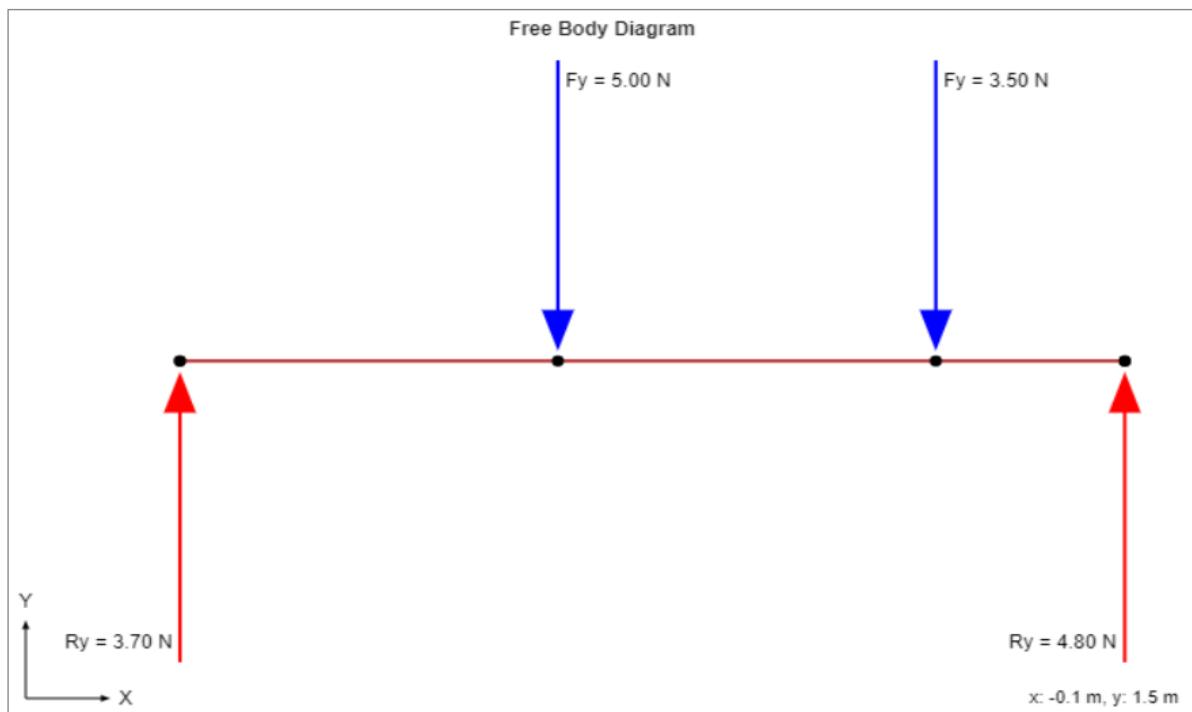
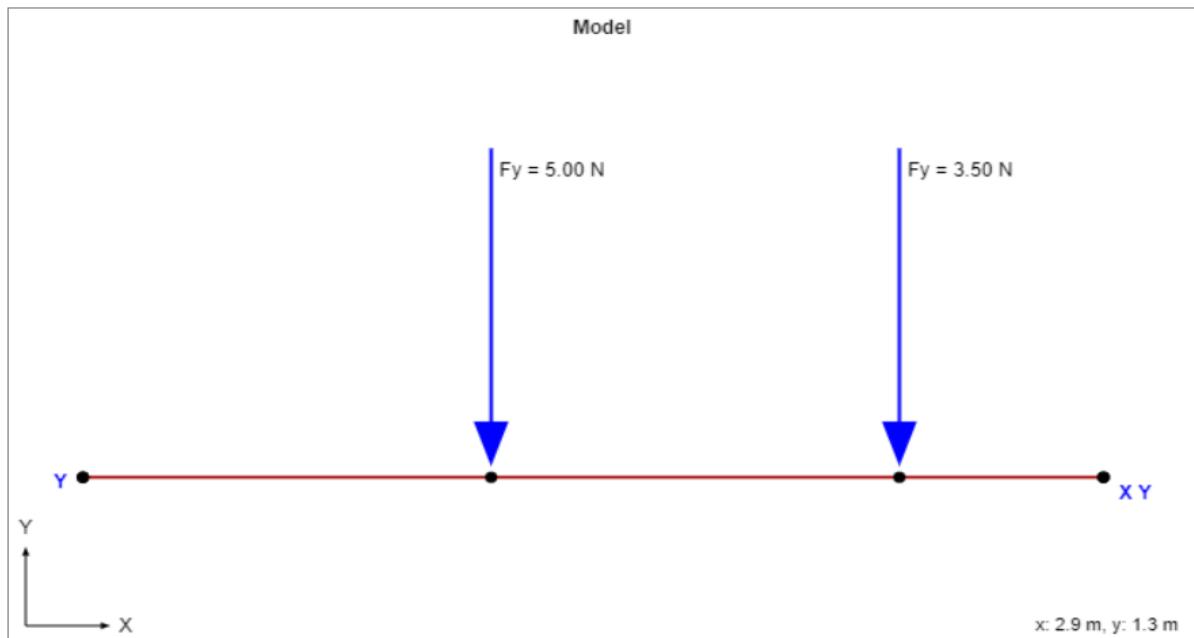


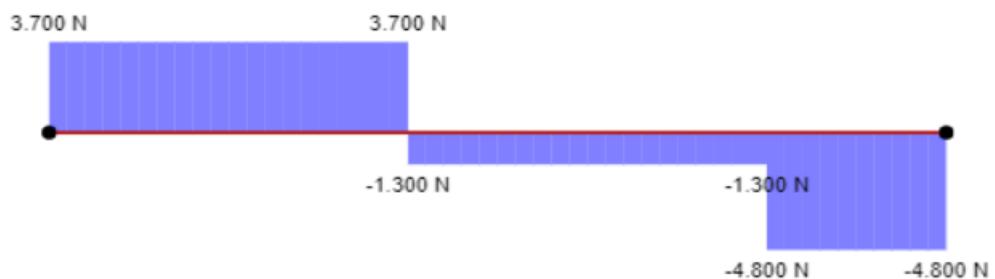
Validation Solutions

Note: For loading information please see excel sheet

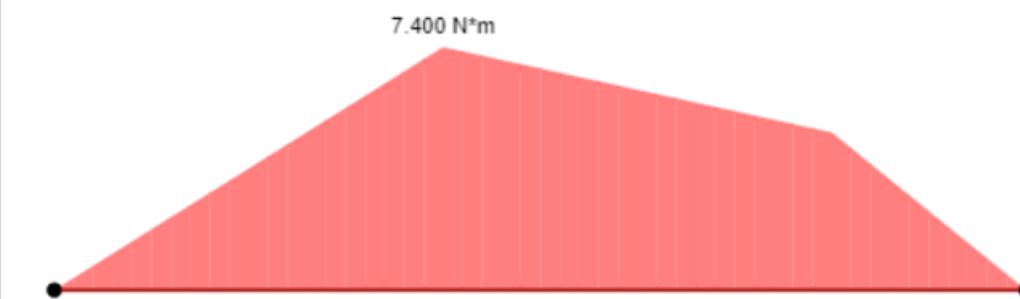
Case 1: Pin –Roller Rect-Section

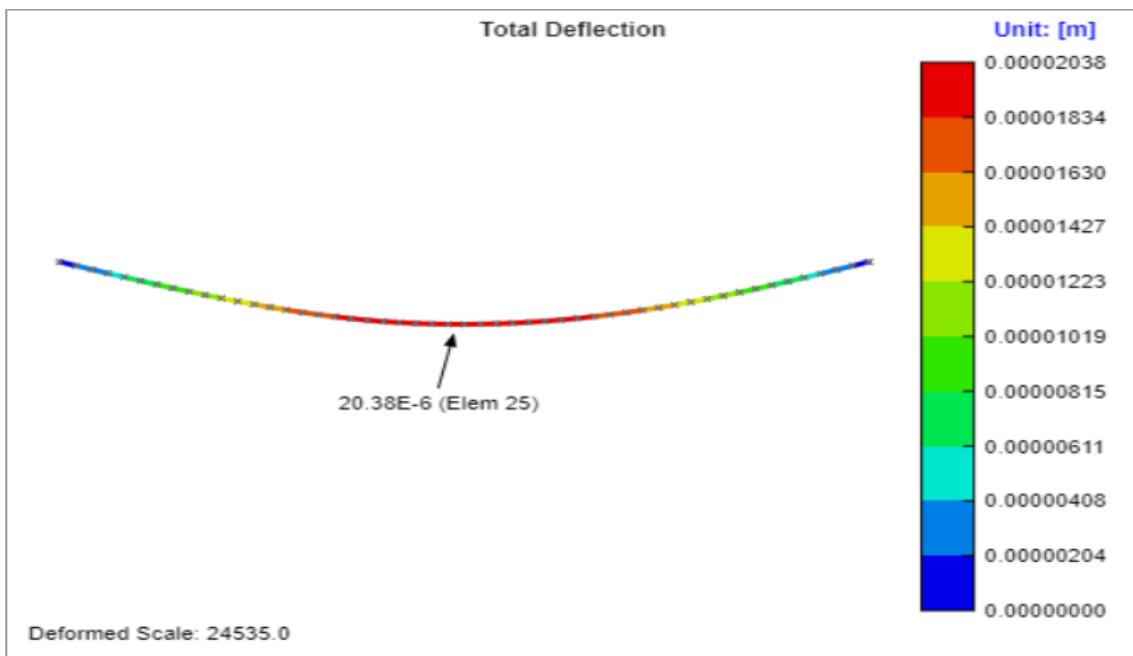


Shear Diagram



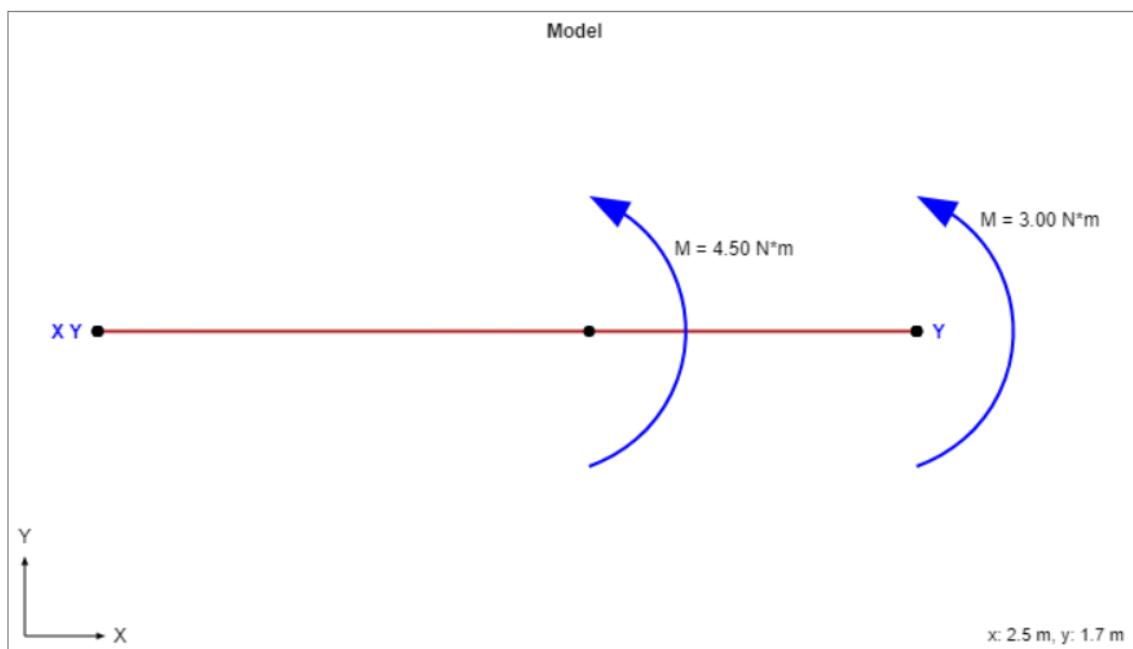
Moment Diagram



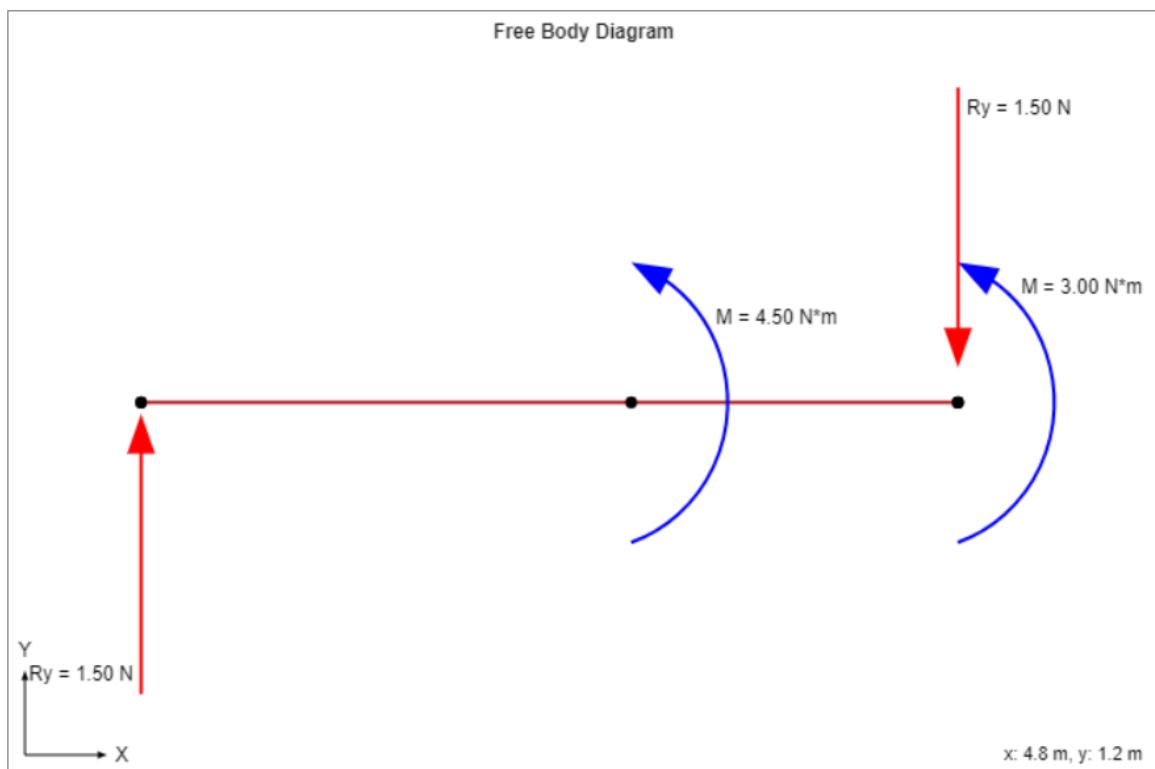


	Value	Location
Max Deflection:	20.38E-6 m	2.500 m
Max Slope:	0.0007486 deg	5.000 m

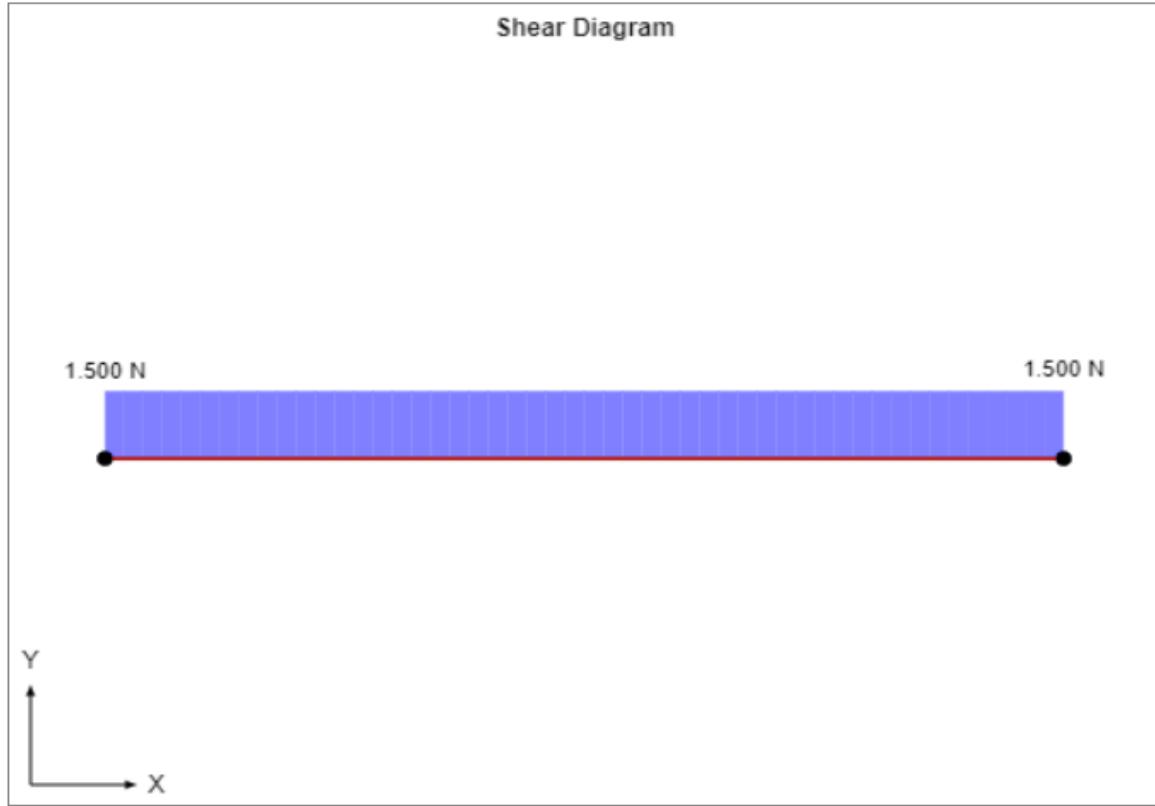
CASE 2: Pin –Roller Rect-Section

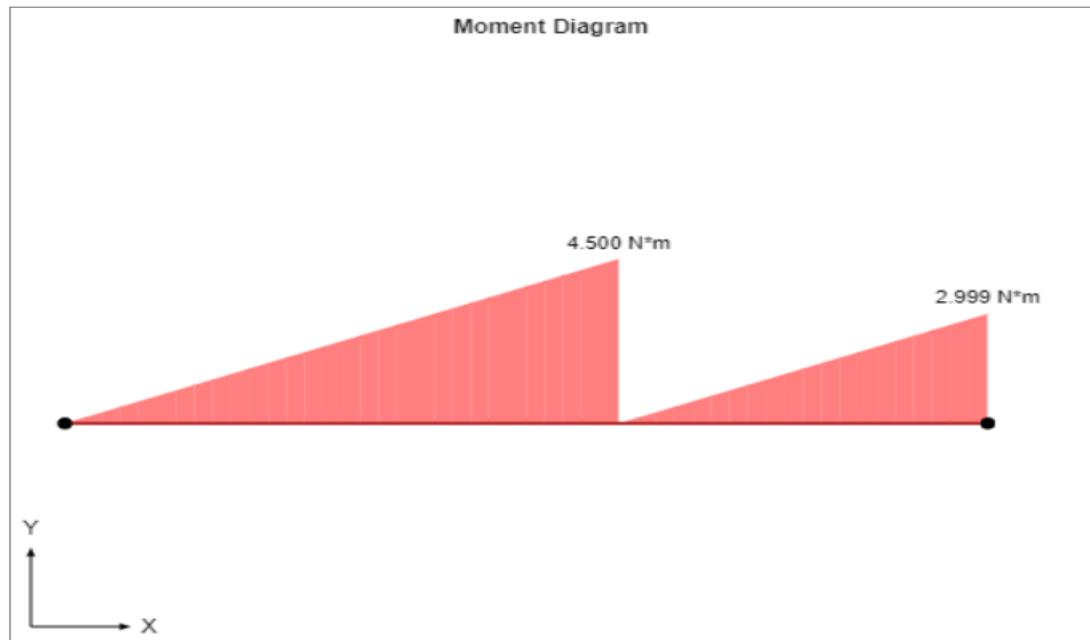


Free Body Diagram



Shear Diagram





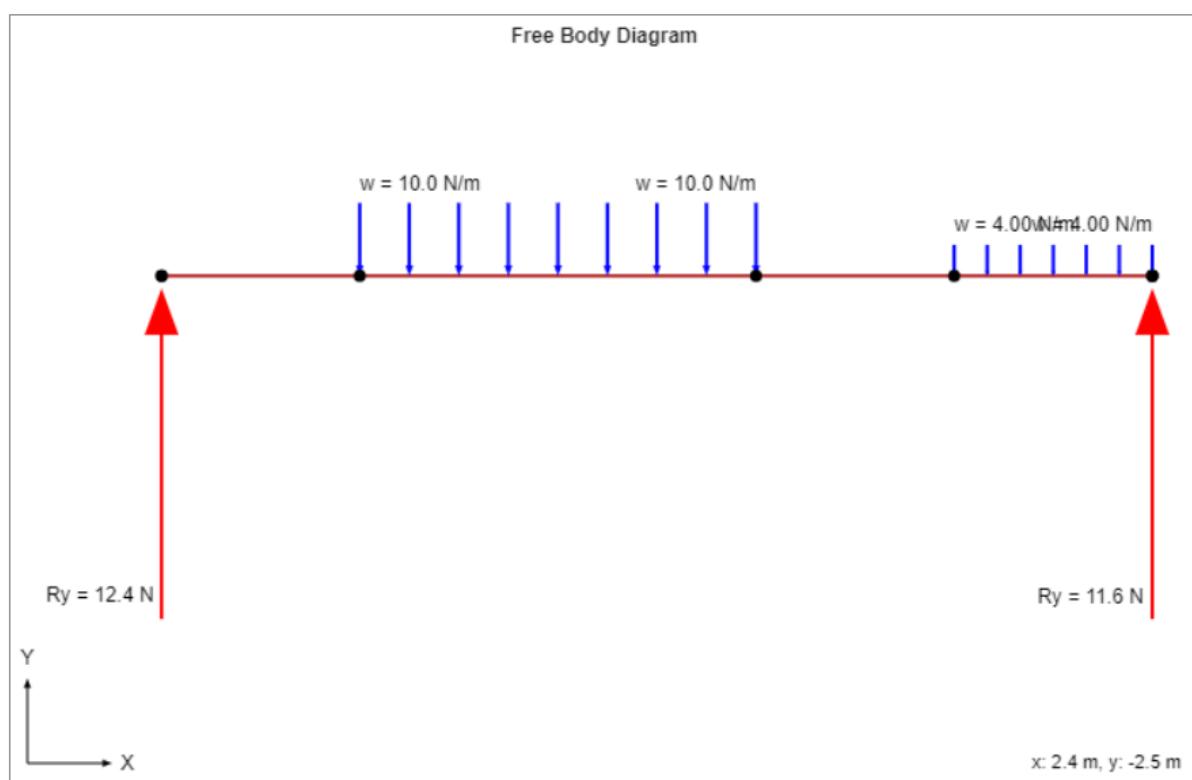
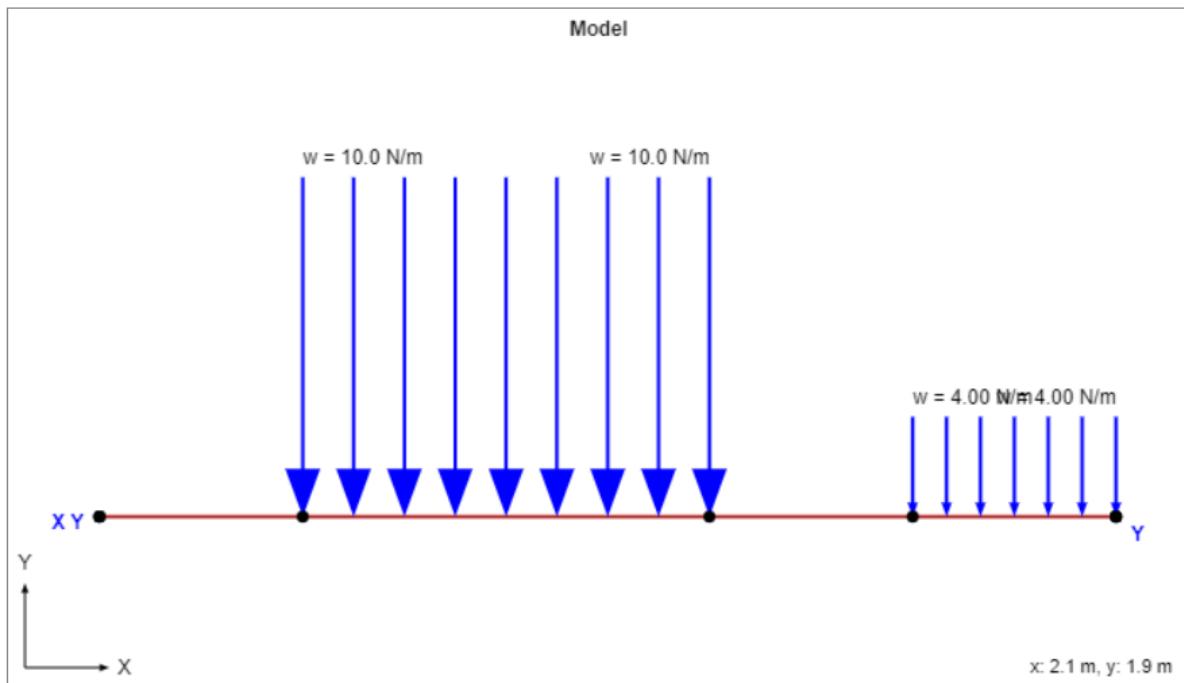
Moment Peak Values

Location	Value
3.000 m	4.500 N*m
4.999 m	2.999 N*m

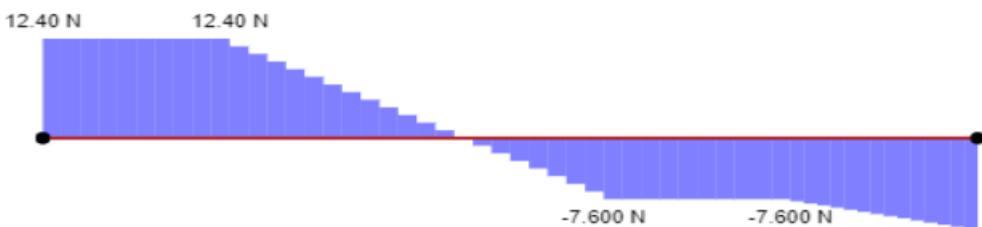


	Value	Location
Max Deflection:	8.428E-6 m	2.400 m
Max Slope:	0.0003541 deg	4.999 m

CASE 3: Pin –Roller Rect-Section



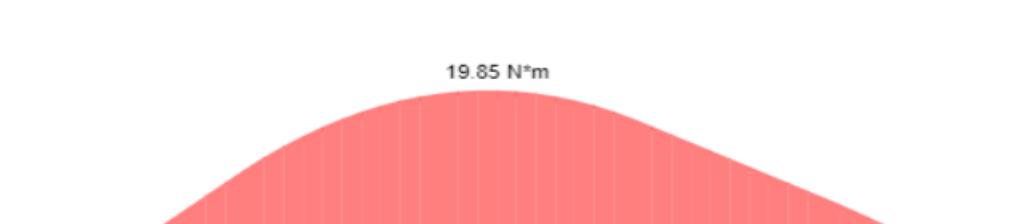
Shear Diagram



Shear Peak Values

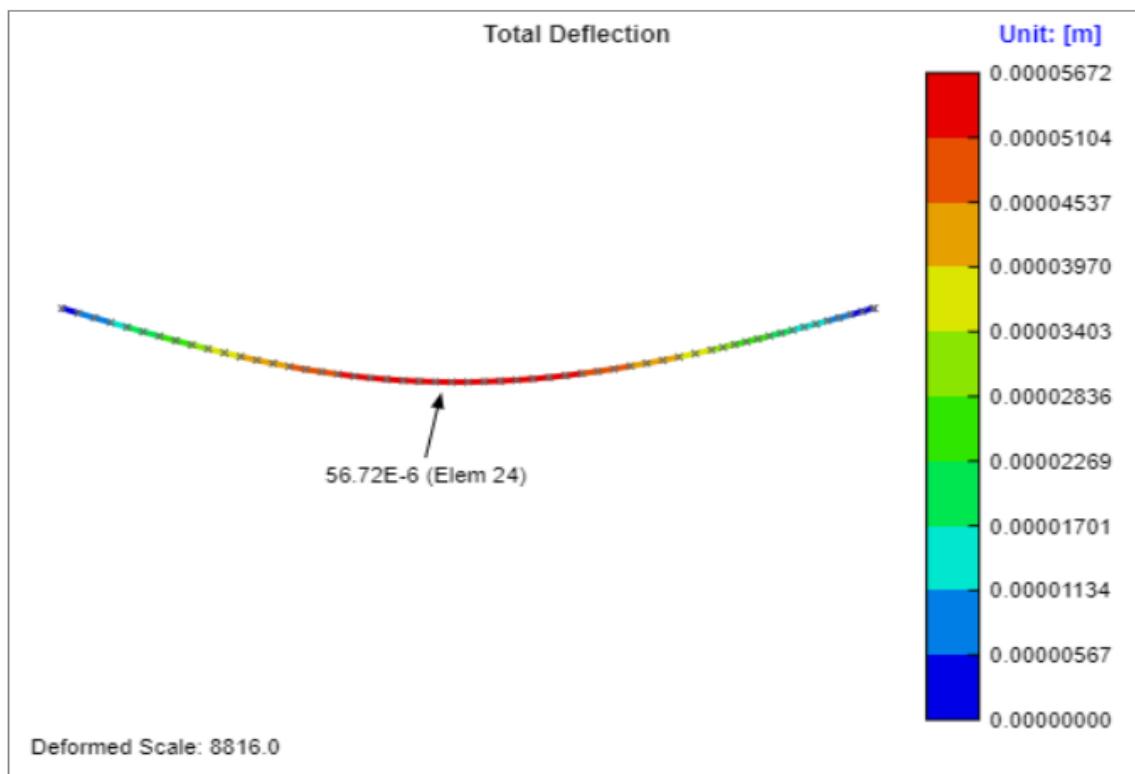
Location	Value
0.000 m	12.40 N
1.000 m	12.40 N
3.000 m	-7.600 N
4.000 m	-7.600 N

Moment Diagram



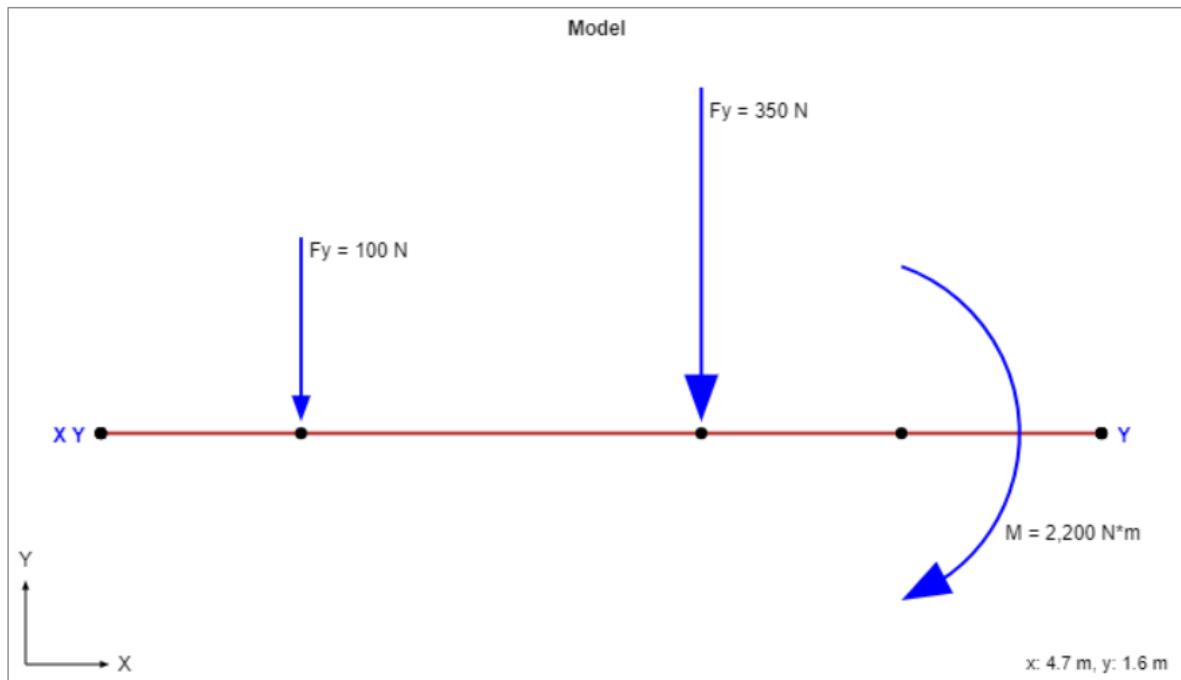
Moment Peak Values

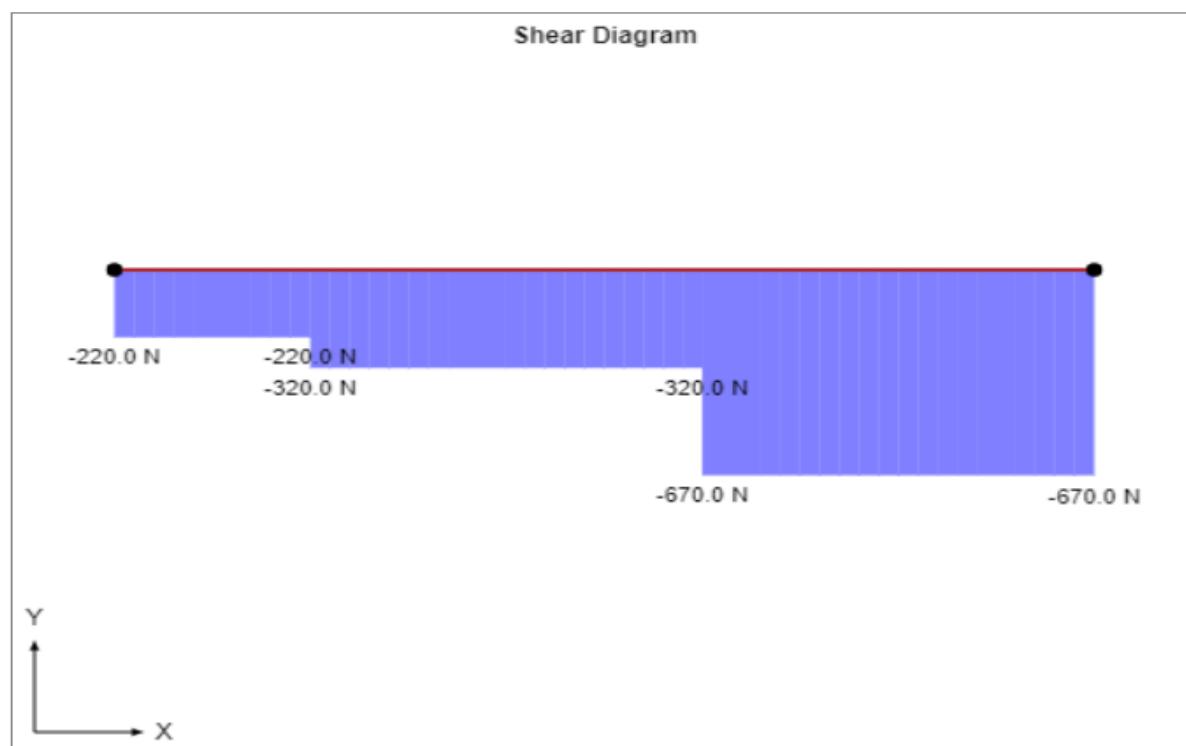
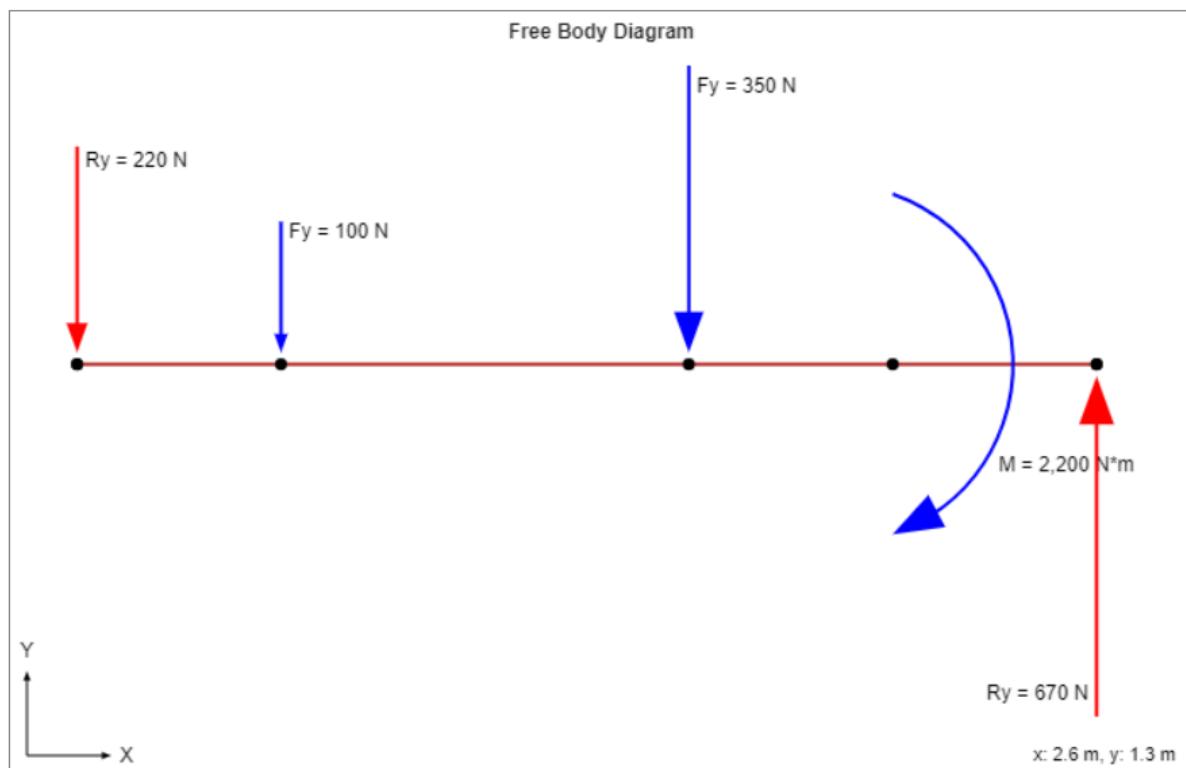
Location	Value
2.300 m	$19.85\text{ N}\cdot\text{m}$



	Value	Location
Max Deflection:	56.72E-6 m	2.400 m
Max Slope:	-0.002101 deg	0.000 m

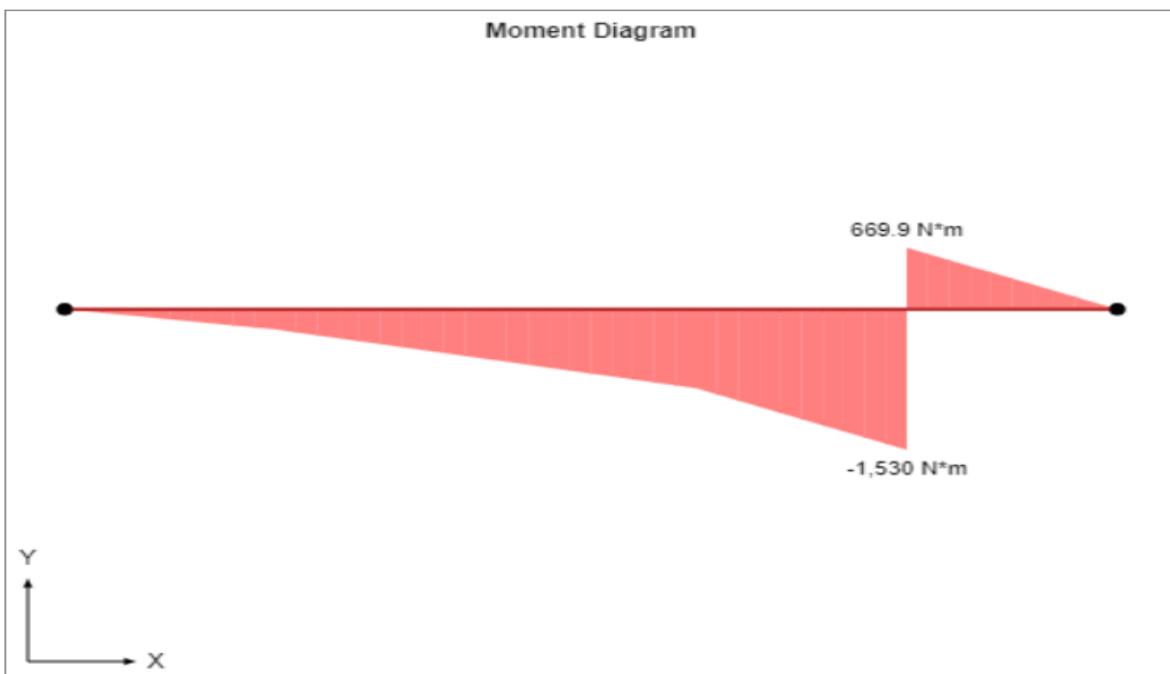
CASE 4: Pin –Roller Rect-Section





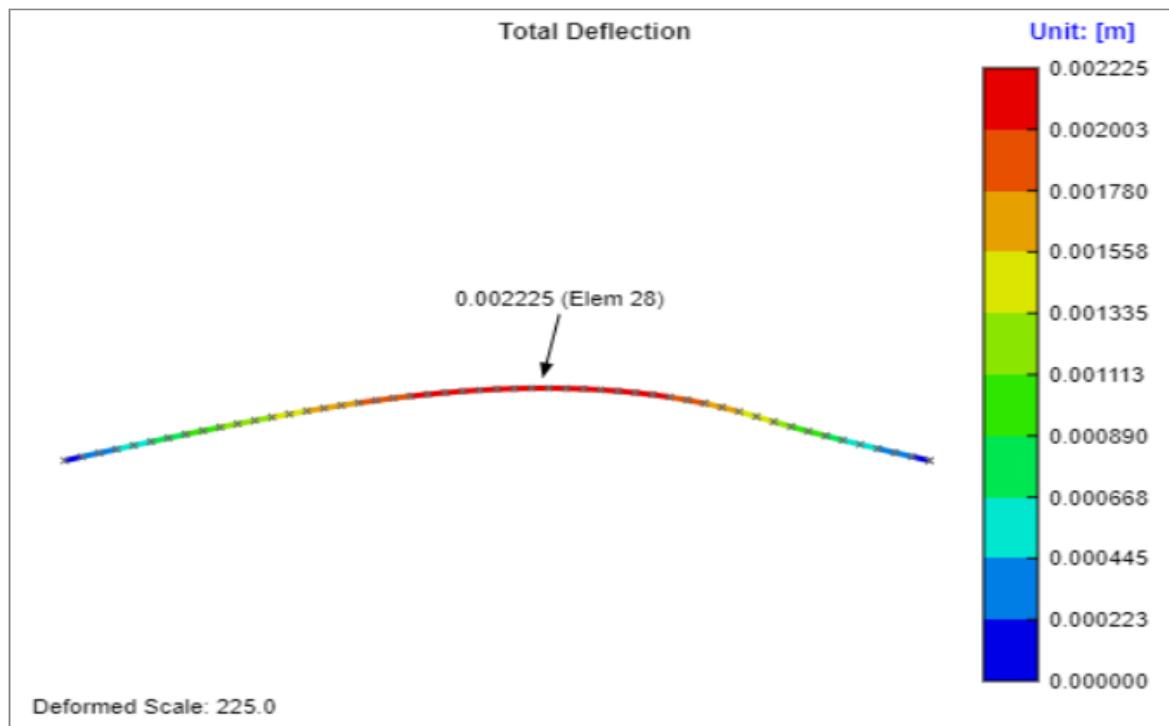
Shear Peak Values

Location	Value
0.000 m	-220.0 N
1.000 m	-220.0 N
1.000 m	-320.0 N
3.000 m	-320.0 N
3.000 m	-670.0 N
5.000 m	-670.0 N



