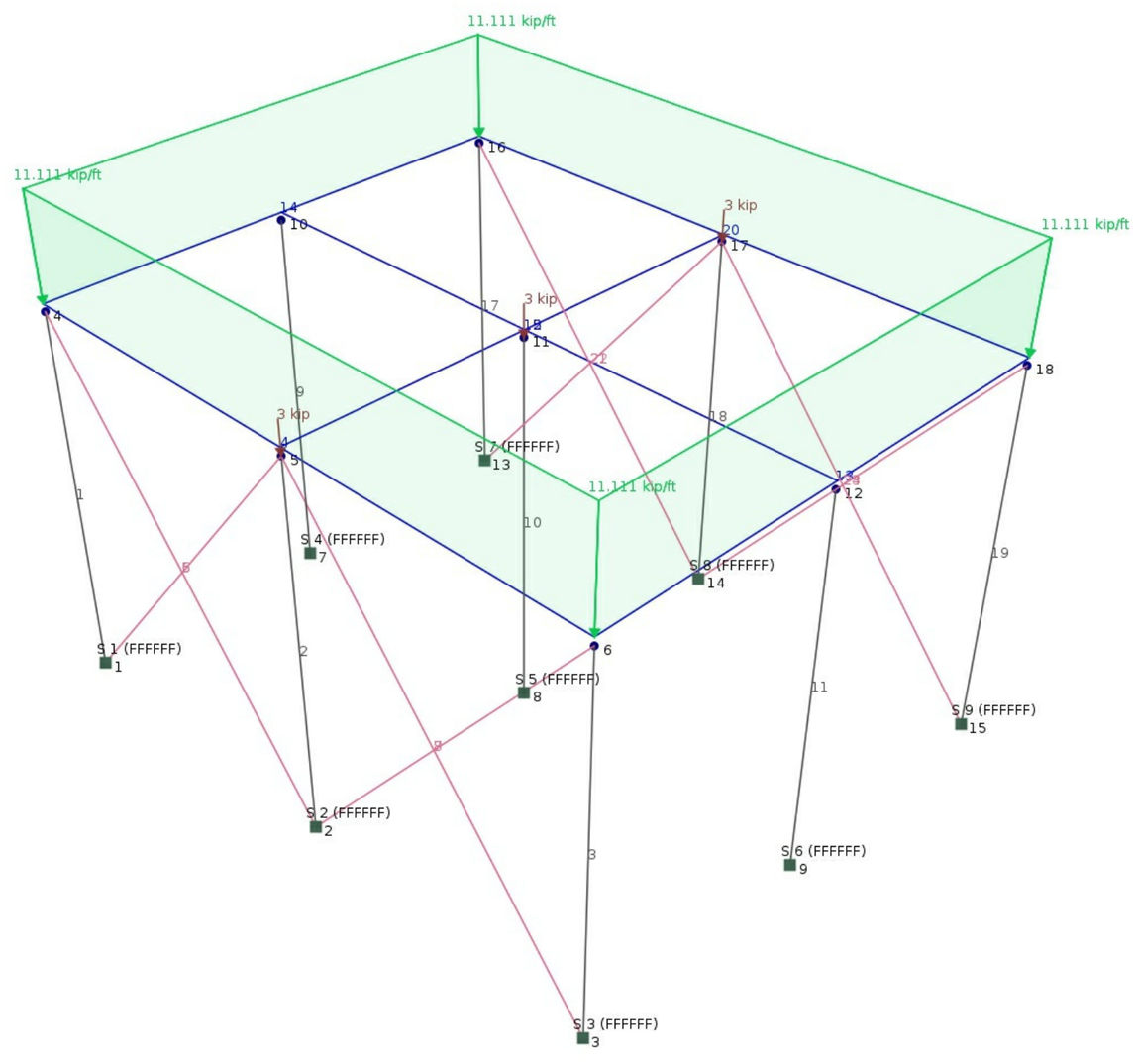
LINEAR STATIC ANALYSIS REPORT

Fri Oct 13 2017 07:47:39 GMT+1100 (AEDT)



File Name: Brian-Demo

Software: SkyCiv Structural 3D v2.2.3

Included in this Report:

Job Setup

Screenshots

Single Member Reports

Nodal Results

Member Results

Job Setup

LINEAR STATIC ANALYSIS REPORT

SkyCiv Structural 3D v2.2.3

Date: Fri Oct 13 2017 07:47:39 GMT+1100 (AEDT)

File Name	Brian-Demo
Job Name	Empty
Designer	Empty
Job Description	Empty

Length Units	ft
Section Length Units	in
Force Units	kip
Moment and Torsion Units	kipft
Pressure Units	ksf
Material Strength Units	ksi
Material Density Units	lb/ft^3
Translation Units	in
Stress Units	ksi
Nodes	27
Members	23
Plates	0
Meshed Plates	0
Supports	9
Sections	3
Point Loads	3
Distributed Loads	0
Moments	0
Pressures	0
Area Loads	1
Units	Imperial
Member Evaluation Points	9
General Constraint	RRRRRR
Total Degrees of Freedom	108
Self Weight	ON

NODE COORDINATES (ft)

Node	X Coordinate	Y Coordinate	Z Coordinate
1	0.000	0.000	0.000
2	25.000	0.000	0.000
3	50.000	0.000	0.000
4	0.000	30.000	0.000
5	25.000	30.000	0.000
6	50.000	30.000	0.000
7	0.000	0.000	-20.000
8	25.000	0.000	-20.000
9	50.000	0.000	-20.000
10	0.000	30.000	-20.000
11	25.000	30.000	-20.000
12	50.000	30.000	-20.000
13	0.000	0.000	-40.000
14	25.000	0.000	-40.000
15	50.000	0.000	-40.000
16	0.000	30.000	-40.000
17	25.000	30.000	-40.000
18	50.000	30.000	-40.000
19	0.000	30.583	0.000
20	25.000	30.583	0.000
21	0.000	30.583	-20.000
22	25.000	30.583	-20.000
23	50.000	30.583	-40.000
24	50.000	30.583	-20.000
25	0.000	30.583	-40.000
26	25.000	30.583	-40.000
27	50.000	30.583	0.000

MEMBERS (deg, in, ft)

F=Fixed, R=Released

Member	Node A	Node B	Type	Section	Angle	Node A Fixity	Node B Fixity	Node A Offsets	Node B Offsets	Cable Length	Length
1	1	4	Continuous & Normal	1	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	30.000
2	2	5	Continuous & Normal	1	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	30.000
3	6	3	Continuous & Normal	1	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	30.000
4	4	6	Continuous & Normal	2	0.000	FFFFFF	FFFFFF	0,7,0	0,7,0	-	50.000
5	4	2	Continuous & Normal	3	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	39.051
6	1	5	Continuous & Normal	3	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	39.051
7	5	3	Continuous & Normal	3	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	39.051
8	2	6	Continuous & Normal	3	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	39.051
9	7	10	Continuous & Normal	1	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	30.000
10	8	11	Continuous & Normal	1	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	30.000
11	12	9	Continuous & Normal	1	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	30.000
12	10	12	Continuous & Normal	2	0.000	FFFFFF	FFFFFF	0,7,0	0,7,0	-	50.000
13	18	6	Continuous & Normal	2	0.000	FFFFFF	FFFFFF	0,7,0	0,7,0	-	40.000
14	16	4	Continuous & Normal	2	0.000	FFFFFF	FFFFFF	0,7,0	0,7,0	-	40.000
15	17	5	Continuous & Normal	2	0.000	FFFFFF	FFFFFF	0,7,0	0,7,0	-	40.000
17	13	16	Continuous & Normal	1	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	30.000
18	14	17	Continuous & Normal	1	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	30.000
19	18	15	Continuous & Normal	1	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	30.000
20	16	18	Continuous & Normal	2	0.000	FFFFFF	FFFFFF	0,7,0	0,7,0	-	50.000
21	16	14	Continuous & Normal	3	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	39.051
22	13	17	Continuous & Normal	3	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	39.051
23	17	15	Continuous & Normal	3	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	39.051
24	14	18	Continuous & Normal	3	0.000	FFFFFF	FFFFFF	0,0,0	0,0,0	-	39.051

SUPPORTS (kip/ft, kipft/rad)

F=Fixed, R=Released, S=Spring

Node	Restraint Code	X Trans Stiffness	Y Trans Stiffness	Z Trans Stiffness	X Rot Stiffness	Y Rot Stiffness	Z Rot Stiffness
1	FFFFFF	-	-	-	-	-	-
2	FFFFFF	-	-	-	-	-	-
3	FFFFFF	-	-	-	-	-	-
7	FFFFFF	-	-	-	-	-	-
8	FFFFFF	-	-	-	-	-	-
9	FFFFFF	-	-	-	-	-	-
13	FFFFFF	-	-	-	-	-	-
14	FFFFFF	-	-	-	-	-	-
15	FFFFFF	-	-	-	-	-	-

MATERIALS (ksi, lb/ft^3)

Material	Name	Young's Modulus	Density	Poisson's Ratio
1	Structural Steel	29000.000	490.000	0.270

SECTIONS (in, in^2, in^4, deg)

Section	Name	Shape	Depth	Width	Shear Area z (STRESS)	Shear Area y (STRESS)	Shear Area z (TIMO)	Shear Area y (TIMO)	Torsion Radius
1	W18x211	W18x211	20.700	11.600	20.398	38.164	-	-	2.910
2	W14x48	W14x48	13.800	8.030	4.548	8.466	-	-	0.875
3	L6x6x9/16	L6x6x9/16	6.000	6.000	2.939	2.770	-	-	0.795

Section	Centroid y	Centroid z	Area	y-Axis MoI	z-Axis MoI	Torsion Constant	Principal Angle
1	10.350	5.800	62.300	493.000	4330.000	58.600	0.000
2	6.900	4.015	14.100	51.400	484.000	1.450	0.000
3	1.698	1.698	6.450	8.900	35.180	0.704	-45.000

POINT LOADS (kip)

Load Group	Node	Member	Position (%)	X Magnitude	Y Magnitude	Z Magnitude
DL	11			0.000	-3.000	0.000
DL	17			0.000	-3.000	0.000
DL	5			0.000	-3.000	0.000

AREA LOADS (ksf)

Load Group	Node IDs	Member IDs	Pressure Magnitude	Type	Direction
LG	18,6,4,16	-	-1.000	One-Way (Closed)	Y

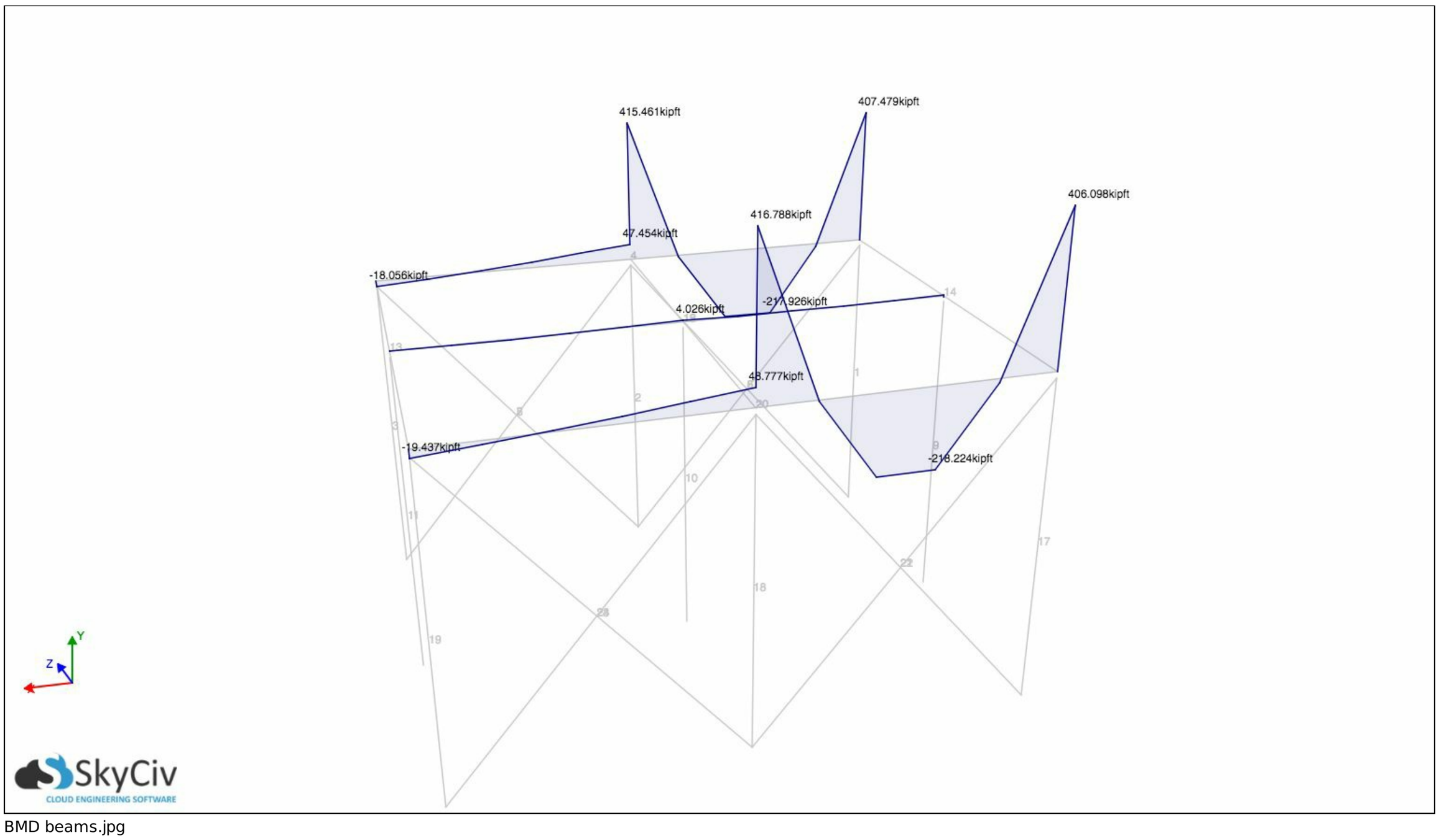
SELF WEIGHT (g's)

