24	
33 Antenna Wind w/Ice 315	None					24	
34 Antenna Wind w/Ice 330	None					24	
35 Member Dead	None		-1				
36 Member Wind 0	None						24
37 Member Wind 30	None						24
38 Member Wind 45	None						24
39 Member Wind 60	None						24
40 Member Wind 90	None						24
41 Member Wind 120	None						24
42 Member Wind 135	None						24
43 Member Wind 150	None						24
44 Member Wind 180	None						24
45 Member Wind 210	None						24
46 Member Wind 225	None						24
47 Member Wind 240	None						24
48 Member Wind 270	None						24
49 Member Wind 300	None						24
50 Member Wind 315	None						24
51 Member Wind 330	None						24
52 Member Ice Dead	None					12	
53 Member Wind w/Ice 0	None					24	
54 Member Wind w/Ice 30	None					24	
55 Member Wind w/Ice 45	None					24	
56 Member Wind w/Ice 60	None					24	
57 Member Wind w/Ice 90	None					24	
58 Member Wind w/Ice 120	None					24	
59 Member Wind w/Ice 135	None					24	
60 Member Wind w/Ice 150	None					24	
61 Member Wind w/Ice 180	None					24	
62 Member Wind w/Ice 210	None					24	



Company : Ramaker & Associates, Inc.
 Designer : JMA
 Job Number : 44031
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July 24, 2019
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Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Mem..Surface(P...
63 Member Wind w/Ice 225	None						24
64 Member Wind w/Ice 240	None						24
65 Member Wind w/Ice 270	None						24
66 Member Wind w/Ice 300	None						24
67 Member Wind w/Ice 315	None						24
68 Member Wind w/Ice 330	None						24
69 LV-1	None					1	
70 LV-2	None					1	
71 LV-3	None					1	
72 LV-4	None					1	
73 LV-5	None					1	
74 LV-6	None					1	
75 LV-7	None						
76 LV-8	None						
77 LV-9	None						
78 LV-10	None						
79 LV-11	None						
80 LV-12	None						
81 LV-13	None						
82 LV-14	None						
83 LV-15	None						
84 LM-1	None					1	
85 LM-2	None					1	
86 LM-3	None					1	
87 LM-4	None					1	
88 LM-5	None						
89 LM-6	None						
90 LM-7	None						
91 LM-8	None						
92 LM-9	None						
93 LM-10	None						
94 LM-11	None						
95 LM-12	None						
96 LM-13	None						
97 LM-14	None						
98 LM-15	None						

Load Combinations

Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1 1.4D	Yes	Y	1	1.4	35	1.4													
2 0.9D + 1.6 (0-Wind)	Yes	Y	1	.9	35	.9	2	1.6	36	1.6									
3 0.9D + 1.6 (30-Wind)	Yes	Y	1	.9	35	.9	3	1.6	37	1.6									
4 0.9D + 1.6 (45-Wind)	Yes	Y	1	.9	35	.9	4	1.6	38	1.6									
5 0.9D + 1.6 (60-Wind)	Yes	Y	1	.9	35	.9	5	1.6	39	1.6									
6 0.9D + 1.6 (90-Wind)	Yes	Y	1	.9	35	.9	6	1.6	40	1.6									
7 0.9D + 1.6 (120-Wind)	Yes	Y	1	.9	35	.9	7	1.6	41	1.6									
8 0.9D + 1.6 (135-Wind)	Yes	Y	1	.9	35	.9	8	1.6	42	1.6									
9 0.9D + 1.6 (150-Wind)	Yes	Y	1	.9	35	.9	9	1.6	43	1.6									
10 0.9D + 1.6 (180-Wind)	Yes	Y	1	.9	35	.9	10	1.6	44	1.6									
11 0.9D + 1.6 (210-Wind)	Yes	Y	1	.9	35	.9	11	1.6	45	1.6									
12 0.9D + 1.6 (225-Wind)	Yes	Y	1	.9	35	.9	12	1.6	46	1.6									
13 0.9D + 1.6 (240-Wind)	Yes	Y	1	.9	35	.9	13	1.6	47	1.6									
14 0.9D + 1.6 (270-Wind)	Yes	Y	1	.9	35	.9	14	1.6	48	1.6									
15 0.9D + 1.6 (300-Wind)	Yes	Y	1	.9	35	.9	15	1.6	49	1.6									
16 0.9D + 1.6 (315-Wind)	Yes	Y	1	.9	35	.9	16	1.6	50	1.6									



Load Combinations (Continued)

Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
74	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	11	.104	45	.104																		
75	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	12	.104	46	.104																		
76	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	13	.104	47	.104																		
77	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	14	.104	48	.104																		
78	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	15	.104	49	.104																		
79	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	16	.104	50	.104																		
80	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	17	.104	51	.104																		
81	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	2	.104	36	.104																		
82	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	3	.104	37	.104																		
83	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	4	.104	38	.104																		
84	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	5	.104	39	.104																		
85	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	6	.104	40	.104																		
86	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	7	.104	41	.104																		
87	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	8	.104	42	.104																		
88	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	9	.104	43	.104																		
89	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	10	.104	44	.104																		
90	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	11	.104	45	.104																		
91	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	12	.104	46	.104																		
92	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	13	.104	47	.104																		
93	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	14	.104	48	.104																		
94	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	15	.104	49	.104																		
95	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	16	.104	50	.104																		
96	1.2D + 1.5LM-2 + Maintenanc..	Yes	Y		1	1.2	35	1.2	85	1.5	17	.104	51	.104																		
97	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	2	.104	36	.104																		
98	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	3	.104	37	.104																		
99	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	4	.104	38	.104																		
100	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	5	.104	39	.104																		
101	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	6	.104	40	.104																		
102	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	7	.104	41	.104																		
103	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	8	.104	42	.104																		
104	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	9	.104	43	.104																		
105	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	10	.104	44	.104																		
106	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	11	.104	45	.104																		
107	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	12	.104	46	.104																		
108	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	13	.104	47	.104																		
109	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	14	.104	48	.104																		
110	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	15	.104	49	.104																		
111	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	16	.104	50	.104																		
112	1.2D + 1.5LM-3 + Maintenanc..	Yes	Y		1	1.2	35	1.2	86	1.5	17	.104	51	.104																		
113	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	2	.104	36	.104																		
114	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	3	.104	37	.104																		
115	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	4	.104	38	.104																		
116	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	5	.104	39	.104																		
117	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	6	.104	40	.104																		
118	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	7	.104	41	.104																		
119	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	8	.104	42	.104																		
120	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	9	.104	43	.104																		
121	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	10	.104	44	.104																		
122	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	11	.104	45	.104																		
123	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	12	.104	46	.104																		
124	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	13	.104	47	.104																		
125	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	14	.104	48	.104																		
126	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	15	.104	49	.104																		
127	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	16	.104	50	.104																		
128	1.2D + 1.5LM-4 + Maintenanc..	Yes	Y		1	1.2	35	1.2	87	1.5	17	.104	51	.104																		
129	1.2D + 1.5LM-5 + Maintenanc..	Yes	Y		1	1.2	35	1.2	88	1.5	2	.104	36	.104																		
130	1.2D + 1.5LM-5 + Maintenanc..	Yes	Y		1	1.2	35	1.2	88	1.5	3	.104	37	.104																		



Company : Ramaker & Associates, Inc.
 Designer : JMA
 Job Number : 44031
 Model Name : Brookfield-Carmen Hill Road (CT2586)

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Load Combinations (Continued)

Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
131 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	4	.104	38	.104								
132 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	5	.104	39	.104								
133 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	6	.104	40	.104								
134 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	7	.104	41	.104								
135 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	8	.104	42	.104								
136 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	9	.104	43	.104								
137 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	10	.104	44	.104								
138 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	11	.104	45	.104								
139 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	12	.104	46	.104								
140 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	13	.104	47	.104								
141 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	14	.104	48	.104								
142 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	15	.104	49	.104								
143 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	16	.104	50	.104								
144 1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	17	.104	51	.104								
145 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	2	.104	36	.104								
146 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	3	.104	37	.104								
147 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	4	.104	38	.104								
148 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	5	.104	39	.104								
149 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	6	.104	40	.104								
150 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	7	.104	41	.104								
151 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	8	.104	42	.104								
152 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	9	.104	43	.104								
153 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	10	.104	44	.104								
154 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	11	.104	45	.104								
155 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	12	.104	46	.104								
156 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	13	.104	47	.104								
157 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	14	.104	48	.104								
158 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	15	.104	49	.104								
159 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	16	.104	50	.104								
160 1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	17	.104	51	.104								
161 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	2	.104	36	.104								
162 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	3	.104	37	.104								
163 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	4	.104	38	.104								
164 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	5	.104	39	.104								
165 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	6	.104	40	.104								
166 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	7	.104	41	.104								
167 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	8	.104	42	.104								
168 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	9	.104	43	.104								
169 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	10	.104	44	.104								
170 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	11	.104	45	.104								
171 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	12	.104	46	.104								
172 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	13	.104	47	.104								
173 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	14	.104	48	.104								
174 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	15	.104	49	.104								
175 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	16	.104	50	.104								
176 1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	17	.104	51	.104								
177 1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	2	.104	36	.104								
178 1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	3	.104	37	.104								
179 1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	4	.104	38	.104								
180 1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	5	.104	39	.104								
181 1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	6	.104	40	.104								
182 1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	7	.104	41	.104								
183 1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	8	.104	42	.104								
184 1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	9	.104	43	.104								
185 1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	10	.104	44	.104								
186 1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	11	.104	45	.104								
187 1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	12	.104	46	.104								



Company : Ramaker & Associates, Inc.
 Designer : JMA
 Job Number : 44031
 Model Name : Brookfield-Carmen Hill Road (CT2586)

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Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...							
188	1.2D + 1.5LM-8 + Maintenanc..	Yes	Y		1	1.2	35	1.2	91	1.5	13	.104	47	.104																								
189	1.2D + 1.5LM-8 + Maintenanc..	Yes	Y		1	1.2	35	1.2	91	1.5	14	.104	48	.104																								
190	1.2D + 1.5LM-8 + Maintenanc..	Yes	Y		1	1.2	35	1.2	91	1.5	15	.104	49	.104																								
191	1.2D + 1.5LM-8 + Maintenanc..	Yes	Y		1	1.2	35	1.2	91	1.5	16	.104	50	.104																								
192	1.2D + 1.5LM-8 + Maintenanc..	Yes	Y		1	1.2	35	1.2	91	1.5	17	.104	51	.104																								
193	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	2	.104	36	.104																								
194	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	3	.104	37	.104																								
195	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	4	.104	38	.104																								
196	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	5	.104	39	.104																								
197	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	6	.104	40	.104																								
198	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	7	.104	41	.104																								
199	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	8	.104	42	.104																								
200	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	9	.104	43	.104																								
201	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	10	.104	44	.104																								
202	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	11	.104	45	.104																								
203	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	12	.104	46	.104																								
204	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	13	.104	47	.104																								
205	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	14	.104	48	.104																								
206	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	15	.104	49	.104																								
207	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	16	.104	50	.104																								
208	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	17	.104	51	.104																								
209	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	2	.104	36	.104																								
210	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	3	.104	37	.104																								
211	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	4	.104	38	.104																								
212	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	5	.104	39	.104																								
213	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	6	.104	40	.104																								
214	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	7	.104	41	.104																								
215	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	8	.104	42	.104																								
216	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	9	.104	43	.104																								
217	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	10	.104	44	.104																								
218	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	11	.104	45	.104																								
219	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	12	.104	46	.104																								
220	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	13	.104	47	.104																								
221	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	14	.104	48	.104																								
222	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	15	.104	49	.104																								
223	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	16	.104	50	.104																								
224	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	17	.104	51	.104																								
225	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	2	.104	36	.104																								
226	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	3	.104	37	.104																								
227	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	4	.104	38	.104																								
228	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	5	.104	39	.104																								
229	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	6	.104	40	.104																								
230	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	7	.104	41	.104																								
231	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	8	.104	42	.104																								
232	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	9	.104	43	.104																								
233	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	10	.104	44	.104																								
234	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	11	.104	45	.104																								
235	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	12	.104	46	.104																								
236	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	13	.104	47	.104																								
237	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	14	.104	48	.104																								
238	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	15	.104	49	.104																								
239	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	16	.104	50	.104																								
240	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	17	.104	51	.104																								
241	1.2D + 1.5LM-12 + Maintenanc..	Yes	Y		1	1.2	35	1.2	95	1.5	2	.104	36	.104																								
242	1.2D + 1.5LM-12 + Maintenanc..	Yes	Y		1	1.2	35	1.2	95	1.5	3	.104																										



