STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

February 21, 2024

Carolyn Seeley
Smartlink
6 Jasmine Rd
Oxford, MA 01540
carolyn.seeley@smartlinkgroup.com

RE: **EM-ATT-027-240116** – AT&T Mobility, LLC (AT&T) notice of intent to modify an existing telecommunications facility located at 46 Meadow Road, Clinton, Connecticut. **Acknowledgement of Complete Request.**

Dear Carolyn Seeley:

The Connecticut Siting Council (Council) is in receipt of your correspondence of February 16, 2024, submitted in response to the Council's February 16, 2024 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

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

Thank you for your attention and cooperation.
Sincerely,

Melanie Bachman
Executive Director

MAB/ANM/laf

From: Carolyn Seeley <carolyn.seeley@smartlinkgroup.com>
Sent: Friday, February 16, 2024 10:49 AM
To: Fontaine, Lisa <Lisa.Fontaine@ct.gov>
Cc: CSC-DL Siting Council <Siting.Council@ct.gov>
Subject: RE: Council Incomplete Letter - EM-ATT-027-240116 –(Meadow Road) Clinton

Good Morning,

Attached is the requested Mount Analysis dated April 26, 2023 (rev1).

Thanks,

smartlink
10 Church Circle
Annapolis, MD, 21401

Carolyn Seeley
Real Estate Specialist
Carolyn.Seeley@smartlinkgroup.com
c. 978-760-5577
www.smartlinkgroup.com

Link with us.

August 12, 2022
April 26, 2023 (Rev.1)

Smartlink, LLC
1997 Annapolis Exchange Pkwy, Suite 200
Annapolis, MD 21401

RE:	AT&T Site Number:	CT2230 (C-BAND)
	FA Number:	10049127
	PACE Number:	MRCTB062968
	PT Number:	2051A14QY0
	TEP Project Number:	273861.754249
	AT&T Site Name:	CLINTON MEADOW RD
	Site Address:	46 Meadow Raod Clinton, CT 06413

To Whom It May Concern:

TEP Northeast (TEP NE) has been authorized by Smartlink, LLC to perform a mount analysis on the existing AT&T antenna/RRH mounts to determine their capability of supporting the following additional loading (Based on RFDS V4.00 dated 04/13/2023):

- (3) 800-10964 Antennas (59.0"x20.0"x6.9" – Wt. = 95 lbs. /each)
- (3) 8843 B2/B66A RRH's (14.9"x13.2"x10.9" – Wt. = 72 lbs. /each) (Standoff)
- (3) B5/B12 4449 RRH's (17.9"x13.2"x9.4" – Wt. = 73 lbs. /each) (Standoff)
- (3) RRUS-32 B30 RRH's (27.2"x12.1"x7.0" – Wt. = 60 lbs. /each) (Standoff)
- (1) DC6-48-60-18-8C-EV Surge Arrestor (31.4"x10.2"Ø – Wt. = 29 lbs. /each) (Tower Leg)
- (2) DC6-48-60-18-8F Surge Arrestors (31.4"x10.2"Ø – Wt. = 29 lbs. /each) (Tower Leg)
- **(3) TPA65R-BU4D Antennas (48.0"x20.7"x7.7" – Wt. = 53 lbs. /each)**
- **(3) AIR6449 Antennas (30.4"x15.9"x8.0" – Wt. = 82 lbs. /each)**
- **(3) 4478 B14 RRH's (18.1"x13.4"x8.3" – Wt. = 60 lbs. /each) (Standoff)**

**Proposed equipment shown in bold*

No original structural design documents or fabrication drawings were available for the existing mounts. ProVertic LLC, conducted a survey climb and mapping of the existing AT&T antenna mounts on July 17, 2022.

Mount Analysis Methods:

- This analysis was conducted in accordance with EIA/TIA-222-H, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the International Building Code 2021 with 2022 Connecticut State Building Code, and AT&T Mount Technical Directive – R22.
- TEP NE considers this mount to be asymmetrical and has applied wind loads in 30 degree increments all around the mount. Per TIA-222-H and Appendix P of the Connecticut State Building Code, the max basic wind speed for this site is equal to 125 mph with a max basic wind speed with ice of 50 mph and a max ice thickness of 1.0 in. An escalated ice thickness of 1.16 in was used for this analysis.
- TEP NE considers this site to be exposure category C; tower is located near large, flat, open, terrain/grasslands.
- TEP NE considers this site to be topographic category 1; tower is located on flat terrain or the bottom of a hill or ridge.
- TEP NE considers this site to have a spectral response acceleration parameter at short periods, S_S, of 0.205 and a spectral response acceleration parameter at a period of 1 second, S_1, of 0.054.
- The mount has been analyzed with load combinations consisting of 500 lbs live load using a service wind speed of 30 mph wind on the worst case antenna. Analysis performed on each antenna pipe to determine worst case location; worst case location was antenna position 4.
- The mount has been analyzed with load combinations consisting of a 250 lbs live load in a worst case location on the mount.
- The existing mount is secured to the existing self supporting tower with threaded rods and steel plates tightened around the tower leg. TEP NE considers the threaded rods as the governing connection members.

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

	Component	Controlling Load Case	Stress Ratio	Pass/Fail
Existing Mount Rating	8	LC76	86%	**PASS**

Reference Documents:

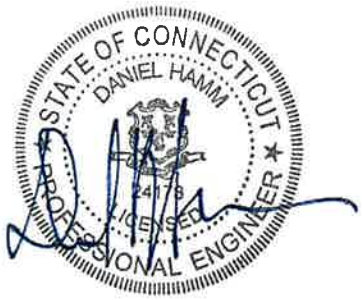
- Mount mapping report prepared by ProVertic LLC.

This determination was based on the following limitations and assumptions:

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

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

Respectfully Submitted,
TEP Northeast



Michael Cabral
Director

Daniel P. Hamm, PE
Vice President

FIELD PHOTOS:






Wind & Ice
Calculations

Date: 4/26/2023
Project Name: CLINTON MEADOW RD
Project No.: CT2230
Designed By: KM **Checked By:** MSC

TEP NORTHEAST

2.6.5.2 Velocity Pressure Coeff:

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

z=	150	(ft)
z_g=	900	(ft)
α=	9.5	

K_z= 1.378

Kzmin ≤ Kz ≤ 2.01

Table 2-4

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

2.6.6.2 Topographic Factor:

Table 2-5

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

$K_{zt} = [1+(K_c K_t/K_h)]^2$

$K_h = e^{(f*z/H)}$

K_{zt}= 1

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

Category= **1**

K_h=	1	
K_c=	1.0	(from Table 2-4)
K_t=		(from Table 2-5)
f=		(from Table 2-5)
z=	150	
z_s=	10	(Mean elevation of base of structure above sea level)
H=		(Ht. of the crest above surrounding terrain)
K_{zt}=	1.00	(from 2.6.6.2.1)
K_e=	1.00	(from 2.6.8)

2.6.10 Design Ice Thickness

Max Ice Thickness =	t_i =	1.00	in
Importance Factor =	I=	1.00	(from Table 2-3)
	K_{iz} =	1.16	(from Sec. 2.6.10)

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

t_{iz} = 1.16 in

Date: 4/26/2023
Project Name: CLINTON MEADOW RD
Project No.: CT2230
Designed By: KM Checked By: MSC

2.6.9 Gust Effect Factor

2.6.9.1 Self Supporting Lattice Structures

G_h = 1.0 Latticed Structures > 600 ft

G_h = 0.85 Latticed Structures 450 ft or less

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

h=	195	G_h=	0.85
2.6.9.2 Guyed Masts		G_h=	0.85
2.6.9.3 Pole Structures		G_h=	1.1
2.6.9 Appurtenances		G_h=	1.0

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

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

2.6.11.2 Design Wind Force on Appurtenances

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

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

		K_z=	1.378	(from 2.6.5.2)
		K_{zt}=	1.0	(from 2.6.6.2.1)
		K_s=	1.0	(from 2.6.7)
q_z=	**46.85**	K_e=	1.00	(from 2.6.8)
$q_{z\ (ice)}$=	**7.50**	K_d=	0.85	(from Table 2-2)
$q_{z\ (30)}$=	**2.70**	V_{max}=	125	mph (Ultimate Wind Speed)
		$V_{max\ (ice)}$=	50	mph
		V_{30}=	30	mph

Table 2-2

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

Date: 4/26/2023
Project Name: CLINTON MEADOW RD
Project No.: CT2230
Designed By: KM Checked By: MSC

Determine Ca:

Table 2-9

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

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

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

Ice Thickness = 1.16 in | **Angle =** 0 (deg) | **Equivalent Angle =** 180 (deg)

Appurtenances	Height	Width	Depth	Flat Area	Aspect Ratio	Ca	Force (lbs)	Force (lbs) (w/ Ice)	Force (lbs) (30 mph)
TPA65R-BU4D Antenna	48.0	20.7	7.7	6.90	2.32	1.20	388	72	22
AIR6449 Antenna	30.4	15.9	8.0	3.36	1.91	1.20	189	37	11
800-10964 Antenna	59.0	20.0	6.9	8.19	2.95	1.22	468	87	27
8843 B2/B66A RRH	14.9	13.2	10.9	1.37	1.13	1.20	77	17	4
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.20	63	14	4
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.36	1.20	92	20	5
B5/B12 4449 RRH (Side)	17.9	9.4	13.2	1.17	1.90	1.20	66	15	4
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	2.25	1.20	128	27	7
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	3.89	1.26	78	18	5
B14 4478 RRH	18.1	13.4	8.3	1.68	1.35	1.20	95	20	5
B14 4478 RRH (Side)	18.1	8.3	13.4	1.04	2.18	1.20	59	14	3
DC6 Surge Arrestor	31.4	10.2	10.2	2.22	3.08	0.70	73	15	4
HSS 3x3	3.0	12.0	-	0.25	0.25	1.25	15		
L2-1/2x2-1/2 Angle	2.5	12.0	-	0.21	0.21	2.00	20		
3" Pipe	3.5	12.0	-	0.29	0.29	1.20	16		
2" Pipe	2.4	12.0	-	0.20	0.20	1.20	11		

Date: 4/26/2023
Project Name: CLINTON MEADOW RD
Project No.: CT2230
Designed By: KM Checked By: MSC

WIND LOADS

Angle =	30	(deg)	Ice Thickness =	1.16	in.	Equivalent Angle =	210	(deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Aspect Ratio	Aspect Ratio	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
TPA65R-BU4D Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	388	164	332
AIR6449 Antenna	30.4	15.9	8.0	3.36	1.69	1.91	3.80	1.20	1.26	189	100	166
800-10964 Antenna	59.0	20.0	6.9	8.19	2.83	2.95	8.55	1.22	1.45	468	192	399
8843 B2/B66A RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	77	63	73
8843 B2/B66A RRH (Side)	14.9	6.6	13.2	0.68	1.37	2.26	1.13	1.20	1.20	38	77	48
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	92	66	86
B5/B12 4449 RRH (Side)	17.9	6.6	13.2	0.82	1.64	2.71	1.36	1.21	1.20	46	92	58
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	128	78	116
RRUS-32 B30 RRH (Side)	27.2	6.1	12.1	1.14	2.29	4.50	2.25	1.29	1.20	69	128	84
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	95	59	86
B14 4478 RRH (Side)	18.1	6.7	13.4	0.84	1.68	2.70	1.35	1.21	1.20	48	95	59

WIND LOADS WITH ICE:

TPA65R-BU4D Antenna	50.3	23.0	10.0	8.05	3.50	2.19	5.02	1.20	1.31	72	34	63
AIR6449 Antenna	32.7	18.2	10.3	4.14	2.35	1.80	3.17	1.20	1.23	37	22	33
800-10964 Antenna	61.3	22.3	9.2	9.51	3.93	2.75	6.65	1.21	1.38	86	41	75
8843 B2/B66A RRH	17.2	15.5	13.2	1.86	1.58	1.11	1.30	1.20	1.20	17	14	16
8843 B2/B66A RRH (Side)	17.2	7.8	15.5	0.93	1.86	2.22	1.11	1.20	1.20	8	17	10
B5/B12 4449 RRH	20.2	15.5	11.7	2.18	1.65	1.30	1.72	1.20	1.20	20	15	18
B5/B12 4449 RRH (Side)	20.2	7.8	15.5	1.09	2.18	2.61	1.30	1.20	1.20	10	20	12
RRUS-32 B30 RRH	29.5	14.4	9.3	2.96	1.91	2.05	3.17	1.20	1.23	27	18	24
RRUS-32 B30 RRH (Side)	29.5	7.2	14.4	1.48	2.96	4.09	2.05	1.27	1.20	14	27	17
B14 4478 RRH	20.4	15.7	10.6	2.23	1.51	1.30	1.92	1.20	1.20	20	14	18
B14 4478 RRH (Side)	20.4	7.9	15.7	1.12	2.23	2.60	1.30	1.20	1.20	10	20	13

WIND LOADS AT 30 MPH:

TPA65R-BU4D Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	22	9	19
AIR6449 Antenna	30.4	15.9	8.0	3.36	1.69	1.91	3.80	1.20	1.26	11	6	10
800-10964 Antenna	59.0	20.0	6.9	8.19	2.83	2.95	8.55	1.22	1.45	27	11	23
8843 B2/B66A RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	4	4	4
8843 B2/B66A RRH (Side)	14.9	6.6	13.2	0.68	1.37	2.26	1.13	1.20	1.20	2	4	3
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	5	4	5
B5/B12 4449 RRH (Side)	17.9	6.6	13.2	0.82	1.64	2.71	1.36	1.21	1.20	3	5	3
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	7	5	7
RRUS-32 B30 RRH (Side)	27.2	6.1	12.1	1.14	2.29	4.50	2.25	1.29	1.20	4	7	5
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	5	3	5
B14 4478 RRH (Side)	18.1	6.7	13.4	0.84	1.68	2.70	1.35	1.21	1.20	3	5	3

Date: 4/26/2023
Project Name: CLINTON MEADOW RD
Project No.: CT2230
Designed By: KM Checked By: MSC

WIND LOADS

Angle =	60	(deg)	Ice Thickness =	1.16	in.	Equivalent Angle =	240	(deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
TPA65R-BU4D Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	388	164	220
AIR6449 Antenna	30.4	15.9	8.0	3.36	1.69	1.91	3.80	1.20	1.26	189	100	122
800-10964 Antenna	59.0	20.0	6.9	8.19	2.83	2.95	8.55	1.22	1.45	468	192	261
8843 B2/B66A RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	77	63	67
8843 B2/B66A RRH (Side)	14.9	9.9	13.2	1.02	1.37	1.51	1.13	1.20	1.20	58	77	72
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	92	66	72
B5/B12 4449 RRH (Side)	17.9	9.9	13.2	1.23	1.64	1.81	1.36	1.20	1.20	69	92	86
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	128	78	91
RRUS-32 B30 RRH (Side)	27.2	9.1	12.1	1.71	2.29	3.00	2.25	1.22	1.20	98	128	121
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	95	59	68
B14 4478 RRH (Side)	18.1	10.1	13.4	1.26	1.68	1.80	1.35	1.20	1.20	71	95	89