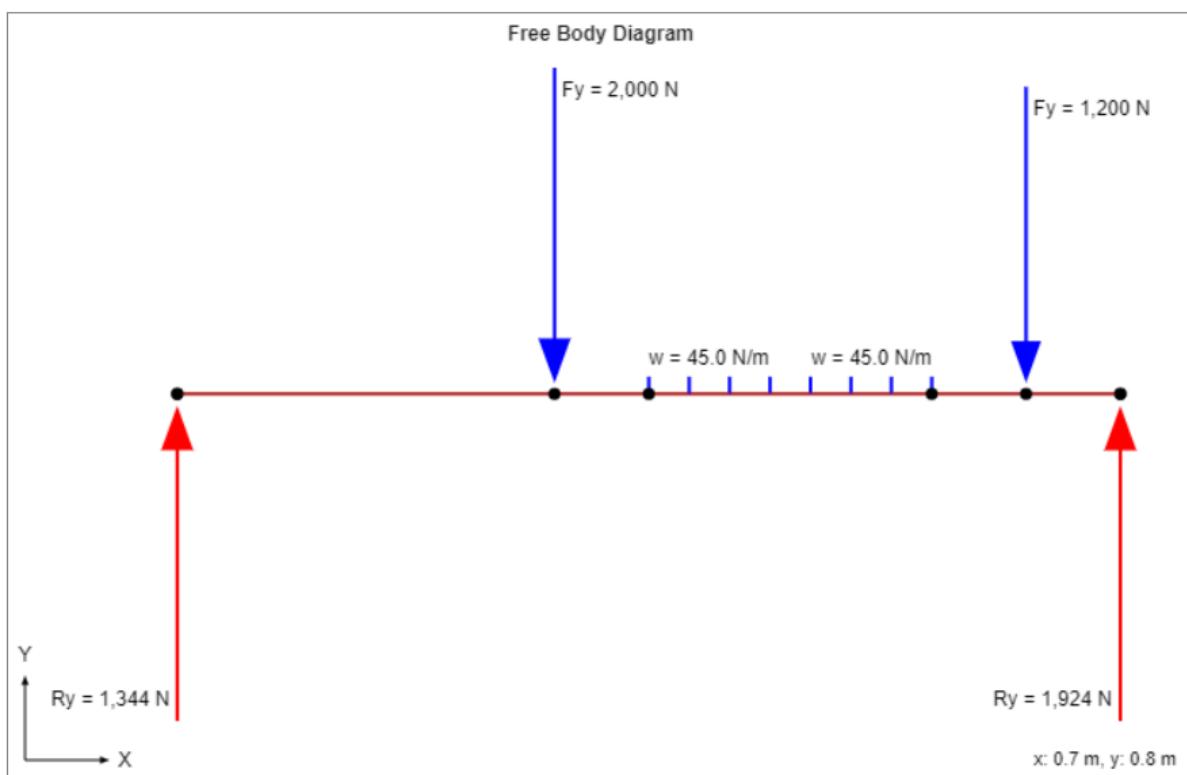
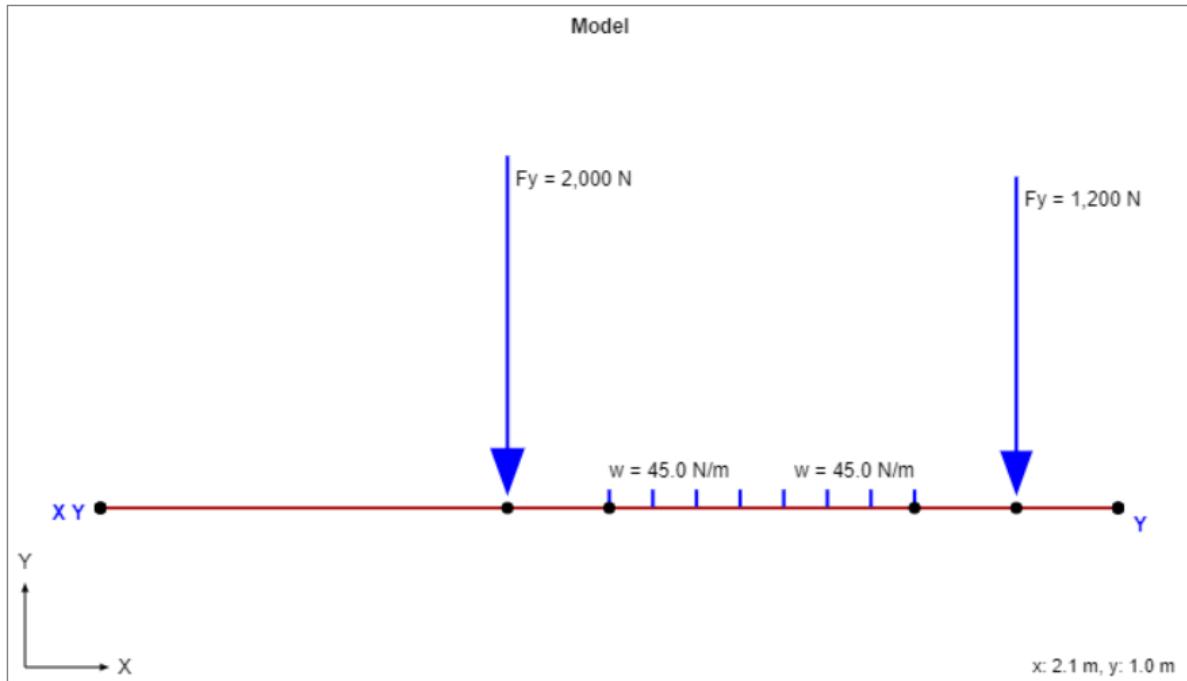
Moment Peak Values

Location	Value
4.000 m	-1,530 N*m
4.000 m	669.9 N*m

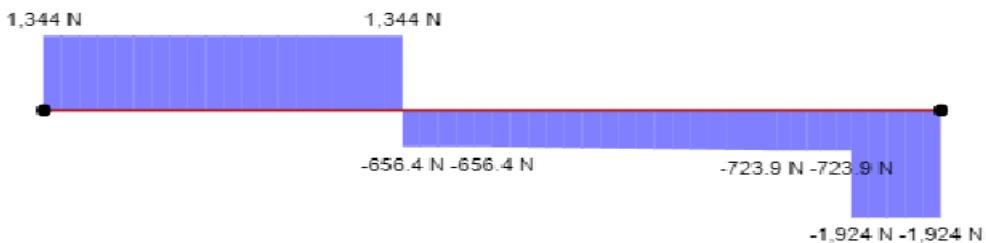


	Value	Location
Max Deflection:	0.002225 m	2.800 m
Max Slope:	-0.09237 deg	4.000 m

CASE 5: Pin –Roller Rect-Section



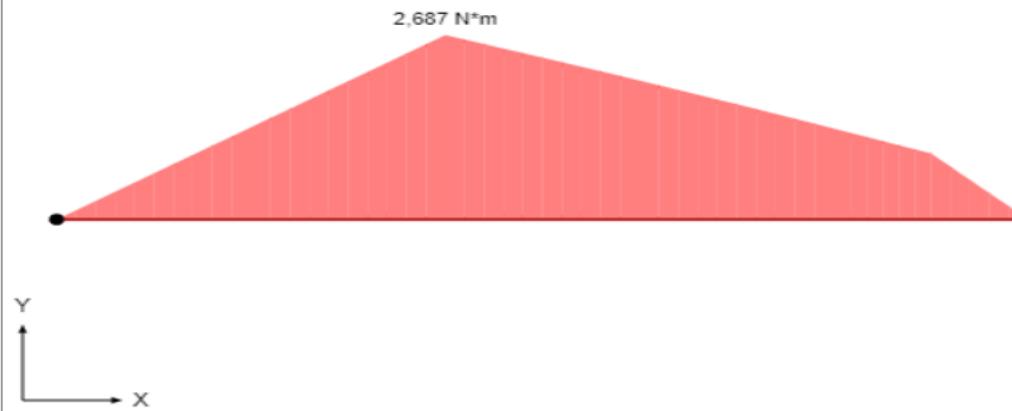
Shear Diagram



Shear Peak Values

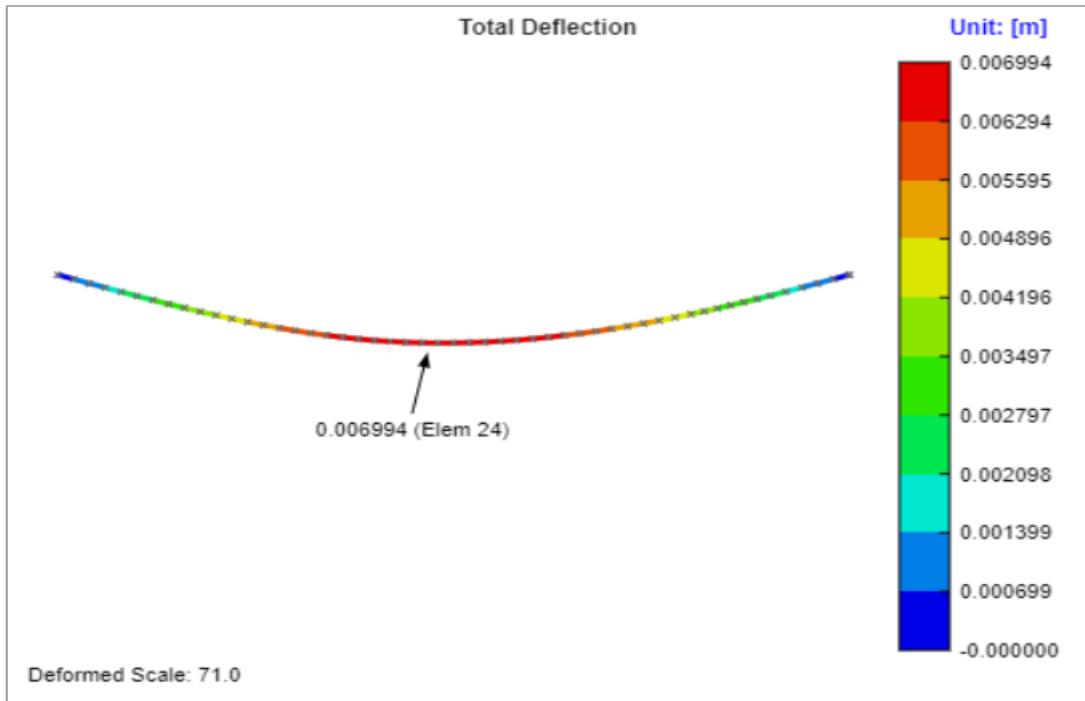
Location	Value
0.000 m	1,344 N
2.000 m	1,344 N
2.000 m	-656.4 N
2.500 m	-656.4 N
4.000 m	-723.9 N
4.500 m	-723.9 N
4.500 m	-1,924 N
5.000 m	-1,924 N

Moment Diagram



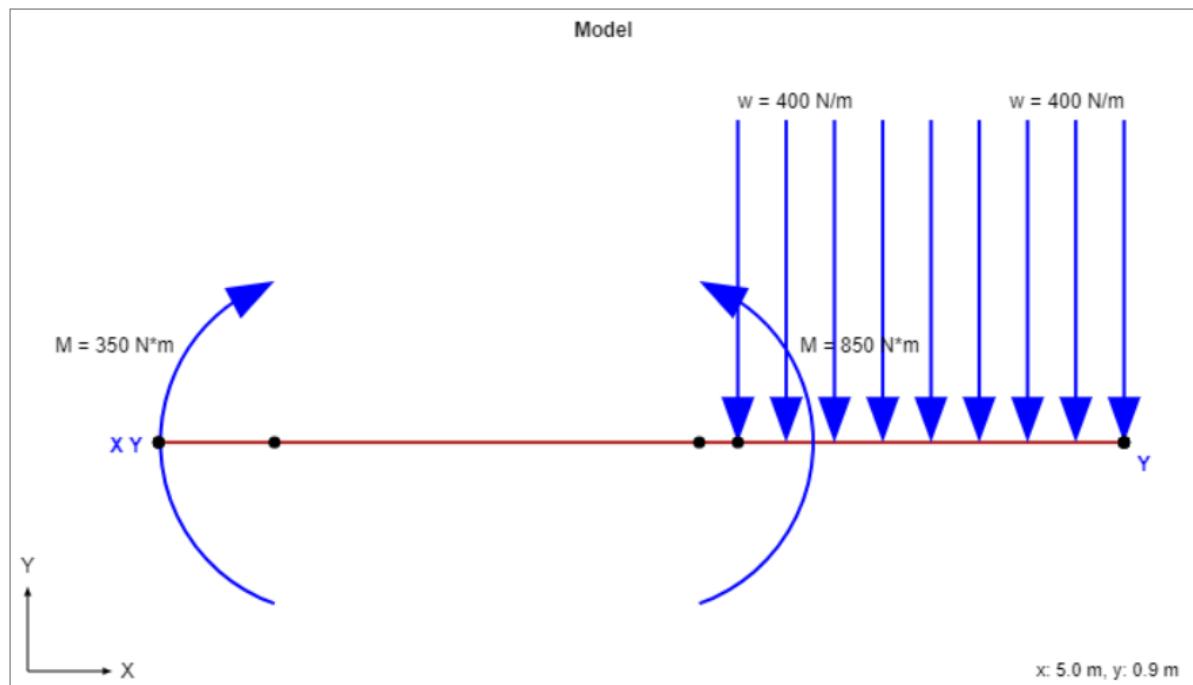
Moment Peak Values

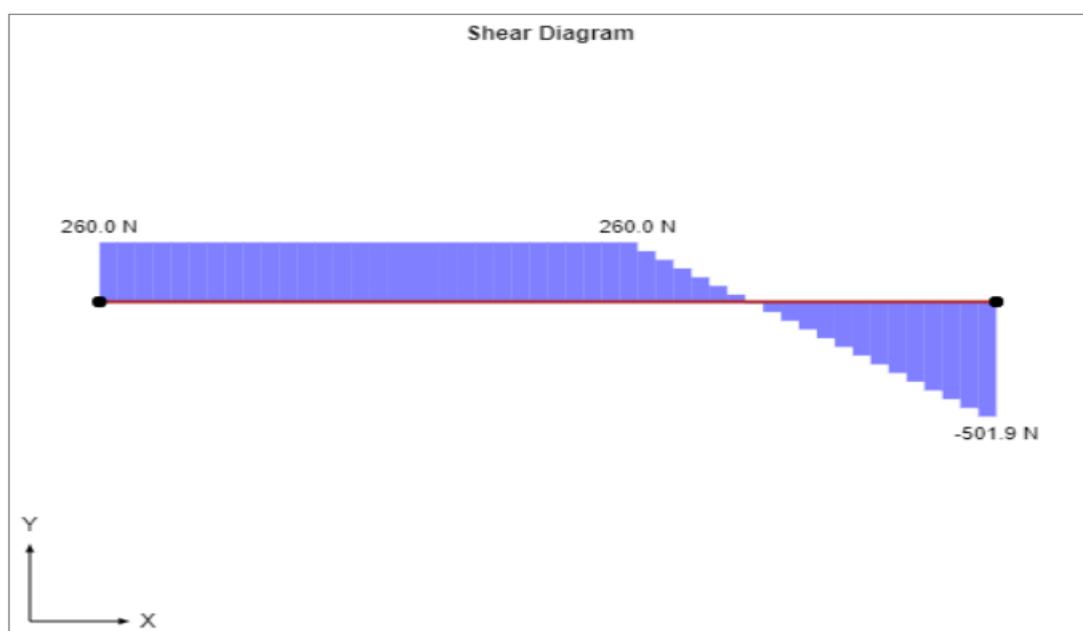
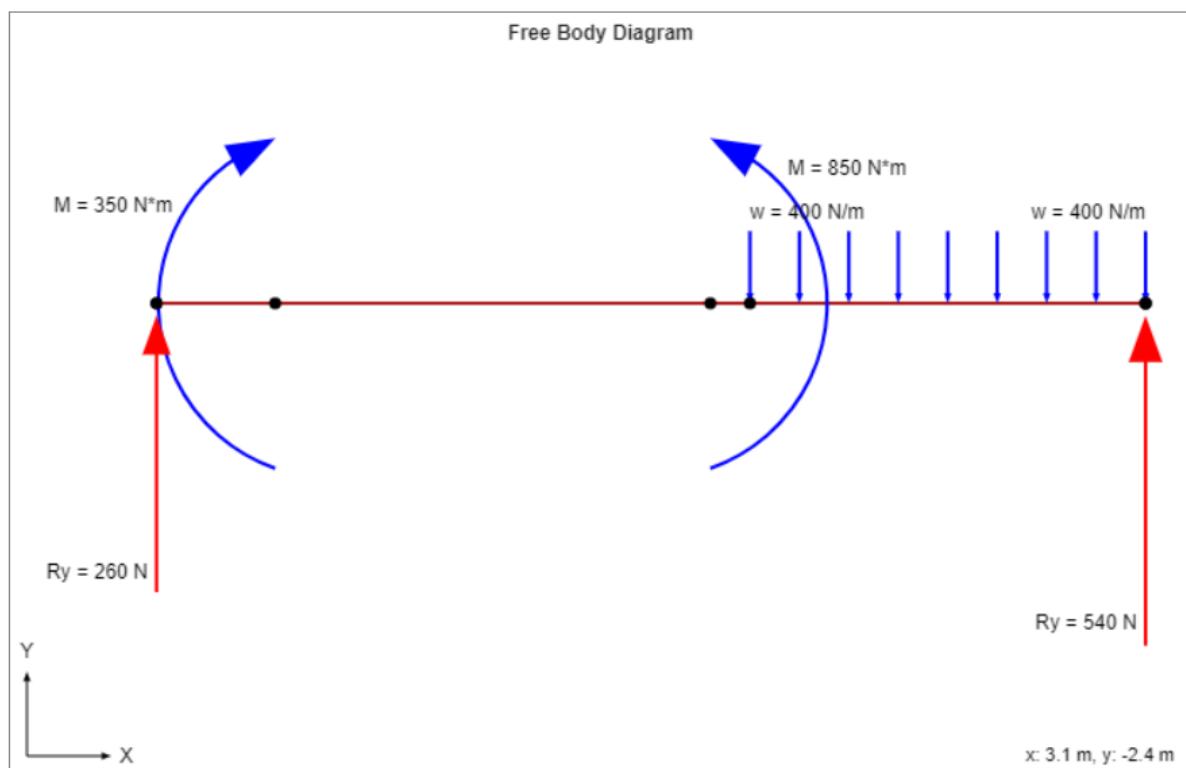
Location	Value
2.000 m	2,687 N*m



	Value	Location
Max Deflection:	0.006994 m	2.400 m
Max Slope:	-0.2526 deg	0.000 m

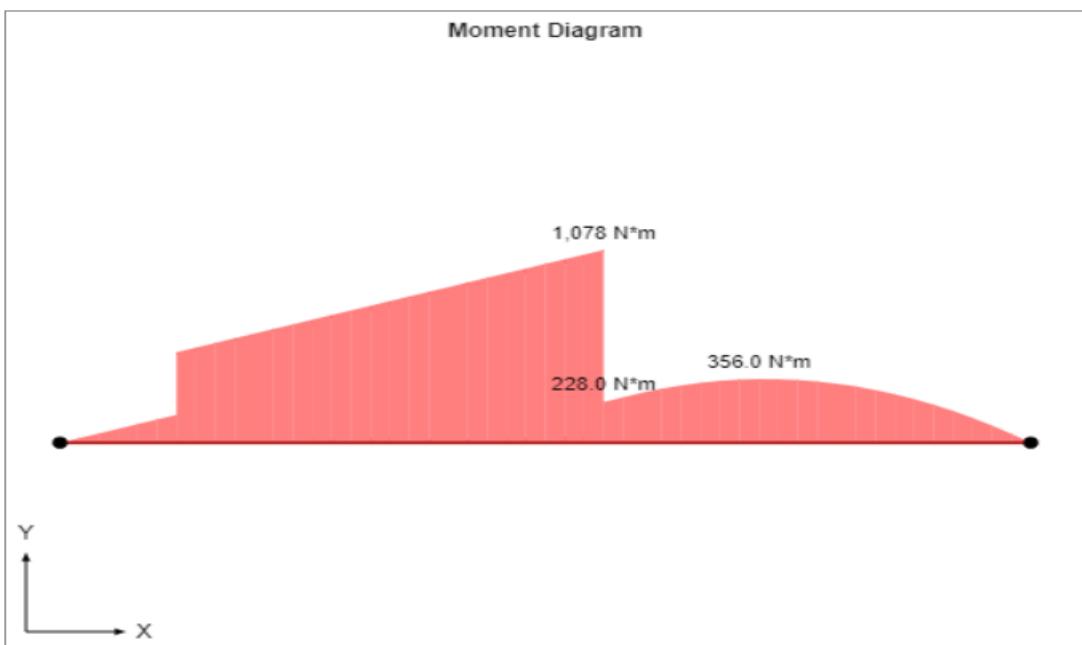
CASE 6: Pin –Roller Rect-Section





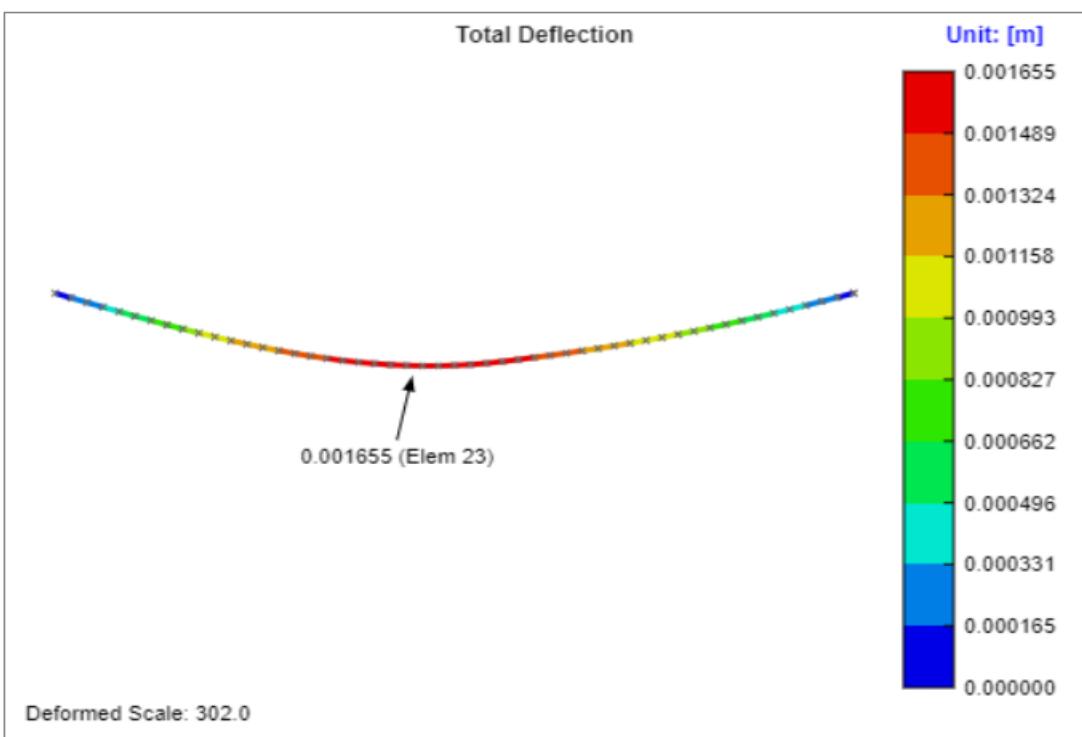
Shear Peak Values

Location	Value
0.000 m	260.0 N
3.000 m	260.0 N
5.000 m	-501.9 N



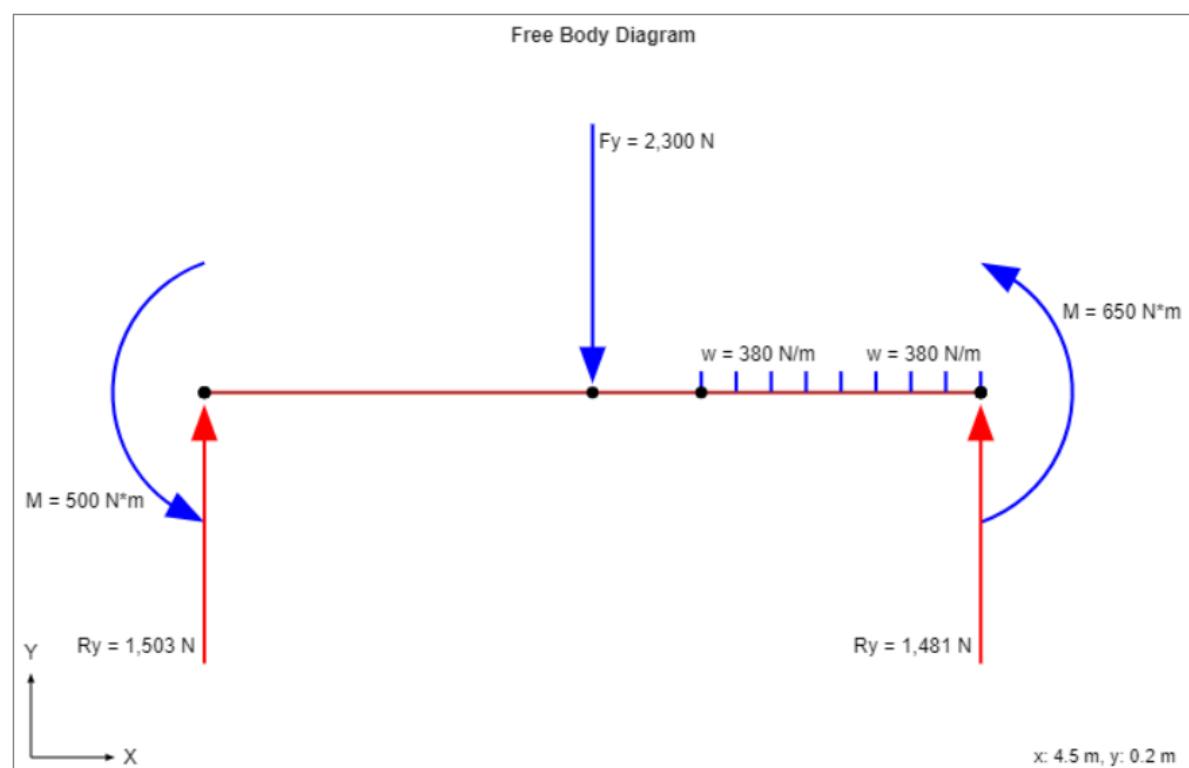
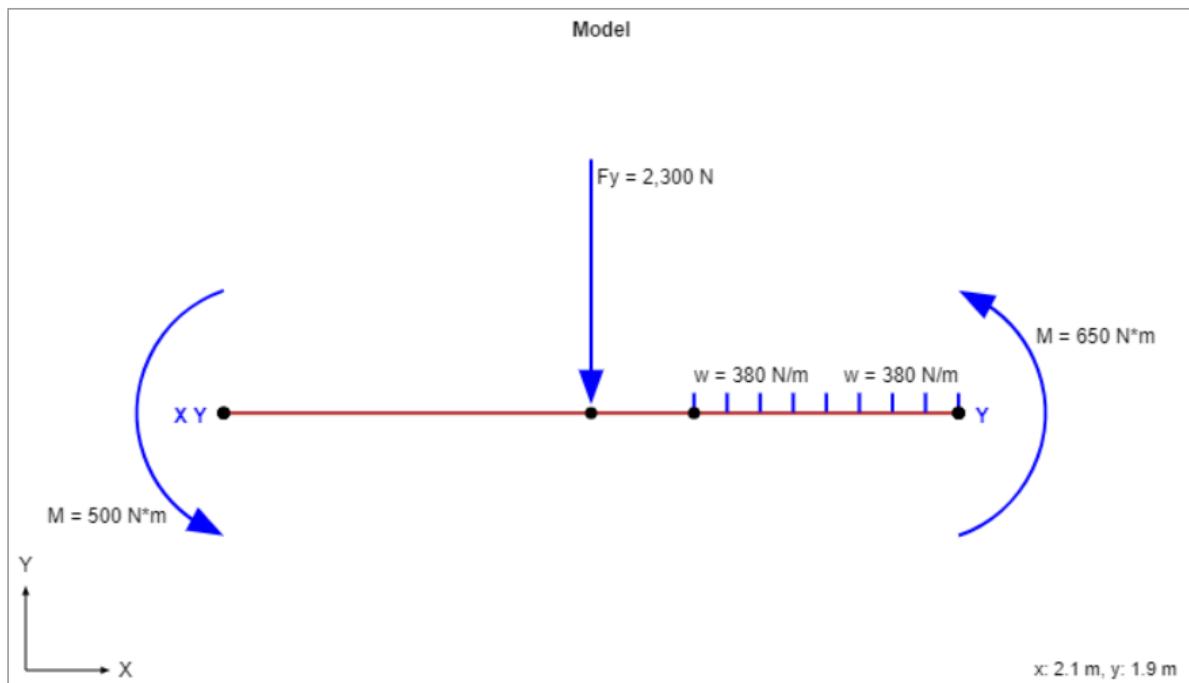
Moment Peak Values

Location	Value
2.800 m	1,078 N*m
2.800 m	228.0 N*m
3.600 m	356.0 N*m

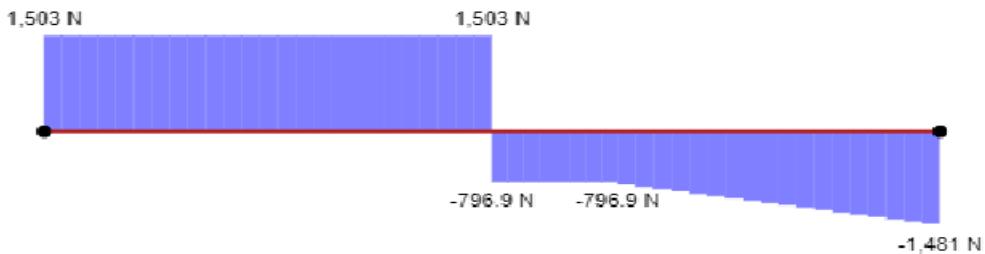


	Value	Location
Max Deflection:	0.001655 m	2.300 m
Max Slope:	-0.06067 deg	0.000 m

CASE 7: Pin –Roller Rect-Section



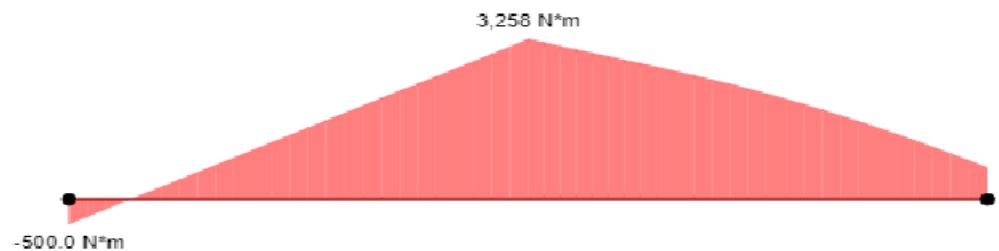
Shear Diagram



Shear Peak Values

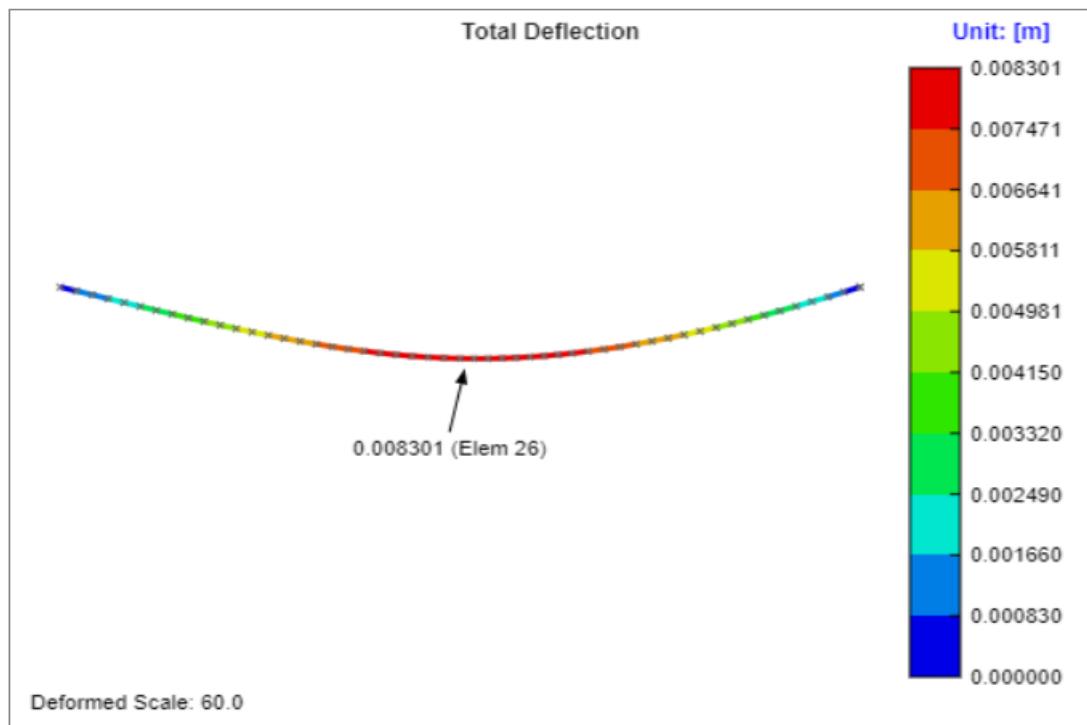
Location	Value
0.000 m	1,503 N
2.500 m	1,503 N
2.500 m	-796.9 N
3.200 m	-796.9 N
5.000 m	-1,481 N