Load Group	X Gravity	Y Gravity	Z Gravity
SW	0.000	-1.000	0.000

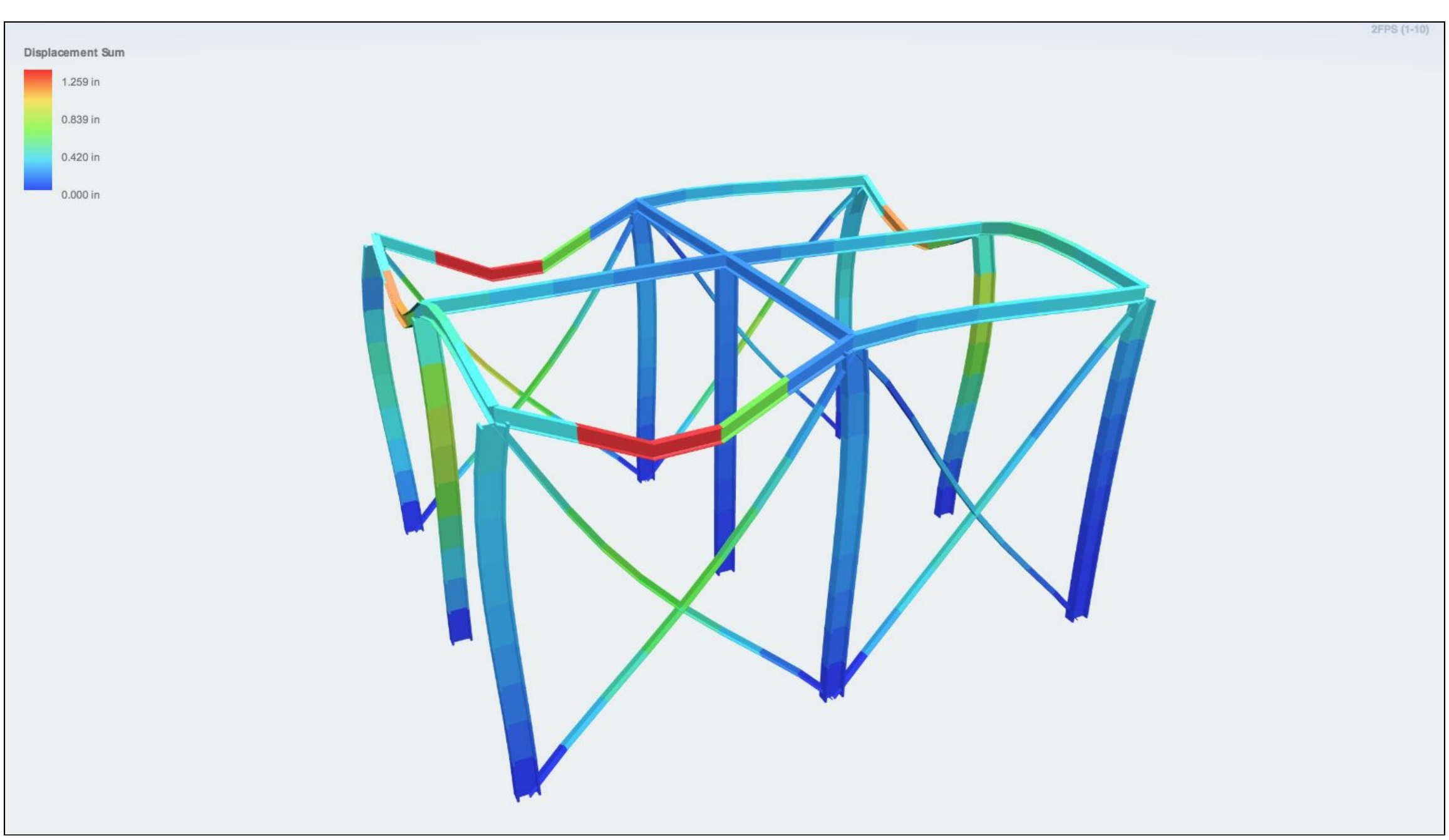
LOAD COMBINATIONS

Load Combination	Name	SW Factor	DL Factor	LG Factor
1	ULS: 5a. D + 0.6W	1.000	1.000	0.000
2	ULS: 6a. D + 0.75L + 0.75(0.6)W + 0.75(S or Lr or R)	1.000	1.000	0.750
3	ULS: 6b. D + 0.75L + 0.75(0.7)E + 0.75S	1.000	1.000	0.750
4	Case 1	0.000	0.000	1.000

Screenshots



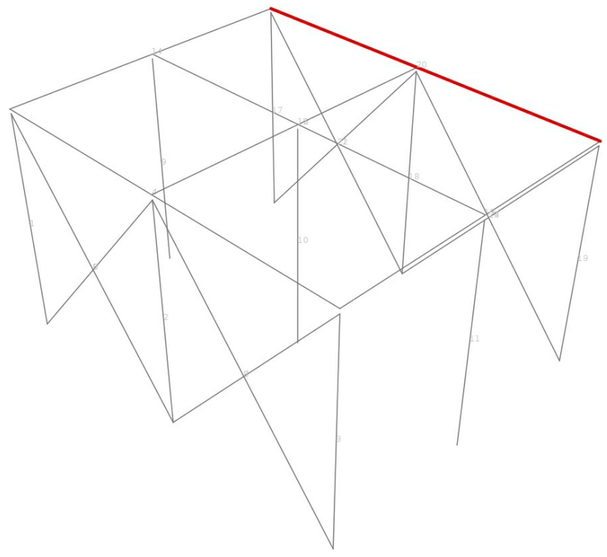
BMD beams.jpg



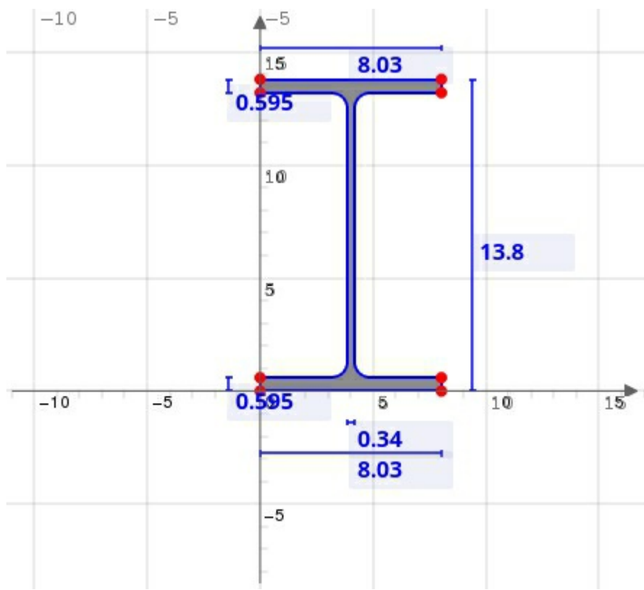
Deflection-Rend.jpg

Member 20: LC1 (ULS: 5a. D + 0.6W)

Member Summary Table	
Member Number	20
Node A	16 (0, 30, -40)
Node B	18 (50, 30, -40)
Member Length	50.000 ft
Section Name	W14x48
Section No	2
Section Rotation	0 degrees
Fixity A	FFFFFF
Fixity B	FFFFFF
Buckling	Not Analysed
Reaction A (kip,kipft)	No Support at this Location
Reaction B (kip,kipft)	No Support at this Location



Result	Max Location and Result (ft,ksi)		Min Location and Result (ft,ksi)	
Shear Stress in Y	0.500	0.138	50.000	-0.126
Shear Stress in Z	0.000	0.000	0.500	-0.000
Bending Stress (Bottom) in Y	50.000	0.002	0.500	-0.001
Bending Stress (Bottom) in Z	0.500	0.461	40.000	-0.221
Combined Stress (Bottom) in Y	50.000	0.005	0.500	0.003
Combined Stress (Bottom) in Z	0.500	0.465	10.000	-0.217
Bending Stress (Top) in Y	0.500	0.001	50.000	-0.002
Bending Stress (Bottom) in Z	40.000	0.221	0.500	-0.461
Combined Stress (Top) in Y	0.500	0.005	50.000	0.002
Combined Stress (Top) in Z	40.000	0.224	0.500	-0.458
Axial Stress	0.500	0.004	0.000	0.004
Torsion Stress	0.000	0.000	0.500	-0.000



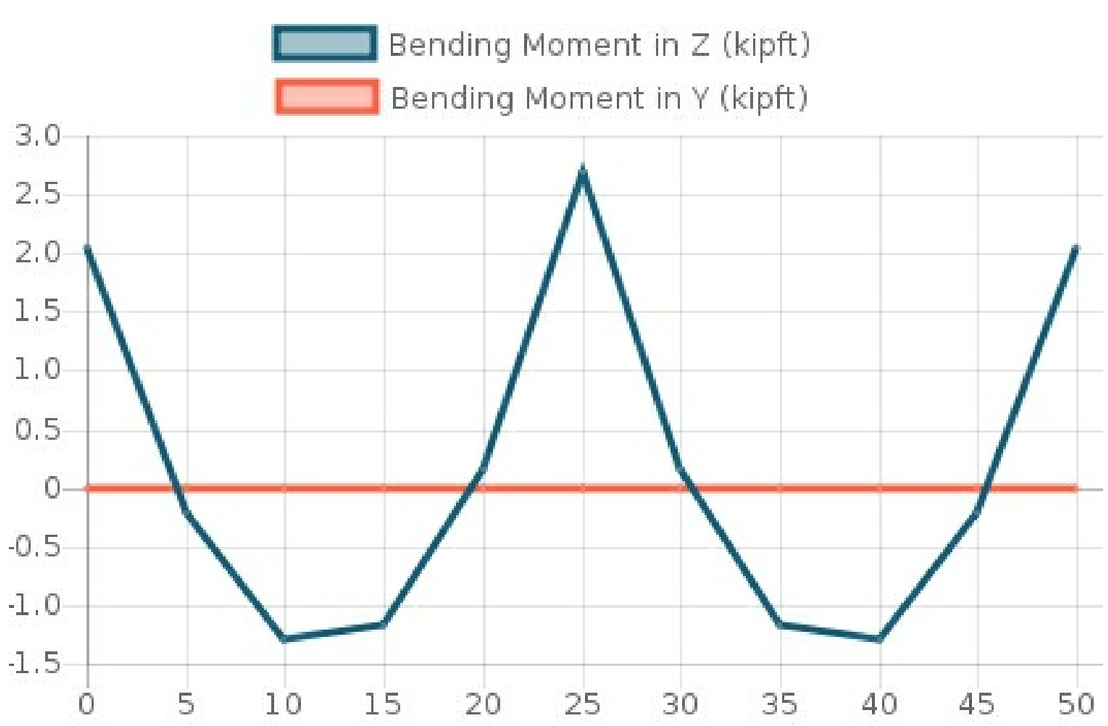
Geometric Properties		
A	14.1	in^2
C_z	4.015	in
C_y	6.9	in