WIND LOADS WITH ICE:

TPA65R-BU4D Antenna	50.3	23.0	10.0	8.05	3.50	2.19	5.02	1.20	1.31	72	34	44
AIR6449 Antenna	32.7	18.2	10.3	4.14	2.35	1.80	3.17	1.20	1.23	37	22	26
800-10964 Antenna	61.3	22.3	9.2	9.51	3.93	2.75	6.65	1.21	1.38	86	41	52
8843 B2/B66A RRH	17.2	15.5	13.2	1.86	1.58	1.11	1.30	1.20	1.20	17	14	15
8843 B2/B66A RRH (Side)	17.2	11.6	15.5	1.39	1.86	1.48	1.11	1.20	1.20	13	17	16
B5/B12 4449 RRH	20.2	15.5	11.7	2.18	1.65	1.30	1.72	1.20	1.20	20	15	16
B5/B12 4449 RRH (Side)	20.2	11.6	15.5	1.64	2.18	1.74	1.30	1.20	1.20	15	20	18
RRUS-32 B30 RRH	29.5	14.4	9.3	2.96	1.91	2.05	3.17	1.20	1.23	27	18	20
RRUS-32 B30 RRH (Side)	29.5	10.8	14.4	2.22	2.96	2.73	2.05	1.21	1.20	20	27	25
B14 4478 RRH	20.4	15.7	10.6	2.23	1.51	1.30	1.92	1.20	1.20	20	14	15
B14 4478 RRH (Side)	20.4	11.8	15.7	1.67	2.23	1.73	1.30	1.20	1.20	15	20	19

WIND LOADS AT 30 MPH:

TPA65R-BU4D Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	22	9	13
AIR6449 Antenna	30.4	15.9	8.0	3.36	1.69	1.91	3.80	1.20	1.26	11	6	7
800-10964 Antenna	59.0	20.0	6.9	8.19	2.83	2.95	8.55	1.22	1.45	27	11	15
8843 B2/B66A RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	4	4	4
8843 B2/B66A RRH (Side)	14.9	9.9	13.2	1.02	1.37	1.51	1.13	1.20	1.20	3	4	4
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	5	4	4
B5/B12 4449 RRH (Side)	17.9	9.9	13.2	1.23	1.64	1.81	1.36	1.20	1.20	4	5	5
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	7	5	5
RRUS-32 B30 RRH (Side)	27.2	9.1	12.1	1.71	2.29	3.00	2.25	1.22	1.20	6	7	7
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	5	3	4
B14 4478 RRH (Side)	18.1	10.1	13.4	1.26	1.68	1.80	1.35	1.20	1.20	4	5	5

Date: 4/26/2023
Project Name: CLINTON MEADOW RD
Project No.: CT2230
Designed By: KM Checked By: MSC

WIND LOADS

Angle =	90	(deg)	Ice Thickness =	1.16	in.	Equivalent Angle =	270	(deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
TPA65R-BU4D Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	388	164	164
AIR6449 Antenna	30.4	15.9	8.0	3.36	1.69	1.91	3.80	1.20	1.26	189	100	100
800-10964 Antenna	59.0	20.0	6.9	8.19	2.83	2.95	8.55	1.22	1.45	468	192	192
8843 B2/B66A RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	77	63	63
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	63	77	77
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	92	66	66
B5/B12 4449 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	66	92	92
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	128	78	78
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	78	128	128
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	95	59	59
B14 4478 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	59	95	95

WIND LOADS WITH ICE:

TPA65R-BU4D Antenna	50.3	23.0	10.0	8.05	3.50	2.19	5.02	1.20	1.31	72	34	34
AIR6449 Antenna	32.7	18.2	10.3	4.14	2.35	1.80	3.17	1.20	1.23	37	22	22
800-10964 Antenna	61.3	22.3	9.2	9.51	3.93	2.75	6.65	1.21	1.38	86	41	41
8843 B2/B66A RRH	17.2	15.5	13.2	1.86	1.58	1.11	1.30	1.20	1.20	17	14	14
8843 B2/B66A RRH (Side)	17.2	13.2	15.5	1.58	1.86	1.30	1.11	1.20	1.20	14	17	17
B5/B12 4449 RRH	20.2	15.5	11.7	2.18	1.65	1.30	1.72	1.20	1.20	20	15	15
B5/B12 4449 RRH (Side)	20.2	11.7	15.5	1.65	2.18	1.72	1.30	1.20	1.20	15	20	20
RRUS-32 B30 RRH	29.5	14.4	9.3	2.96	1.91	2.05	3.17	1.20	1.23	27	18	18
RRUS-32 B30 RRH (Side)	29.5	9.3	14.4	1.91	2.96	3.17	2.05	1.23	1.20	18	27	27
B14 4478 RRH	20.4	15.7	10.6	2.23	1.51	1.30	1.92	1.20	1.20	20	14	14
B14 4478 RRH (Side)	20.4	10.6	15.7	1.51	2.23	1.92	1.30	1.20	1.20	14	20	20

WIND LOADS AT 30 MPH:

TPA65R-BU4D Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	22	9	9
AIR6449 Antenna	30.4	15.9	8.0	3.36	1.69	1.91	3.80	1.20	1.26	11	6	6
800-10964 Antenna	59.0	20.0	6.9	8.19	2.83	2.95	8.55	1.22	1.45	27	11	11
8843 B2/B66A RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	4	4	4
8843 B2/B66A RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	4	4	4
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	5	4	4
B5/B12 4449 RRH (Side)	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	4	5	5
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	7	5	5
RRUS-32 B30 RRH (Side)	27.2	7.0	12.1	1.32	2.29	3.89	2.25	1.26	1.20	5	7	7
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	5	3	3
B14 4478 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	3	5	5

Date: 4/26/2023
Project Name: CLINTON MEADOW RD
Project No.: CT2230
Designed By: KM Checked By: MSC

WIND LOADS

Angle =	120	(deg)	Ice Thickness =	1.16	in.	Equivalent Angle =	300	(deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
TPA65R-BU4D Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	388	164	220
AIR6449 Antenna	30.4	15.9	8.0	3.36	1.69	1.91	3.80	1.20	1.26	189	100	122
800-10964 Antenna	59.0	20.0	6.9	8.19	2.83	2.95	8.55	1.22	1.45	468	192	261
8843 B2/B66A RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	77	63	67
8843 B2/B66A RRH (Side)	14.9	9.9	13.2	1.02	1.37	1.51	1.13	1.20	1.20	58	77	72
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	92	66	72
B5/B12 4449 RRH (Side)	17.9	9.9	13.2	1.23	1.64	1.81	1.36	1.20	1.20	69	92	86
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	128	78	91
RRUS-32 B30 RRH (Side)	27.2	9.1	12.1	1.71	2.29	3.00	2.25	1.22	1.20	98	128	121
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	95	59	68
B14 4478 RRH (Side)	18.1	10.1	13.4	1.26	1.68	1.80	1.35	1.20	1.20	71	95	89

WIND LOADS WITH ICE:

TPA65R-BU4D Antenna	50.3	23.0	10.0	8.05	3.50	2.19	5.02	1.20	1.31	72	34	44
AIR6449 Antenna	32.7	18.2	10.3	4.14	2.35	1.80	3.17	1.20	1.23	37	22	26
800-10964 Antenna	61.3	22.3	9.2	9.51	3.93	2.75	6.65	1.21	1.38	86	41	52
8843 B2/B66A RRH	17.2	15.5	13.2	1.86	1.58	1.11	1.30	1.20	1.20	17	14	15
8843 B2/B66A RRH (Side)	17.2	11.6	15.5	1.39	1.86	1.48	1.11	1.20	1.20	13	17	16
B5/B12 4449 RRH	20.2	15.5	11.7	2.18	1.65	1.30	1.72	1.20	1.20	20	15	16
B5/B12 4449 RRH (Side)	20.2	11.6	15.5	1.64	2.18	1.74	1.30	1.20	1.20	15	20	18
RRUS-32 B30 RRH	29.5	14.4	9.3	2.96	1.91	2.05	3.17	1.20	1.23	27	18	20
RRUS-32 B30 RRH (Side)	29.5	10.8	14.4	2.22	2.96	2.73	2.05	1.21	1.20	20	27	25
B14 4478 RRH	20.4	15.7	10.6	2.23	1.51	1.30	1.92	1.20	1.20	20	14	15
B14 4478 RRH (Side)	20.4	11.8	15.7	1.67	2.23	1.73	1.30	1.20	1.20	15	20	19

WIND LOADS AT 30 MPH:

TPA65R-BU4D Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	22	9	13
AIR6449 Antenna	30.4	15.9	8.0	3.36	1.69	1.91	3.80	1.20	1.26	11	6	7
800-10964 Antenna	59.0	20.0	6.9	8.19	2.83	2.95	8.55	1.22	1.45	27	11	15
8843 B2/B66A RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	4	4	4
8843 B2/B66A RRH (Side)	14.9	9.9	13.2	1.02	1.37	1.51	1.13	1.20	1.20	3	4	4
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	5	4	4
B5/B12 4449 RRH (Side)	17.9	9.9	13.2	1.23	1.64	1.81	1.36	1.20	1.20	4	5	5
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	7	5	5
RRUS-32 B30 RRH (Side)	27.2	9.1	12.1	1.71	2.29	3.00	2.25	1.22	1.20	6	7	7
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	5	3	4
B14 4478 RRH (Side)	18.1	10.1	13.4	1.26	1.68	1.80	1.35	1.20	1.20	4	5	5

Date: 4/26/2023
Project Name: CLINTON MEADOW RD
Project No.: CT2230
Designed By: KM Checked By: MSC

WIND LOADS

Angle = 150 (deg) | Ice Thickness = 1.16 in. | Equivalent Angle = 330 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
TPA65R-BU4D Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	388	164	332
AIR6449 Antenna	30.4	15.9	8.0	3.36	1.69	1.91	3.80	1.20	1.26	189	100	166
800-10964 Antenna	59.0	20.0	6.9	8.19	2.83	2.95	8.55	1.22	1.45	468	192	399
8843 B2/B66A RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	77	63	73
8843 B2/B66A RRH (Side)	14.9	6.6	13.2	0.68	1.37	2.26	1.13	1.20	1.20	38	77	48
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	92	66	86
B5/B12 4449 RRH (Side)	17.9	6.6	13.2	0.82	1.64	2.71	1.36	1.21	1.20	46	92	58
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	128	78	116
RRUS-32 B30 RRH (Side)	27.2	6.1	12.1	1.14	2.29	4.50	2.25	1.29	1.20	69	128	84
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	95	59	86
B14 4478 RRH (Side)	18.1	6.7	13.4	0.84	1.68	2.70	1.35	1.21	1.20	48	95	59

WIND LOADS WITH ICE:

TPA65R-BU4D Antenna	50.3	23.0	10.0	8.05	3.50	2.19	5.02	1.20	1.31	72	34	63
AIR6449 Antenna	32.7	18.2	10.3	4.14	2.35	1.80	3.17	1.20	1.23	37	22	33
800-10964 Antenna	61.3	22.3	9.2	9.51	3.93	2.75	6.65	1.21	1.38	86	41	75
8843 B2/B66A RRH	17.2	15.5	13.2	1.86	1.58	1.11	1.30	1.20	1.20	17	14	16
8843 B2/B66A RRH (Side)	17.2	7.8	15.5	0.93	1.86	2.22	1.11	1.20	1.20	8	17	10
B5/B12 4449 RRH	20.2	15.5	11.7	2.18	1.65	1.30	1.72	1.20	1.20	20	15	18
B5/B12 4449 RRH (Side)	20.2	7.8	15.5	1.09	2.18	2.61	1.30	1.20	1.20	10	20	12
RRUS-32 B30 RRH	29.5	14.4	9.3	2.96	1.91	2.05	3.17	1.20	1.23	27	18	24
RRUS-32 B30 RRH (Side)	29.5	7.2	14.4	1.48	2.96	4.09	2.05	1.27	1.20	14	27	17
B14 4478 RRH	20.4	15.7	10.6	2.23	1.51	1.30	1.92	1.20	1.20	20	14	18
B14 4478 RRH (Side)	20.4	7.9	15.7	1.12	2.23	2.60	1.30	1.20	1.20	10	20	13

WIND LOADS AT 30 MPH:

TPA65R-BU4D Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	22	9	19
AIR6449 Antenna	30.4	15.9	8.0	3.36	1.69	1.91	3.80	1.20	1.26	11	6	10
800-10964 Antenna	59.0	20.0	6.9	8.19	2.83	2.95	8.55	1.22	1.45	27	11	23
8843 B2/B66A RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	4	4	4
8843 B2/B66A RRH (Side)	14.9	6.6	13.2	0.68	1.37	2.26	1.13	1.20	1.20	2	4	3
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	5	4	5
B5/B12 4449 RRH (Side)	17.9	6.6	13.2	0.82	1.64	2.71	1.36	1.21	1.20	3	5	3
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	7	5	7
RRUS-32 B30 RRH (Side)	27.2	6.1	12.1	1.14	2.29	4.50	2.25	1.29	1.20	4	7	5
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	5	3	5
B14 4478 RRH (Side)	18.1	6.7	13.4	0.84	1.68	2.70	1.35	1.21	1.20	3	5	3

Date: 4/26/2023
Project Name: CLINTON MEADOW RD
Project No.: CT2230
Designed By: KM **Checked By:** MSC

ICE WEIGHT CALCULATIONS

Thickness of ice: 1.16 in.
Density of ice: 56 pcf

TPA65R-BU4D Antenna

Weight of ice based on total radial SF area:

Height (in):	48.0	
Width (in):	20.7	
Depth (in):	7.7	
Total weight of ice on object:		132 lbs
Weight of object:	53.0 lbs	
Combined weight of ice and object:		185 lbs

AIR6449 Antenna

Weight of ice based on total radial SF area:

Height (in):	30.4	
Width (in):	15.9	
Depth (in):	8.0	
Total weight of ice on object:		68 lbs
Weight of object:	82.0 lbs	
Combined weight of ice and object:		150 lbs

800-10964 Antenna

Weight of ice based on total radial SF area:

Height (in):	59.0	
Width (in):	20.0	
Depth (in):	6.9	
Total weight of ice on object:		156 lbs
Weight of object:	95.0 lbs	
Combined weight of ice and object:		251 lbs

8843 B2/B66A RRH

Weight of ice based on total radial SF area:

Height (in):	14.9	
Width (in):	13.2	
Depth (in):	10.9	
Total weight of ice on object:		32 lbs
Weight of object:	72.0 lbs	
Combined weight of ice and object:		104 lbs

B5/B12 4449 RRH

Weight of ice based on total radial SF area:

Height (in):	17.9	
Width (in):	13.2	
Depth (in):	9.4	
Total weight of ice on object:		37 lbs
Weight of object:	73.0 lbs	
Combined weight of ice and object:		110 lbs

