

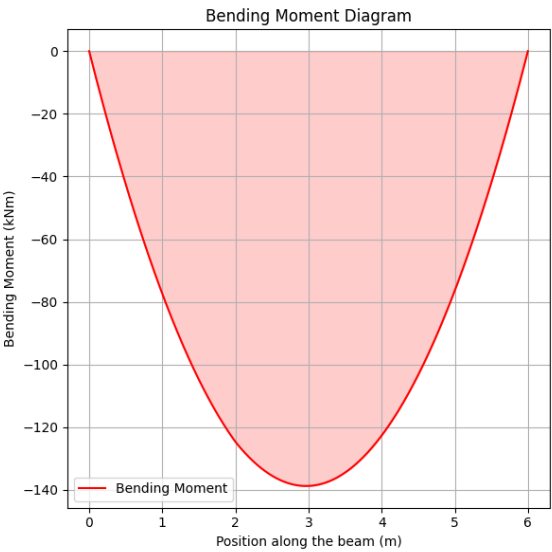
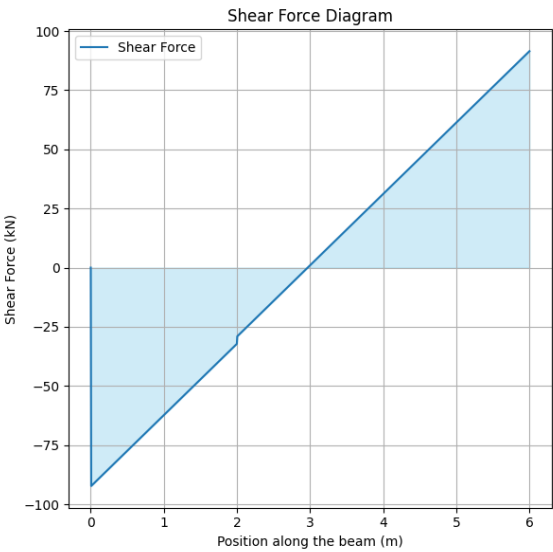
JOB TITLE			ITEM Structural Calculations		
DESIGNED- MM	DATE	CHECKED- MM	JOB NO. 0	SHEET 6	REV

Span = 6.0 m

Effective length = 7.20 m

Allowable Deflection = 16.67 mm

Loading Type	Magnitude (kN/m^2 or kN)	Distance (m)	Point Loading (kN)	Factored Point Loading (kN)	Total Loading (kN/m)	Factored Loading (kN/m)
Floor	2.00	6.70	-	-	13.40	20.77
Stud Work Internal	0.60	6.00	-	-	3.60	5.04
Roof	1.60	2.60	-	-	4.16	6.24
Floor	2.00	4.00	-	-	8.00	12.40
Self-weight	1.00	1.00	-	-	1.00	1.50
Point Load	-	-	3.00	4.50	-	-
Total	-	-	3.00	4.50	30.16	45.95



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Maximum Factored Moment = 208.10 kNm

Minimum Second Moment of Area required = 15227.17 cm⁴

Therefore Use Beam : 356x406x634 UC

Moment of Beam Chosen at Effective Length of 8m = 3410 kNm

Second Moment of Area of Beam Chosen = 275000 cm⁴

Left Unfactored Reaction = 92.48 kN

Right Unfactored Reaction = 91.48 kN