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Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...		
245	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	6	.104	40	.104											
246	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	7	.104	41	.104											
247	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	8	.104	42	.104											
248	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	9	.104	43	.104											
249	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	10	.104	44	.104											
250	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	11	.104	45	.104											
251	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	12	.104	46	.104											
252	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	13	.104	47	.104											
253	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	14	.104	48	.104											
254	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	15	.104	49	.104											
255	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	16	.104	50	.104											
256	1.2D + 1.5LM-12 + Maintenan..	Yes	Y		1	1.2	35	1.2	95	1.5	17	.104	51	.104											
257	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	2	.104	36	.104											
258	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	3	.104	37	.104											
259	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	4	.104	38	.104											
260	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	5	.104	39	.104											
261	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	6	.104	40	.104											
262	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	7	.104	41	.104											
263	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	8	.104	42	.104											
264	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	9	.104	43	.104											
265	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	10	.104	44	.104											
266	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	11	.104	45	.104											
267	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	12	.104	46	.104											
268	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	13	.104	47	.104											
269	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	14	.104	48	.104											
270	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	15	.104	49	.104											
271	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	16	.104	50	.104											
272	1.2D + 1.5LM-13 + Maintenan..	Yes	Y		1	1.2	35	1.2	96	1.5	17	.104	51	.104											
273	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	2	.104	36	.104											
274	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	3	.104	37	.104											
275	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	4	.104	38	.104											
276	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	5	.104	39	.104											
277	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	6	.104	40	.104											
278	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	7	.104	41	.104											
279	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	8	.104	42	.104											
280	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	9	.104	43	.104											
281	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	10	.104	44	.104											
282	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	11	.104	45	.104											
283	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	12	.104	46	.104											
284	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	13	.104	47	.104											
285	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	14	.104	48	.104											
286	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	15	.104	49	.104											
287	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	16	.104	50	.104											
288	1.2D + 1.5LM-14 + Maintenan..	Yes	Y		1	1.2	35	1.2	97	1.5	17	.104	51	.104											
289	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	2	.104	36	.104											
290	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	3	.104	37	.104											
291	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	4	.104	38	.104											
292	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	5	.104	39	.104											
293	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	6	.104	40	.104											
294	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	7	.104	41	.104											
295	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	8	.104	42	.104											
296	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	9	.104	43	.104											
297	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	10	.104	44	.104											
298	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	11	.104	45	.104											
299	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	12	.104	46	.104											
300	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	13	.104	47	.104											
301	1.2D + 1.5LM-15 + Maintenan..	Yes	Y		1	1.2	35	1.2	98	1.5	14	.104	48	.104											



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 Designer : JMA
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Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
302	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	15	.104	49	.104						
303	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	16	.104	50	.104						
304	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	17	.104	51	.104						

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	N19	max	1399.6526	77	145.5666	10	4645.1372	34	0	304	0	304	0	304
2		min	-1984.9665	101	-190.0504	18	-537.2144	10	0	1	0	1	0	1
3	N20	max	2994.76	30	4051.8369	49	-76.0082	5	0	304	0	304	0	304
4		min	-2466.6905	6	930.2739	10	-4500.3105	46	0	1	0	1	0	1
5	N96A	max	804.9264	24	69.2629	40	1793.5635	16	0	304	0	304	0	304
6		min	-847.6093	32	9.3326	15	-1783.1448	24	0	1	0	1	0	1
7	N98	max	849.2966	19	40.3597	42	803.036	19	0	304	0	304	0	304
8		min	-818.2334	11	5.0407	11	-804.8589	27	0	1	0	1	0	1
9	N96B	max	0	304	0	304	0	304	0	304	0	304	0	304
10		min	0	1	0	1	0	1	0	1	0	1	0	1
11	N98A	max	0	304	0	304	0	304	0	304	0	304	0	304
12		min	0	1	0	1	0	1	0	1	0	1	0	1
13	N98B	max	0	304	0	304	0	304	0	304	0	304	0	304
14		min	0	1	0	1	0	1	0	1	0	1	0	1
15	N99	max	0	304	0	304	0	304	0	304	0	304	0	304
16		min	0	1	0	1	0	1	0	1	0	1	0	1
17	N100	max	0	304	0	304	0	304	0	304	0	304	0	304
18		min	0	1	0	1	0	1	0	1	0	1	0	1
19	N102	max	0	304	0	304	0	304	0	304	0	304	0	304
20		min	0	1	0	1	0	1	0	1	0	1	0	1
21	N102A	max	0	304	0	304	0	304	0	304	0	304	0	304
22		min	0	1	0	1	0	1	0	1	0	1	0	1
23	N103	max	0	304	0	304	0	304	0	304	0	304	0	304
24		min	0	1	0	1	0	1	0	1	0	1	0	1
25	N104	max	0	304	0	304	0	304	0	304	0	304	0	304
26		min	0	1	0	1	0	1	0	1	0	1	0	1
27	N105	max	0	304	0	304	0	304	0	304	0	304	0	304
28		min	0	1	0	1	0	1	0	1	0	1	0	1
29	N106	max	0	304	0	304	0	304	0	304	0	304	0	304
30		min	0	1	0	1	0	1	0	1	0	1	0	1
31	N107	max	0	304	0	304	0	304	0	304	0	304	0	304
32		min	0	1	0	1	0	1	0	1	0	1	0	1
33	Totals:	max	2510.6128	30	4048.7017	41	3292.9049	2						
34		min	-2510.6131	6	1101.7932	17	-3292.905	26						

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

Member	Shape	Code Che...	Loc[ft]	LC	Shear Che...	Lo.....	phi*Pnc ...	phi*Pnt [lb]	phi*M...	phi*M.....	Eqn	
1	TH	PIPE 3.0	.564	6.0417	30	.222	8.4...	49213.2...	65205	5748...	5748...1	H1-1b
2	BH	PIPE 3.0	.387	8.4583	24	.238	7.25	49213.2...	65205	5748...	5748...	H1-1b
3	MP4	PIPE 2.5	.355	6.4583	33	.187	6.4...	22373.4...	50715	3596...	3596...	H1-1b
4	MP2	PIPE 2.5	.359	3.5417	65	.112	3.5...	22373.4...	50715	3596...	3596...	H1-1b
5	MP1	PIPE 2.5	.331	6.4583	18	.145	6.4...	22373.4...	50715	3596...	3596...	H1-1b
6	TB2	PIPE 2.0	.279	5.2229	32	.007	10...	9394.59...	32130	1871...	1871...	H1-1a
7	SO1	HSS4X4X4	.331	1.25	30	.106	3 y	134360...	139518	1618...	1618...	H1-1b
8	SO2	HSS4X4X4	.240	1.25	100	.107	.25 y	134360...	139518	1618...	1618...	H1-1b
9	TB1	PIPE 2.0	.057	6.151	19	.004	0	20412.6...	32130	1871...	1871...	H1-...
10	MP3	PIPE 2.5	.427	3.5417	112	.145	3.5...	22373.4...	50715	3596...	3596...	H1-1b
11	D1	L3X3X3	.181	1.9932	48	.020	0 y	23705.8...	35316	1320...	2583...	H2-1



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

Member	Shape	Code Che...	Loc[ft]	LC	Shear Che...	Lo.....	phi*Pnc ...	phi*Pnt [lb]	phi*M...	phi*M.....	Eqn	
12	VP1	PIPE 4.0	.212	1.0417	110	.287	3.9...	86073.9...	93240	1063...	1063...	H3-6
13	M21	L2.5x2.5x3	.212	1.114	5	.012	0 z...	24491.4...	29192.4	872.5...	1948...	H2-1
14	M22	L2.5x2.5x3	.145	1.114	19	.012	0 y...	24491.4...	29192.4	872.5...	1948...	H2-1
15	M23	L2.5x2.5x3	.102	.7691	24	.015	1.5..z...	26622.0...	29192.4	872.5...	1971...	H2-1
16	M24	L2.5x2.5x3	.166	.7691	30	.016	1.5..y...	26622.0...	29192.4	872.5...	1971...	H2-1

Wind Load on Antennas TIA-222-G

$$q_z = 0.00256 K_z K_{zt} K_d V^2 I$$

$$F = q_z G_h C_a A_a$$

Occupancy :	II	Classification of Structures (Table 2-1)
Exposure :	C	Exposure Category
V :	93 mph	Basic Wind Speed (Annex B)
z :	165 ft	Height above ground level to the center of the antenna
I :	1.00	Importance Factor (Table 2-3)
K _z :	1.41	Velocity Pressure Coefficient (2.6.5.2)
K _{zt} :	1.00	Topographic Factor (2.6.6.4)
K _d :	0.95	Wind Direction Probability Factor (Table 2-2)
q _z :	29.6 psf	Velocity Pressure at Height z
G _h :	1.00	Strength Design of Appurtenances and their Connections

Mount & Antenna Wind Loads

Appurtenance	Height <i>in</i>	Width <i>in</i>	h/D	Shape	C _a	A _a <i>sq ft</i>	Force <i>lb</i>	Force <i>plf</i>
TPA65R-BU8D	96.0	21.0	4.6	Flat	1.292	14.00	535.1	
HPA-65R-BU8A	96.0	11.7	8.2	Flat	1.440	7.80	332.3	
RRUS 4478 B14	18.1	13.4	1.4	Flat	1.200	1.68	59.8	
4449	18.0	13.2	1.4	Flat	1.200	1.65	58.5	
8843	18.0	13.2	1.4	Flat	1.200	1.65	58.5	
RRUS 4415 B25	29.5	11.8	2.5	Flat	1.200	2.42	85.8	
DC6-48-60-18-8F	24.0	11.0	2.2	Round	0.500	1.83	27.1	
RRUS E2 B29	20.4	18.5	1.1	Flat	1.200	2.62	93.0	
Pipe2STD x 8 ft	96.0	2.4	40.4	Round	1.200	1.58	56.2	7.0
Pipe3STD x 14.5 ft	174.0	3.5	49.7	Round	1.194	4.23	149.3	10.3
HSS4X4X1/4 x 3 ft	36.0	4.0	9.0	Flat	1.467	1.00	43.4	14.5
Pipe2-1/2STD x 10 ft	120.0	2.9	41.7	Round	1.200	2.40	85.0	8.5
Pipe4STD x 5 ft	60.0	4.5	13.3	Round	0.793	1.88	44.0	8.8
L3X3X3/16 x 4 ft	48.0	3.0	16.0	Flat	1.700	1.00	50.3	12.6

Wind Load on Antennas TIA-222-G

$$q_z = 0.00256 K_z K_{zt} K_d V^2 I$$

$$F = q_z G_h C_a A_a$$

Occupancy :	II	Classification of Structures (Table 2-1)
Exposure :	C	Exposure Category
V :	.93 mph	Basic Wind Speed (Annex B)
z :	165 ft	Height above ground level to the center of the antenna
I :	1.00	Importance Factor (Table 2-3)
K _z :	1.41	Velocity Pressure Coefficient (2.6.5.2)
K _{zt} :	1.00	Topographic Factor (2.6.6.4)
K _d :	0.95	Wind Direction Probability Factor (Table 2-2)
q _z :	29.6 psf	Velocity Pressure at Height z
G _h :	1.00	Strength Design of Appurtenances and their Connections

Mount & Antenna Wind Loads

Appurtenance	Height <i>in</i>	Depth <i>in</i>	h/D	Shape	C _a	A _a <i>sq ft</i>	Force <i>lb</i>	Force <i>plf</i>
TPA65R-BU8D	96.0	7.8	12.3	Flat	1.577	5.20	242.6	
HPA-65R-BU8A	96.0	7.6	12.6	Flat	1.588	5.07	238.0	
RRUS 4478 B14	18.1	8.3	2.2	Flat	1.200	1.04	36.9	
4449	18.0	9.4	1.9	Flat	1.200	1.18	41.7	
8843	18.0	11.3	1.6	Flat	1.200	1.41	50.1	
RRUS 4415 B25	29.5	7.9	3.7	Flat	1.255	1.62	60.1	
DC6-48-60-18-8F	24.0	11.0	2.2	Round	0.500	1.83	27.1	
RRUS E2 B29	20.4	7.5	2.7	Flat	1.210	1.06	38.0	
Pipe2STD x 8 ft	96.0	2.4	40.4	Round	1.200	1.58	56.2	7.0
Pipe3STD x 14.5 ft	174.0	3.5	49.7	Round	1.194	4.23	149.3	10.3
HSS4X4X1/4 x 3 ft	36.0	3.3	10.9	Flat	1.530	0.83	37.3	12.4
Pipe2-1/2STD x 10 ft	120.0	2.9	41.7	Round	1.200	2.40	85.0	8.5
Pipe4STD x 5 ft	60.0	4.5	13.3	Round	0.793	1.88	44.0	8.8
L3X3X3/16 x 4 ft	48.0	3.0	16.0	Flat	1.700	1.00	50.3	12.6

Ice Wind Load on Antennas TIA-222-G

$$q_z = 0.00256 K_z K_{zt} K_d V^2 I$$

$$F = q_z G_h C_a A_a$$

Occupancy :	II	Classification of Structures (Table 2-1)
Exposure :	C	Exposure Category
V_i :	50 mph	Basic Wind Speed (Annex B)
z :	165 ft	Height above ground level to the center of the antenna
I :	1.00	Importance Factor (Table 2-3)
K_z :	1.41	Velocity Pressure Coefficient (2.6.5.2)
K_{zt} :	1.00	Topographic Factor (2.6.6.4)
K_d :	0.95	Wind Direction Probability Factor (Table 2-2)
q_z :	8.55 psf	Velocity Pressure at Height z
G_h :	1.00	Strength Design of Appurtenances and their Connections
t_{iz} :	1.76 in	Design Thickness of Radial Ice at Height z (2.6.8)