RRUS-32 B30 RRH

Weight of ice based on total radial SF area:

Height (in):	27.2	
Width (in):	12.1	
Depth (in):	7.0	
Total weight of ice on object:		49 lbs
Weight of object:	60.0 lbs	
Combined weight of ice and object:		109 lbs

B14 4478 RRH

Weight of ice based on total radial SF area:

Height (in):	18.1	
Width (in):	13.4	
Depth (in):	8.3	
Total weight of ice on object:		36 lbs
Weight of object:	60.0 lbs	
Combined weight of ice and object:		96 lbs

DC6 Squid Surge Arrestor

Weight of ice based on total radial SF area:

Depth (in):	31.4	
Diameter(in):	10.2	
Total weight of ice on object:		42 lbs
Weight of object:	29 lbs	
Combined weight of ice and object:		71 lbs

HSS 3x3

Weight of ice based on total radial SF area:

Height (in):	3	
Width (in):	3	
Per foot weight of ice on object:		8 plf

L 2-1/2x2-1/2 Angles

Weight of ice based on total radial SF area:

Height (in):	2.5	
Width (in):	2.5	
Per foot weight of ice on object:		7 plf

3" Pipe

Per foot weight of ice:

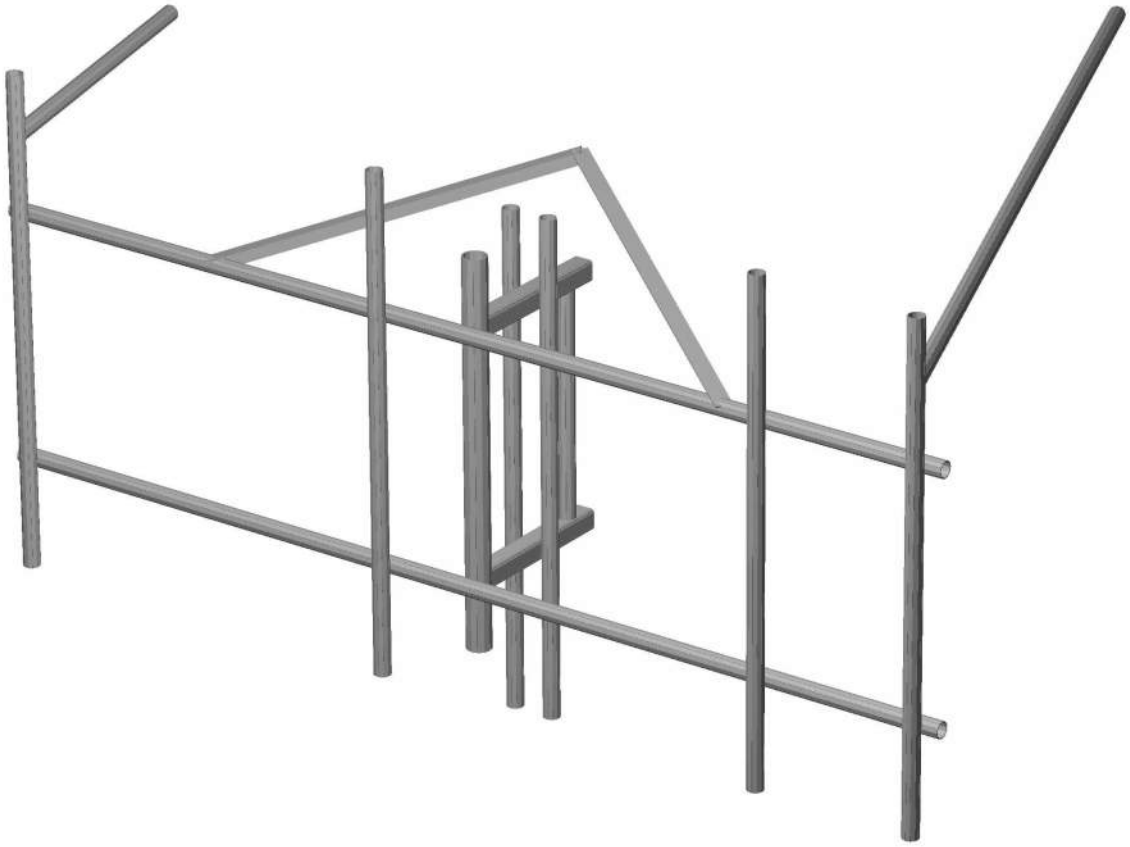
diameter (in):	3.5	
Per foot weight of ice on object:		7 plf

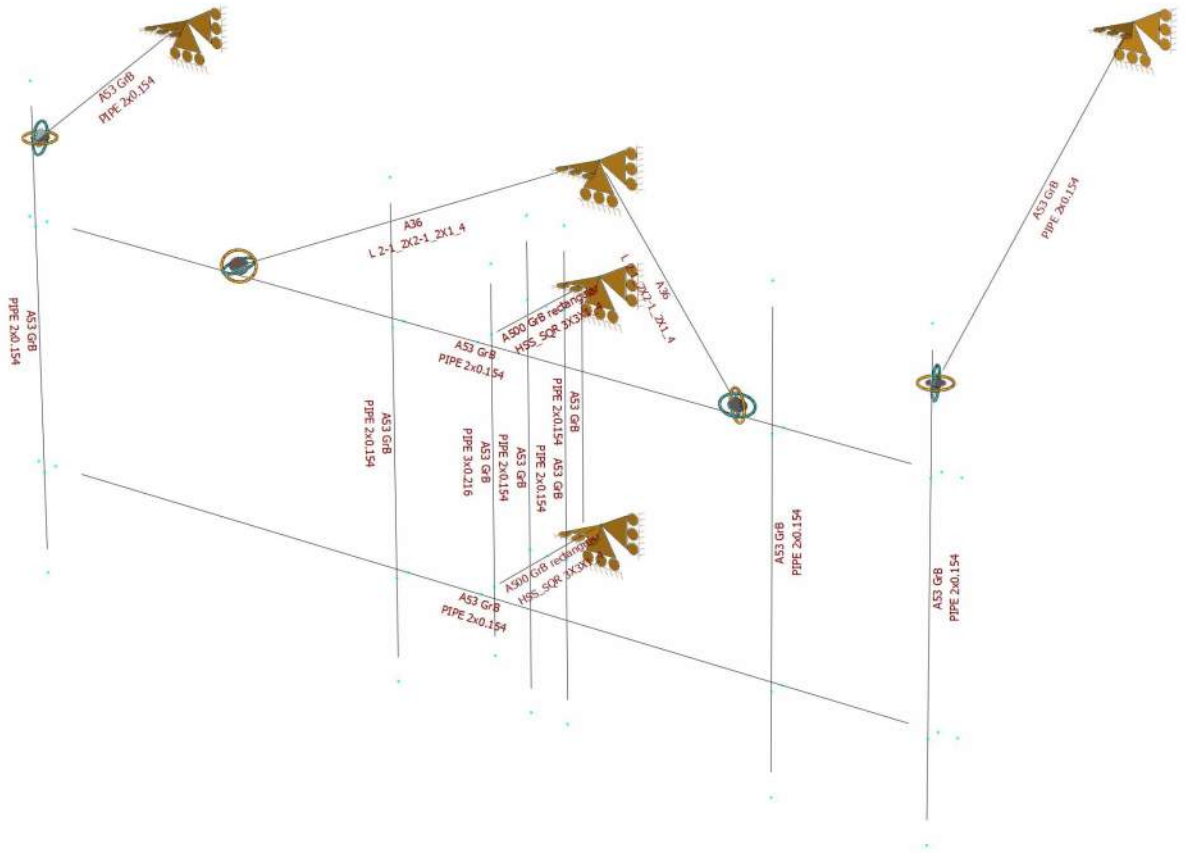
2" Pipe

Per foot weight of ice:

diameter (in):	2.38	
Per foot weight of ice on object:		5 plf

Mount Calculations
(Existing Conditions)


Y
Z
X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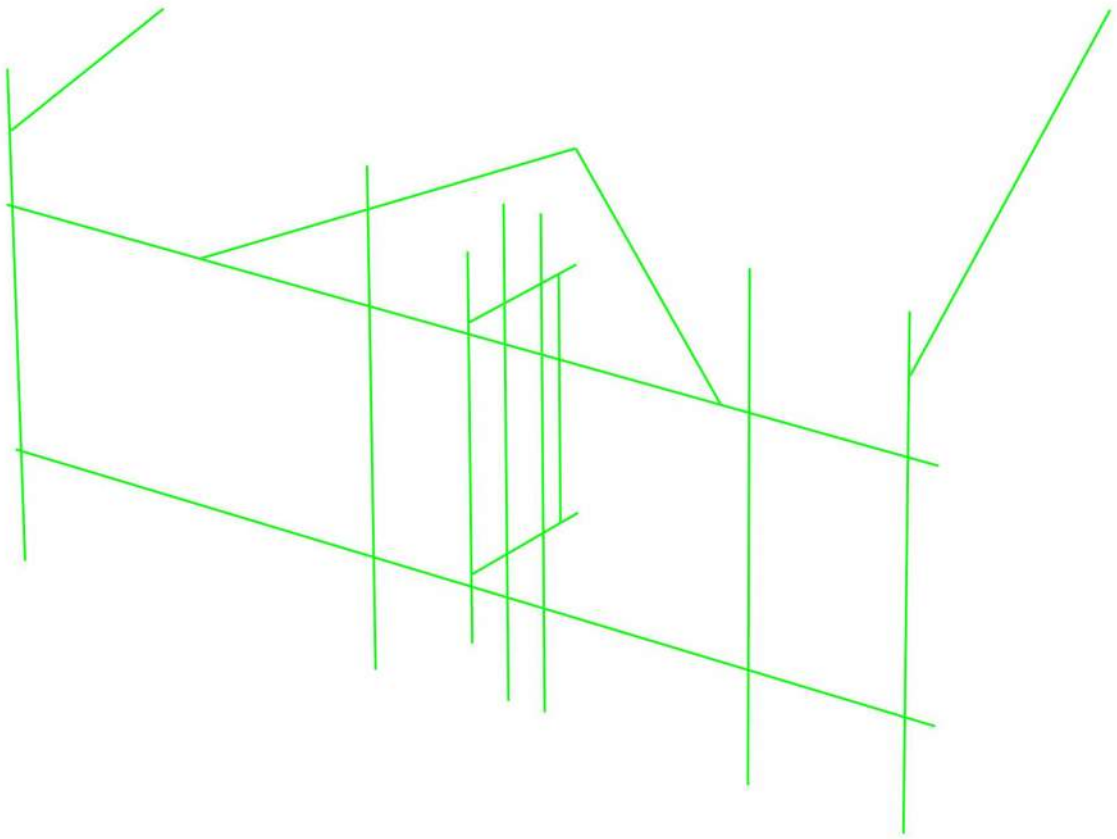
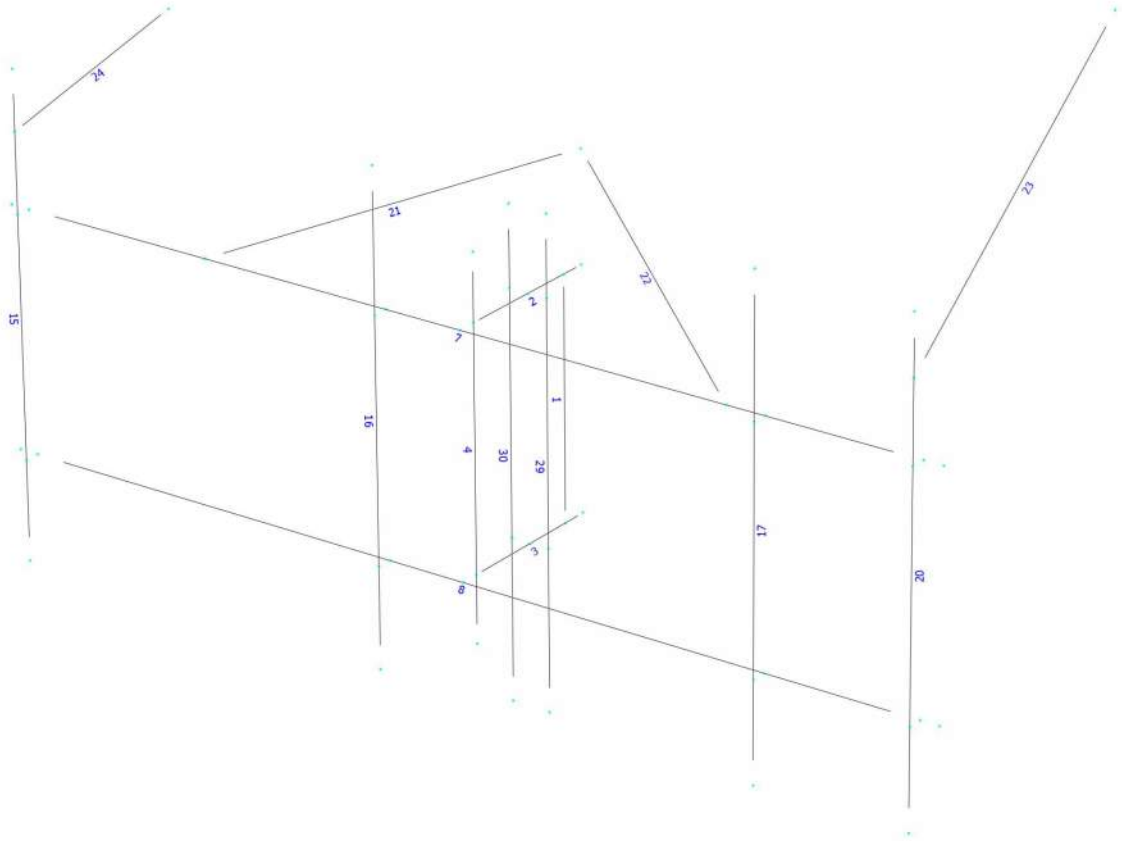
PIPE 2x0.154
A36
L 2-1_2X2-1_2X1_4
A500 GrB rectangular
HSS_SQR_3X3X4
A53 GrB
PIPE 3x0.216
Y
Z
X


Design status
Not designed
Error on design
Design O.K.
With warnings
Y
Z
X


14
21
23
22
15
2
7
1
16
4
30
29
3
8
17
20
Y
Z
X

RAM® Elements
CONNECT Edition

Current Date: 4/26/2023 11:45 AM
Units system: English

Load data

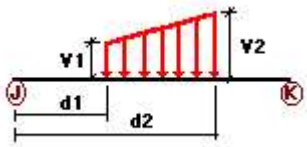
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