Moment Diagram



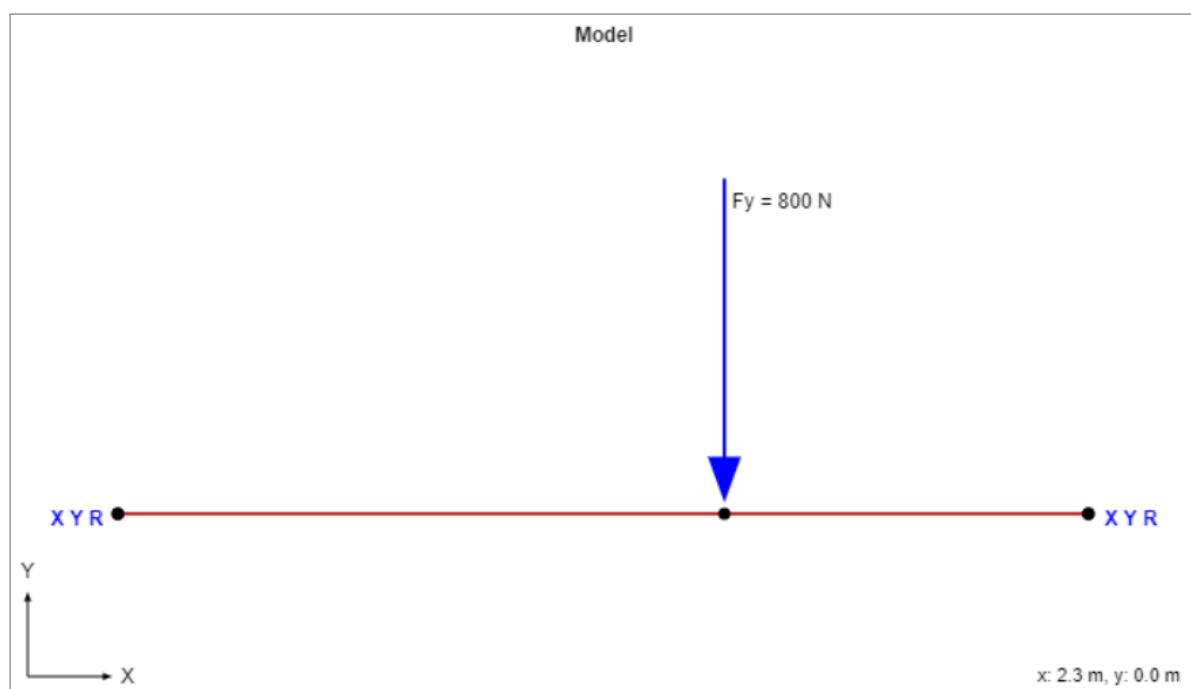
Moment Peak Values

Location	Value
0.000 m	-500.0 N*m
2.500 m	3,258 N*m

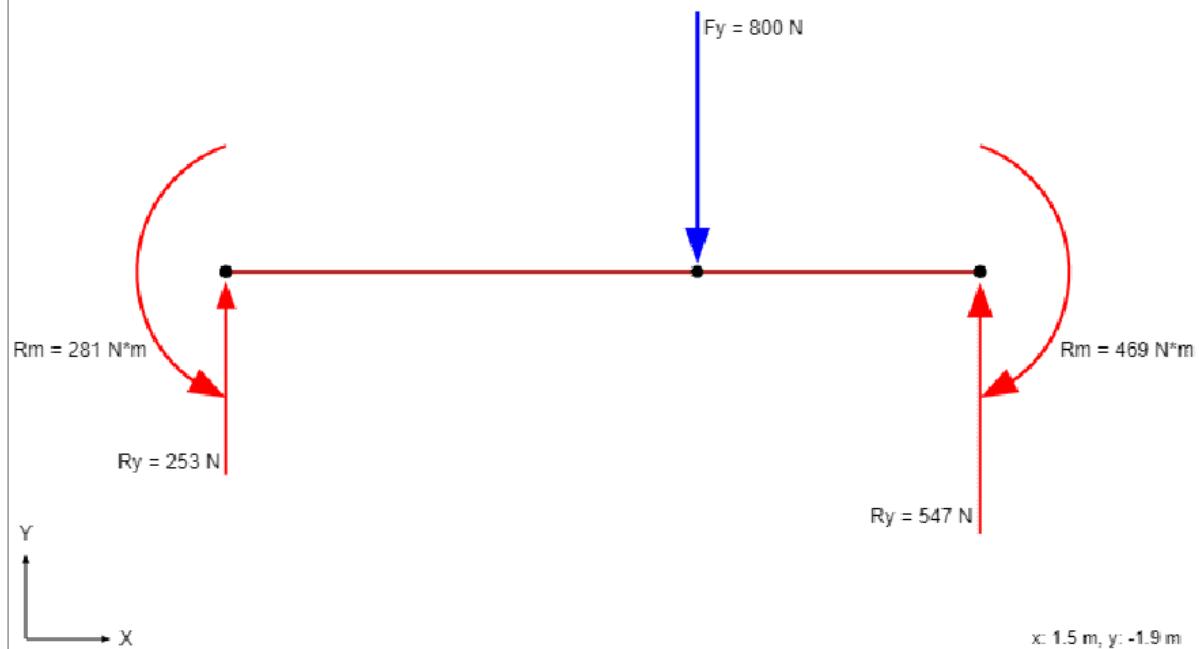


	Value	Location
Max Deflection:	0.008301 m	2.587 m
Max Slope:	0.3303 deg	5.000 m

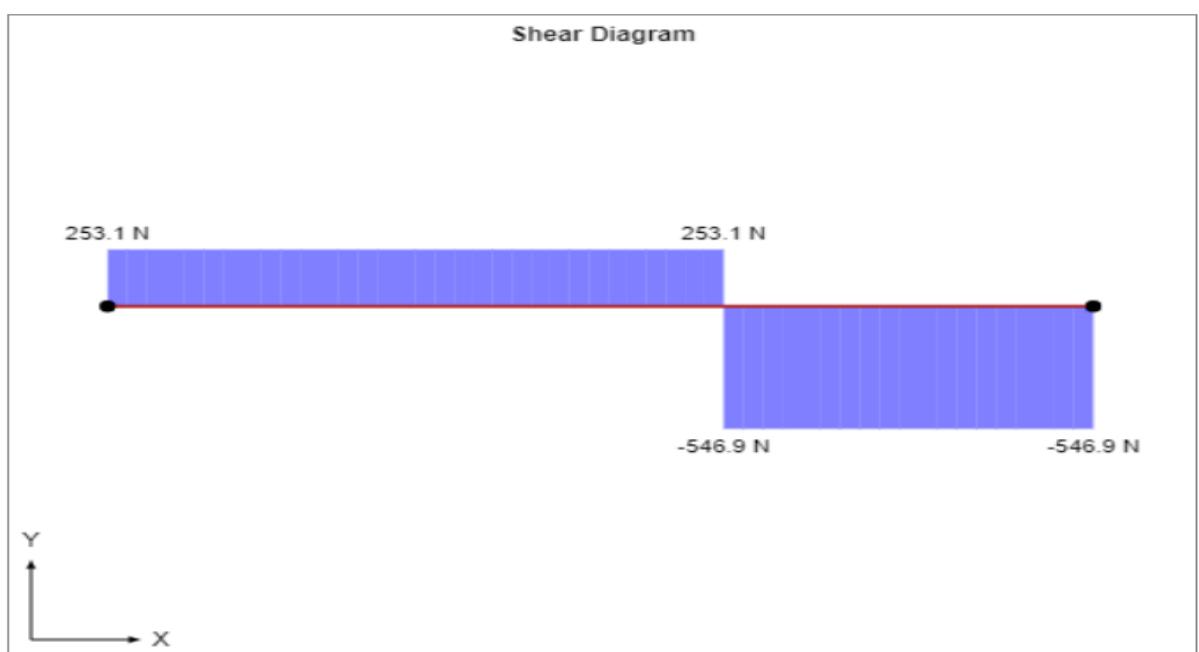
Case 8: Fixed – Fixed: I- Section



Free Body Diagram

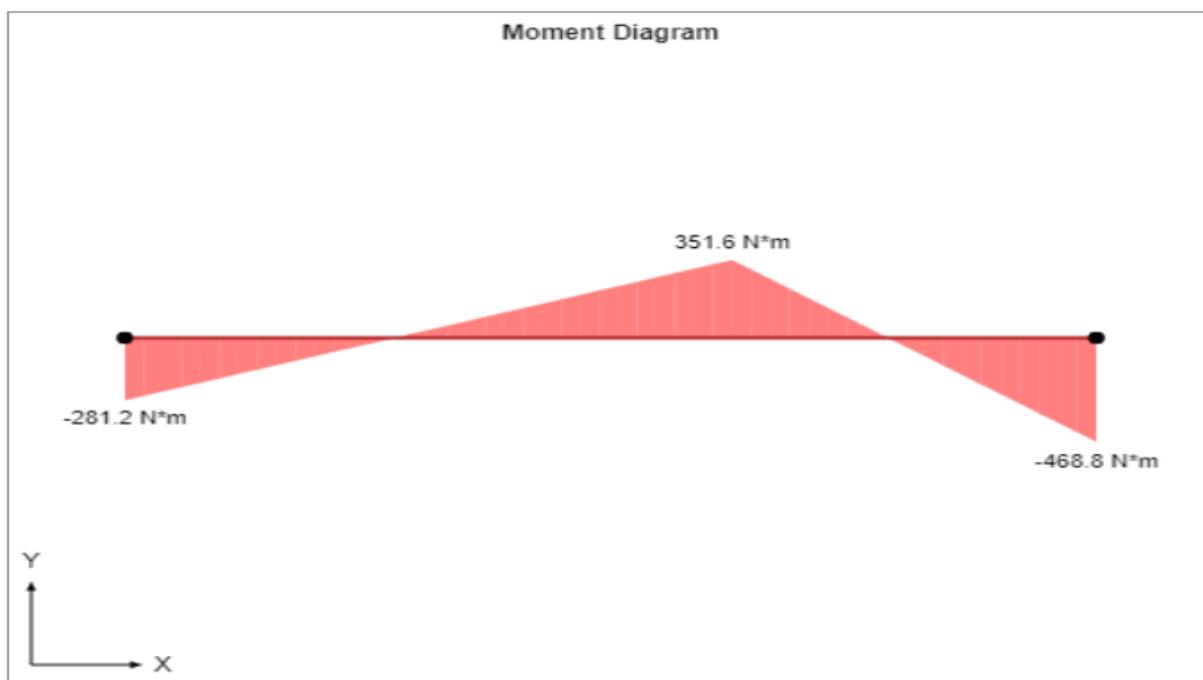


Shear Diagram



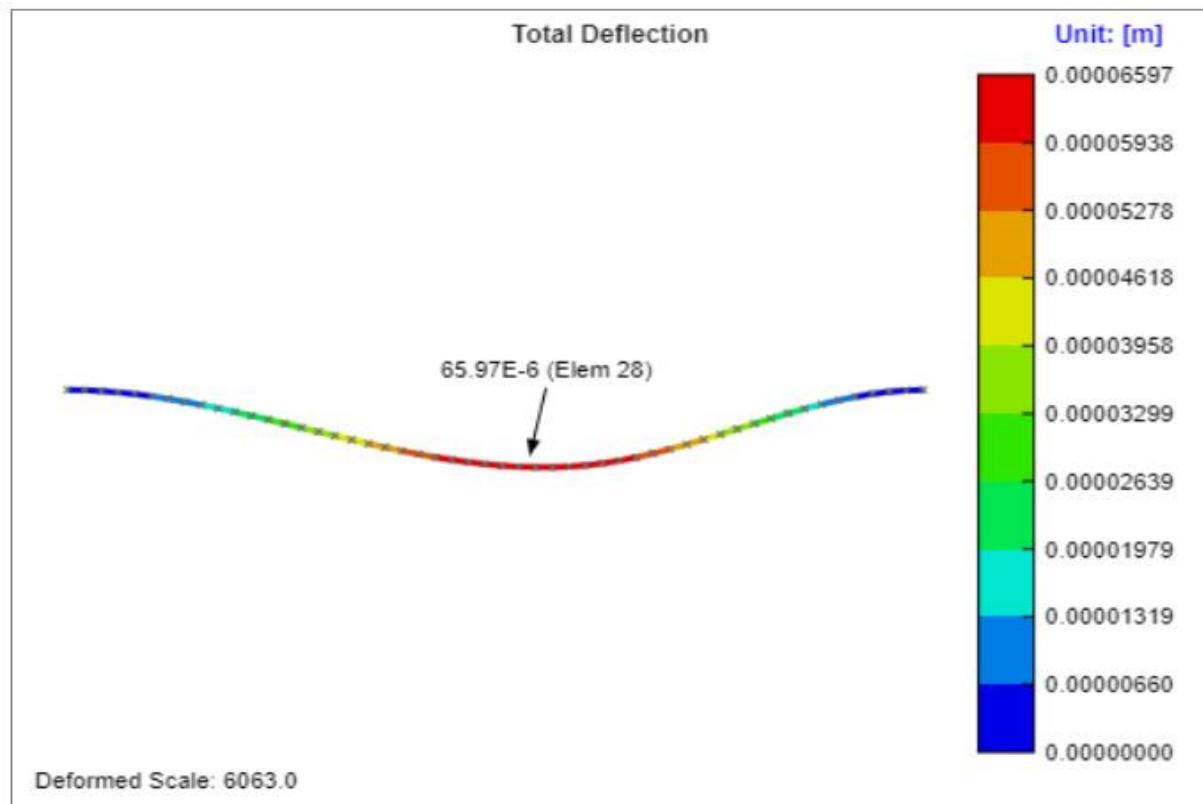
Shear Peak Values

Location	Value
0.000 m	253.1 N
2.500 m	253.1 N
2.500 m	-546.9 N
4.000 m	-546.9 N



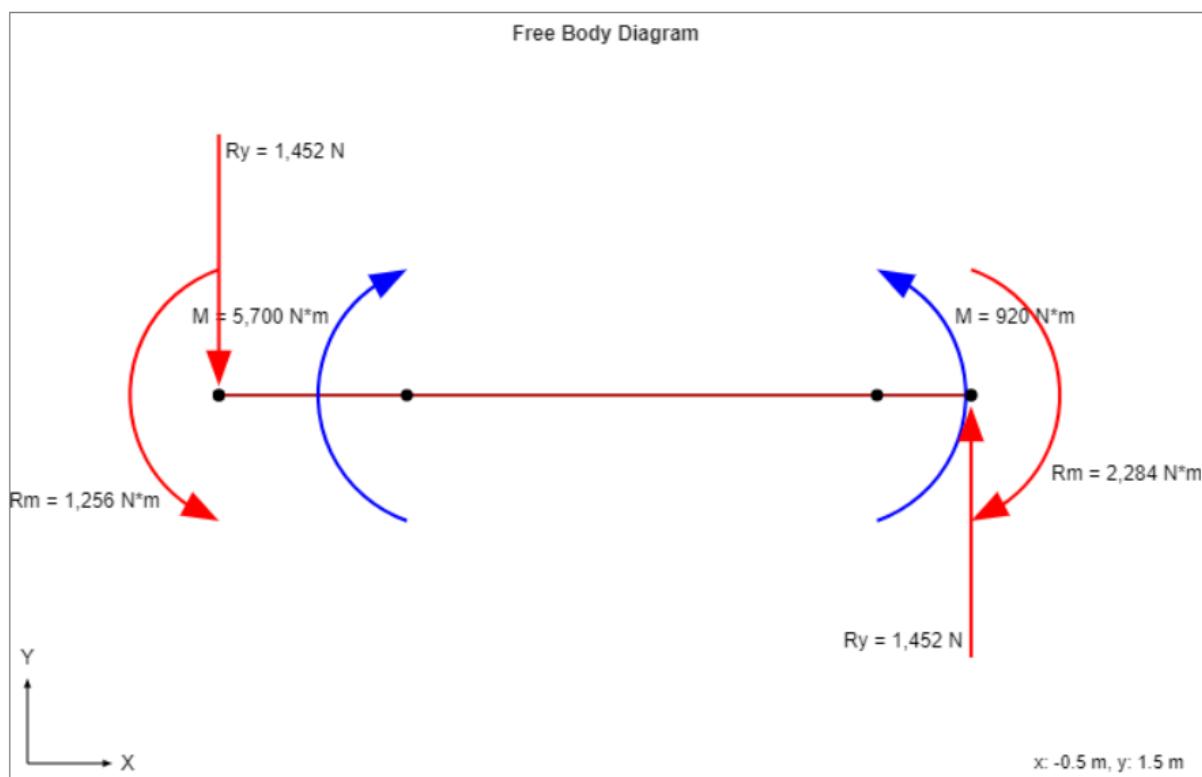
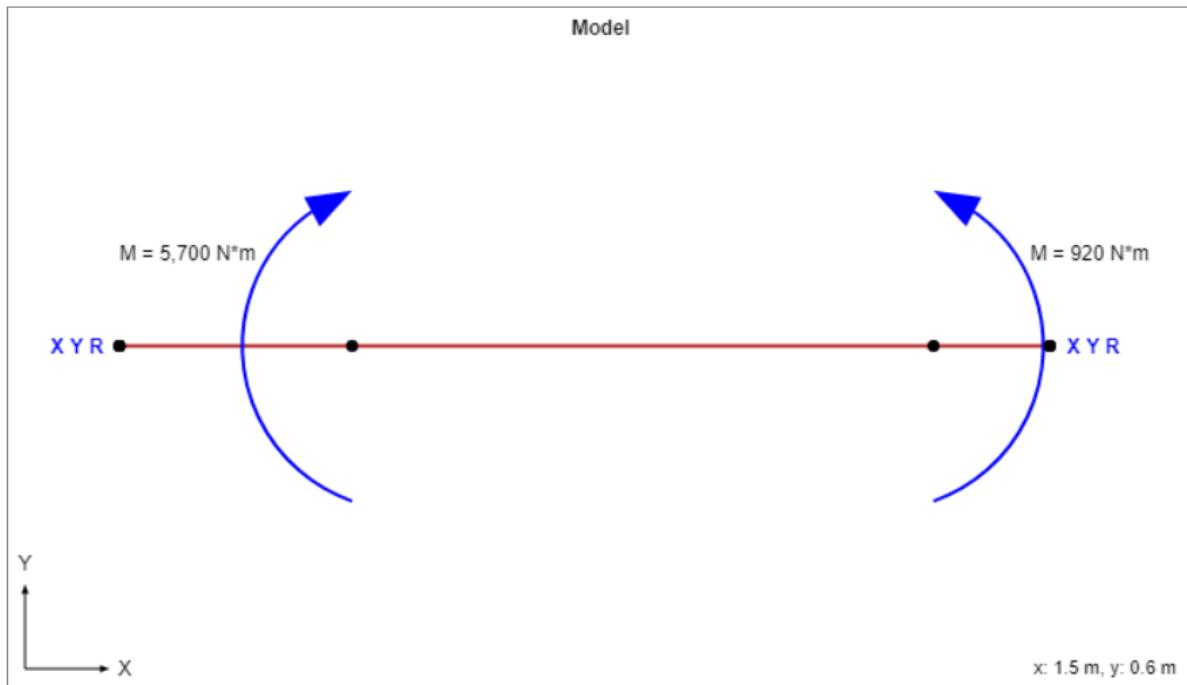
Moment Peak Values

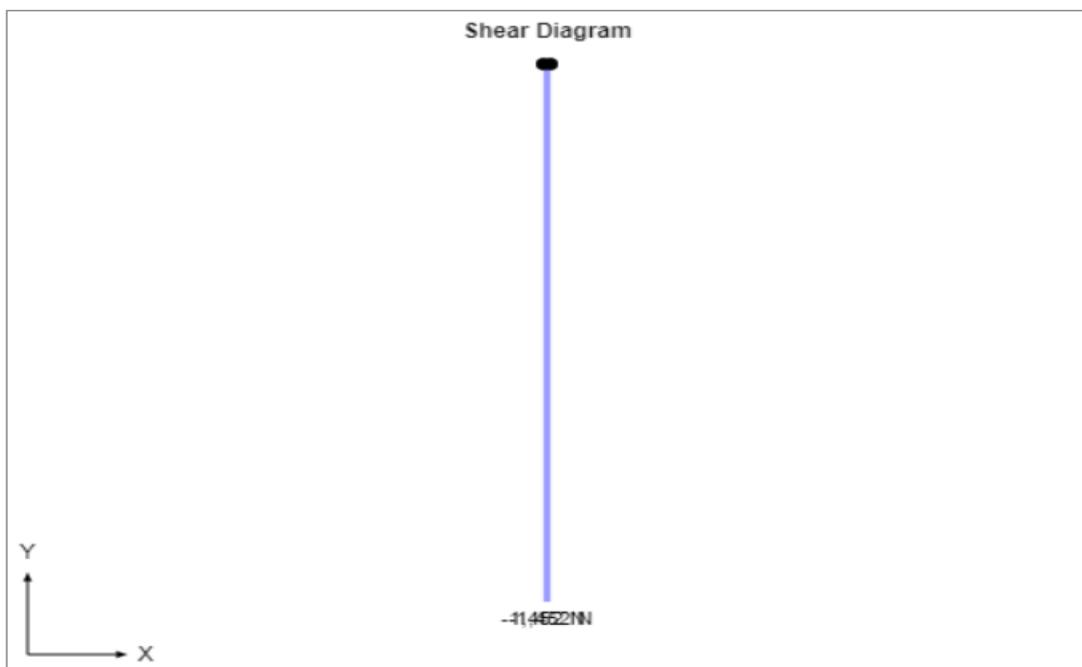
Location	Value
0.000 m	-281.2 N*m
2.500 m	351.6 N*m
4.000 m	-468.8 N*m



	Value	Location
Max Deflection:	65.97E-6 m	2.188 m
Max Slope:	0.003282 deg	3.132 m

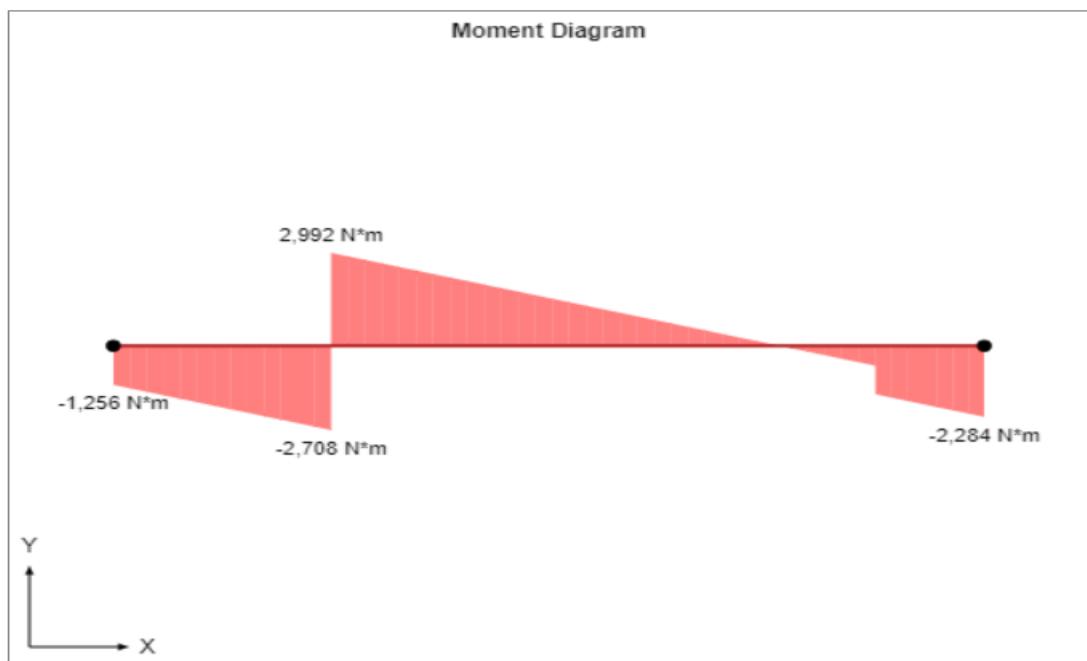
Case 9: Fixed – Fixed: I- Section





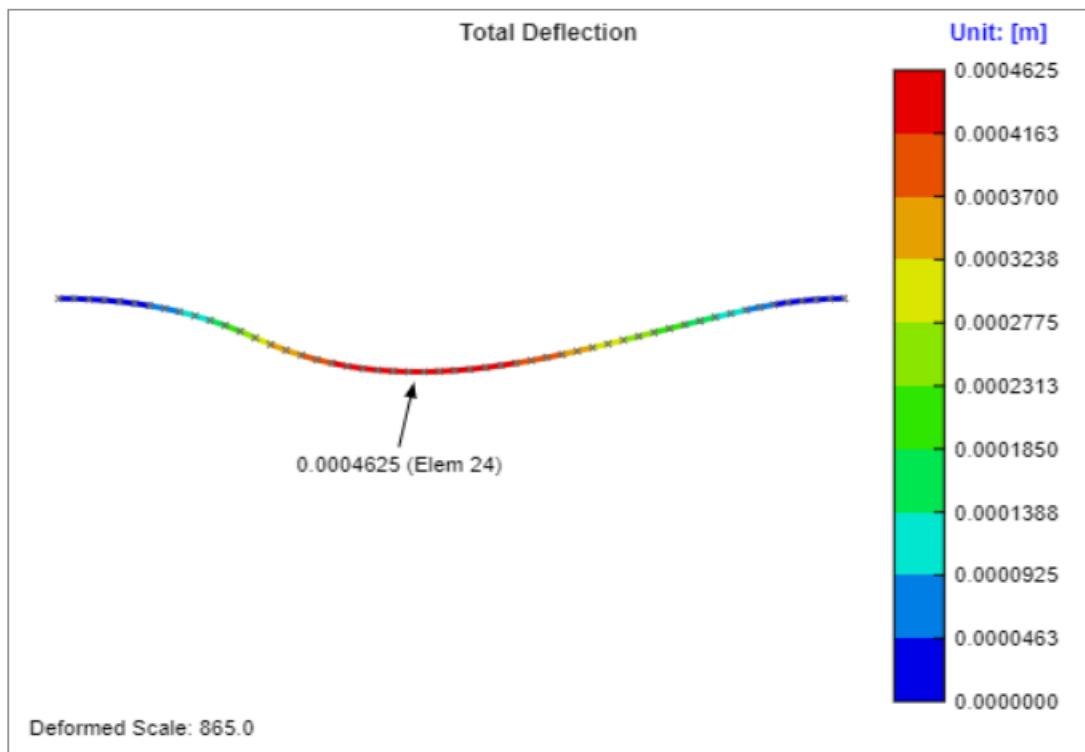
Shear Peak Values

Location	Value
0.000 m	-1,452 N
4.000 m	-1,452 N



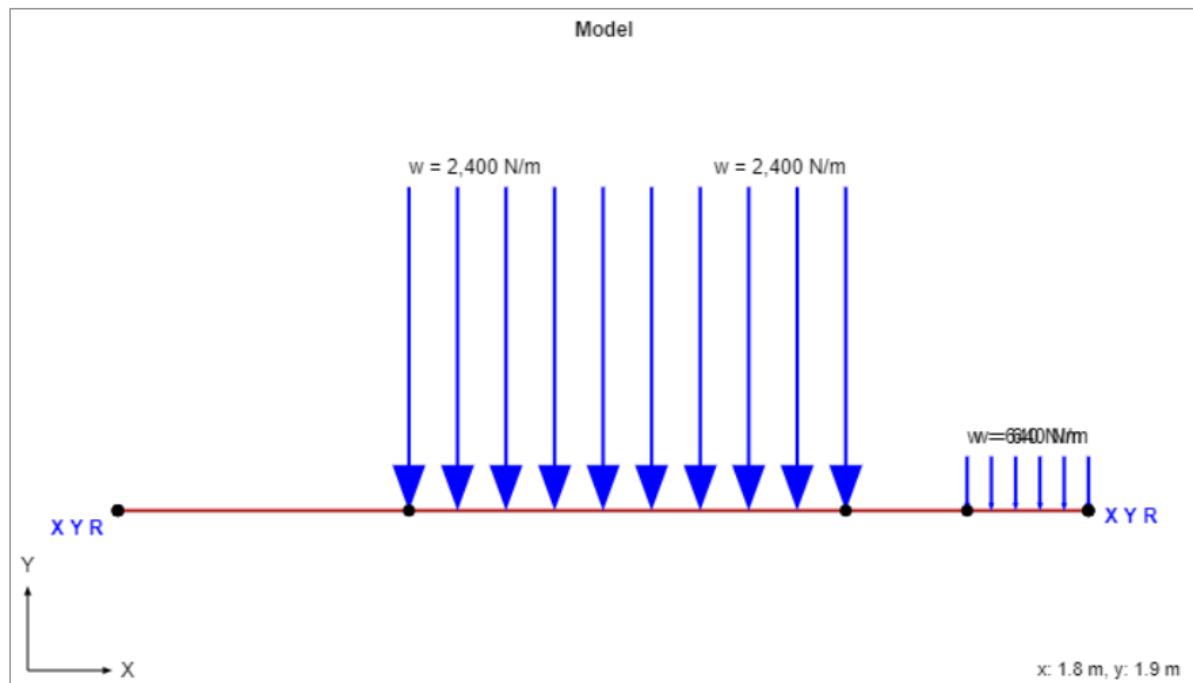
Moment Peak Values

Location	Value
0.000 m	$-1,256\text{ N}\cdot\text{m}$
1.000 m	$-2,708\text{ N}\cdot\text{m}$
1.000 m	$2,992\text{ N}\cdot\text{m}$
4.000 m	$-2,284\text{ N}\cdot\text{m}$

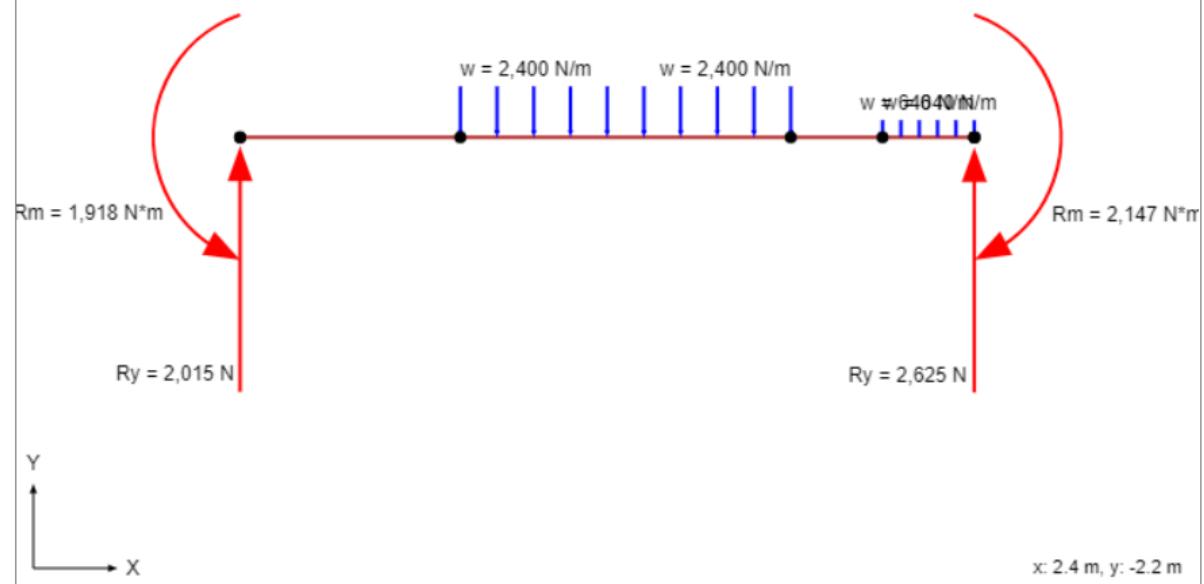


	Value	Location
Max Deflection:	0.0004625 m	1.859 m
Max Slope:	-0.03238 deg	1.000 m

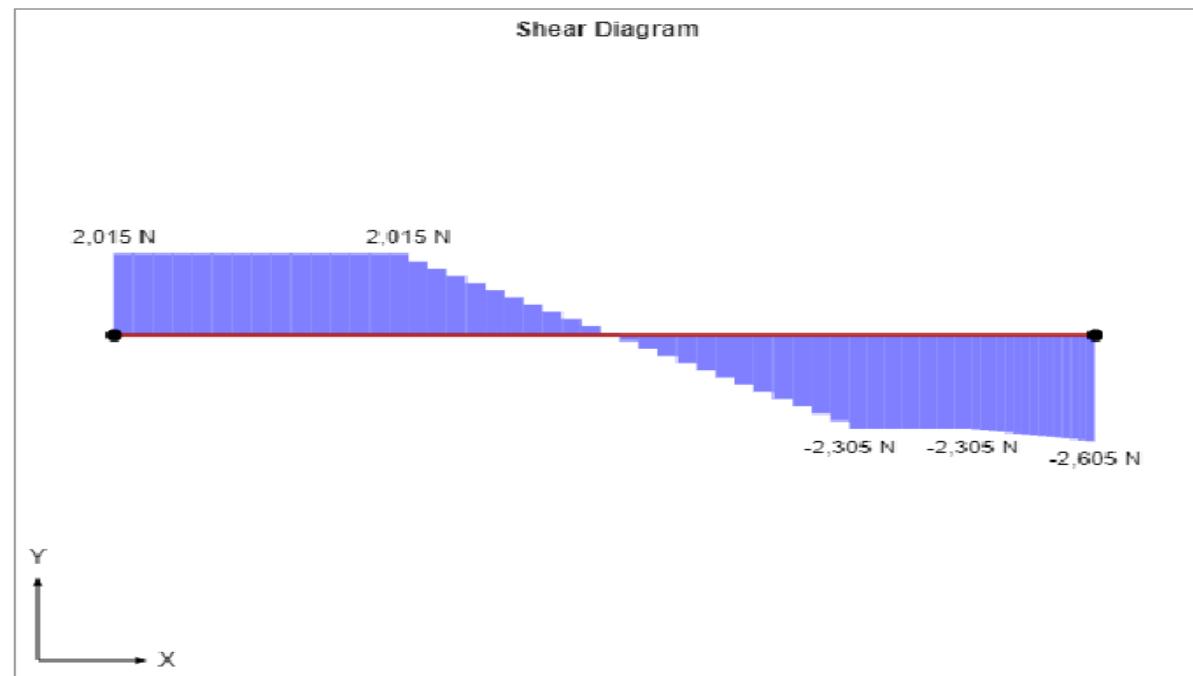
Case 10: Fixed – Fixed: I- Section



Free Body Diagram

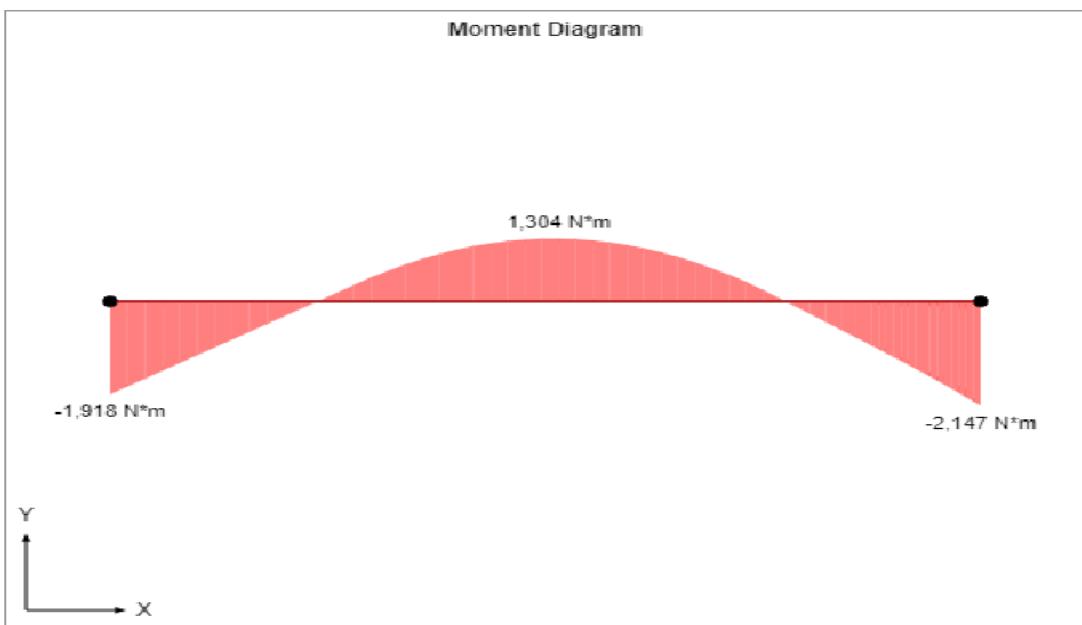


Shear Diagram



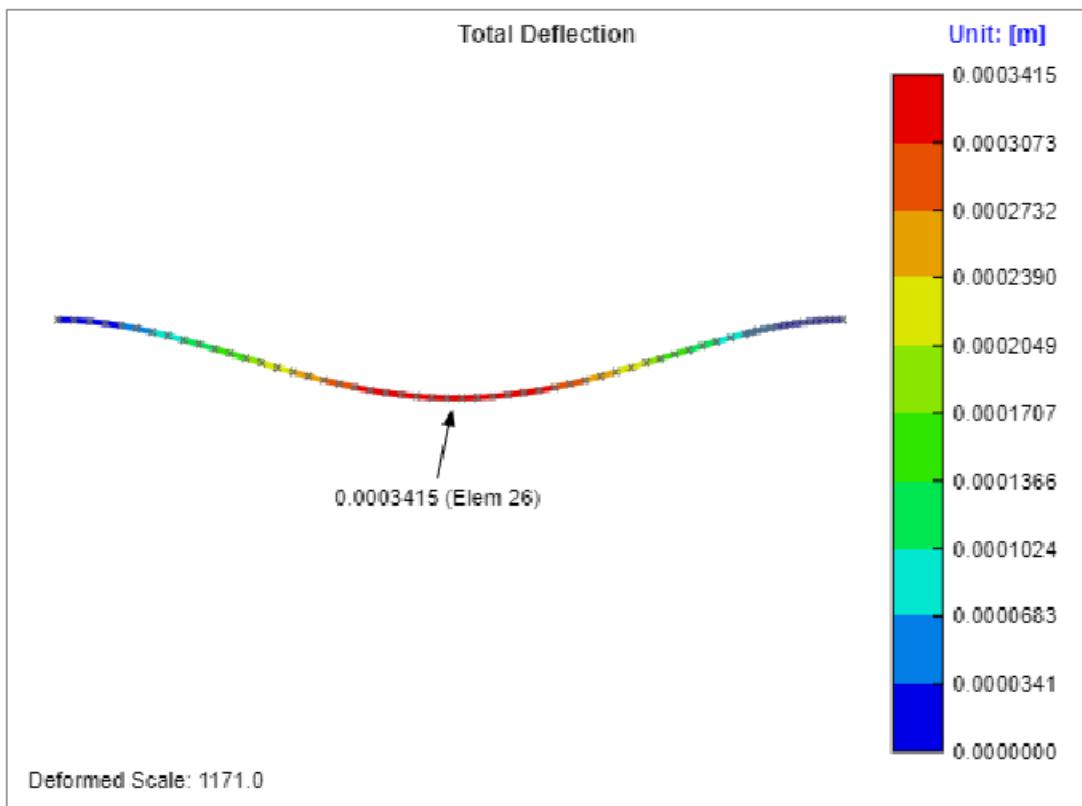
Shear Peak Values

Location	Value
0.000 m	2,015 N
1.200 m	2,015 N
3.000 m	-2,305 N
3.500 m	-2,305 N
4.000 m	-2,605 N



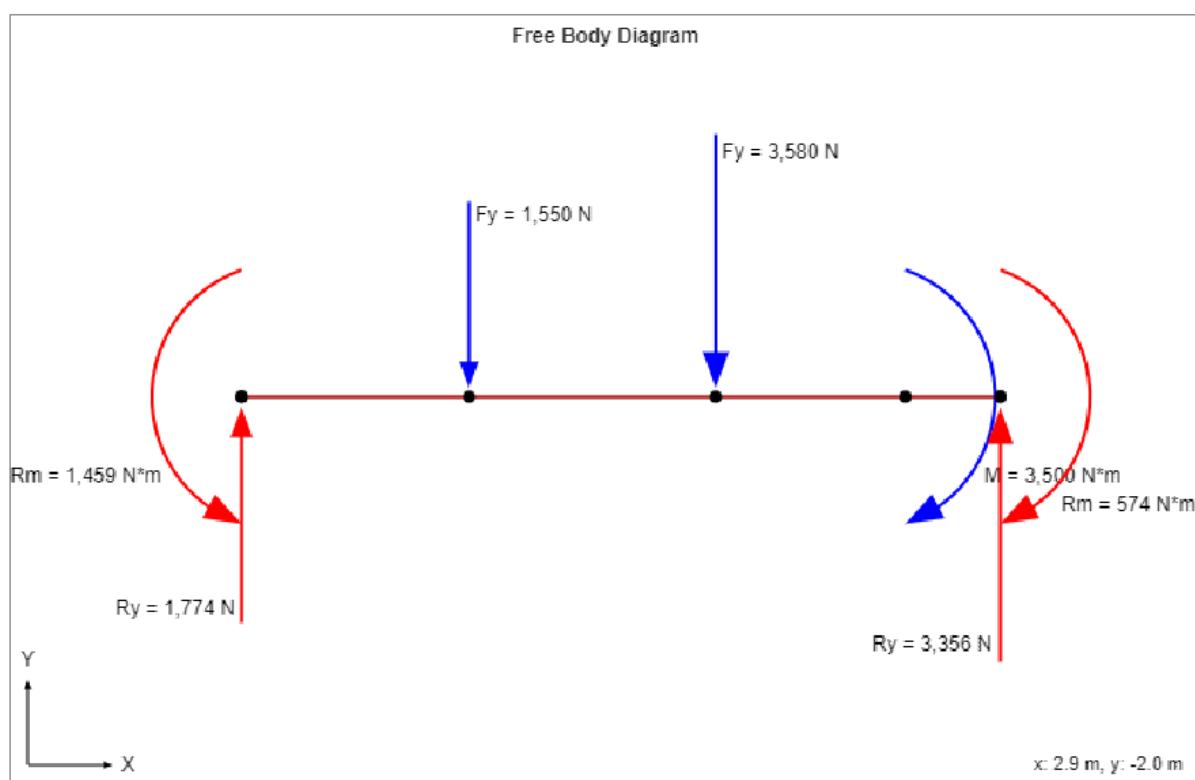
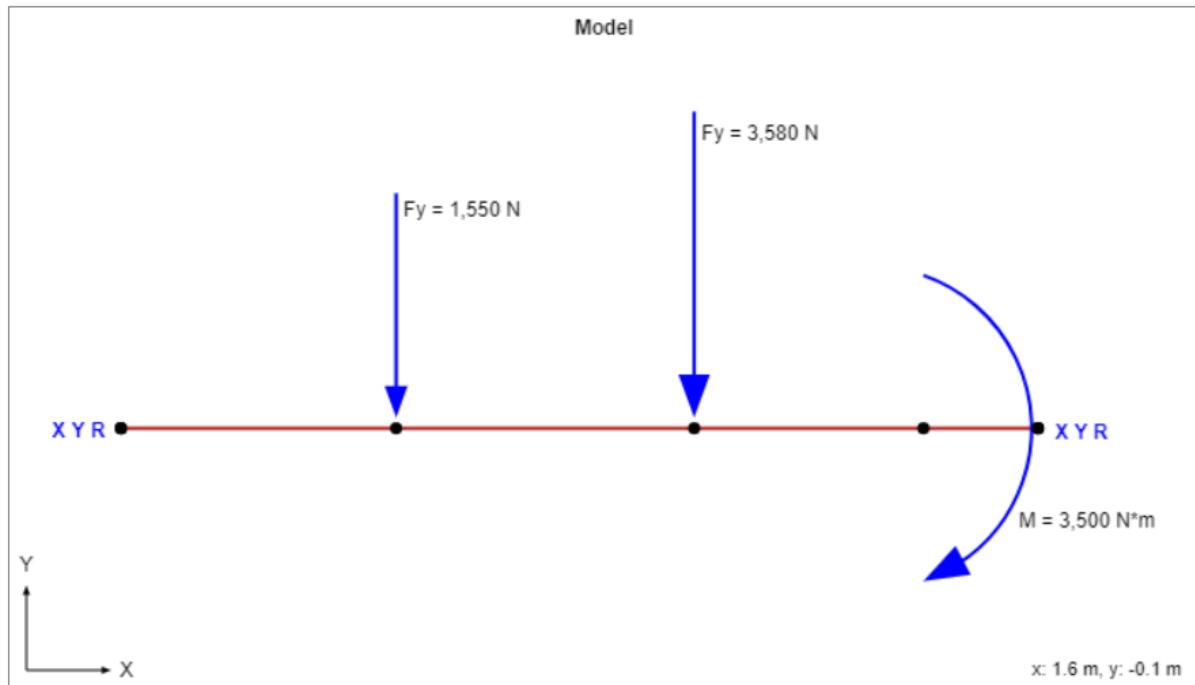
Moment Peak Values

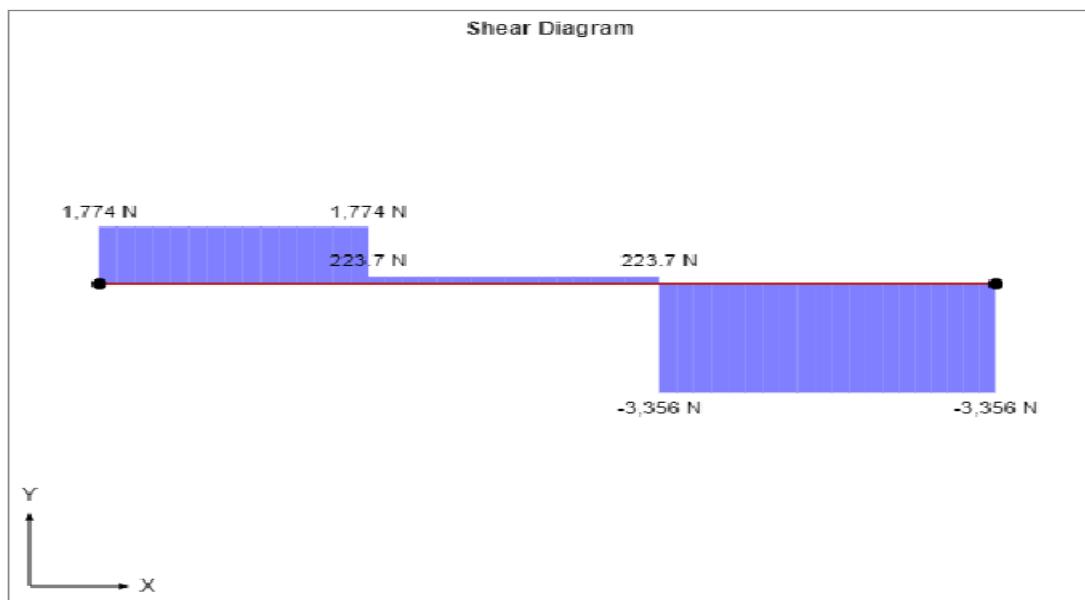
Location	Value
0.000 m	-1,918 N*m
2.061 m	1,304 N*m
4.000 m	-2,147 N*m



	Value	Location
Max Deflection:	0.0003415 m	2.061 m
Max Slope:	0.01535 deg	3.071 m

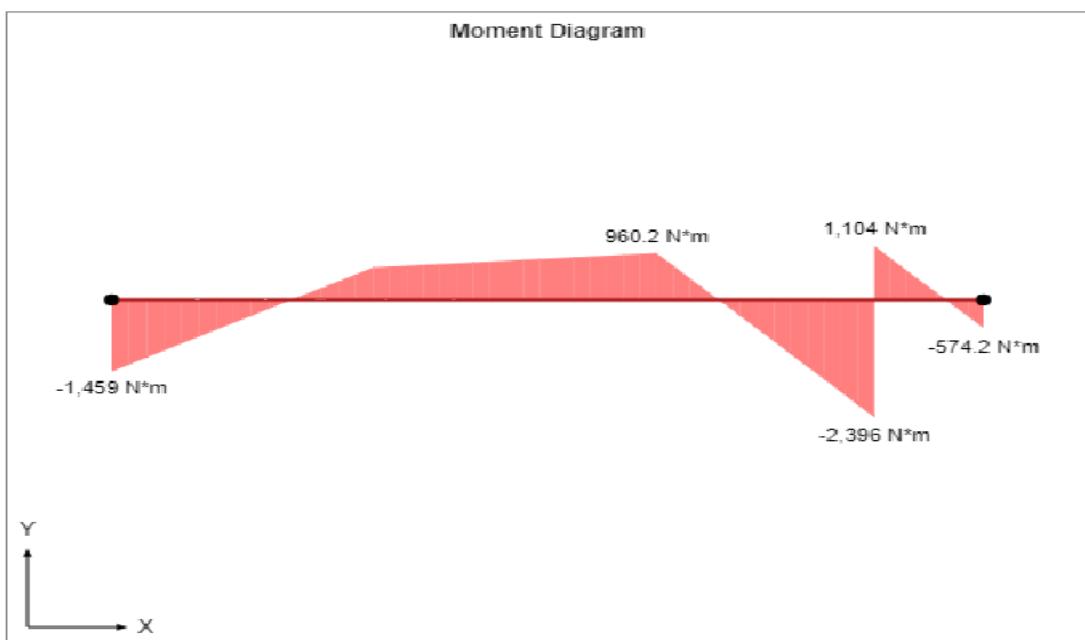
Case 11: Fixed – Fixed: I- Section





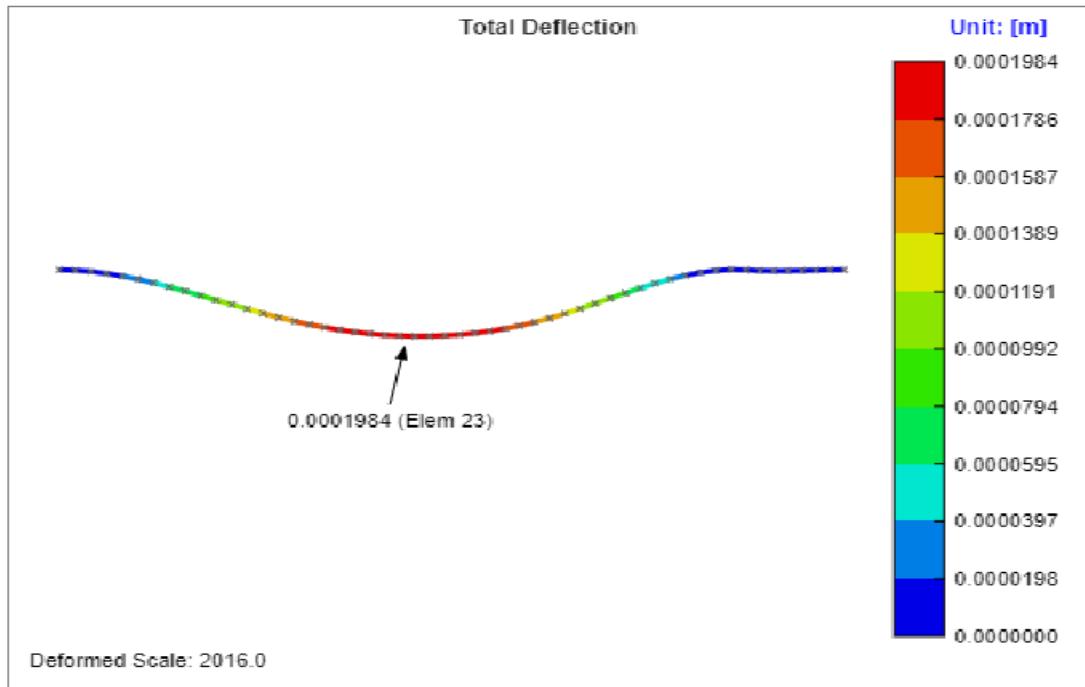
Shear Peak Values

Location	Value
0.000 m	1,774 N
1.200 m	1,774 N
1.200 m	223.7 N
2.500 m	223.7 N
2.500 m	-3,356 N
4.000 m	-3,356 N