Mount & Antenna Ice Wind Loads

Appurtenance	Height <i>in</i>	Width <i>in</i>	h/D	Shape	C_a	A_a <i>sq ft</i>	Force <i>lb</i>	Force <i>plf</i>
TPA65R-BU8D	99.5	24.5	4.1	Flat	1.269	16.95	183.9	
HPA-65R-BU8A	99.5	15.2	6.5	Flat	1.379	10.52	124.1	
RRUS 4478 B14	21.6	16.9	1.3	Flat	1.200	2.54	26.1	
4449	21.5	16.7	1.3	Flat	1.200	2.50	25.6	
8843	21.5	16.7	1.3	Flat	1.200	2.50	25.6	
RRUS 4415 B25	33.0	15.3	2.2	Flat	1.200	3.51	36.1	
DC6-48-60-18-8F	27.5	14.5	1.9	Round	0.700	2.78	16.6	
RRUS E2 B29	23.9	22.0	1.1	Flat	1.200	3.66	37.5	
Pipe2STD x 8 ft	99.5	5.9	16.9	Round	1.019	4.08	35.5	4.3
Pipe3STD x 14.5 ft	177.5	7.0	25.3	Round	1.200	8.66	88.8	6.0
HSS4X4X1/4 x 3 ft	39.5	7.5	5.3	Flat	1.322	2.07	23.3	7.1
Pipe2-1/2STD x 10 ft	123.5	6.4	19.3	Round	1.073	5.49	50.4	4.9
Pipe4STD x 5 ft	63.5	8.0	7.9	Round	0.820	3.54	24.8	4.7
L3X3X3/16 x 4 ft	51.5	6.5	7.9	Flat	1.430	2.33	28.5	6.6

Ice Wind Load on Antennas TIA-222-G

$$q_z = 0.00256 K_z K_{zt} K_d V^2 I$$

$$F = q_z G_h C_a A_a$$

Occupancy :	II	Classification of Structures (Table 2-1)
Exposure :	C	Exposure Category
V_i :	50 mph	Basic Wind Speed (Annex B)
z :	165 ft	Height above ground level to the center of the antenna
I :	1.00	Importance Factor (Table 2-3)
K_z :	1.41	Velocity Pressure Coefficient (2.6.5.2)
K_{zt} :	1.00	Topographic Factor (2.6.6.4)
K_d :	0.95	Wind Direction Probability Factor (Table 2-2)
q_z :	8.55 psf	Velocity Pressure at Height z
G_h :	1.00	Strength Design of Appurtenances and their Connections
t_{iz} :	1.76 in	Design Thickness of Radial Ice at Height z (2.6.8)

Mount & Antenna Ice Wind Loads

Appurtenance	Height <i>in</i>	Depth <i>in</i>	h/D	Shape	C_a	A_a <i>sq ft</i>	Force <i>lb</i>	Force <i>plf</i>
TPA65R-BU8D	99.5	11.3	8.8	Flat	1.460	7.83	97.7	
HPA-65R-BU8A	99.5	11.1	8.9	Flat	1.465	7.69	96.3	
RRUS 4478 B14	21.6	11.8	1.8	Flat	1.200	1.77	18.2	
4449	21.5	12.9	1.7	Flat	1.200	1.93	19.8	
8843	21.5	14.8	1.5	Flat	1.200	2.22	22.7	
RRUS 4415 B25	33.0	11.4	2.9	Flat	1.217	2.62	27.3	
DC6-48-60-18-8F	27.5	14.5	1.9	Round	0.700	2.78	16.6	
RRUS E2 B29	23.9	11.0	2.2	Flat	1.200	1.83	18.8	
Pipe2STD x 8 ft	99.5	5.9	16.9	Round	1.019	4.08	35.5	4.3
Pipe3STD x 14.5 ft	177.5	7.0	25.3	Round	1.200	8.66	88.8	6.0
HSS4X4X1/4 x 3 ft	39.5	6.8	5.8	Flat	1.346	1.87	21.6	6.5
Pipe2-1/2STD x 10 ft	123.5	6.4	19.3	Round	1.073	5.49	50.4	4.9
Pipe4STD x 5 ft	63.5	8.0	7.9	Round	0.820	3.54	24.8	4.7
L3X3X3/16 x 4 ft	51.5	6.5	7.9	Flat	1.430	2.33	28.5	6.6

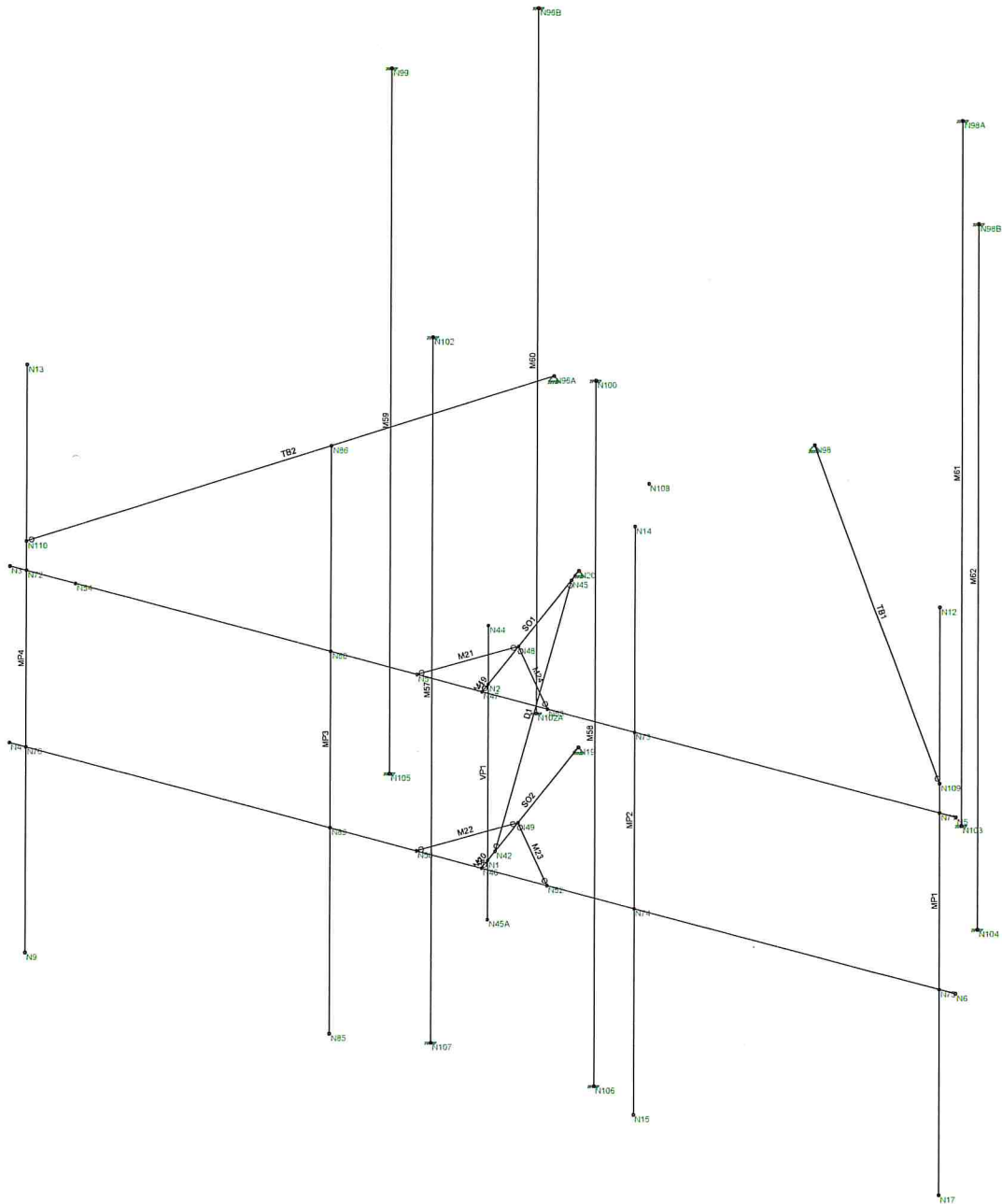
Ice Load on Antennas TIA-222-G

Ice Weight :	56	pcf	Ice Density
t _i :	0.75		Design Ice Thickness
Occupancy :	II		Classification of Structures (Table 2-1)
Exposure :	C		Exposure Category
V _i :	50	mph	Basic Wind Speed (Annex B)
z :	165	ft	Height above ground level to the center of the antenna
I :	1.00		Importance Factor (Table 2-3)
K _{iz} :	1.17		Height Escalation Factor for Ice Thickness
K _{zt} :	1.00		Topographic Factor (2.6.6.4)
t _{iz} :	1.76	in	Design Thickness of Radial Ice at Height z (2.6.8)

Platform Grating : None
 Ice Load : psf

Mount & Antenna Ice Wind Loads

Appurtenance	Height	Width	Depth	Diam.	Area	Perim.	Ice Weight	
	<i>in</i>	<i>in</i>	<i>in</i>	<i>in</i>	<i>sq in</i>	<i>in</i>	<i>lb</i>	<i>plf</i>
TPA65R-BU8D	99.5	24.5	11.3	22.40	133.75	64.65	416.1	
HPA-65R-BU8A	99.5	15.2	11.1	13.95	86.98	45.65	270.6	
RRUS 4478 B14	21.6	16.9	11.8	15.74	96.88	50.37	56.8	
4449	21.5	16.7	12.9	16.20	99.41	52.23	58.0	
8843	21.5	16.7	14.8	17.37	105.89	56.03	61.8	
RRUS 4415 B25	33.0	15.3	11.4	14.20	88.36	46.45	84.5	
DC6-48-60-18-8F	27.5	14.5	14.5	11.00	70.64	40.09	54.9	
RRUS E2 B29	23.9	22.0	11.0	19.96	120.25	59.05	79.5	
Pipe2STD x 8 ft	99.5	5.9	5.9	2.38	22.90	13.00	71.2	8.9
Pipe3STD x 14.5 ft	177.5	7.0	7.0	3.50	29.13	16.53	164.2	11.3
HSS4X4X1/4 x 3 ft	39.5	7.5	6.8	5.19	38.49	27.49	44.9	15.0
Pipe2-1/2STD x 10 ft	123.5	6.4	6.4	2.88	25.67	14.57	99.8	10.0
Pipe4STD x 5 ft	63.5	8.0	8.0	4.50	34.66	19.67	67.4	13.5
L3X3X3/16 x 4 ft	51.5	6.5	6.5	4.24	33.24	19.05	51.7	12.9



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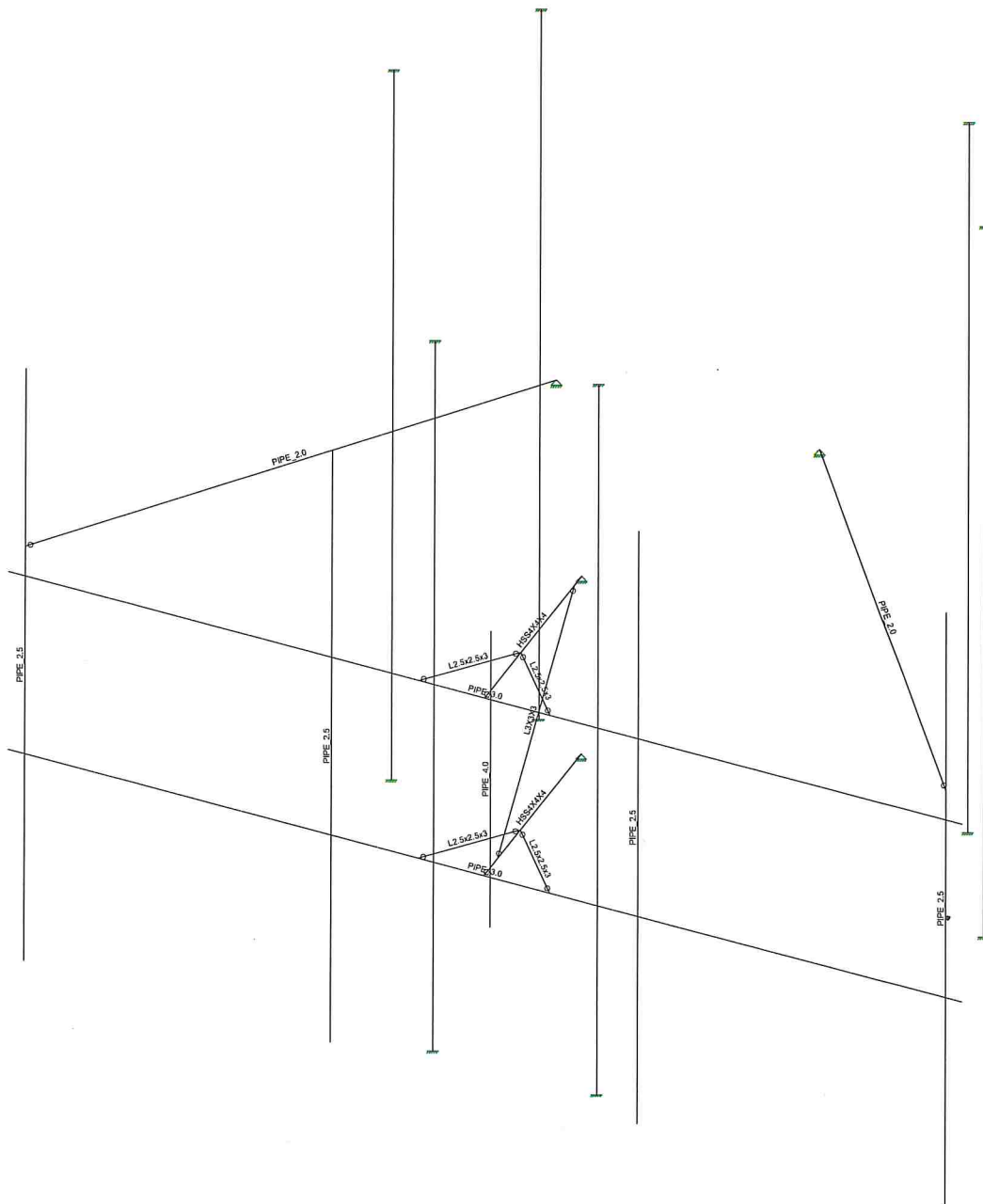
44031