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

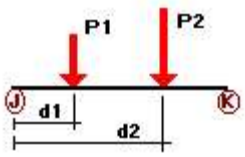
Distributed force on members



Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wo	1	z	-0.011	-0.011	0.00	No	100.00	Yes
	4	z	-0.016	-0.016	0.00	No	100.00	Yes
	7	z	-0.011	-0.011	0.00	No	100.00	Yes
	8	z	-0.011	-0.011	0.00	No	100.00	Yes
	15	z	-0.011	-0.011	90.00	Yes	100.00	Yes
		z	-0.011	-0.011	0.00	No	10.00	Yes
	16	z	-0.011	-0.011	80.00	Yes	100.00	Yes
		z	-0.011	-0.011	0.00	No	30.00	Yes
	17	z	-0.011	-0.011	90.00	Yes	100.00	Yes
		z	-0.011	-0.011	0.00	No	10.00	Yes
	20	z	-0.011	-0.011	0.00	No	100.00	Yes
	21	z	-0.02	-0.02	0.00	No	100.00	Yes
	22	z	-0.02	-0.02	0.00	No	100.00	Yes
	23	z	-0.011	-0.011	0.00	No	100.00	Yes
	24	z	-0.011	-0.011	0.00	No	100.00	Yes
	29	z	-0.011	-0.011	0.00	No	100.00	Yes
	30	z	-0.011	-0.011	0.00	No	100.00	Yes
W30	1	z	-0.011	-0.011	0.00	No	100.00	Yes
	2	z	-0.015	-0.015	0.00	No	100.00	Yes
	3	z	-0.015	-0.015	0.00	No	100.00	Yes
	4	z	-0.016	-0.016	0.00	No	100.00	Yes
	7	z	-0.011	-0.011	0.00	No	100.00	Yes
	8	z	-0.011	-0.011	0.00	No	100.00	Yes
	15	z	-0.011	-0.011	0.00	No	100.00	Yes
	16	z	-0.011	-0.011	0.00	No	100.00	Yes
	17	z	-0.011	-0.011	0.00	No	100.00	Yes
	20	z	-0.011	-0.011	0.00	No	100.00	Yes
	21	z	-0.02	-0.02	0.00	No	100.00	Yes
	22	z	-0.02	-0.02	0.00	No	100.00	Yes
	23	z	-0.011	-0.011	0.00	No	100.00	Yes
	24	z	-0.011	-0.011	0.00	No	100.00	Yes
	29	z	-0.011	-0.011	0.00	No	100.00	Yes
	30	z	-0.011	-0.011	0.00	No	100.00	Yes
W60	1	x	-0.011	-0.011	0.00	No	100.00	Yes
	2	x	-0.015	-0.015	0.00	No	100.00	Yes
	3	x	-0.015	-0.015	0.00	No	100.00	Yes
	4	x	-0.016	-0.016	0.00	No	100.00	Yes
	7	x	-0.011	-0.011	0.00	No	100.00	Yes
	8	x	-0.011	-0.011	0.00	No	100.00	Yes
	15	x	-0.011	-0.011	0.00	No	100.00	Yes
	16	x	-0.011	-0.011	0.00	No	100.00	Yes
	17	x	-0.011	-0.011	0.00	No	100.00	Yes
	20	x	-0.011	-0.011	0.00	No	100.00	Yes
	21	x	-0.02	-0.02	0.00	No	100.00	Yes
	22	x	-0.02	-0.02	0.00	No	100.00	Yes
	23	x	-0.011	-0.011	0.00	No	100.00	Yes
	24	x	-0.011	-0.011	0.00	No	100.00	Yes
	29	x	-0.011	-0.011	0.00	No	100.00	Yes
	30	x	-0.011	-0.011	0.00	No	100.00	Yes
W90	1	x	-0.011	-0.011	0.00	No	100.00	Yes
	2	x	-0.015	-0.015	0.00	No	100.00	Yes
	3	x	-0.015	-0.015	0.00	No	100.00	Yes
	4	x	-0.016	-0.016	0.00	No	100.00	Yes
	15	x	-0.011	-0.011	0.00	No	100.00	Yes
	16	x	-0.011	-0.011	0.00	No	100.00	Yes
	17	x	-0.011	-0.011	0.00	No	100.00	Yes
	20	x	-0.011	-0.011	0.00	No	100.00	Yes
	21	x	-0.02	-0.02	0.00	No	100.00	Yes
	22	x	-0.02	-0.02	0.00	No	100.00	Yes
	23	x	-0.011	-0.011	0.00	No	100.00	Yes

	24	x	-0.011	-0.011	0.00	No	100.00	Yes
	29	x	-0.011	-0.011	0.00	No	100.00	Yes
	30	x	-0.011	-0.011	0.00	No	100.00	Yes
W120	1	x	-0.011	-0.011	0.00	No	100.00	Yes
	2	x	-0.015	-0.015	0.00	No	100.00	Yes
	3	x	-0.015	-0.015	0.00	No	100.00	Yes
	4	x	-0.016	-0.016	0.00	No	100.00	Yes
	7	x	-0.011	-0.011	0.00	No	100.00	Yes
	8	x	-0.011	-0.011	0.00	No	100.00	Yes
	15	x	-0.011	-0.011	0.00	No	100.00	Yes
	16	x	-0.011	-0.011	0.00	No	100.00	Yes
	17	x	-0.011	-0.011	0.00	No	100.00	Yes
	20	x	-0.011	-0.011	0.00	No	100.00	Yes
	21	x	-0.02	-0.02	0.00	No	100.00	Yes
	22	x	-0.02	-0.02	0.00	No	100.00	Yes
	23	x	-0.011	-0.011	0.00	No	100.00	Yes
	24	x	-0.011	-0.011	0.00	No	100.00	Yes
	29	x	-0.011	-0.011	0.00	No	100.00	Yes
	30	x	-0.011	-0.011	0.00	No	100.00	Yes
W150	1	z	0.011	0.011	0.00	No	100.00	Yes
	2	z	0.015	0.015	0.00	No	100.00	Yes
	3	z	0.015	0.015	0.00	No	100.00	Yes
	4	z	0.016	0.016	0.00	No	100.00	Yes
	7	z	0.011	0.011	0.00	No	100.00	Yes
	8	z	0.011	0.011	0.00	No	100.00	Yes
	15	z	0.011	0.011	0.00	No	100.00	Yes
	16	z	0.011	0.011	0.00	No	100.00	Yes
	17	z	0.011	0.011	0.00	No	100.00	Yes
	20	z	0.011	0.011	0.00	No	100.00	Yes
	21	z	0.02	0.02	0.00	No	100.00	Yes
	22	z	0.02	0.02	0.00	No	100.00	Yes
	23	z	0.011	0.011	0.00	No	100.00	Yes
	24	z	0.011	0.011	0.00	No	100.00	Yes
	29	z	0.011	0.011	0.00	No	100.00	Yes
	30	z	0.011	0.011	0.00	No	100.00	Yes
Di	1	y	-0.005	-0.005	0.00	No	100.00	Yes
	2	y	-0.008	-0.008	0.00	No	100.00	Yes
	3	y	-0.008	-0.008	0.00	No	100.00	Yes
	4	y	-0.007	-0.007	0.00	No	100.00	Yes
	7	y	-0.005	-0.005	0.00	No	100.00	Yes
	8	y	-0.005	-0.005	0.00	No	100.00	Yes
	15	y	-0.005	-0.005	0.00	No	100.00	Yes
	16	y	-0.005	-0.005	0.00	No	100.00	Yes
	17	y	-0.005	-0.005	0.00	No	100.00	Yes
	20	y	-0.005	-0.005	0.00	No	100.00	Yes
	21	y	-0.007	-0.007	0.00	No	100.00	Yes
	22	y	-0.007	-0.007	0.00	No	100.00	Yes
	23	y	-0.005	-0.005	0.00	No	100.00	Yes
	24	y	-0.005	-0.005	0.00	No	100.00	Yes
	29	y	-0.005	-0.005	0.00	No	100.00	Yes
	30	y	-0.005	-0.005	0.00	No	100.00	Yes

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
D	15	y	-0.048	1.50	No
		y	-0.048	5.00	No
	16	y	-0.041	2.75	No
		y	-0.041	3.75	No
	17	y	-0.027	1.50	No
		y	-0.027	4.50	No
	29	y	-0.072	2.50	No
		y	-0.073	2.50	No
	30	y	-0.06	2.50	No
		y	-0.06	2.50	No
Wo	15	z	-0.234	1.50	No
		z	-0.234	5.00	No
	16	z	-0.095	2.75	No
		z	-0.095	3.75	No
	17	z	-0.194	1.50	No
		z	-0.194	4.50	No
	29	z	-0.092	2.50	No
	30	z	-0.128	2.50	No
W30	15	3	-0.20	1.50	No
		3	-0.20	5.00	No
	16	3	-0.083	2.75	No
		3	-0.083	3.75	No
	17	3	-0.166	1.50	No
		3	-0.166	4.50	No
	29	3	-0.048	2.50	No
		3	-0.058	2.50	No
	30	3	-0.084	2.50	No
		3	-0.059	2.50	No
W60	15	3	-0.131	1.50	No
		3	-0.131	5.00	No
	16	3	-0.061	2.75	No
		3	-0.061	3.75	No
	17	3	-0.11	1.50	No
		3	-0.11	4.50	No
	29	3	-0.072	2.50	No
		3	-0.086	2.50	No
	30	3	-0.121	2.50	No
		3	-0.089	2.50	No
W90	15	x	-0.096	1.50	No
		x	-0.096	5.00	No
	16	x	-0.05	2.75	No
		x	-0.05	3.75	No
	17	x	-0.082	1.50	No
		x	-0.082	4.50	No
	29	x	-0.063	2.50	No
		x	-0.066	2.50	No
	30	x	-0.078	2.50	No
		x	-0.059	2.50	No
W120	15	2	-0.131	1.50	No
		2	-0.131	5.00	No
	16	2	-0.061	2.75	No
		2	-0.061	3.75	No
	17	2	-0.11	1.50	No
		2	-0.11	4.50	No

	29	2	-0.072	2.50	No
		2	-0.086	2.50	No
	30	2	-0.121	2.50	No
		2	-0.089	2.50	No
W150	15	2	-0.20	1.50	No
		2	-0.20	5.00	No
	16	2	-0.083	2.75	No
		2	-0.083	3.75	No
	17	2	-0.166	1.50	No
		2	-0.166	4.50	No
	29	2	-0.048	2.50	No
		2	-0.058	2.50	No
	30	2	-0.084	2.50	No
		2	-0.059	2.50	No
Di	15	y	-0.078	1.50	No
		y	-0.078	5.00	No
	16	y	-0.034	2.75	No
		y	-0.034	3.75	No
	17	y	-0.066	1.50	No
		y	-0.066	4.50	No
	29	y	-0.032	2.50	No
		y	-0.037	2.50	No
	30	y	-0.049	2.50	No
		y	-0.036	2.50	No
WI0	15	z	-0.044	1.50	No
		z	-0.044	5.00	No
	16	z	-0.019	2.75	No
		z	-0.019	3.75	No
	17	z	-0.036	1.50	No
		z	-0.036	4.50	No
	29	z	-0.02	2.50	No
	30	z	-0.027	2.50	No
WI30	15	3	-0.038	1.50	No
		3	-0.038	5.00	No
	16	3	-0.017	2.75	No
		3	-0.017	3.75	No
	17	3	-0.032	1.50	No
		3	-0.032	4.50	No
	29	3	-0.01	2.50	No
		3	-0.012	2.50	No
	30	3	-0.017	2.50	No
		3	-0.013	2.50	No
WI60	15	3	-0.026	1.50	No
		3	-0.026	5.00	No
	16	3	-0.013	2.75	No
		3	-0.013	3.75	No
	17	3	-0.022	1.50	No
		3	-0.022	4.50	No
	29	3	-0.016	2.50	No
		3	-0.018	2.50	No
	30	3	-0.025	2.50	No
		3	-0.019	2.50	No
WI90	15	x	-0.021	1.50	No
		x	-0.021	5.00	No
	16	x	-0.011	2.75	No
		x	-0.011	3.75	No
	17	x	-0.017	1.50	No
		x	-0.017	4.50	No
	29	x	-0.014	2.50	No
		x	-0.015	2.50	No

	30	x	-0.018	2.50	No
		x	-0.014	2.50	No
WI120	15	2	-0.026	1.50	No
		2	-0.026	5.00	No
	16	2	-0.013	2.75	No
		2	-0.013	3.75	No
	17	2	-0.022	1.50	No
		2	-0.022	4.50	No
	29	2	-0.016	2.50	No
		2	-0.018	2.50	No
	30	2	-0.025	2.50	No
		2	-0.019	2.50	No
WI150	15	2	-0.038	1.50	No
		2	-0.038	5.00	No
	16	2	-0.017	2.75	No
		2	-0.017	3.75	No
	17	2	-0.032	1.50	No
		2	-0.032	4.50	No
	29	2	-0.01	2.50	No
		2	-0.012	2.50	No
	30	2	-0.017	2.50	No
		2	-0.013	2.50	No
WL0	15	z	-0.014	1.50	No
		z	-0.014	5.00	No
	16	z	-0.006	2.75	No
		z	-0.006	3.75	No
	17	z	-0.011	1.50	No
		z	-0.011	4.50	No
	29	z	-0.005	2.50	No
	30	z	-0.007	2.50	No
WL30	15	3	-0.012	1.50	No
		3	-0.012	5.00	No
	16	3	-0.005	2.75	No
		3	-0.005	3.75	No
	17	3	-0.01	1.50	No
		3	-0.01	4.50	No
	29	3	-0.003	2.50	No
		3	-0.003	2.50	No
	30	3	-0.005	2.50	No
		3	-0.003	2.50	No
WL60	15	3	-0.008	1.50	No
		3	-0.008	5.00	No
	16	3	-0.004	2.75	No
		3	-0.004	3.75	No
	17	3	-0.007	1.50	No
		3	-0.007	4.50	No
	29	3	-0.004	2.50	No
		3	-0.005	2.50	No
	30	3	-0.007	2.50	No
		3	-0.005	2.50	No
WL90	15	x	-0.006	1.50	No
		x	-0.006	5.00	No
	16	x	-0.003	2.75	No
		x	-0.003	3.75	No
	17	x	-0.005	1.50	No
		x	-0.005	4.50	No
	29	x	-0.004	2.50	No
		x	-0.004	2.50	No
	30	x	-0.005	2.50	No
		x	-0.003	2.50	No

WL120	15	2	-0.008	1.50	No
		2	-0.008	5.00	No
	16	2	-0.004	2.75	No
		2	-0.004	3.75	No
	17	2	-0.007	1.50	No
		2	-0.007	4.50	No
	29	2	-0.004	2.50	No
		2	-0.005	2.50	No
	30	2	-0.007	2.50	No
		2	-0.005	2.50	No
WL150	15	2	-0.012	1.50	No
		2	-0.012	5.00	No
	16	2	-0.005	2.75	No
		2	-0.005	3.75	No
	17	2	-0.01	1.50	No
		2	-0.01	4.50	No
	29	2	-0.003	2.50	No
		2	-0.003	2.50	No
	30	2	-0.005	2.50	No
		2	-0.003	2.50	No
LL1	7	y	-0.25	50.00	Yes
LL2	7	y	-0.25	100.00	Yes
LL3	7	y	-0.25	0.00	Yes
LLa1	20	y	-0.50	50.00	Yes
LLa2	17	y	-0.50	50.00	Yes
LLa3	16	y	-0.50	50.00	Yes
LLa4	15	y	-0.50	50.00	Yes