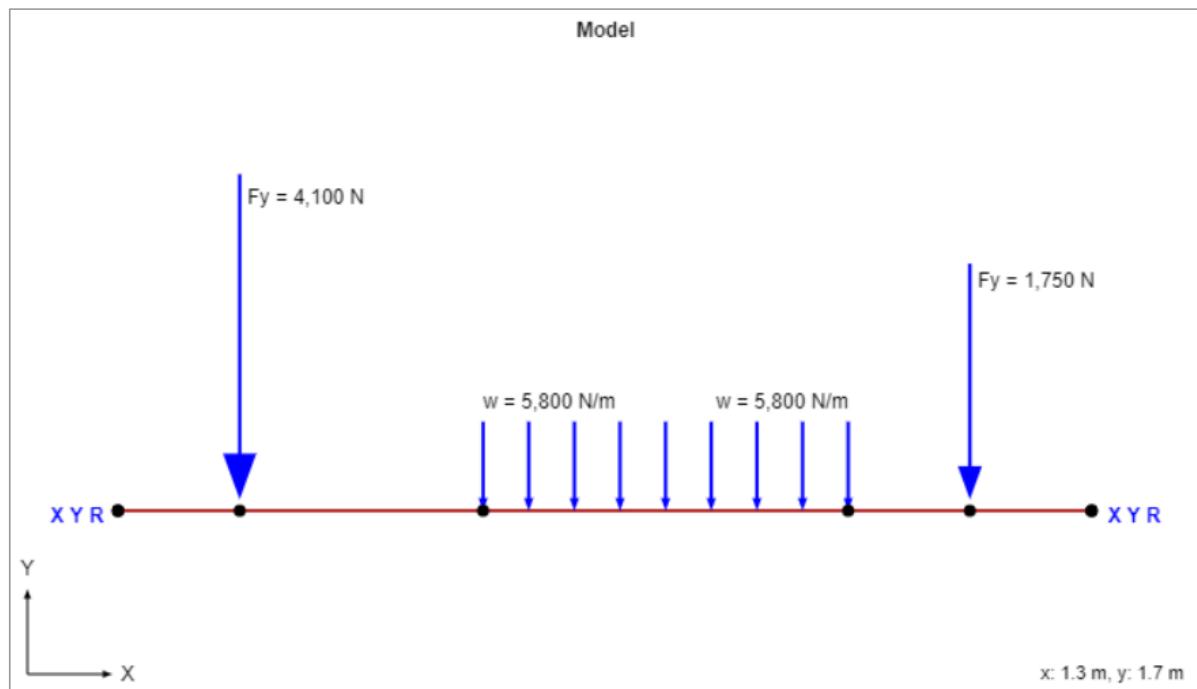
Moment Peak Values

Location	Value
0.000 m	-1,459 N*m
2.500 m	960.2 N*m
3.500 m	-2,396 N*m
3.500 m	1,104 N*m
4.000 m	-574.2 N*m

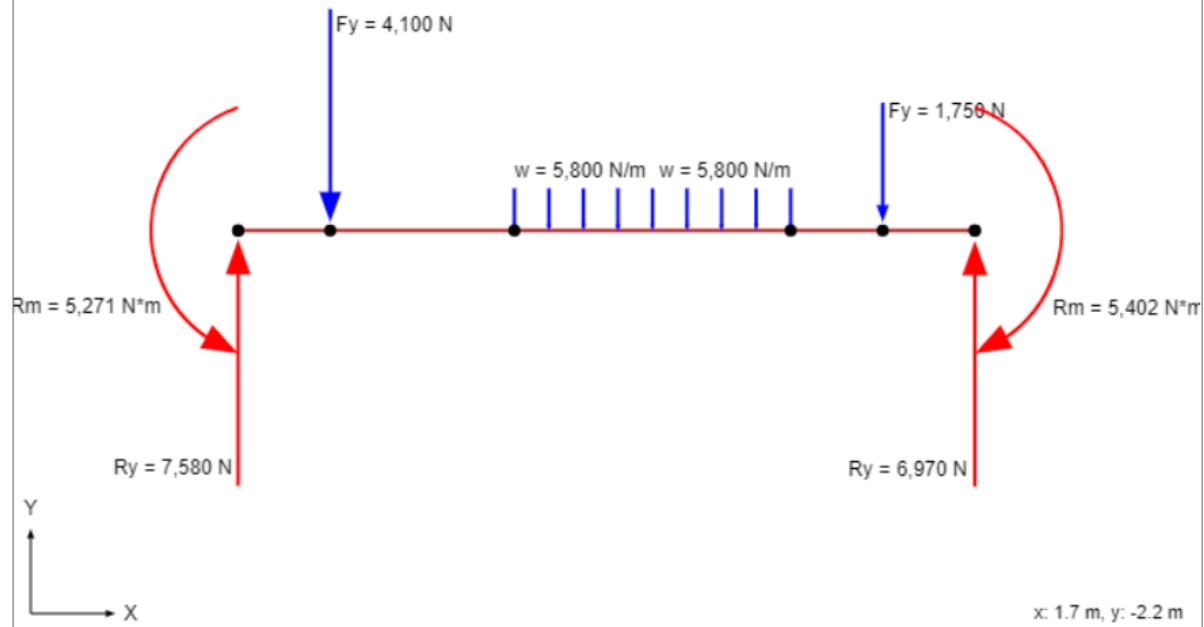


	Value	Location
Max Deflection:	0.0001984 m	1.812 m
Max Slope:	0.01180 deg	2.808 m

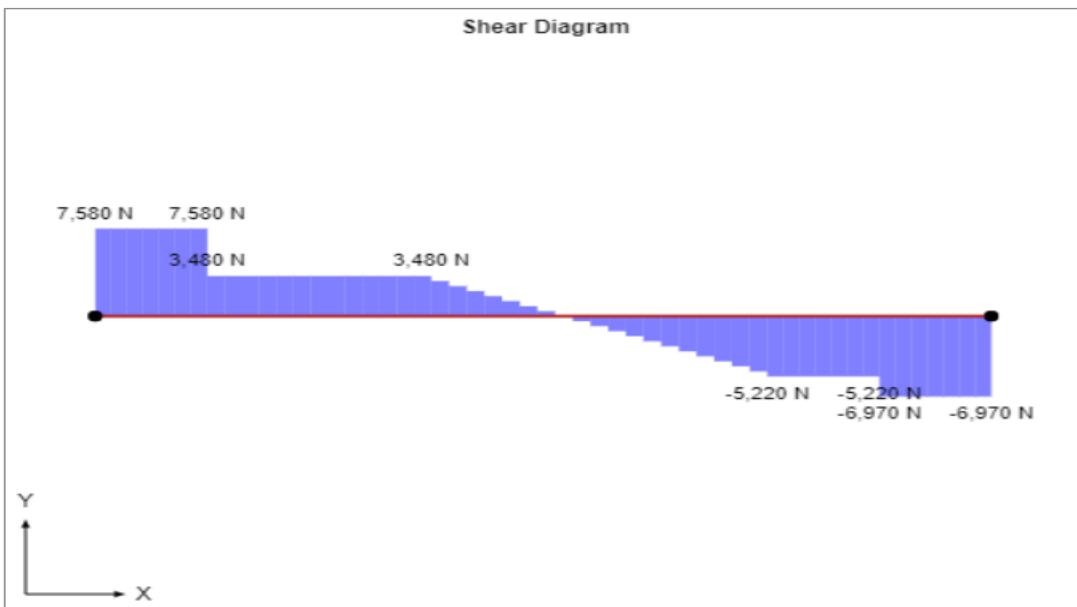
Case 12: Fixed – Fixed: I- Section



Free Body Diagram

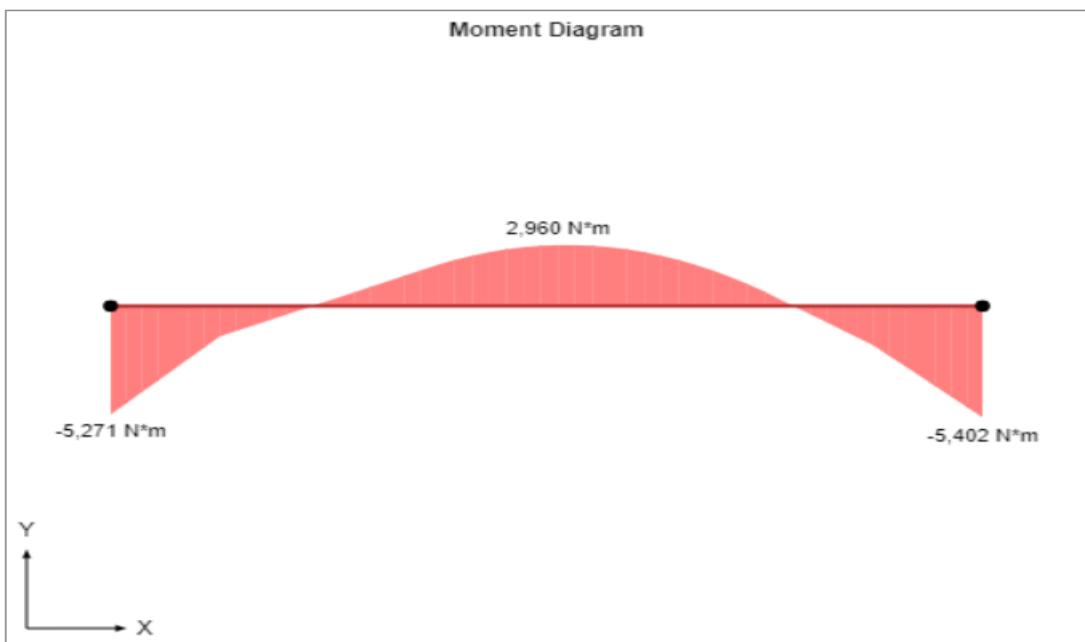


Shear Diagram



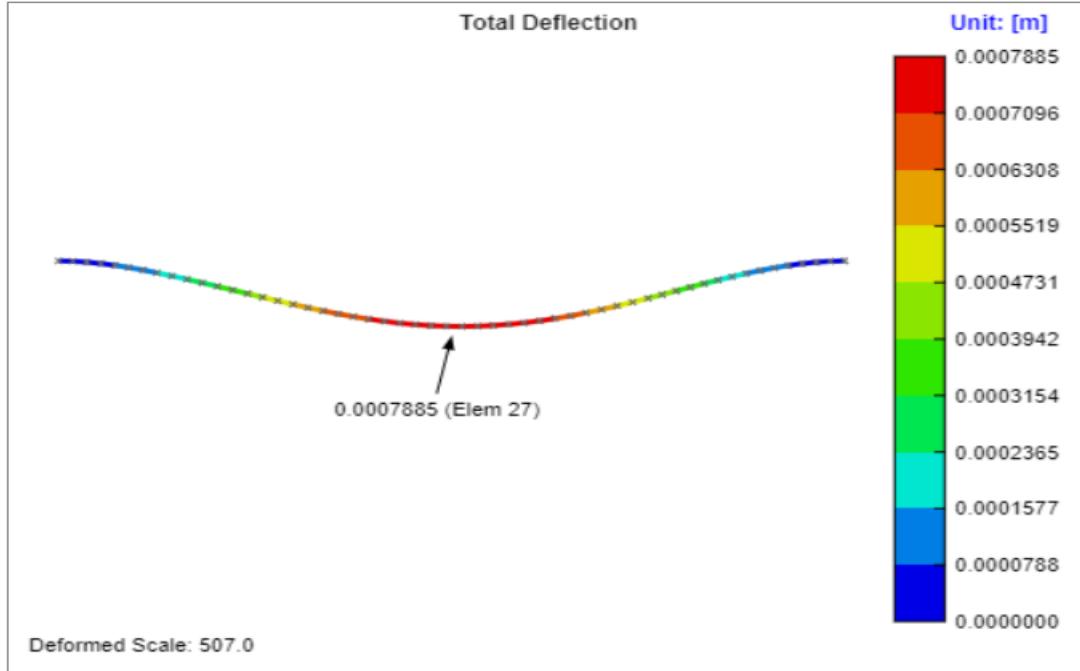
Shear Peak Values

Location	Value
0.000 m	7,580 N
0.5000 m	7,580 N
0.5000 m	3,480 N
1.500 m	3,480 N
3.000 m	-5,220 N
3.500 m	-5,220 N
3.500 m	-6,970 N
4.000 m	-6,970 N



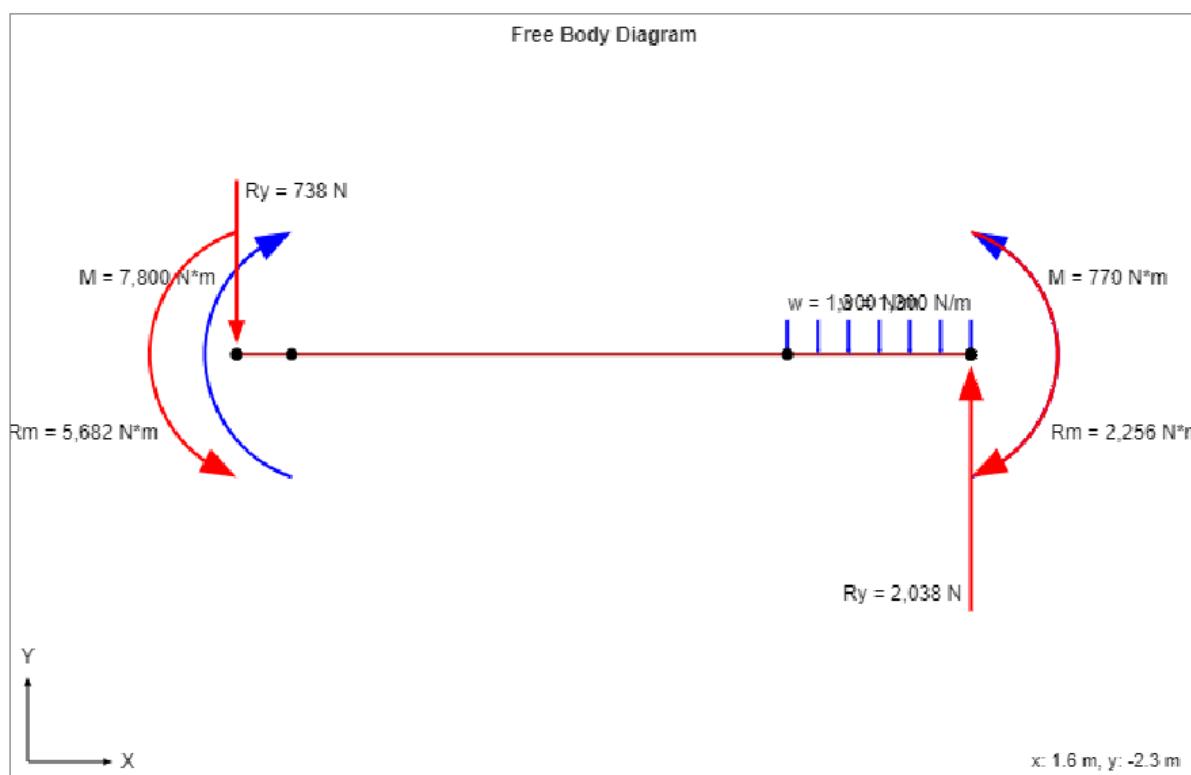
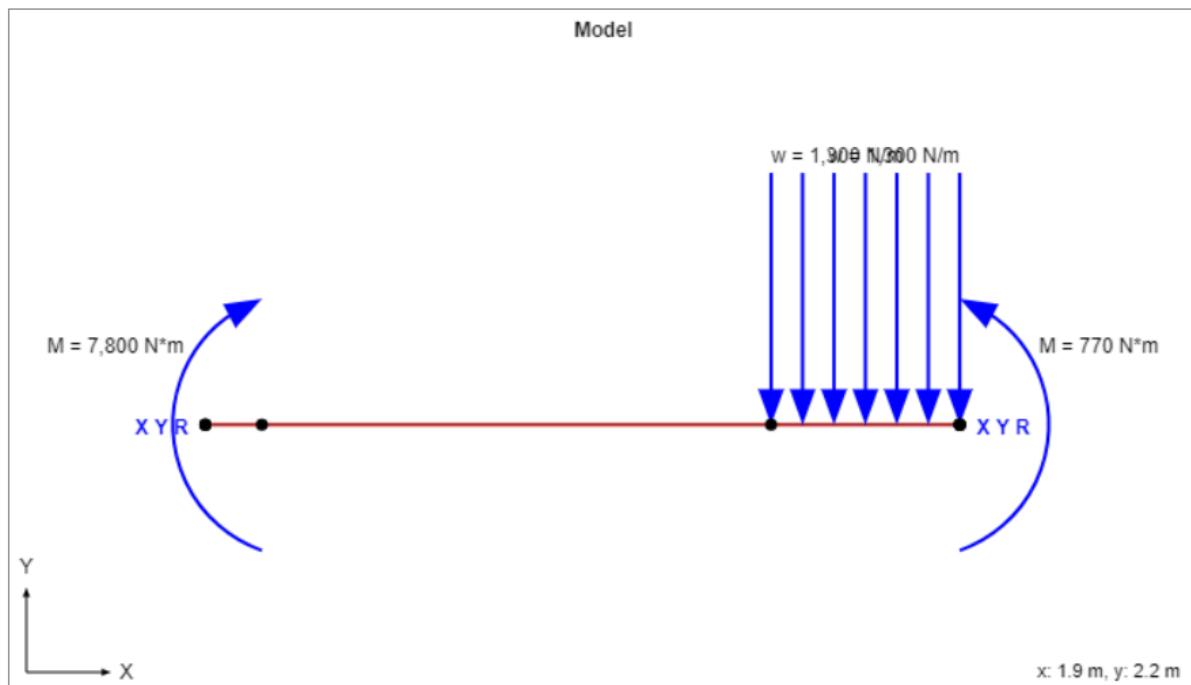
Moment Peak Values

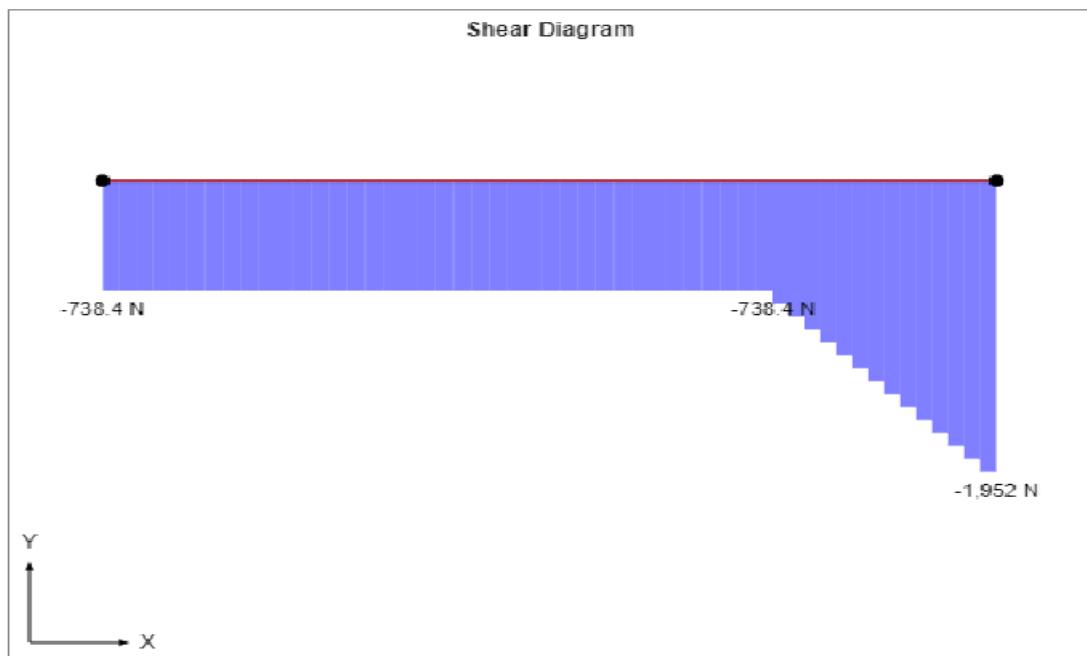
Location	Value
0.000 m	-5,271 N*m
2.053 m	2,960 N*m
4.000 m	-5,402 N*m



	Value	Location
Max Deflection:	0.0007885 m	2.053 m
Max Slope:	0.03564 deg	3.143 m

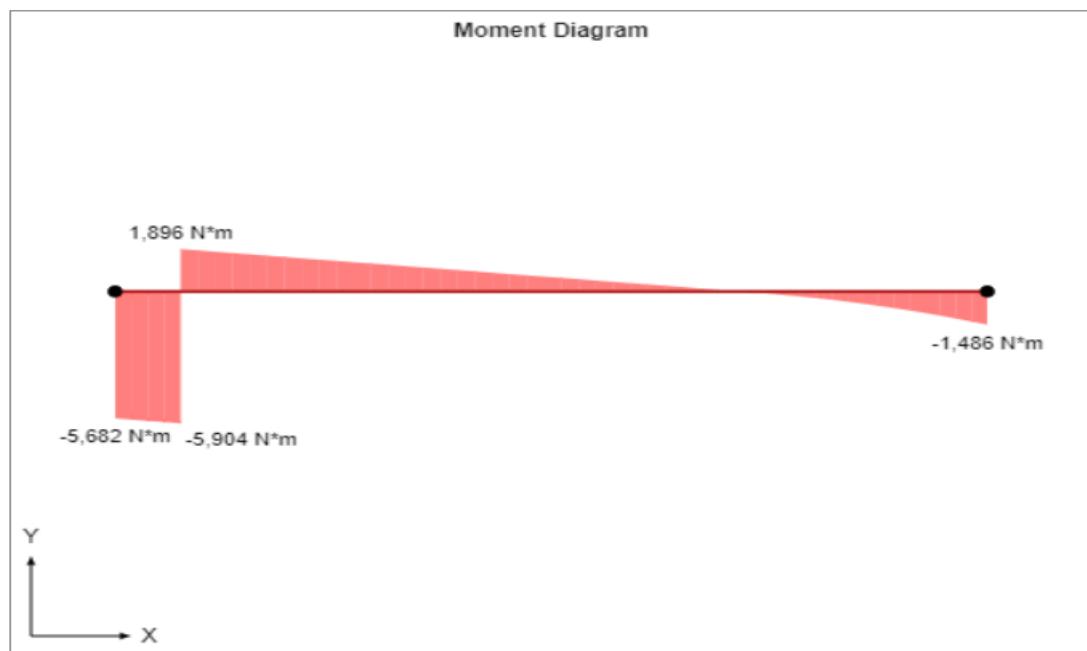
Case 13: Fixed – Fixed: I- Section





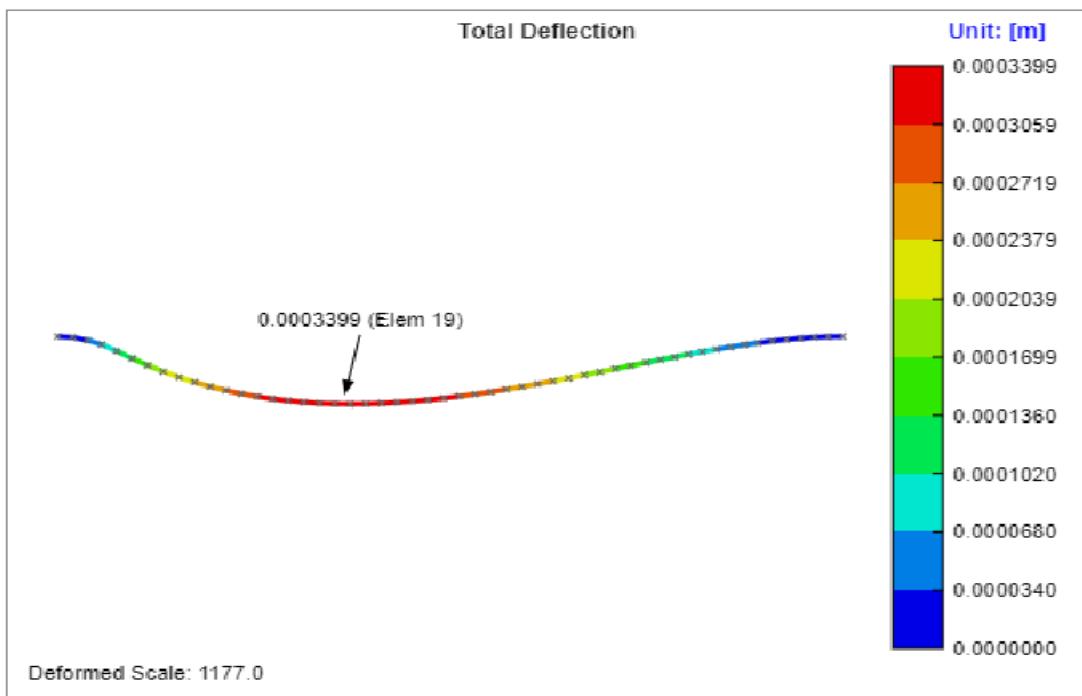
Shear Peak Values

Location	Value
0.000 m	-738.4 N
3.000 m	-738.4 N
4.000 m	-1,952 N



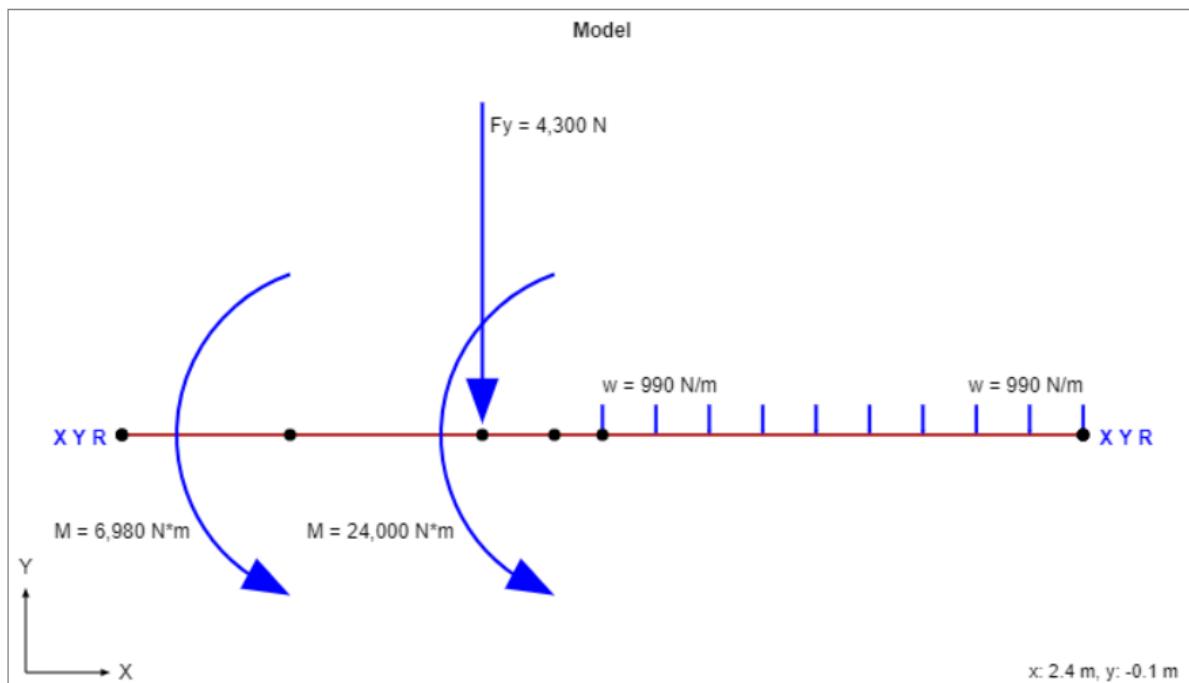
Moment Peak Values

Location	Value
0.000 m	-5,682 N·m
0.3000 m	-5,904 N·m
0.3000 m	1,896 N·m
4.000 m	-1,486 N·m

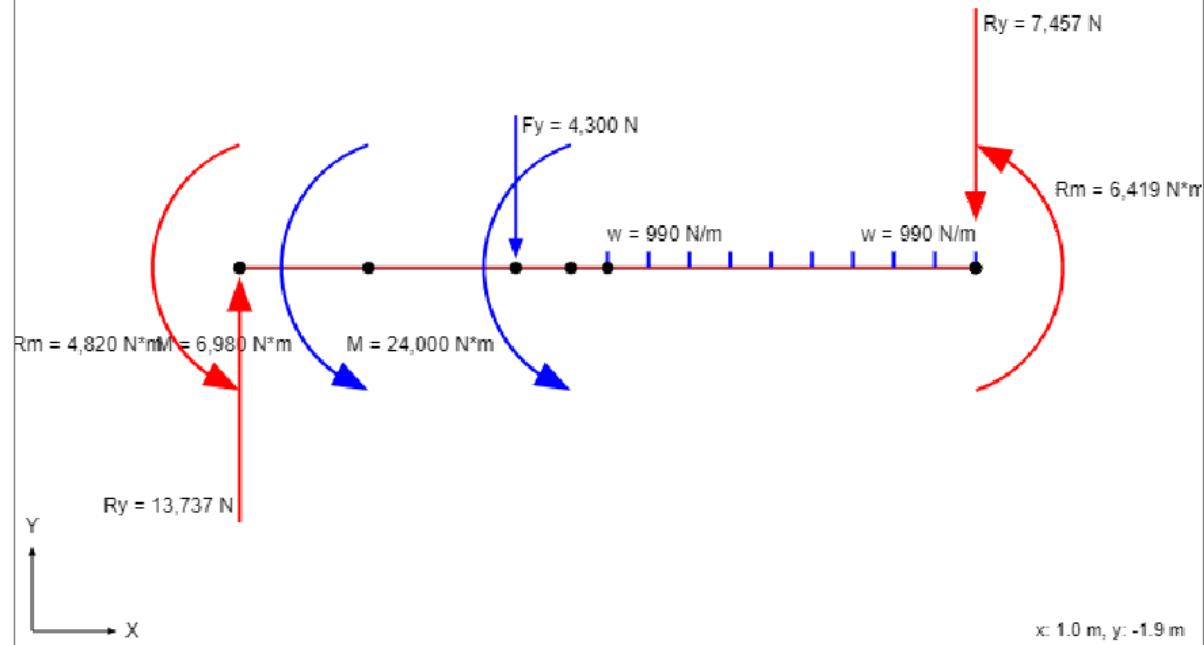


	Value	Location
Max Deflection:	0.0003399 m	1.491 m
Max Slope:	-0.02840 deg	0.3000 m

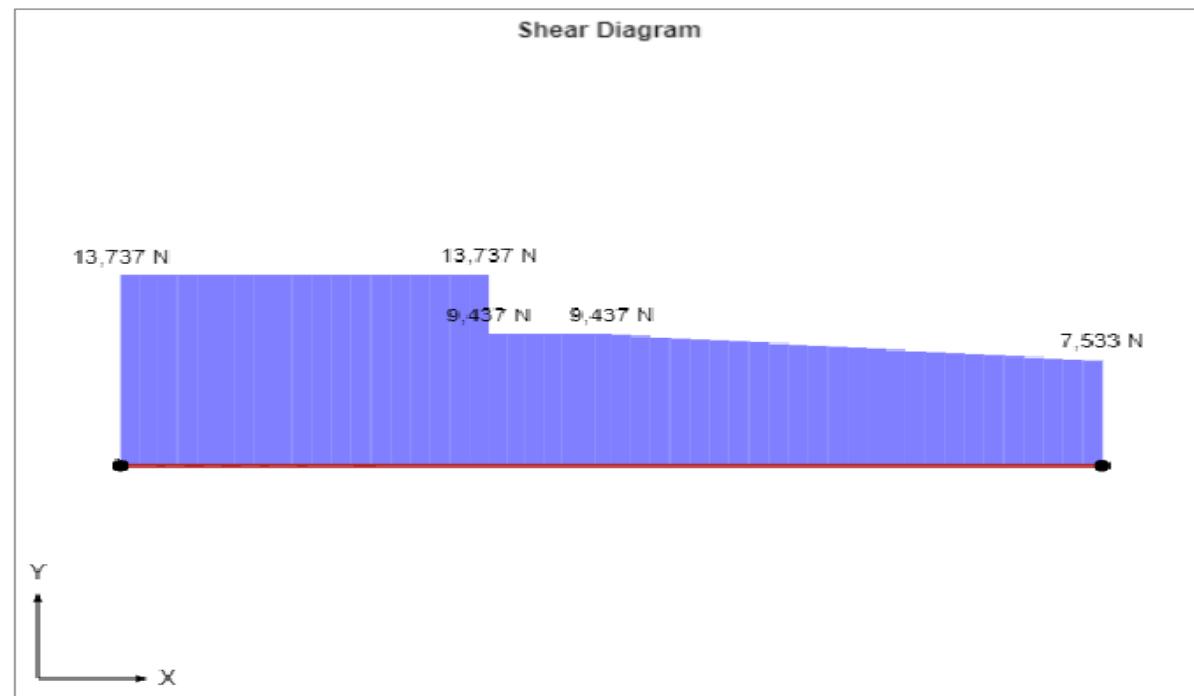
Case 14: Fixed – Fixed: I- Section



Free Body Diagram

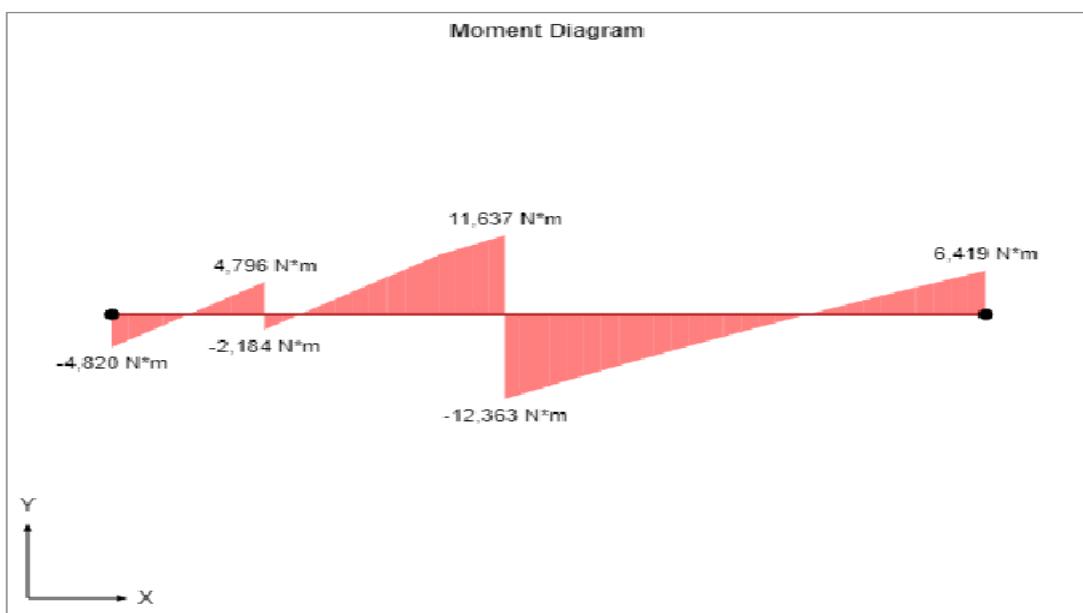


Shear Diagram



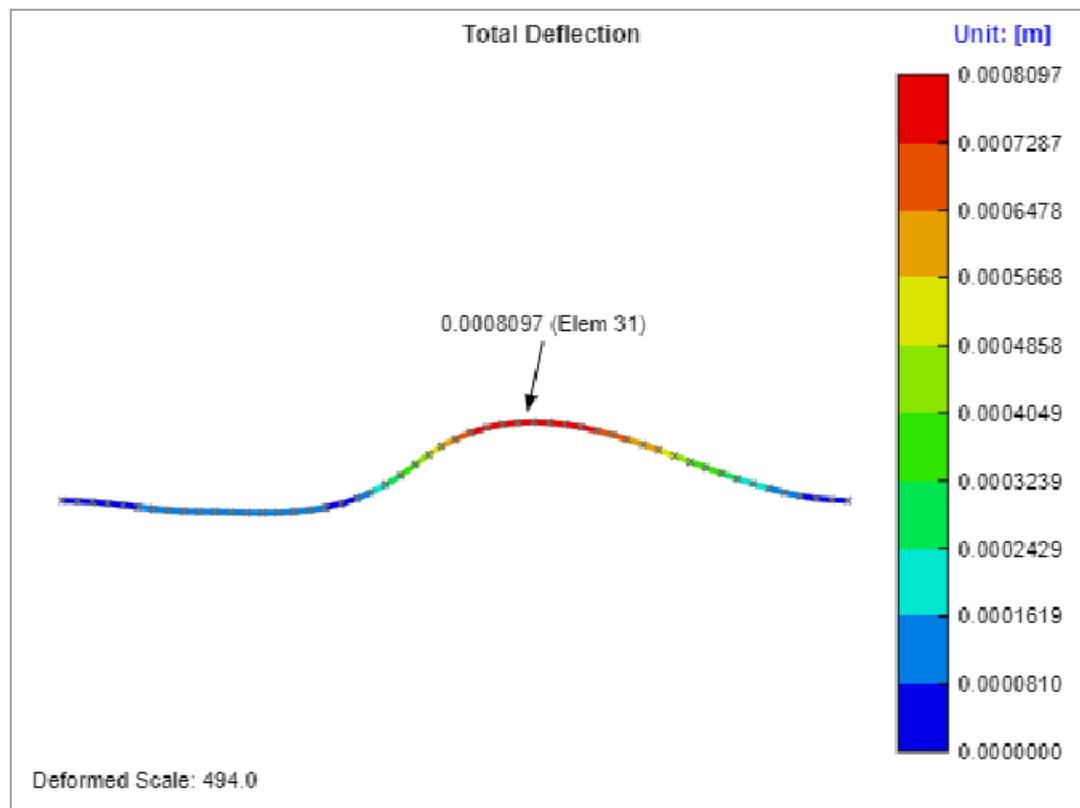
Shear Peak Values

Location	Value
0.000 m	13,737 N
1.500 m	13,737 N
1.500 m	9,437 N
2.000 m	9,437 N
4.000 m	7,533 N