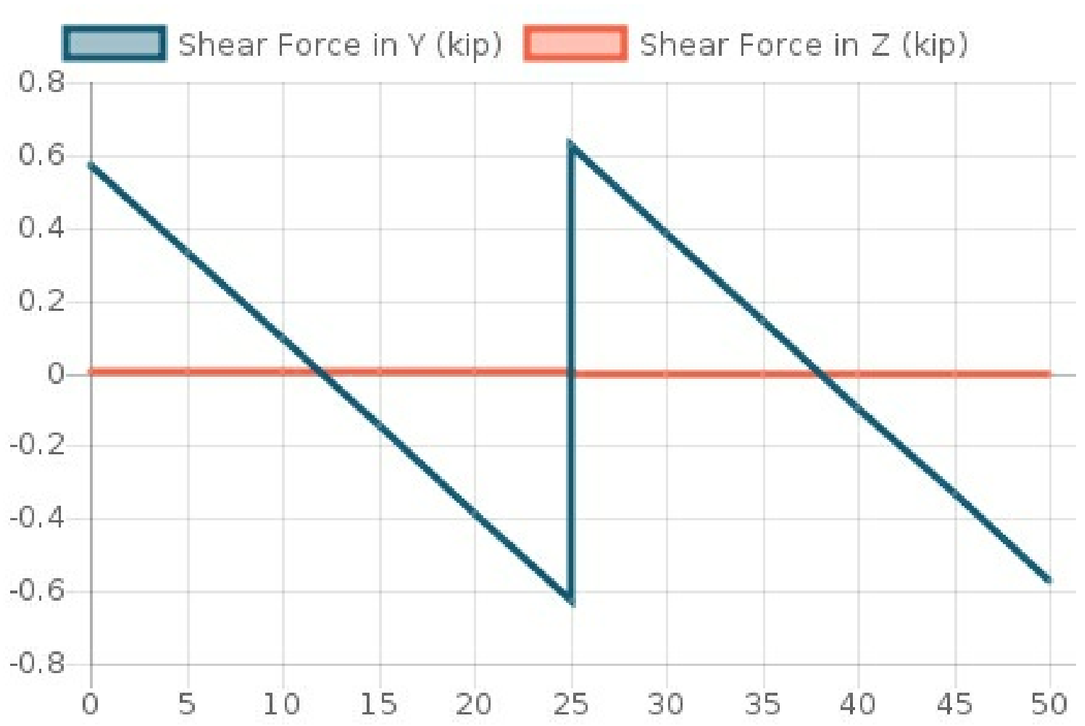
Bending Properties		
I_z	484	in^4
I_y	51.4	in^4
α	0	°

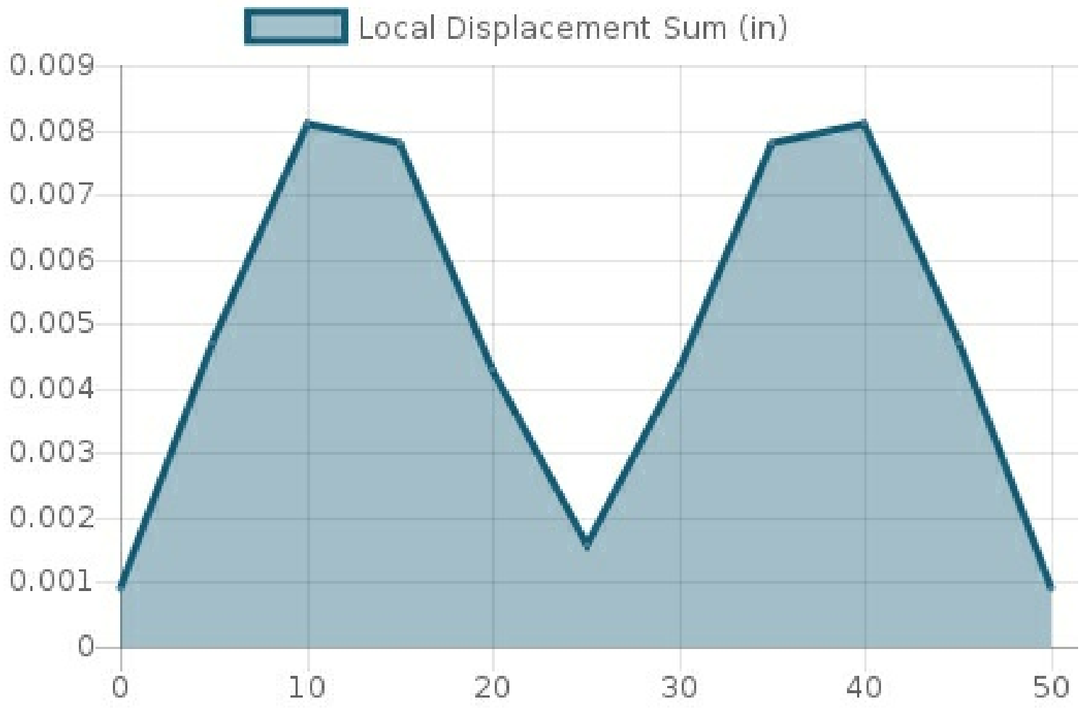
Shear Properties		
A_z	4.548	in^2
A_y	8.466	in^2
Q_z	39.345	in^3
Q_y	9.826	in^3

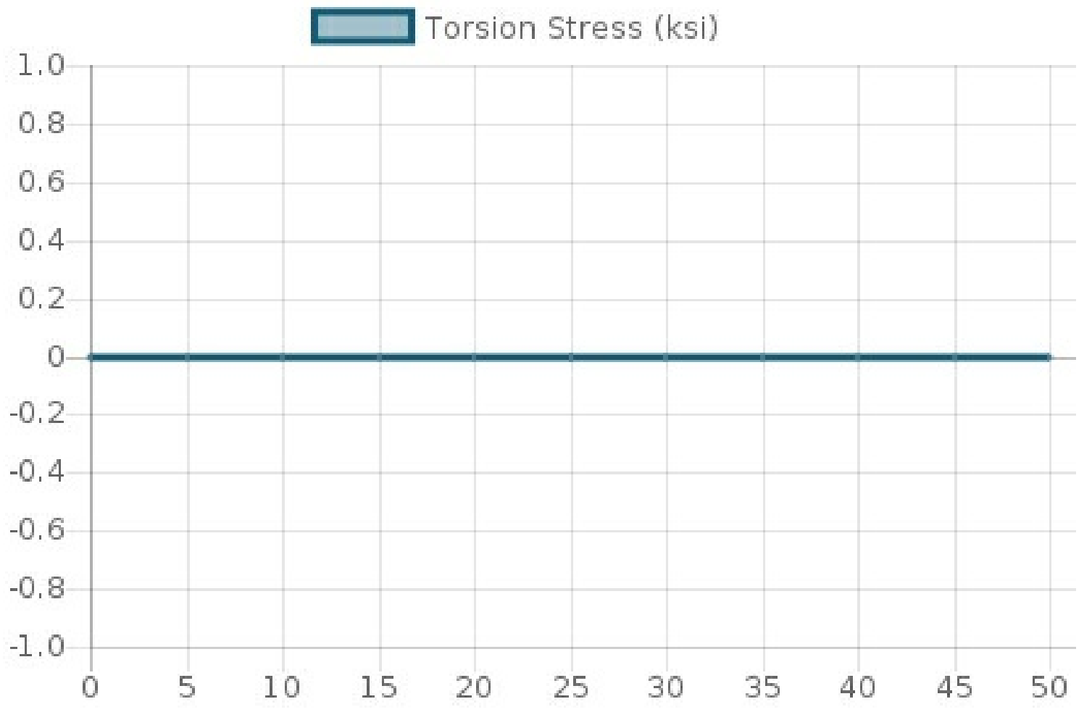
Torsion Properties		
J	1.45	in^4
r	0.875	in

Shape	Material	E (ksi)	v	ρ (lb/ft^3)
W14x48	Structural Steel	29000	0.27	490



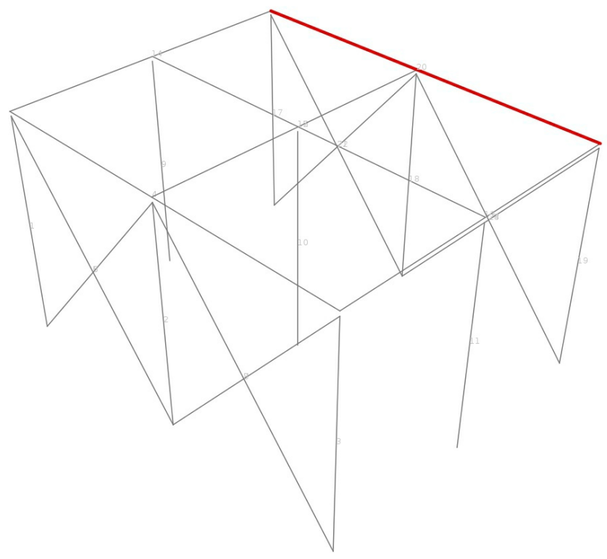




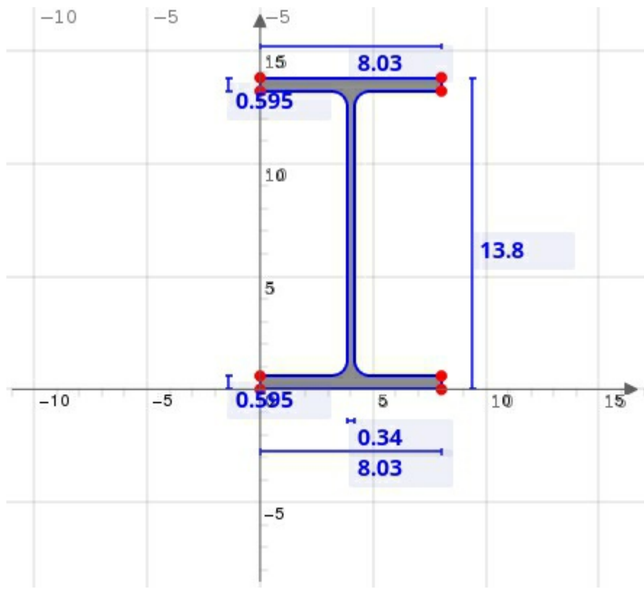


Member 20: LC2 (ULS: 6a. D + 0.75L + 0.75(0.6)W + 0.75(S or Lr or R))

Member Summary Table	
Member Number	20
Node A	16 (0, 30, -40)
Node B	18 (50, 30, -40)
Member Length	50.000 ft
Section Name	W14x48
Section No	2
Section Rotation	0 degrees
Fixity A	FFFFFF
Fixity B	FFFFFF
Buckling	Not Analysed
Reaction A (kip,kipft)	No Support at this Location
Reaction B (kip,kipft)	No Support at this Location



Result	Max Location and Result (ft,ksi)		Min Location and Result (ft,ksi)	
Shear Stress in Y	0.000	22.939	0.500	-23.127
Shear Stress in Z	5.000	0.021	30.000	-0.020
Bending Stress (Bottom) in Y	50.000	2.131	0.500	-2.252
Bending Stress (Bottom) in Z	0.500	71.302	10.000	-37.333
Combined Stress (Bottom) in Y	0.000	3.161	0.500	-2.194
Combined Stress (Bottom) in Z	0.500	72.469	10.000	-36.165
Bending Stress (Top) in Y	0.500	2.252	50.000	-2.131
Bending Stress (Bottom) in Z	10.000	37.333	0.500	-71.302
Combined Stress (Top) in Y	0.500	3.419	50.000	-2.478
Combined Stress (Top) in Z	10.000	38.500	0.500	-70.134
Axial Stress	10.000	1.167	30.000	-0.347
Torsion Stress	5.000	0.361	0.500	-0.363



