



PARSONS BRINCKERHOFF COMPUTATION SHEET

Page _____ of _____

Made by LEE

Date 01 06 2010

Checked by _____

Date _____

Subject INFLUENCE LINE

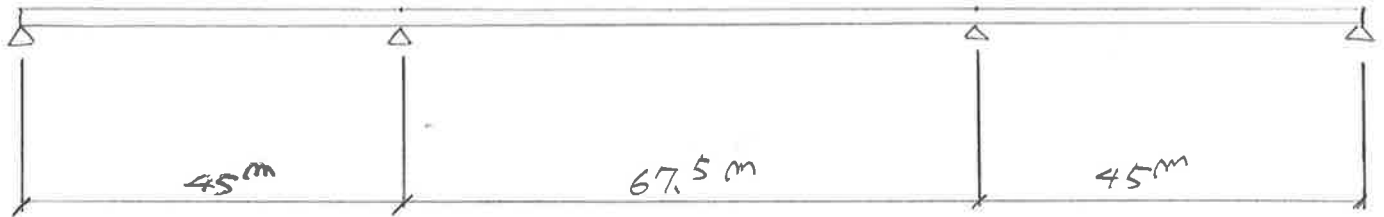


Fig 1.

$$L2/L1 = 67.5/45 = 1.5$$

p dead = 2.0 t/m

P live+impact = 30 ton

p1 live+impact = 0.4t/m

p2 live+impact = 0.3 t/m

p3 live+impact = 0.5 t/m

Moment (Side Span 3/8 Point)

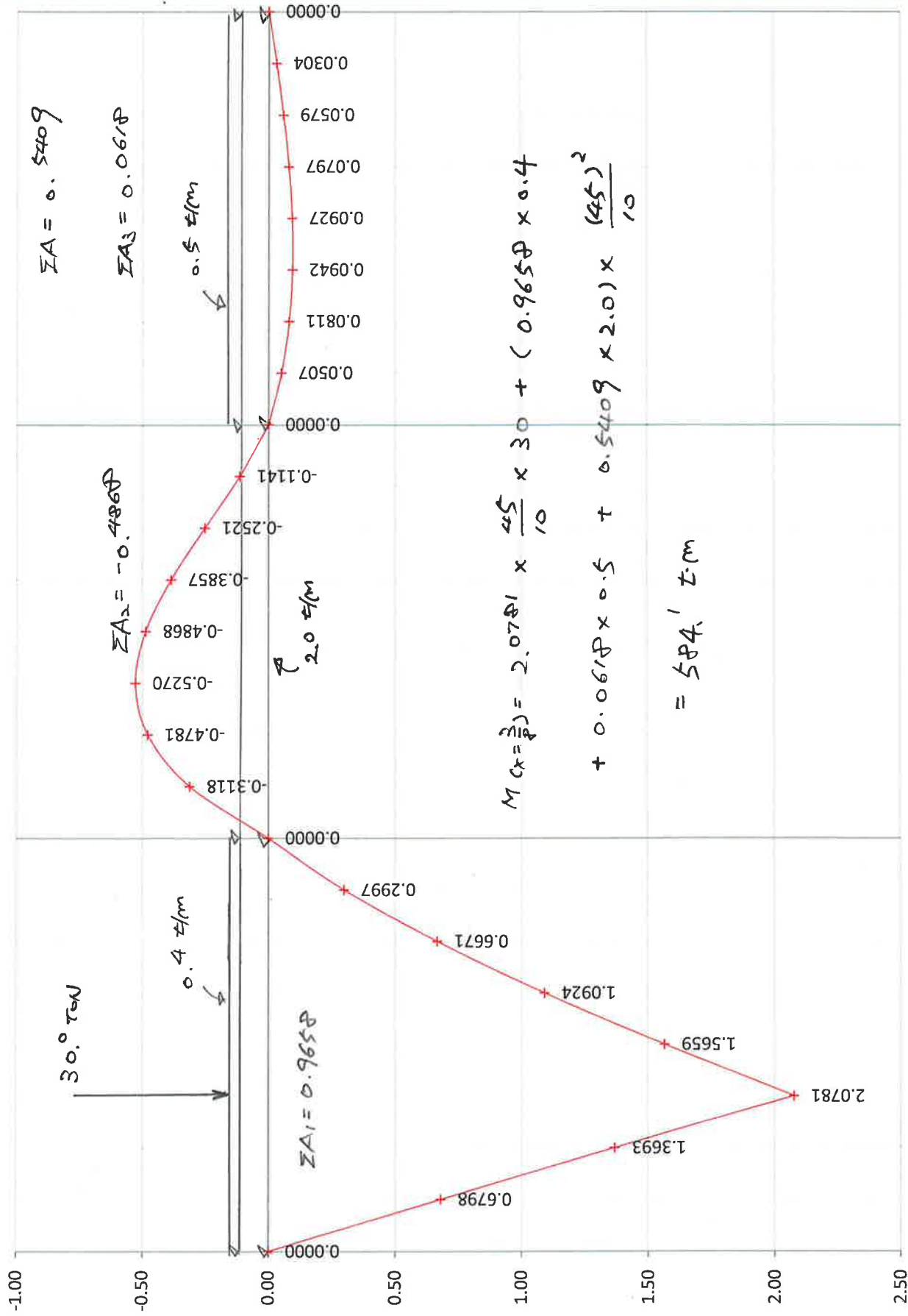
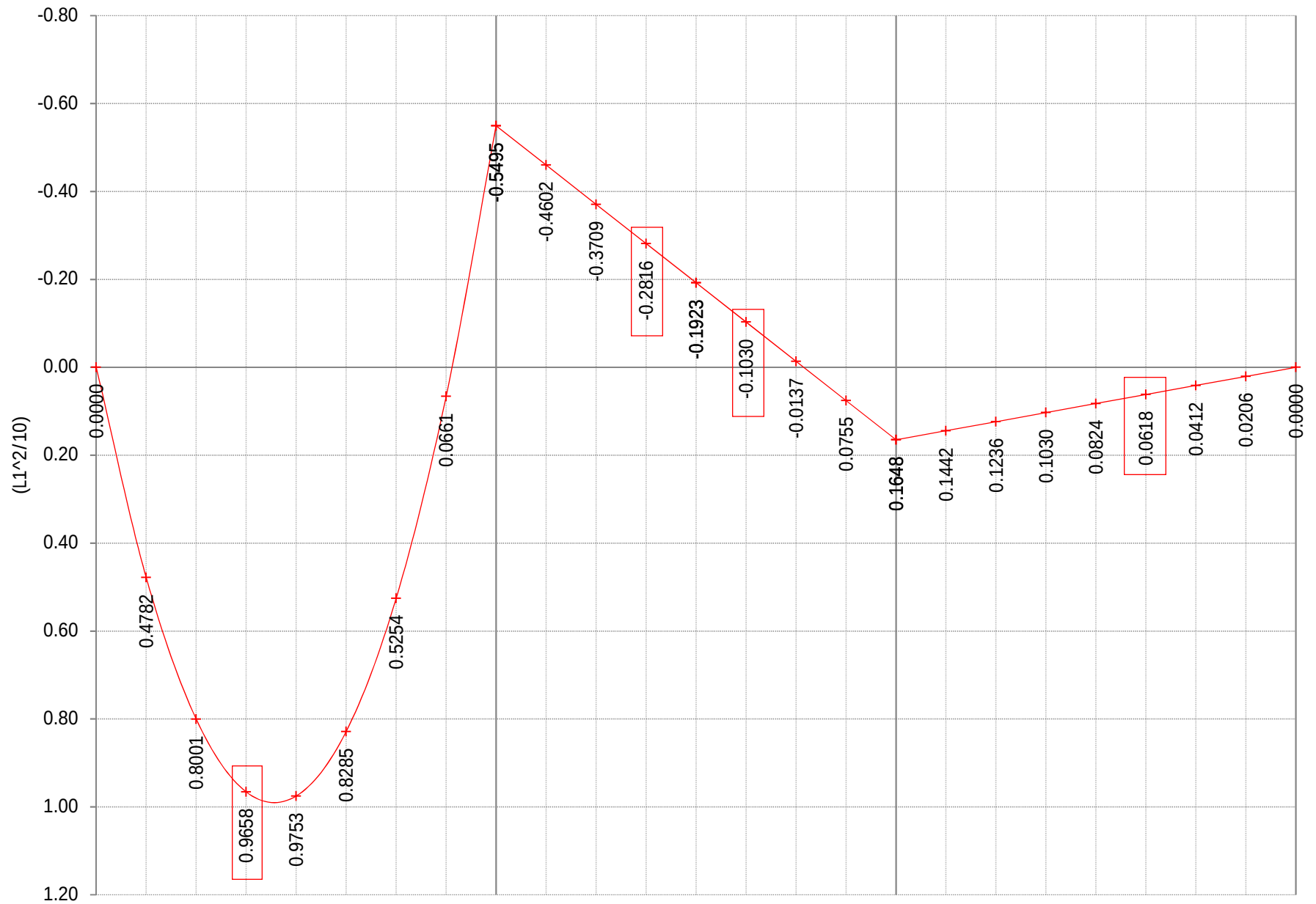
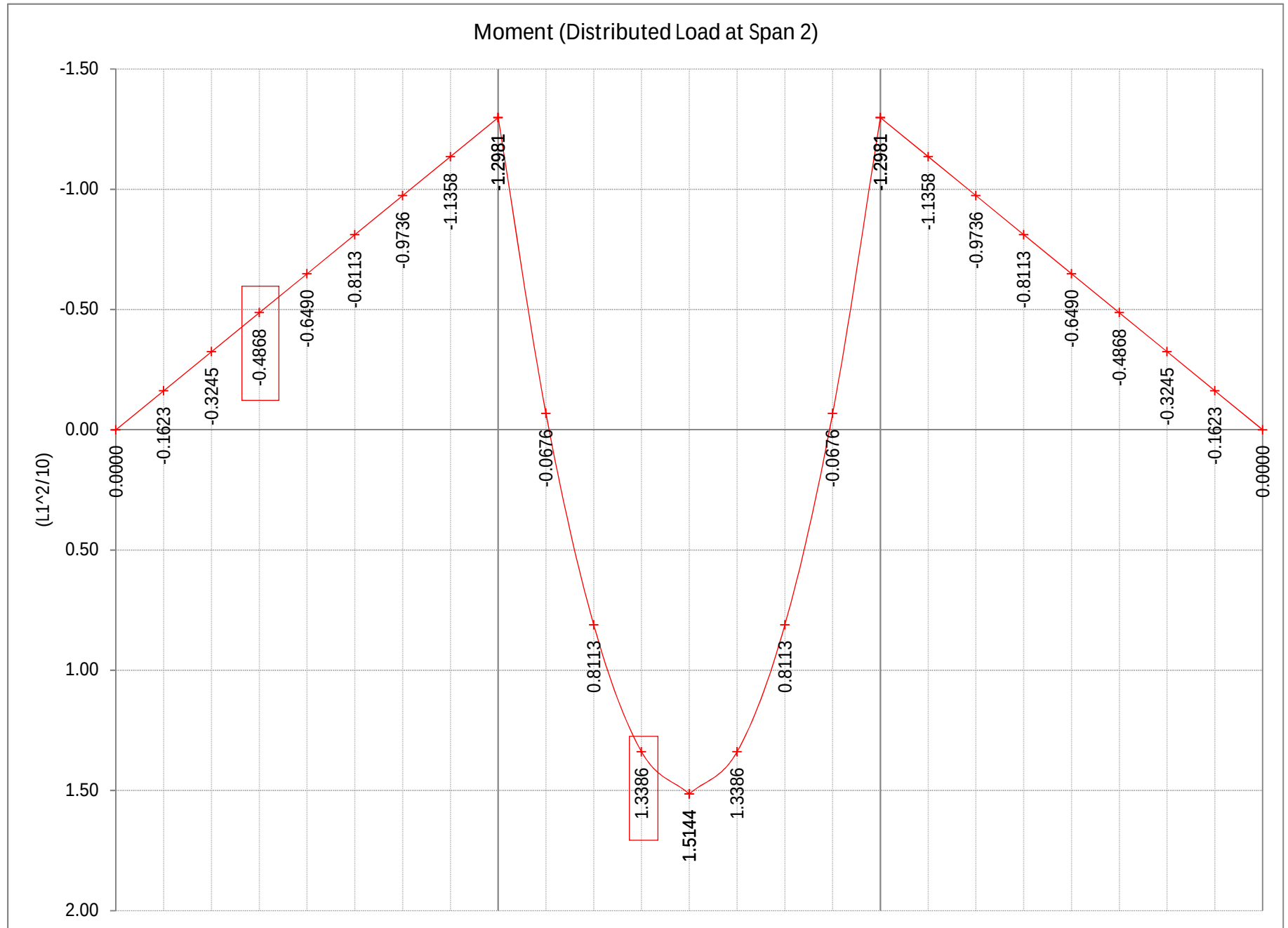


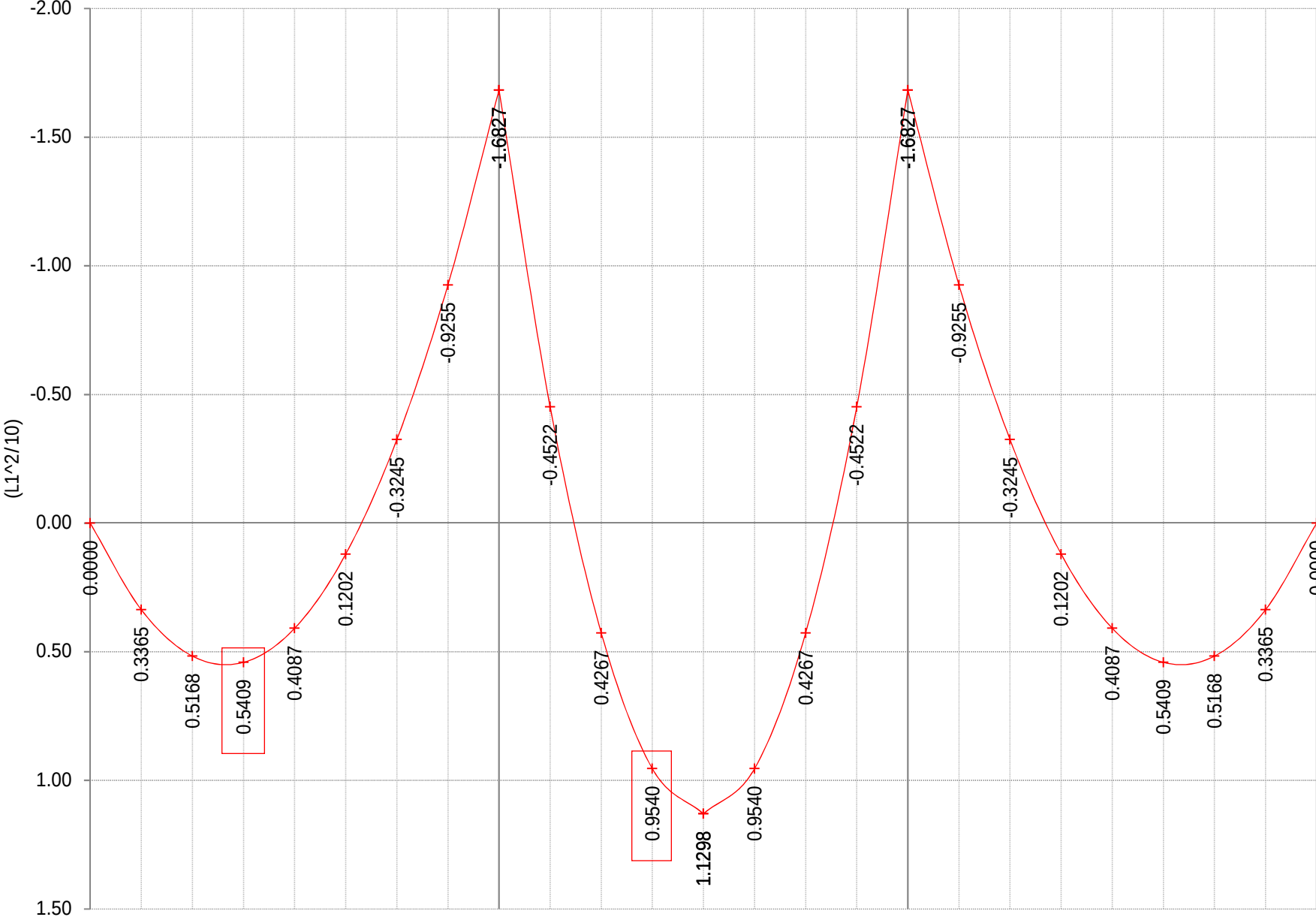
FIG 2.