Brookfield-Carmen Hill Road (CT2586)

SK - 1

July 24, 2019 at 4:13 PM

44031 Mount_Rev1_T-Frame.r3d



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Brookfield-Carmen Hill Road (CT2586)

SK - 2

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44031 Mount_Rev1_T-Frame.r3d



Company : Ramaker & Associates, Inc.
 Designer : JMA
 Job Number : 44031
 Model Name : Brookfield-Carmen Hill Road (CT2586)

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Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
3	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.42	29000	11154	.3	.65	.49	42	1.4	58	1.3
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.4	58	1.3
6	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Pipe 2.0	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Pipe 2.5	PIPE 2.5	Beam	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
3	Pipe 3.0	PIPE 3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
4	Pipe 4.0	PIPE 4.0	Beam	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
5	HSS4x4x1/4	HSS4X4X4	Beam	SquareTube	A500 Gr.46	Typical	3.37	7.8	7.8	12.8
6	L3x3x3/16	L3X3X3	Beam	Single Angle	A36 Gr.36	Typical	1.09	.948	.948	.014
7	L2.5x2.5x3	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical	.901	.535	.535	.011

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	TH	N3	N5		180	Pipe 3.0	Beam	Pipe	A53 Gr. B	Typical
2	BH	N4	N6		270	Pipe 3.0	Beam	Pipe	A53 Gr. B	Typical
3	MP4	N9	N13			Pipe 2.5	Beam	Pipe	A53 Gr. B	Typical
4	MP2	N15	N14			Pipe 2.5	Beam	Pipe	A53 Gr. B	Typical
5	MP1	N17	N12			Pipe 2.5	Beam	Pipe	A53 Gr. B	Typical
6	TB2	N110	N96A			Pipe 2.0	Beam	Pipe	A53 Gr. B	Typical
7	SO1	N2	N20			HSS4x4x1/4	Beam	SquareTube	A500 Gr.46	Typical
8	SO2	N1	N19			HSS4x4x1/4	Beam	SquareTube	A500 Gr.46	Typical
9	TB1	N109	N98			Pipe 2.0	Beam	Pipe	A53 Gr. B	Typical
10	MP3	N85	N86			Pipe 2.5	Beam	Pipe	A53 Gr. B	Typical
11	M57	N107	N102			RIGID	None	None	RIGID	Typical
12	M58	N106	N100			RIGID	None	None	RIGID	Typical
13	M59	N105	N99			RIGID	None	None	RIGID	Typical
14	M60	N102A	N96B			RIGID	None	None	RIGID	Typical
15	M61	N103	N98A			RIGID	None	None	RIGID	Typical
16	M62	N104	N98B			RIGID	None	None	RIGID	Typical
17	D1	N42	N45			L3x3x3/16	Beam	Single Angle	A36 Gr.36	Typical
18	VP1	N45A	N44			Pipe 4.0	Beam	Pipe	A53 Gr. B	Typical
19	M19	N2	N47			RIGID	None	None	RIGID	Typical
20	M20	N1	N46			RIGID	None	None	RIGID	Typical
21	M21	N48	N51		270	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical
22	M22	N49	N50		180	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical
23	M23	N49	N52		90	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical
24	M24	N48	N53			L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Mem...Surface(P...
1	Antenna Dead	None					12	
2	Antenna Wind 0	None					24	
3	Antenna Wind 30	None					24	
4	Antenna Wind 45	None					24	
5	Antenna Wind 60	None					24	



Company : Ramaker & Associates, Inc.
 Designer : JMA
 Job Number : 44031
 Model Name : Brookfield-Carmen Hill Road (CT2586)

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Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Mem..Surface(P...
6 Antenna Wind 90	None					24	
7 Antenna Wind 120	None					24	
8 Antenna Wind 135	None					24	
9 Antenna Wind 150	None					24	
10 Antenna Wind 180	None					24	
11 Antenna Wind 210	None					24	
12 Antenna Wind 225	None					24	
13 Antenna Wind 240	None					24	
14 Antenna Wind 270	None					24	
15 Antenna Wind 300	None					24	
16 Antenna Wind 315	None					24	
17 Antenna Wind 330	None					24	
18 Antenna Ice Dead	None					12	
19 Antenna Wind w/Ice 0	None					24	
20 Antenna Wind w/Ice 30	None					24	
21 Antenna Wind w/Ice 45	None					24	
22 Antenna Wind w/Ice 60	None					24	
23 Antenna Wind w/Ice 90	None					24	
24 Antenna Wind w/Ice 120	None					24	
25 Antenna Wind w/Ice 135	None					24	
26 Antenna Wind w/Ice 150	None					24	
27 Antenna Wind w/Ice 180	None					24	
28 Antenna Wind w/Ice 210	None					24	
29 Antenna Wind w/Ice 225	None					24	
30 Antenna Wind w/Ice 240	None					24	
31 Antenna Wind w/Ice 270	None					24	
32 Antenna Wind w/Ice 300	None					24	
33 Antenna Wind w/Ice 315	None					24	
34 Antenna Wind w/Ice 330	None					24	
35 Member Dead	None		-1				
36 Member Wind 0	None						24
37 Member Wind 30	None						24
38 Member Wind 45	None						24
39 Member Wind 60	None						24
40 Member Wind 90	None						24
41 Member Wind 120	None						24
42 Member Wind 135	None						24
43 Member Wind 150	None						24
44 Member Wind 180	None						24
45 Member Wind 210	None						24
46 Member Wind 225	None						24
47 Member Wind 240	None						24
48 Member Wind 270	None						24
49 Member Wind 300	None						24
50 Member Wind 315	None						24
51 Member Wind 330	None						24
52 Member Ice Dead	None						12
53 Member Wind w/Ice 0	None						24
54 Member Wind w/Ice 30	None						24
55 Member Wind w/Ice 45	None						24
56 Member Wind w/Ice 60	None						24
57 Member Wind w/Ice 90	None						24
58 Member Wind w/Ice 120	None						24
59 Member Wind w/Ice 135	None						24
60 Member Wind w/Ice 150	None						24
61 Member Wind w/Ice 180	None						24
62 Member Wind w/Ice 210	None						24



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Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Mem...Surface(P...
63	Member Wind w/Ice 225	None						24
64	Member Wind w/Ice 240	None						24
65	Member Wind w/Ice 270	None						24
66	Member Wind w/Ice 300	None						24
67	Member Wind w/Ice 315	None						24
68	Member Wind w/Ice 330	None						24
69	LV-1	None					1	
70	LV-2	None					1	
71	LV-3	None					1	
72	LV-4	None					1	
73	LV-5	None					1	
74	LV-6	None					1	
75	LV-7	None						
76	LV-8	None						
77	LV-9	None						
78	LV-10	None						
79	LV-11	None						
80	LV-12	None						
81	LV-13	None						
82	LV-14	None						
83	LV-15	None						
84	LM-1	None					1	
85	LM-2	None					1	
86	LM-3	None					1	
87	LM-4	None					1	
88	LM-5	None						
89	LM-6	None						
90	LM-7	None						
91	LM-8	None						
92	LM-9	None						
93	LM-10	None						
94	LM-11	None						
95	LM-12	None						
96	LM-13	None						
97	LM-14	None						
98	LM-15	None						

Load Combinations

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4D	Yes	Y		1	1.4	35	1.4												
2	0.9D + 1.6 (0-Wind)	Yes	Y		1	.9	35	.9	2	1.6	36	1.6								
3	0.9D + 1.6 (30-Wind)	Yes	Y		1	.9	35	.9	3	1.6	37	1.6								
4	0.9D + 1.6 (45-Wind)	Yes	Y		1	.9	35	.9	4	1.6	38	1.6								
5	0.9D + 1.6 (60-Wind)	Yes	Y		1	.9	35	.9	5	1.6	39	1.6								
6	0.9D + 1.6 (90-Wind)	Yes	Y		1	.9	35	.9	6	1.6	40	1.6								
7	0.9D + 1.6 (120-Wind)	Yes	Y		1	.9	35	.9	7	1.6	41	1.6								
8	0.9D + 1.6 (135-Wind)	Yes	Y		1	.9	35	.9	8	1.6	42	1.6								
9	0.9D + 1.6 (150-Wind)	Yes	Y		1	.9	35	.9	9	1.6	43	1.6								
10	0.9D + 1.6 (180-Wind)	Yes	Y		1	.9	35	.9	10	1.6	44	1.6								
11	0.9D + 1.6 (210-Wind)	Yes	Y		1	.9	35	.9	11	1.6	45	1.6								
12	0.9D + 1.6 (225-Wind)	Yes	Y		1	.9	35	.9	12	1.6	46	1.6								
13	0.9D + 1.6 (240-Wind)	Yes	Y		1	.9	35	.9	13	1.6	47	1.6								
14	0.9D + 1.6 (270-Wind)	Yes	Y		1	.9	35	.9	14	1.6	48	1.6								
15	0.9D + 1.6 (300-Wind)	Yes	Y		1	.9	35	.9	15	1.6	49	1.6								
16	0.9D + 1.6 (315-Wind)	Yes	Y		1	.9	35	.9	16	1.6	50	1.6								



Load Combinations (Continued)

Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
17	0.9D + 1.6 (330-Wind)	Yes	Y		1	.9	35	.9	17	1.6	51	1.6									
18	1.2D + 1.6 (0-Wind)	Yes	Y		1	1.2	35	1.2	2	1.6	36	1.6									
19	1.2D + 1.6 (30-Wind)	Yes	Y		1	1.2	35	1.2	3	1.6	37	1.6									
20	1.2D + 1.6 (45-Wind)	Yes	Y		1	1.2	35	1.2	4	1.6	38	1.6									
21	1.2D + 1.6 (60-Wind)	Yes	Y		1	1.2	35	1.2	5	1.6	39	1.6									
22	1.2D + 1.6 (90-Wind)	Yes	Y		1	1.2	35	1.2	6	1.6	40	1.6									
23	1.2D + 1.6 (120-Wind)	Yes	Y		1	1.2	35	1.2	7	1.6	41	1.6									
24	1.2D + 1.6 (135-Wind)	Yes	Y		1	1.2	35	1.2	8	1.6	42	1.6									
25	1.2D + 1.6 (150-Wind)	Yes	Y		1	1.2	35	1.2	9	1.6	43	1.6									
26	1.2D + 1.6 (180-Wind)	Yes	Y		1	1.2	35	1.2	10	1.6	44	1.6									
27	1.2D + 1.6 (210-Wind)	Yes	Y		1	1.2	35	1.2	11	1.6	45	1.6									
28	1.2D + 1.6 (225-Wind)	Yes	Y		1	1.2	35	1.2	12	1.6	46	1.6									
29	1.2D + 1.6 (240-Wind)	Yes	Y		1	1.2	35	1.2	13	1.6	47	1.6									
30	1.2D + 1.6 (270-Wind)	Yes	Y		1	1.2	35	1.2	14	1.6	48	1.6									
31	1.2D + 1.6 (300-Wind)	Yes	Y		1	1.2	35	1.2	15	1.6	49	1.6									
32	1.2D + 1.6 (315-Wind)	Yes	Y		1	1.2	35	1.2	16	1.6	50	1.6									
33	1.2D + 1.6 (330-Wind)	Yes	Y		1	1.2	35	1.2	17	1.6	51	1.6									
34	1.2D + 1.0Di + 1.0 (0-Wind Ice)	Yes	Y		1	1.2	35	1.2	18	1	52	1	19	1	53	1					
35	1.2D + 1.0Di + 1.0 (30-Wind I...)	Yes	Y		1	1.2	35	1.2	18	1	52	1	20	1	54	1					
36	1.2D + 1.0Di + 1.0 (45-Wind I...)	Yes	Y		1	1.2	35	1.2	18	1	52	1	21	1	55	1					
37	1.2D + 1.0Di + 1.0 (60-Wind I...)	Yes	Y		1	1.2	35	1.2	18	1	52	1	22	1	56	1					
38	1.2D + 1.0Di + 1.0 (90-Wind I...)	Yes	Y		1	1.2	35	1.2	18	1	52	1	23	1	57	1					
39	1.2D + 1.0Di + 1.0 (120-Wind ..)	Yes	Y		1	1.2	35	1.2	18	1	52	1	24	1	58	1					
40	1.2D + 1.0Di + 1.0 (135-Wind ..)	Yes	Y		1	1.2	35	1.2	18	1	52	1	25	1	59	1					
41	1.2D + 1.0Di + 1.0 (150-Wind ..)	Yes	Y		1	1.2	35	1.2	18	1	52	1	26	1	60	1					
42	1.2D + 1.0Di + 1.0 (180-Wind ..)	Yes	Y		1	1.2	35	1.2	18	1	52	1	27	1	61	1					
43	1.2D + 1.0Di + 1.0 (210-Wind ..)	Yes	Y		1	1.2	35	1.2	18	1	52	1	28	1	62	1					
44	1.2D + 1.0Di + 1.0 (225-Wind ..)	Yes	Y		1	1.2	35	1.2	18	1	52	1	29	1	63	1					
45	1.2D + 1.0Di + 1.0 (240-Wind ..)	Yes	Y		1	1.2	35	1.2	18	1	52	1	30	1	64	1					
46	1.2D + 1.0Di + 1.0 (270-Wind ..)	Yes	Y		1	1.2	35	1.2	18	1	52	1	31	1	65	1					
47	1.2D + 1.0Di + 1.0 (300-Wind ..)	Yes	Y		1	1.2	35	1.2	18	1	52	1	32	1	66	1					
48	1.2D + 1.0Di + 1.0 (315-Wind ..)	Yes	Y		1	1.2	35	1.2	18	1	52	1	33	1	67	1					
49	1.2D + 1.0Di + 1.0 (330-Wind ..)	Yes	Y		1	1.2	35	1.2	18	1	52	1	34	1	68	1					
50	1.2D + 1.5LV-1	Yes	Y		1	1.2	35	1.2	69	1.5											
51	1.2D + 1.5LV-2	Yes	Y		1	1.2	35	1.2	70	1.5											
52	1.2D + 1.5LV-3	Yes	Y		1	1.2	35	1.2	71	1.5											
53	1.2D + 1.5LV-4	Yes	Y		1	1.2	35	1.2	72	1.5											
54	1.2D + 1.5LV-5	Yes	Y		1	1.2	35	1.2	73	1.5											
55	1.2D + 1.5LV-6	Yes	Y		1	1.2	35	1.2	74	1.5											
56	1.2D + 1.5LV-7	Yes	Y		1	1.2	35	1.2	75	1.5											
57	1.2D + 1.5LV-8	Yes	Y		1	1.2	35	1.2	76	1.5											
58	1.2D + 1.5LV-9	Yes	Y		1	1.2	35	1.2	77	1.5											
59	1.2D + 1.5LV-10	Yes	Y		1	1.2	35	1.2	78	1.5											
60	1.2D + 1.5LV-11	Yes	Y		1	1.2	35	1.2	79	1.5											
61	1.2D + 1.5LV-12	Yes	Y		1	1.2	35	1.2	80	1.5											
62	1.2D + 1.5LV-13	Yes	Y		1	1.2	35	1.2	81	1.5											
63	1.2D + 1.5LV-14	Yes	Y		1	1.2	35	1.2	82	1.5											
64	1.2D + 1.5LV-15	Yes	Y		1	1.2	35	1.2	83	1.5											
65	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	2	.104	36	.104							
66	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	3	.104	37	.104							
67	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	4	.104	38	.104							
68	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	5	.104	39	.104							
69	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	6	.104	40	.104							
70	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	7	.104	41	.104							
71	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	8	.104	42	.104							
72	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	9	.104	43	.104							
73	1.2D + 1.5LM-1 + Maintenanc..	Yes	Y		1	1.2	35	1.2	84	1.5	10	.104	44	.104							



Company : Ramaker & Associates, Inc.
 Designer : JMA
 Job Number : 44031
 Model Name : Brookfield-Carmen Hill Road (CT2586)

July 24, 2019
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 Checked By: _____

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
74	1.2D + 1.5LM-1 + Maintenanc...	Yes	Y		1	1.2	35	1.2	84	1.5	11	.104	45	.104							
75	1.2D + 1.5LM-1 + Maintenanc...	Yes	Y		1	1.2	35	1.2	84	1.5	12	.104	46	.104							
76	1.2D + 1.5LM-1 + Maintenanc...	Yes	Y		1	1.2	35	1.2	84	1.5	13	.104	47	.104							
77	1.2D + 1.5LM-1 + Maintenanc...	Yes	Y		1	1.2	35	1.2	84	1.5	14	.104	48	.104							
78	1.2D + 1.5LM-1 + Maintenanc...	Yes	Y		1	1.2	35	1.2	84	1.5	15	.104	49	.104							
79	1.2D + 1.5LM-1 + Maintenanc...	Yes	Y		1	1.2	35	1.2	84	1.5	16	.104	50	.104							
80	1.2D + 1.5LM-1 + Maintenanc...	Yes	Y		1	1.2	35	1.2	84	1.5	17	.104	51	.104							
81	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	2	.104	36	.104							
82	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	3	.104	37	.104							
83	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	4	.104	38	.104							
84	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	5	.104	39	.104							
85	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	6	.104	40	.104							
86	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	7	.104	41	.104							
87	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	8	.104	42	.104							
88	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	9	.104	43	.104							
89	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	10	.104	44	.104							
90	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	11	.104	45	.104							
91	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	12	.104	46	.104							
92	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	13	.104	47	.104							
93	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	14	.104	48	.104							
94	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	15	.104	49	.104							
95	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	16	.104	50	.104							
96	1.2D + 1.5LM-2 + Maintenanc...	Yes	Y		1	1.2	35	1.2	85	1.5	17	.104	51	.104							
97	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	2	.104	36	.104							
98	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	3	.104	37	.104							
99	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	4	.104	38	.104							
100	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	5	.104	39	.104							
101	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	6	.104	40	.104							
102	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	7	.104	41	.104							
103	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	8	.104	42	.104							
104	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	9	.104	43	.104							
105	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	10	.104	44	.104							
106	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	11	.104	45	.104							
107	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	12	.104	46	.104							
108	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	13	.104	47	.104							
109	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	14	.104	48	.104							
110	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	15	.104	49	.104							
111	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	16	.104	50	.104							
112	1.2D + 1.5LM-3 + Maintenanc...	Yes	Y		1	1.2	35	1.2	86	1.5	17	.104	51	.104							
113	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	2	.104	36	.104							
114	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	3	.104	37	.104							
115	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	4	.104	38	.104							
116	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	5	.104	39	.104							
117	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	6	.104	40	.104							
118	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	7	.104	41	.104							
119	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	8	.104	42	.104							
120	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	9	.104	43	.104							
121	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	10	.104	44	.104							
122	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	11	.104	45	.104							
123	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	12	.104	46	.104							
124	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	13	.104	47	.104							
125	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	14	.104	48	.104							
126	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	15	.104	49	.104							
127	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	16	.104	50	.104							
128	1.2D + 1.5LM-4 + Maintenanc...	Yes	Y		1	1.2	35	1.2	87	1.5	17	.104	51	.104							
129	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	2	.104	36	.104							
130	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	3	.104	37	.104							



Company : Ramaker & Associates, Inc.
 Designer : JMA
 Job Number : 44031
 Model Name : Brookfield-Carmen Hill Road (CT2586)

July 24, 2019
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 Checked By: _____

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
131	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	4	.104	38	.104						
132	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	5	.104	39	.104						
133	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	6	.104	40	.104						
134	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	7	.104	41	.104						
135	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	8	.104	42	.104						
136	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	9	.104	43	.104						
137	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	10	.104	44	.104						
138	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	11	.104	45	.104						
139	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	12	.104	46	.104						
140	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	13	.104	47	.104						
141	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	14	.104	48	.104						
142	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	15	.104	49	.104						
143	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	16	.104	50	.104						
144	1.2D + 1.5LM-5 + Maintenanc...	Yes	Y		1	1.2	35	1.2	88	1.5	17	.104	51	.104						
145	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	2	.104	36	.104						
146	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	3	.104	37	.104						
147	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	4	.104	38	.104						
148	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	5	.104	39	.104						
149	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	6	.104	40	.104						
150	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	7	.104	41	.104						
151	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	8	.104	42	.104						
152	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	9	.104	43	.104						
153	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	10	.104	44	.104						
154	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	11	.104	45	.104						
155	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	12	.104	46	.104						
156	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	13	.104	47	.104						
157	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	14	.104	48	.104						
158	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	15	.104	49	.104						
159	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	16	.104	50	.104						
160	1.2D + 1.5LM-6 + Maintenanc...	Yes	Y		1	1.2	35	1.2	89	1.5	17	.104	51	.104						
161	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	2	.104	36	.104						
162	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	3	.104	37	.104						
163	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	4	.104	38	.104						
164	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	5	.104	39	.104						
165	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	6	.104	40	.104						
166	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	7	.104	41	.104						
167	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	8	.104	42	.104						
168	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	9	.104	43	.104						
169	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	10	.104	44	.104						
170	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	11	.104	45	.104						
171	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	12	.104	46	.104						
172	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	13	.104	47	.104						
173	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	14	.104	48	.104						
174	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	15	.104	49	.104						
175	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	16	.104	50	.104						
176	1.2D + 1.5LM-7 + Maintenanc...	Yes	Y		1	1.2	35	1.2	90	1.5	17	.104	51	.104						
177	1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	2	.104	36	.104						
178	1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	3	.104	37	.104						
179	1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	4	.104	38	.104						
180	1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	5	.104	39	.104						
181	1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	6	.104	40	.104						
182	1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	7	.104	41	.104						
183	1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	8	.104	42	.104						
184	1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	9	.104	43	.104						
185	1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	10	.104	44	.104						
186	1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	11	.104	45	.104						
187	1.2D + 1.5LM-8 + Maintenanc...	Yes	Y		1	1.2	35	1.2	91	1.5	12	.104	46	.104						



Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	
188	1.2D + 1.5LM-8 + Maintenanc..	Yes	Y		1	1.2	35	1.2	91	1.5	13	.104	47	.104								
189	1.2D + 1.5LM-8 + Maintenanc..	Yes	Y		1	1.2	35	1.2	91	1.5	14	.104	48	.104								
190	1.2D + 1.5LM-8 + Maintenanc..	Yes	Y		1	1.2	35	1.2	91	1.5	15	.104	49	.104								
191	1.2D + 1.5LM-8 + Maintenanc..	Yes	Y		1	1.2	35	1.2	91	1.5	16	.104	50	.104								
192	1.2D + 1.5LM-8 + Maintenanc..	Yes	Y		1	1.2	35	1.2	91	1.5	17	.104	51	.104								
193	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	2	.104	36	.104								
194	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	3	.104	37	.104								
195	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	4	.104	38	.104								
196	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	5	.104	39	.104								
197	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	6	.104	40	.104								
198	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	7	.104	41	.104								
199	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	8	.104	42	.104								
200	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	9	.104	43	.104								
201	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	10	.104	44	.104								
202	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	11	.104	45	.104								
203	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	12	.104	46	.104								
204	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	13	.104	47	.104								
205	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	14	.104	48	.104								
206	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	15	.104	49	.104								
207	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	16	.104	50	.104								
208	1.2D + 1.5LM-9 + Maintenanc..	Yes	Y		1	1.2	35	1.2	92	1.5	17	.104	51	.104								
209	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	2	.104	36	.104								
210	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	3	.104	37	.104								
211	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	4	.104	38	.104								
212	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	5	.104	39	.104								
213	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	6	.104	40	.104								
214	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	7	.104	41	.104								
215	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	8	.104	42	.104								
216	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	9	.104	43	.104								
217	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	10	.104	44	.104								
218	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	11	.104	45	.104								
219	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	12	.104	46	.104								
220	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	13	.104	47	.104								
221	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	14	.104	48	.104								
222	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	15	.104	49	.104								
223	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	16	.104	50	.104								
224	1.2D + 1.5LM-10 + Maintenanc..	Yes	Y		1	1.2	35	1.2	93	1.5	17	.104	51	.104								
225	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	2	.104	36	.104								
226	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	3	.104	37	.104								
227	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	4	.104	38	.104								
228	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	5	.104	39	.104								
229	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	6	.104	40	.104								
230	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	7	.104	41	.104								
231	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	8	.104	42	.104								
232	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	9	.104	43	.104								
233	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	10	.104	44	.104								
234	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	11	.104	45	.104								
235	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	12	.104	46	.104								
236	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	13	.104	47	.104								
237	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	14	.104	48	.104								
238	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	15	.104	49	.104								
239	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	16	.104	50	.104								
240	1.2D + 1.5LM-11 + Maintenanc..	Yes	Y		1	1.2	35	1.2	94	1.5	17	.104	51	.104								
241	1.2D + 1.5LM-12 + Maintenanc..	Yes	Y		1	1.2	35	1.2	95	1.5	2	.104	36	.104								
242	1.2D + 1.5LM-12 + Maintenanc..	Yes	Y		1	1.2	35	1.2	95	1.5	3	.104	37	.104								
243	1.2D + 1.5LM-12 + Maintenanc..	Yes	Y		1	1.2	35	1.2	95	1.5	4	.104	38	.104								
244	1.2D + 1.5LM-12 + Maintenanc..	Yes	Y		1	1.2	35	1.2	95	1.5	5	.104	39	.104								



Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
245	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	6	.104	40	.104																	
246	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	7	.104	41	.104																	
247	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	8	.104	42	.104																	
248	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	9	.104	43	.104																	
249	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	10	.104	44	.104																	
250	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	11	.104	45	.104																	
251	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	12	.104	46	.104																	
252	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	13	.104	47	.104																	
253	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	14	.104	48	.104																	
254	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	15	.104	49	.104																	
255	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	16	.104	50	.104																	
256	1.2D + 1.5LM-12 + Mainten...	Yes	Y		1	1.2	35	1.2	95	1.5	17	.104	51	.104																	
257	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	2	.104	36	.104																	
258	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	3	.104	37	.104																	
259	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	4	.104	38	.104																	
260	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	5	.104	39	.104																	
261	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	6	.104	40	.104																	
262	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	7	.104	41	.104																	
263	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	8	.104	42	.104																	
264	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	9	.104	43	.104																	
265	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	10	.104	44	.104																	
266	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	11	.104	45	.104																	
267	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	12	.104	46	.104																	
268	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	13	.104	47	.104																	
269	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	14	.104	48	.104																	
270	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	15	.104	49	.104																	
271	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	16	.104	50	.104																	
272	1.2D + 1.5LM-13 + Mainten...	Yes	Y		1	1.2	35	1.2	96	1.5	17	.104	51	.104																	
273	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	2	.104	36	.104																	
274	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	3	.104	37	.104																	
275	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	4	.104	38	.104																	
276	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	5	.104	39	.104																	
277	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	6	.104	40	.104																	
278	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	7	.104	41	.104																	
279	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	8	.104	42	.104																	
280	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	9	.104	43	.104																	
281	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	10	.104	44	.104																	
282	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	11	.104	45	.104																	
283	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	12	.104	46	.104																	
284	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	13	.104	47	.104																	
285	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	14	.104	48	.104																	
286	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	15	.104	49	.104																	
287	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	16	.104	50	.104																	
288	1.2D + 1.5LM-14 + Mainten...	Yes	Y		1	1.2	35	1.2	97	1.5	17	.104	51	.104																	
289	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	2	.104	36	.104																	
290	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	3	.104	37	.104																	
291	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	4	.104	38	.104																	
292	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	5	.104	39	.104																	
293	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	6	.104	40	.104																	
294	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	7	.104	41	.104																	
295	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	8	.104	42	.104																	
296	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	9	.104	43	.104																	
297	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	10	.104	44	.104																	
298	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	11	.104	45	.104																	
299	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	12	.104	46	.104																	
300	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	13	.104	47	.104																	
301	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	14	.104	48	.104																	



Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
302	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	15	.104	49	.104							
303	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	16	.104	50	.104							
304	1.2D + 1.5LM-15 + Mainten...	Yes	Y		1	1.2	35	1.2	98	1.5	17	.104	51	.104							

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	N19	max	1516.8328	77	179.9023	10	4485.0437	34	0	304	0	304	0	304
2		min	-2102.3863	101	-205.5569	18	-644.1329	10	0	1	0	1	0	1
3	N20	max	3080.9555	30	4039.7115	34	-875.329	10	0	304	0	304	0	304
4		min	-2562.1261	6	892.0289	10	-4044.6045	34	0	1	0	1	0	1
5	N96A	max	869.2721	25	56.6447	41	1239.0248	17	0	304	0	304	0	304
6		min	-901.8522	17	4.8416	16	-1239.2057	25	0	1	0	1	0	1
7	N98	max	934.0899	3	54.5866	42	1282.9152	3	0	304	0	304	0	304
8		min	-896.7813	27	6.5032	12	-1282.682	27	0	1	0	1	0	1
9	N96B	max	0	304	0	304	0	304	0	304	0	304	0	304
10		min	0	1	0	1	0	1	0	1	0	1	0	1
11	N98A	max	0	304	0	304	0	304	0	304	0	304	0	304
12		min	0	1	0	1	0	1	0	1	0	1	0	1
13	N98B	max	0	304	0	304	0	304	0	304	0	304	0	304
14		min	0	1	0	1	0	1	0	1	0	1	0	1
15	N99	max	0	304	0	304	0	304	0	304	0	304	0	304
16		min	0	1	0	1	0	1	0	1	0	1	0	1
17	N100	max	0	304	0	304	0	304	0	304	0	304	0	304
18		min	0	1	0	1	0	1	0	1	0	1	0	1
19	N102	max	0	304	0	304	0	304	0	304	0	304	0	304
20		min	0	1	0	1	0	1	0	1	0	1	0	1
21	N102A	max	0	304	0	304	0	304	0	304	0	304	0	304
22		min	0	1	0	1	0	1	0	1	0	1	0	1
23	N103	max	0	304	0	304	0	304	0	304	0	304	0	304
24		min	0	1	0	1	0	1	0	1	0	1	0	1
25	N104	max	0	304	0	304	0	304	0	304	0	304	0	304
26		min	0	1	0	1	0	1	0	1	0	1	0	1
27	N105	max	0	304	0	304	0	304	0	304	0	304	0	304
28		min	0	1	0	1	0	1	0	1	0	1	0	1
29	N106	max	0	304	0	304	0	304	0	304	0	304	0	304
30		min	0	1	0	1	0	1	0	1	0	1	0	1
31	N107	max	0	304	0	304	0	304	0	304	0	304	0	304
32		min	0	1	0	1	0	1	0	1	0	1	0	1
33	Totals:	max	2512.5571	30	4047.625	34	3294.0777	2						
34		min	-2512.5568	6	1099.1218	10	-3294.0778	26						

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

Member	Shape	Code Che...	Loc[ft]	LC	Shear Che...	Lo...	phi*Pnc	phi*Pnt [lb]	phi*M...	phi*M...	Eqn
1	TH	PIPE 3.0	.602	6.1927	30	.256	8.1...	49213.2...	65205	5748...	5748...1 H1-1b
2	BH	PIPE 3.0	.407	6.1927	20	.264	7.25	49213.2...	65205	5748...	5748...1 H1-1b
3	MP4	PIPE 2.5	.333	6.4583	33	.171	6.4...	22373.4...	50715	3596...	3596... H1-1b
4	MP2	PIPE 2.5	.365	3.5417	66	.128	3.5...	22373.4...	50715	3596...	3596... H1-1b
5	MP1	PIPE 2.5	.351	6.4583	19	.170	6.4...	22373.4...	50715	3596...	3596... H1-1b
6	TB2	PIPE 2.0	.110	8.3313	17	.006	0	13979.2...	32130	1871...	1871... H1-...
7	SO1	HSS4X4X4	.383	1	30	.135	0 z	134360...	139518	1618...	1618... H1-1b
8	SO2	HSS4X4X4	.278	1	100	.106	.25 y	134360...	139518	1618...	1618... H1-1b
9	TB1	PIPE 2.0	.114	8.3313	3	.006	0	13979.2...	32130	1871...	1871... H1-...
10	MP3	PIPE 2.5	.421	3.5417	112	.137	3.5...	22373.4...	50715	3596...	3596... H1-1b
11	D1	L3X3X3	.179	1.9932	48	.023	3.9...y	23705.8...	35316	1320...	2583... H2-1



Company : Ramaker & Associates, Inc.
 Designer : JMA
 Job Number : 44031
 Model Name : Brookfield-Carmen Hill Road (CT2586)

July 24, 2019
 4:14 PM
 Checked By: _____

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

Member	Shape	Code Che...	Loc[ft]	LC	Shear Che...Lo.....	phi*Pnc ...	phi*Pnt [lb]	phi*M...	phi*M.....	Eqn
12	VP1	PIPE 4.0	.231	1.0417	111	.329	3.9... 86073.9...	93240	1063...	1063... H3-6
13	M21	L2.5x2.5x3	.220	.781	30	.016	1.5..z ... 26558.7...	29192.4	872.5...	1971... H2-1
14	M22	L2.5x2.5x3	.152	.781	19	.015	1.5..y ... 26558.7...	29192.4	872.5...	1971... H2-1
15	M23	L2.5x2.5x3	.129	.781	25	.013	1.5..z ... 26558.7...	29192.4	872.5...	1971... H2-1
16	M24	L2.5x2.5x3	.237	.781	30	.013	1.5..y ... 26558.7...	29192.4	872.5...	1971... H2-1

Wind Load on Antennas TIA-222-G

$$q_z = 0.00256 K_z K_{zt} K_d V^2 I$$

$$F = q_z G_h C_a A_a$$

Occupancy :	II	Classification of Structures (Table 2-1)
Exposure :	C	Exposure Category
V :	93 mph	Basic Wind Speed (Annex B)
z :	165 ft	Height above ground level to the center of the antenna
I :	1.00	Importance Factor (Table 2-3)
K _z :	1.41	Velocity Pressure Coefficient (2.6.5.2)
K _{zt} :	1.00	Topographic Factor (2.6.6.4)
K _d :	0.95	Wind Direction Probability Factor (Table 2-2)
q _z :	29.6 psf	Velocity Pressure at Height z
G _h :	1.00	Strength Design of Appurtenances and their Connections

Mount & Antenna Wind Loads

Appurtenance	Height <i>in</i>	Width <i>in</i>	h/D	Shape	C _a	A _a <i>sq ft</i>	Force <i>lb</i>	Force <i>plf</i>
TPA65R-BU8D	96.0	21.0	4.6	Flat	1.292	14.00	535.1	
HPA-65R-BU8A	96.0	11.7	8.2	Flat	1.440	7.80	332.3	
RRUS 4478 B14	18.1	13.4	1.4	Flat	1.200	1.68	59.8	
4449	18.0	13.2	1.4	Flat	1.200	1.65	58.5	
8843	18.0	13.2	1.4	Flat	1.200	1.65	58.5	
RRUS 4415 B25	29.5	11.8	2.5	Flat	1.200	2.42	85.8	
DC6-48-60-18-8F	24.0	11.0	2.2	Round	0.500	1.83	27.1	
RRUS E2 B29	20.4	18.5	1.1	Flat	1.200	2.62	93.0	
Pipe2STD x 8 ft	96.0	2.4	40.4	Round	1.200	1.58	56.2	7.0
Pipe3STD x 14.5 ft	174.0	3.5	49.7	Round	1.194	4.23	149.3	10.3
HSS4X4X1/4 x 3 ft	36.0	4.0	9.0	Flat	1.467	1.00	43.4	14.5
Pipe2-1/2STD x 10 ft	120.0	2.9	41.7	Round	1.200	2.40	85.0	8.5
Pipe4STD x 5 ft	60.0	4.5	13.3	Round	0.793	1.88	44.0	8.8
L3X3X3/16 x 4 ft	48.0	3.0	16.0	Flat	1.700	1.00	50.3	12.6

Wind Load on Antennas TIA-222-G

$$q_z = 0.00256 K_z K_{zt} K_d V^2 I$$

$$F = q_z G_h C_a A_a$$

Occupancy :	II	Classification of Structures (Table 2-1)
Exposure :	C	Exposure Category
V :	93 mph	Basic Wind Speed (Annex B)
z :	165 ft	Height above ground level to the center of the antenna
I :	1.00	Importance Factor (Table 2-3)
K _z :	1.41	Velocity Pressure Coefficient (2.6.5.2)
K _{zt} :	1.00	Topographic Factor (2.6.6.4)
K _d :	0.95	Wind Direction Probability Factor (Table 2-2)
q _z :	29.6 psf	Velocity Pressure at Height z
G _h :	1.00	Strength Design of Appurtenances and their Connections

