Job Information

	Engineer	Checked	Approved
Name:			
Date:	04-Aug-25		

Comments:	
Structure Type:	SPACE FRAME

Geometry

Entity Type	Count	Highest
Nodes	5	5
Analytical Members	4	4

Load Cases

Load Case Type	Count
Primary	1

Included in this printout are data for:

All	The Whole Structure

Load Case Table

Included in this printout are results for load cases:

L/C	Type	Name
1	Primary	LOAD CASE 1

Nodes

Node	X (m)	Y (m)	Z (m)
1	0.000	0.000	0.000
2	0.000	3.200	0.000
3	2.000	3.200	0.000
4	2.000	0.000	0.000
5	4.500	3.200	0.000

Beams

Beam	Node A	Node B	Length (m)	Property	β (rad)
1	1	2	3.200	1	0.000

Beams Cont...

Beam	Node A	Node B	Length (m)	Property	β (rad)
2	2	3	2.000	2	0.000
3	3	4	3.200	1	0.000
4	3	5	2.500	2	0.000

Sections

Prop	Name	Area (cm2)	Iyy (cm4)	Izz (cm4)	J (cm4)	Material	Source
1	Rect 0.40x0.23	920.000	40,556.668	122,666.672	103,995.391	CONCRETE	Parametric
2	Rect 0.30x0.23	690.000	30,417.504	51,750.004	64,595.305	CONCRETE	Parametric

Materials

Mat	Name	E (kN/mm2)	ν	Density (kg/m3)	α (/°C)
1	CONCRETE	21.718	0.170	2,402.616	0.000

Supports

Node	X (kN/mm)	Y (kN/mm)	Z (kN/mm)	rX (kN-m/deg)	rY (kN-m/deg)	rZ (kN-m/deg)
1	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
4	-	Fixed	Fixed	Fixed	Fixed	-
5	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed

Basic Load Cases

Primary Load Cases

Number	Name	Type
1	LOAD CASE 1	Dead

Beam Loads

L/C	Beam	Type	Direction	Fa	Da (m)	Fb	Db (m)	Ecc. (m)
1	4	UNI (kN/m)	GY	-2.000	0.000	0.000	0.000	0.000
	2	CON (kN)	GY	-5.000	0.000	0.000	0.000	0.000

Beam Loads Cont...

L/C	Beam	Type	Direction	Fa	Da (m)	Fb	Db (m)	Ecc. (m)
1	1	CON (kN)	Y	-4.000	2.500	0.000	0.000	0.000

Static Check

L/C		FX (kN)	FY (kN)	FZ (kN)	MX (kN-m)	MY (kN-m)	MZ (kN-m)
1	Loads	4.000	-10.000	0.000	0.000	0.000	-31.250
	Reactions	-4.000	10.000	0.000	0.000	0.000	31.250
	Difference	0.000	0.000	0.000	0.000	0.000	0.000

Node Displacements

Node	L/C	X (mm)	Y (mm)	Z (mm)	Resultant (mm)	rX (rad)	rY (rad)	rZ (rad)
1	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	1	0.010	-0.004	0.000	0.011	0.000	0.000	0.000
3	1	0.006	-0.008	0.000	0.010	0.000	0.000	0.000
4	1	0.022	0.000	0.000	0.022	0.000	0.000	0.000
5	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Node Displacement Summary

Type	Node	L/C	X (mm)	Y (mm)	Z (mm)	Resultant (mm)	rX (rad)	rY (rad)	rZ (rad)
Max X	4	1	0.022	0.000	0.000	0.022	0.000	0.000	0.000
Min X	1	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Max Y	1	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Min Y	3	1	0.006	-0.008	0.000	0.010	0.000	0.000	0.000
Max Z	1	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Min Z	1	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Max rX	1	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Min rX	1	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Max rY	1	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Min rY	1	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Max rZ	3	1	0.006	-0.008	0.000	0.010	0.000	0.000	0.000

Node Displacement Summary Cont...