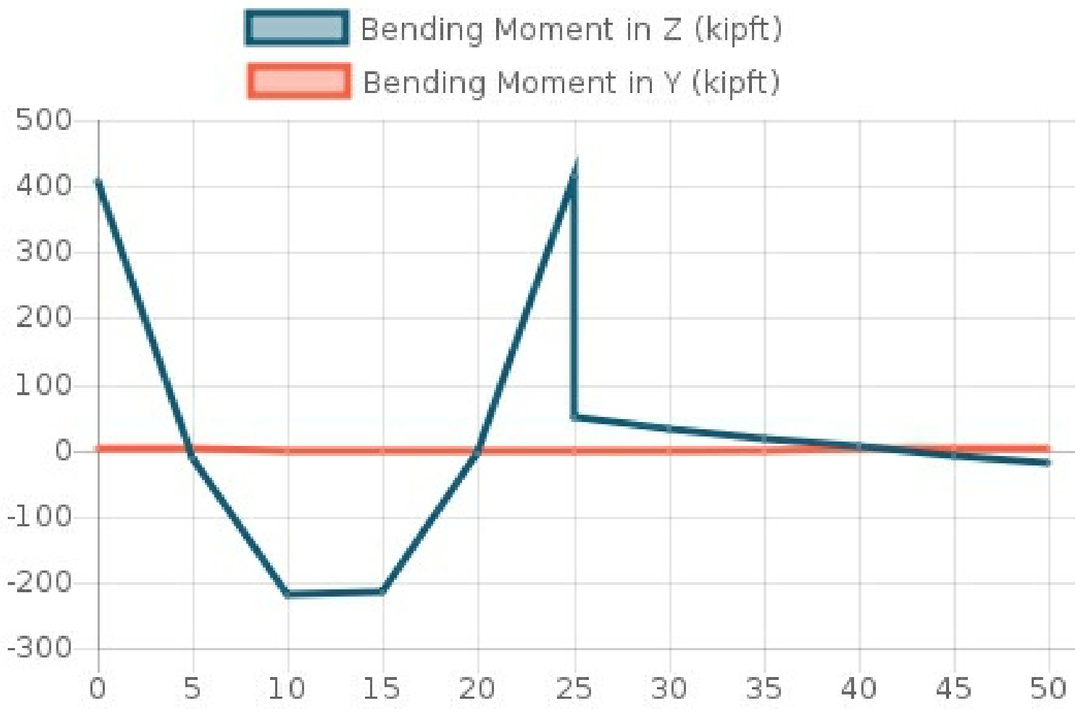
Geometric Properties		
A	14.1	in^2
C_z	4.015	in
C_y	6.9	in

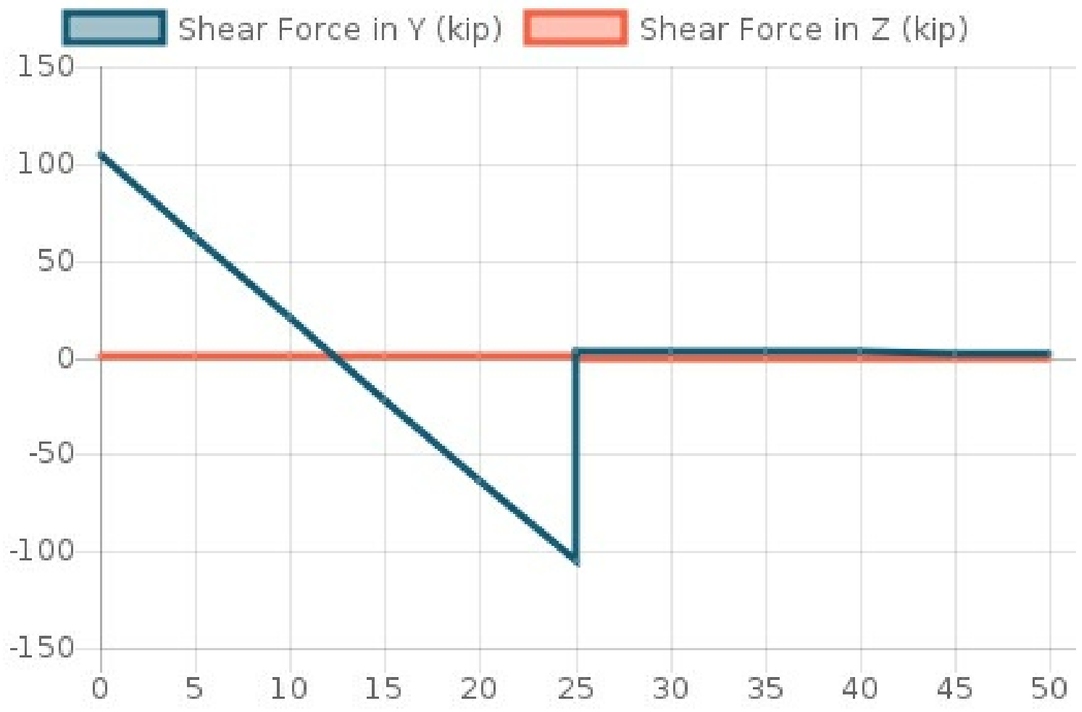
Bending Properties		
I_z	484	in^4
I_y	51.4	in^4
α	0	°

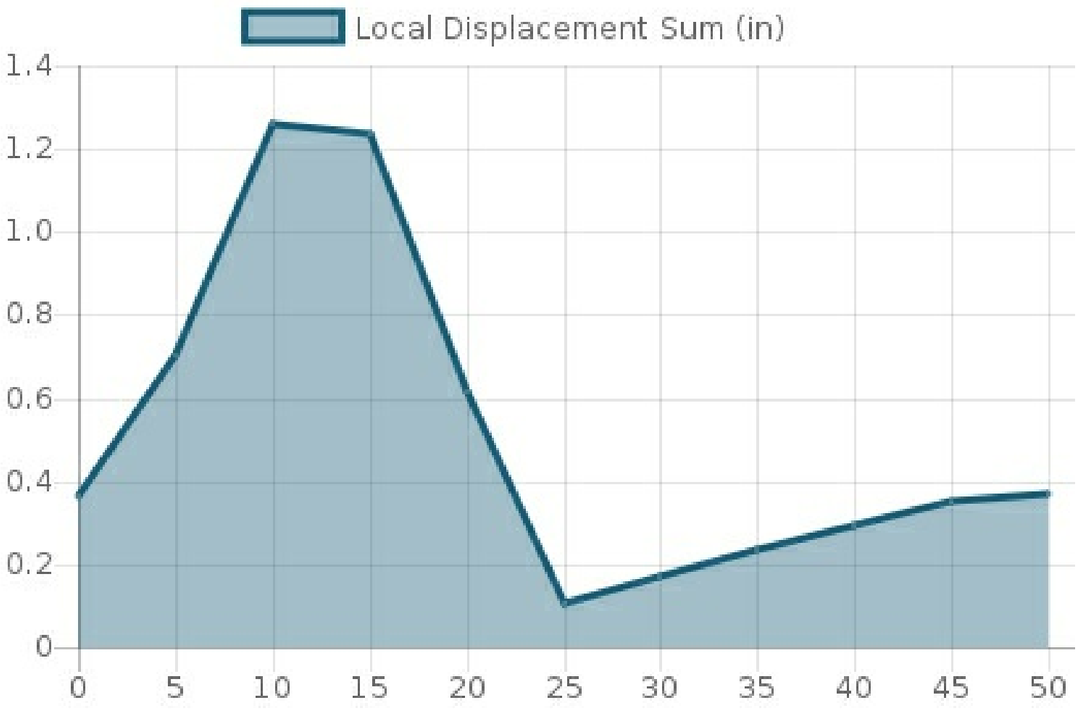
Shear Properties		
A_z	4.548	in^2
A_y	8.466	in^2
Q_z	39.345	in^3
Q_y	9.826	in^3

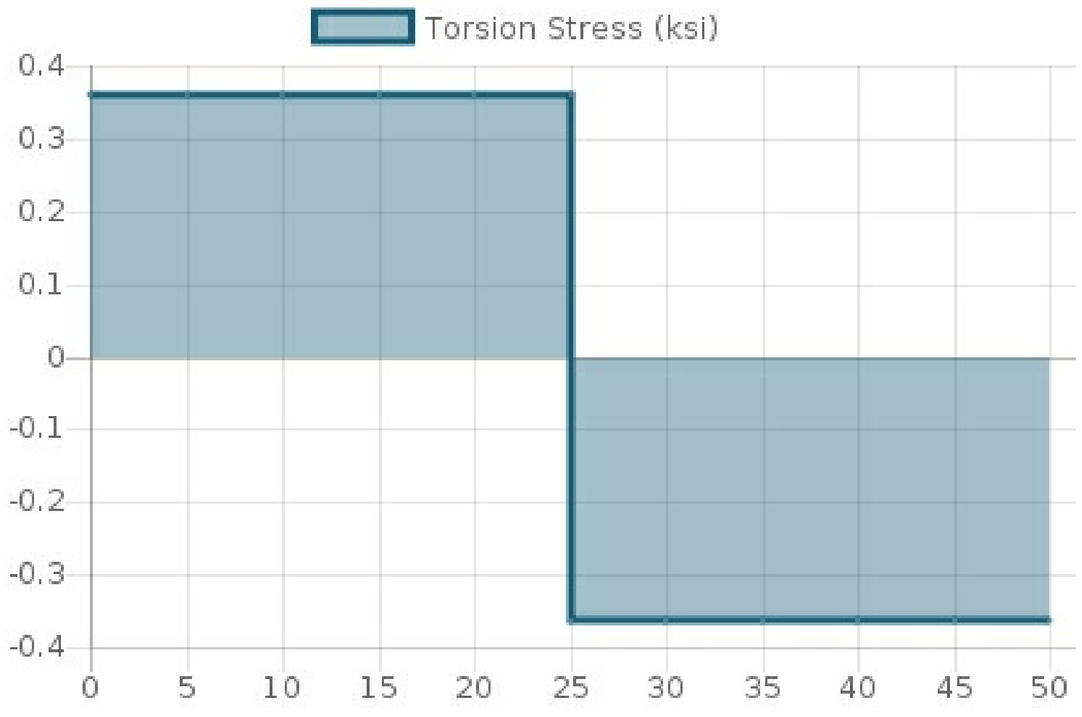
Torsion Properties		
J	1.45	in^4
r	0.875	in

Shape	Material	E (ksi)	v	ρ (lb/ft³)
W14x48	Structural Steel	29000	0.27	490









Nodal Results

Load Combination #1: ULS: 5a. D + 0.6W = 1×(SW) + 1×(DL) + 0×(LG)

NODE REACTIONS (kip, kipft)

Node	X Force	Y Force	Z Force	X Moment	Y Moment	Z Moment
1	0.501	8.404	-0.033	-0.337	0.005	-0.146
2	0.000	12.332	-0.034	-0.347	0.000	-0.000
3	-0.501	8.404	-0.033	-0.337	-0.005	0.146
7	0.110	8.043	0.000	0.001	0.000	-1.110
8	-0.000	11.681	0.000	0.003	0.000	0.000
9	-0.110	8.043	0.000	0.001	-0.000	1.110
13	0.503	8.404	0.034	0.341	-0.005	-0.165
14	0.000	12.332	0.033	0.339	0.000	0.000
15	-0.503	8.404	0.034	0.341	0.005	0.165
Reaction Sum	0.000	86.049	-0.000			
Load Sum	0.000	-86.049	0.000			
Equilibrium	0.000	0.000	-0.000			

MEMBER END FORCES AND MOMENTS (kip, kipft)