Moment (Distributed Load at Span 1)





Moment (Distributed Load at All Spans)



Moment (Center Span 3/8 Point)

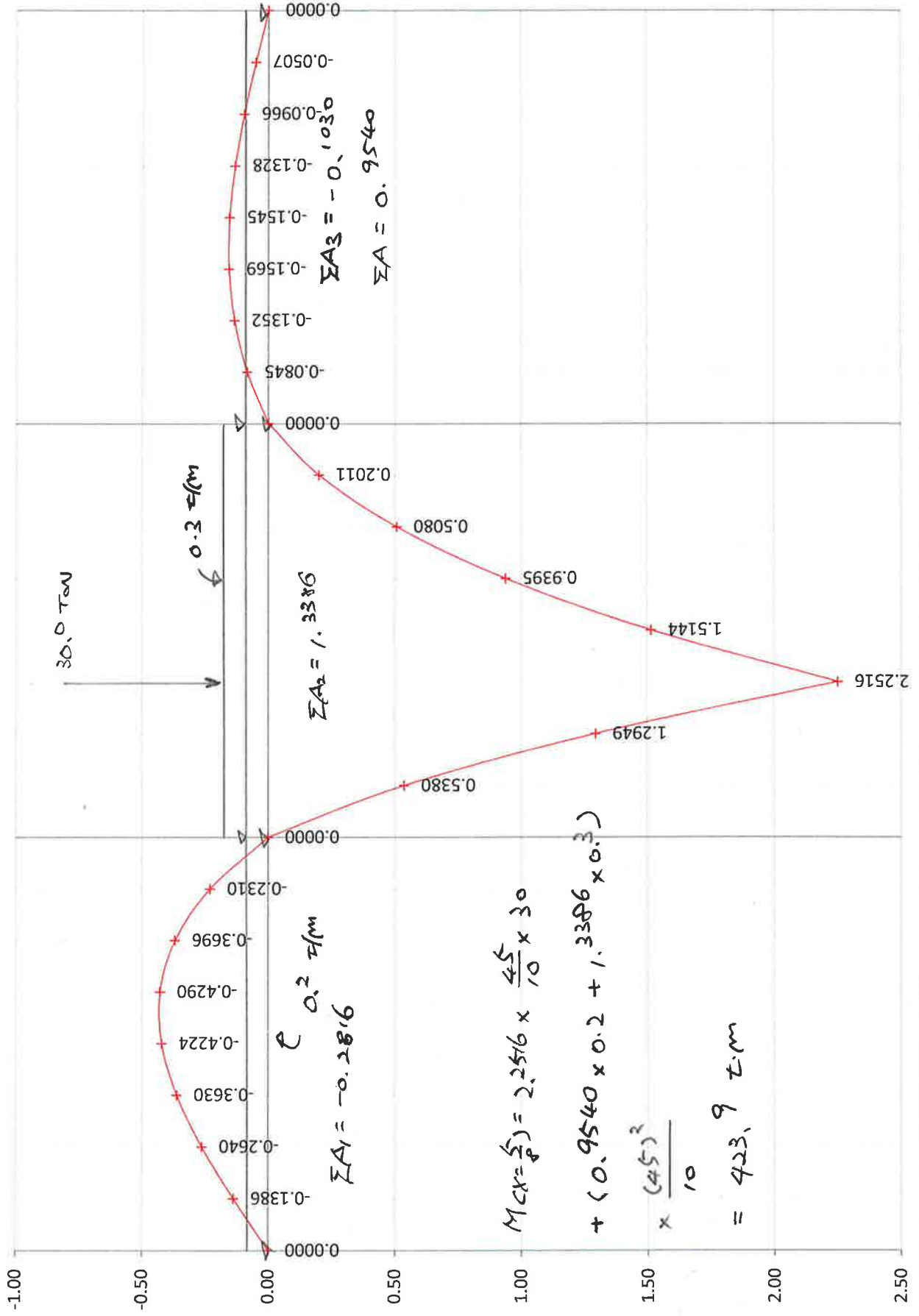
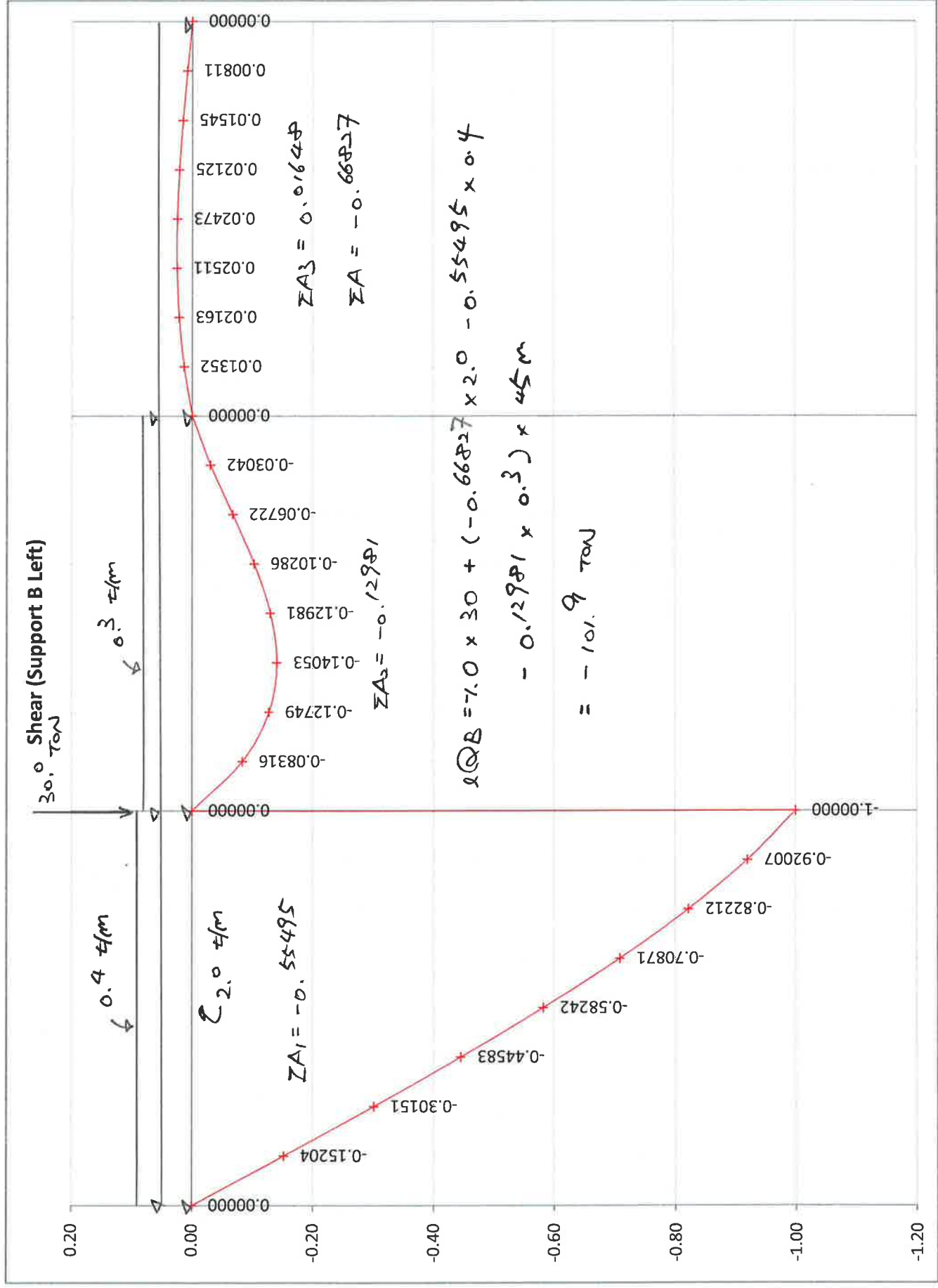


Fig 3



Shear (Support B Right)

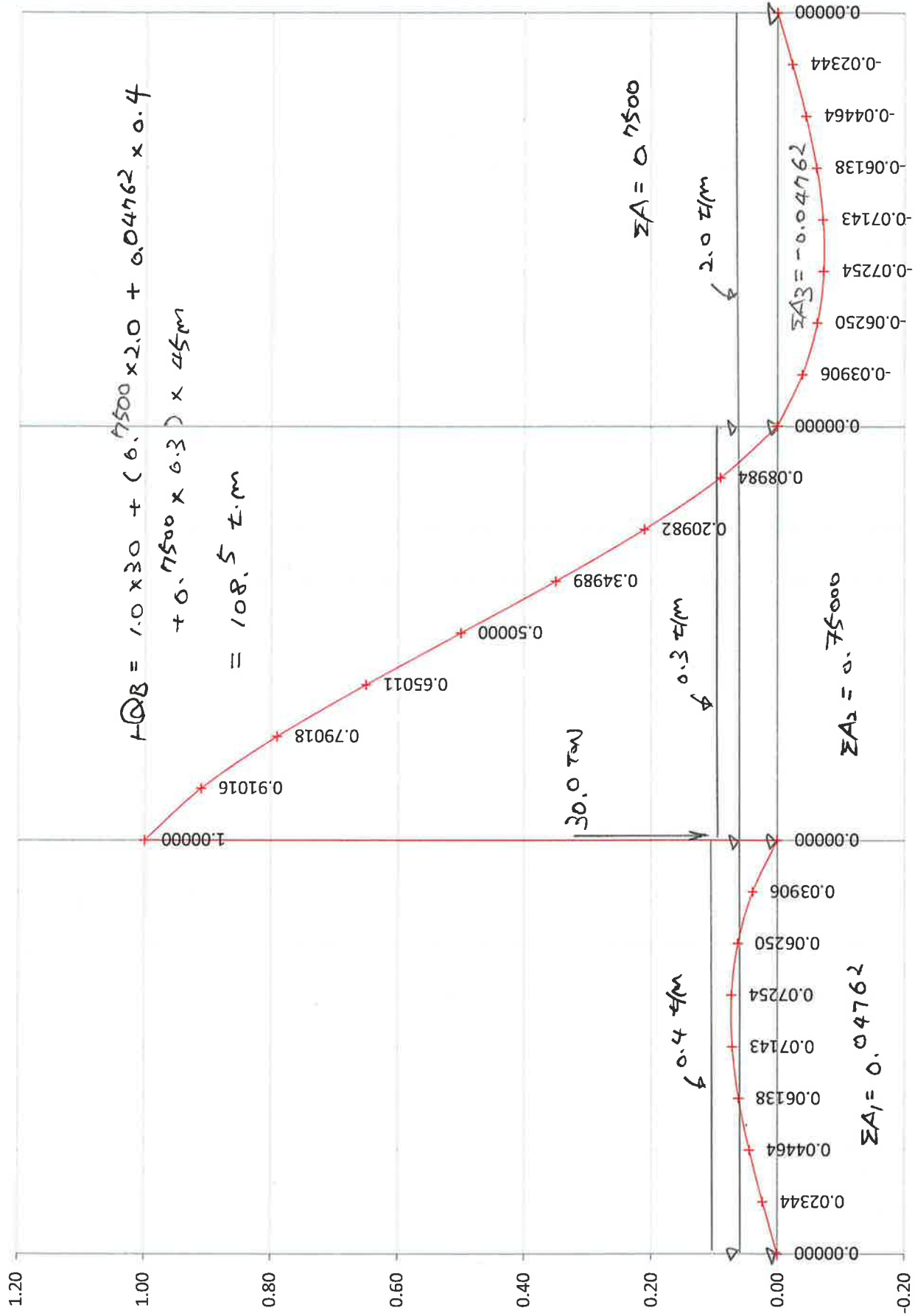
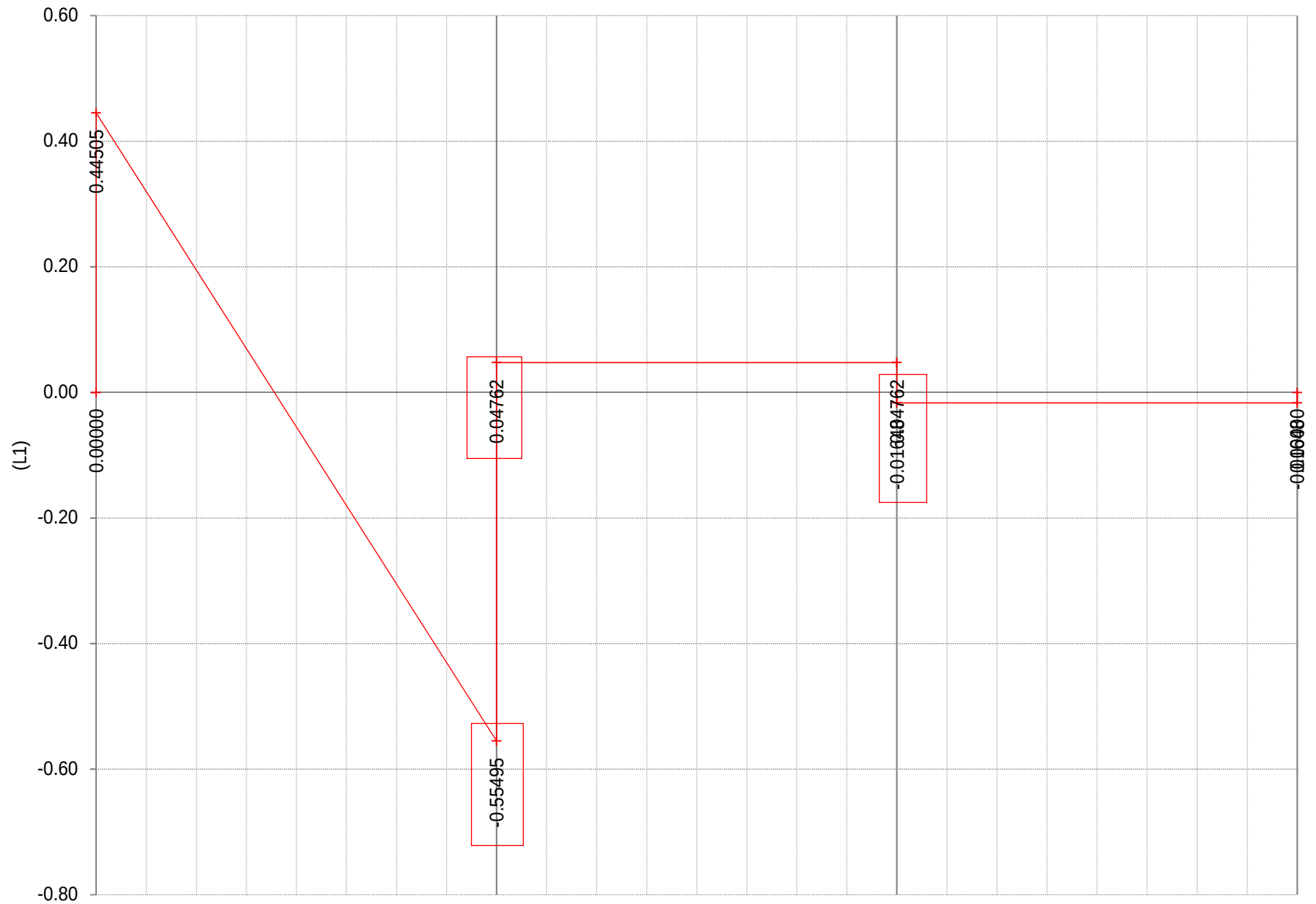
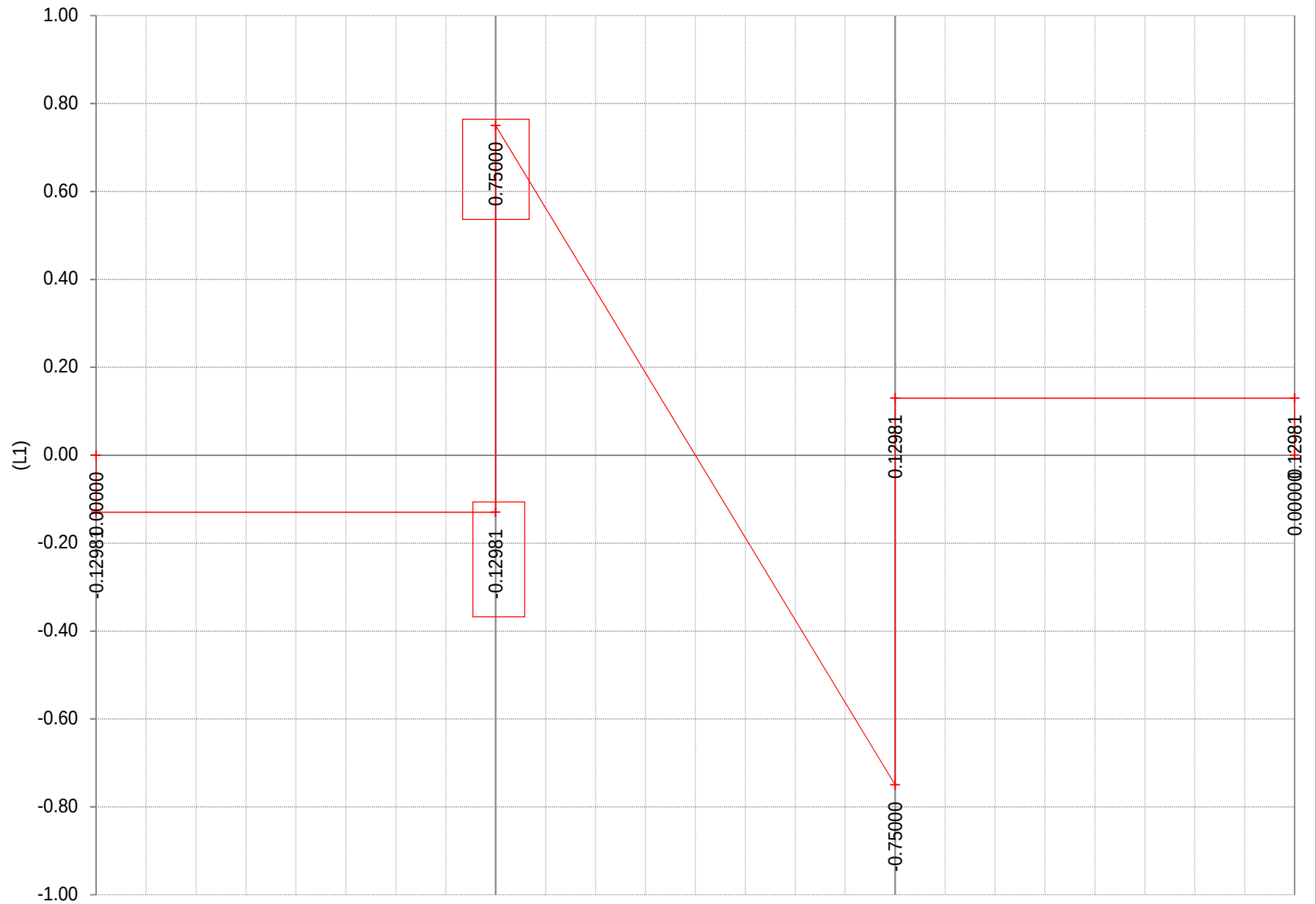