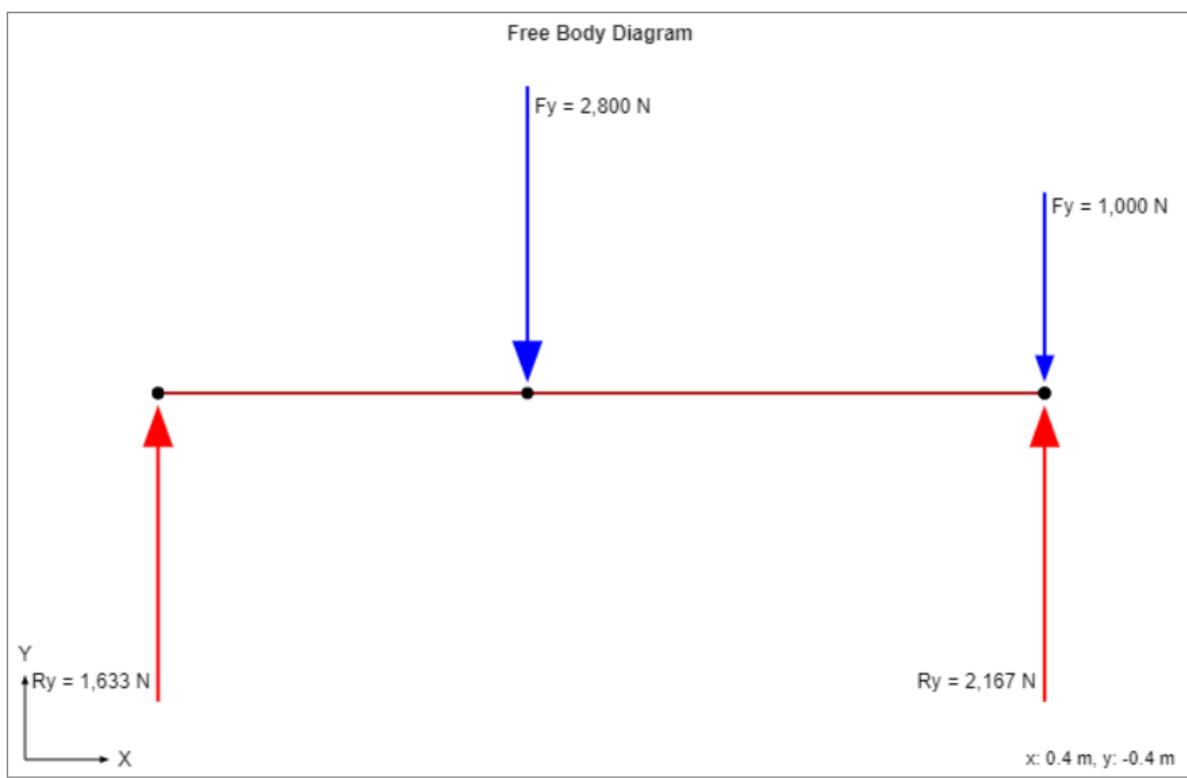
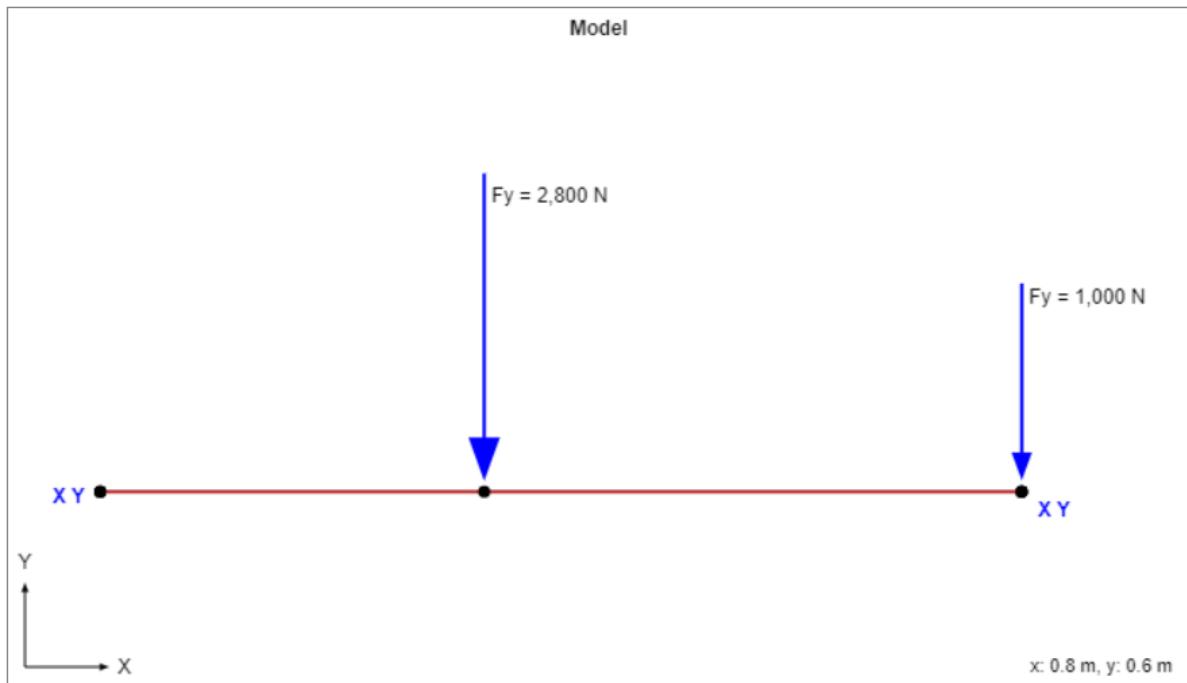
Moment Peak Values

Location	Value
0.000 m	-4,820 N*m
0.7000 m	4,796 N*m
0.7000 m	-2,184 N*m
1.800 m	11,637 N*m
1.800 m	-12,363 N*m
4.000 m	6,419 N*m

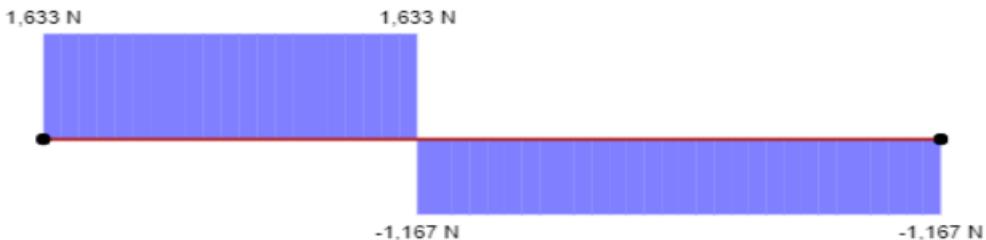


	Value	Location
Max Deflection:	0.0008097 m	2.400 m
Max Slope:	0.09326 deg	1.800 m

Case 15: Pin-Pin :Circular Section



Shear Diagram



Shear Peak Values

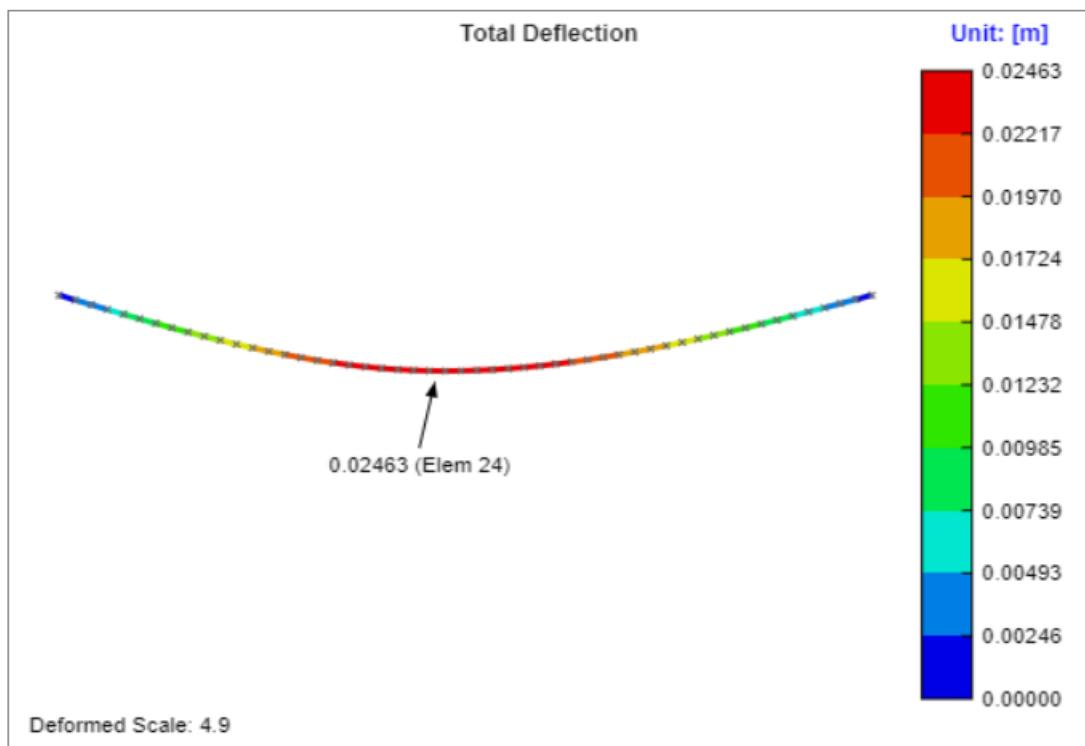
Location	Value
0.000 m	1,633 N
0.5000 m	1,633 N
0.5000 m	-1,167 N
1.200 m	-1,167 N

Moment Diagram



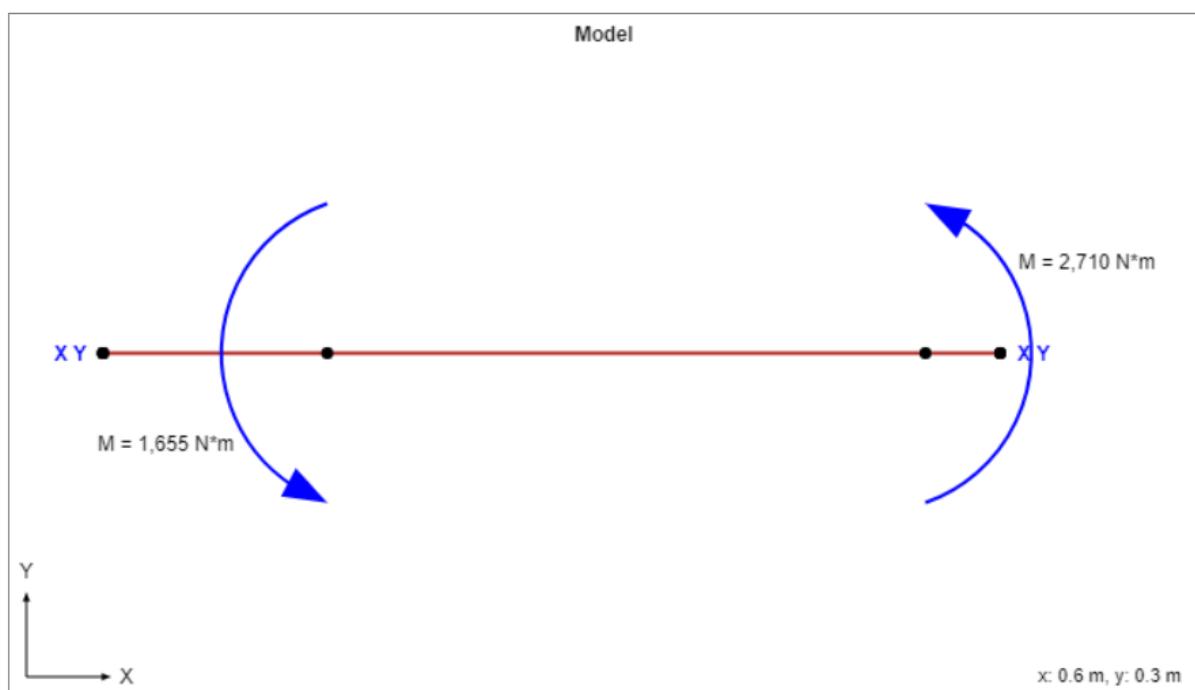
Moment Peak Values

Location	Value
0.5000 m	816.7 N*m

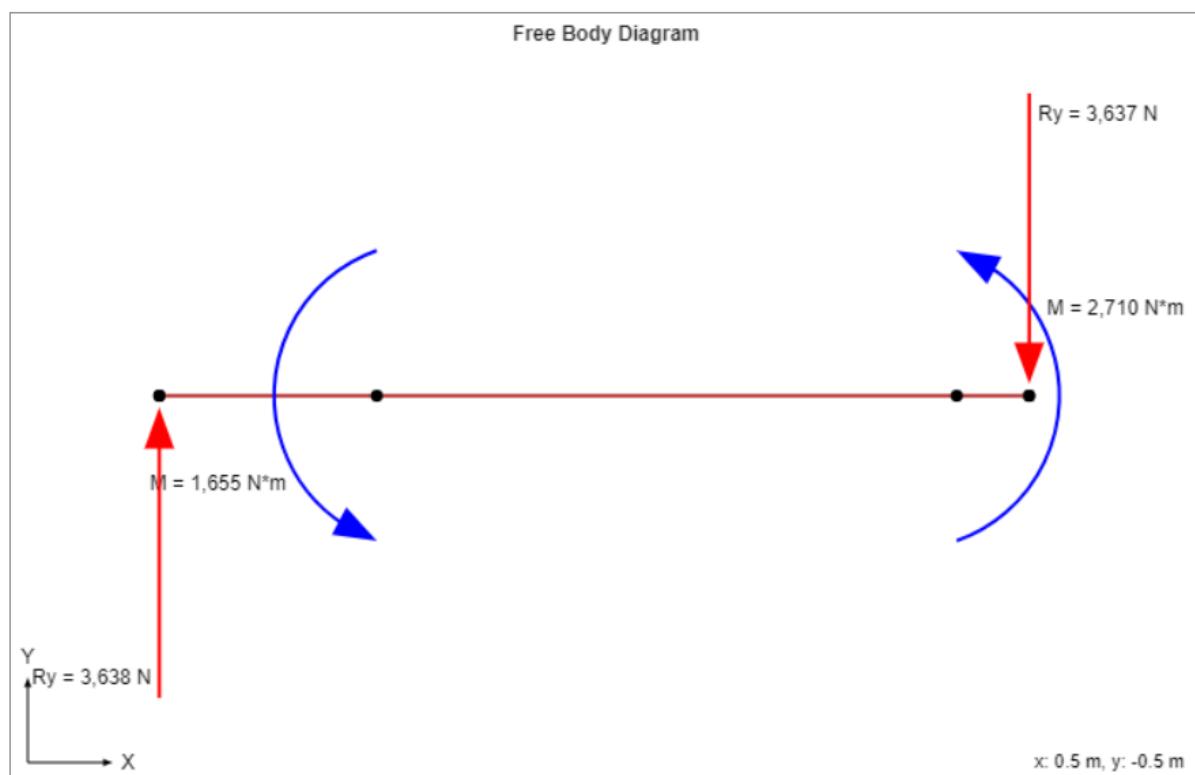


	Value	Location
Max Deflection:	0.02463 m	0.5700 m
Max Slope:	-3.757 deg	0.000 m

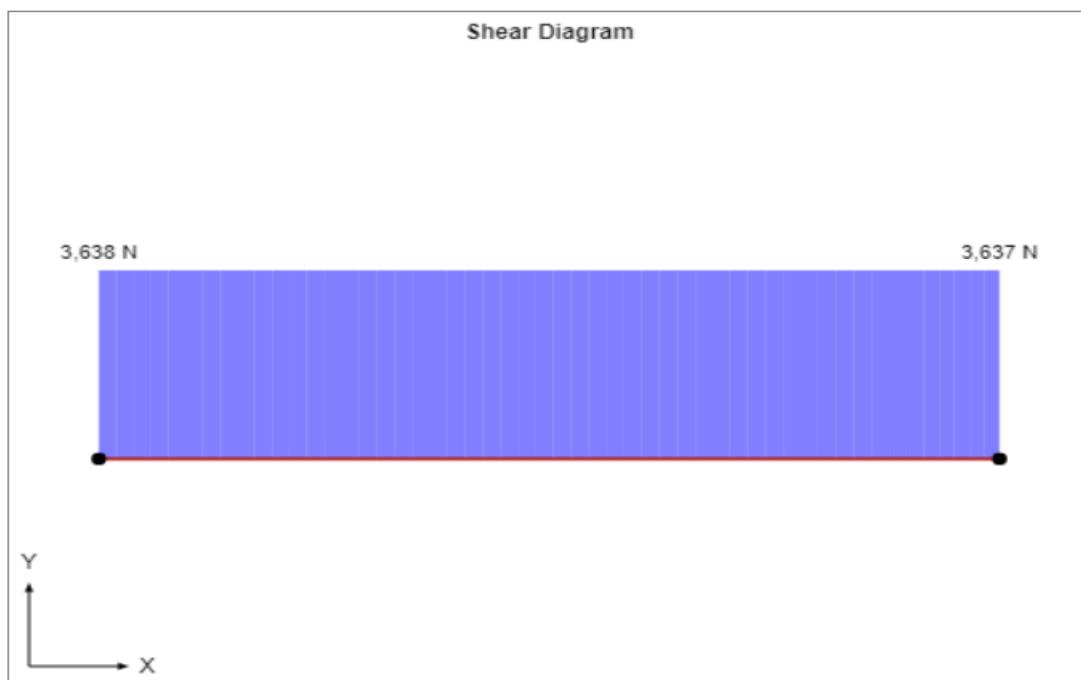
Case 16: Pin-Pin :Circular Section



Free Body Diagram

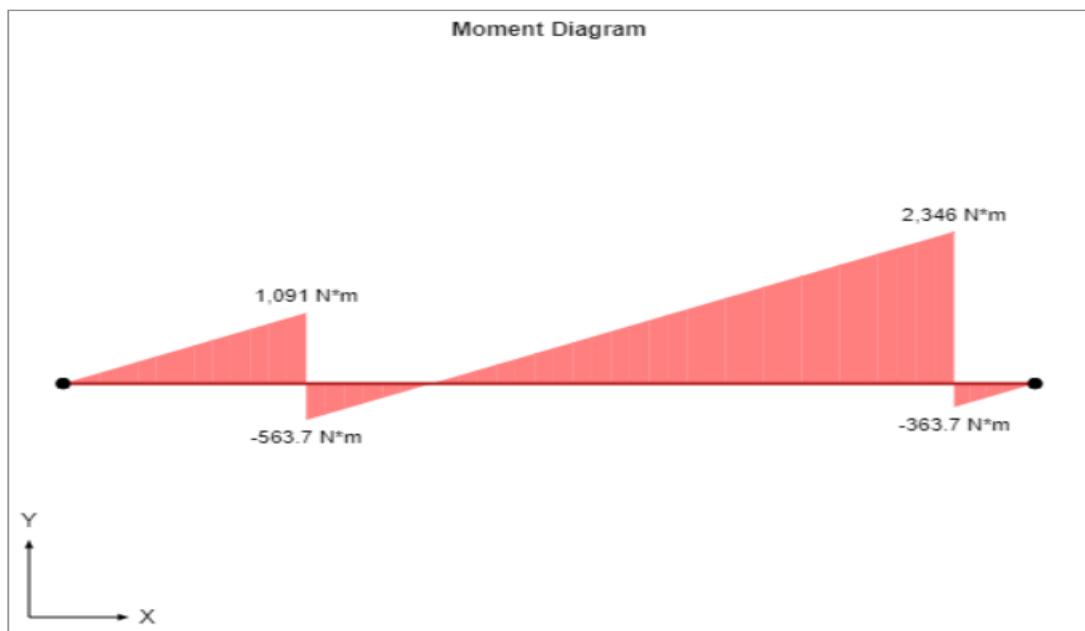


Shear Diagram



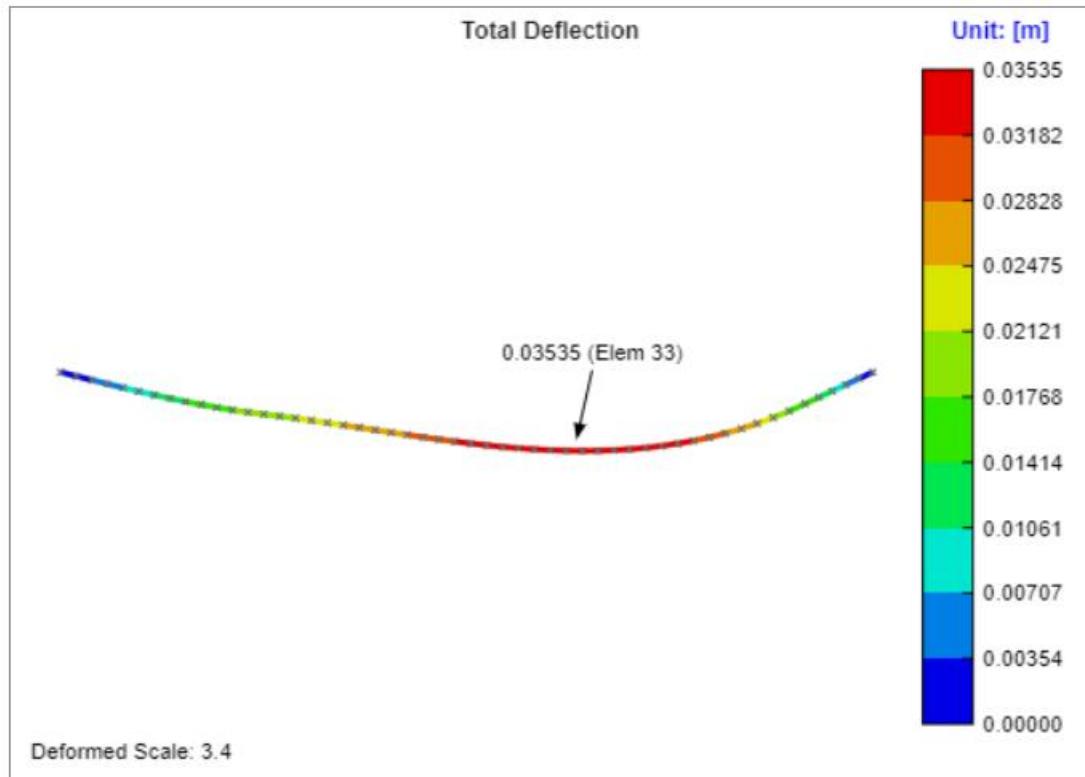
Shear Peak Values

Location	Value
0.000 m	3,638 N
1.200 m	3,637 N



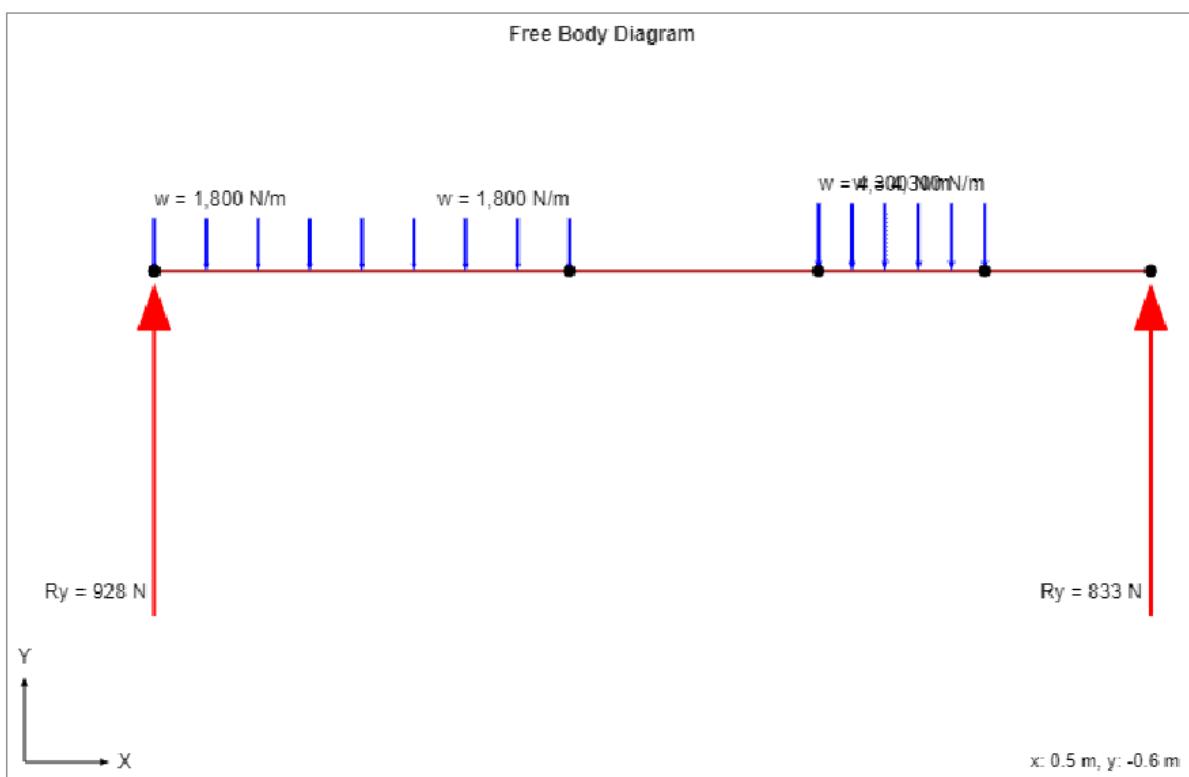
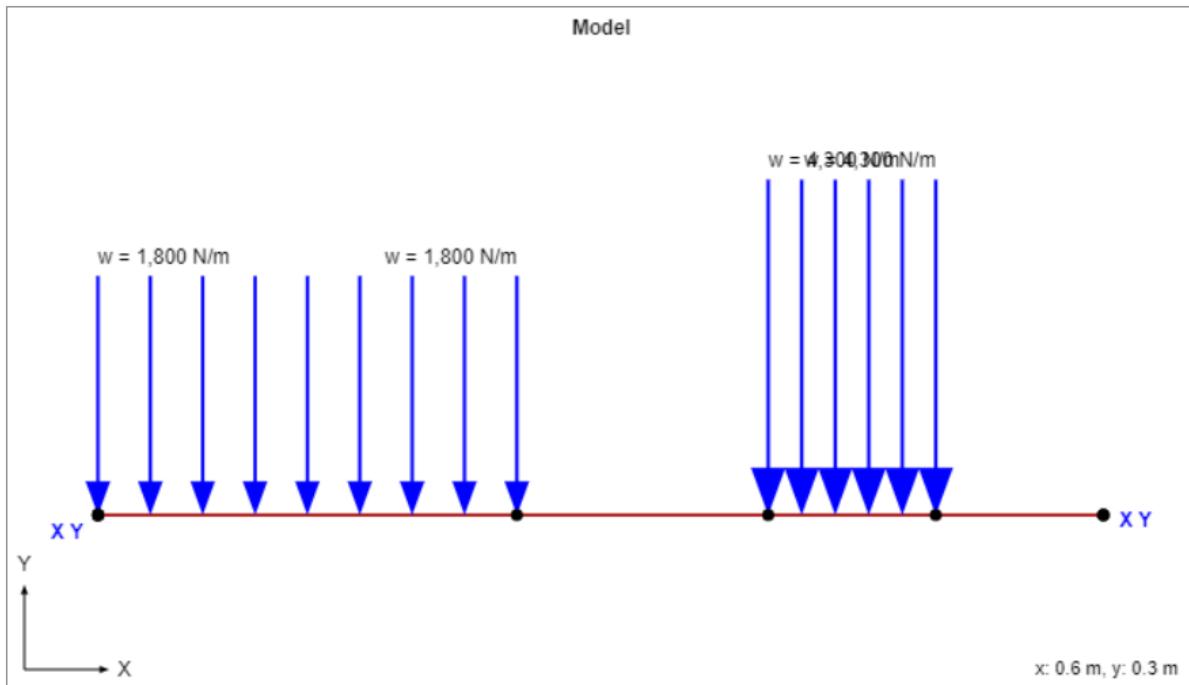
Moment Peak Values

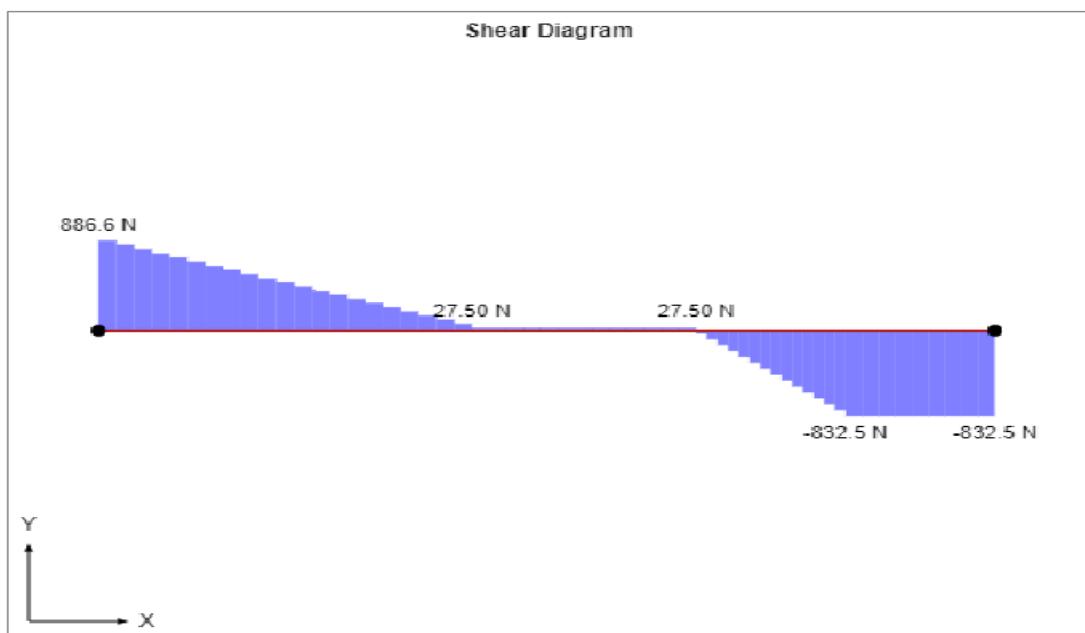
Location	Value
0.3000 m	1,091 N*m
0.3000 m	-563.7 N*m
1.100 m	2,346 N*m
1.100 m	-363.7 N*m



	Value	Location
Max Deflection:	0.03535 m	0.7706 m
Max Slope:	8.331 deg	1.100 m

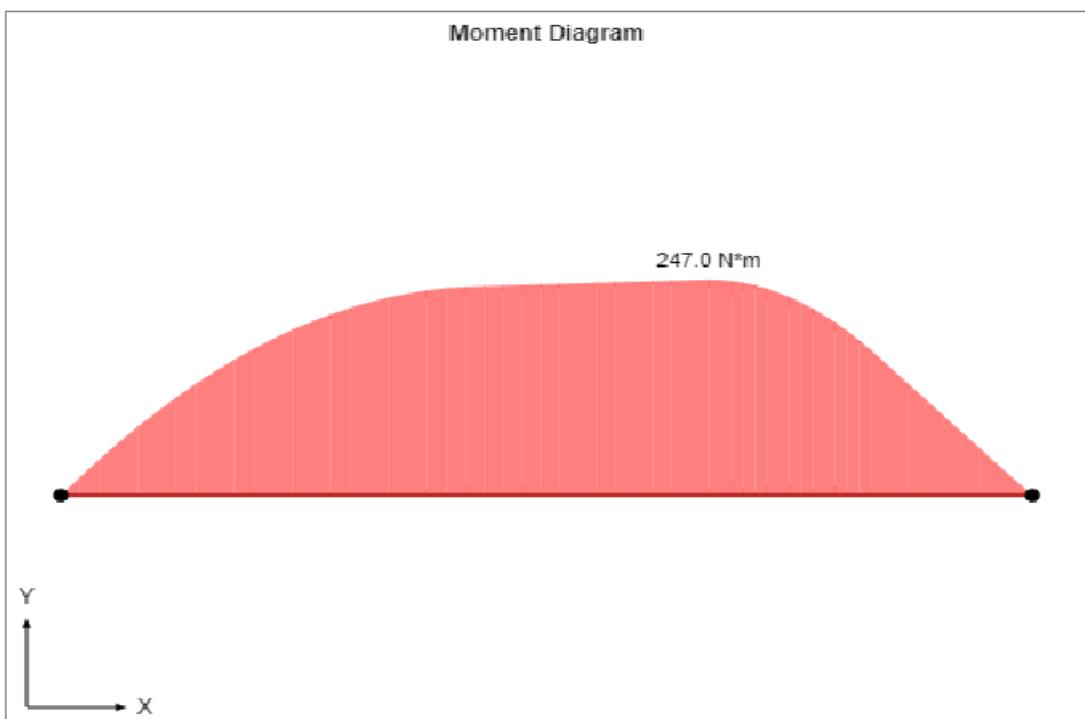
Case 17: Pin-Pin :Circular Section





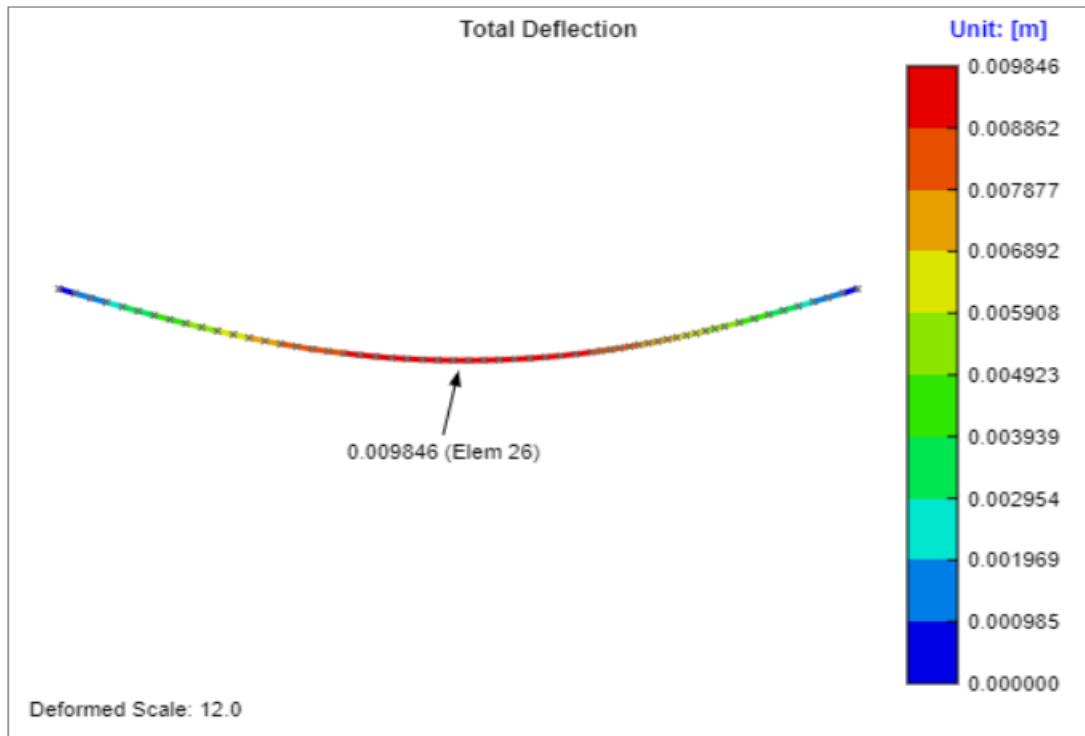
Shear Peak Values

Location	Value
0.000 m	886.6 N
0.5000 m	27.50 N
0.8000 m	27.50 N
1.000 m	-832.5 N
1.200 m	-832.5 N



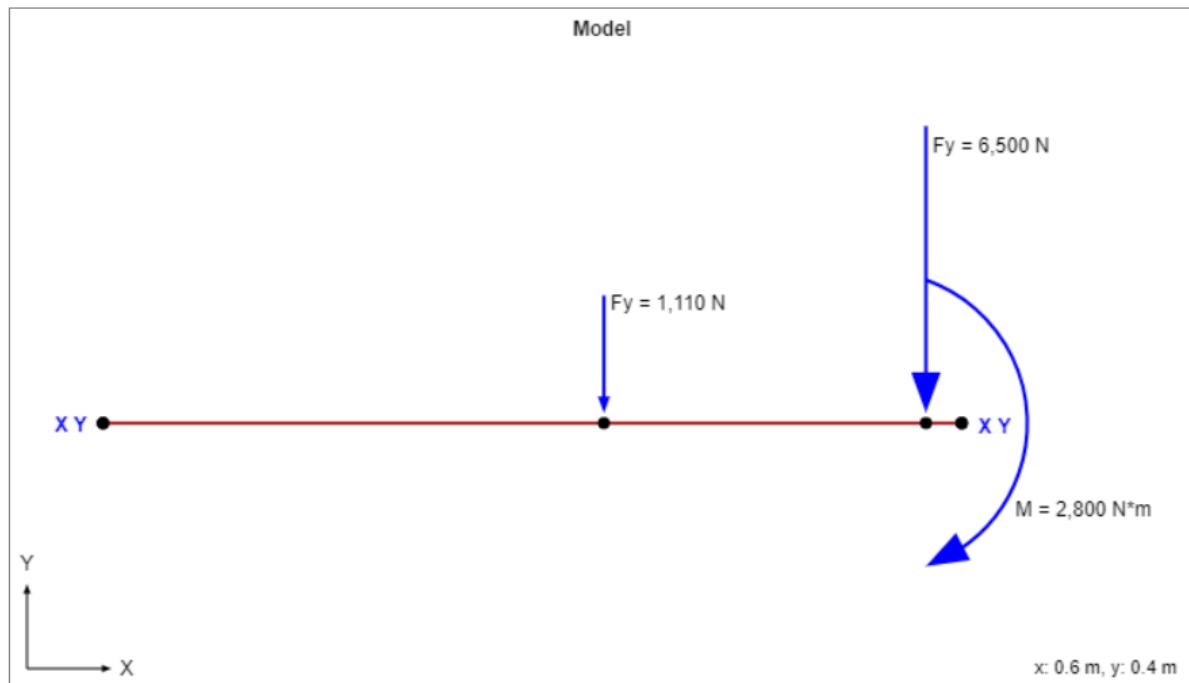
Moment Peak Values

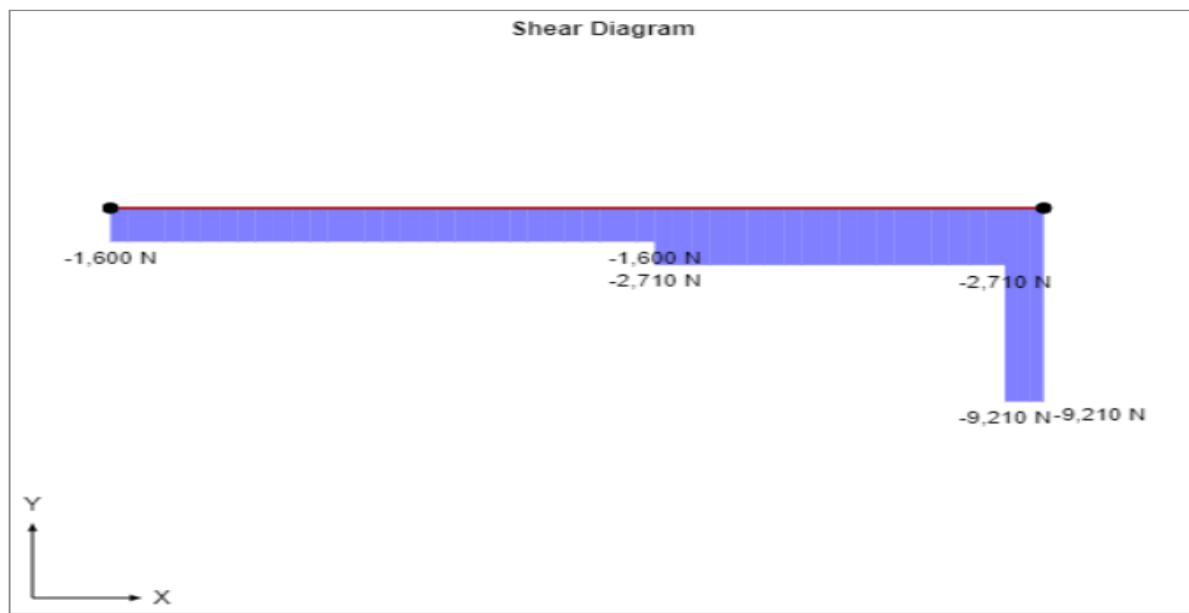
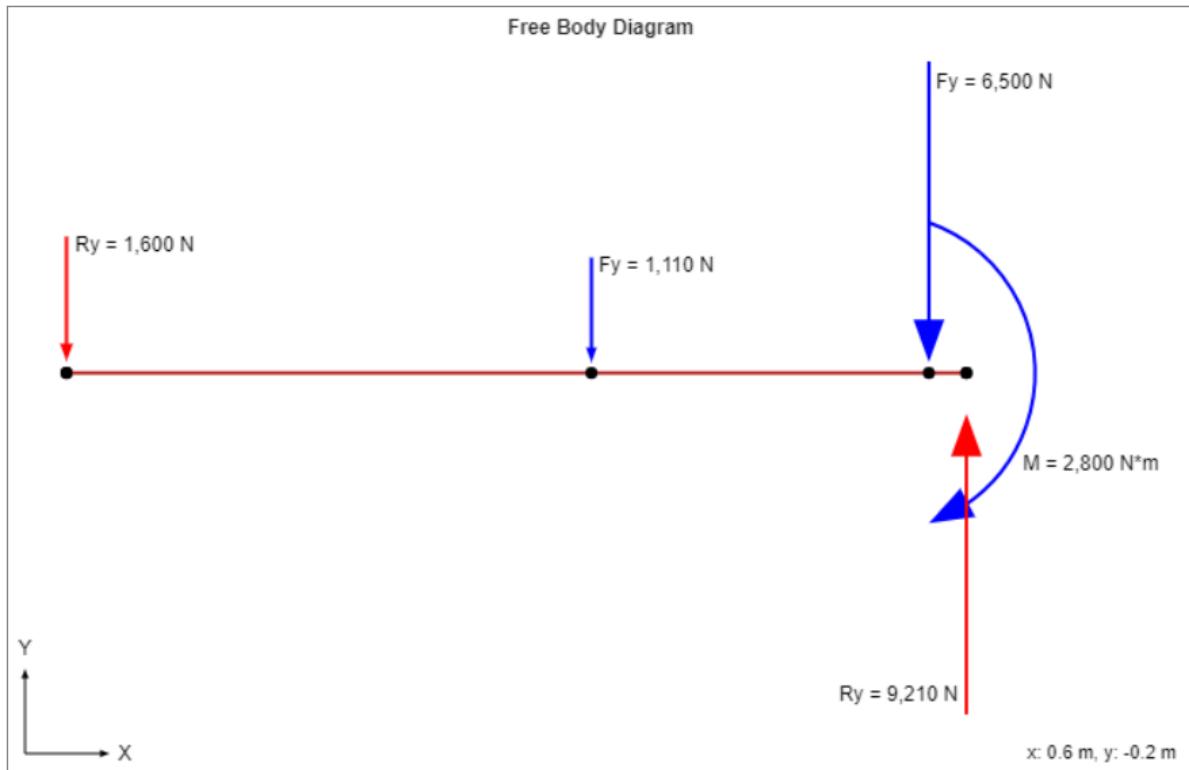
Location	Value
0.8000 m	247.0 N·m