Member	Node	Axial Force	Y Shear	Z Shear	X Torsion	Y Moment	Z Moment
1	1	7.602	-0.191	-0.032	-0.001	0.330	1.938
	4	1.242	-0.191	-0.032	-0.001	-0.644	-3.786
2	2	11.132	-0.000	-0.032	0.000	0.327	0.000
	5	4.772	-0.000	-0.032	0.000	-0.640	0.000
3	6	1.242	0.191	0.032	0.001	-0.644	-3.786
	3	7.602	0.191	0.032	0.001	0.330	1.938
4	4	0.050	0.574	-0.000	-0.000	0.007	-2.054
	6	0.050	-0.574	0.000	0.000	0.007	-2.054
5	4	-0.107	0.273	0.001	-0.000	-0.025	-1.761
	2	0.552	-0.275	0.001	-0.000	0.013	-1.799
6	1	0.815	0.275	-0.001	0.000	0.010	-1.792
	5	0.157	-0.274	-0.001	0.000	-0.018	-1.774
7	5	0.157	0.274	0.001	-0.000	-0.018	-1.774
	3	0.815	-0.275	0.001	-0.000	0.010	-1.792
8	2	0.552	0.275	-0.001	0.000	0.013	-1.799
	6	-0.107	-0.273	-0.001	0.000	-0.025	-1.761
9	7	8.043	-0.110	0.000	0.000	-0.001	1.110
	10	1.683	-0.110	0.000	0.000	0.000	-2.195
10	8	11.681	0.000	0.000	0.000	-0.003	-0.000
	11	5.321	0.000	0.000	0.000	0.003	0.000
11	12	1.683	0.110	-0.000	-0.000	0.000	-2.195
	9	8.043	0.110	-0.000	-0.000	-0.001	1.110
12	10	0.109	0.587	0.000	-0.000	-0.001	-2.260
	12	0.109	-0.587	-0.000	0.000	-0.001	-2.260
13	18	0.033	0.411	-0.000	0.000	0.003	-0.677
	6	0.033	-0.411	0.001	-0.000	0.009	-0.683
14	16	0.033	0.411	0.000	-0.000	-0.003	-0.677
	4	0.033	-0.411	-0.001	0.000	-0.009	-0.683
15	17	0.034	0.412	0.000	0.000	-0.000	-0.690
	5	0.034	-0.412	0.000	-0.000	0.000	-0.687
17	13	7.602	-0.192	0.033	0.000	-0.335	1.947
	16	1.243	-0.192	0.033	0.000	0.652	-3.803
18	14	11.134	-0.000	0.033	0.000	-0.333	0.000
	17	4.774	-0.000	0.033	0.000	0.646	-0.000
19	18	1.243	0.192	-0.033	-0.000	0.652	-3.803
	15	7.602	0.192	-0.033	-0.000	-0.335	1.947
20	16	0.050	0.574	0.000	0.000	-0.002	-2.052
	18	0.050	-0.574	-0.000	-0.000	-0.002	-2.052
21	16	-0.107	0.274	-0.000	0.000	0.008	-1.780
	14	0.551	-0.275	-0.000	0.000	-0.004	-1.789
22	13	0.815	0.274	0.001	-0.000	-0.008	-1.782
	17	0.157	-0.275	0.001	-0.000	0.016	-1.794
23	17	0.157	0.275	-0.001	0.000	0.016	-1.794
	15	0.815	-0.274	-0.001	0.000	-0.008	-1.782
24	14	0.551	0.275	0.000	-0.000	-0.004	-1.789
	18	-0.107	-0.274	0.000	-0.000	0.008	-1.780

NODAL DISPLACEMENTS (in)

Node	X Translation	Y Translation	Z Translation	Total Translation
1	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000
4	-0.000	-0.001	0.000	0.001
5	-0.000	-0.002	0.000	0.002
6	0.000	-0.001	0.000	0.001
7	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000
10	-0.000	-0.001	-0.000	0.001
11	0.000	-0.002	-0.000	0.002
12	0.000	-0.001	-0.000	0.001
13	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000
16	-0.000	-0.001	-0.000	0.001
17	-0.000	-0.002	-0.000	0.002
18	0.000	-0.001	-0.000	0.001

Load Combination #2: ULS: 6a. D + 0.75L + 0.75(0.6)W + 0.75(S or Lr or R) = 1×(SW) + 1×(DL) + 0.75×(LG)

NODE REACTIONS (kip, kipft)

Node	X Force	Y Force	Z Force	X Moment	Y Moment	Z Moment
1	null	null	null	null	null	null
2	null	null	null	null	null	null
3	null	null	null	null	null	null
7	null	null	null	null	null	null
8	null	null	null	null	null	null
9	null	null	null	null	null	null
13	null	null	null	null	null	null
14	null	null	null	null	null	null
15	null	null	null	null	null	null
Reaction Sum	null	null	null			
Load Sum	0.000	-836.049	0.000			
Equilibrium	0.000	-836.049	0.000			

MEMBER END FORCES AND MOMENTS (kip, kipft)

Member	Node	Axial Force	Y Shear	Z Shear	X Torsion	Y Moment	Z Moment
1	1	103.915	-19.998	0.561	-0.093	0.604	203.123
	4	97.555	-19.998	0.561	-0.093	17.435	-396.824
2	2	109.157	17.731	-0.246	0.040	4.307	-179.078
	5	102.798	17.731	-0.246	0.040	-3.059	352.861
3	6	-9.355	-0.809	-0.472	0.054	15.817	14.684
	3	-2.995	-0.809	-0.472	0.054	1.645	-9.599
4	4	19.400	104.447	0.134	0.012	-1.325	-407.479
	6	-2.003	2.021	-0.114	-0.011	-1.384	18.056
5	4	0.855	0.225	0.018	0.002	-0.292	-0.609
	2	1.514	-0.324	0.018	0.002	0.404	-2.541
6	1	4.011	0.329	-0.034	0.000	0.500	-2.543
	5	3.353	-0.219	-0.034	0.000	-0.835	-0.391
7	5	8.939	0.321	-0.023	0.000	0.650	-3.045
	3	9.598	-0.227	-0.023	0.000	-0.250	-1.204
8	2	2.333	0.264	0.015	-0.002	-0.026	-1.750
	6	1.675	-0.285	0.015	-0.002	0.550	-2.147
9	7	103.423	-0.056	-6.402	-0.035	71.533	0.679
	10	97.064	-0.056	-6.402	-0.035	-120.522	-1.012
10	8	12.169	-0.008	-0.342	-0.011	5.290	0.186
	11	5.810	-0.008	-0.342	-0.011	-4.971	-0.058
11	12	96.762	0.040	6.422	0.053	-120.784	-0.886
	9	103.122	0.040	6.422	0.053	71.877	0.303
12	10	-0.010	0.483	0.140	-0.034	-1.681	-1.006
	12	-0.020	-0.475	-0.147	0.034	-1.661	-0.910
13	18	6.195	78.528	0.038	-0.001	-0.123	-136.527
	6	-0.373	6.230	0.098	0.001	0.979	16.537
14	16	6.133	78.384	-0.056	-0.019	0.506	-135.346
	4	-0.409	6.379	-0.122	0.019	-1.420	17.541
15	17	0.064	-0.038	0.035	0.017	-0.500	4.062
	5	0.008	-0.589	0.017	-0.017	0.336	-3.374
17	13	185.223	-20.110	6.223	-0.018	-57.017	204.597
	16	178.863	-20.110	6.223	-0.018	129.674	-398.713
18	14	108.782	17.731	-0.274	0.034	4.601	-179.076
	17	102.422	17.731	-0.274	0.034	-3.629	352.848
19	18	71.951	-0.696	-6.240	-0.023	130.139	12.766
	15	78.311	-0.696	-6.240	-0.023	-57.046	-8.109
20	16	16.461	104.339	0.181	0.050	-2.127	-406.098
	18	-4.896	2.129	-0.170	-0.050	-2.273	19.437
21	16	5.265	0.289	-0.091	0.010	2.515	-2.269
	14	5.923	-0.260	-0.091	0.010	-1.034	-1.696
22	13	3.983	0.330	-0.035	0.000	0.514	-2.551
	17	3.325	-0.219	-0.035	0.000	-0.862	-0.375
23	17	8.921	0.321	-0.023	0.000	0.647	-3.043
	15	9.580	-0.227	-0.023	0.000	-0.248	-1.205
24	14	6.740	0.199	0.125	-0.010	-1.491	-0.889
	18	6.082	-0.350	0.125	-0.010	3.408	-3.837

NODAL DISPLACEMENTS (in)

Node	X Translation	Y Translation	Z Translation	Total Translation
1	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000
4	-0.019	-0.020	0.338	0.339
5	0.011	-0.021	0.101	0.103
6	-0.009	0.001	0.346	0.347
7	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000
10	-0.001	-0.020	0.409	0.409
11	-0.001	-0.002	0.102	0.102
12	-0.001	-0.020	0.416	0.417
13	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000
16	-0.022	-0.036	0.284	0.287
17	0.011	-0.021	0.101	0.104
18	-0.007	-0.015	0.291	0.291

Member Results

Load Combination #1: ULS: 5a. D + 0.6W = 1×(SW) + 1×(DL) + 0×(LG)

MEMBER DISPLACEMENTS (ft, in, rad)

Member	Station Location	Global X Translation	Global Y Translation	Global Z Translation	Total Translation	Global X Rotation	Global Y Rotation	Global Z Rotation
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1	3.333	-0.000	-0.000	0.000	0.000	0.000	0.000	0.000
1	6.667	-0.000	-0.000	0.001	0.001	0.000	0.000	0.000
1	10.000	-0.001	-0.000	0.001	0.002	0.000	0.000	0.000
1	13.333	-0.001	-0.001	0.002	0.002	0.000	0.000	0.000
1	16.667	-0.002	-0.001	0.003	0.003	0.000	0.000	0.000
1	20.000	-0.002	-0.001	0.003	0.003	0.000	0.000	0.000
1	23.333	-0.002	-0.001	0.003	0.003	-0.000	0.000	-0.000
1	26.667	-0.001	-0.001	0.002	0.002	-0.000	0.000	-0.000
1	30.000	-0.000	-0.001	0.000	0.001	-0.000	0.000	-0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	3.333	-0.000	-0.000	0.000	0.000	0.000	-0.000	0.000
2	6.667	-0.000	-0.000	0.001	0.001	0.000	-0.000	0.000
2	10.000	-0.000	-0.001	0.001	0.001	0.000	-0.000	0.000
2	13.333	-0.000	-0.001	0.002	0.002	0.000	-0.000	0.000
2	16.667	-0.000	-0.001	0.002	0.003	0.000	-0.000	0.000
2	20.000	-0.000	-0.001	0.003	0.003	0.000	-0.000	0.000
2	23.333	-0.000	-0.001	0.003	0.003	-0.000	-0.000	0.000
2	26.667	-0.000	-0.001	0.002	0.002	-0.000	-0.000	0.000
2	30.000	-0.000	-0.002	0.000	0.002	-0.000	-0.000	0.000
3	0.000	0.000	-0.001	0.000	0.001	-0.000	-0.000	0.000
3	3.333	0.001	-0.001	0.002	0.002	-0.000	-0.000	0.000
3	6.667	0.002	-0.001	0.003	0.003	-0.000	-0.000	0.000
3	10.000	0.002	-0.001	0.003	0.003	0.000	-0.000	-0.000
3	13.333	0.002	-0.001	0.003	0.003	0.000	-0.000	-0.000
3	16.667	0.001	-0.001	0.002	0.002	0.000	-0.000	-0.000
3	20.000	0.001	-0.000	0.001	0.002	0.000	-0.000	-0.000
3	23.333	0.000	-0.000	0.001	0.001	0.000	-0.000	-0.000
3	26.667	0.000	-0.000	0.000	0.000	0.000	-0.000	-0.000
3	30.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	-0.001	-0.000	0.001	-0.000	0.000	-0.000
4	5.000	0.000	-0.005	-0.000	0.005	-0.000	0.000	-0.000
4	10.000	0.000	-0.008	-0.000	0.008	-0.000	-0.000	-0.000
4	15.000	0.000	-0.008	-0.000	0.008	-0.000	-0.000	0.000
4	20.000	0.000	-0.004	-0.000	0.004	-0.000	-0.000	0.000
4	25.000	-0.000	-0.002	-0.000	0.002	-0.000	-0.000	0.000
4	30.000	-0.000	-0.004	-0.000	0.004	-0.000	0.000	-0.000
4	35.000	-0.000	-0.008	-0.000	0.008	-0.000	0.000	-0.000
4	40.000	-0.000	-0.008	-0.000	0.008	-0.000	0.000	0.000
4	45.000	-0.000	-0.005	-0.000	0.005	-0.000	-0.000	0.000
4	50.000	-0.000	-0.001	-0.000	0.001	-0.000	-0.000	0.000
5	0.000	-0.000	-0.001	0.000	0.001	-0.000	0.000	-0.000
5	4.339	-0.044	-0.037	-0.032	0.066	0.001	0.001	-0.002
5	8.678	-0.133	-0.111	-0.099	0.200	0.001	0.001	-0.002
5	13.017	-0.218	-0.183	-0.166	0.329	0.001	0.001	-0.002
5	17.356	-0.269	-0.225	-0.205	0.406	0.000	0.000	-0.001
5	21.695	-0.269	-0.224	-0.206	0.406	-0.000	-0.000	0.001
5	26.034	-0.217	-0.182	-0.167	0.329	-0.001	-0.001	0.002
5	30.373	-0.131	-0.110	-0.101	0.199	-0.001	-0.001	0.002
5	34.712	-0.043	-0.036	-0.033	0.065	-0.001	-0.001	0.002
5	39.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	4.339	0.043	-0.036	-0.033	0.065	-0.001	0.001	-0.002
6	8.678	0.131	-0.110	-0.101	0.198	-0.001	0.001	-0.002
6	13.017	0.216	-0.181	-0.167	0.328	-0.001	0.001	-0.002
6	17.356	0.267	-0.224	-0.206	0.405	-0.000	0.000	-0.001
6	21.695	0.267	-0.224	-0.205	0.405	0.000	-0.000	0.001
6	26.034	0.217	-0.182	-0.165	0.328	0.001	-0.001	0.002
6	30.373	0.131	-0.111	-0.099	0.198	0.001	-0.001	0.002
6	34.712	0.043	-0.037	-0.031	0.065	0.001	-0.001	0.002
6	39.051	-0.000	-0.002	0.000	0.002	-0.000	-0.000	0.000
7	0.000	-0.000	-0.002	0.000	0.002	-0.000	-0.000	0.000
7	4.339	-0.043	-0.037	-0.031	0.065	0.001	0.001	-0.002
7	8.678	-0.131	-0.111	-0.099	0.198	0.001	0.001	-0.002
7	13.017	-0.217	-0.182	-0.165	0.328	0.001	0.001	-0.002
7	17.356	-0.267	-0.224	-0.205	0.405	0.000	0.000	-0.001
7	21.695	-0.267	-0.224	-0.206	0.405	-0.000	-0.000	0.001
7	26.034	-0.216	-0.181	-0.167	0.328	-0.001	-0.001	0.002