Fig 5.

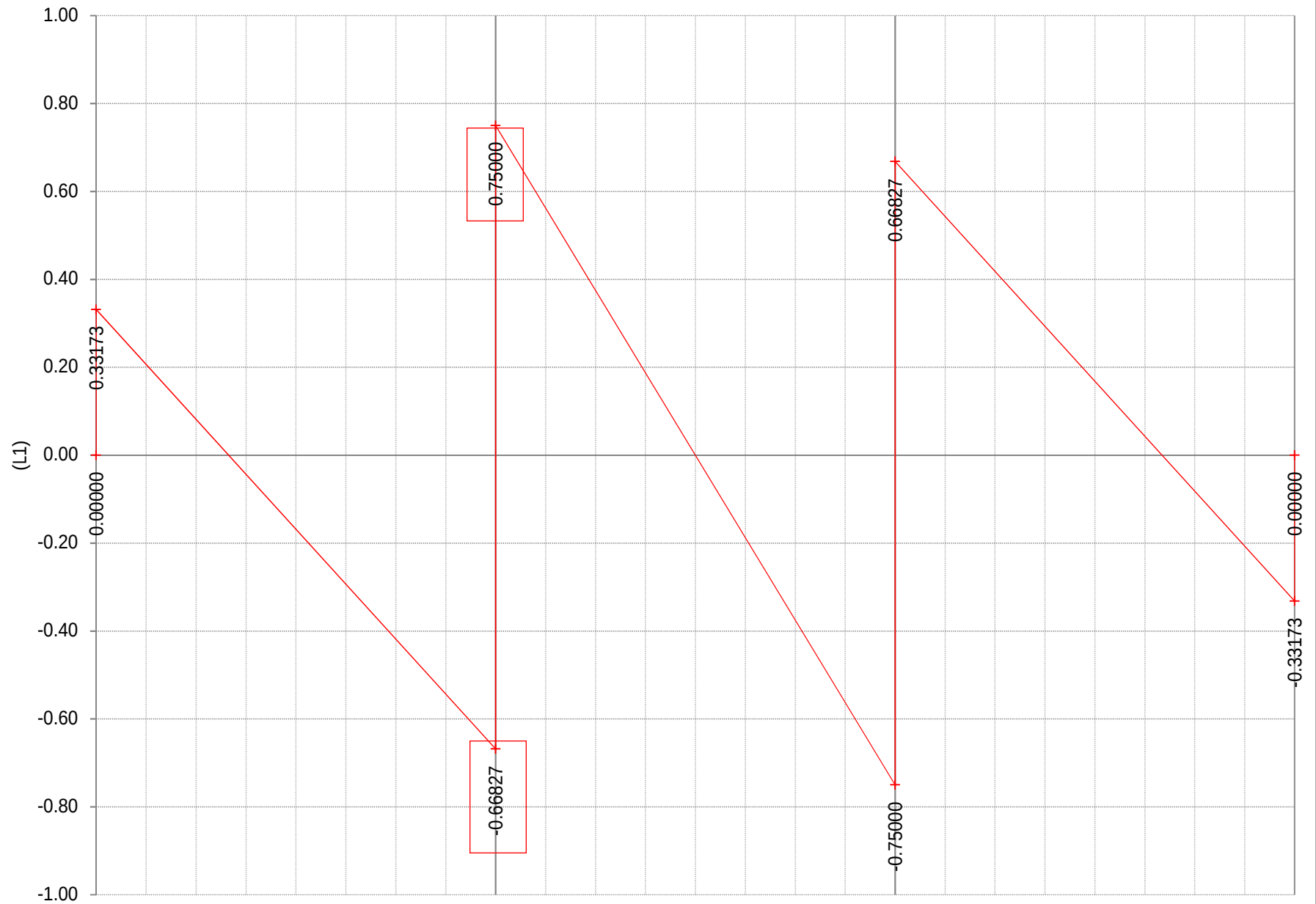
Shear (Distributed Load at Span 1)



Shear (Distributed Load at Span 2)



Shear (Distributed Load for all Spans)



Shear (Side Span 3/8 Point)

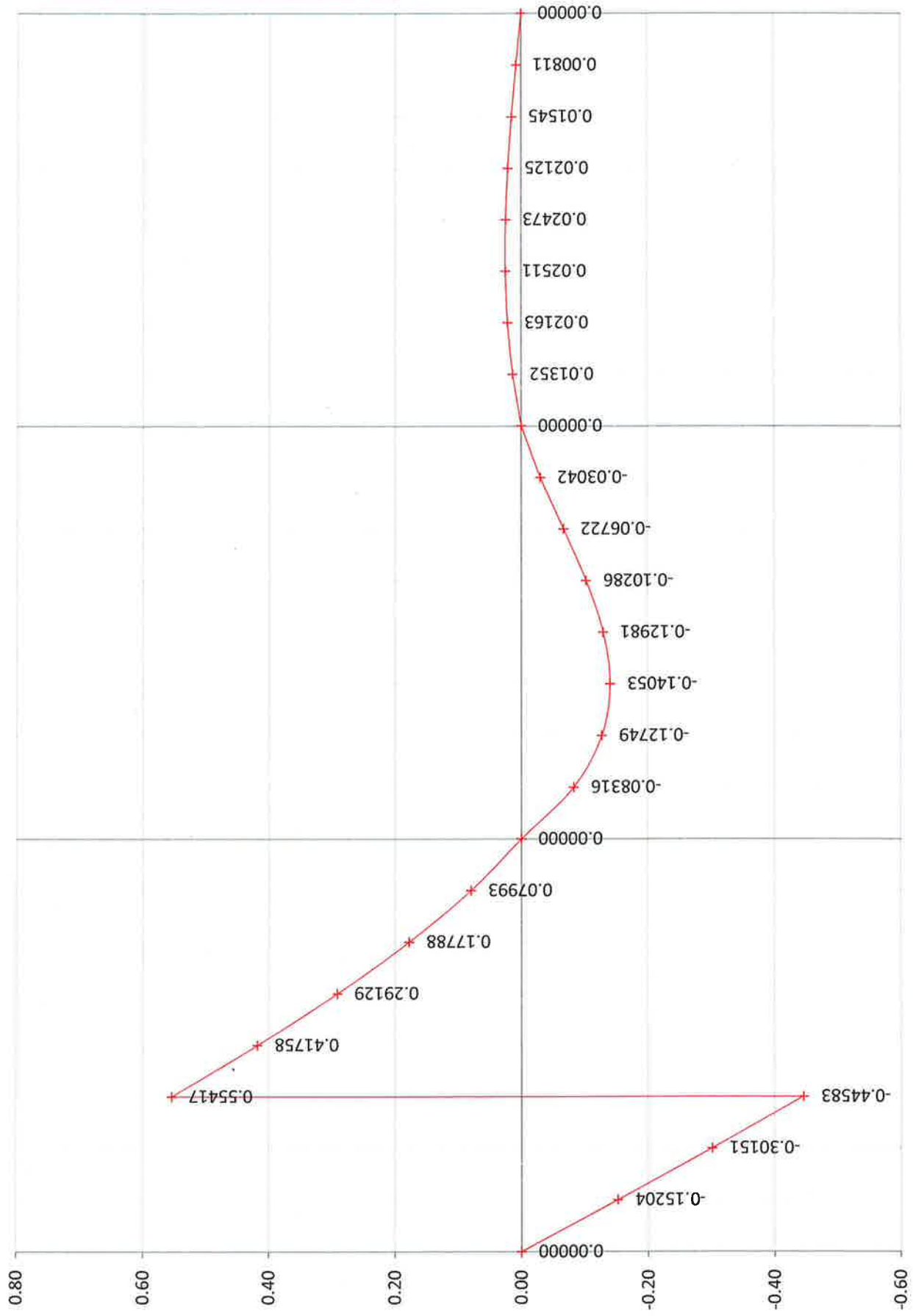


Fig 6.