	Value	Location
Max Deflection:	0.009846 m	0.6154 m
Max Slope:	1.560 deg	1.200 m

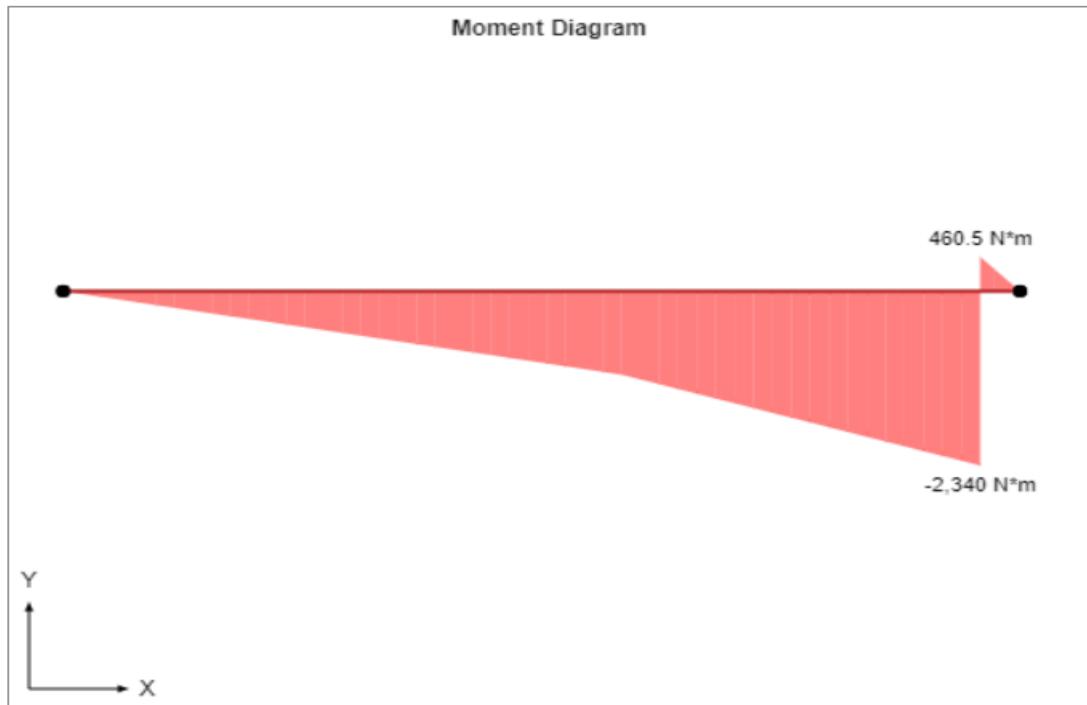
Case 18: Pin-Pin :Circular Section





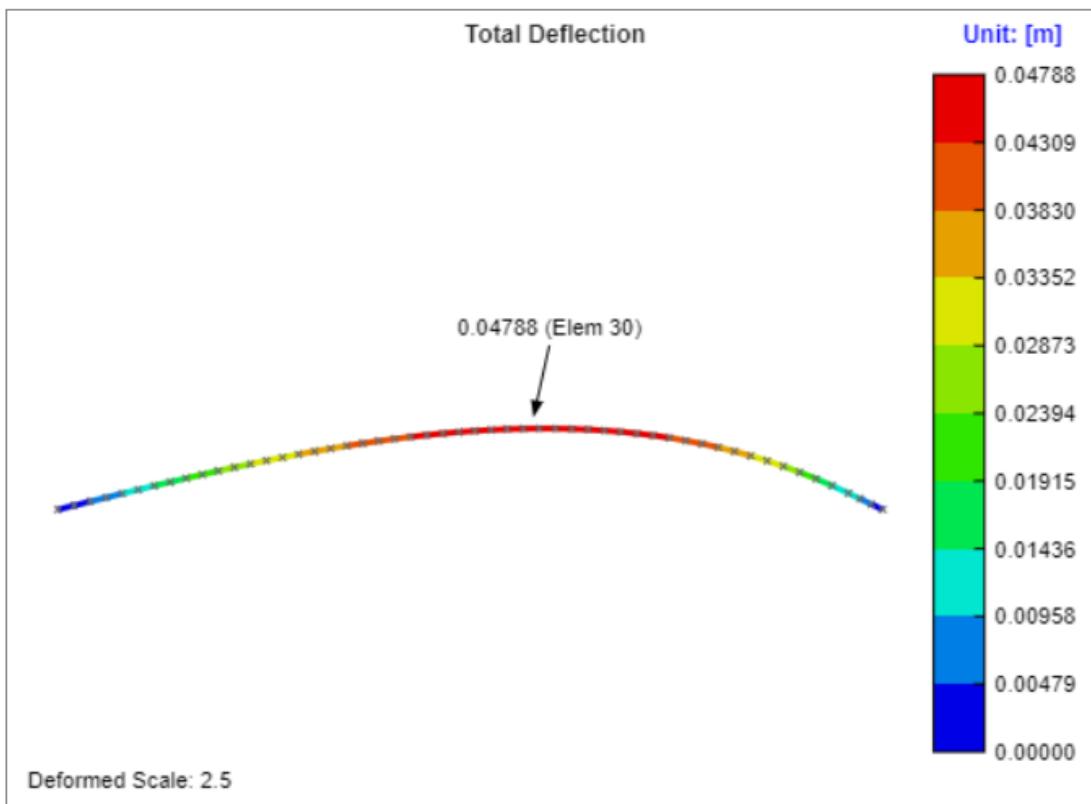
Shear Peak Values

Location	Value
0.000 m	-1,600 N
0.7000 m	-1,600 N
0.7000 m	-2,710 N
1.150 m	-2,710 N
1.150 m	-9,210 N
1.200 m	-9,210 N



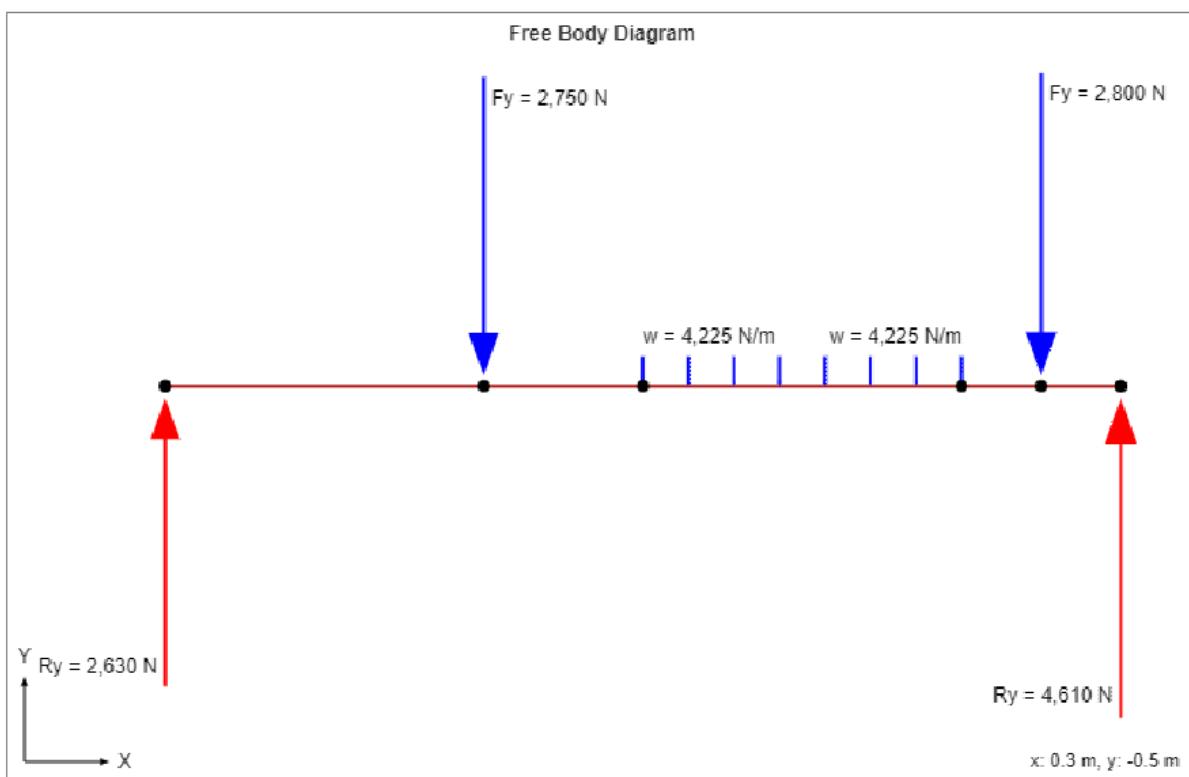
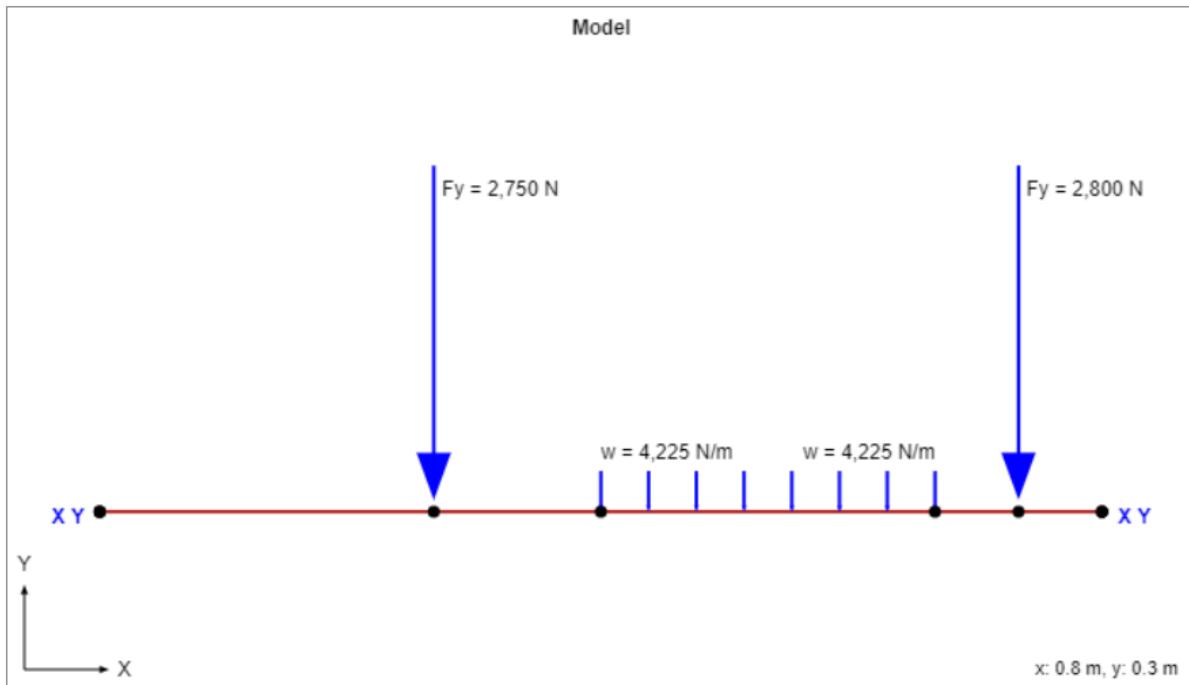
Moment Peak Values

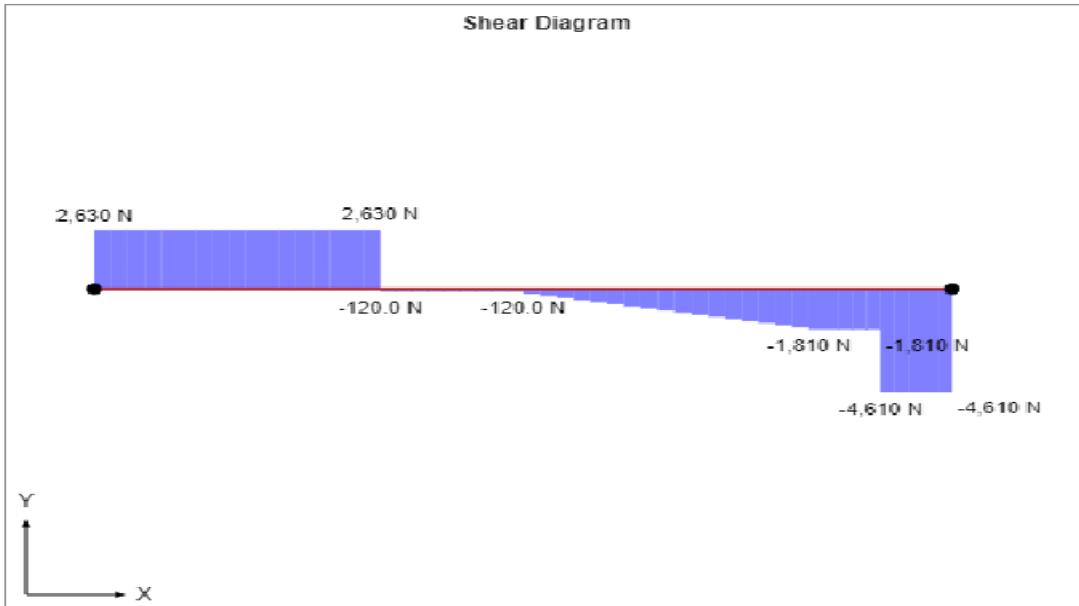
Location	Value
1.150 m	-2,340 N*m
1.150 m	460.5 N*m



	Value	Location
Max Deflection:	0.04788 m	0.7000 m
Max Slope:	-11.18 deg	1.150 m

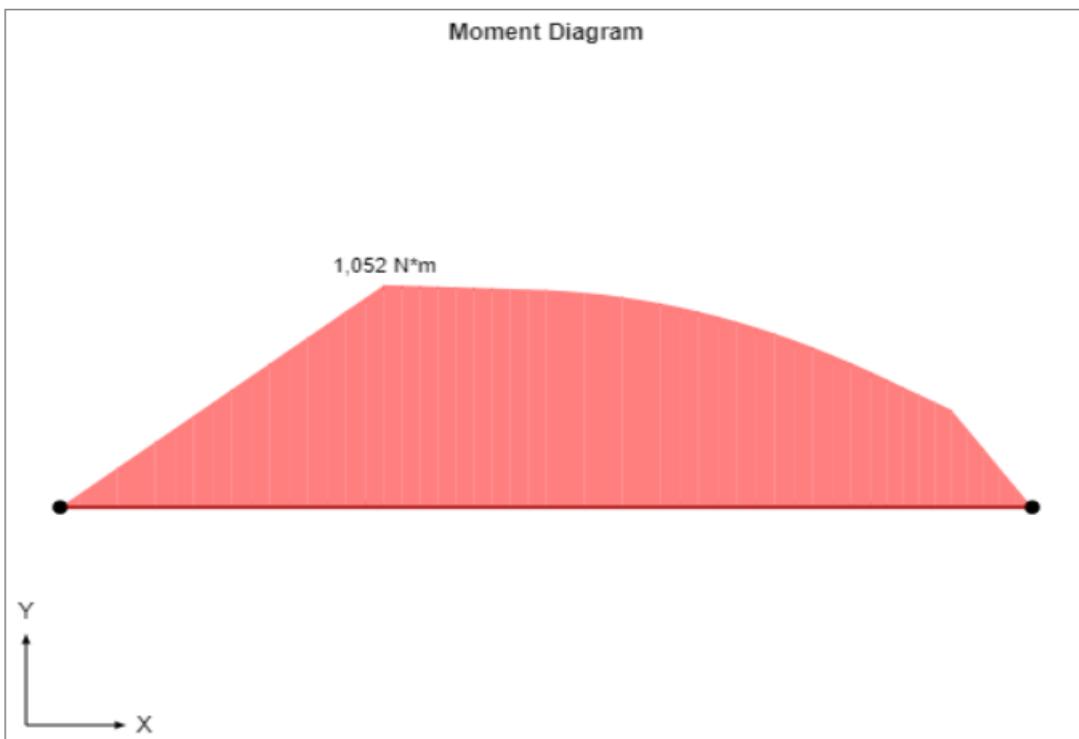
Case 19: Pin-Pin :Circular Section





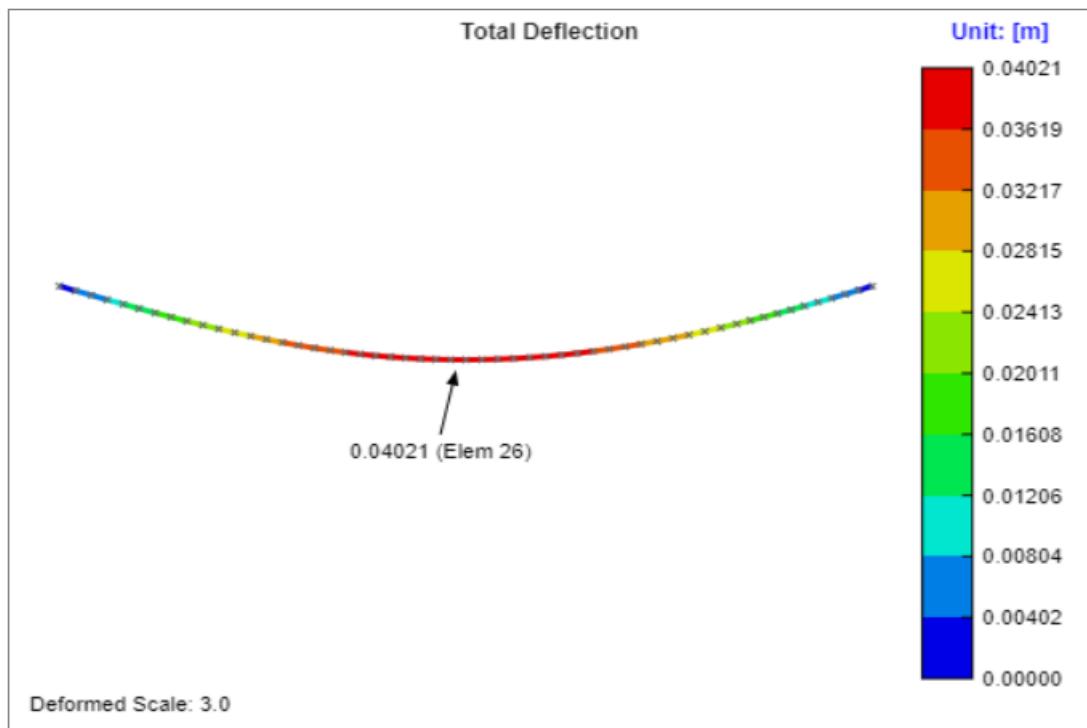
Shear Peak Values

Location	Value
0.000 m	2,630 N
0.4000 m	2,630 N
0.4000 m	-120.0 N
0.6000 m	-120.0 N
1.000 m	-1,810 N
1.100 m	-1,810 N
1.100 m	-4,610 N
1.200 m	-4,610 N



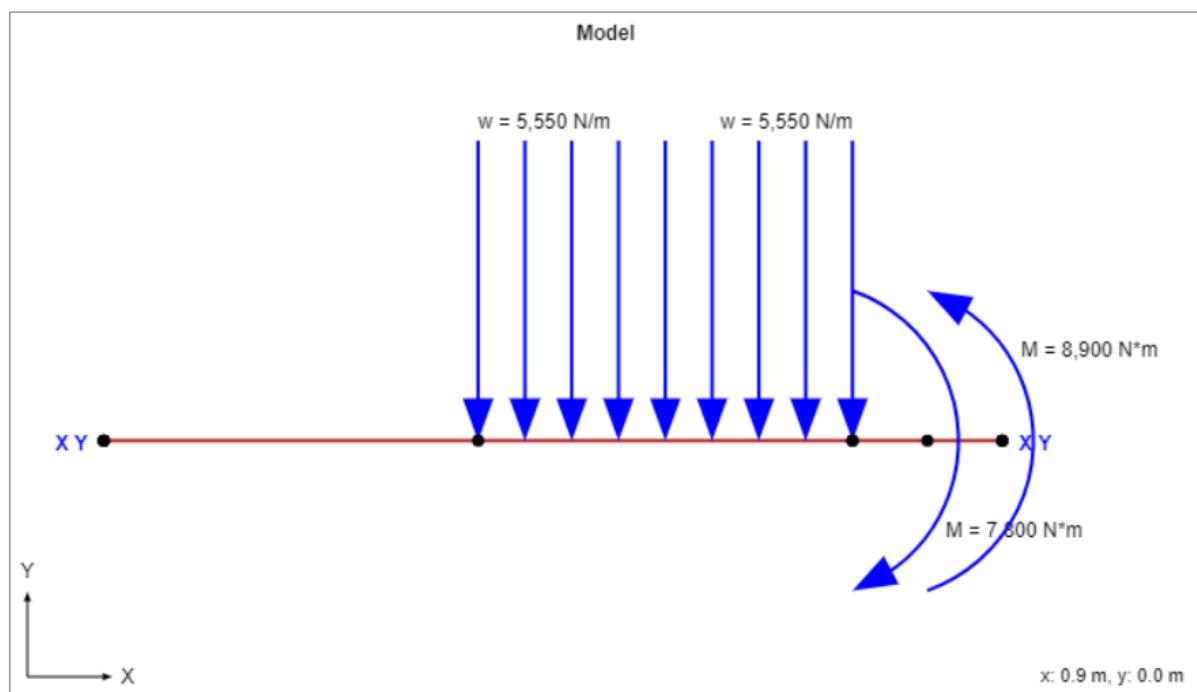
Moment Peak Values

Location	Value
0.4000 m	1,052 N*m

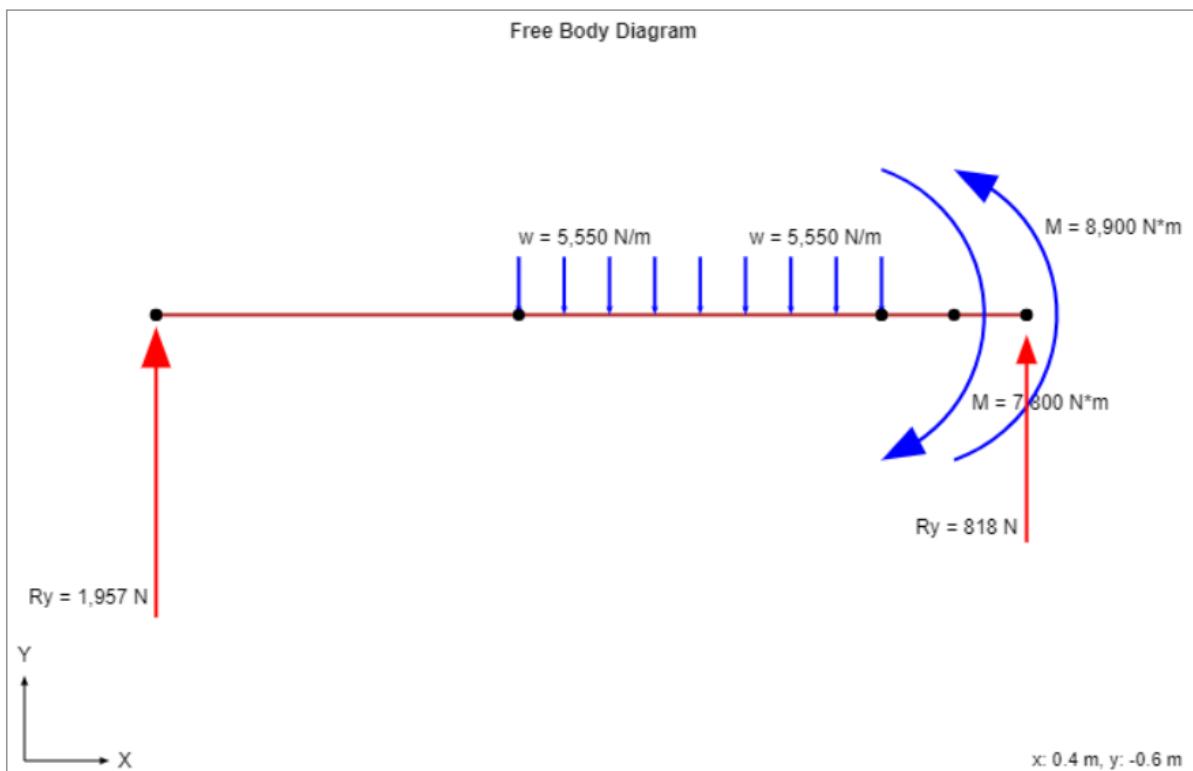


	Value	Location
Max Deflection:	0.04021 m	0.6000 m
Max Slope:	6.330 deg	1.200 m

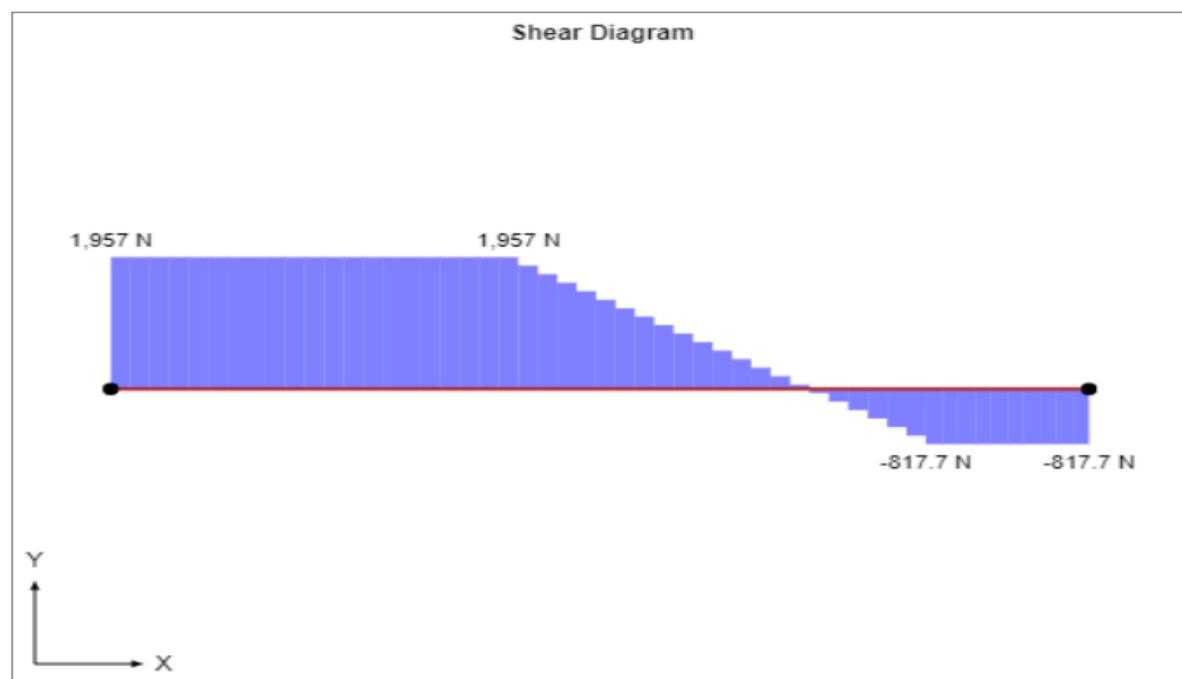
Case 20: Pin-Pin: Circular Section



Free Body Diagram

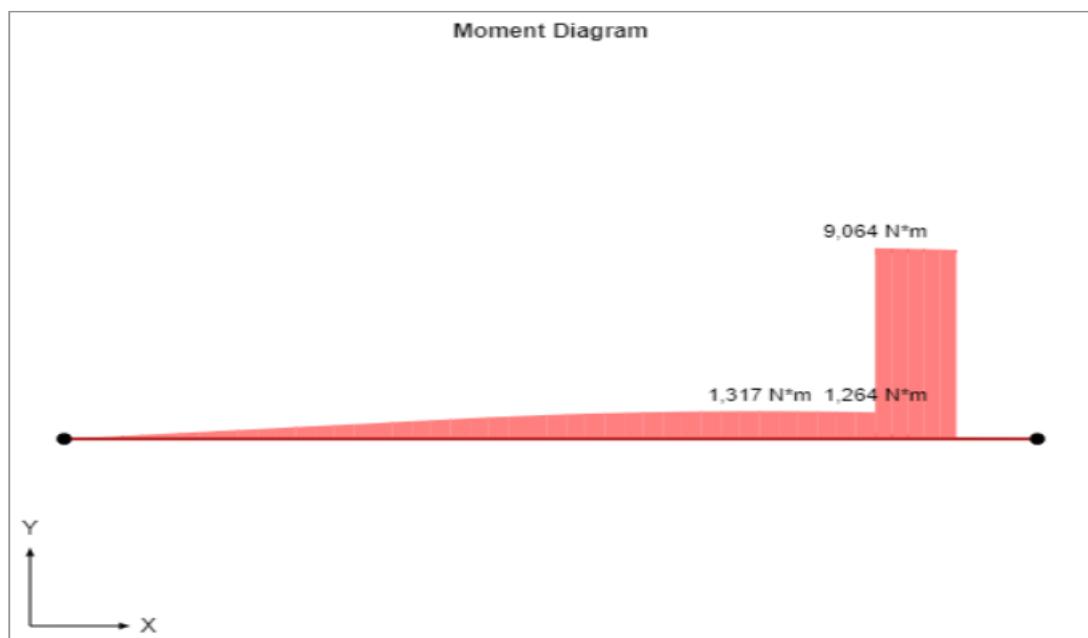


Shear Diagram



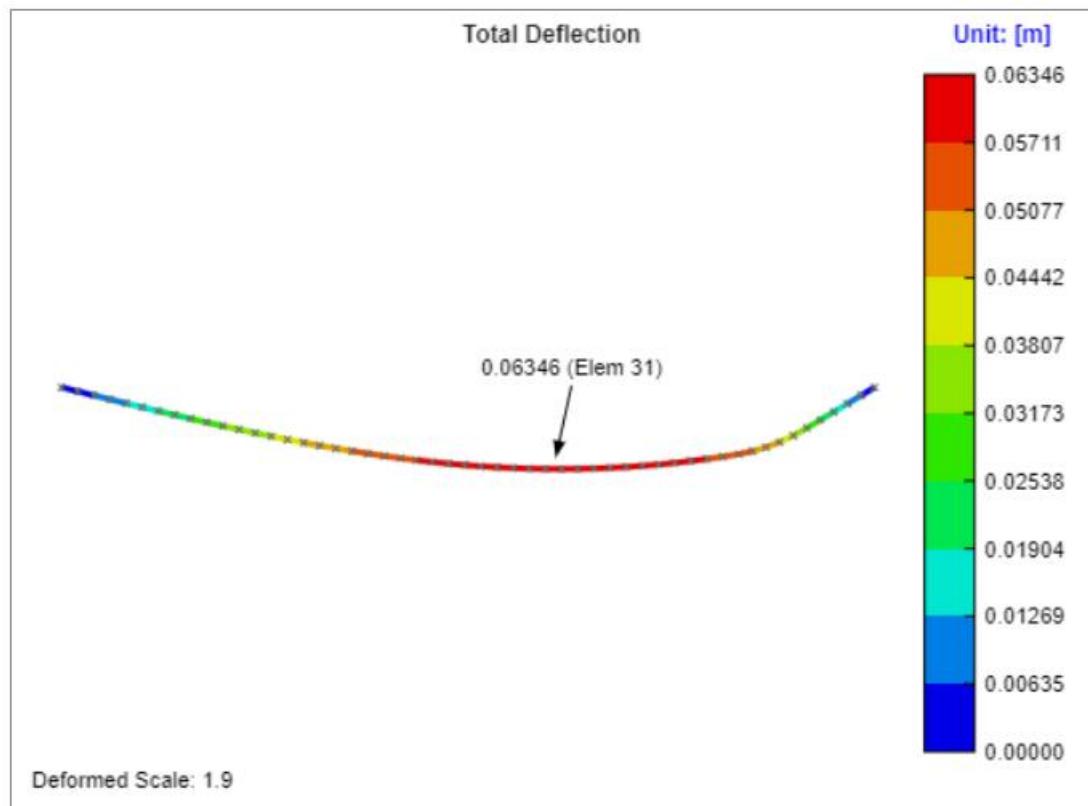
Shear Peak Values

Location	Value
0.000 m	1,957 N
0.5000 m	1,957 N
1.000 m	-817.7 N
1.200 m	-817.7 N



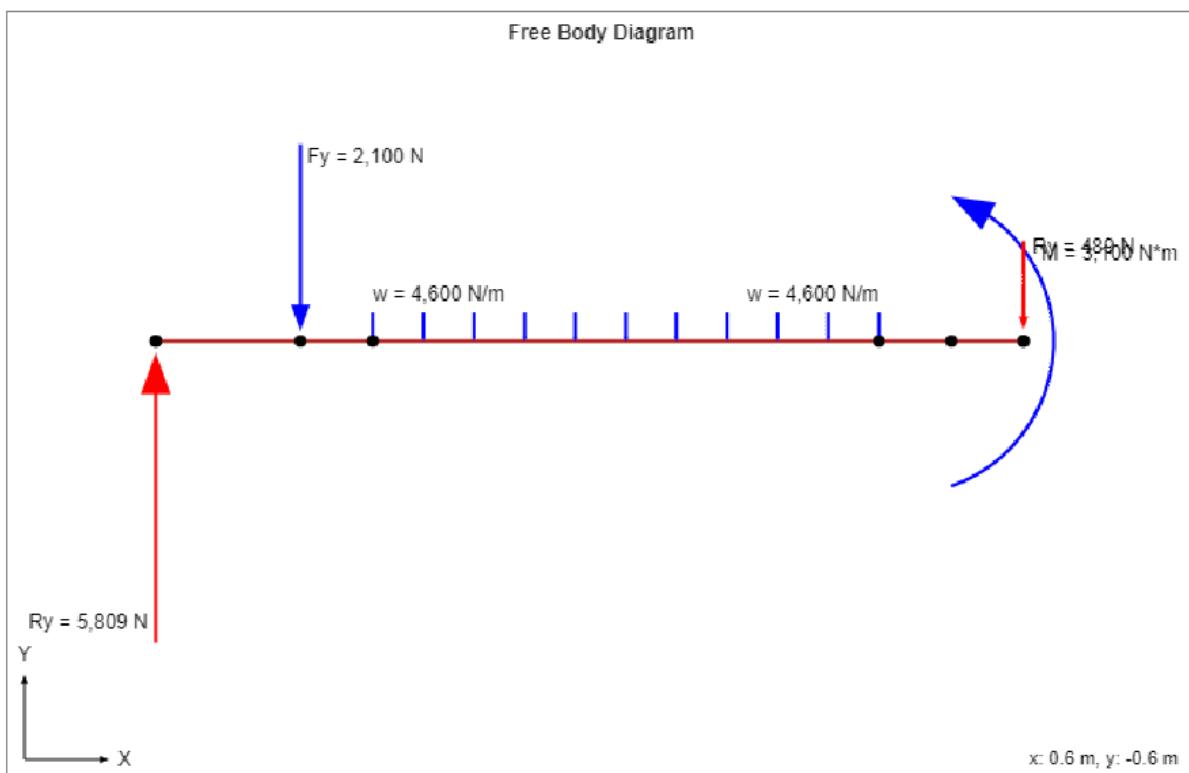
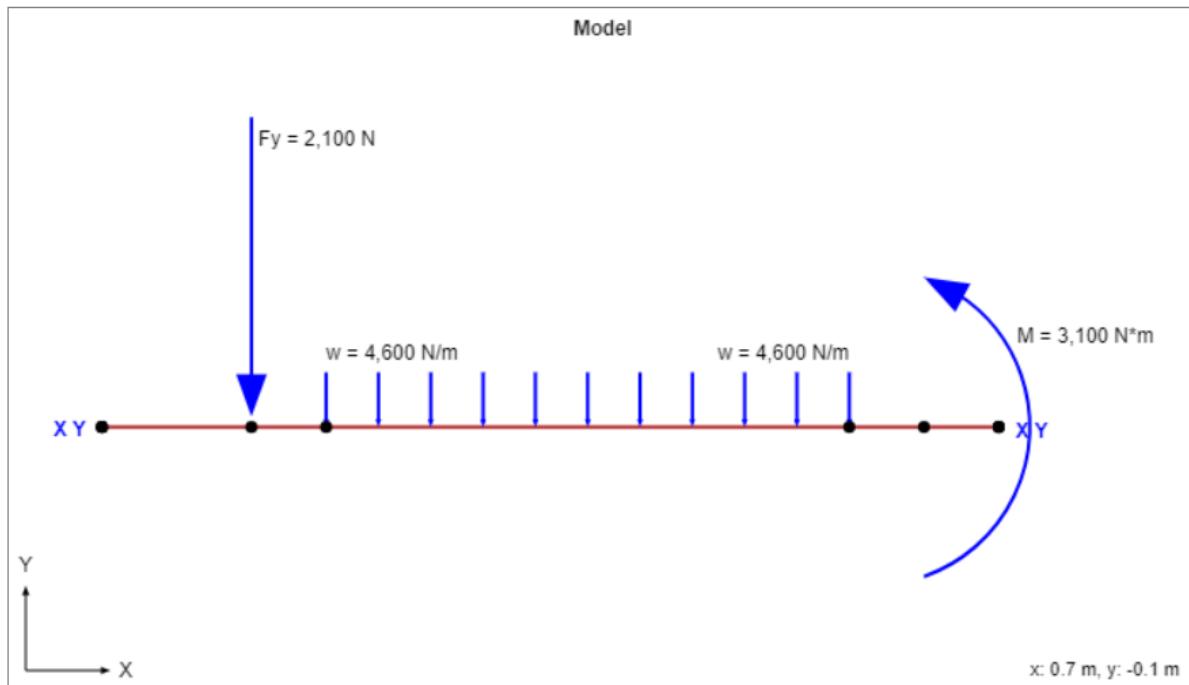
Moment Peak Values

Location	Value
0.8571 m	1,317 N*m
1.000 m	1,264 N*m
1.000 m	9,064 N*m

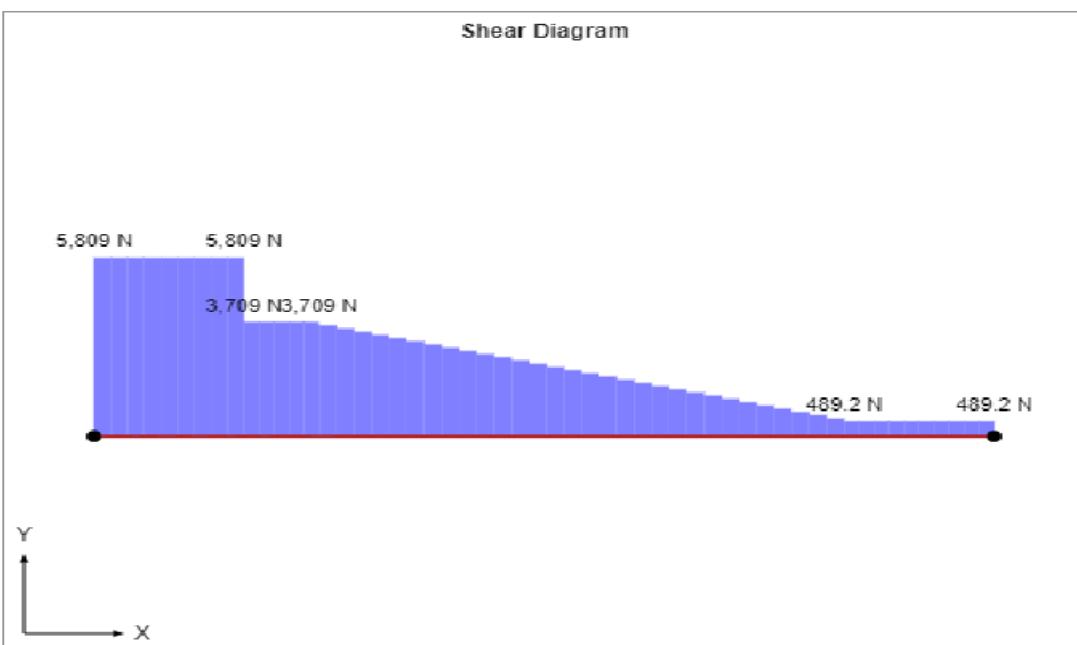


	Value	Location
Max Deflection:	0.06346 m	0.7381 m
Max Slope:	18.17 deg	1.200 m

Case 21: Pin-Pin: Circular Section



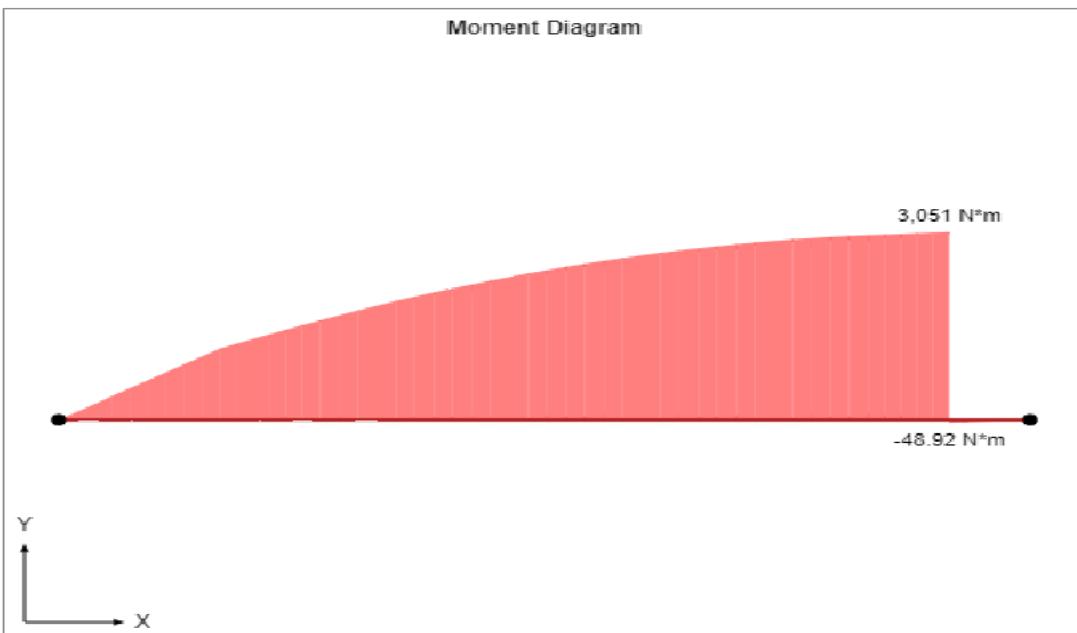
Shear Diagram



Shear Peak Values

Location	Value
0.000 m	5,809 N
0.2000 m	5,809 N
0.2000 m	3,709 N
0.3000 m	3,709 N
1.000 m	489.2 N
1.200 m	489.2 N