Mount & Antenna Wind Loads

Appurtenance	Height <i>in</i>	Depth <i>in</i>	h/D	Shape	C _a	A _a <i>sq ft</i>	Force <i>lb</i>	Force <i>plf</i>
TPA65R-BU8D	96.0	7.8	12.3	Flat	1.577	5.20	242.6	
HPA-65R-BU8A	96.0	7.6	12.6	Flat	1.588	5.07	238.0	
RRUS 4478 B14	18.1	8.3	2.2	Flat	1.200	1.04	36.9	
4449	18.0	9.4	1.9	Flat	1.200	1.18	41.7	
8843	18.0	11.3	1.6	Flat	1.200	1.41	50.1	
RRUS 4415 B25	29.5	7.9	3.7	Flat	1.255	1.62	60.1	
DC6-48-60-18-8F	24.0	11.0	2.2	Round	0.500	1.83	27.1	
RRUS E2 B29	20.4	7.5	2.7	Flat	1.210	1.06	38.0	
Pipe2STD x 8 ft	96.0	2.4	40.4	Round	1.200	1.58	56.2	7.0
Pipe3STD x 14.5 ft	174.0	3.5	49.7	Round	1.194	4.23	149.3	10.3
HSS4X4X1/4 x 3 ft	36.0	3.3	10.9	Flat	1.530	0.83	37.3	12.4
Pipe2-1/2STD x 10 ft	120.0	2.9	41.7	Round	1.200	2.40	85.0	8.5
Pipe4STD x 5 ft	60.0	4.5	13.3	Round	0.793	1.88	44.0	8.8
L3X3X3/16 x 4 ft	48.0	3.0	16.0	Flat	1.700	1.00	50.3	12.6

Ice Wind Load on Antennas TIA-222-G

$$q_z = 0.00256 K_z K_{zt} K_d V^2 I$$

$$F = q_z G_h C_a A_a$$

Occupancy :	II	Classification of Structures (Table 2-1)
Exposure :	C	Exposure Category
V_i :	50 mph	Basic Wind Speed (Annex B)
z :	165 ft	Height above ground level to the center of the antenna
I :	1.00	Importance Factor (Table 2-3)
K_z :	1.41	Velocity Pressure Coefficient (2.6.5.2)
K_{zt} :	1.00	Topographic Factor (2.6.6.4)
K_d :	0.95	Wind Direction Probability Factor (Table 2-2)
q_z :	8.55 psf	Velocity Pressure at Height z
G_h :	1.00	Strength Design of Appurtenances and their Connections
t_{iz} :	1.76 in	Design Thickness of Radial Ice at Height z (2.6.8)

Mount & Antenna Ice Wind Loads

Appurtenance	Height <i>in</i>	Width <i>in</i>	h/D	Shape	C_a	A_a <i>sq ft</i>	Force <i>lb</i>	Force <i>plf</i>
TPA65R-BU8D	99.5	24.5	4.1	Flat	1.269	16.95	183.9	
HPA-65R-BU8A	99.5	15.2	6.5	Flat	1.379	10.52	124.1	
RRUS 4478 B14	21.6	16.9	1.3	Flat	1.200	2.54	26.1	
4449	21.5	16.7	1.3	Flat	1.200	2.50	25.6	
8843	21.5	16.7	1.3	Flat	1.200	2.50	25.6	
RRUS 4415 B25	33.0	15.3	2.2	Flat	1.200	3.51	36.1	
DC6-48-60-18-8F	27.5	14.5	1.9	Round	0.700	2.78	16.6	
RRUS E2 B29	23.9	22.0	1.1	Flat	1.200	3.66	37.5	
Pipe2STD x 8 ft	99.5	5.9	16.9	Round	1.019	4.08	35.5	4.3
Pipe3STD x 14.5 ft	177.5	7.0	25.3	Round	1.200	8.66	88.8	6.0
HSS4X4X1/4 x 3 ft	39.5	7.5	5.3	Flat	1.322	2.07	23.3	7.1
Pipe2-1/2STD x 10 ft	123.5	6.4	19.3	Round	1.073	5.49	50.4	4.9
Pipe4STD x 5 ft	63.5	8.0	7.9	Round	0.820	3.54	24.8	4.7
L3X3X3/16 x 4 ft	51.5	6.5	7.9	Flat	1.430	2.33	28.5	6.6

Ice Wind Load on Antennas TIA-222-G

$$q_z = 0.00256 K_z K_{zt} K_d V^2 I$$

$$F = q_z G_h C_a A_a$$

Occupancy :	II	Classification of Structures (Table 2-1)
Exposure :	C	Exposure Category
V_i :	50 mph	Basic Wind Speed (Annex B)
z :	165 ft	Height above ground level to the center of the antenna
I :	1.00	Importance Factor (Table 2-3)
K_z :	1.41	Velocity Pressure Coefficient (2.6.5.2)
K_{zt} :	1.00	Topographic Factor (2.6.6.4)
K_d :	0.95	Wind Direction Probability Factor (Table 2-2)
q_z :	8.55 psf	Velocity Pressure at Height z
G_h :	1.00	Strength Design of Appurtenances and their Connections
t_{iz} :	1.76 in	Design Thickness of Radial Ice at Height z (2.6.8)

Mount & Antenna Ice Wind Loads

Appurtenance	Height <i>in</i>	Depth <i>in</i>	h/D	Shape	C_a	A_a <i>sq ft</i>	Force <i>lb</i>	Force <i>plf</i>
TPA65R-BU8D	99.5	11.3	8.8	Flat	1.460	7.83	97.7	
HPA-65R-BU8A	99.5	11.1	8.9	Flat	1.465	7.69	96.3	
RRUS 4478 B14	21.6	11.8	1.8	Flat	1.200	1.77	18.2	
4449	21.5	12.9	1.7	Flat	1.200	1.93	19.8	
8843	21.5	14.8	1.5	Flat	1.200	2.22	22.7	
RRUS 4415 B25	33.0	11.4	2.9	Flat	1.217	2.62	27.3	
DC6-48-60-18-8F	27.5	14.5	1.9	Round	0.700	2.78	16.6	
RRUS E2 B29	23.9	11.0	2.2	Flat	1.200	1.83	18.8	
Pipe2STD x 8 ft	99.5	5.9	16.9	Round	1.019	4.08	35.5	4.3
Pipe3STD x 14.5 ft	177.5	7.0	25.3	Round	1.200	8.66	88.8	6.0
HSS4X4X1/4 x 3 ft	39.5	6.8	5.8	Flat	1.346	1.87	21.6	6.5
Pipe2-1/2STD x 10 ft	123.5	6.4	19.3	Round	1.073	5.49	50.4	4.9
Pipe4STD x 5 ft	63.5	8.0	7.9	Round	0.820	3.54	24.8	4.7
L3X3X3/16 x 4 ft	51.5	6.5	7.9	Flat	1.430	2.33	28.5	6.6

Ice Load on Antennas TIA-222-G

Ice Weight :	56 pcf	Ice Density
t _i :	0.75	Design Ice Thickness
Occupancy :	II	Classification of Structures (Table 2-1)
Exposure :	C	Exposure Category
V _i :	50 mph	Basic Wind Speed (Annex B)
z :	165 ft	Height above ground level to the center of the antenna
I :	1.00	Importance Factor (Table 2-3)
K _{iz} :	1.17	Height Escalation Factor for Ice Thickness
K _{zt} :	1.00	Topographic Factor (2.6.6.4)
t _{iz} :	1.76 in	Design Thickness of Radial Ice at Height z (2.6.8)

Platform Grating : None
 Ice Load : psf

Mount & Antenna Ice Wind Loads

Appurtenance	Height	Width	Depth	Diam.	Area	Perim.	Ice Weight	
	<i>in</i>	<i>in</i>	<i>in</i>	<i>in</i>	<i>sq in</i>	<i>in</i>	<i>lb</i>	<i>plf</i>
TPA65R-BU8D	99.5	24.5	11.3	22.40	133.75	64.65	416.1	
HPA-65R-BU8A	99.5	15.2	11.1	13.95	86.98	45.65	270.6	
RRUS 4478 B14	21.6	16.9	11.8	15.74	96.88	50.37	56.8	
4449	21.5	16.7	12.9	16.20	99.41	52.23	58.0	
8843	21.5	16.7	14.8	17.37	105.89	56.03	61.8	
RRUS 4415 B25	33.0	15.3	11.4	14.20	88.36	46.45	84.5	
DC6-48-60-18-8F	27.5	14.5	14.5	11.00	70.64	40.09	54.9	
RRUS E2 B29	23.9	22.0	11.0	19.96	120.25	59.05	79.5	
Pipe2STD x 8 ft	99.5	5.9	5.9	2.38	22.90	13.00	71.2	8.9
Pipe3STD x 14.5 ft	177.5	7.0	7.0	3.50	29.13	16.53	164.2	11.3
HSS4X4X1/4 x 3 ft	39.5	7.5	6.8	5.19	38.49	27.49	44.9	15.0
Pipe2-1/2STD x 10 ft	123.5	6.4	6.4	2.88	25.67	14.57	99.8	10.0
Pipe4STD x 5 ft	63.5	8.0	8.0	4.50	34.66	19.67	67.4	13.5
L3X3X3/16 x 4 ft	51.5	6.5	6.5	4.24	33.24	19.05	51.7	12.9

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TOWN OF BROOKFIELD
ZONING COMMISSION

Permit No.: SP94-1
Page 1 of 4

SPECIAL PERMIT - DESIGN REVIEW APPROVAL

<u>Issued to:</u> Danbury Broadcasting, Inc. 1004 Federal Road Brookfield, CT 06804	<u>Owner of Record:</u> Danbury Broadcasting, Inc. 1004 Federal Road Brookfield, CT 06804						
<u>Location:</u> Lot No. B05013, 39 Carmen Hill Road, Brookfield, Connecticut.							
<u>Project Description:</u> Replacement of an existing radio tower. <table><tr><td><u>Permitted Use:</u> Existing/non-conforming</td><td><u>Zoning District:</u> R-100</td></tr><tr><td><u>Application Date:</u> 1-12-94</td><td><u>Public Hearing Date:</u> 2-10-94</td></tr><tr><td><u>Decision Date:</u> 2-24-94</td><td><u>Publication Date:</u> 3-1-94</td></tr></table>		<u>Permitted Use:</u> Existing/non-conforming	<u>Zoning District:</u> R-100	<u>Application Date:</u> 1-12-94	<u>Public Hearing Date:</u> 2-10-94	<u>Decision Date:</u> 2-24-94	<u>Publication Date:</u> 3-1-94
<u>Permitted Use:</u> Existing/non-conforming	<u>Zoning District:</u> R-100						
<u>Application Date:</u> 1-12-94	<u>Public Hearing Date:</u> 2-10-94						
<u>Decision Date:</u> 2-24-94	<u>Publication Date:</u> 3-1-94						
<u>Approval and Conditions:</u> This Special Permit is issued pursuant to Title 8, Chapter 124, Sect. 3c of CGS and Chapter 242, Section 301C. of the Code of the Town of Brookfield. It is subject to the General Conditions, Special Stipulations, plans, drawings and documents as set forth hereinafter.							
<u>Effectivity:</u> <u>This approval IS NOT VALID UNTIL:</u> A. This document is filed by the record owner of the property with (i) The Town Clerk, and (ii) upon the land records of the Town of Brookfield prior to the commencement of any site work, but in no event later than sixty (60) days from the date hereof. B. A performance bond in the form of an irrevokable, unconditional, automatically renewable, bank letter of credit in the amount of: \$ <u>7,500</u> is on file in the Office of the First Selectman, Town of Brookfield, prior to the commencement of any site work, but in no event later than six (6) months from the date hereof. You are required to PROMPTLY RETURN the following documents to the Office of the Zoning Commission: (1) Certificate of Filing and Recording executed by the Town Clerk, (2) Site Work Bond and Agreement executed by you, (3) A signed copy of this Special Permit acknowledging both receipt hereof and your obligations hereunder.							
<u>Attachments</u> (a part of this Special Permit): (1) General Conditions of Approval, (2) Special Stipulations, (3) Document Listing, (4) Certificate of Filing and Recording, (5) Site Work and Bond Agreement, (6) Acknowledgment copy of Permit							
<u>Approval and Certification:</u> Approved and certified to be a true copy of the Special Permit granted this <u>24th</u> day of <u>February</u> , <u>1994</u> at Brookfield, Connecticut. <u>E. Polyzos</u> for The Brookfield Zoning Commission							

SPECIAL PERMIT - DESIGN REVIEW APPROVAL

GENERAL CONDITIONS OF APPROVAL

-
- (1) This approval shall be void and of no effect unless construction of all improvements, buildings and structures shown on the site plan is completed within two (2) years of the date of this letter. However, the Commission may extend said two (2) year period up to an additional three (3) years, if the Commission finds exceptional difficulty would result in applying the original two (2) year completion period. Any renewal periods shall be upon the same terms and conditions as originally approved unless modified by the Commission.
 - (2) If any activity on the site creates an impact upon the inland wetlands of the Town of Brookfield, then this approval is subject to such condition, if any, as may be imposed by the Inland Wetland Commission, Town of Brookfield.
 - (3) Prior to the construction of any structure(s), water supply or drainage system, or connection to a septic treatment facility or sewer, you shall conform to the requirements placed upon you by the Building Official, Health Department and Water Pollution Control Authority, Town of Brookfield,. Copies of documents reflecting final approval of these systems shall be filed by you with this Commission within fifteen (15) days after such approval is given.
 - (4) Any additions to the exterior lighting or the parking areas shall require specific approval of the Commission and shall be in accordance with the appropriate requirements of the Zoning Regulations, Town of Brookfield.
 - (5) If landscaping is required by the Commission per the approved site plan, you shall maintain such landscaping in a healthy growing condition throughout the duration of the use it is intended to serve. The Commission shall require the replacement of any landscaping which does not survive its initial planting.
 - (6) You are required to meet all the requirements of Section 242-602, "Technical Standards" of the Brookfield Code.
 - (7) Prior to the occupancy of any structure, you shall conform to such requirements as may be placed upon you by the Fire Marshal and Fire Chief, Town of Brookfield, relative to: emergency vehicle access, building egress, and provisions for an adequate supply of water for fire fighting purposes.
 - (8) During construction of the project, you shall take such precautions as may be prescribed by the Building Official, the Highway and Police Departments, Town of Brookfield, and the Zoning Commission, so as to protect the general health, safety, and welfare, and to preclude undue nuisance to residents of the general area. Construction trailers, equipment and the like shall be kept to a minimum of twenty-five (25) feet inside the property lines at all times.