7	30.373	-0.131	-0.110	-0.101	0.198	-0.001	-0.001	0.002
7	34.712	-0.043	-0.036	-0.033	0.065	-0.001	-0.001	0.002
7	39.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	4.339	0.043	-0.036	-0.033	0.065	-0.001	0.001	-0.002
8	8.678	0.131	-0.110	-0.101	0.199	-0.001	0.001	-0.002
8	13.017	0.217	-0.182	-0.167	0.329	-0.001	0.001	-0.002
8	17.356	0.269	-0.224	-0.206	0.406	-0.000	0.000	-0.001
8	21.695	0.269	-0.225	-0.205	0.406	0.000	-0.000	0.001
8	26.034	0.218	-0.183	-0.166	0.329	0.001	-0.001	0.002
8	30.373	0.133	-0.111	-0.099	0.200	0.001	-0.001	0.002
8	34.712	0.044	-0.037	-0.032	0.066	0.001	-0.001	0.002
8	39.051	0.000	-0.001	0.000	0.001	-0.000	-0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	3.333	-0.000	-0.000	-0.000	0.000	-0.000	-0.000	0.000
9	6.667	-0.000	-0.000	-0.000	0.000	-0.000	-0.000	0.000
9	10.000	-0.001	-0.000	-0.000	0.001	-0.000	-0.000	0.000
9	13.333	-0.001	-0.001	-0.000	0.001	-0.000	-0.000	0.000
9	16.667	-0.001	-0.001	-0.000	0.001	-0.000	-0.000	0.000
9	20.000	-0.001	-0.001	-0.000	0.001	-0.000	-0.000	0.000
9	23.333	-0.001	-0.001	-0.000	0.001	-0.000	-0.000	-0.000
9	26.667	-0.001	-0.001	-0.000	0.001	-0.000	-0.000	-0.000
9	30.000	-0.000	-0.001	-0.000	0.001	-0.000	-0.000	-0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	3.333	0.000	-0.000	-0.000	0.000	-0.000	-0.000	-0.000
10	6.667	0.000	-0.000	-0.000	0.000	-0.000	-0.000	-0.000
10	10.000	0.000	-0.001	-0.000	0.001	-0.000	-0.000	-0.000
10	13.333	0.000	-0.001	-0.000	0.001	-0.000	-0.000	-0.000
10	16.667	0.000	-0.001	-0.000	0.001	-0.000	-0.000	-0.000
10	20.000	0.000	-0.001	-0.000	0.001	-0.000	-0.000	-0.000
10	23.333	0.000	-0.001	-0.000	0.001	-0.000	-0.000	-0.000
10	26.667	0.000	-0.002	-0.000	0.002	-0.000	-0.000	-0.000
10	30.000	0.000	-0.002	-0.000	0.002	-0.000	-0.000	-0.000
11	0.000	0.000	-0.001	-0.000	0.001	-0.000	0.000	0.000
11	3.333	0.001	-0.001	-0.000	0.001	-0.000	0.000	0.000
11	6.667	0.001	-0.001	-0.000	0.001	-0.000	0.000	0.000
11	10.000	0.001	-0.001	-0.000	0.001	-0.000	0.000	-0.000
11	13.333	0.001	-0.001	-0.000	0.001	-0.000	0.000	-0.000
11	16.667	0.001	-0.001	-0.000	0.001	-0.000	0.000	-0.000
11	20.000	0.001	-0.000	-0.000	0.001	-0.000	0.000	-0.000
11	23.333	0.000	-0.000	-0.000	0.000	-0.000	0.000	-0.000
11	26.667	0.000	-0.000	-0.000	0.000	-0.000	0.000	-0.000
11	30.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	-0.001	-0.000	0.001	-0.000	-0.000	-0.000
12	5.000	0.000	-0.004	-0.000	0.004	-0.000	-0.000	-0.000
12	10.000	0.000	-0.008	-0.000	0.008	-0.000	0.000	-0.000
12	15.000	0.000	-0.008	-0.000	0.008	-0.000	0.000	0.000
12	20.000	0.000	-0.004	-0.000	0.004	-0.000	0.000	0.000
12	25.000	0.000	-0.002	-0.000	0.002	-0.000	-0.000	-0.000
12	30.000	-0.000	-0.004	-0.000	0.004	-0.000	-0.000	-0.000
12	35.000	-0.000	-0.008	-0.000	0.008	-0.000	-0.000	-0.000
12	40.000	-0.000	-0.008	-0.000	0.008	-0.000	-0.000	0.000
12	45.000	-0.000	-0.004	-0.000	0.004	-0.000	0.000	0.000
12	50.000	-0.000	-0.001	-0.000	0.001	-0.000	0.000	0.000
13	0.000	-0.000	-0.001	-0.000	0.001	0.000	0.000	0.000
13	4.000	-0.000	-0.003	-0.000	0.003	0.000	-0.000	0.000
13	8.000	-0.000	-0.005	-0.000	0.005	0.000	-0.000	0.000
13	12.000	-0.000	-0.004	-0.000	0.004	-0.000	-0.000	0.000
13	16.000	-0.000	-0.002	-0.000	0.002	-0.000	-0.000	0.000
13	20.000	-0.000	-0.001	-0.000	0.001	-0.000	0.000	0.000
13	24.000	-0.000	-0.002	-0.000	0.002	0.000	0.000	0.000
13	28.000	0.000	-0.004	-0.000	0.004	0.000	0.000	0.000
13	32.000	0.000	-0.005	-0.000	0.005	-0.000	0.000	0.000
13	36.000	0.000	-0.003	-0.000	0.003	-0.000	0.000	0.000
13	40.000	-0.000	-0.001	-0.000	0.001	-0.000	-0.000	0.000
14	0.000	0.000	-0.001	-0.000	0.001	0.000	-0.000	-0.000
14	4.000	0.000	-0.003	-0.000	0.003	0.000	0.000	-0.000
14	8.000	0.000	-0.005	-0.000	0.005	0.000	0.000	-0.000
14	12.000	0.000	-0.004	-0.000	0.004	-0.000	0.000	-0.000
14	16.000	0.000	-0.002	-0.000	0.002	-0.000	0.000	-0.000
14	20.000	0.000	-0.001	-0.000	0.001	-0.000	-0.000	-0.000
14	24.000	0.000	-0.002	-0.000	0.002	0.000	-0.000	-0.000
14	28.000	-0.000	-0.004	-0.000	0.004	0.000	-0.000	-0.000
14	32.000	-0.000	-0.005	-0.000	0.005	-0.000	-0.000	-0.000
14	36.000	-0.000	-0.003	-0.000	0.003	-0.000	0.000	-0.000
14	40.000	0.000	-0.001	-0.000	0.001	-0.000	0.000	-0.000
15	0.000	-0.000	-0.002	-0.000	0.002	0.000	-0.000	0.000
15	4.000	-0.000	-0.004	-0.000	0.004	0.000	-0.000	-0.000
15	8.000	-0.000	-0.006	-0.000	0.006	0.000	0.000	-0.000