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	**MultX**	**MultY**	**MultZ**
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00
W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00
WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00
WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00

LLa1	500 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	500 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	500 lb Live Load Antenna 3	No	0.00	0.00	0.00
LLa4	500 lb Live Load Antenna 4	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

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

RAM® Elements
CONNECT Edition

Current Date: 4/26/2023 11:46 AM
Units system: English

Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

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

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

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	HSS_SQR 3X3X1_4	**2**	LC75 at 100.00%	0.08	OK	
		3	LC87 at 100.00%	**0.25**	**OK**	
	L 2-1_2X2-1_2X1_4	**21**	LC6 at 100.00%	**0.06**	**OK**	
		22	LC8 at 0.00%	0.05	OK	
	PIPE 2x0.154	**1**	LC87 at 100.00%	0.39	OK	
		7	LC41 at 50.00%	0.77	OK	
		8	LC76 at 41.67%	**0.86**	**OK**	
		15	LC83 at 29.69%	0.78	OK	
		16	LC87 at 29.17%	0.47	OK	
		17	LC41 at 29.17%	0.60	OK	
		20	LC51 at 29.69%	0.44	OK	
		23	LC11 at 50.00%	0.13	OK	
		24	LC3 at 50.00%	0.02	OK	
		29	LC41 at 16.67%	0.11	OK	
		30	LC84 at 16.67%	0.12	OK	
	PIPE 3x0.216	**4**	LC64 at 18.75%	**0.15**	**OK**	

RAM® Elements
CONNECT Edition

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Units system: English

Geometry data

GLOSSARY

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

Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
1	0.00	0.00	0.00	0
2	0.00	3.00	0.00	0
3	0.00	0.00	0.3333	0
4	0.00	3.00	0.3333	0
5	0.00	3.00	2.00	0
6	0.00	0.00	2.00	0
7	0.00	-0.8333	2.00	0
8	0.00	3.8333	2.00	0
9	0.00	3.00	2.25	0
10	0.00	0.00	2.25	0
11	6.25	3.00	2.25	0
12	6.25	0.00	2.25	0
13	-6.25	3.00	2.25	0
14	-6.25	0.00	2.25	0
15	-1.00	3.00	2.25	0
16	-1.00	0.00	2.25	0
17	-6.00	3.00	2.25	0
18	-6.00	0.00	2.25	0
19	-6.00	3.00	2.45	0
20	-6.00	0.00	2.45	0
21	-1.00	3.00	2.45	0
22	-1.00	0.00	2.45	0
23	4.00	3.00	2.25	0

24	4.00	0.00	2.25	0
25	4.00	3.00	2.45	0
26	4.00	0.00	2.45	0
27	-6.00	4.75	2.45	0
28	-6.00	-1.25	2.45	0
29	-1.00	-1.25	2.45	0
30	-1.00	4.75	2.45	0
31	4.00	4.75	2.45	0
32	4.00	-1.25	2.45	0
33	6.00	3.00	2.25	0
34	6.00	0.00	2.25	0
35	6.00	3.00	2.45	0
36	6.00	0.00	2.45	0
37	6.00	4.75	2.45	0
38	6.00	-1.25	2.45	0
39	0.00	4.375	0.00	0
40	3.50	3.00	2.25	0
41	-3.50	3.00	2.25	0
42	6.00	4.00	2.45	0
43	-6.00	4.00	2.45	0
44	2.00	4.00	-7.80	0
45	-7.00	4.00	-1.55	0
46	0.00	3.00	1.00	0
47	0.00	0.00	1.00	0
48	0.25	3.00	1.00	0
49	0.25	0.00	1.00	0
50	-0.25	3.00	1.00	0
51	-0.25	0.00	1.00	0
52	0.25	-2.00	1.00	0
53	-0.25	-2.00	1.00	0
54	0.25	4.00	1.00	0
55	-0.25	4.00	1.00	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
1	1	1	1	0	0	0
2	1	1	1	0	0	0
39	1	1	1	0	0	0
44	1	1	1	0	0	0
45	1	1	1	0	0	0

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	lg factor
1	3	4		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
2	2	5		HSS_SQR 3X3X1_4	A500 GrB rectangular	0.00	0.00	0.00
3	1	6		HSS_SQR 3X3X1_4	A500 GrB rectangular	0.00	0.00	0.00
4	8	7		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
7	13	11		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00

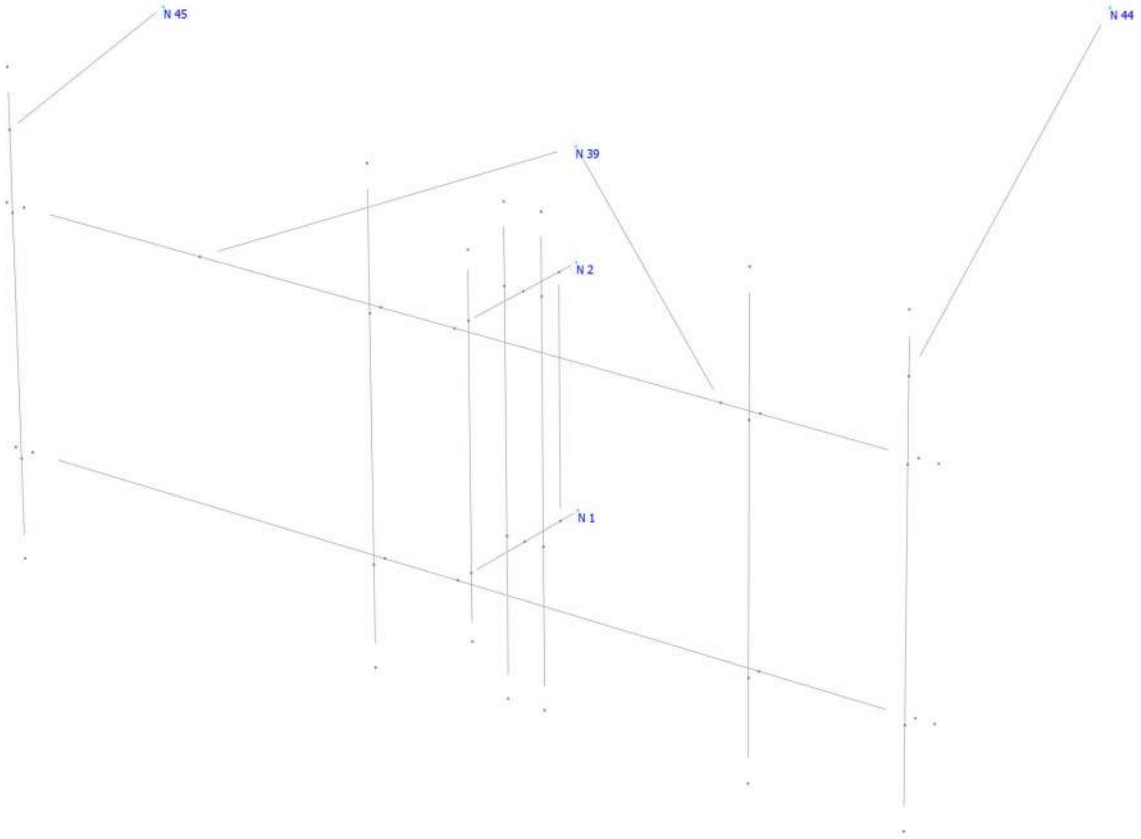
8	14	12	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
15	27	28	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
16	30	29	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
17	31	32	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
20	37	38	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
21	41	39	L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
22	39	40	L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
23	42	44	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
24	43	45	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
29	54	52	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
30	55	53	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00

Orientation of local axes

Member	Rotation [Deg]	Axes23	NX	NY	NZ
15	315.00	0	0.00	0.00	0.00
16	315.00	0	0.00	0.00	0.00
17	315.00	0	0.00	0.00	0.00
21	90.00	0	0.00	0.00	0.00
22	90.00	0	0.00	0.00	0.00
29	315.00	0	0.00	0.00	0.00
30	315.00	0	0.00	0.00	0.00

Hinges

	Node-J				Node-K						
Member	M33	M22	V3	V2	M33	M22	V3	V2	TOR	AXL	Axial rigidity
21	1	1	0	0	0	0	0	0	0	0	Full
22	0	0	0	0	1	1	0	0	0	0	Full
23	1	1	0	0	0	0	0	0	0	0	Full
24	1	1	0	0	0	0	0	0	0	0	Full


N 45
N 44
N 39
N 2
N 1
Y
Z
X

RAM® Elements
CONNECT Edition

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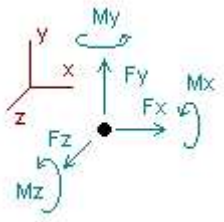
Units system: English

Analysis result

Reactions



Direction of positive forces and moments

	Forces [Kip]			Moments [Kip*ft]		
Node	**FX**	**FY**	**FZ**	**MX**	**MY**	**MZ**
Condition **LC1=1.2D+Wo**						
1	-0.09762	0.57769	1.80372	0.00000	0.00000	0.00000
2	-0.00878	0.54186	-0.56346	0.00000	0.00000	0.00000
39	-0.07711	-0.08636	0.24946	0.00000	0.00000	0.00000
44	0.09727	0.02200	0.27109	0.00000	0.00000	0.00000
45	0.08625	0.00631	0.35067	0.00000	0.00000	0.00000
SUM	0.00000	1.06151	2.11148	0.00000	0.00000	0.00000
Condition **LC2=1.2D+W30**						
1	0.52908	0.53428	1.56260	0.00000	0.00000	0.00000
2	-0.32524	0.50191	-0.43607	0.00000	0.00000	0.00000
39	0.46336	-0.00503	0.11644	0.00000	0.00000	0.00000
44	0.03809	0.02203	0.11980	0.00000	0.00000	0.00000
45	0.10576	0.00832	0.43237	0.00000	0.00000	0.00000
SUM	0.81105	1.06151	1.79513	0.00000	0.00000	0.00000
Condition **LC3=1.2D+W60**						
1	0.87927	0.43920	0.90773	0.00000	0.00000	0.00000
2	-0.40157	0.41312	-0.24976	0.00000	0.00000	0.00000
39	0.90289	0.17657	-0.25635	0.00000	0.00000	0.00000
44	0.01215	0.02272	-0.11378	0.00000	0.00000	0.00000
45	0.12046	0.00989	0.39947	0.00000	0.00000	0.00000
SUM	1.51320	1.06151	0.68731	0.00000	0.00000	0.00000
Condition **LC4=1.2D+W90**						
1	0.89629	0.37692	0.46511	0.00000	0.00000	0.00000
2	-0.37851	0.38407	-0.21405	0.00000	0.00000	0.00000
39	0.93414	0.26807	-0.40539	0.00000	0.00000	0.00000
44	0.00040	0.02279	-0.14400	0.00000	0.00000	0.00000
45	0.09557	0.00966	0.29832	0.00000	0.00000	0.00000
SUM	1.54789	1.06151	0.00000	0.00000	0.00000	0.00000

Condition **LC5=1.2D+W120**

1	0.85866	0.32023	0.02369	0.00000	0.00000	0.00000
2	-0.32463	0.35103	-0.18010	0.00000	0.00000	0.00000
39	0.91852	0.35830	-0.55226	0.00000	0.00000	0.00000
44	-0.00666	0.02277	-0.16212	0.00000	0.00000	0.00000
45	0.06731	0.00917	0.18348	0.00000	0.00000	0.00000
SUM	1.51320	1.06151	-0.68731	0.00000	0.00000	0.00000

Condition **LC6=1.2D+W150**

1	0.51960	0.23608	-0.61392	0.00000	0.00000	0.00000
2	-0.24114	0.27545	-0.03340	0.00000	0.00000	0.00000
39	0.62226	0.51896	-0.88920	0.00000	0.00000	0.00000
44	-0.08916	0.02266	-0.25109	0.00000	0.00000	0.00000
45	-0.00050	0.00836	-0.00753	0.00000	0.00000	0.00000
SUM	0.81105	1.06151	-1.79513	0.00000	0.00000	0.00000

Condition **LC7=1.2D-Wo**

1	-0.10659	0.21290	-0.83487	0.00000	0.00000	0.00000
2	0.11089	0.25741	0.05015	0.00000	0.00000	0.00000
39	0.09719	0.56013	-0.95448	0.00000	0.00000	0.00000
44	-0.04229	0.02225	-0.13035	0.00000	0.00000	0.00000
45	-0.05920	0.00882	-0.24193	0.00000	0.00000	0.00000
SUM	0.00000	1.06151	-2.11148	0.00000	0.00000	0.00000

Condition **LC8=1.2D-W30**

1	-0.72235	0.25457	-0.60012	0.00000	0.00000	0.00000
2	0.41647	0.29512	-0.06942	0.00000	0.00000	0.00000
39	-0.44129	0.47864	-0.82202	0.00000	0.00000	0.00000
44	0.01636	0.02242	0.01982	0.00000	0.00000	0.00000
45	-0.08025	0.01075	-0.32339	0.00000	0.00000	0.00000
SUM	-0.81105	1.06151	-1.79513	0.00000	0.00000	0.00000

Condition **LC9=1.2D-W60**

1	-1.07057	0.35000	0.05136	0.00000	0.00000	0.00000
2	0.49473	0.38348	-0.25652	0.00000	0.00000	0.00000
39	-0.88492	0.29330	-0.44596	0.00000	0.00000	0.00000
44	0.04319	0.02304	0.25396	0.00000	0.00000	0.00000
45	-0.09563	0.01168	-0.29015	0.00000	0.00000	0.00000
SUM	-1.51320	1.06151	-0.68731	0.00000	0.00000	0.00000

Condition **LC10=1.2D-W90**

1	-1.09389	0.41303	0.49540	0.00000	0.00000	0.00000
2	0.47925	0.41318	-0.29411	0.00000	0.00000	0.00000
39	-0.91862	0.20157	-0.29678	0.00000	0.00000	0.00000
44	0.05559	0.02306	0.28558	0.00000	0.00000	0.00000
45	-0.07022	0.01067	-0.19008	0.00000	0.00000	0.00000
SUM	-1.54789	1.06151	0.00000	0.00000	0.00000	0.00000

Condition **LC11=1.2D-W120**

1	-1.06299	0.47052	0.93957	0.00000	0.00000	0.00000
2	0.43247	0.44716	-0.33080	0.00000	0.00000	0.00000
39	-0.90454	0.11155	-0.15033	0.00000	0.00000	0.00000
44	0.06311	0.02299	0.30483	0.00000	0.00000	0.00000
45	-0.04124	0.00930	-0.07596	0.00000	0.00000	0.00000
SUM	-1.51320	1.06151	0.68731	0.00000	0.00000	0.00000