SPECIAL PERMIT - DESIGN REVIEW APPROVAL

GENERAL CONDITIONS OF APPROVAL

- (9) During construction of the project, the Erosion and Sediment Protection, (ESP), measures must be fully implemented in accordance with the approved plan. This shall apply not only to the installation of the required ESP measures but also to all maintenance procedures contained in the plan. Status reports on the ESP plan shall be filed with the Z.E.O. on a monthly basis.
- (10) Upon application for a Zoning Certificate of Compliance, you must provide a complete set of drawings revised to indicate the true "as built" condition of the project. These drawings shall be submitted in two (2) blue line copies and one (1) reproducible copy. The Zoning Enforcement Officer will then inspect the property to verify that the project has been completed in accordance with this approval. Only then will a Certificate of Compliance be issued. Occupancy shall not be permitted until such certificate is issued.
- (11) An "as built" plot plan shall be submitted to the Commission after the foundations and/or footings are poured. This plot plan shall contain all dimensions enabling the locations of the foundations, footings, drainage pipes, catch basins, galleries, underground utility lines, etc., to be compared for conformity to the approved site plan. No further earth covering over or building on these structures may be initiated until the submitted "as built" is approved by the Commission or the Zoning Enforcement Officer. The Commission will interpret failure to comply with this stipulation as grounds to deny any and all requests for subsequent modifications of the original site plan.



ZONING COMMISSION

APPLICATION FOR DESIGN REVIEW APPROVAL

NO. SP 94-1

PROJECT DATA

Project Name: Proposed Radio Tower Replacement
 Street Address: 39 Carmen Hill Road, Brookfield CT
 Zoning District: R-100 Lot No.: B05013
 Permitted Use: No Existing/Non conforming Permitted Use No.: N.A.
 Acreage: 4.31 Ac Soil Types Present: Cr, Wx
 Building Footprint: 1205 S.F. Impervious Area Footprint: 6205 S.F.
 Total Building Sq. Ft. 1205 S.F. No. of Stories 1
 No. of Occupants: 0 No. of Parking Spaces: 2
 No. of Buildings: 2 (1 Building 1 Tower) Flood Plain Designation: N.A.
 Wetlands Approval Req'd.? NO Wetlands Approval Obtained? N.A.
 Steep Slopes Present? NO On Sewer Line? NO
 Fences/Walls Present? YES Wooded Areas Present? YES
 Fuel Tank Size: 275 gal. ± Fire Tank Size: N.A.
 Phased Construction? NO Adjacent to Residential Zone? YES
 Estimated Project Cost: \$300,000.00 Estimated Cost of Site Work: \$5100.00

Note: Application must be accompanied by all data specified in Section 242-301 C.(3) of the Brookfield Code, the required fee, and an itemized breakdown of site work costs.

APPLICANT DATA

<u>Owner of Record</u>	<u>Agent/Developer</u>
Name: <u>Danbury Broadcasting, Inc.</u>	<u>Attorney Ted D. Backer</u>
Street: <u>c/o 1004 Federal Road</u>	<u>Lee-Farm Corp. Park, 83 Wooster Heights</u>
City/Zip: <u>Brookfield, CT 06804</u>	<u>Danbury, CT 06813-3499</u>
Phone: <u>(203) 775-1212</u>	<u>(203) 743-2721</u>
Name of Proposed Occupant: <u>WINE/WRKI Radio Stations (Existing)</u>	
Occupant's Products/Services: <u>Broadcast Transmission (Existing)</u>	

AUTHORITY OF AGENT

I hereby authorize the above designated Agent/Developer to act in my behalf in all matters related to this application.

Owner of Record's Signature: Danbury Broadcasting, Inc. BY: [Signature] Date: Jan. 12/94

APPLICANT'S REPRESENTATION

I hereby make application for Design Review Approval in accordance with the Zoning Regulations, Town of Brookfield. I agree herewith to hold the Town of Brookfield and its agents harmless for any and all expenses incurred as a result of the applicant/occupant's lack of compliance with the aforementioned regulations and any enforcement action resulting therefrom.

Applicant's Signature Tedd Backer Date: Jan. 12/94

FOR COMMISSION USE

Date Received: 1/13/94 Date Application Accepted: 1/13/94
 Fee Calculation: Amount \$ 190⁰⁰ + 10⁰⁰
 Hearing set for: 2/10/94 Publication Dates: 1/27 & 2/3 & 3/1/94
 Disposition: Approved w/stips. Date: 2/24/94
 Bond Posted: _____ Approval Filed: _____

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39 CARMEN HILL RD

Location 39 CARMEN HILL RD

Mblu B05/ / 013/ /

Acct# 02708000

Owner VERTICAL BRIDGE TOWERS
LLC

Assessment \$372,120

Appraisal \$531,590

PID 817

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$39,780	\$491,810	\$531,590

Assessment			
Valuation Year	Improvements	Land	Total
2018	\$27,850	\$344,270	\$372,120

Owner of Record

Owner VERTICAL BRIDGE TOWERS LLC
Co-Owner C/O RYAN LLC, JONATHAN HART
Address 2800 POST OAK BLVD SUITE 3700
HOUSTON, TX 77056

Sale Price \$1,710,755
Certificate
Book & Page 706/ 707
Sale Date 11/10/2015
Instrument 22

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
VERTICAL BRIDGE TOWERS LLC	\$1,710,755		706/ 707	22	11/10/2015
TOWNSQUARE MEDIA DANBURY LLC	\$858,440		690/ 769	25	10/03/2014
AURORA OF DANBURY LLC	\$685,000		361/ 992	06	10/27/1999

Building Information

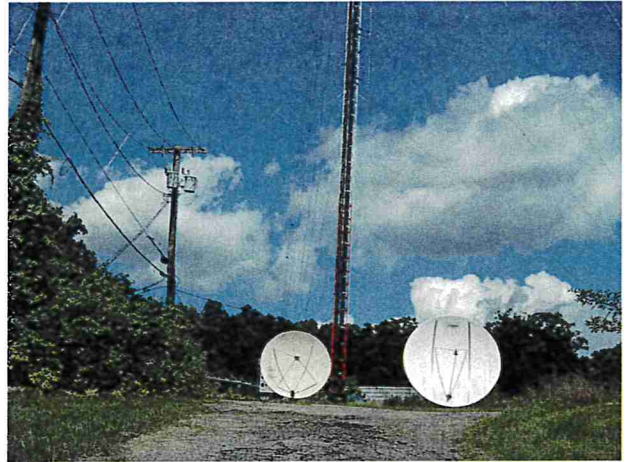
Building 1 : Section 1

Year Built: 1960
Living Area: 1,200

Building Attributes	
Field	Description
STYLE	Commercial

MODEL	Ind/Comm
Stories:	1
Occupancy	1
Exterior Wall 1	Wood Shingle
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Asphalt Shingl
Interior Wall 1	Drywall/Sheetr
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Forced Air
AC Type	None
Bldg Use	Cell Site
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	201I
Heat/AC	None
Frame Type	Wood Frame
Baths/Plumbing	Average
Ceiling/Wall	Ceil & Walls
Rooms/Prtns	Average
Wall Height	8
% Comn Wall	

Building Photo



(<http://images.vgsi.com/photos2/BrookfieldCTPhotos//\01\02\34>)

Building Layout



Building Sub-Areas (sq ft)			
Code	Description	Gross Area	Living Area
BAS	First Floor	1,200	1,200
RBM	Raised Basement	1,200	0
		2,400	1,200

Extra Features

Extra Features
No Data for Extra Features

Land

Land Use

Use Code 434
Description Cell Site
Zone R100

Land Line Valuation

Size (Acres) 4.2
Depth
Assessed Value \$344,270

Outbuildings

Outbuildings	
No Data for Outbuildings	

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$39,780	\$491,810	\$531,590
2017	\$39,780	\$491,810	\$531,590
2015	\$57,170	\$491,810	\$548,980

Assessment			
Valuation Year	Improvements	Land	Total
2018	\$27,850	\$344,270	\$372,120
2017	\$27,850	\$344,270	\$372,120
2015	\$40,020	\$344,270	\$384,290

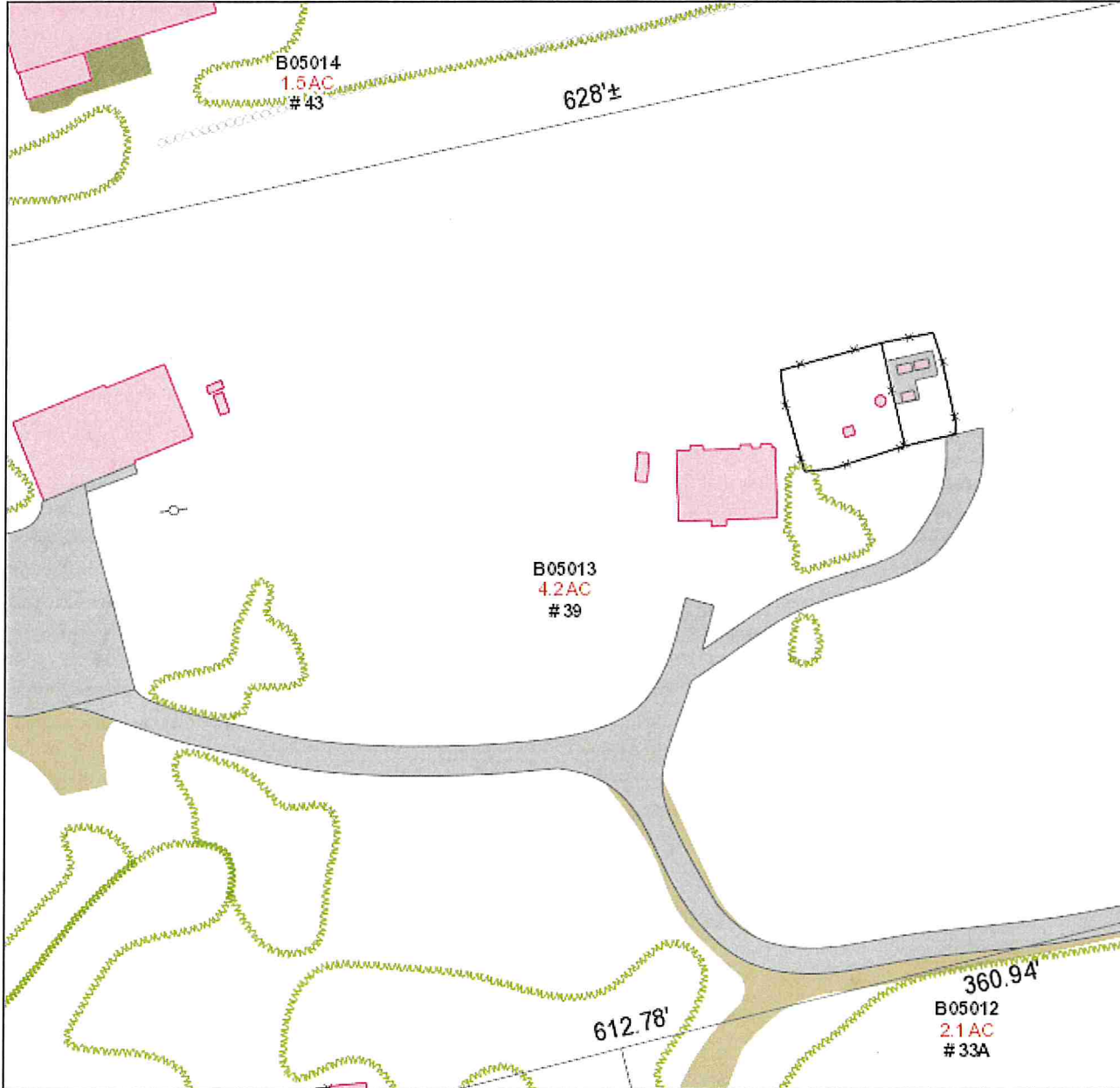
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Town of Brookfield

Geographic Information System (GIS)



Date Printed: 10/24/2019



MAP DISCLAIMER - NOTICE OF LIABILITY

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Approximate Scale: 1 inch = 50 feet

