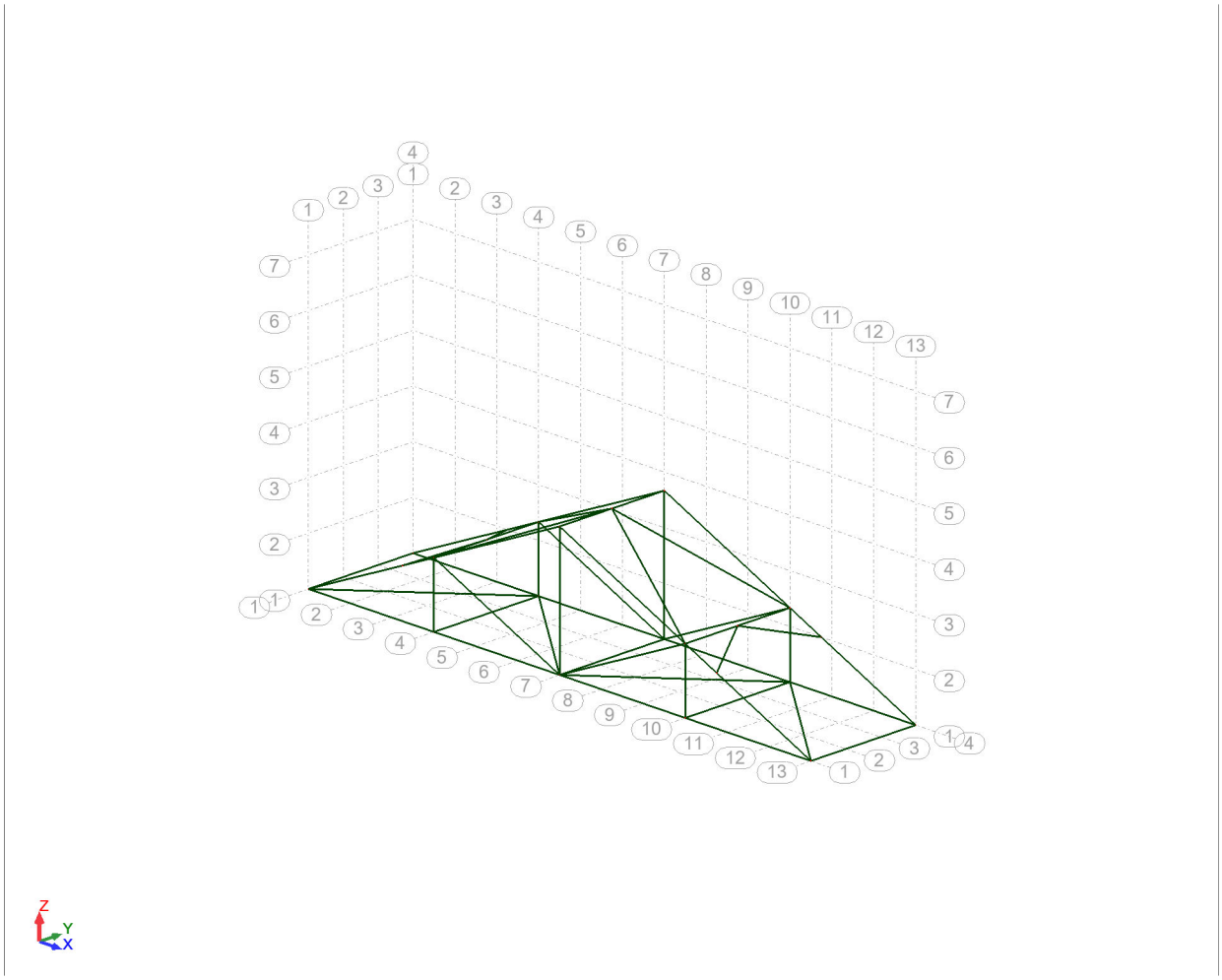
Structure View



Loads - Cases

Case	Label	Case name	Nature
1	DL1	DL1	dead
2	LL1	LL1	live

Case	Analysis type
1	Static - Linear
2	Static - Linear

Data - Nodes

Node	X (in)	Y (in)	Z (in)	Support code	Support
12	0.0	15.00	0.0	fxx	roller

Node	X (in)	Y (in)	Z (in)	Support code	Support
13	18.00	15.00	0.0		
14	36.00	15.00	0.0		
15	54.00	15.00	0.0		
16	72.00	15.00	0.0	xxx	Pinned
17	18.00	15.00	8.00		
18	54.00	15.00	8.00		
19	36.00	15.00	16.00		
20	0.0	30.00	0.0	fxx	roller
21	18.00	30.00	0.0		
22	36.00	30.00	0.0		
23	54.00	30.00	0.0		
24	72.00	30.00	0.0	xxx	Pinned
25	18.00	30.00	8.00		
26	54.00	30.00	8.00		
27	36.00	30.00	16.00		
28	36.00	22.50	16.00		
35	18.00	22.50	8.00		
36	13.50	30.00	6.00		
38	13.50	15.00	6.00		
39	54.00	22.50	8.00		
42	58.50	30.00	6.00		
43	58.50	15.00	6.00		

Data - Members

Member	Node 1	Node 2	Section	Material	Length (in)	Gamma (Deg)	Type
16	12	13	circle	STEEL	18.00	0.0	Simple member
17	13	14	circle	STEEL	18.00	0.0	Simple member
18	14	15	circle	STEEL	18.00	0.0	Simple member
19	15	16	circle	STEEL	18.00	0.0	Simple member
20	13	17	circle	STEEL	8.00	0.0	Simple member
21	15	18	circle	STEEL	8.00	0.0	Simple member
22	12	17	circle	STEEL	19.70	0.0	Simple member
23	16	18	circle	STEEL	19.70	0.0	Simple member
24	18	14	circle	STEEL	19.70	0.0	Simple member
25	17	14	circle	STEEL	19.70	0.0	Simple member
26	17	19	circle	STEEL	19.70	0.0	Simple member
27	19	18	circle	STEEL	19.70	0.0	Simple member
28	19	14	circle	STEEL	16.00	0.0	Simple member
29	20	21	circle	STEEL	18.00	0.0	Simple member