Type	Node	L/C	X (mm)	Y (mm)	Z (mm)	Resultant (mm)	rX (rad)	rY (rad)	rZ (rad)
Min rZ	1	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Max Rst	4	1	0.022	0.000	0.000	0.022	0.000	0.000	0.000

Reaction Envelope

Node			Max +ve	L/C	Max -ve	L/C
1	Horizontal	FX (kN)	0.000		-0.641	1
		FZ (kN)	0.000		0.000	
	Moment	MX (kN-m)	0.000		0.000	
		MY (kN-m)	0.000		0.000	
		MZ (kN-m)	0.688	1	0.000	
	Vertical	FY (kN)	2.693	1	0.000	
4	Horizontal	FX (kN)	0.000		0.000	
		FZ (kN)	0.000		0.000	
	Moment	MX (kN-m)	0.000		0.000	
		MY (kN-m)	0.000		0.000	
		MZ (kN-m)	0.000		0.000	
	Vertical	FY (kN)	4.795	1	0.000	
5	Horizontal	FX (kN)	0.000		-3.359	1
		FZ (kN)	0.000		0.000	
	Moment	MX (kN-m)	0.000		0.000	
		MY (kN-m)	0.000		0.000	
		MZ (kN-m)	0.000		-1.079	1
	Vertical	FY (kN)	2.512	1	0.000	

Beam Displacement Detail

Beam	L/C	d (m)	X (mm)	Y (mm)	Z (mm)	Resultant (mm)
1	1	0.000	0.000	0.000	0.000	0.000
		0.800	0.006	-0.001	0.000	0.006
		1.600	0.017	-0.002	0.000	0.017
		2.400	0.019	-0.003	0.000	0.019
		3.200	0.010	-0.004	0.000	0.011

Beam Displacement Detail Cont...

Beam	L/C	d (m)	X (mm)	Y (mm)	Z (mm)	Resultant (mm)
2	1	0.000	0.010	-0.004	0.000	0.011
		0.500	0.009	-0.013	0.000	0.016
		1.000	0.008	-0.025	0.000	0.026
		1.500	0.007	-0.017	0.000	0.019
		2.000	0.006	-0.008	0.000	0.010
3	1	0.000	0.006	-0.008	0.000	0.010
		0.800	0.010	-0.006	0.000	0.011
		1.600	0.014	-0.004	0.000	0.014
		2.400	0.018	-0.002	0.000	0.018
		3.200	0.022	0.000	0.000	0.022
4	1	0.000	0.006	-0.008	0.000	0.010
		0.625	0.004	-0.015	0.000	0.015
		1.250	0.003	-0.020	0.000	0.020
		1.875	0.001	-0.010	0.000	0.011
		2.500	0.000	0.000	0.000	0.000

Beam Max Moments

Beam	Node A	Length (m)	L/C		d (m)	Max My (kN-m)	d (m)	Max Mz (kN-m)
1	1	3.200	1	Max +ve	0.000	0.000	3.200	1.436
				Max -ve	0.000	0.000	2.400	-0.851
2	2	2.000	1	Max +ve	0.000	0.000	0.000	1.436
				Max -ve	0.000	0.000	1.000	-1.257
3	3	3.200	1	Max +ve	0.000	0.000	0.000	0.000
				Max -ve	0.000	0.000	0.000	0.000
4	3	2.500	1	Max +ve	0.000	0.000	2.500	1.079
				Max -ve	0.000	0.000	1.250	-0.498

Beam Max Shear Forces

Beam	Node A	Length (m)	L/C		d (m)	Max Fz (kN)	d (m)	Max Fy (kN)
1	1	3.200	1	Max +ve	0.000	0.000	0.000	0.641
				Max -ve	0.000	0.000	3.200	-3.359
2	2	2.000	1	Max +ve	0.000	0.000	0.000	2.693
				Max -ve	0.000	0.000	1.167	-2.307
3	3	3.200	1	Max +ve	0.000	0.000	0.000	0.000
				Max -ve	0.000	0.000	0.000	0.000
4	3	2.500	1	Max +ve	0.000	0.000	0.000	2.488
				Max -ve	0.000	0.000	2.500	-2.512

Beam Max Axial Forces

Beam	Node A	Length (m)	L/C		d (m)	Max Fx (kN)
1	1	3.200	1	Max +ve	0.000	2.693
				Max -ve	0.000	0.000
2	2	2.000	1	Max +ve	0.000	3.359
				Max -ve	0.000	0.000
3	3	3.200	1	Max +ve	0.000	4.795
				Max -ve	0.000	0.000
4	3	2.500	1	Max +ve	0.000	3.359
				Max -ve	0.000	0.000