Shear (Center Span 3/8 Point)

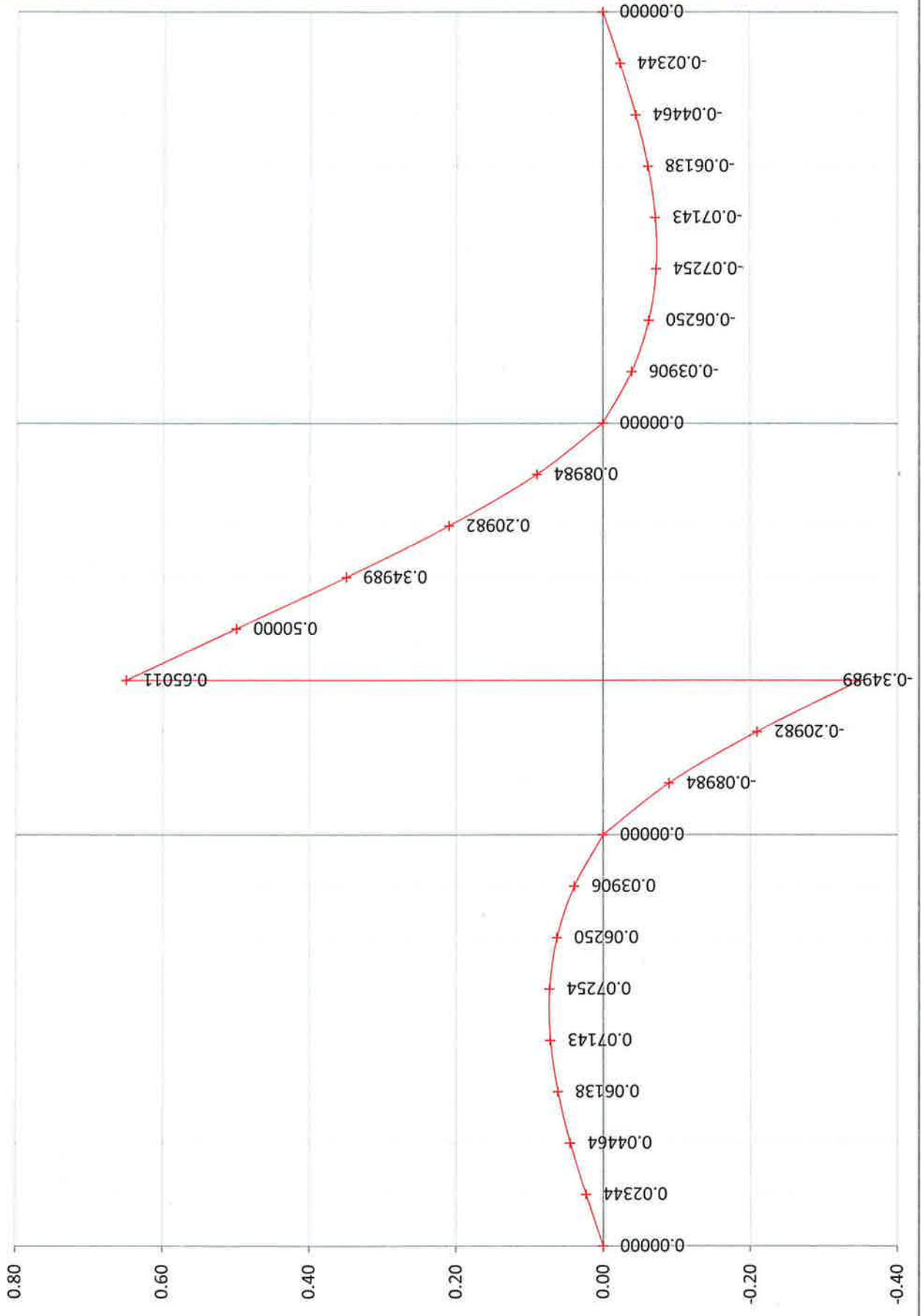


Fig. 7

Reaction (Support A)

$$R_A = 1.0 \times 30 + (0.33173 \times 2.0 + 0.44505 \times 0.4) + 0.01648 \times 0.5 \times 45m = 68.2 \text{ ton}$$

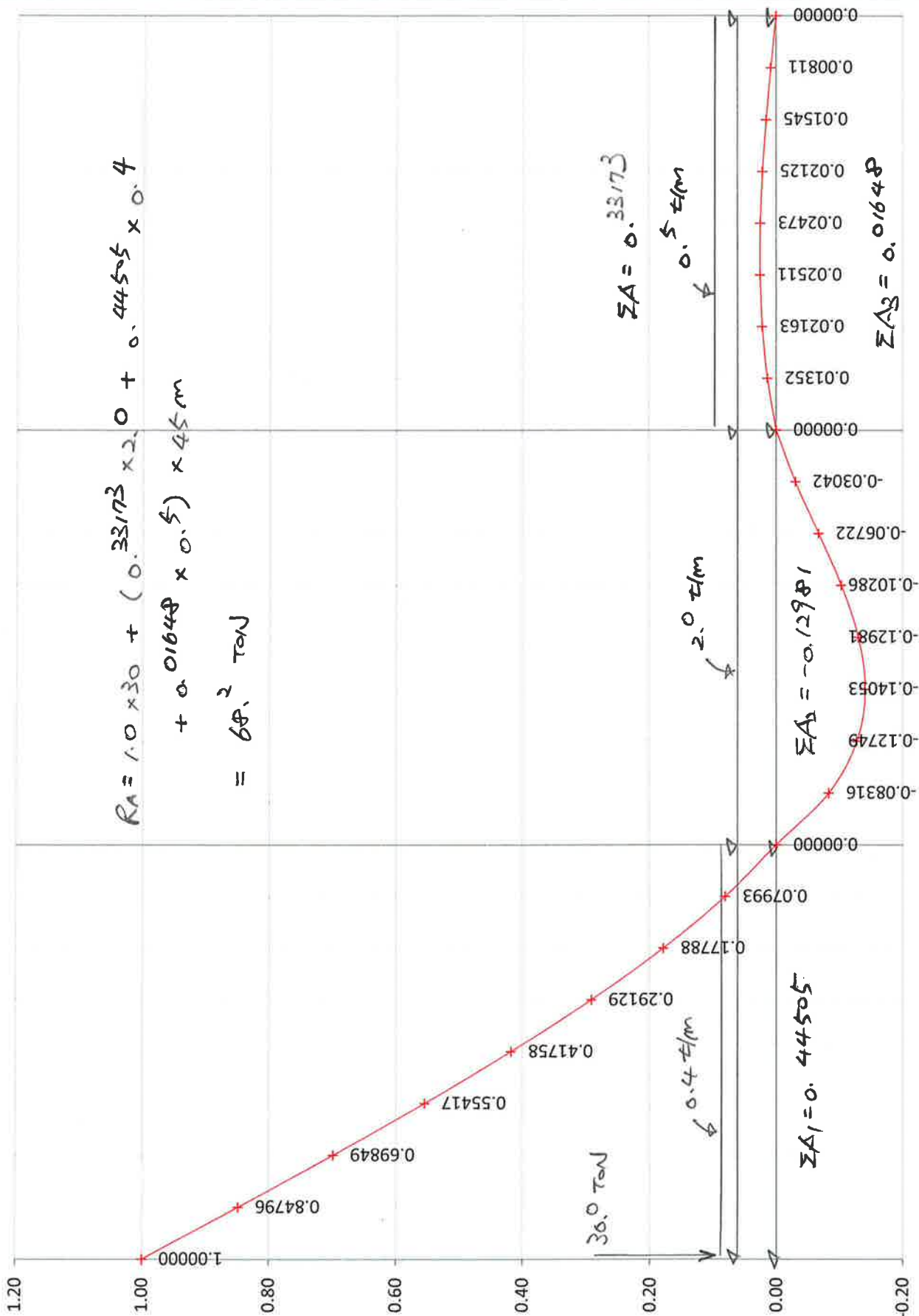


Fig 8

Reaction (Support B)

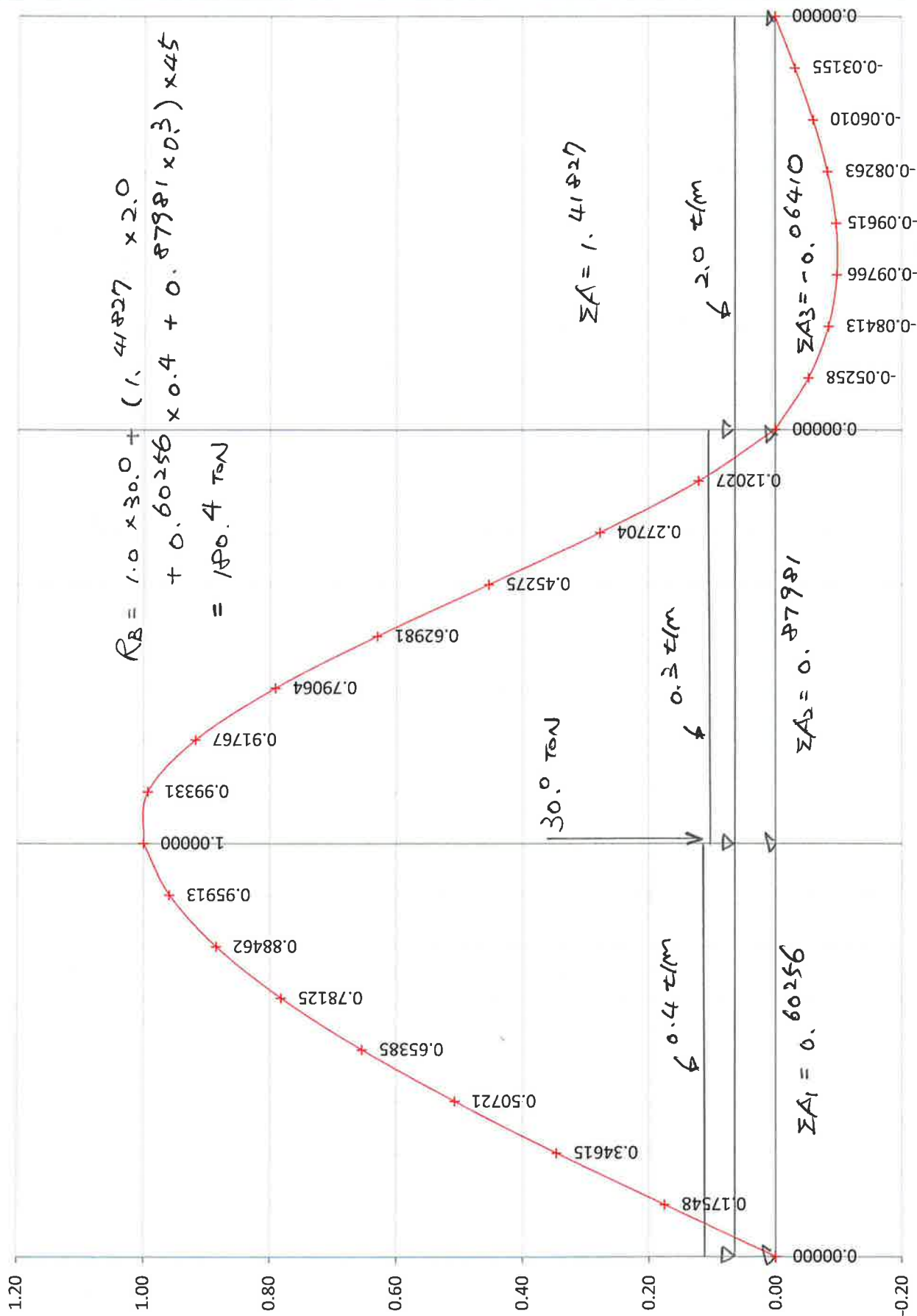


Fig 9.

Deflection (Side Span 3/8 Point)

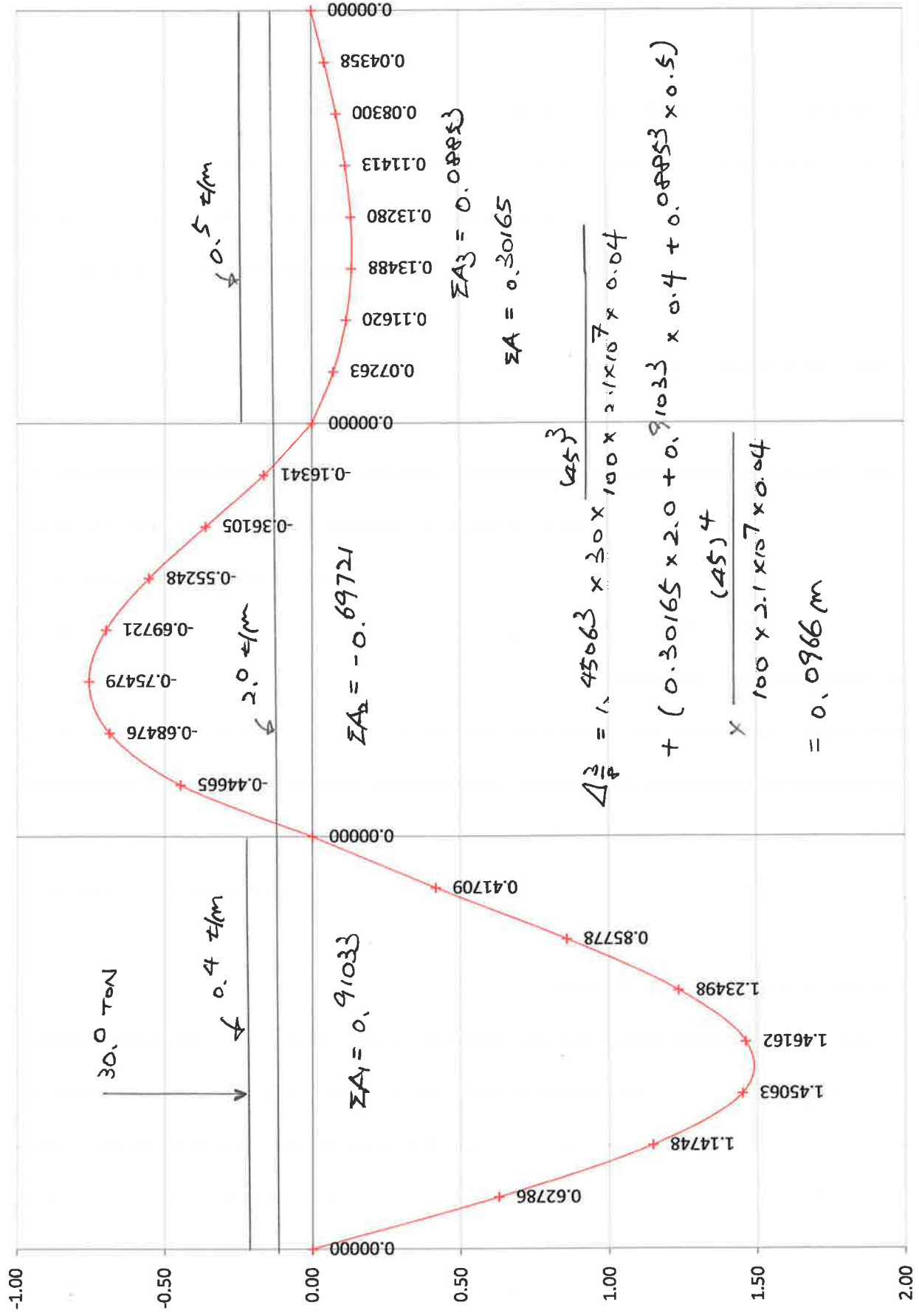


Fig 10.