Condition **LC12=1.2D-W150**

1	-0.73303	0.55528	1.58191	0.00000	0.00000	0.00000
2	0.35631	0.52415	-0.48102	0.00000	0.00000	0.00000
39	-0.60774	-0.04772	0.18506	0.00000	0.00000	0.00000
44	0.14587	0.02267	0.39452	0.00000	0.00000	0.00000
45	0.02754	0.00713	0.11465	0.00000	0.00000	0.00000
SUM	-0.81105	1.06151	1.79513	0.00000	0.00000	0.00000

Condition **LC13=0.9D+Wo**

1	-0.07146	0.47909	1.68307	0.00000	0.00000	0.00000
2	-0.02219	0.44187	-0.49931	0.00000	0.00000	0.00000
39	-0.07952	-0.14592	0.33729	0.00000	0.00000	0.00000
44	0.09033	0.01646	0.25335	0.00000	0.00000	0.00000
45	0.08284	0.00463	0.33709	0.00000	0.00000	0.00000
SUM	0.00000	0.79613	2.11148	0.00000	0.00000	0.00000

Condition **LC14=0.9D+W30**

1	0.55492	0.43566	1.44202	0.00000	0.00000	0.00000
2	-0.33809	0.40200	-0.37194	0.00000	0.00000	0.00000
39	0.46066	-0.06467	0.20423	0.00000	0.00000	0.00000
44	0.03119	0.01651	0.10210	0.00000	0.00000	0.00000
45	0.10237	0.00664	0.41873	0.00000	0.00000	0.00000
SUM	0.81105	0.79613	1.79513	0.00000	0.00000	0.00000

Condition **LC15=0.9D+W60**

1	0.90489	0.34060	0.78737	0.00000	0.00000	0.00000
2	-0.41401	0.31343	-0.18589	0.00000	0.00000	0.00000
39	0.89996	0.11679	-0.16852	0.00000	0.00000	0.00000
44	0.00529	0.01719	-0.13144	0.00000	0.00000	0.00000
45	0.11707	0.00812	0.38579	0.00000	0.00000	0.00000
SUM	1.51320	0.79613	0.68731	0.00000	0.00000	0.00000

Condition **LC16=0.9D+W90**

1	0.92167	0.27833	0.34489	0.00000	0.00000	0.00000
2	-0.39083	0.28450	-0.15035	0.00000	0.00000	0.00000
39	0.93130	0.20827	-0.31758	0.00000	0.00000	0.00000
44	-0.00645	0.01725	-0.16165	0.00000	0.00000	0.00000
45	0.09220	0.00779	0.28469	0.00000	0.00000	0.00000
SUM	1.54789	0.79613	0.00000	0.00000	0.00000	0.00000

Condition **LC17=0.9D+W120**

1	0.88382	0.22165	-0.09640	0.00000	0.00000	0.00000
2	-0.33687	0.25159	-0.11657	0.00000	0.00000	0.00000
39	0.91581	0.29848	-0.46447	0.00000	0.00000	0.00000
44	-0.01351	0.01722	-0.17977	0.00000	0.00000	0.00000
45	0.06395	0.00719	0.16990	0.00000	0.00000	0.00000
SUM	1.51320	0.79613	-0.68731	0.00000	0.00000	0.00000

Condition **LC18=0.9D+W150**

1	0.54444	0.13748	-0.73383	0.00000	0.00000	0.00000
2	-0.25331	0.17619	0.02990	0.00000	0.00000	0.00000
39	0.61979	0.45916	-0.80145	0.00000	0.00000	0.00000
44	-0.09601	0.01709	-0.26871	0.00000	0.00000	0.00000
45	-0.00385	0.00621	-0.02104	0.00000	0.00000	0.00000
SUM	0.81105	0.79613	-1.79513	0.00000	0.00000	0.00000

Condition **LC19=0.9D-Wo**

1	-0.08175	0.11433	-0.95468	0.00000	0.00000	0.00000
2	0.09830	0.15825	0.11324	0.00000	0.00000	0.00000
39	0.09517	0.50039	-0.86673	0.00000	0.00000	0.00000
44	-0.04917	0.01665	-0.14801	0.00000	0.00000	0.00000
45	-0.06254	0.00651	-0.25530	0.00000	0.00000	0.00000
SUM	0.00000	0.79613	-2.11148	0.00000	0.00000	0.00000

Condition **LC20=0.9D-W30**

1	-0.69722	0.15602	-0.71999	0.00000	0.00000	0.00000
2	0.40336	0.19589	-0.00631	0.00000	0.00000	0.00000
39	-0.44303	0.41899	-0.73425	0.00000	0.00000	0.00000
44	0.00944	0.01680	0.00213	0.00000	0.00000	0.00000
45	-0.08361	0.00843	-0.33671	0.00000	0.00000	0.00000
SUM	-0.81105	0.79613	-1.79513	0.00000	0.00000	0.00000

Condition **LC21=0.9D-W60**

1	-1.04524	0.25144	-0.06872	0.00000	0.00000	0.00000
2	0.48122	0.28403	-0.19316	0.00000	0.00000	0.00000
39	-0.88642	0.23379	-0.35822	0.00000	0.00000	0.00000
44	0.03623	0.01743	0.23622	0.00000	0.00000	0.00000
45	-0.09899	0.00944	-0.30343	0.00000	0.00000	0.00000
SUM	-1.51320	0.79613	-0.68731	0.00000	0.00000	0.00000

Condition **LC22=0.9D-W90**

1	-1.06832	0.31445	0.37520	0.00000	0.00000	0.00000
2	0.46559	0.31360	-0.23058	0.00000	0.00000	0.00000
39	-0.92019	0.14208	-0.20903	0.00000	0.00000	0.00000
44	0.04862	0.01746	0.26782	0.00000	0.00000	0.00000
45	-0.07359	0.00854	-0.20341	0.00000	0.00000	0.00000
SUM	-1.54789	0.79613	0.00000	0.00000	0.00000	0.00000

Condition **LC23=0.9D-W120**

1	-1.03718	0.37193	0.81923	0.00000	0.00000	0.00000
2	0.41871	0.34745	-0.26710	0.00000	0.00000	0.00000
39	-0.90624	0.05208	-0.06255	0.00000	0.00000	0.00000
44	0.05614	0.01739	0.28707	0.00000	0.00000	0.00000
45	-0.04463	0.00729	-0.08934	0.00000	0.00000	0.00000
SUM	-1.51320	0.79613	0.68731	0.00000	0.00000	0.00000

Condition **LC24=0.9D-W150**

1	-0.70687	0.45670	1.46139	0.00000	0.00000	0.00000
2	0.34245	0.42426	-0.41708	0.00000	0.00000	0.00000
39	-0.60967	-0.10721	0.27289	0.00000	0.00000	0.00000
44	0.13889	0.01710	0.37673	0.00000	0.00000	0.00000
45	0.02415	0.00529	0.10121	0.00000	0.00000	0.00000
SUM	-0.81105	0.79613	1.79513	0.00000	0.00000	0.00000

Condition **LC25=1.2D+Di+WI0**

1	-0.20810	0.66792	1.02188	0.00000	0.00000	0.00000
2	0.09467	0.67092	-0.44257	0.00000	0.00000	0.00000
39	0.01113	0.45653	-0.65478	0.00000	0.00000	0.00000
44	0.06160	0.04971	0.15776	0.00000	0.00000	0.00000
45	0.04070	0.01732	0.16271	0.00000	0.00000	0.00000
SUM	0.00000	1.86239	0.24500	0.00000	0.00000	0.00000

Condition **LC26=1.2D+Di+WI30**

1	-0.08582	0.65747	0.95960	0.00000	0.00000	0.00000
2	0.03528	0.66109	-0.41286	0.00000	0.00000	0.00000
39	0.11739	0.47672	-0.68757	0.00000	0.00000	0.00000
44	0.04962	0.04969	0.12713	0.00000	0.00000	0.00000
45	0.04333	0.01743	0.17351	0.00000	0.00000	0.00000
SUM	0.15981	1.86239	0.15981	0.00000	0.00000	0.00000

Condition **LC27=1.2D+Di+WI60**

1	-0.10369	0.65504	0.94167	0.00000	0.00000	0.00000
2	0.05724	0.65599	-0.38825	0.00000	0.00000	0.00000
39	0.09770	0.48415	-0.69962	0.00000	0.00000	0.00000
44	0.05086	0.04970	0.13028	0.00000	0.00000	0.00000
45	0.03931	0.01752	0.15734	0.00000	0.00000	0.00000
SUM	0.14142	1.86239	0.14142	0.00000	0.00000	0.00000

Condition **LC28=1.2D+Di+WI90**

1	-0.09161	0.64232	0.85089	0.00000	0.00000	0.00000
2	0.05798	0.64996	-0.38284	0.00000	0.00000	0.00000
39	0.10999	0.50272	-0.72982	0.00000	0.00000	0.00000
44	0.04788	0.04971	0.12267	0.00000	0.00000	0.00000
45	0.03475	0.01768	0.13910	0.00000	0.00000	0.00000
SUM	0.15900	1.86239	0.00000	0.00000	0.00000	0.00000

Condition **LC29=1.2D+Di+WI120**

1	-0.10629	0.63073	0.76042	0.00000	0.00000	0.00000
2	0.07129	0.64360	-0.37806	0.00000	0.00000	0.00000
39	0.10079	0.52049	-0.75870	0.00000	0.00000	0.00000
44	0.04702	0.04973	0.12045	0.00000	0.00000	0.00000
45	0.02861	0.01785	0.11447	0.00000	0.00000	0.00000
SUM	0.14142	1.86239	-0.14142	0.00000	0.00000	0.00000

Condition **LC30=1.2D+Di+WI150**

1	-0.08904	0.62715	0.74191	0.00000	0.00000	0.00000
2	0.05380	0.63811	-0.35209	0.00000	0.00000	0.00000
39	0.12335	0.52950	-0.77339	0.00000	0.00000	0.00000
44	0.04384	0.04973	0.11231	0.00000	0.00000	0.00000
45	0.02785	0.01790	0.11145	0.00000	0.00000	0.00000
SUM	0.15981	1.86239	-0.15981	0.00000	0.00000	0.00000

Condition **LC31=1.2D+Di-WI0**

1	-0.21310	0.62043	0.68292	0.00000	0.00000	0.00000
2	0.12489	0.63243	-0.33023	0.00000	0.00000	0.00000
39	0.02039	0.54157	-0.79301	0.00000	0.00000	0.00000
44	0.05273	0.04977	0.13501	0.00000	0.00000	0.00000
45	0.01510	0.01819	0.06030	0.00000	0.00000	0.00000
SUM	0.00000	1.86239	-0.24500	0.00000	0.00000	0.00000

Condition **LC32=1.2D+Di-WI30**

1	-0.33513	0.63083	0.74499	0.00000	0.00000	0.00000
2	0.18411	0.64220	-0.35969	0.00000	0.00000	0.00000
39	-0.08590	0.52133	-0.76021	0.00000	0.00000	0.00000
44	0.06472	0.04981	0.16563	0.00000	0.00000	0.00000
45	0.01240	0.01822	0.04947	0.00000	0.00000	0.00000
SUM	-0.15981	1.86239	-0.15981	0.00000	0.00000	0.00000

Condition **LC33=1.2D+Di-WI60**

1	-0.31736	0.63328	0.76296	0.00000	0.00000	0.00000
2	0.16221	0.64732	-0.38438	0.00000	0.00000	0.00000
39	-0.06621	0.51392	-0.74813	0.00000	0.00000	0.00000
44	0.06348	0.04979	0.16249	0.00000	0.00000	0.00000
45	0.01645	0.01809	0.06564	0.00000	0.00000	0.00000
SUM	-0.14142	1.86239	-0.14142	0.00000	0.00000	0.00000

Condition **LC34=1.2D+Di-WI90**

1	-0.32958	0.64601	0.85375	0.00000	0.00000	0.00000
2	0.16165	0.65336	-0.38984	0.00000	0.00000	0.00000
39	-0.07856	0.49533	-0.71792	0.00000	0.00000	0.00000
44	0.06647	0.04978	0.17013	0.00000	0.00000	0.00000
45	0.02102	0.01791	0.08387	0.00000	0.00000	0.00000
SUM	-0.15900	1.86239	0.00000	0.00000	0.00000	0.00000

Condition **LC35=1.2D+Di-WI120**

1	-0.31503	0.65762	0.94430	0.00000	0.00000	0.00000
2	0.14848	0.65974	-0.39470	0.00000	0.00000	0.00000
39	-0.06940	0.47757	-0.68905	0.00000	0.00000	0.00000
44	0.06734	0.04976	0.17238	0.00000	0.00000	0.00000
45	0.02718	0.01769	0.10849	0.00000	0.00000	0.00000
SUM	-0.14142	1.86239	0.14142	0.00000	0.00000	0.00000

Condition **LC36=1.2D+Di-WI150**

1	-0.33237	0.66122	0.96286	0.00000	0.00000	0.00000
2	0.16603	0.66525	-0.42072	0.00000	0.00000	0.00000
39	-0.09195	0.46853	-0.67439	0.00000	0.00000	0.00000
44	0.07053	0.04977	0.18052	0.00000	0.00000	0.00000
45	0.02795	0.01763	0.11153	0.00000	0.00000	0.00000
SUM	-0.15981	1.86239	0.15981	0.00000	0.00000	0.00000

Condition **LC37=1.2D+1.6LL1**

1	-0.10246	0.58082	0.76893	0.00000	0.00000	0.00000
2	0.05286	0.59086	-0.51890	0.00000	0.00000	0.00000
39	0.00471	0.25940	-0.38614	0.00000	0.00000	0.00000
44	0.03016	0.02230	0.07726	0.00000	0.00000	0.00000
45	0.01472	0.00813	0.05885	0.00000	0.00000	0.00000
SUM	0.00000	1.46151	0.00000	0.00000	0.00000	0.00000

Condition **LC38=1.2D+1.6LL2**

1	0.57247	0.47174	0.65133	0.00000	0.00000	0.00000
2	-0.28932	0.47725	-0.19144	0.00000	0.00000	0.00000
39	-0.37609	0.48230	-0.74269	0.00000	0.00000	0.00000
44	0.06234	0.02170	0.15988	0.00000	0.00000	0.00000
45	0.03059	0.00852	0.12292	0.00000	0.00000	0.00000
SUM	0.00000	1.46151	0.00000	0.00000	0.00000	0.00000

Condition **LC39=1.2D+1.6LL3**

1	-0.78333	0.48345	0.66010	0.00000	0.00000	0.00000
2	0.38617	0.49134	-0.21057	0.00000	0.00000	0.00000
39	0.31423	0.45752	-0.70007	0.00000	0.00000	0.00000
44	0.05584	0.02257	0.14277	0.00000	0.00000	0.00000
45	0.02709	0.00663	0.10778	0.00000	0.00000	0.00000
SUM	0.00000	1.46151	0.00000	0.00000	0.00000	0.00000