15	12.000	0.000	-0.005	-0.000	0.005	-0.000	0.000	-0.000
15	16.000	0.000	-0.003	-0.000	0.003	-0.000	0.000	-0.000
15	20.000	0.000	-0.002	-0.000	0.002	-0.000	-0.000	-0.000
15	24.000	-0.000	-0.003	-0.000	0.003	0.000	-0.000	-0.000
15	28.000	0.000	-0.005	-0.000	0.005	0.000	0.000	-0.000
15	32.000	0.000	-0.006	-0.000	0.006	-0.000	0.000	-0.000
15	36.000	0.000	-0.004	-0.000	0.004	-0.000	-0.000	0.000
15	40.000	-0.000	-0.002	-0.000	0.002	-0.000	-0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	3.333	-0.000	-0.000	-0.000	0.000	-0.000	-0.000	0.000
17	6.667	-0.000	-0.000	-0.001	0.001	-0.000	-0.000	0.000
17	10.000	-0.001	-0.000	-0.001	0.002	-0.000	-0.000	0.000
17	13.333	-0.001	-0.001	-0.002	0.002	-0.000	-0.000	0.000
17	16.667	-0.002	-0.001	-0.003	0.003	-0.000	-0.000	0.000
17	20.000	-0.002	-0.001	-0.003	0.003	-0.000	-0.000	0.000
17	23.333	-0.002	-0.001	-0.003	0.003	0.000	-0.000	-0.000
17	26.667	-0.001	-0.001	-0.002	0.002	0.000	-0.000	-0.000
17	30.000	-0.000	-0.001	-0.000	0.001	0.000	-0.000	-0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	3.333	-0.000	-0.000	-0.000	0.000	-0.000	-0.000	0.000
18	6.667	-0.000	-0.000	-0.001	0.001	-0.000	-0.000	0.000
18	10.000	-0.000	-0.001	-0.001	0.002	-0.000	-0.000	0.000
18	13.333	-0.000	-0.001	-0.002	0.002	-0.000	-0.000	0.000
18	16.667	-0.000	-0.001	-0.003	0.003	-0.000	-0.000	0.000
18	20.000	-0.000	-0.001	-0.003	0.003	-0.000	-0.000	0.000
18	23.333	-0.000	-0.001	-0.003	0.003	0.000	-0.000	0.000
18	26.667	-0.000	-0.001	-0.002	0.002	0.000	-0.000	0.000
18	30.000	-0.000	-0.002	-0.000	0.002	0.000	-0.000	0.000
19	0.000	0.000	-0.001	-0.000	0.001	0.000	0.000	0.000
19	3.333	0.001	-0.001	-0.002	0.002	0.000	0.000	0.000
19	6.667	0.002	-0.001	-0.003	0.003	0.000	0.000	0.000
19	10.000	0.002	-0.001	-0.003	0.003	-0.000	0.000	-0.000
19	13.333	0.002	-0.001	-0.003	0.003	-0.000	0.000	-0.000
19	16.667	0.001	-0.001	-0.002	0.002	-0.000	0.000	-0.000
19	20.000	0.001	-0.000	-0.001	0.002	-0.000	0.000	-0.000
19	23.333	0.000	-0.000	-0.001	0.001	-0.000	0.000	-0.000
19	26.667	0.000	-0.000	-0.000	0.000	-0.000	0.000	-0.000
19	30.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	-0.001	-0.000	0.001	0.000	-0.000	-0.000
20	5.000	0.000	-0.005	0.000	0.005	0.000	-0.000	-0.000
20	10.000	0.000	-0.008	0.000	0.008	0.000	0.000	-0.000
20	15.000	0.000	-0.008	-0.000	0.008	0.000	0.000	0.000
20	20.000	0.000	-0.004	-0.000	0.004	0.000	0.000	0.000
20	25.000	-0.000	-0.002	-0.000	0.002	0.000	-0.000	0.000
20	30.000	-0.000	-0.004	-0.000	0.004	0.000	-0.000	-0.000
20	35.000	-0.000	-0.008	-0.000	0.008	0.000	-0.000	-0.000
20	40.000	-0.000	-0.008	0.000	0.008	0.000	-0.000	0.000
20	45.000	-0.000	-0.005	0.000	0.005	0.000	0.000	0.000
20	50.000	-0.000	-0.001	-0.000	0.001	0.000	0.000	0.000
21	0.000	-0.000	-0.001	-0.000	0.001	0.000	-0.000	-0.000
21	4.339	-0.044	-0.037	-0.035	0.068	0.001	0.001	-0.002
21	8.678	-0.133	-0.111	-0.104	0.202	0.001	0.001	-0.002
21	13.017	-0.218	-0.183	-0.171	0.332	0.001	0.001	-0.002
21	17.356	-0.269	-0.225	-0.210	0.409	0.000	0.000	-0.001
21	21.695	-0.269	-0.224	-0.210	0.408	-0.000	-0.000	0.001
21	26.034	-0.217	-0.182	-0.169	0.330	-0.001	-0.001	0.002
21	30.373	-0.131	-0.110	-0.102	0.200	-0.001	-0.001	0.002
21	34.712	-0.043	-0.036	-0.033	0.065	-0.001	-0.001	0.002
21	39.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	4.339	0.043	-0.036	-0.033	0.065	-0.001	0.001	-0.002
22	8.678	0.131	-0.110	-0.102	0.199	-0.001	0.001	-0.002
22	13.017	0.216	-0.181	-0.169	0.329	-0.001	0.001	-0.002
22	17.356	0.267	-0.224	-0.210	0.407	-0.000	0.000	-0.001
22	21.695	0.267	-0.224	-0.210	0.407	0.000	-0.000	0.001
22	26.034	0.217	-0.182	-0.171	0.330	0.001	-0.001	0.002
22	30.373	0.131	-0.111	-0.104	0.201	0.001	-0.001	0.002
22	34.712	0.043	-0.037	-0.035	0.067	0.001	-0.001	0.002
22	39.051	-0.000	-0.002	-0.000	0.002	0.000	-0.000	0.000
23	0.000	-0.000	-0.002	-0.000	0.002	0.000	-0.000	0.000
23	4.339	-0.043	-0.037	-0.035	0.067	0.001	0.001	-0.002
23	8.678	-0.131	-0.111	-0.104	0.201	0.001	0.001	-0.002
23	13.017	-0.217	-0.182	-0.171	0.330	0.001	0.001	-0.002
23	17.356	-0.267	-0.224	-0.210	0.407	0.000	0.000	-0.001
23	21.695	-0.267	-0.224	-0.210	0.407	-0.000	-0.000	0.001
23	26.034	-0.216	-0.181	-0.169	0.329	-0.001	-0.001	0.002
23	30.373	-0.131	-0.110	-0.102	0.199	-0.001	-0.001	0.002
23	34.712	-0.043	-0.036	-0.033	0.065	-0.001	-0.001	0.002
23	39.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

24	4.339	0.043	-0.036	-0.033	0.065	-0.001	0.001	-0.002
24	8.678	0.131	-0.110	-0.102	0.200	-0.001	0.001	-0.002
24	13.017	0.217	-0.182	-0.169	0.330	-0.001	0.001	-0.002
24	17.356	0.269	-0.224	-0.210	0.408	-0.000	0.000	-0.001
24	21.695	0.269	-0.225	-0.210	0.409	0.000	-0.000	0.001
24	26.034	0.218	-0.183	-0.171	0.332	0.001	-0.001	0.002
24	30.373	0.133	-0.111	-0.104	0.202	0.001	-0.001	0.002
24	34.712	0.044	-0.037	-0.035	0.068	0.001	-0.001	0.002
24	39.051	0.000	-0.001	-0.000	0.001	0.000	0.000	0.000

Load Combination #2: ULS: 6a. D + 0.75L + 0.75(0.6)W + 0.75(S or Lr or R) = 1×(SW) + 1×(DL) + 0.75×(LG)

MEMBER DISPLACEMENTS (ft, in, rad)

Member	Station Location	Global X Translation	Global Y Translation	Global Z Translation	Total Translation	Global X Rotation	Global Y Rotation	Global Z Rotation
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1	3.333	-0.014	-0.002	0.001	0.014	0.000	0.000	0.001
1	6.667	-0.049	-0.005	0.005	0.049	0.000	0.000	0.001
1	10.000	-0.094	-0.007	0.015	0.095	0.000	0.000	0.001
1	13.333	-0.140	-0.009	0.033	0.144	0.001	0.000	0.001
1	16.667	-0.176	-0.011	0.062	0.187	0.001	0.000	0.001
1	20.000	-0.192	-0.014	0.105	0.219	0.001	0.000	0.000
1	23.333	-0.178	-0.016	0.163	0.242	0.002	0.000	-0.001
1	26.667	-0.124	-0.018	0.240	0.271	0.002	0.001	-0.002
1	30.000	-0.019	-0.020	0.338	0.339	0.003	0.001	-0.003
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	3.333	0.012	-0.002	0.003	0.013	0.000	-0.000	-0.001
2	6.667	0.043	-0.005	0.010	0.044	0.000	-0.000	-0.001
2	10.000	0.083	-0.007	0.021	0.086	0.000	-0.000	-0.001
2	13.333	0.123	-0.010	0.035	0.128	0.000	-0.000	-0.001
2	16.667	0.154	-0.012	0.049	0.162	0.000	-0.000	-0.001
2	20.000	0.168	-0.014	0.065	0.180	0.000	-0.000	-0.000
2	23.333	0.154	-0.017	0.079	0.174	0.000	-0.000	0.001
2	26.667	0.105	-0.019	0.091	0.140	0.000	-0.000	0.002
2	30.000	0.011	-0.021	0.101	0.103	0.000	-0.000	0.003
3	0.000	-0.009	0.001	0.346	0.347	0.003	-0.000	-0.000
3	3.333	-0.012	0.001	0.251	0.251	0.002	-0.000	-0.000
3	6.667	-0.012	0.001	0.175	0.175	0.002	-0.000	0.000
3	10.000	-0.012	0.001	0.116	0.116	0.001	-0.000	0.000
3	13.333	-0.010	0.001	0.072	0.072	0.001	-0.000	0.000
3	16.667	-0.007	0.000	0.040	0.041	0.001	-0.000	0.000
3	20.000	-0.005	0.000	0.019	0.020	0.000	-0.000	0.000
3	23.333	-0.002	0.000	0.007	0.008	0.000	-0.000	0.000
3	26.667	-0.001	0.000	0.001	0.002	0.000	-0.000	0.000
3	30.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.004	-0.020	0.357	0.358	0.003	0.001	-0.003
4	5.000	0.001	-0.609	0.305	0.681	0.002	0.001	-0.013
4	10.000	-0.002	-1.222	0.234	1.244	0.002	0.001	-0.006
4	15.000	-0.004	-1.217	0.163	1.228	0.001	0.001	0.006
4	20.000	-0.007	-0.600	0.113	0.611	0.001	0.001	0.013
4	25.000	-0.010	-0.021	0.102	0.105	0.000	-0.000	0.003
4	30.000	-0.010	0.096	0.136	0.167	0.001	-0.001	0.001
4	35.000	-0.010	0.115	0.196	0.227	0.001	-0.001	-0.000
4	40.000	-0.009	0.079	0.265	0.276	0.002	-0.001	-0.001
4	45.000	-0.009	0.029	0.327	0.328	0.002	-0.001	-0.001
4	50.000	-0.009	0.001	0.365	0.365	0.003	-0.000	-0.000
5	0.000	-0.019	-0.020	0.338	0.339	0.003	0.001	-0.003
5	4.339	-0.167	-0.143	0.191	0.291	0.003	0.001	-0.004
5	8.678	-0.309	-0.261	0.037	0.407	0.003	0.001	-0.003
5	13.017	-0.409	-0.343	-0.090	0.541	0.002	0.001	-0.002
5	17.356	-0.443	-0.372	-0.170	0.603	0.001	0.000	0.000
5	21.695	-0.407	-0.341	-0.194	0.565	0.000	-0.000	0.002
5	26.034	-0.310	-0.260	-0.167	0.438	-0.000	-0.001	0.003
5	30.373	-0.179	-0.150	-0.104	0.256	-0.001	-0.001	0.003
5	34.712	-0.056	-0.048	-0.034	0.081	-0.001	-0.001	0.003
5	39.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	4.339	0.054	-0.047	-0.031	0.078	-0.001	0.001	-0.002
6	8.678	0.173	-0.147	-0.095	0.246	-0.001	0.001	-0.003
6	13.017	0.299	-0.253	-0.153	0.420	-0.001	0.001	-0.003
6	17.356	0.390	-0.330	-0.181	0.542	-0.000	0.000	-0.002
6	21.695	0.421	-0.358	-0.169	0.578	0.000	-0.000	0.000
6	26.034	0.384	-0.329	-0.115	0.519	0.001	-0.001	0.002
6	30.373	0.286	-0.248	-0.033	0.380	0.001	-0.001	0.003
6	34.712	0.148	-0.134	0.051	0.207	0.001	-0.001	0.004
6	39.051	0.011	-0.021	0.101	0.103	0.000	-0.000	0.003