Deflection (Center Span 3/8 Point)

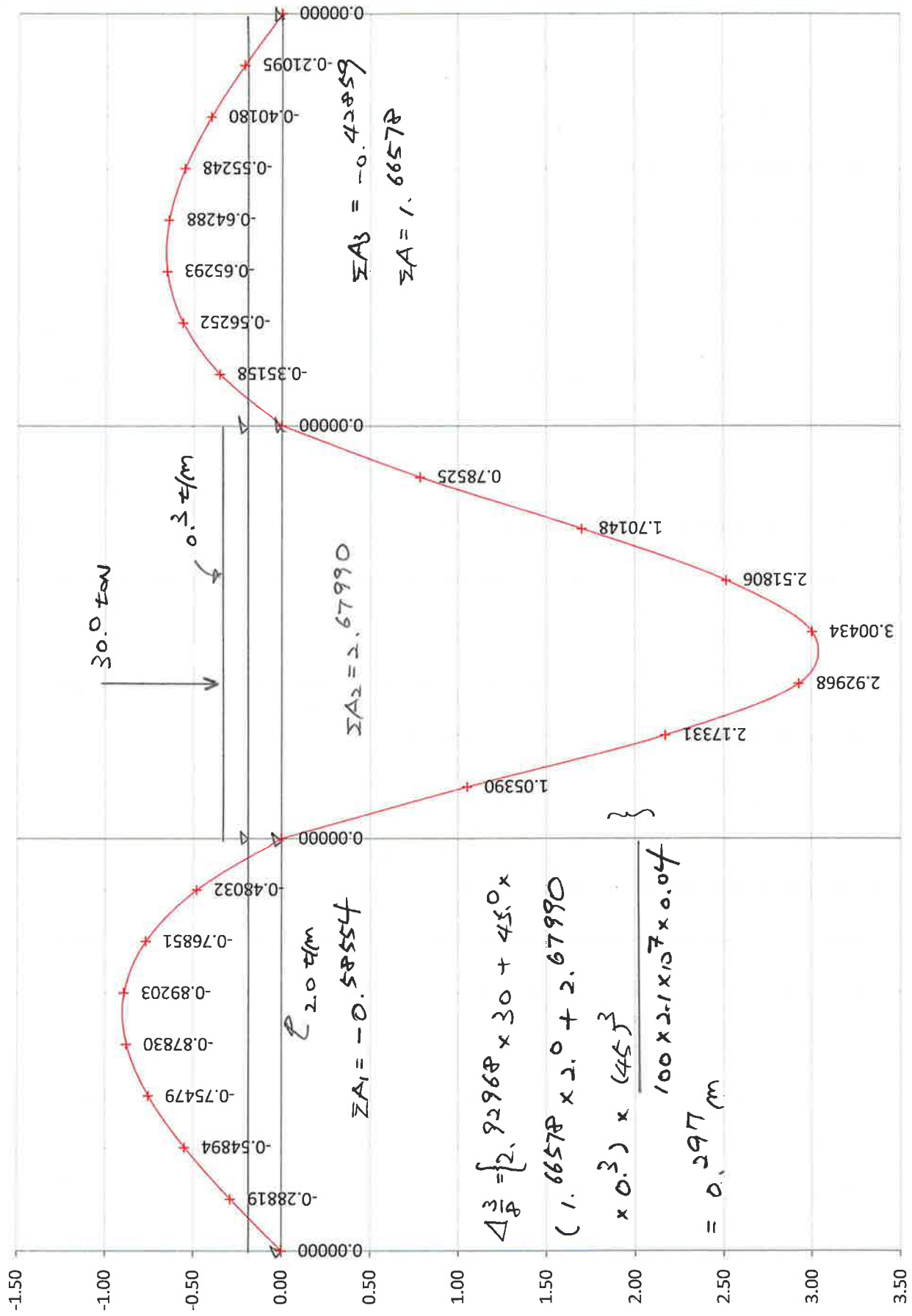


Fig. 11

Moment (Load at Side Span 3/8 Point)

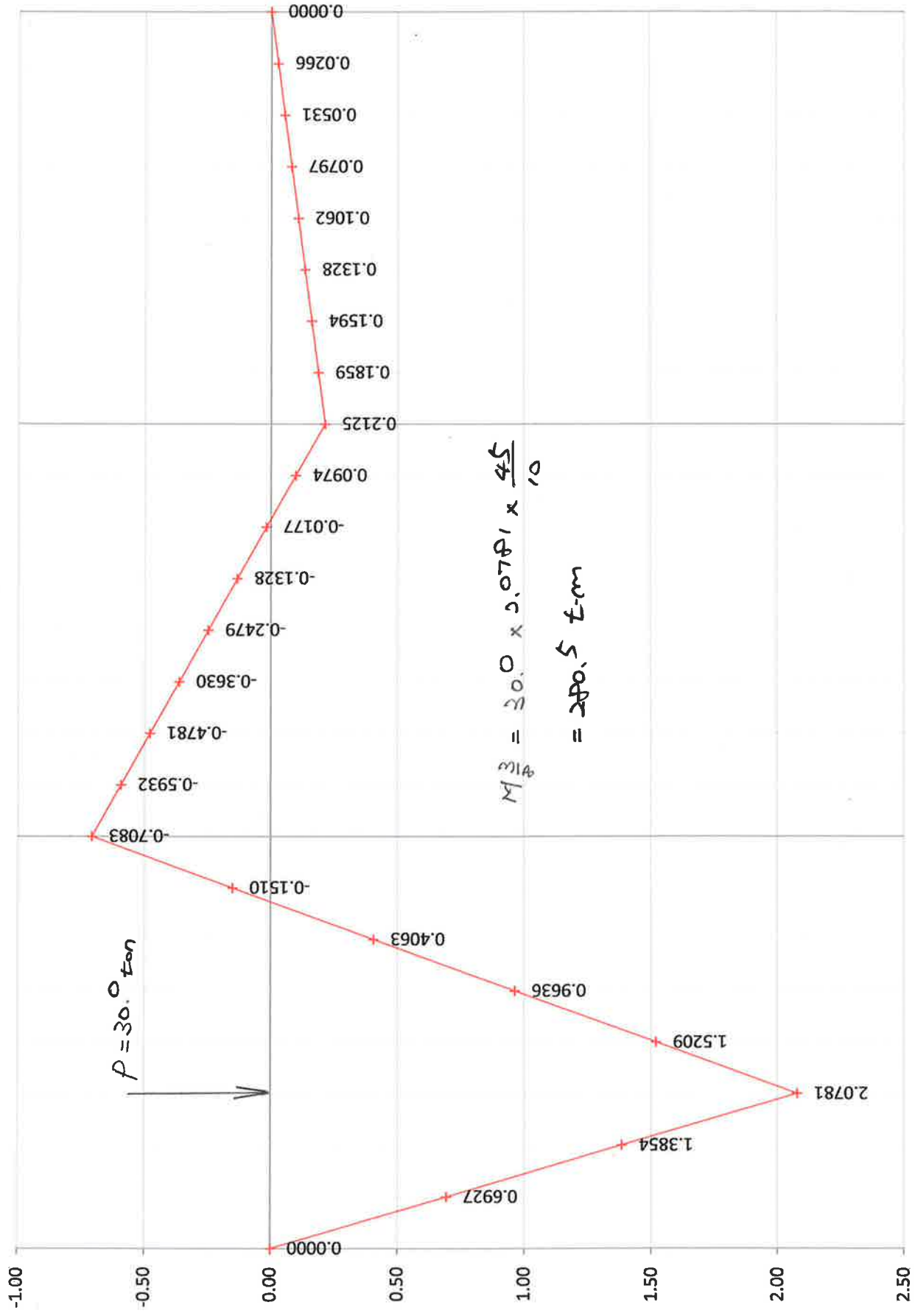


Fig 12

Moment (Load at Center Span 5/8 Point)

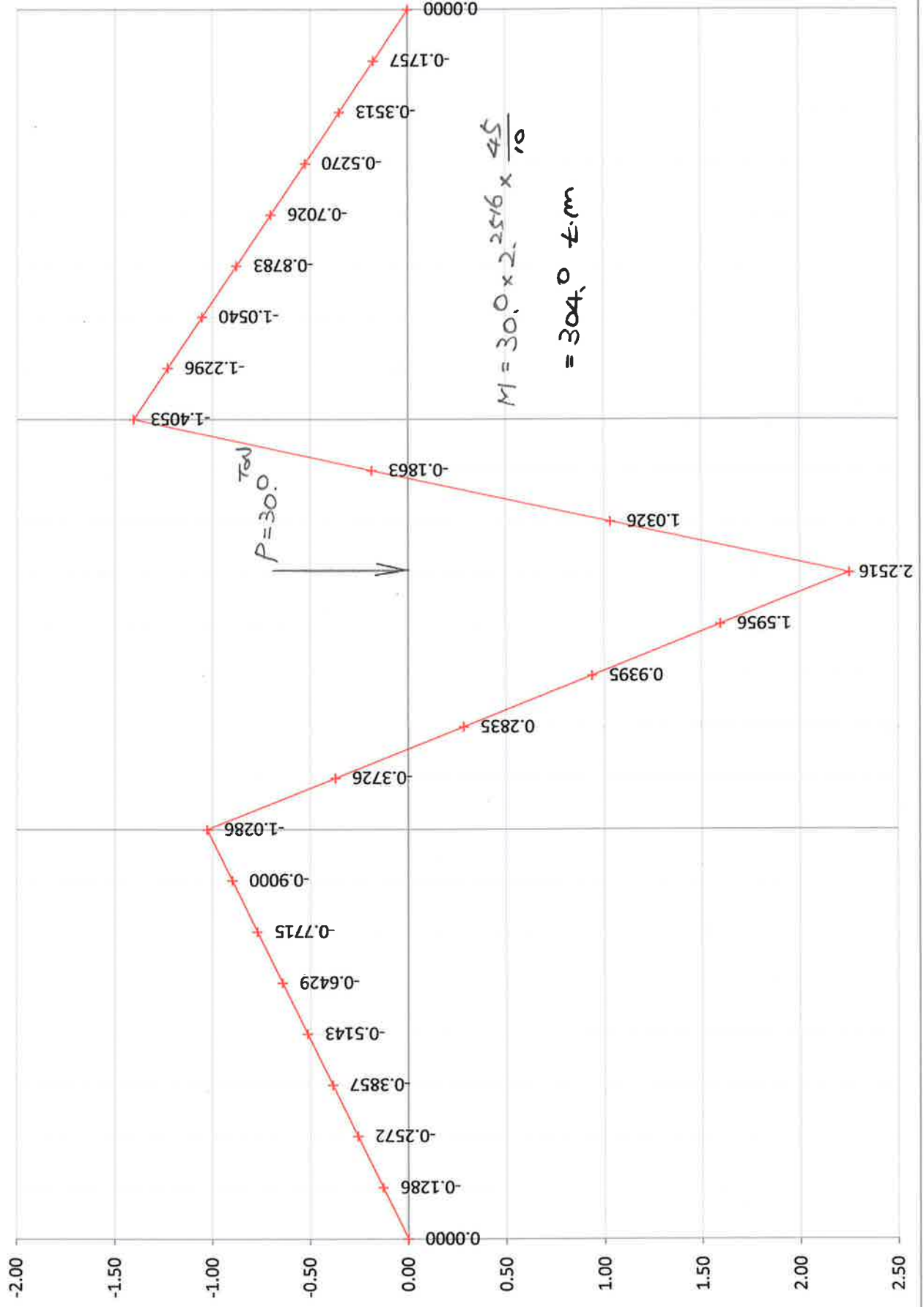


Fig. 13.

Moment (Distributed Load at Span 1)

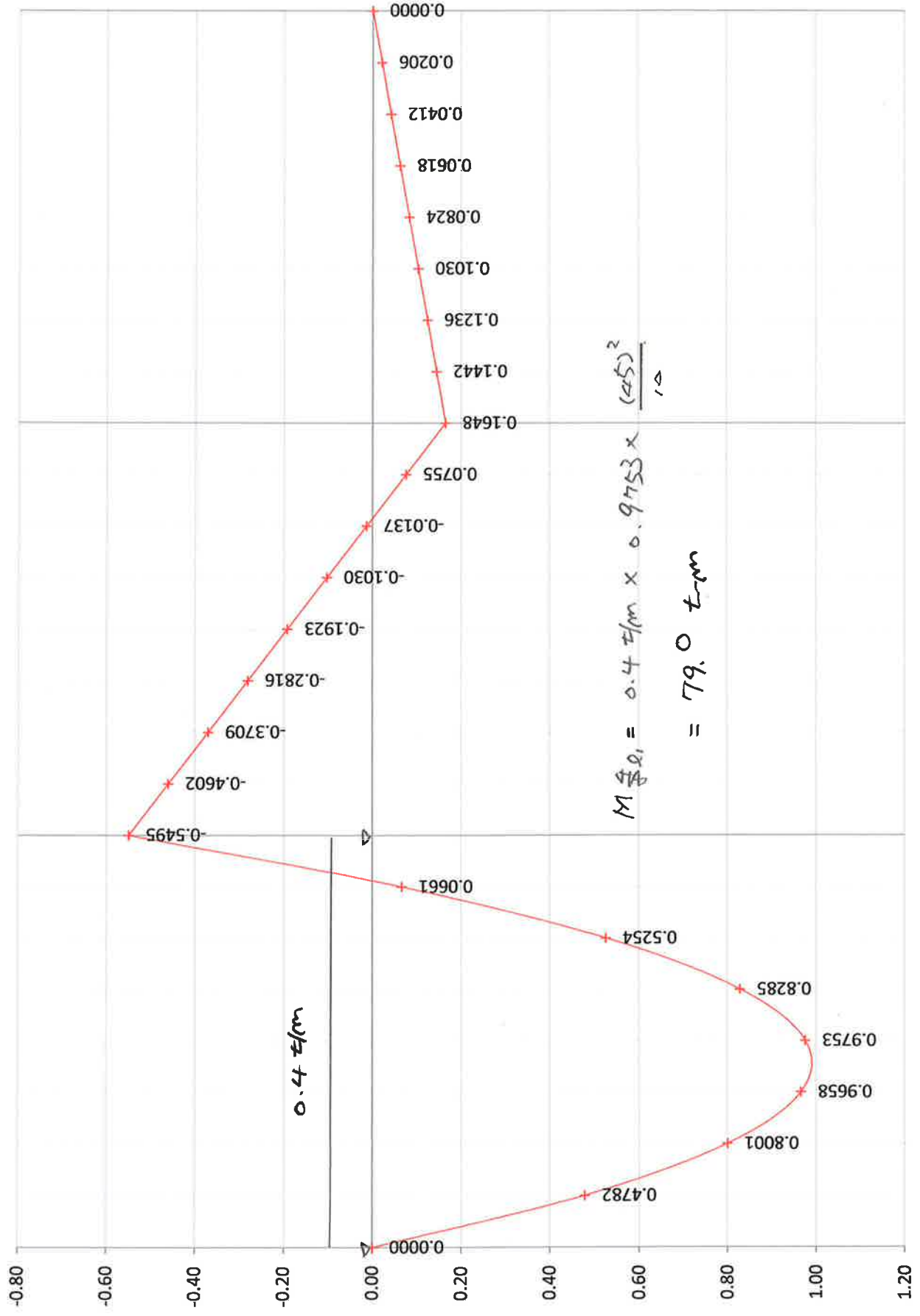


Fig 14

Moment (Distributed Load at Span 2)