Condition **LC40=1.2D+WL0+1.6LLa1**

1	1.18611	0.56405	0.92842	0.00000	0.00000	0.00000
2	-0.58221	0.57108	-0.20477	0.00000	0.00000	0.00000
39	-0.74259	0.69627	-1.07624	0.00000	0.00000	0.00000
44	0.09066	0.02063	0.23275	0.00000	0.00000	0.00000
45	0.04802	0.00948	0.19384	0.00000	0.00000	0.00000
SUM	0.00000	1.86151	0.07400	0.00000	0.00000	0.00000

Condition **LC41=1.2D+WL30+1.6LLa1**

1	1.22280	0.56084	0.90925	0.00000	0.00000	0.00000
2	-0.60015	0.56798	-0.19484	0.00000	0.00000	0.00000
39	-0.71038	0.70245	-1.08663	0.00000	0.00000	0.00000
44	0.08713	0.02067	0.22373	0.00000	0.00000	0.00000
45	0.04868	0.00957	0.19657	0.00000	0.00000	0.00000
SUM	0.04808	1.86151	0.04808	0.00000	0.00000	0.00000

Condition **LC42=1.2D+WL60+1.6LLa1**

1	1.21671	0.56009	0.90332	0.00000	0.00000	0.00000
2	-0.59324	0.56646	-0.18732	0.00000	0.00000	0.00000
39	-0.71668	0.70477	-1.09033	0.00000	0.00000	0.00000
44	0.08757	0.02067	0.22485	0.00000	0.00000	0.00000
45	0.04735	0.00952	0.19120	0.00000	0.00000	0.00000
SUM	0.04172	1.86151	0.04172	0.00000	0.00000	0.00000

Condition **LC43=1.2D+WL90+1.6LLa1**

1	1.21776	0.55625	0.87631	0.00000	0.00000	0.00000
2	-0.59150	0.56456	-0.18454	0.00000	0.00000	0.00000
39	-0.71491	0.71052	-1.09973	0.00000	0.00000	0.00000
44	0.08683	0.02069	0.22294	0.00000	0.00000	0.00000
45	0.04583	0.00949	0.18502	0.00000	0.00000	0.00000
SUM	0.04400	1.86151	0.00000	0.00000	0.00000	0.00000

Condition **LC44=1.2D+WL120+1.6LLa1**

1	1.21544	0.55281	0.84933	0.00000	0.00000	0.00000
2	-0.58854	0.56236	-0.18184	0.00000	0.00000	0.00000
39	-0.71561	0.71619	-1.10895	0.00000	0.00000	0.00000
44	0.08631	0.02070	0.22162	0.00000	0.00000	0.00000
45	0.04412	0.00945	0.17811	0.00000	0.00000	0.00000
SUM	0.04172	1.86151	-0.04172	0.00000	0.00000	0.00000

Condition **LC45=1.2D+WL150+1.6LLa1**

1	1.22112	0.55159	0.84315	0.00000	0.00000	0.00000
2	-0.59380	0.56069	-0.17368	0.00000	0.00000	0.00000
39	-0.70842	0.71905	-1.11368	0.00000	0.00000	0.00000
44	0.08536	0.02072	0.21919	0.00000	0.00000	0.00000
45	0.04382	0.00946	0.17694	0.00000	0.00000	0.00000
SUM	0.04808	1.86151	-0.04808	0.00000	0.00000	0.00000

Condition **LC46=1.2D-WL0+1.6LLa1**

1	1.18308	0.54972	0.82524	0.00000	0.00000	0.00000
2	-0.57091	0.55894	-0.16687	0.00000	0.00000	0.00000
39	-0.74022	0.72285	-1.11955	0.00000	0.00000	0.00000
44	0.08822	0.02070	0.22649	0.00000	0.00000	0.00000
45	0.03982	0.00931	0.16069	0.00000	0.00000	0.00000
SUM	0.00000	1.86151	-0.07400	0.00000	0.00000	0.00000

Condition **LC47=1.2D-WL30+1.6LLa1**

1	1.14641	0.55293	0.84440	0.00000	0.00000	0.00000
2	-0.55298	0.56203	-0.17677	0.00000	0.00000	0.00000
39	-0.77243	0.71666	-1.10916	0.00000	0.00000	0.00000
44	0.09175	0.02065	0.23550	0.00000	0.00000	0.00000
45	0.03916	0.00924	0.15795	0.00000	0.00000	0.00000
SUM	-0.04808	1.86151	-0.04808	0.00000	0.00000	0.00000

Condition **LC48=1.2D-WL60+1.6LLa1**

1	1.15250	0.55367	0.85032	0.00000	0.00000	0.00000
2	-0.55989	0.56356	-0.18430	0.00000	0.00000	0.00000
39	-0.76613	0.71435	-1.10545	0.00000	0.00000	0.00000
44	0.09131	0.02065	0.23438	0.00000	0.00000	0.00000
45	0.04049	0.00928	0.16333	0.00000	0.00000	0.00000
SUM	-0.04172	1.86151	-0.04172	0.00000	0.00000	0.00000

Condition **LC49=1.2D-WL90+1.6LLa1**

1	1.15144	0.55752	0.87734	0.00000	0.00000	0.00000
2	-0.56161	0.56546	-0.18709	0.00000	0.00000	0.00000
39	-0.76790	0.70859	-1.09605	0.00000	0.00000	0.00000
44	0.09206	0.02064	0.23630	0.00000	0.00000	0.00000
45	0.04202	0.00930	0.16950	0.00000	0.00000	0.00000
SUM	-0.04400	1.86151	0.00000	0.00000	0.00000	0.00000

Condition **LC50=1.2D-WL120+1.6LLa1**

1	1.15375	0.56096	0.90432	0.00000	0.00000	0.00000
2	-0.56456	0.56766	-0.18980	0.00000	0.00000	0.00000
39	-0.76720	0.70292	-1.08683	0.00000	0.00000	0.00000
44	0.09257	0.02062	0.23762	0.00000	0.00000	0.00000
45	0.04373	0.00934	0.17641	0.00000	0.00000	0.00000
SUM	-0.04172	1.86151	0.04172	0.00000	0.00000	0.00000

Condition **LC51=1.2D-WL150+1.6LLa1**

1	1.14806	0.56218	0.91051	0.00000	0.00000	0.00000
2	-0.55930	0.56933	-0.19796	0.00000	0.00000	0.00000
39	-0.77439	0.70006	-1.08211	0.00000	0.00000	0.00000
44	0.09352	0.02061	0.24005	0.00000	0.00000	0.00000
45	0.04403	0.00933	0.17759	0.00000	0.00000	0.00000
SUM	-0.04808	1.86151	0.04808	0.00000	0.00000	0.00000

Condition **LC52=1.2D+WL0+1.6LLa2**

1	0.73750	0.59611	0.96364	0.00000	0.00000	0.00000
2	-0.31579	0.60308	-0.30057	0.00000	0.00000	0.00000
39	-0.54861	0.63217	-0.97923	0.00000	0.00000	0.00000
44	0.08289	0.02126	0.21281	0.00000	0.00000	0.00000
45	0.04401	0.00888	0.17736	0.00000	0.00000	0.00000
SUM	0.00000	1.86151	0.07400	0.00000	0.00000	0.00000

Condition **LC53=1.2D+WL30+1.6LLa2**

1	0.77421	0.59293	0.94452	0.00000	0.00000	0.00000
2	-0.33372	0.60000	-0.29079	0.00000	0.00000	0.00000
39	-0.51644	0.63834	-0.98952	0.00000	0.00000	0.00000
44	0.07937	0.02129	0.20380	0.00000	0.00000	0.00000
45	0.04467	0.00895	0.18008	0.00000	0.00000	0.00000
SUM	0.04808	1.86151	0.04808	0.00000	0.00000	0.00000

Condition **LC54=1.2D+WL60+1.6LLa2**

1	0.76814	0.59217	0.93858	0.00000	0.00000	0.00000
2	-0.32685	0.59847	-0.28325	0.00000	0.00000	0.00000
39	-0.52273	0.64065	-0.99324	0.00000	0.00000	0.00000
44	0.07981	0.02129	0.20491	0.00000	0.00000	0.00000
45	0.04334	0.00892	0.17471	0.00000	0.00000	0.00000
SUM	0.04172	1.86151	0.04172	0.00000	0.00000	0.00000

Condition **LC55=1.2D+WL90+1.6LLa2**

1	0.76926	0.58833	0.91157	0.00000	0.00000	0.00000
2	-0.32519	0.59657	-0.28050	0.00000	0.00000	0.00000
39	-0.52094	0.64639	-1.00260	0.00000	0.00000	0.00000
44	0.07906	0.02130	0.20299	0.00000	0.00000	0.00000
45	0.04181	0.00891	0.16855	0.00000	0.00000	0.00000
SUM	0.04400	1.86151	0.00000	0.00000	0.00000	0.00000

Condition **LC56=1.2D+WL120+1.6LLa2**

1	0.76701	0.58490	0.88459	0.00000	0.00000	0.00000
2	-0.32232	0.59437	-0.27782	0.00000	0.00000	0.00000
39	-0.52161	0.65204	-1.01180	0.00000	0.00000	0.00000
44	0.07854	0.02132	0.20166	0.00000	0.00000	0.00000
45	0.04011	0.00889	0.16165	0.00000	0.00000	0.00000
SUM	0.04172	1.86151	-0.04172	0.00000	0.00000	0.00000

Condition **LC57=1.2D+WL150+1.6LLa2**

1	0.77270	0.58369	0.87842	0.00000	0.00000	0.00000
2	-0.32758	0.59271	-0.26970	0.00000	0.00000	0.00000
39	-0.51444	0.65488	-1.01649	0.00000	0.00000	0.00000
44	0.07759	0.02133	0.19923	0.00000	0.00000	0.00000
45	0.03981	0.00890	0.16047	0.00000	0.00000	0.00000
SUM	0.04808	1.86151	-0.04808	0.00000	0.00000	0.00000

Condition **LC58=1.2D-WL0+1.6LLa2**

1	0.73478	0.58179	0.86045	0.00000	0.00000	0.00000
2	-0.30485	0.59093	-0.26279	0.00000	0.00000	0.00000
39	-0.54616	0.65867	-1.02241	0.00000	0.00000	0.00000
44	0.08043	0.02132	0.20649	0.00000	0.00000	0.00000
45	0.03581	0.00880	0.14425	0.00000	0.00000	0.00000
SUM	0.00000	1.86151	-0.07400	0.00000	0.00000	0.00000

Condition **LC59=1.2D-WL30+1.6LLa2**

1	0.69809	0.58497	0.87955	0.00000	0.00000	0.00000
2	-0.28694	0.59400	-0.27255	0.00000	0.00000	0.00000
39	-0.57834	0.65250	-1.01212	0.00000	0.00000	0.00000
44	0.08395	0.02129	0.21550	0.00000	0.00000	0.00000
45	0.03515	0.00874	0.14153	0.00000	0.00000	0.00000
SUM	-0.04808	1.86151	-0.04808	0.00000	0.00000	0.00000

Condition **LC60=1.2D-WL60+1.6LLa2**

1	0.70415	0.58572	0.88549	0.00000	0.00000	0.00000
2	-0.29381	0.59554	-0.28009	0.00000	0.00000	0.00000
39	-0.57205	0.65019	-1.00840	0.00000	0.00000	0.00000
44	0.08352	0.02129	0.21438	0.00000	0.00000	0.00000
45	0.03648	0.00877	0.14690	0.00000	0.00000	0.00000
SUM	-0.04172	1.86151	-0.04172	0.00000	0.00000	0.00000

Condition **LC61=1.2D-WL90+1.6LLa2**

1	0.70301	0.58957	0.91251	0.00000	0.00000	0.00000
2	-0.29544	0.59744	-0.28285	0.00000	0.00000	0.00000
39	-0.57385	0.64445	-0.99904	0.00000	0.00000	0.00000
44	0.08427	0.02128	0.21631	0.00000	0.00000	0.00000
45	0.03801	0.00878	0.15306	0.00000	0.00000	0.00000
SUM	-0.04400	1.86151	0.00000	0.00000	0.00000	0.00000

Condition **LC62=1.2D-WL120+1.6LLa2**

1	0.70525	0.59301	0.93950	0.00000	0.00000	0.00000
2	-0.29830	0.59964	-0.28554	0.00000	0.00000	0.00000
39	-0.57317	0.63880	-0.98984	0.00000	0.00000	0.00000
44	0.08479	0.02127	0.21764	0.00000	0.00000	0.00000
45	0.03972	0.00879	0.15996	0.00000	0.00000	0.00000
SUM	-0.04172	1.86151	0.04172	0.00000	0.00000	0.00000

Condition **LC63=1.2D-WL150+1.6LLa2**

1	0.69955	0.59421	0.94567	0.00000	0.00000	0.00000
2	-0.29304	0.60130	-0.29366	0.00000	0.00000	0.00000
39	-0.58035	0.63596	-0.98515	0.00000	0.00000	0.00000
44	0.08574	0.02126	0.22008	0.00000	0.00000	0.00000
45	0.04001	0.00878	0.16114	0.00000	0.00000	0.00000
SUM	-0.04808	1.86151	0.04808	0.00000	0.00000	0.00000

Condition **LC64=1.2D+WL0+1.6LLa3**

1	-0.32040	0.77146	1.15239	0.00000	0.00000	0.00000
2	0.16093	0.77756	-0.82752	0.00000	0.00000	0.00000
39	0.10394	0.28230	-0.42243	0.00000	0.00000	0.00000
44	0.03500	0.02235	0.08962	0.00000	0.00000	0.00000
45	0.02053	0.00784	0.08193	0.00000	0.00000	0.00000
SUM	0.00000	1.86151	0.07400	0.00000	0.00000	0.00000

Condition **LC65=1.2D+WL30+1.6LLa3**

1	-0.28364	0.76831	1.13331	0.00000	0.00000	0.00000
2	0.14299	0.77450	-0.81798	0.00000	0.00000	0.00000
39	0.13607	0.28851	-0.43249	0.00000	0.00000	0.00000
44	0.03146	0.02234	0.08055	0.00000	0.00000	0.00000
45	0.02121	0.00785	0.08468	0.00000	0.00000	0.00000
SUM	0.04808	1.86151	0.04808	0.00000	0.00000	0.00000

Condition **LC66=1.2D+WL60+1.6LLa3**

1	-0.28961	0.76754	1.12733	0.00000	0.00000	0.00000
2	0.14979	0.77294	-0.81036	0.00000	0.00000	0.00000
39	0.12979	0.29082	-0.43624	0.00000	0.00000	0.00000
44	0.03189	0.02234	0.08167	0.00000	0.00000	0.00000
45	0.01987	0.00788	0.07932	0.00000	0.00000	0.00000
SUM	0.04172	1.86151	0.04172	0.00000	0.00000	0.00000

Condition **LC67=1.2D+WL90+1.6LLa3**

1	-0.28829	0.76369	1.10027	0.00000	0.00000	0.00000
2	0.15120	0.77102	-0.80760	0.00000	0.00000	0.00000
39	0.13163	0.29655	-0.44556	0.00000	0.00000	0.00000
44	0.03112	0.02234	0.07969	0.00000	0.00000	0.00000
45	0.01833	0.00792	0.07320	0.00000	0.00000	0.00000
SUM	0.04400	1.86151	0.00000	0.00000	0.00000	0.00000