Moment Diagram



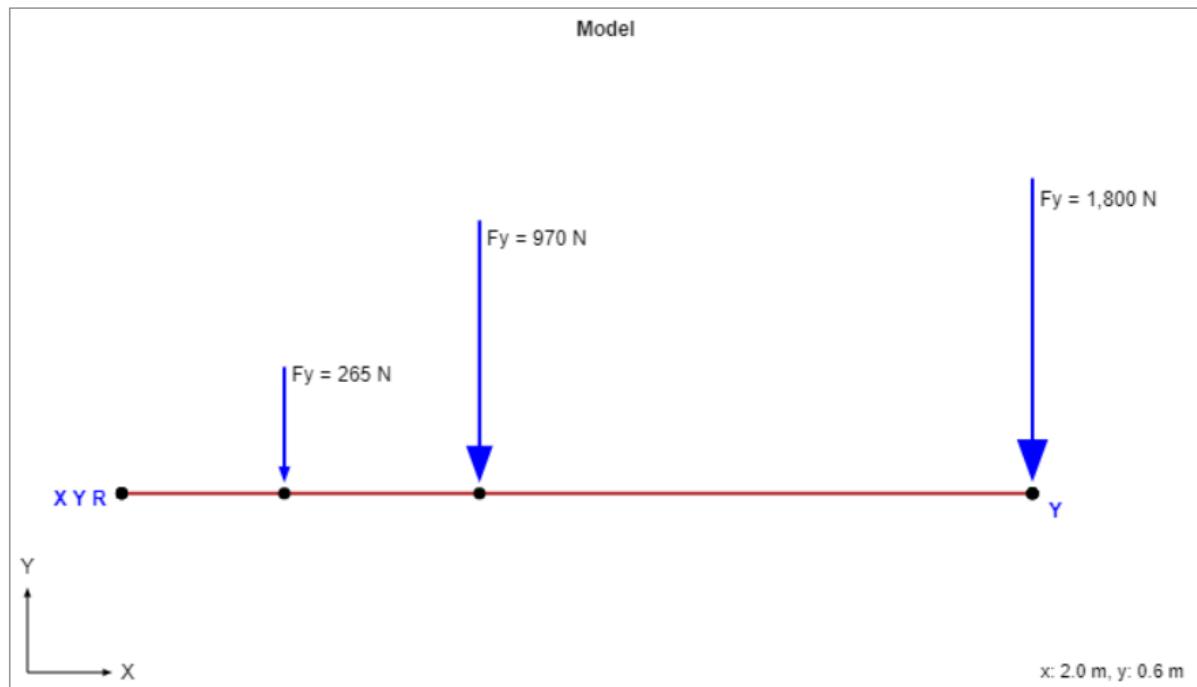
Moment Peak Values

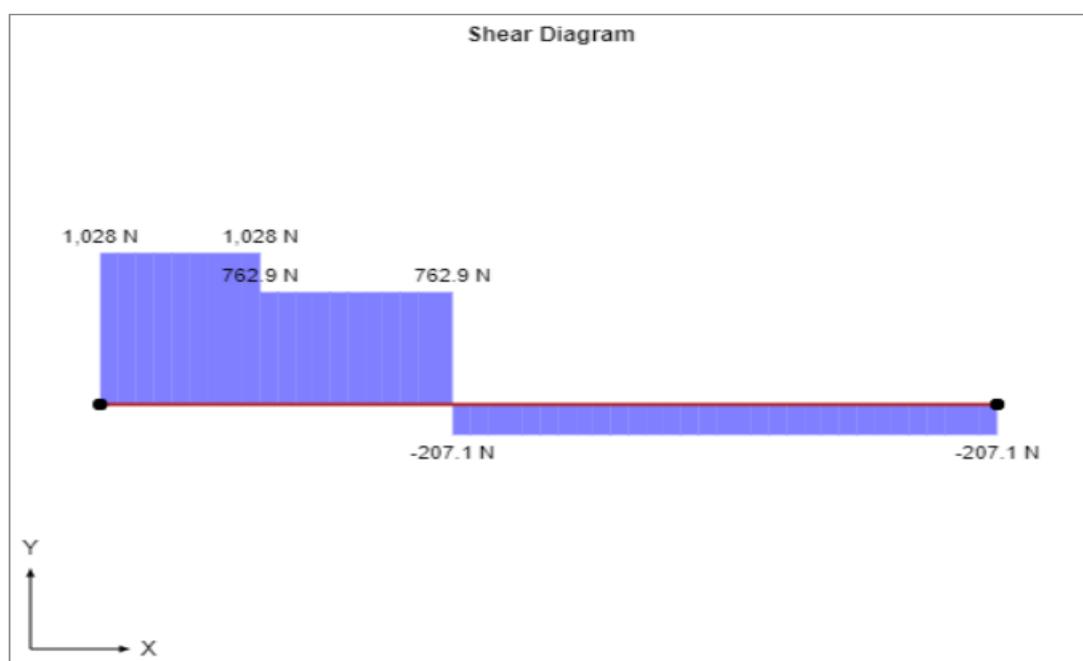
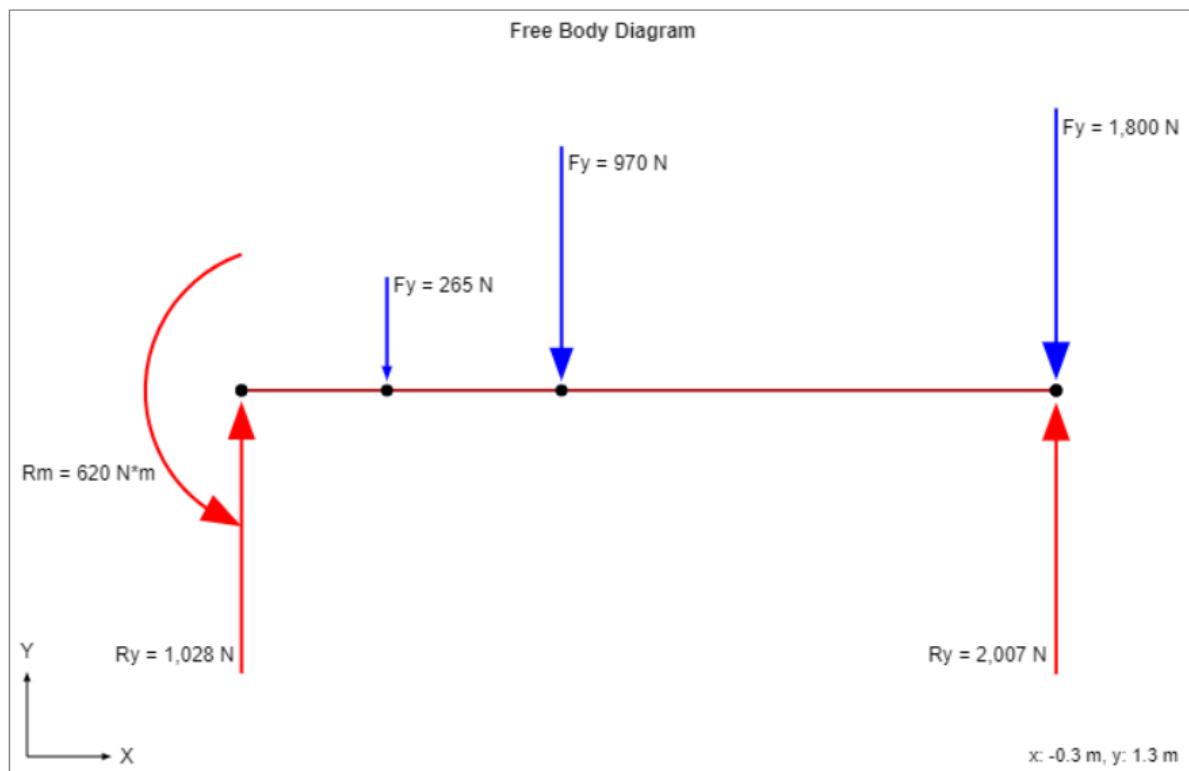
Location	Value
1.100 m	3,051 N*m
1.100 m	-48.92 N*m



	Value	Location
Max Deflection:	0.1035 m	0.6500 m
Max Slope:	18.66 deg	1.100 m

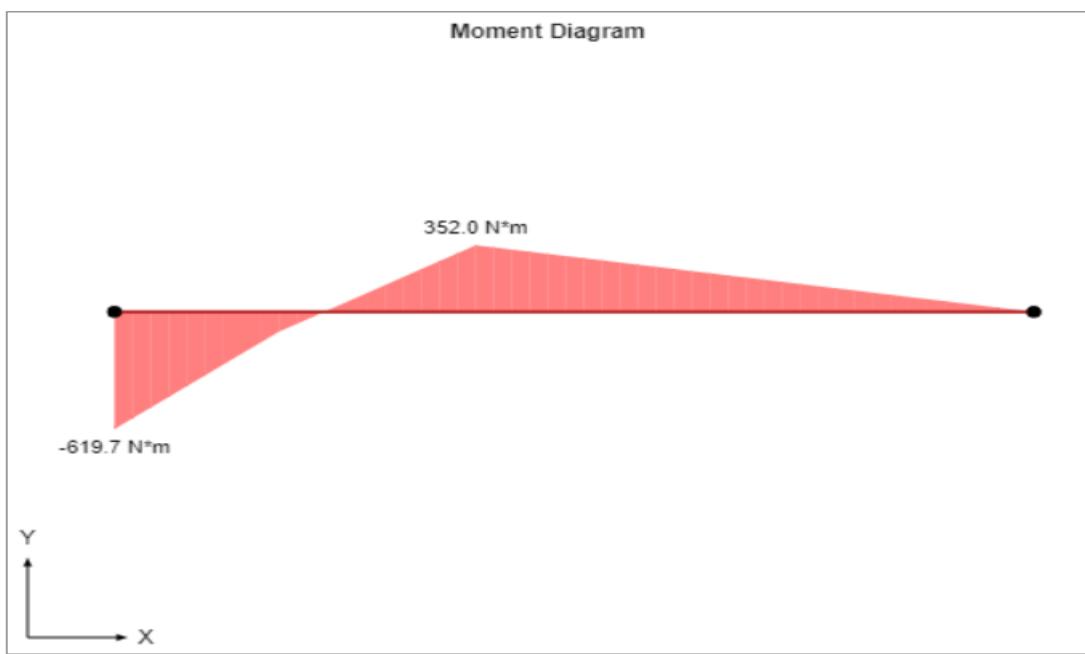
Case 22: Fixed- Roller: Rectangular Section





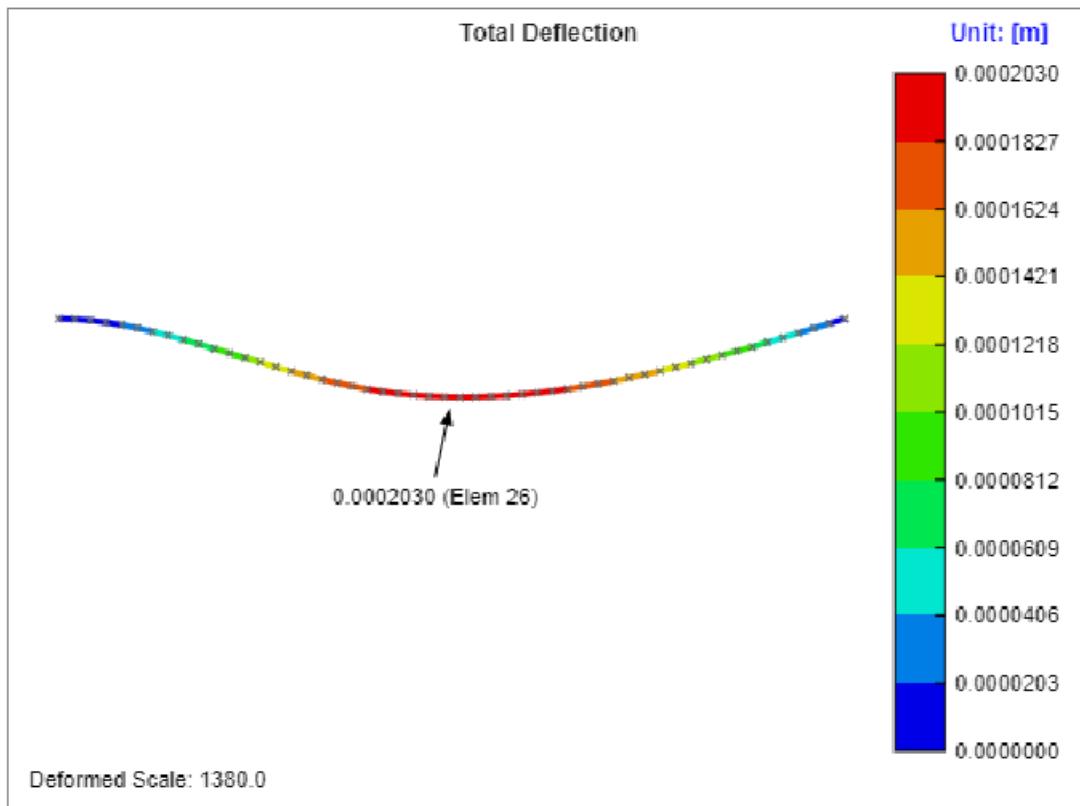
Shear Peak Values

Location	Value
0.000 m	1,028 N
0.5000 m	1,028 N
0.5000 m	762.9 N
1.100 m	762.9 N
1.100 m	-207.1 N
2.800 m	-207.1 N



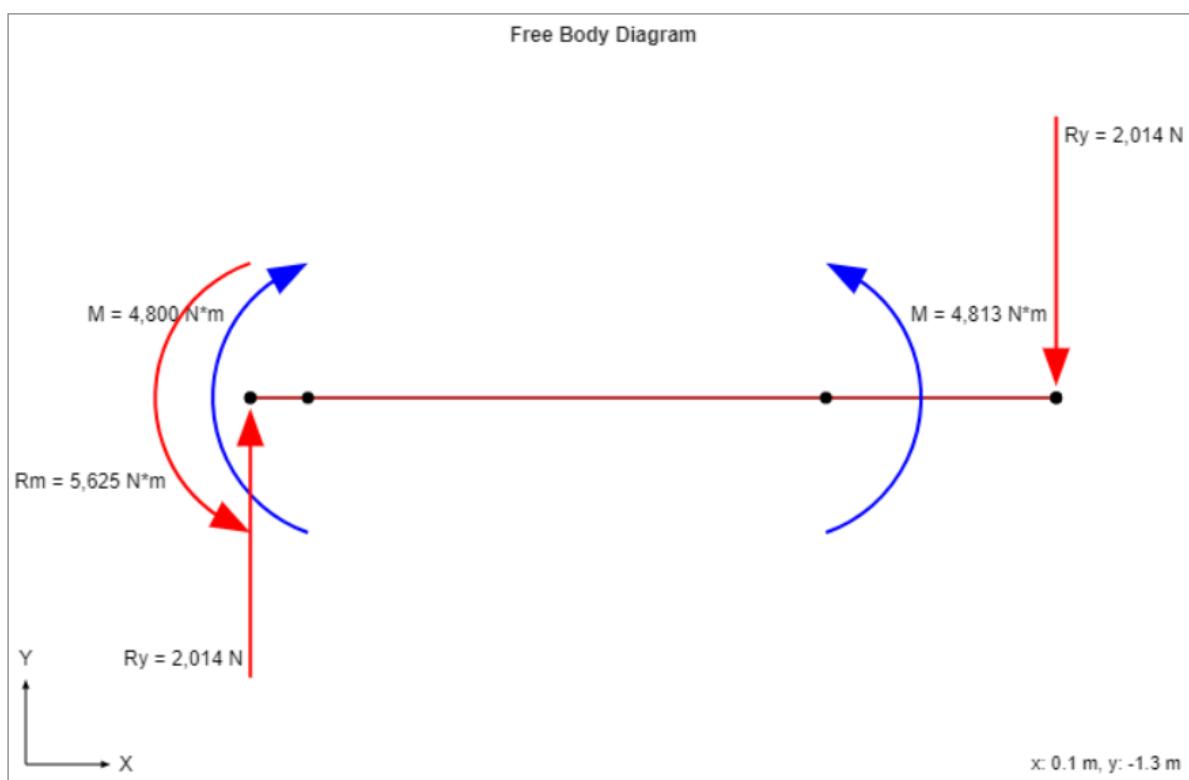
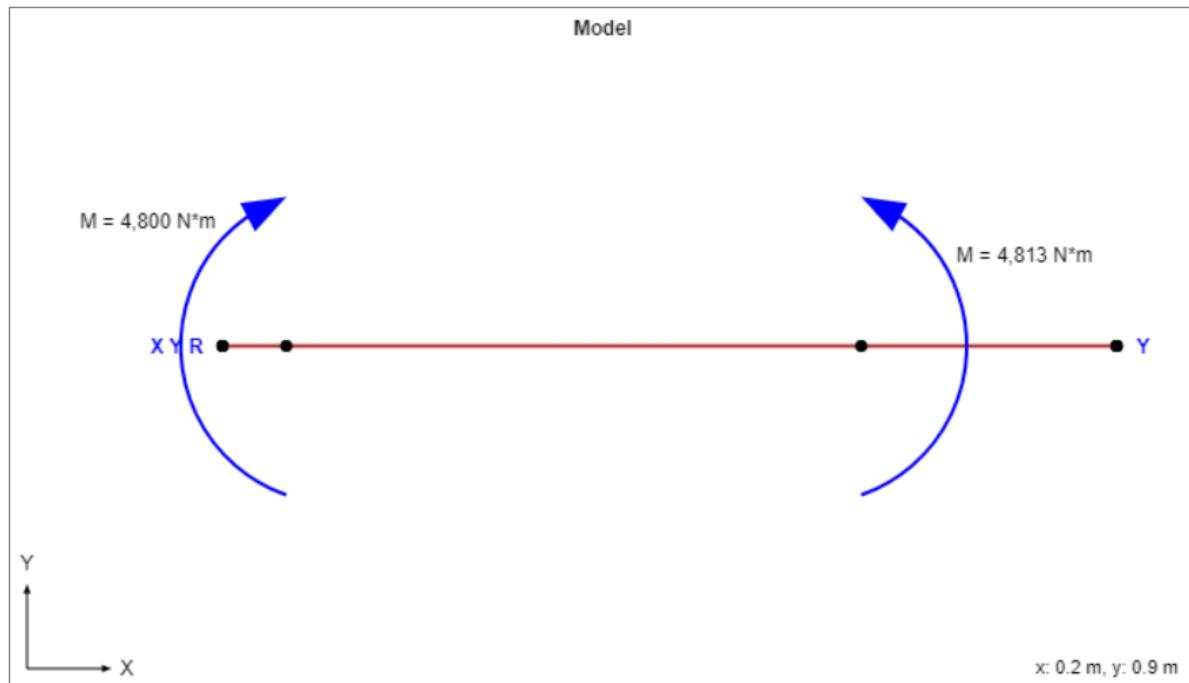
Moment Peak Values

Location	Value
0.000 m	-619.7 N*m
1.100 m	352.0 N*m



	Value	Location
Max Deflection:	0.0002030 m	1.429 m
Max Slope:	0.01282 deg	2.800 m

Case 23: Fixed- Roller: Rectangular Section



Shear Diagram

2,014 N 2,014 N



Shear Peak Values

Location	Value
0.000 m	2,014 N
2.800 m	2,014 N

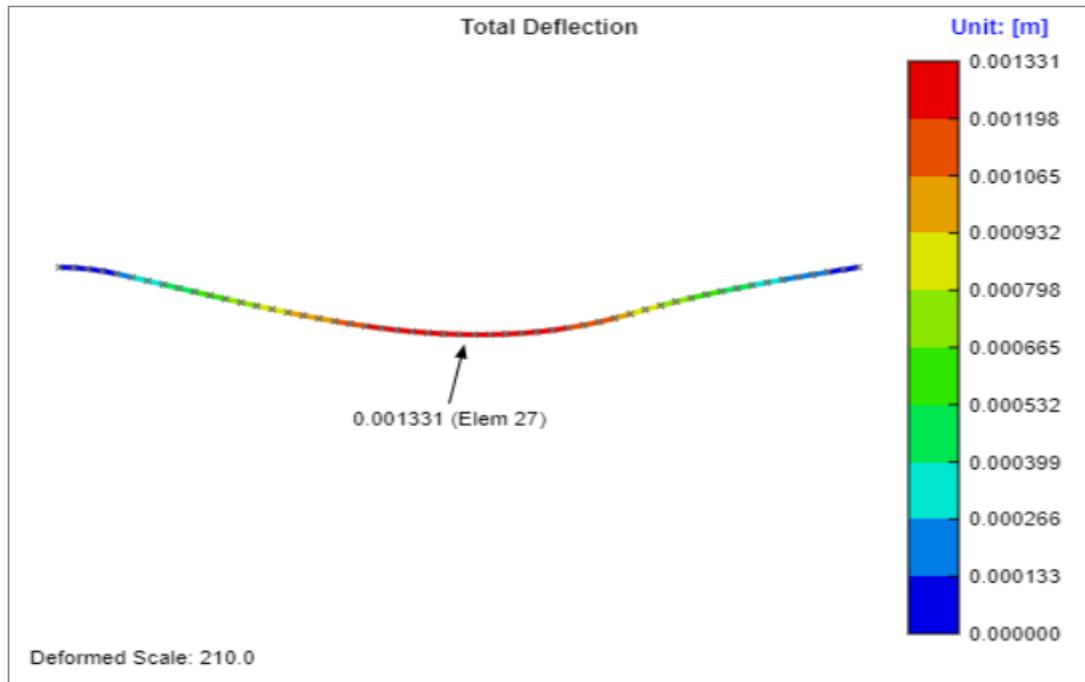
Moment Diagram

3,202 N*m
-5,625 N*m
-1,611 N*m



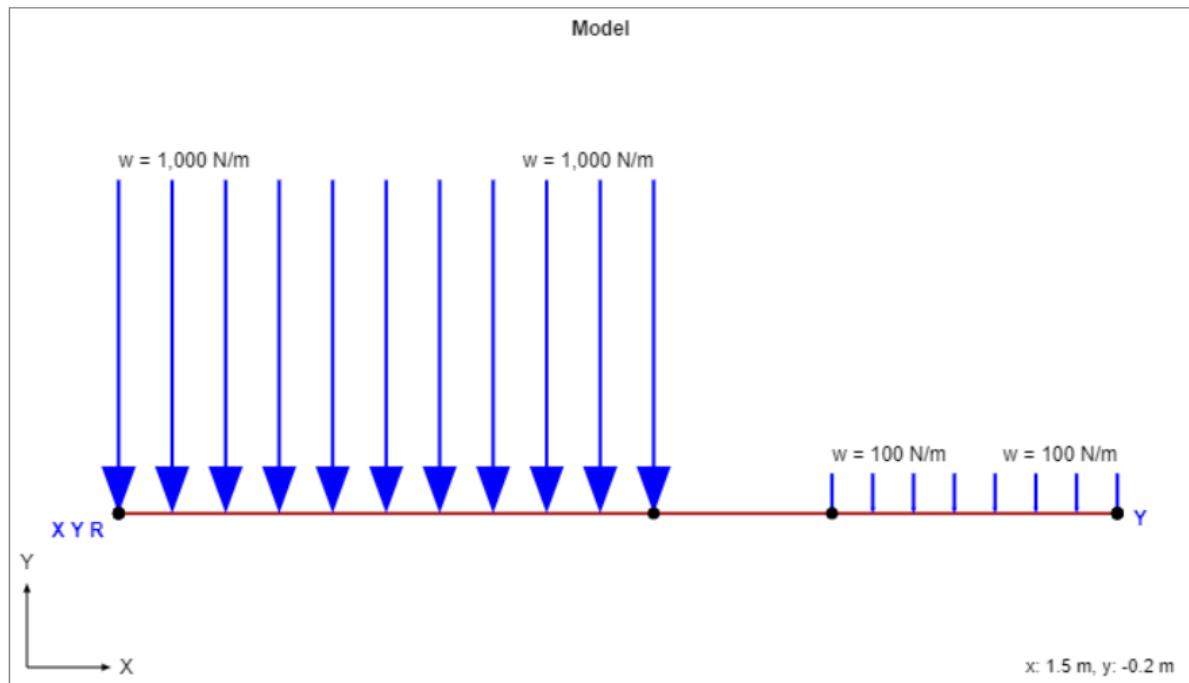
Moment Peak Values

Location	Value
0.000 m	-5,625 N*m
2.000 m	3,202 N*m
2.000 m	-1,611 N*m

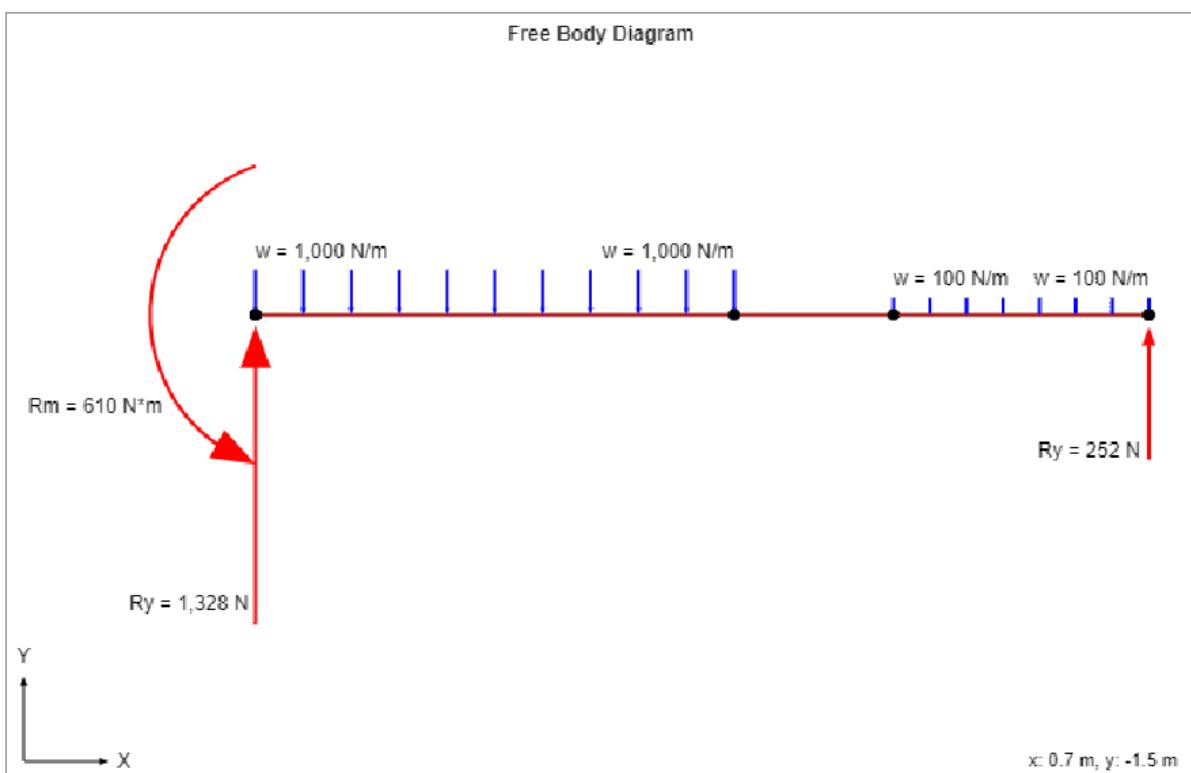


	Value	Location
Max Deflection:	0.001331 m	1.455 m
Max Slope:	0.09470 deg	2.000 m

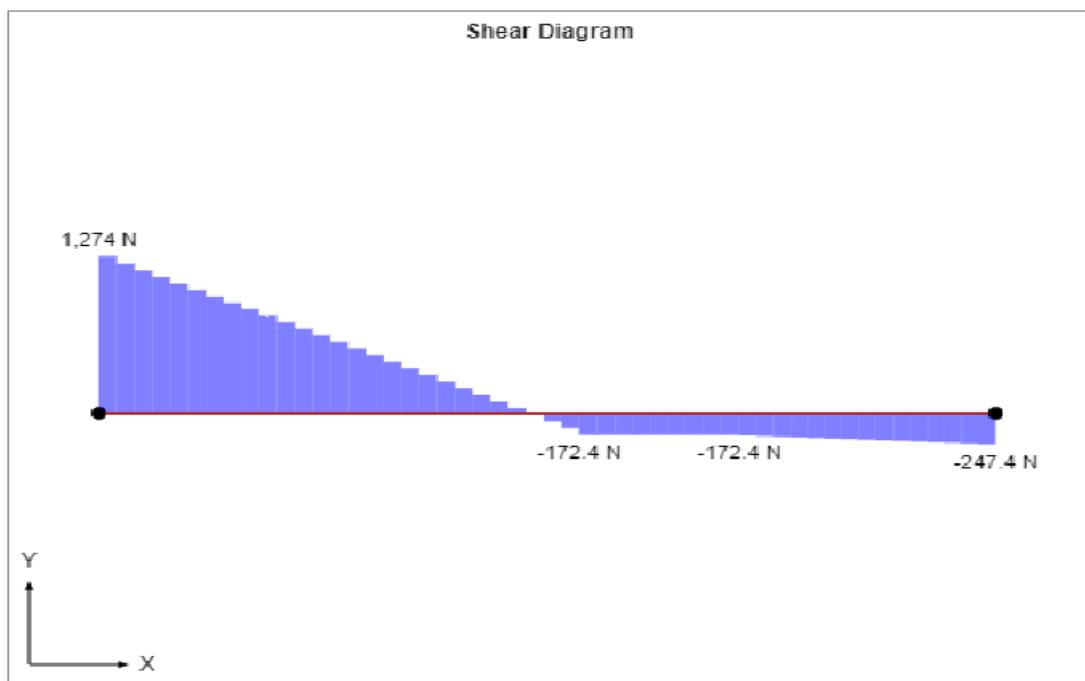
Case 24: Fixed- Roller: Rectangular Section



Free Body Diagram

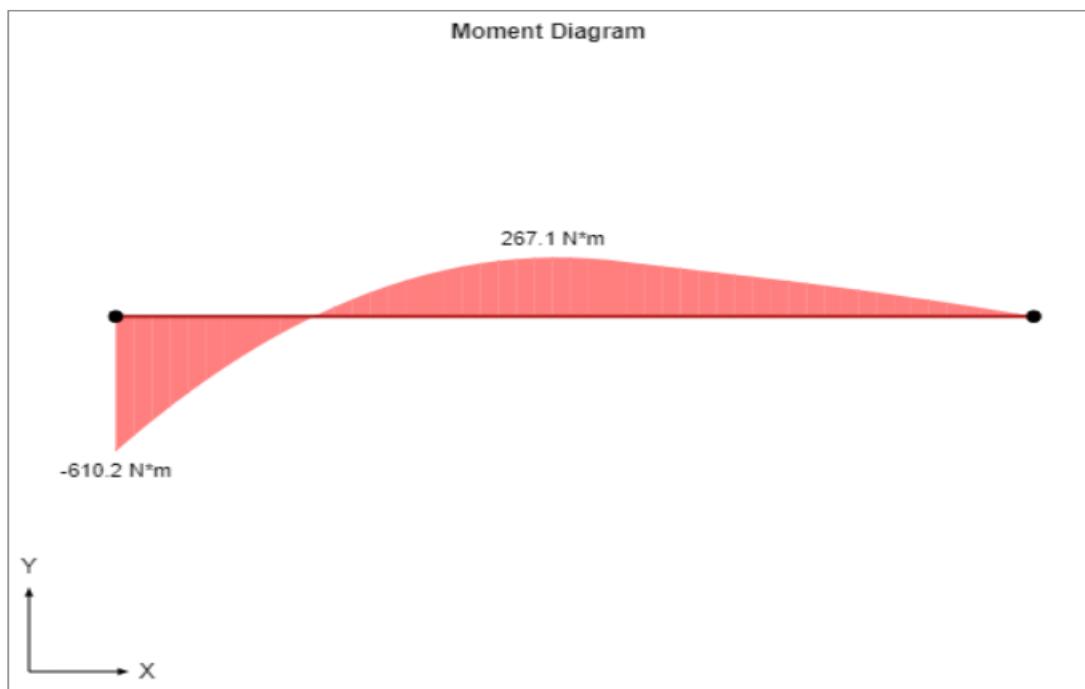


Shear Diagram



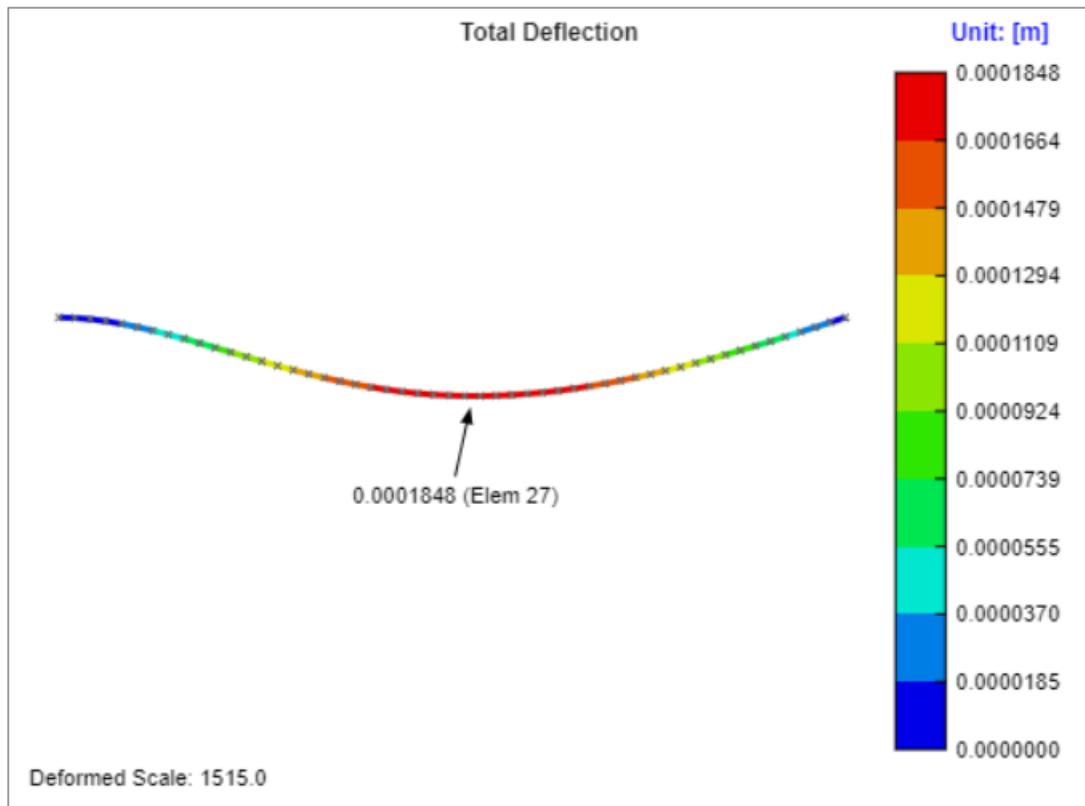
Shear Peak Values

Location	Value
0.000 m	1,274 N
1.500 m	-172.4 N
2.000 m	-172.4 N
2.800 m	-247.4 N



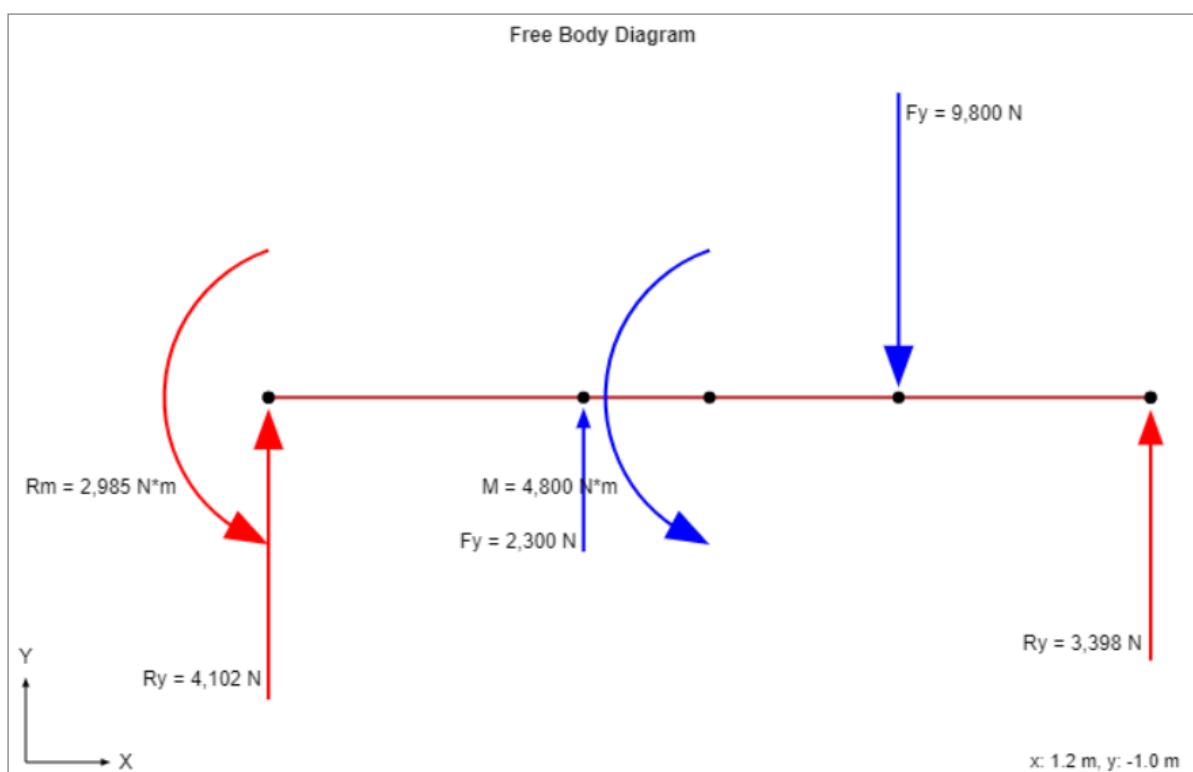
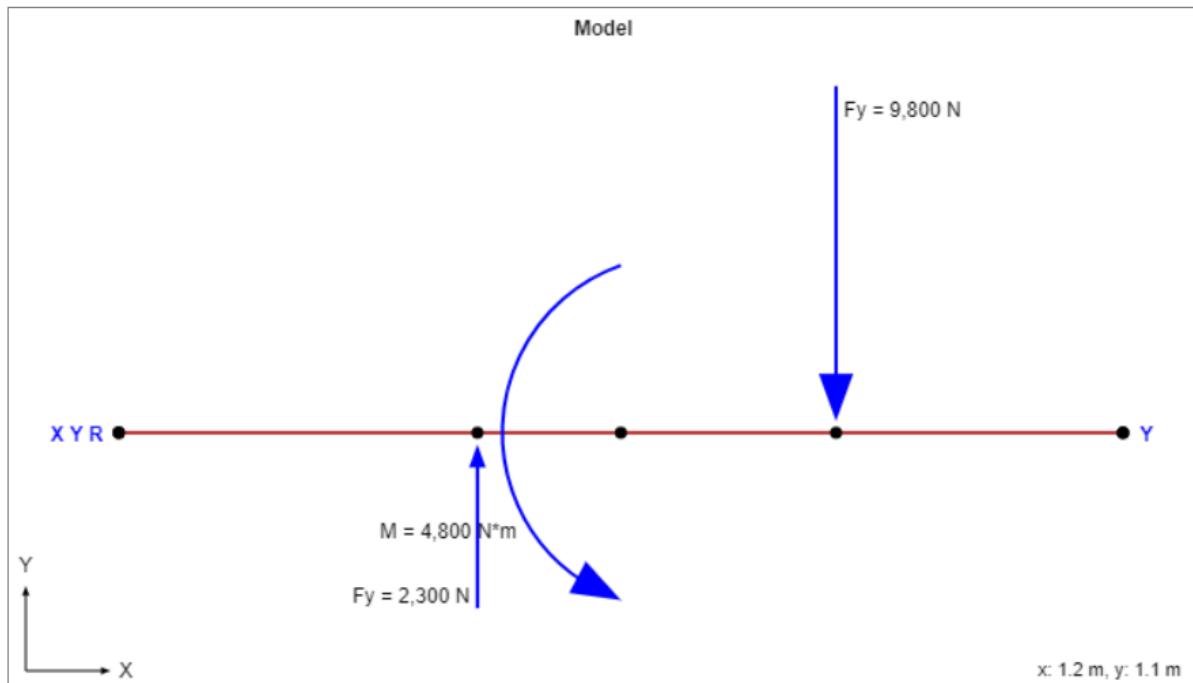
Moment Peak Values

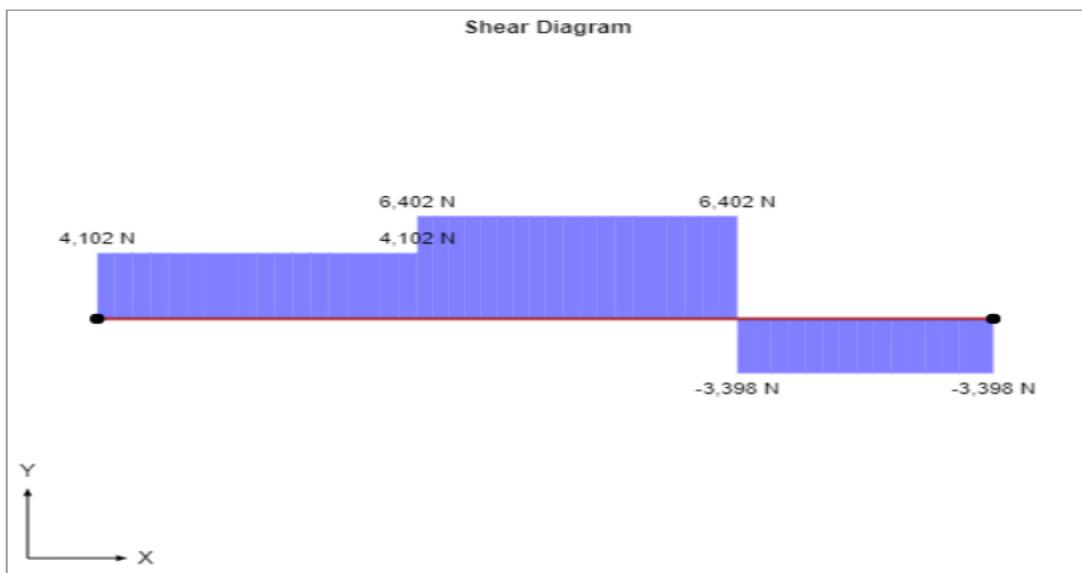
Location	Value
0.000 m	-610.2 N*m
1.333 m	267.1 N*m



	Value	Location
Max Deflection:	0.0001848 m	1.500 m
Max Slope:	0.01229 deg	2.800 m

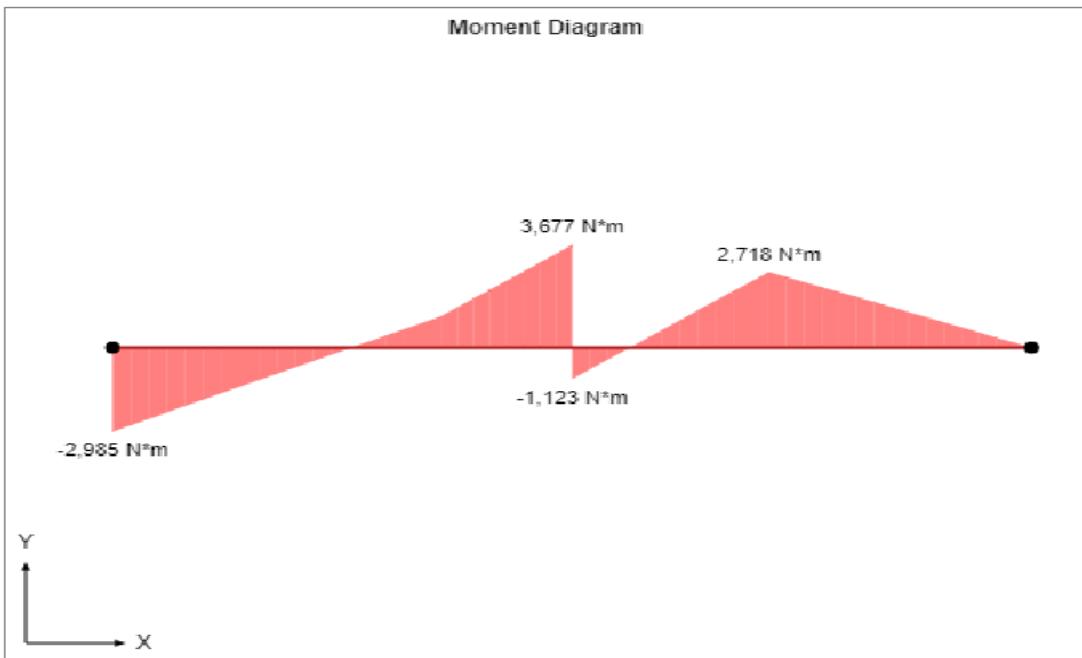
Case 25: Fixed- Roller: Rectangular Section