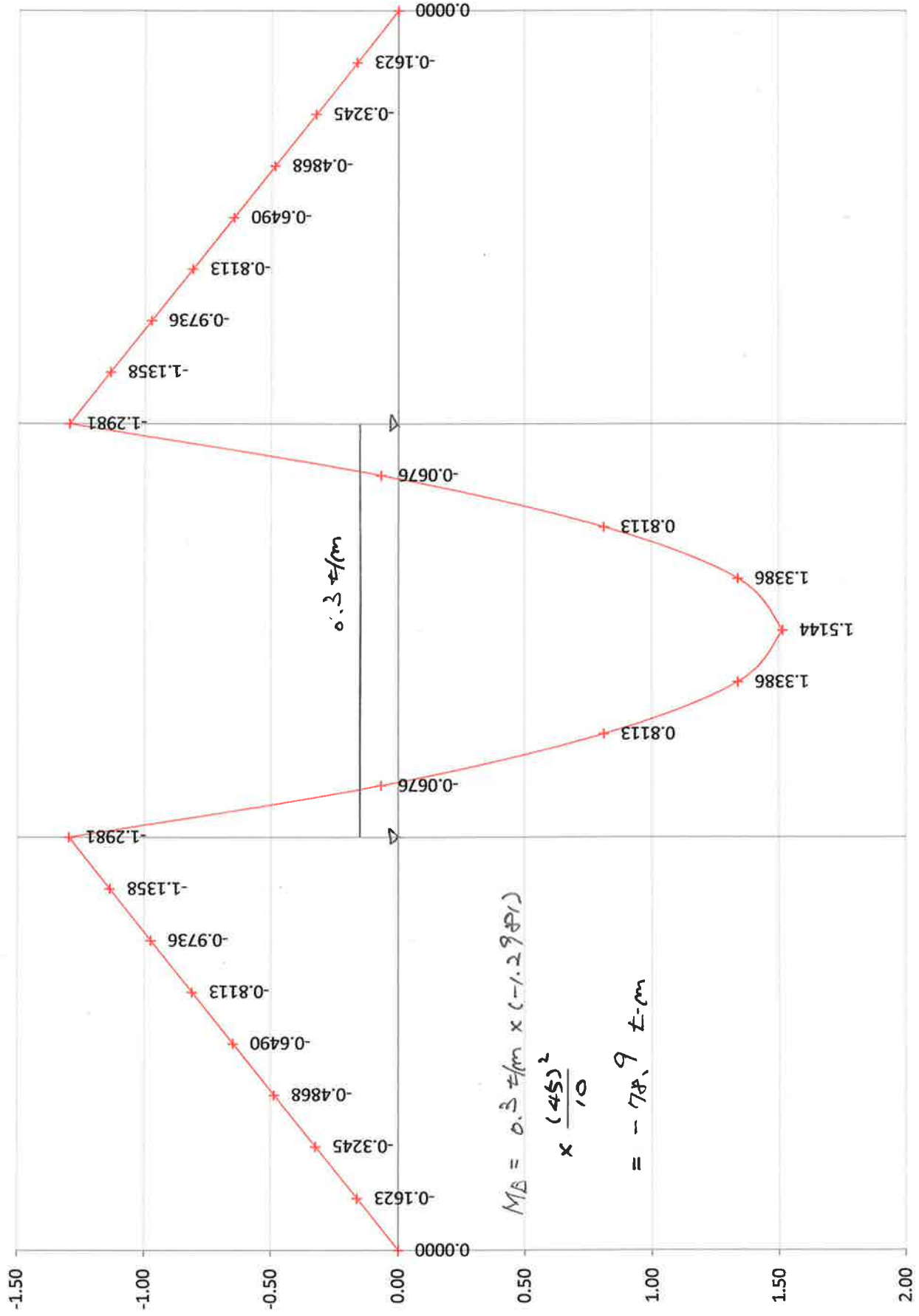


Fig 15

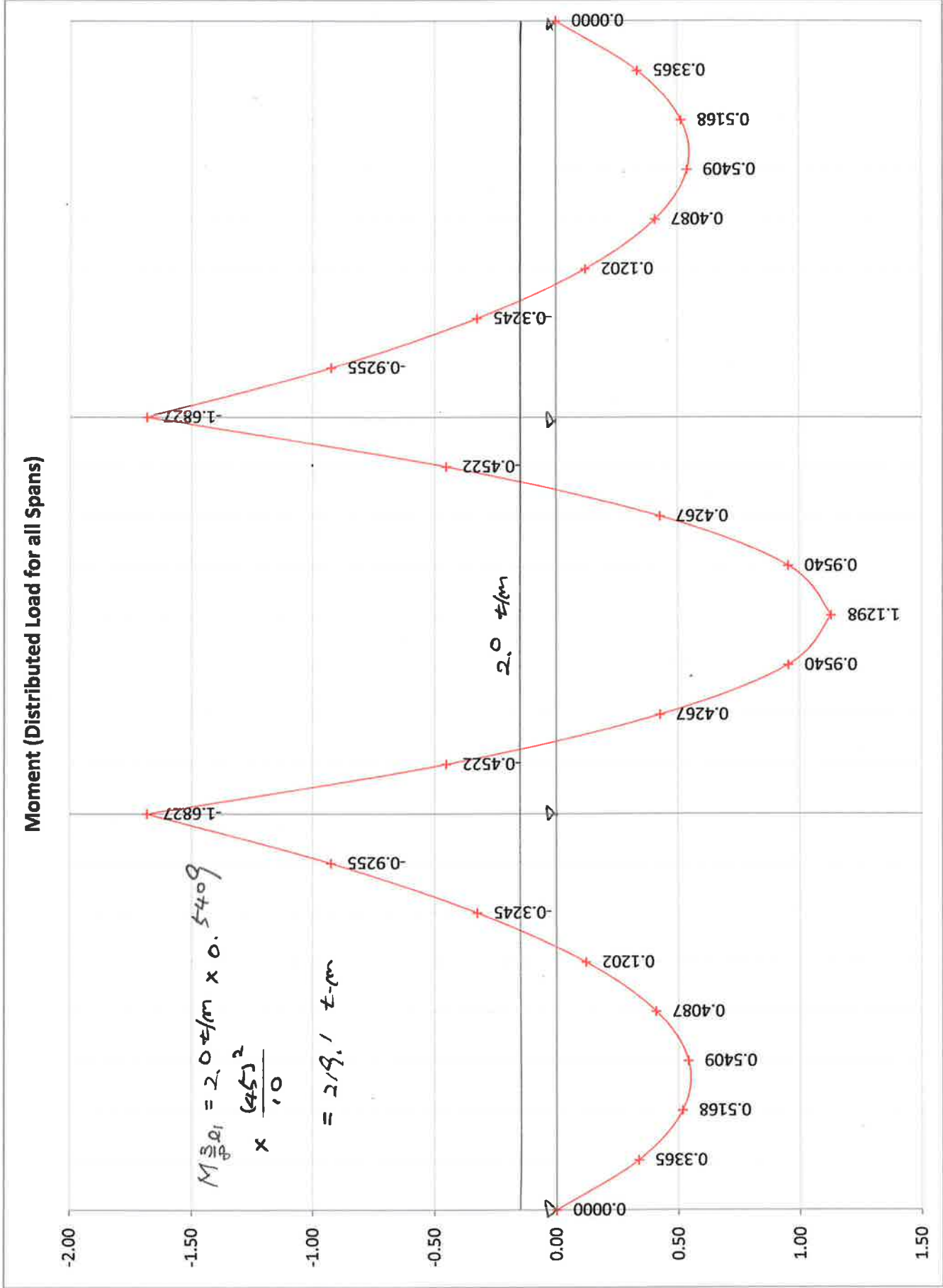


Fig 16.

Shear (Load at Side Span 3/8 Point)

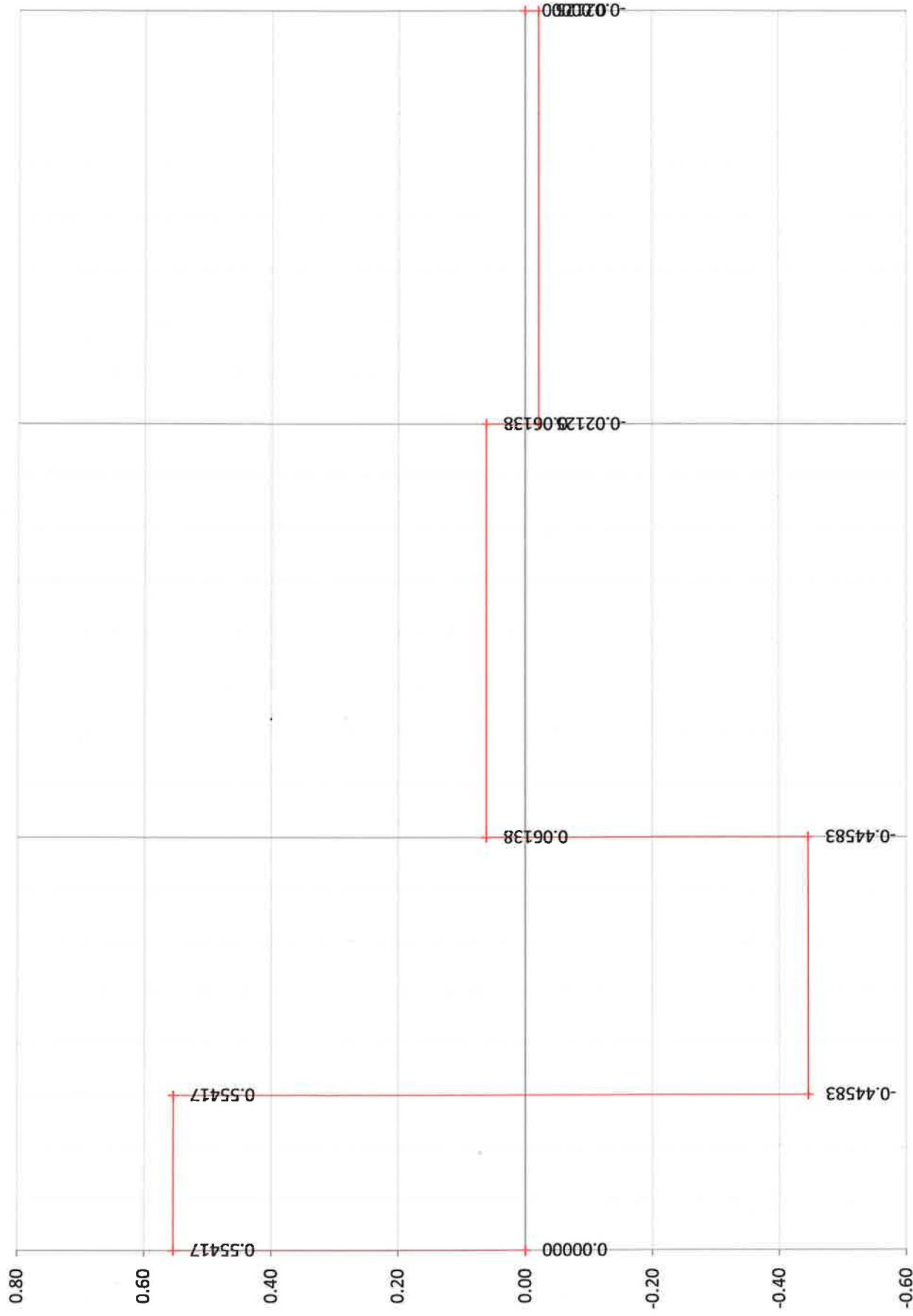


Fig. 17

Shear (Load at Center Span 5/8 Point)