30	21	22	circle	STEEL	18.00	0.0	Simple member
31	22	23	circle	STEEL	18.00	0.0	Simple member
32	23	24	circle	STEEL	18.00	0.0	Simple member
33	21	25	circle	STEEL	8.00	0.0	Simple member
34	23	26	circle	STEEL	8.00	0.0	Simple member
35	20	25	circle	STEEL	19.70	0.0	Simple member
36	24	26	circle	STEEL	19.70	0.0	Simple member
37	26	22	circle	STEEL	19.70	0.0	Simple member
38	25	22	circle	STEEL	19.70	0.0	Simple member
39	25	27	circle	STEEL	19.70	0.0	Simple member

Member	Node 1	Node 2	Section	Material	Length (in)	Gamma (Deg)	Type
40	27	26	circle	STEEL	19.70	0.0	Simple member
41	27	22	circle	STEEL	16.00	0.0	Simple member
42	16	24	circle	STEEL	15.00	0.0	Simple member
43	15	23	circle	STEEL	15.00	0.0	Simple member
44	16	23	circle	STEEL	23.43	0.0	Simple member
45	22	14	circle	STEEL	15.00	0.0	Simple member
46	13	21	circle	STEEL	15.00	0.0	Simple member
47	20	12	circle	STEEL	15.00	0.0	Simple member
48	14	23	circle	STEEL	23.43	0.0	Simple member
49	21	14	circle	STEEL	23.43	0.0	Simple member
50	21	12	circle	STEEL	23.43	0.0	Simple member
51	27	19	circle	STEEL	15.00	0.0	Simple member
52	25	17	circle	STEEL	15.00	0.0	Simple member
53	26	18	circle	STEEL	15.00	0.0	Simple member
54	25	28	circle	STEEL	21.08	0.0	Simple member
55	28	17	circle	STEEL	21.08	0.0	Simple member
56	28	18	circle	STEEL	21.08	0.0	Simple member
57	26	28	circle	STEEL	21.08	0.0	Simple member
58	35	36	circle	STEEL	8.97	0.0	Simple member
59	35	38	circle	STEEL	8.97	0.0	Simple member
60	39	42	circle	STEEL	8.97	0.0	Simple member
61	39	43	circle	STEEL	8.97	0.0	Simple member