Condition **LC68=1.2D+WL120+1.6LLa3**

1	-0.29035	0.76024	1.07324	0.00000	0.00000	0.00000
2	0.15383	0.76879	-0.80490	0.00000	0.00000	0.00000
39	0.13103	0.30218	-0.45472	0.00000	0.00000	0.00000
44	0.03059	0.02234	0.07832	0.00000	0.00000	0.00000
45	0.01662	0.00796	0.06634	0.00000	0.00000	0.00000
SUM	0.04172	1.86151	-0.04172	0.00000	0.00000	0.00000

Condition **LC69=1.2D+WL150+1.6LLa3**

1	-0.28460	0.75905	1.06708	0.00000	0.00000	0.00000
2	0.14855	0.76713	-0.79686	0.00000	0.00000	0.00000
39	0.13818	0.30501	-0.45932	0.00000	0.00000	0.00000
44	0.02963	0.02234	0.07586	0.00000	0.00000	0.00000
45	0.01632	0.00797	0.06516	0.00000	0.00000	0.00000
SUM	0.04808	1.86151	-0.04808	0.00000	0.00000	0.00000

Condition **LC70=1.2D-WL0+1.6LLa3**

1	-0.32223	0.75709	1.04897	0.00000	0.00000	0.00000
2	0.17095	0.76529	-0.78967	0.00000	0.00000	0.00000
39	0.10655	0.30872	-0.46539	0.00000	0.00000	0.00000
44	0.03246	0.02235	0.08312	0.00000	0.00000	0.00000
45	0.01227	0.00805	0.04897	0.00000	0.00000	0.00000
SUM	0.00000	1.86151	-0.07400	0.00000	0.00000	0.00000

Condition **LC71=1.2D-WL30+1.6LLa3**

1	-0.35897	0.76023	1.06802	0.00000	0.00000	0.00000
2	0.18887	0.76835	-0.79918	0.00000	0.00000	0.00000
39	0.07441	0.30251	-0.45533	0.00000	0.00000	0.00000
44	0.03601	0.02237	0.09219	0.00000	0.00000	0.00000
45	0.01159	0.00806	0.04622	0.00000	0.00000	0.00000
SUM	-0.04808	1.86151	-0.04808	0.00000	0.00000	0.00000

Condition **LC72=1.2D-WL60+1.6LLa3**

1	-0.35300	0.76101	1.07401	0.00000	0.00000	0.00000
2	0.18208	0.76991	-0.80681	0.00000	0.00000	0.00000
39	0.08070	0.30020	-0.45158	0.00000	0.00000	0.00000
44	0.03558	0.02236	0.09107	0.00000	0.00000	0.00000
45	0.01293	0.00802	0.05158	0.00000	0.00000	0.00000
SUM	-0.04172	1.86151	-0.04172	0.00000	0.00000	0.00000

Condition **LC73=1.2D-WL90+1.6LLa3**

1	-0.35434	0.76486	1.10107	0.00000	0.00000	0.00000
2	0.18068	0.77184	-0.80957	0.00000	0.00000	0.00000
39	0.07884	0.29447	-0.44226	0.00000	0.00000	0.00000
44	0.03635	0.02236	0.09305	0.00000	0.00000	0.00000
45	0.01447	0.00798	0.05770	0.00000	0.00000	0.00000
SUM	-0.04400	1.86151	0.00000	0.00000	0.00000	0.00000

Condition **LC74=1.2D-WL120+1.6LLa3**

1	-0.35230	0.76831	1.12811	0.00000	0.00000	0.00000
2	0.17806	0.77406	-0.81227	0.00000	0.00000	0.00000
39	0.07944	0.28884	-0.43310	0.00000	0.00000	0.00000
44	0.03689	0.02236	0.09443	0.00000	0.00000	0.00000
45	0.01618	0.00793	0.06456	0.00000	0.00000	0.00000
SUM	-0.04172	1.86151	0.04172	0.00000	0.00000	0.00000

Condition **LC75=1.2D-WL150+1.6LLa3**

1	-0.35805	0.76950	1.13428	0.00000	0.00000	0.00000
2	0.18334	0.77572	-0.82032	0.00000	0.00000	0.00000
39	0.07230	0.28600	-0.42849	0.00000	0.00000	0.00000
44	0.03785	0.02236	0.09688	0.00000	0.00000	0.00000
45	0.01648	0.00792	0.06574	0.00000	0.00000	0.00000
SUM	-0.04808	1.86151	0.04808	0.00000	0.00000	0.00000

Condition **LC76=1.2D+WL0+1.6LLa4**

1	-1.40076	0.58762	0.94684	0.00000	0.00000	0.00000
2	0.66125	0.59892	-0.24326	0.00000	0.00000	0.00000
39	0.61989	0.64811	-0.99335	0.00000	0.00000	0.00000
44	0.07821	0.02301	0.19967	0.00000	0.00000	0.00000
45	0.04140	0.00385	0.16410	0.00000	0.00000	0.00000
SUM	0.00000	1.86151	0.07400	0.00000	0.00000	0.00000

Condition **LC77=1.2D+WL30+1.6LLa4**

1	-1.36369	0.58445	0.92778	0.00000	0.00000	0.00000
2	0.64295	0.59584	-0.23389	0.00000	0.00000	0.00000
39	0.65211	0.65442	-1.00323	0.00000	0.00000	0.00000
44	0.07464	0.02296	0.19057	0.00000	0.00000	0.00000
45	0.04208	0.00383	0.16685	0.00000	0.00000	0.00000
SUM	0.04808	1.86151	0.04808	0.00000	0.00000	0.00000

Condition **LC78=1.2D+WL60+1.6LLa4**

1	-1.36955	0.58360	0.92169	0.00000	0.00000	0.00000
2	0.64975	0.59423	-0.22608	0.00000	0.00000	0.00000
39	0.64572	0.65674	-1.00704	0.00000	0.00000	0.00000
44	0.07508	0.02297	0.19170	0.00000	0.00000	0.00000
45	0.04072	0.00397	0.16146	0.00000	0.00000	0.00000
SUM	0.04172	1.86151	0.04172	0.00000	0.00000	0.00000

Condition **LC79=1.2D+WL90+1.6LLa4**

1	-1.36788	0.57967	0.89451	0.00000	0.00000	0.00000
2	0.65089	0.59223	-0.22317	0.00000	0.00000	0.00000
39	0.64751	0.66249	-1.01635	0.00000	0.00000	0.00000
44	0.07430	0.02297	0.18970	0.00000	0.00000	0.00000
45	0.03917	0.00414	0.15531	0.00000	0.00000	0.00000
SUM	0.04400	1.86151	0.00000	0.00000	0.00000	0.00000

Condition **LC80=1.2D+WL120+1.6LLa4**

1	-1.36958	0.57613	0.86735	0.00000	0.00000	0.00000
2	0.65326	0.58993	-0.22030	0.00000	0.00000	0.00000
39	0.64685	0.66814	-1.02550	0.00000	0.00000	0.00000
44	0.07375	0.02297	0.18830	0.00000	0.00000	0.00000
45	0.03744	0.00433	0.14843	0.00000	0.00000	0.00000
SUM	0.04172	1.86151	-0.04172	0.00000	0.00000	0.00000

Condition **LC81=1.2D+WL150+1.6LLa4**

1	-1.36365	0.57492	0.86116	0.00000	0.00000	0.00000
2	0.64787	0.58827	-0.21227	0.00000	0.00000	0.00000
39	0.65395	0.67098	-1.03004	0.00000	0.00000	0.00000
44	0.07279	0.02296	0.18584	0.00000	0.00000	0.00000
45	0.03713	0.00438	0.14723	0.00000	0.00000	0.00000
SUM	0.04808	1.86151	-0.04808	0.00000	0.00000	0.00000

Condition **LC82=1.2D-WL0+1.6LLa4**

1	-1.40094	0.57281	0.84278	0.00000	0.00000	0.00000
2	0.67026	0.58630	-0.20458	0.00000	0.00000	0.00000
39	0.62199	0.67461	-1.03626	0.00000	0.00000	0.00000
44	0.07564	0.02301	0.19311	0.00000	0.00000	0.00000
45	0.03305	0.00478	0.13095	0.00000	0.00000	0.00000
SUM	0.00000	1.86151	-0.07400	0.00000	0.00000	0.00000

Condition **LC83=1.2D-WL30+1.6LLa4**

1	-1.43798	0.57598	0.86183	0.00000	0.00000	0.00000
2	0.68855	0.58936	-0.21393	0.00000	0.00000	0.00000
39	0.58977	0.66830	-1.02638	0.00000	0.00000	0.00000
44	0.07922	0.02306	0.20221	0.00000	0.00000	0.00000
45	0.03237	0.00481	0.12819	0.00000	0.00000	0.00000
SUM	-0.04808	1.86151	-0.04808	0.00000	0.00000	0.00000

Condition **LC84=1.2D-WL60+1.6LLa4**

1	-1.43214	0.57682	0.86792	0.00000	0.00000	0.00000
2	0.68176	0.59098	-0.22174	0.00000	0.00000	0.00000
39	0.59616	0.66599	-1.02256	0.00000	0.00000	0.00000
44	0.07878	0.02305	0.20108	0.00000	0.00000	0.00000
45	0.03372	0.00467	0.13359	0.00000	0.00000	0.00000
SUM	-0.04172	1.86151	-0.04172	0.00000	0.00000	0.00000

Condition **LC85=1.2D-WL90+1.6LLa4**

1	-1.43382	0.58076	0.89510	0.00000	0.00000	0.00000
2	0.68063	0.59298	-0.22465	0.00000	0.00000	0.00000
39	0.59436	0.66023	-1.01325	0.00000	0.00000	0.00000
44	0.07956	0.02306	0.20308	0.00000	0.00000	0.00000
45	0.03527	0.00449	0.13973	0.00000	0.00000	0.00000
SUM	-0.04400	1.86151	0.00000	0.00000	0.00000	0.00000

Condition **LC86=1.2D-WL120+1.6LLa4**

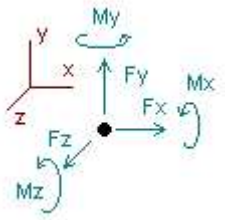
1	-1.43213	0.58430	0.92227	0.00000	0.00000	0.00000
2	0.67827	0.59528	-0.22754	0.00000	0.00000	0.00000
39	0.59503	0.65458	-1.00410	0.00000	0.00000	0.00000
44	0.08011	0.02306	0.20448	0.00000	0.00000	0.00000
45	0.03701	0.00430	0.14661	0.00000	0.00000	0.00000
SUM	-0.04172	1.86151	0.04172	0.00000	0.00000	0.00000

Condition **LC87=1.2D-WL150+1.6LLa4**

1	-1.43807	0.58551	0.92846	0.00000	0.00000	0.00000
2	0.68367	0.59695	-0.23556	0.00000	0.00000	0.00000
39	0.58793	0.65174	-0.99957	0.00000	0.00000	0.00000
44	0.08108	0.02307	0.20694	0.00000	0.00000	0.00000
45	0.03731	0.00425	0.14781	0.00000	0.00000	0.00000
SUM	-0.04808	1.86151	0.04808	0.00000	0.00000	0.00000

Envelope for nodal reactions

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



Direction of positive forces and moments

Envelope of nodal reactions for :

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

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

		Forces						Moments					
Node		**Fx** [Kip]	**lc**	**Fy** [Kip]	**lc**	**Fz** [Kip]	**lc**	**Mx** [Kip*ft]	**lc**	**My** [Kip*ft]	**lc**	**Mz** [Kip*ft]	**lc**
1	Max	1.223	LC41	0.771	LC64	1.804	LC1	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-1.438	LC87	0.114	LC19	-0.955	LC19	0.00000	LC1	0.00000	LC1	0.00000	LC1
2	Max	0.689	LC83	0.778	LC64	0.113	LC19	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.600	LC41	0.158	LC19	-0.828	LC64	0.00000	LC1	0.00000	LC1	0.00000	LC1
39	Max	0.934	LC4	0.723	LC46	0.337	LC13	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.920	LC22	-0.146	LC13	-1.120	LC46	0.00000	LC1	0.00000	LC1	0.00000	LC1
44	Max	0.146	LC12	0.050	LC32	0.395	LC12	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.096	LC18	0.016	LC13	-0.269	LC18	0.00000	LC1	0.00000	LC1	0.00000	LC1
45	Max	0.120	LC3	0.018	LC32	0.432	LC2	0.00000	LC1	0.00000	LC1	0.00000	LC1
	Min	-0.099	LC21	0.004	LC77	-0.337	LC20	0.00000	LC1	0.00000	LC1	0.00000	LC1

Connection Check

Date: 4/26/2023
Project Name: CLINTON MEADOW RD
Project No.: CT2230
Designed By: KM **Checked By:** MSC

CHECK CONNECTION CAPACITY (Worst Case) → ANTENNA MOUNT

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

Bolt Type = A36 1/2" Threaded Rod

Allowable Tensile Load =

F_{Tall} = 4271 lbs.

Allowable Shear Load =

F_{vall} = 2562 lbs.

TENSILE FORCES

Reaction **F =** 1804 lbs. (See Bentley Output)

SHEAR FORCES

Reactions in X direction: 1438 lbs. (See Bentley Output)
Reactions in Y direction: 771 lbs. (See Bentley Output)

Resultant: 1632 lbs.

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

Tension Design Load /Bolts =

f_t= 451.00 lbs. < 4271 lbs. **Therefore, OK !**

Shear Design Load / Bolts=

f_v= 407.91 lbs. < 2562 lbs. **Therefore, OK !**

CHECK COMBINED TENSION AND SHEAR

f_t / F_T	+	f_v / F_V	≤	1.0			
0.106	+	0.159	=	0.265	<	1.0	**Therefore, OK !**

Date: 4/26/2023
Project Name: CLINTON MEADOW RD
Project No.: CT2230
Designed By: KM **Checked By:** MSC

CHECK CONNECTION CAPACITY (Worst Case) → STABILIZER KIT

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

Bolt Type = A36 1/2" Threaded Rod

Allowable Tensile Load =

F_{Tall} = 4271 lbs.

Allowable Shear Load =

F_{vall} = 2562 lbs.

TENSILE FORCES

Reaction **F =** 1120 lbs. (See Bentley Output)

SHEAR FORCES

Reactions in X direction: 934 lbs. (See Bentley Output)
Reactions in Y direction: 723 lbs. (See Bentley Output)

Resultant: 1181 lbs.

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

Tension Design Load /Bolts =

f_t= 280.00 lbs. < 4271 lbs. **Therefore, OK !**

Shear Design Load / Bolts=

f_v= 295.28 lbs. < 2562 lbs. **Therefore, OK !**

CHECK COMBINED TENSION AND SHEAR

f_t / F_T	+	f_v / F_V	≤	1.0			
0.066	+	0.115	=	0.181	<	1.0	**Therefore, OK !**