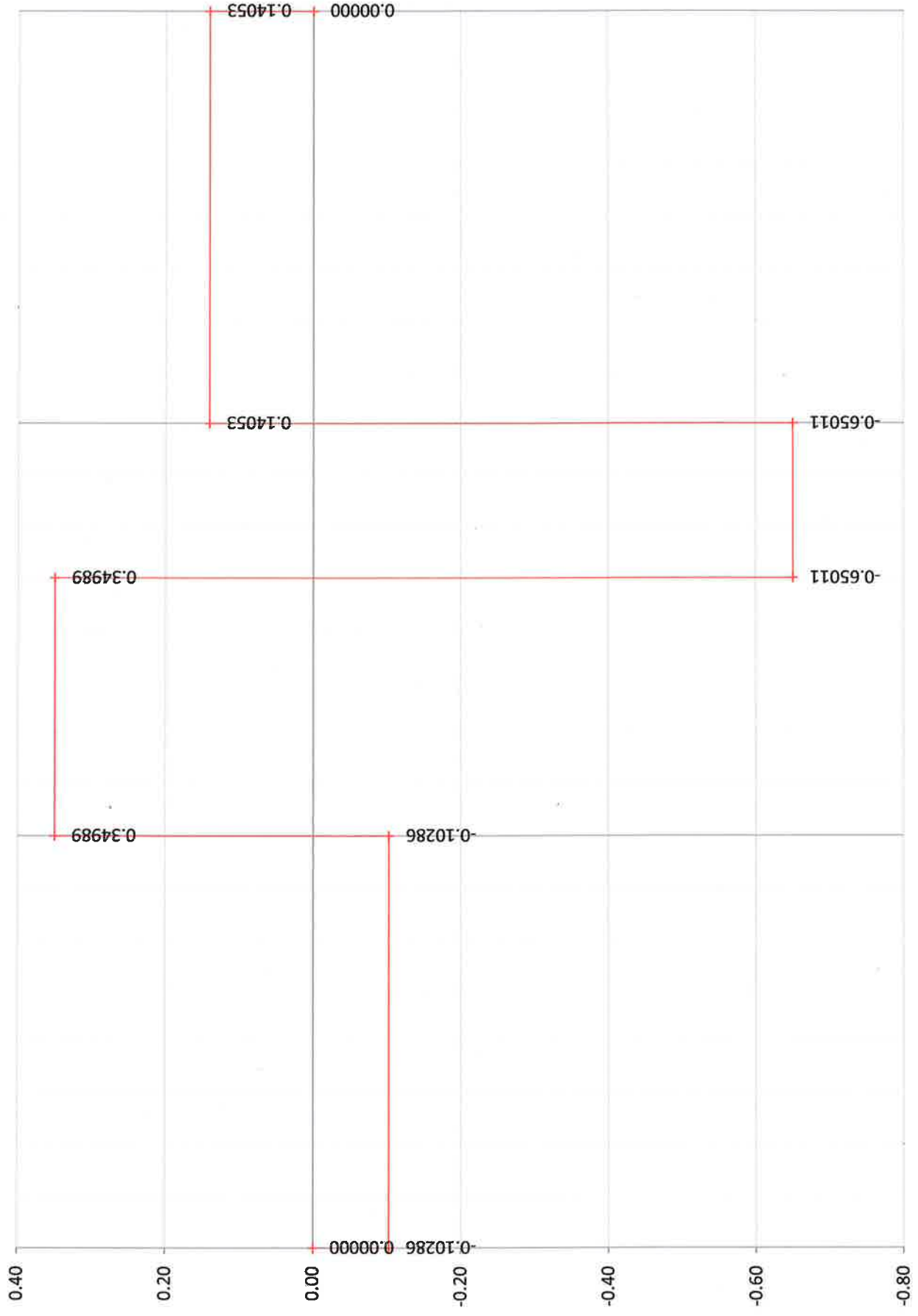


Fig 18

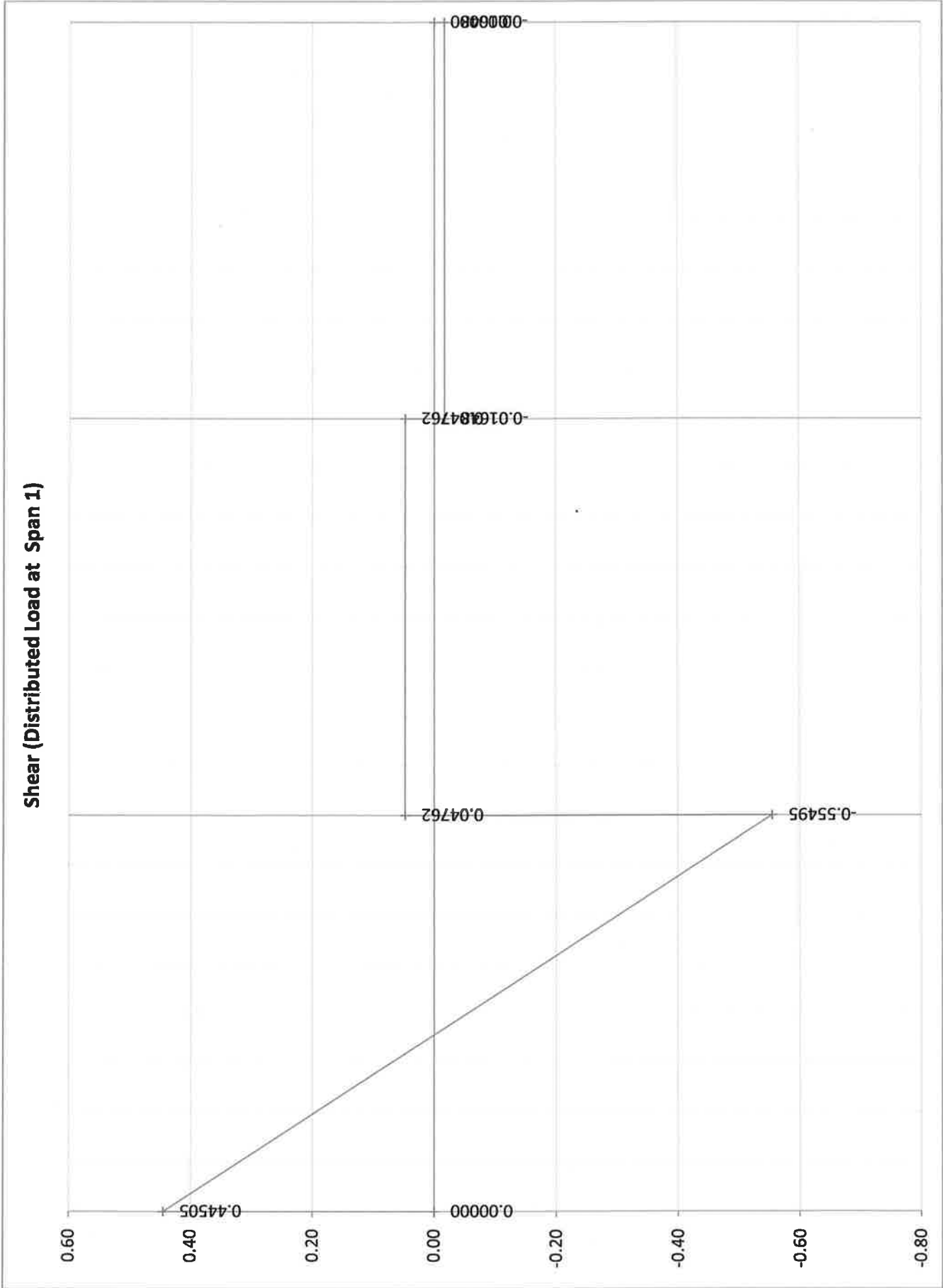


Fig. 19.

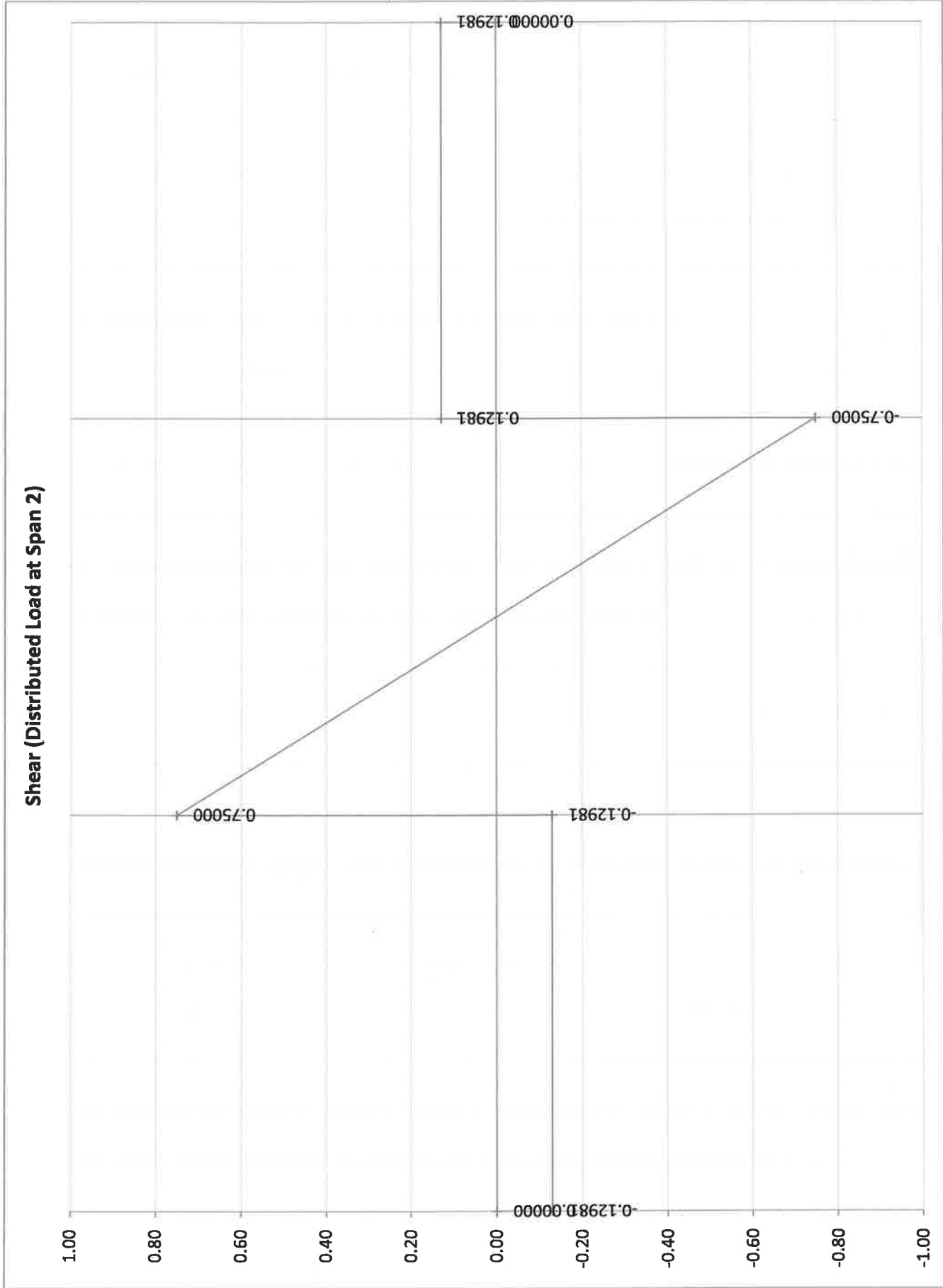


Fig 20

Shear (Distributed Load for all Spans)

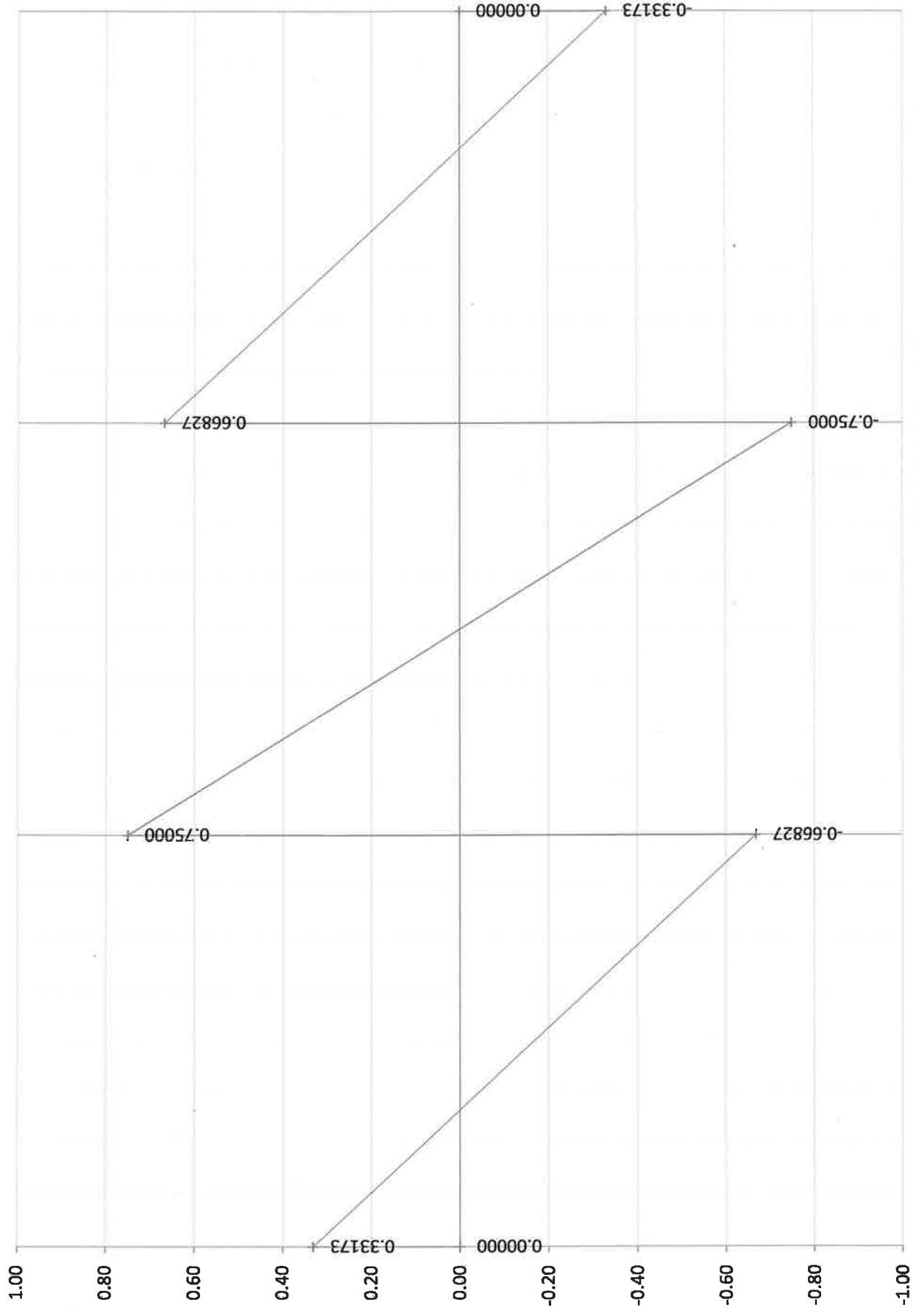


Fig 21

Deflection (Side Span 3/8 Point)

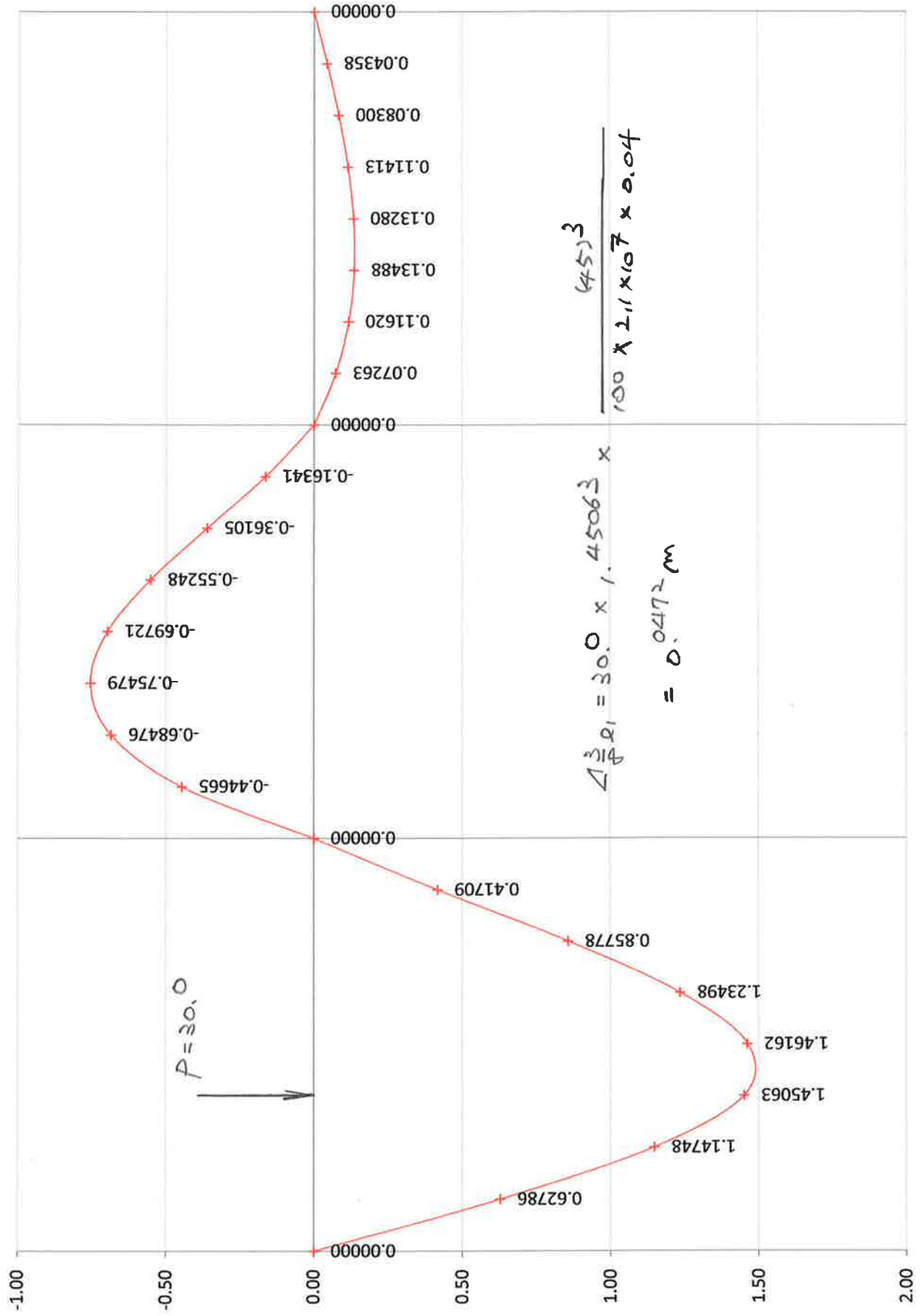


Fig 22

Deflection (Center Span 3/8 Point)