Members - Definition

Member	Name	Components	Code group	Section	Type	Ly (in)	Lz (in)
16	Simple member_	16	(N/A)	circle	Simple member	18.00	18.00
17	Simple member_	17	(N/A)	circle	Simple member	18.00	18.00
18	Simple member_	18	(N/A)	circle	Simple member	18.00	18.00
19	Simple member_	19	(N/A)	circle	Simple member	18.00	18.00
20	Simple member_	20	(N/A)	circle	Simple member	8.00	8.00
21	Simple member_	21	(N/A)	circle	Simple member	8.00	8.00
22	Simple member_	22	(N/A)	circle	Simple member	19.70	19.70
23	Simple member_	23	(N/A)	circle	Simple member	19.70	19.70
24	Simple member_	24	(N/A)	circle	Simple member	19.70	19.70
25	Simple member_	25	(N/A)	circle	Simple member	19.70	19.70
26	Simple member_	26	(N/A)	circle	Simple member	19.70	19.70
27	Simple member_	27	(N/A)	circle	Simple member	19.70	19.70
28	Simple member_	28	(N/A)	circle	Simple member	16.00	16.00
29	Simple member_	29	(N/A)	circle	Simple member	18.00	18.00
30	Simple member_	30	(N/A)	circle	Simple member	18.00	18.00
31	Simple member_	31	(N/A)	circle	Simple member	18.00	18.00
32	Simple member_	32	(N/A)	circle	Simple member	18.00	18.00
33	Simple member_	33	(N/A)	circle	Simple member	8.00	8.00
34	Simple member_	34	(N/A)	circle	Simple member	8.00	8.00
35	Simple member_	35	(N/A)	circle	Simple member	19.70	19.70
36	Simple member_	36	(N/A)	circle	Simple member	19.70	19.70
37	Simple member_	37	(N/A)	circle	Simple member	19.70	19.70
38	Simple member_	38	(N/A)	circle	Simple member	19.70	19.70
39	Simple member	39	(N/A)	circle	Simple member	19.70	19.70

Member	Name	Components	Code group	Section	Type	Ly (in)	Lz (in)
40	Simple member_	40	(N/A)	circle	Simple member	19.70	19.70
41	Simple member_	41	(N/A)	circle	Simple member	16.00	16.00
42	Simple member_	42	(N/A)	circle	Simple member	15.00	15.00
43	Simple member_	43	(N/A)	circle	Simple member	15.00	15.00
44	Simple member_	44	(N/A)	circle	Simple member	23.43	23.43
45	Simple member_	45	(N/A)	circle	Simple member	15.00	15.00
46	Simple member_	46	(N/A)	circle	Simple member	15.00	15.00
47	Simple member_	47	(N/A)	circle	Simple member	15.00	15.00
48	Simple member_	48	(N/A)	circle	Simple member	23.43	23.43
49	Simple member_	49	(N/A)	circle	Simple member	23.43	23.43
50	Simple member_	50	(N/A)	circle	Simple member	23.43	23.43
51	Simple member_	51	(N/A)	circle	Simple member	15.00	15.00
52	Simple member_	52	(N/A)	circle	Simple member	15.00	15.00
53	Simple member_	53	(N/A)	circle	Simple member	15.00	15.00
54	Simple member_	54	(N/A)	circle	Simple member	21.08	21.08
55	Simple member_	55	(N/A)	circle	Simple member	21.08	21.08
56	Simple member_	56	(N/A)	circle	Simple member	21.08	21.08
57	Simple member_	57	(N/A)	circle	Simple member	21.08	21.08
58	Simple member_	58	(N/A)	circle	Simple member	8.97	8.97
59	Simple member_	59	(N/A)	circle	Simple member	8.97	8.97
60	Simple member_	60	(N/A)	circle	Simple member	8.97	8.97
61	Simple member	61	(N/A)	circle	Simple member	8.97	8.97

Loads - Values

	Case	Load type	List	Load values
	1	self-weight	16to61	PZ Negative Factor=1.00
	2	nodal force	19 27	FZ=-0.40(kip)

