



ANALYSIS V5.05

Engineering Building & Infrastructure Pty Ltd

Geometry for (slab +): Concrete Simple Beam

Description = 250mm thk slab
Span (L) = 6000 mm
Span type = S (Simple),(E)xt,(I)nt,(C)ant,(P)rop,(F)ixed,(O)ther
Material type = C (Timber),(S)teel,(C)onc.,(SC)comp. steel,(O)ther

Ix = 1302.08333 x 10⁶ mm⁴
Ag = 250000 mm²
Density = 25 kN/m³
E = 29900 MPa

Loading

Uniform loads (kN/m)			
Uniform loads	UDL	Partial 1	Partial 2
Dead load (wdl) =	36.00		
Live load (wll) =	30.00		
Start from LHS (mm) =	0		
End from LHS (mm) =	6000		
S.Wt =	6.25	kN/m	
Ultimate load (w*) =	95.70	0.00	0.00
Live Load type =	Floor (Concrete)		
Short term LL (Ψsu) =	0.70	(Ψsp) =	1.00
Long term LL (Ψlu) =	0.40	(Ψlp) =	0.60
Actual LL (Ψsa) =	0.70	(Ψla) =	0.40

Point loads (kN)			
Point loads	PL 1	PL 2	PL 3
Dead load (pdl) =			
Live load (pll) =			
Pos. from LHS (mm) =			
Ultimate load (p*) =	0.00	0.00	0.00
Include S.Wt =	Y (Yes),(N)o		
Strength loadcase =	C (Dead Only),(C)omb.		

Results at midspan (Max +ve M)

Position of result (x) = 3000 mm

1.20*G+1.50*Q analysed

	Left	At x	Right	Max	At	Min	At	Units	
Rdl	126.75		126.75					kN	
Rll	90.00		90.00					kN	
R*	287.10		287.10					kN	
M*	0.00	430.65	0.00	430.65	3000	0.00	0	kNm	
V*	287.10	0.00	-287.10	287.10	0			kN	Span /
δdl	0.00	18.31	0.00	18.31	3000	0.00	0	mm	328
δll	0.00	13.00	0.00	13.00	3000	0.00	0	mm	461
δdl+Ψs*δll	0.00	27.42	0.00	27.42	3000	0.00	0	mm	219

δPlI/δTot.II = 0.000

Graphs

* Deflections are Gross Ig immediate - assessment of long term effects to be considered