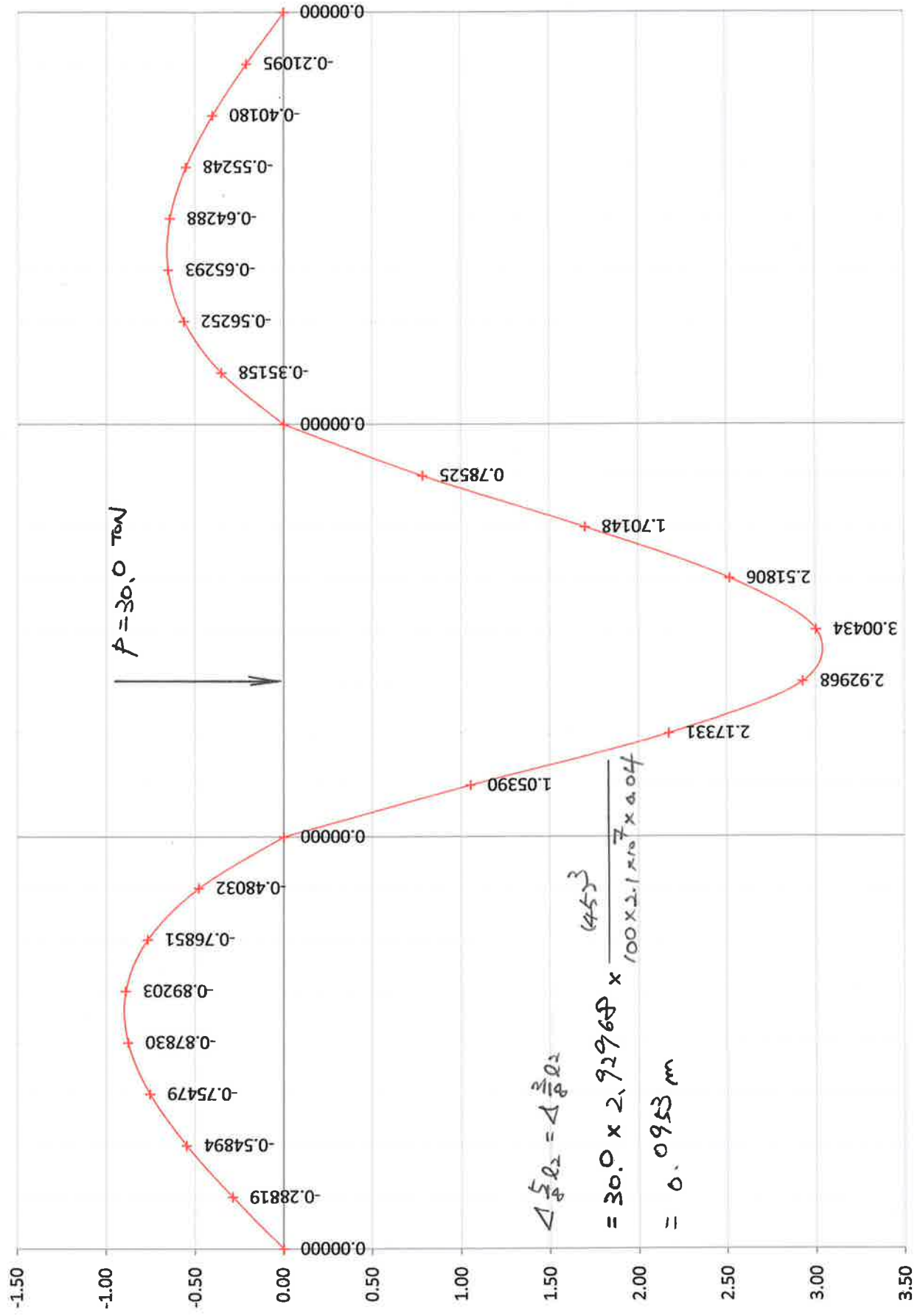


Fig. 23

Deflection (Distributed Load at Span 1)

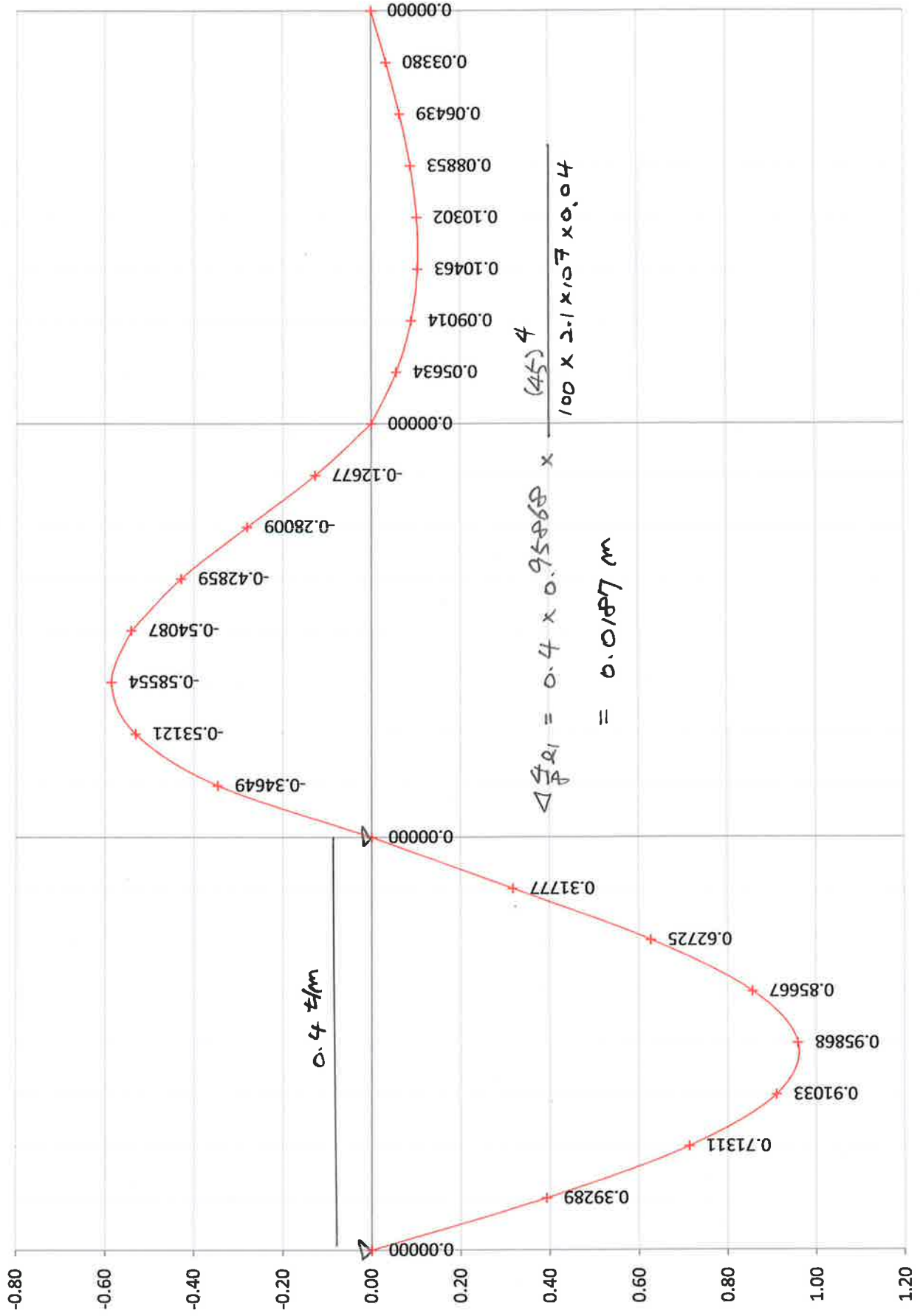
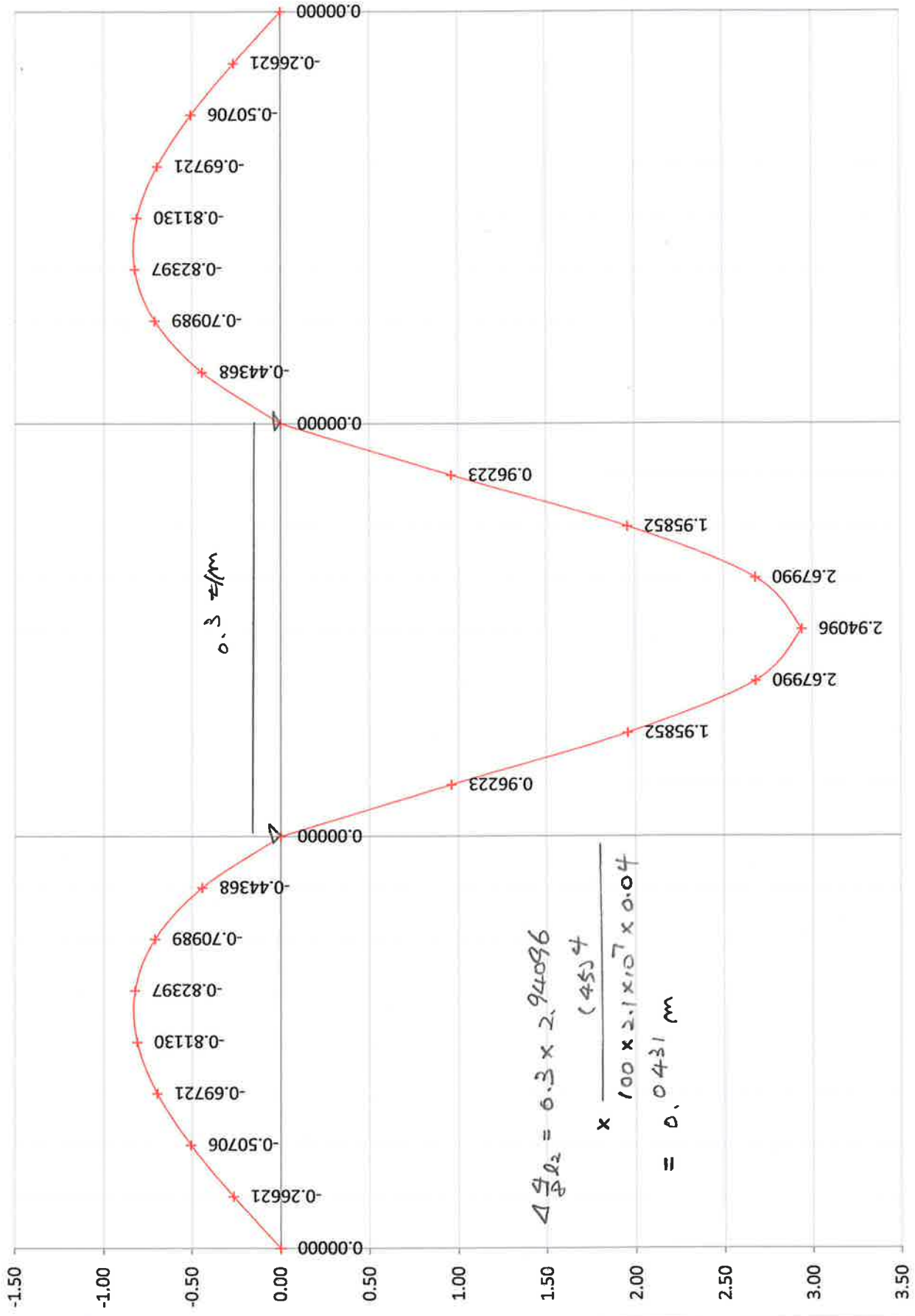


Fig 24

Deflection (Distributed Load at Span 2)



$$\Delta \frac{4}{8} l_2 = 6.3 \times 2.94096$$

$$\times \frac{(45)^4}{100 \times 2.1 \times 10^7 \times 0.04}$$

$$= 0.0431 \text{ m}$$

Fig 25

Deflection (Distributed Load for all Spans)

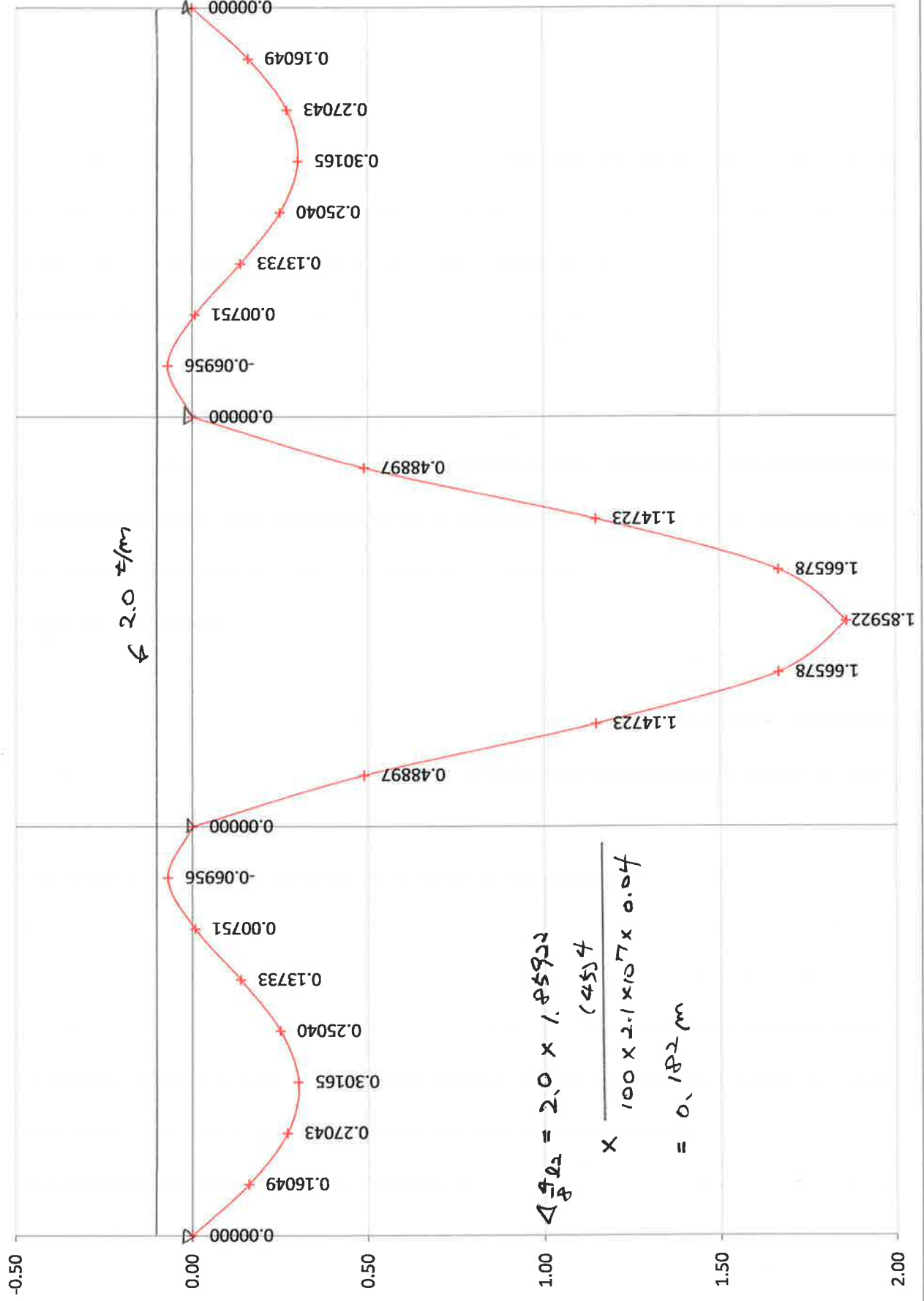


Fig 26