Reactions - Values

in the coordinate system: global - Cases: 1 2

Node/Case	FX (kip)	FY (kip)	FZ (kip)
12/ 1	-0.00	0.00	0.00
12/ 2	0.00	0.00	0.20
16/ 1	0.00	-0.00	0.00
16/ 2	0.00	-0.00	0.20
20/ 1	0.00	0.0	0.00
20/ 2	-0.00	0.0	0.20
24/ 1	-0.00	0.0	0.00
24/ 2	-0.00	0.0	0.20
Case 1	DL1		
Sum of val.	-0.00	0.00	0.00
Sum of reac.	-0.00	0.00	0.00
Sum of forc.	0.0	0.0	-0.00
Check val.	-0.00	0.00	-0.00
Precision	3.77173e-01	1.21374e-02	

Node/Case	FX (kip)	FY (kip)	FZ (kip)
Case 2	LL1		
Sum of val.	-0.00	-0.00	0.80
Sum of reac.	-0.00	-0.00	0.80
Sum of forc.	0.0	0.0	-0.80
Check val.	-0.00	-0.00	-0.00
Precision	8.17850e-15	3.48545e-29	

Displacements - Values

- Cases: 1 2

Node/Case	UX (in)	UY (in)	UZ (in)
12/ 1	-0.0002	0.0	0.0
12/ 2	-0.0822	0.0	0.0
13/ 1	-0.0002	-0.0001	-0.0005
13/ 2	-0.0616	-0.0246	-0.1833
14/ 1	-0.0001	0.0000	-0.0005
14/ 2	-0.0411	0.0000	-0.2135
15/ 1	-0.0001	-0.0001	-0.0005
15/ 2	-0.0205	-0.0246	-0.1833
16/ 1	0.0	0.0	0.0
16/ 2	0.0	0.0	0.0
17/ 1	-0.0001	5586052322.4643	-0.0005
17/ 2	-0.0276	-0.0261	-0.1833
18/ 1	-0.0001	5586052322.4643	-0.0005
18/ 2	-0.0545	-0.0261	-0.1833
19/ 1	-0.0001	5586052322.4644	-0.0005
19/ 2	-0.0411	-0.0261	-0.2135
20/ 1	-0.0002	0.0	0.0
20/ 2	-0.0822	0.0	0.0
21/ 1	-0.0002	-0.0001	-0.0006
21/ 2	-0.0616	-0.0246	-0.1833
22/ 1	-0.0001	0.0000	-0.0006
22/ 2	-0.0411	0.0000	-0.2135
23/ 1	-0.0001	-0.0001	-0.0006
23/ 2	-0.0205	-0.0246	-0.1833
24/ 1	0.0	0.0	0.0
24/ 2	0.0	0.0	0.0
25/ 1	-0.0001	5586052322.4643	-0.0006
25/ 2	-0.0276	-0.0261	-0.1833
26/ 1	-0.0001	5586052322.4643	-0.0006
26/ 2	-0.0545	-0.0261	-0.1833
27/ 1	-0.0001	5586052322.4644	-0.0006
27/ 2	-0.0411	-0.0261	-0.2135
28/ 1	-0.0001	5586052322.4644	-0.0005
28/ 2	-0.0411	-0.0261	-0.1530
35/ 1	31421196058.25	5586052322.4643	-91645387261.3
35/ 2	-0.0226	-0.0261	-0.0817
36/ 1	4620164147.479	11172104623.8786	-10395369331.8
36/ 2	-0.0585	-0.0521	-0.0987
38/ 1	7255572153.499	21.0500	-16325037345.3

Node/Case	UX (in)	UY (in)	UZ (in)
38/ 2	-0.0576	-0.0000	-0.1007
39/ 1	-56254958685.3	5586052322.4643	-77508904702.3
39/ 2	0.0079	-0.0261	-0.0197
42/ 1	-17041707918.6	-7497881634.8204	-38343842816.9
42/ 2	-0.0065	-0.0282	-0.0600
43/ 1	5628575530.845	18669986279.7490	12664294944.40
43/ 2	0.0426	-0.0239	0.0505

Stresses - Global extremes

- Cases: 1 2

	S max (ksi)
MAX	36.21
Member	35
Node	25
Case	2
MIN	-33.09
Member	29
Node	20
Case	2