7	0.000	0.011	-0.021	0.101	0.103	0.000	-0.000	0.003
7	4.339	0.061	0.024	0.065	0.092	0.001	0.001	-0.000
7	8.678	0.022	-0.006	-0.012	0.026	0.001	0.001	-0.002
7	13.017	-0.050	-0.062	-0.092	0.122	0.001	0.001	-0.002
7	17.356	-0.114	-0.112	-0.148	0.217	0.001	0.000	-0.001
7	21.695	-0.144	-0.134	-0.165	0.257	0.000	-0.000	-0.000
7	26.034	-0.133	-0.121	-0.141	0.229	-0.001	-0.001	0.001
7	30.373	-0.087	-0.079	-0.089	0.147	-0.001	-0.001	0.001
7	34.712	-0.029	-0.028	-0.030	0.050	-0.001	-0.001	0.001
7	39.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	4.339	0.042	-0.036	-0.033	0.064	-0.001	0.001	-0.002
8	8.678	0.128	-0.109	-0.099	0.195	-0.001	0.001	-0.002
8	13.017	0.212	-0.179	-0.156	0.318	-0.000	0.001	-0.002
8	17.356	0.260	-0.220	-0.179	0.385	0.000	0.000	-0.001
8	21.695	0.258	-0.219	-0.150	0.370	0.001	-0.000	0.001
8	26.034	0.205	-0.176	-0.068	0.278	0.002	-0.001	0.002
8	30.373	0.119	-0.104	0.059	0.169	0.003	-0.001	0.002
8	34.712	0.031	-0.032	0.209	0.213	0.003	-0.001	0.002
8	39.051	-0.009	0.001	0.346	0.347	0.003	-0.000	-0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	3.333	-0.000	-0.002	0.043	0.043	0.002	0.000	0.000
9	6.667	-0.000	-0.005	0.154	0.154	0.003	0.000	0.000
9	10.000	-0.000	-0.007	0.303	0.303	0.004	0.000	0.000
9	13.333	-0.001	-0.009	0.463	0.463	0.004	0.000	0.000
9	16.667	-0.001	-0.011	0.604	0.604	0.003	0.000	0.000
9	20.000	-0.001	-0.013	0.697	0.698	0.002	0.000	0.000
9	23.333	-0.001	-0.016	0.715	0.715	-0.001	0.000	0.000
9	26.667	-0.001	-0.018	0.629	0.629	-0.004	0.000	-0.000
9	30.000	-0.001	-0.020	0.409	0.409	-0.007	0.000	-0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	3.333	-0.000	-0.000	0.003	0.003	0.000	0.000	0.000
10	6.667	-0.000	-0.001	0.012	0.012	0.000	0.000	0.000
10	10.000	-0.000	-0.001	0.025	0.025	0.000	0.000	0.000
10	13.333	-0.000	-0.001	0.041	0.041	0.000	0.000	0.000
10	16.667	-0.000	-0.001	0.057	0.057	0.000	0.000	0.000
10	20.000	-0.000	-0.001	0.073	0.073	0.000	0.000	0.000
10	23.333	-0.000	-0.002	0.087	0.087	0.000	0.000	0.000
10	26.667	-0.001	-0.002	0.097	0.097	0.000	0.000	0.000
10	30.000	-0.001	-0.002	0.102	0.102	0.000	0.000	0.000
11	0.000	-0.001	-0.020	0.416	0.417	-0.007	-0.000	0.000
11	3.333	-0.000	-0.018	0.636	0.636	-0.004	-0.000	0.000
11	6.667	-0.000	-0.016	0.721	0.722	-0.001	-0.000	0.000
11	10.000	0.000	-0.013	0.703	0.703	0.002	-0.000	0.000
11	13.333	0.000	-0.011	0.608	0.608	0.003	-0.000	0.000
11	16.667	0.000	-0.009	0.466	0.466	0.004	-0.000	-0.000
11	20.000	0.000	-0.007	0.305	0.305	0.004	-0.000	-0.000
11	23.333	0.000	-0.005	0.155	0.155	0.003	-0.000	-0.000
11	26.667	0.000	-0.002	0.043	0.044	0.002	-0.000	-0.000
11	30.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	-0.001	-0.020	0.357	0.357	-0.007	0.000	-0.000
12	5.000	-0.001	-0.021	0.322	0.323	-0.006	0.001	-0.000
12	10.000	-0.001	-0.019	0.259	0.260	-0.004	0.001	0.000
12	15.000	-0.001	-0.014	0.188	0.189	-0.003	0.001	0.000
12	20.000	-0.001	-0.006	0.129	0.129	-0.001	0.001	0.000
12	25.000	-0.001	-0.002	0.102	0.102	0.000	0.000	0.000
12	30.000	-0.001	-0.006	0.123	0.124	-0.001	-0.001	-0.000
12	35.000	-0.001	-0.014	0.182	0.182	-0.003	-0.001	-0.000
12	40.000	-0.001	-0.019	0.255	0.256	-0.004	-0.001	-0.000
12	45.000	-0.001	-0.021	0.323	0.324	-0.006	-0.001	0.000
12	50.000	-0.001	-0.020	0.365	0.365	-0.007	-0.000	0.000
13	0.000	-0.007	-0.015	0.368	0.369	0.011	0.000	-0.000
13	4.000	0.001	-0.588	0.368	0.694	0.011	0.000	-0.000
13	8.000	0.009	-0.966	0.367	1.033	0.004	0.000	-0.000
13	12.000	0.013	-0.925	0.366	0.995	-0.005	0.000	-0.000
13	16.000	0.010	-0.508	0.365	0.626	-0.011	-0.000	-0.000
13	20.000	-0.001	-0.020	0.365	0.365	-0.007	-0.000	0.000
13	24.000	-0.009	0.229	0.365	0.431	-0.003	-0.000	-0.000
13	28.000	-0.007	0.302	0.365	0.474	-0.000	0.000	-0.000
13	32.000	-0.002	0.253	0.365	0.444	0.002	0.000	-0.000
13	36.000	0.000	0.136	0.365	0.389	0.003	-0.000	-0.000
13	40.000	-0.009	0.001	0.365	0.365	0.003	-0.000	-0.000
14	0.000	0.002	-0.036	0.360	0.362	0.011	0.000	-0.003
14	4.000	0.004	-0.605	0.360	0.704	0.011	-0.000	-0.003
14	8.000	-0.000	-0.978	0.359	1.042	0.004	-0.000	-0.002
14	12.000	-0.005	-0.932	0.358	0.998	-0.005	-0.000	-0.001
14	16.000	-0.006	-0.510	0.358	0.623	-0.011	0.000	-0.001
14	20.000	-0.001	-0.020	0.357	0.357	-0.007	0.000	-0.000
14	24.000	0.002	0.228	0.357	0.423	-0.003	-0.000	-0.001

14	28.000	-0.005	0.297	0.357	0.464	0.000	-0.000	-0.001
14	32.000	-0.013	0.243	0.357	0.432	0.002	-0.000	-0.002
14	36.000	-0.013	0.120	0.357	0.377	0.003	0.000	-0.003
14	40.000	0.004	-0.020	0.357	0.358	0.003	0.001	-0.003
15	0.000	-0.010	-0.021	0.102	0.105	0.000	-0.000	0.003
15	4.000	-0.016	-0.024	0.102	0.106	-0.000	-0.000	0.002
15	8.000	-0.016	-0.020	0.102	0.105	-0.000	0.000	0.002
15	12.000	-0.011	-0.013	0.102	0.103	-0.000	0.000	0.001
15	16.000	-0.005	-0.004	0.102	0.102	-0.000	0.000	0.001
15	20.000	-0.001	-0.002	0.102	0.102	0.000	0.000	0.000
15	24.000	0.002	-0.005	0.102	0.102	0.000	0.000	0.001
15	28.000	0.004	-0.008	0.102	0.102	0.000	0.000	0.001
15	32.000	0.004	-0.011	0.102	0.103	0.000	-0.000	0.002
15	36.000	-0.001	-0.015	0.102	0.103	0.000	-0.000	0.002
15	40.000	-0.010	-0.021	0.102	0.105	0.000	-0.000	0.003
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	3.333	-0.014	-0.004	-0.034	0.037	-0.002	0.000	0.001
17	6.667	-0.049	-0.008	-0.116	0.126	-0.002	0.000	0.001
17	10.000	-0.095	-0.012	-0.219	0.239	-0.003	0.000	0.001
17	13.333	-0.141	-0.016	-0.315	0.346	-0.002	0.000	0.001
17	16.667	-0.178	-0.020	-0.377	0.417	-0.001	0.000	0.001
17	20.000	-0.194	-0.024	-0.375	0.423	0.001	0.000	0.000
17	23.333	-0.181	-0.028	-0.283	0.337	0.004	0.000	-0.001
17	26.667	-0.126	-0.032	-0.073	0.150	0.007	0.000	-0.002
17	30.000	-0.022	-0.036	0.284	0.287	0.011	0.000	-0.003
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	3.333	0.012	-0.002	0.003	0.013	0.000	-0.000	-0.001
18	6.667	0.043	-0.005	0.011	0.044	0.000	-0.000	-0.001
18	10.000	0.083	-0.007	0.022	0.086	0.000	-0.000	-0.001
18	13.333	0.123	-0.010	0.036	0.128	0.000	-0.000	-0.001
18	16.667	0.154	-0.012	0.052	0.163	0.000	-0.000	-0.001
18	20.000	0.168	-0.014	0.067	0.181	0.000	-0.000	-0.000
18	23.333	0.154	-0.016	0.081	0.175	0.000	-0.000	0.001
18	26.667	0.105	-0.019	0.093	0.142	0.000	-0.000	0.002
18	30.000	0.011	-0.021	0.101	0.104	0.000	-0.000	0.003
19	0.000	-0.007	-0.015	0.291	0.291	0.011	0.000	-0.000
19	3.333	-0.009	-0.013	-0.068	0.070	0.007	0.000	-0.000
19	6.667	-0.010	-0.012	-0.280	0.281	0.004	0.000	-0.000
19	10.000	-0.010	-0.010	-0.373	0.374	0.001	0.000	0.000
19	13.333	-0.008	-0.008	-0.376	0.376	-0.001	0.000	0.000
19	16.667	-0.006	-0.007	-0.315	0.315	-0.002	0.000	0.000
19	20.000	-0.004	-0.005	-0.219	0.219	-0.003	0.000	0.000
19	23.333	-0.002	-0.003	-0.116	0.116	-0.002	0.000	0.000
19	26.667	-0.001	-0.002	-0.034	0.034	-0.002	0.000	0.000
19	30.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.002	-0.036	0.360	0.362	0.011	0.000	-0.003
20	5.000	-0.000	-0.624	0.327	0.705	0.009	0.001	-0.013
20	10.000	-0.003	-1.232	0.258	1.259	0.007	0.001	-0.006
20	15.000	-0.005	-1.223	0.180	1.236	0.004	0.001	0.006
20	20.000	-0.008	-0.602	0.120	0.614	0.002	0.001	0.013
20	25.000	-0.010	-0.021	0.102	0.105	0.000	-0.000	0.003
20	30.000	-0.009	0.095	0.140	0.169	0.002	-0.001	0.001
20	35.000	-0.009	0.109	0.209	0.236	0.005	-0.001	-0.000
20	40.000	-0.008	0.068	0.287	0.295	0.007	-0.001	-0.001
20	45.000	-0.007	0.014	0.348	0.349	0.009	-0.001	-0.001
20	50.000	-0.007	-0.015	0.368	0.369	0.011	0.000	-0.000
21	0.000	-0.022	-0.036	0.284	0.287	0.011	0.000	-0.003
21	4.339	-0.170	-0.158	-0.109	0.256	0.009	-0.001	-0.004
21	8.678	-0.312	-0.275	-0.390	0.570	0.007	-0.001	-0.003
21	13.017	-0.411	-0.355	-0.549	0.772	0.004	-0.002	-0.002
21	17.356	-0.445	-0.381	-0.589	0.831	0.002	-0.003	0.000
21	21.695	-0.408	-0.348	-0.527	0.752	0.000	-0.004	0.002
21	26.034	-0.311	-0.265	-0.390	0.565	-0.001	-0.004	0.003
21	30.373	-0.179	-0.153	-0.219	0.322	-0.002	-0.003	0.003
21	34.712	-0.056	-0.049	-0.067	0.100	-0.001	-0.002	0.003
21	39.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	4.339	0.054	-0.047	-0.031	0.078	-0.001	0.001	-0.002
22	8.678	0.173	-0.147	-0.093	0.246	-0.001	0.001	-0.003
22	13.017	0.299	-0.253	-0.151	0.419	-0.001	0.001	-0.003
22	17.356	0.390	-0.330	-0.178	0.541	-0.000	0.000	-0.002
22	21.695	0.421	-0.358	-0.165	0.577	0.000	-0.000	0.000
22	26.034	0.384	-0.329	-0.111	0.518	0.001	-0.001	0.002
22	30.373	0.286	-0.248	-0.029	0.379	0.001	-0.001	0.003
22	34.712	0.148	-0.134	0.054	0.207	0.001	-0.001	0.004
22	39.051	0.011	-0.021	0.101	0.104	0.000	-0.000	0.003
23	0.000	0.011	-0.021	0.101	0.104	0.000	-0.000	0.003
23	4.339	0.061	0.024	0.065	0.093	0.001	0.001	-0.000
23	8.678	0.022	-0.005	-0.012	0.025	0.001	0.001	-0.002
23	13.017	-0.050	-0.062	-0.091	0.121	0.001	0.001	-0.002

23	17.356	-0.114	-0.112	-0.147	0.217	0.001	0.000	-0.001
23	21.695	-0.144	-0.134	-0.164	0.256	0.000	-0.000	-0.000
23	26.034	-0.133	-0.121	-0.141	0.228	-0.001	-0.001	0.001
23	30.373	-0.087	-0.079	-0.088	0.147	-0.001	-0.001	0.001
23	34.712	-0.029	-0.028	-0.030	0.050	-0.001	-0.001	0.001
23	39.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	4.339	0.041	-0.037	-0.066	0.086	-0.001	0.002	-0.002
24	8.678	0.128	-0.111	-0.216	0.275	-0.001	0.003	-0.002
24	13.017	0.212	-0.184	-0.384	0.475	-0.001	0.004	-0.002
24	17.356	0.261	-0.227	-0.518	0.622	0.001	0.004	-0.001
24	21.695	0.260	-0.228	-0.577	0.673	0.002	0.003	0.001
24	26.034	0.208	-0.187	-0.535	0.604	0.005	0.002	0.002
24	30.373	0.122	-0.118	-0.376	0.412	0.007	0.002	0.002
24	34.712	0.034	-0.047	-0.097	0.113	0.009	0.001	0.002
24	39.051	-0.007	-0.015	0.291	0.291	0.011	0.000	-0.000