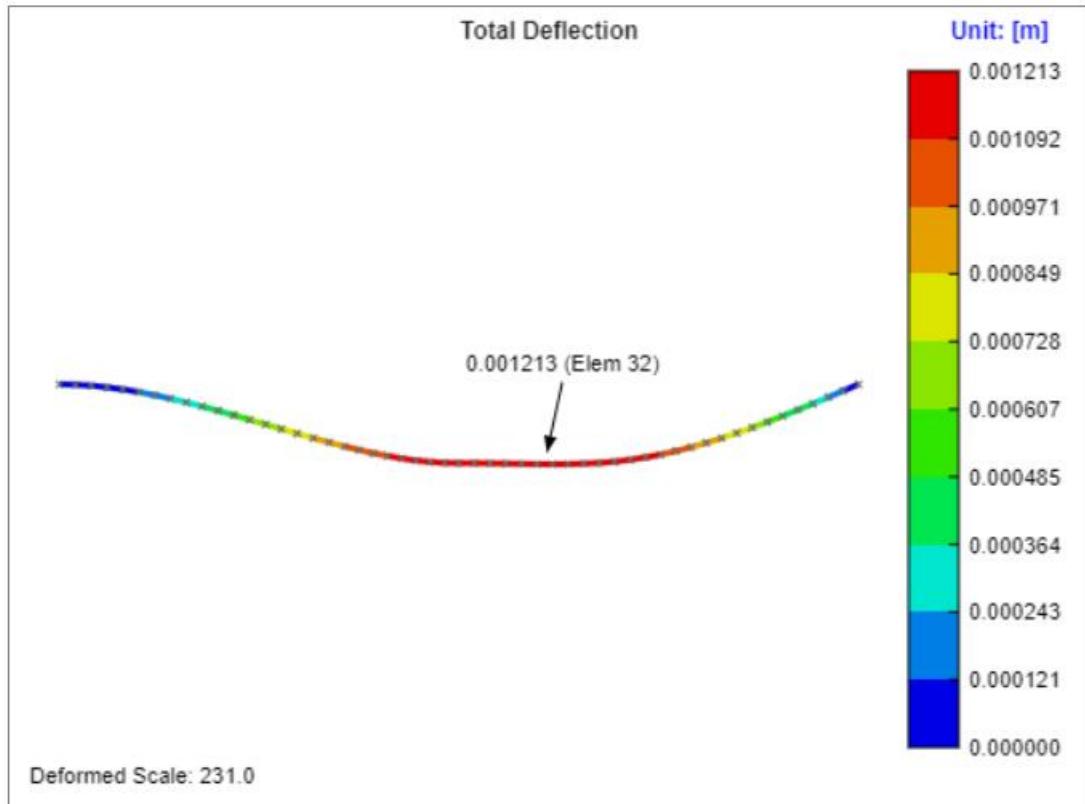
Shear Peak Values

Location	Value
0.000 m	4,102 N
1.000 m	4,102 N
1.000 m	6,402 N
2.000 m	6,402 N
2.000 m	-3,398 N
2.800 m	-3,398 N

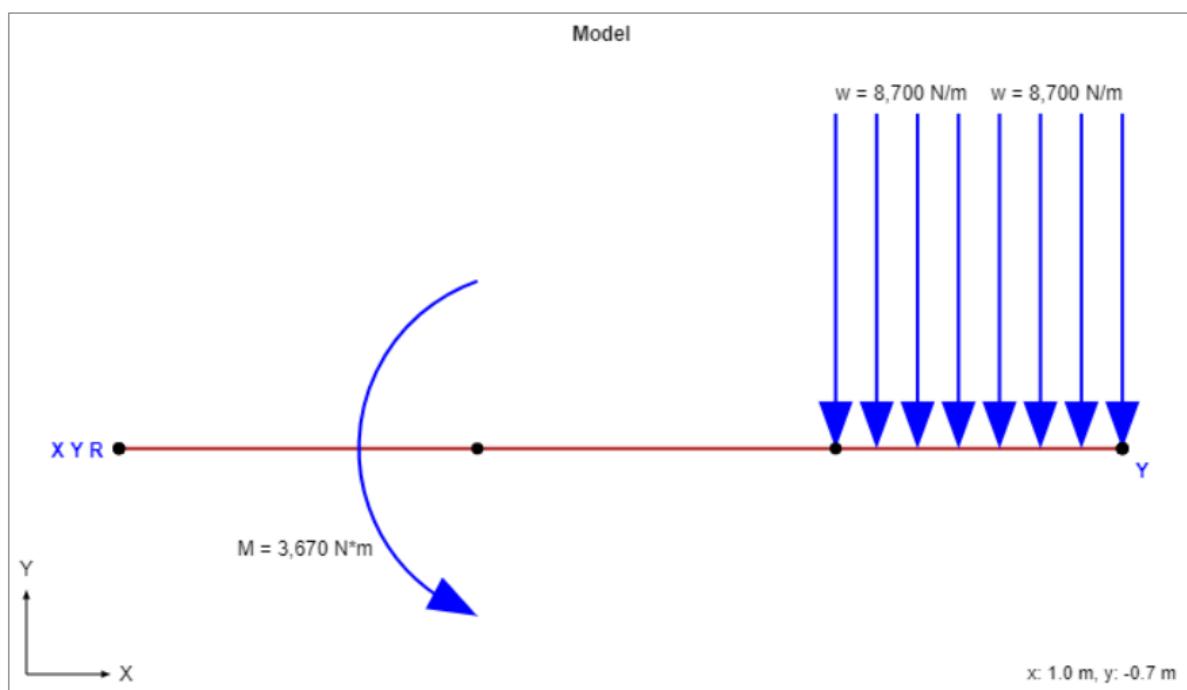


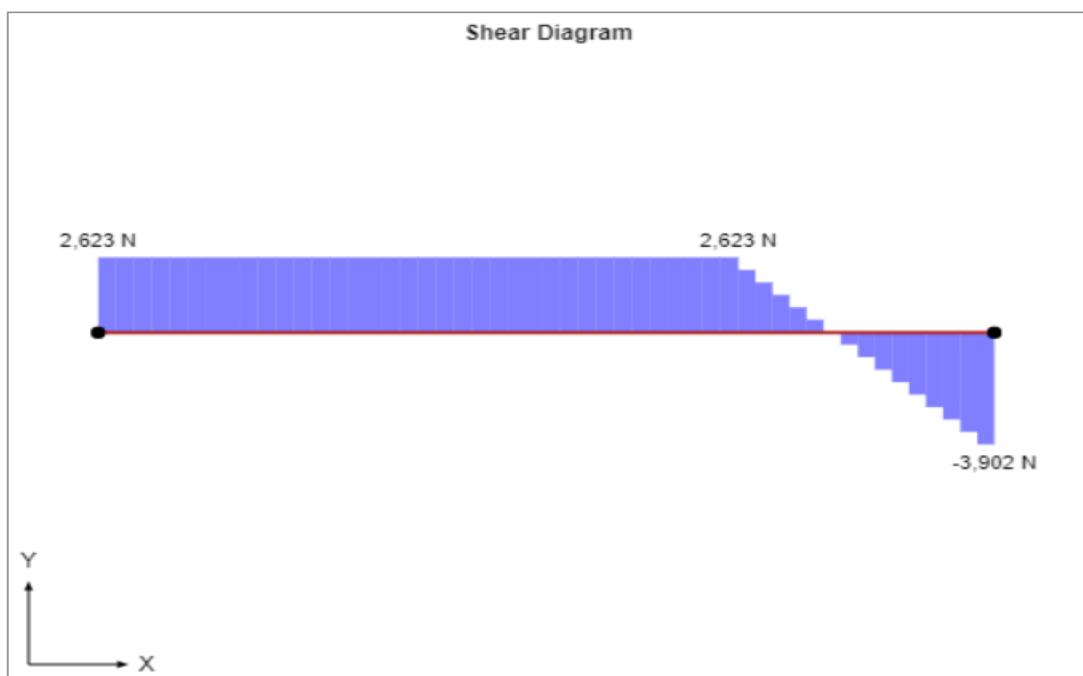
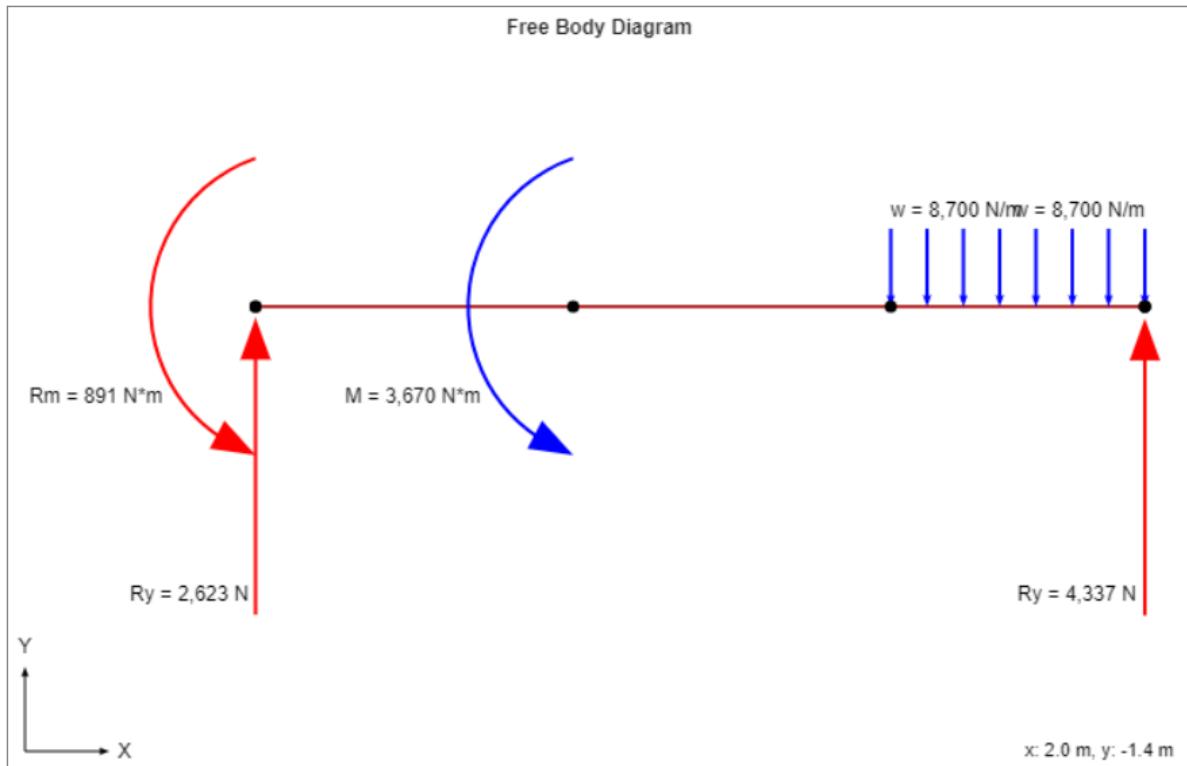
Moment Peak Values

Location	Value
0.000 m	-2,985 N*m
1.400 m	3,677 N*m
1.400 m	-1,123 N*m
2.000 m	2,718 N*m



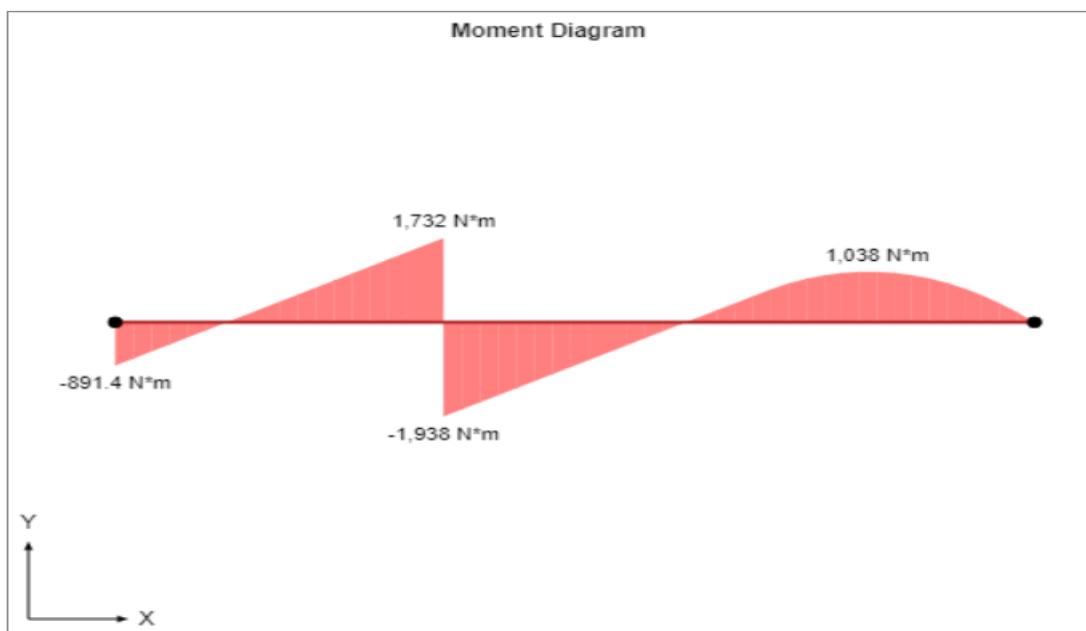
Case 26: Fixed- Roller: Rectangular Section





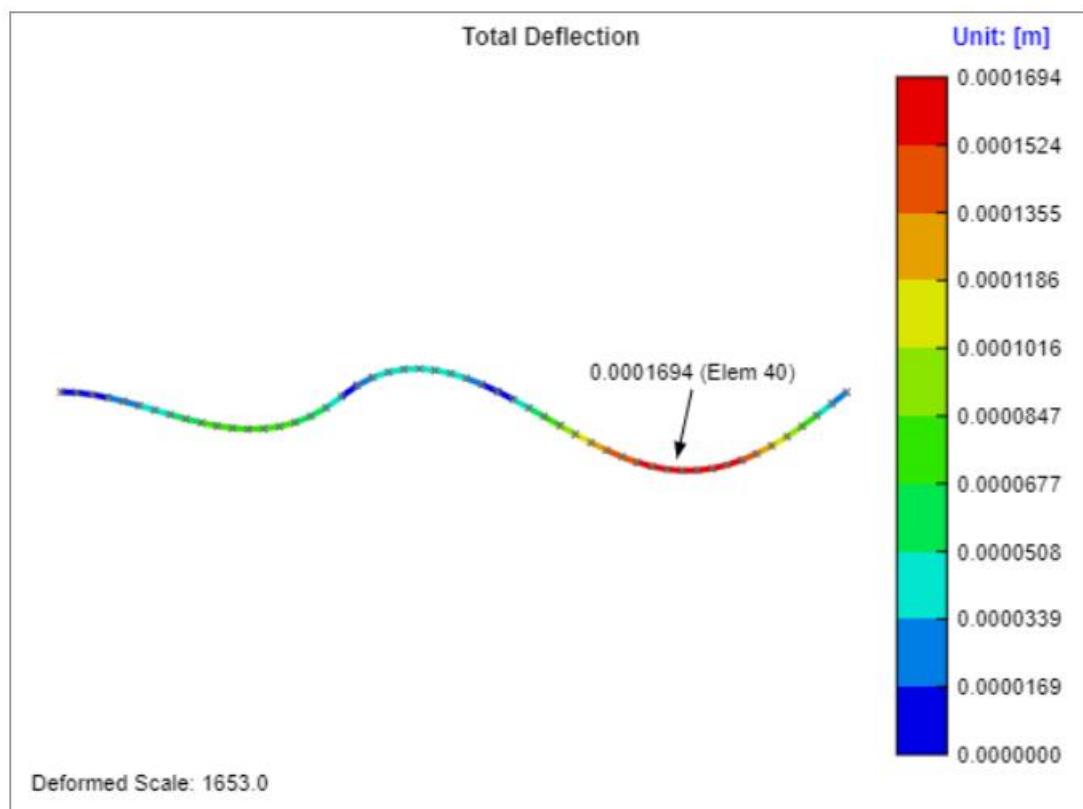
Shear Peak Values

Location	Value
0.000 m	2,623 N
2.000 m	2,623 N
2.800 m	-3,902 N



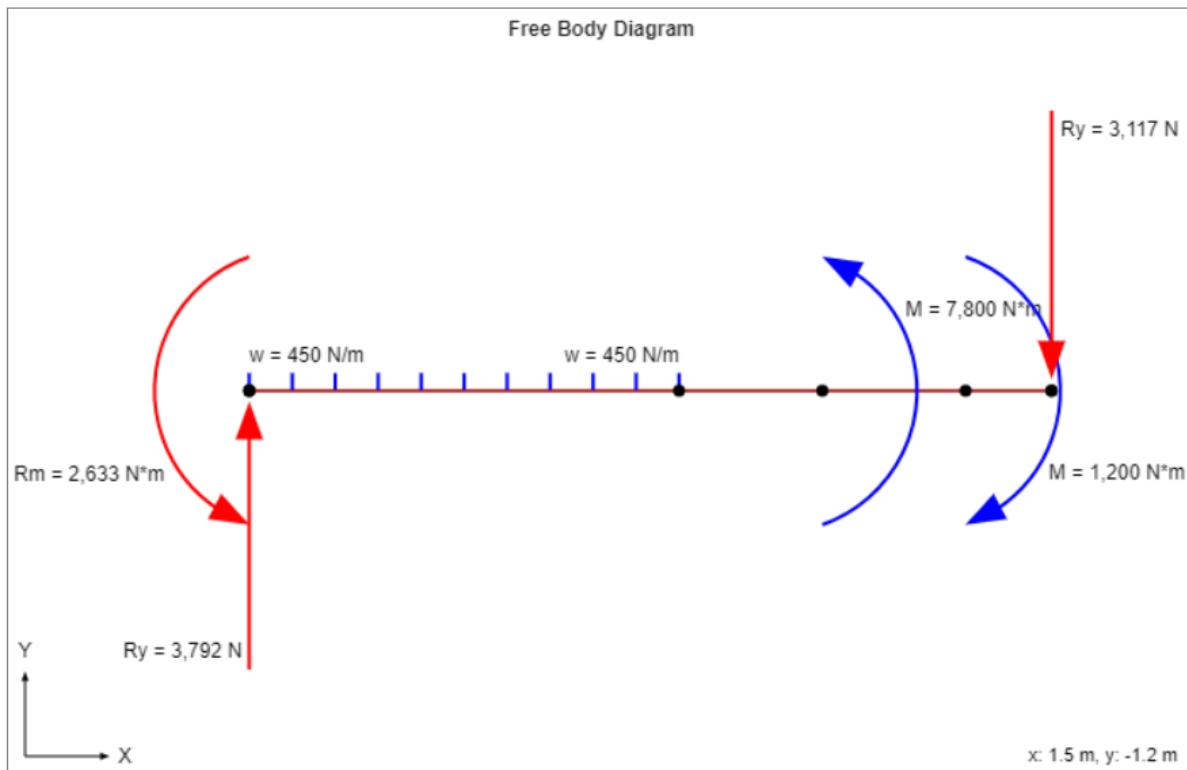
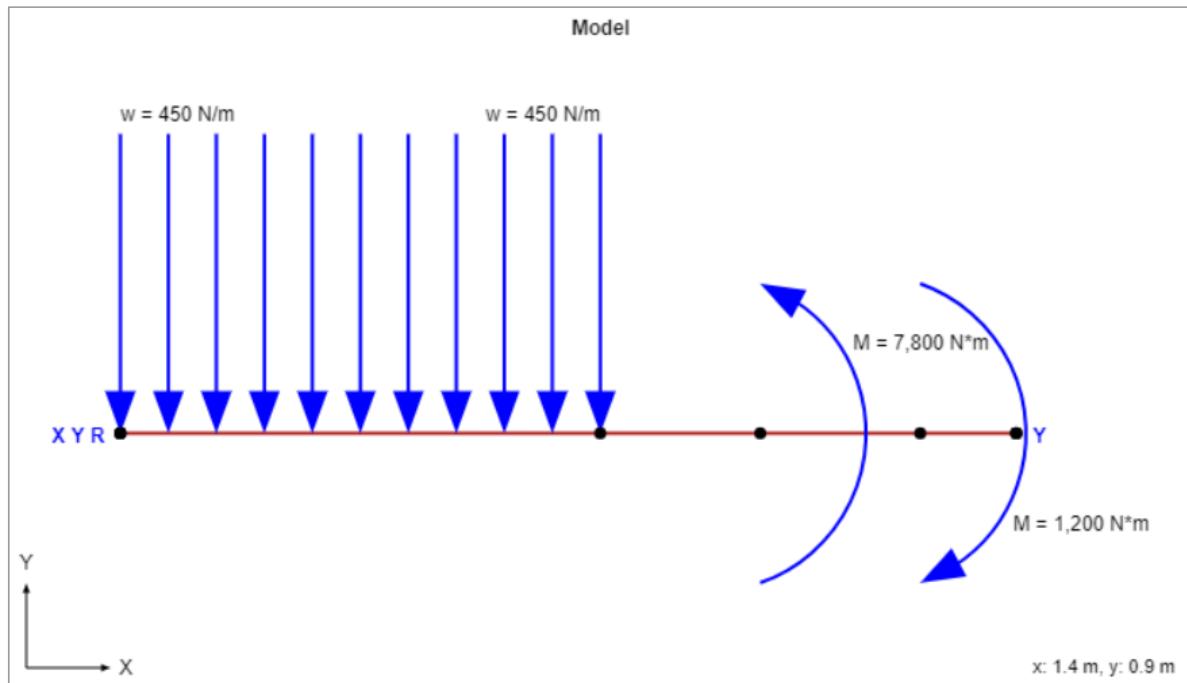
Moment Peak Values

Location	Value
0.000 m	-891.4 N*m
1.000 m	1,732 N*m
1.000 m	-1,938 N*m
2.320 m	1,038 N*m

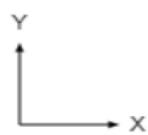


	Value	Location
Max Deflection:	0.0001694 m	2.213 m
Max Slope:	0.02810 deg	1.000 m

Case 27: Fixed- Roller: Rectangular Section



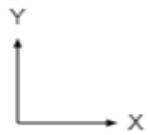
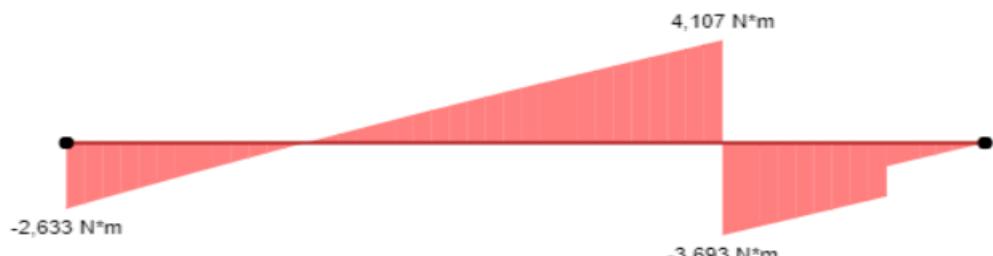
Shear Diagram



Shear Peak Values

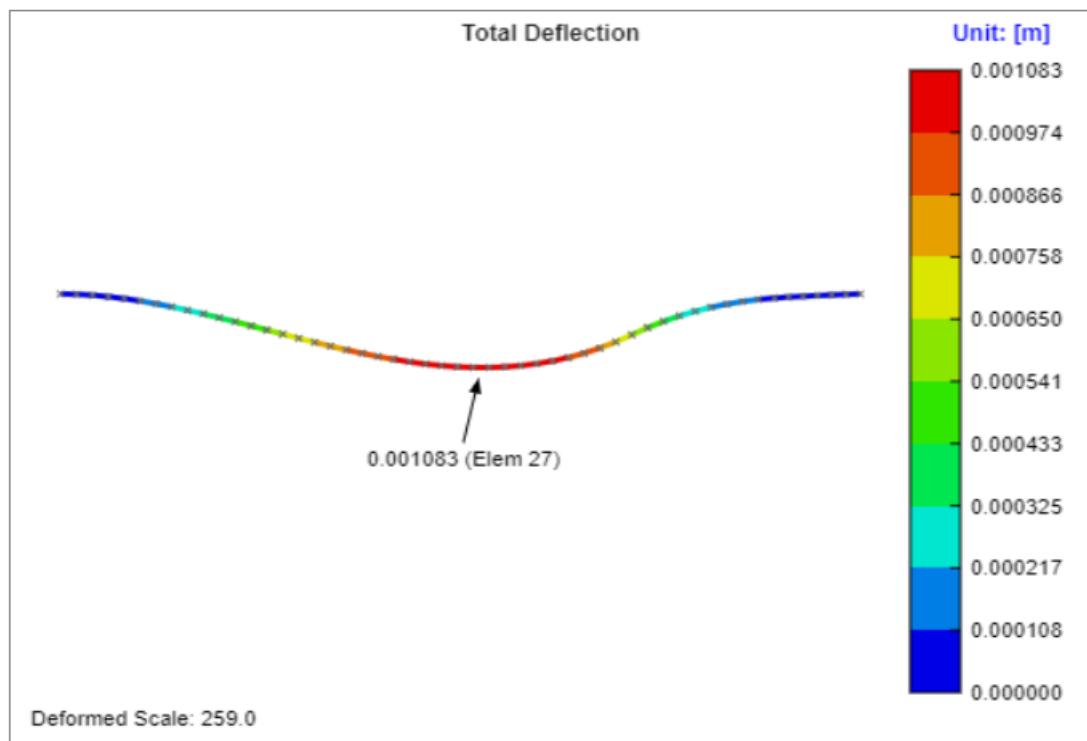
Location	Value
0.000 m	3,768 N
1.500 m	3,117 N
2.800 m	3,117 N

Moment Diagram



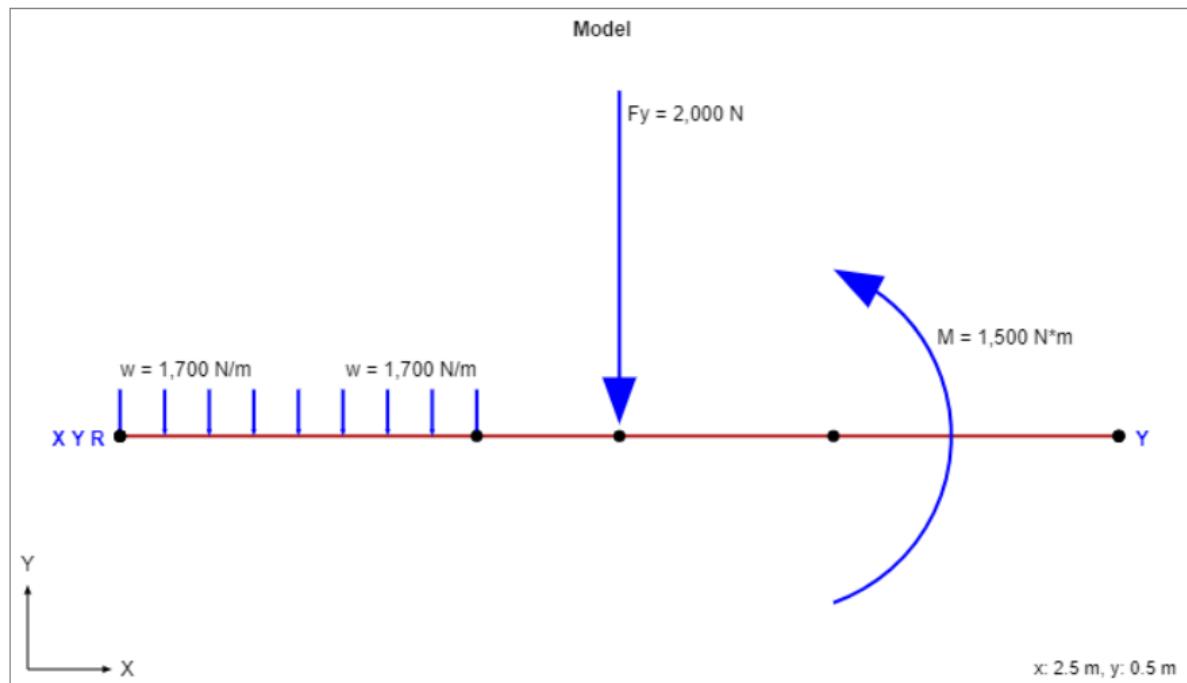
Moment Peak Values

Location	Value
0.000 m	-2,633 N*m
2.000 m	4,107 N*m
2.800 m	-3,693 N*m

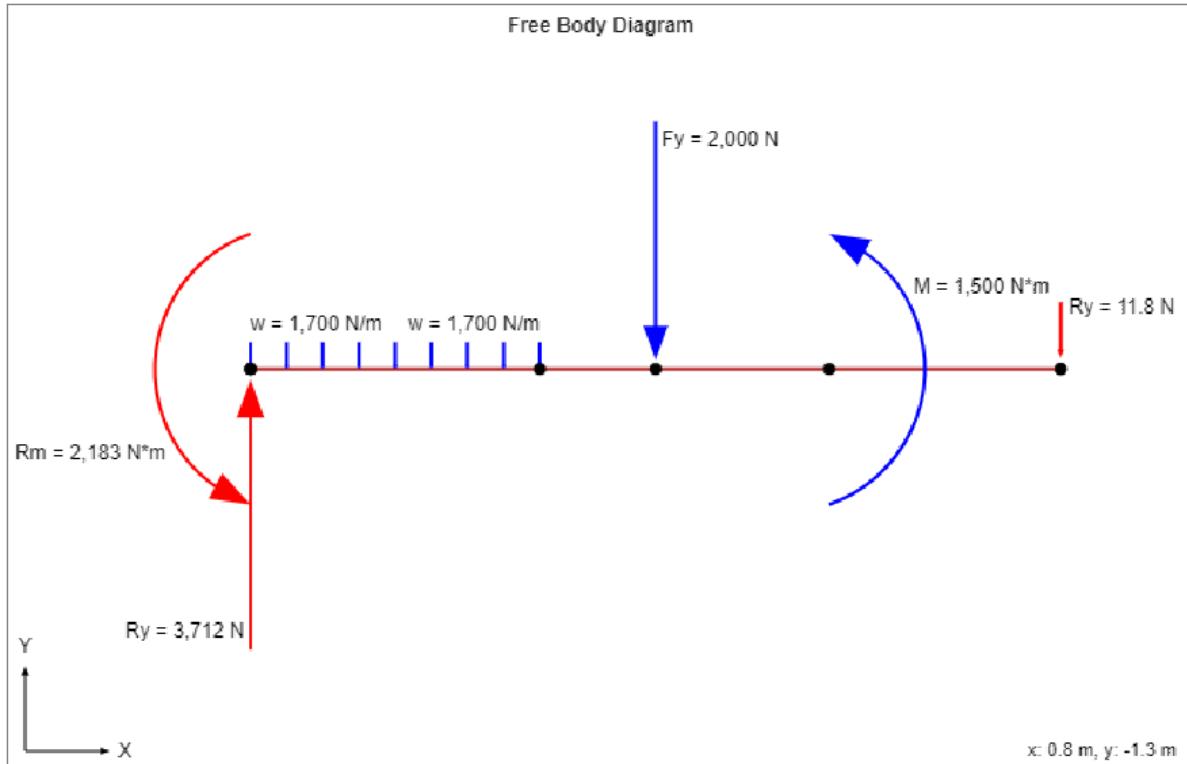


	Value	Location
Max Deflection:	0.001083 m	1.500 m
Max Slope:	0.1151 deg	2.000 m

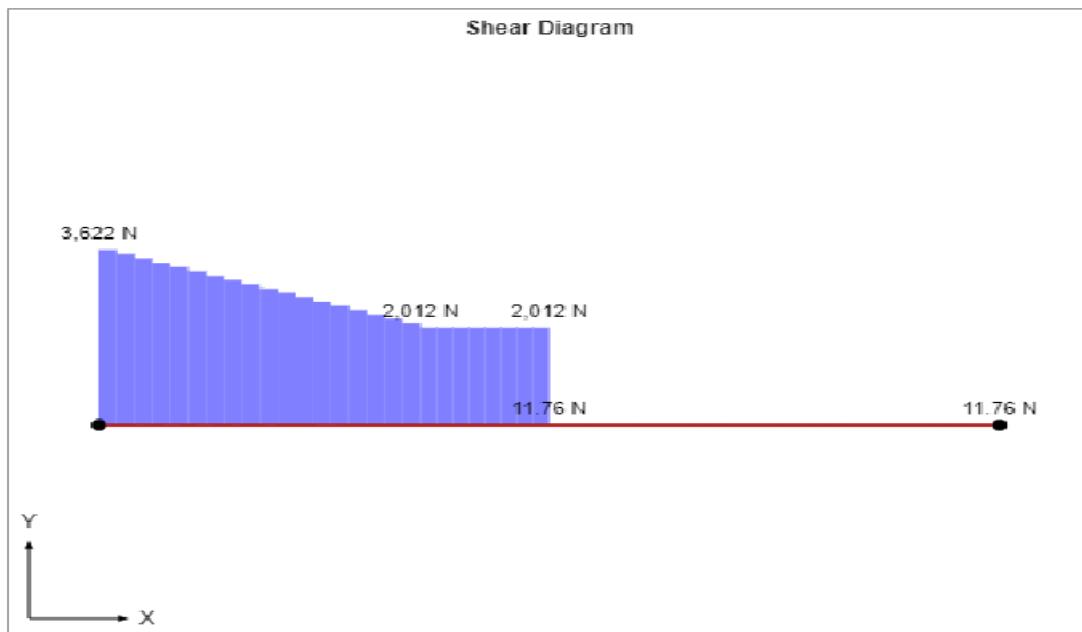
Case 27: Fixed- Roller: Rectangular Section



Free Body Diagram

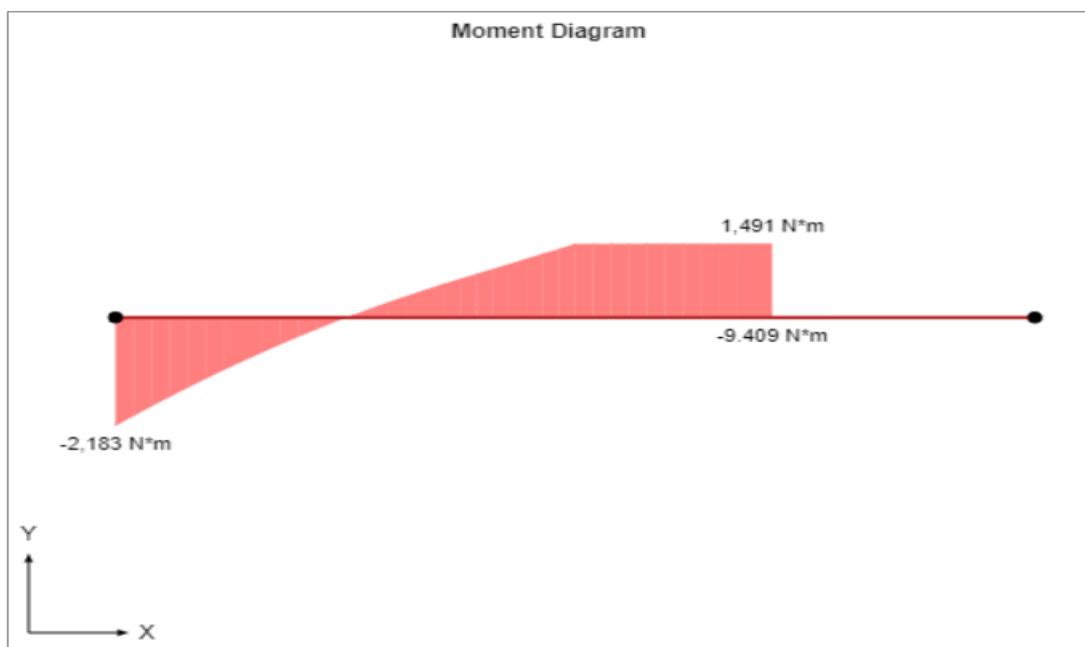


Shear Diagram



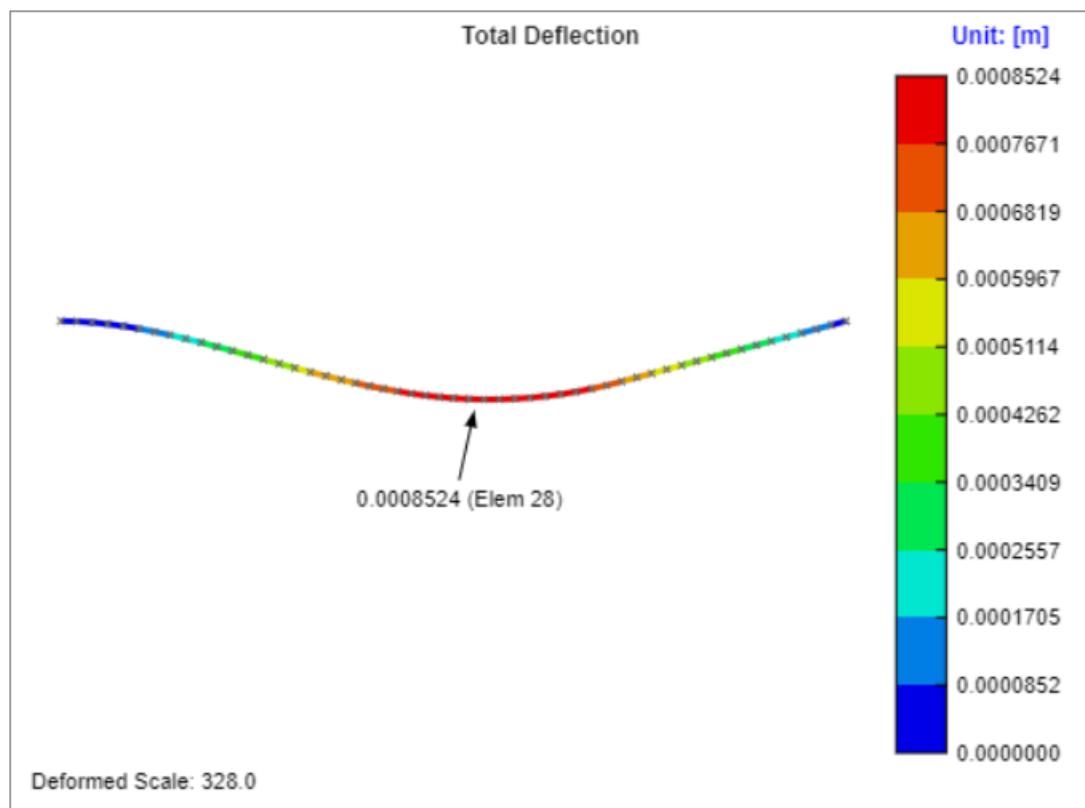
Shear Peak Values

Location	Value
0.000 m	3,622 N
1.000 m	2,012 N
1.400 m	2,012 N
1.400 m	11.76 N
2.800 m	11.76 N



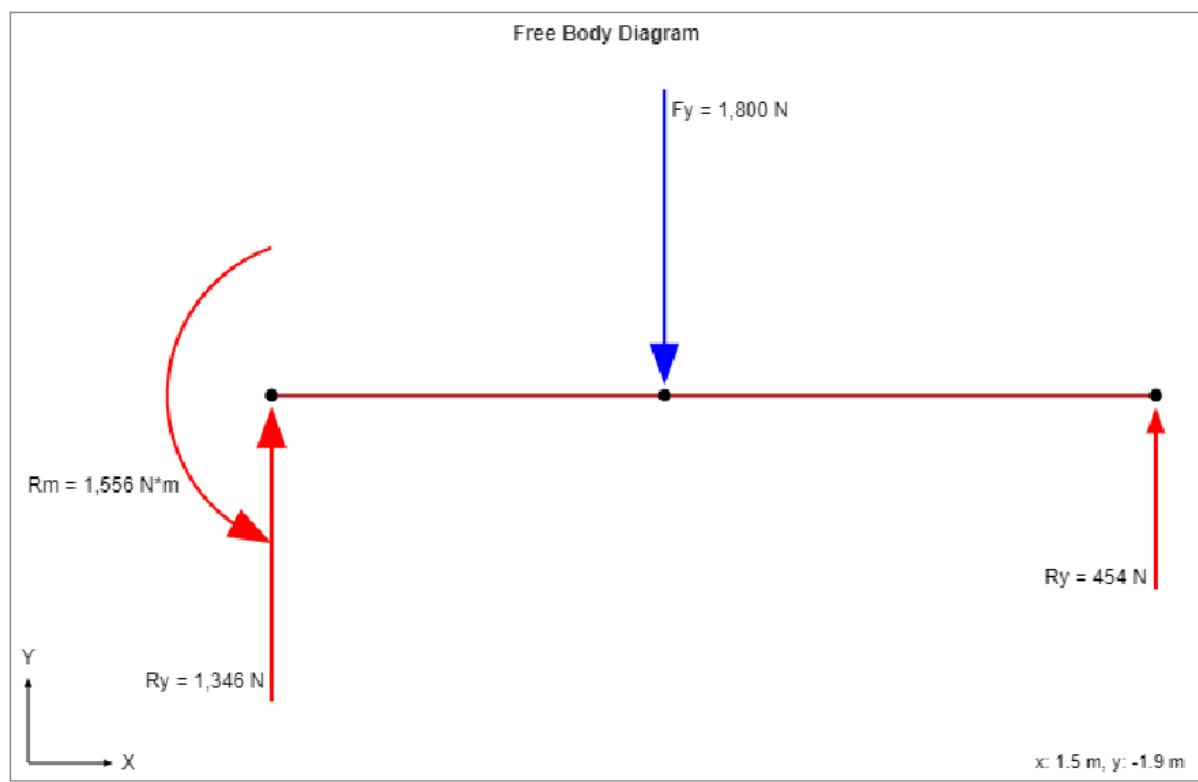
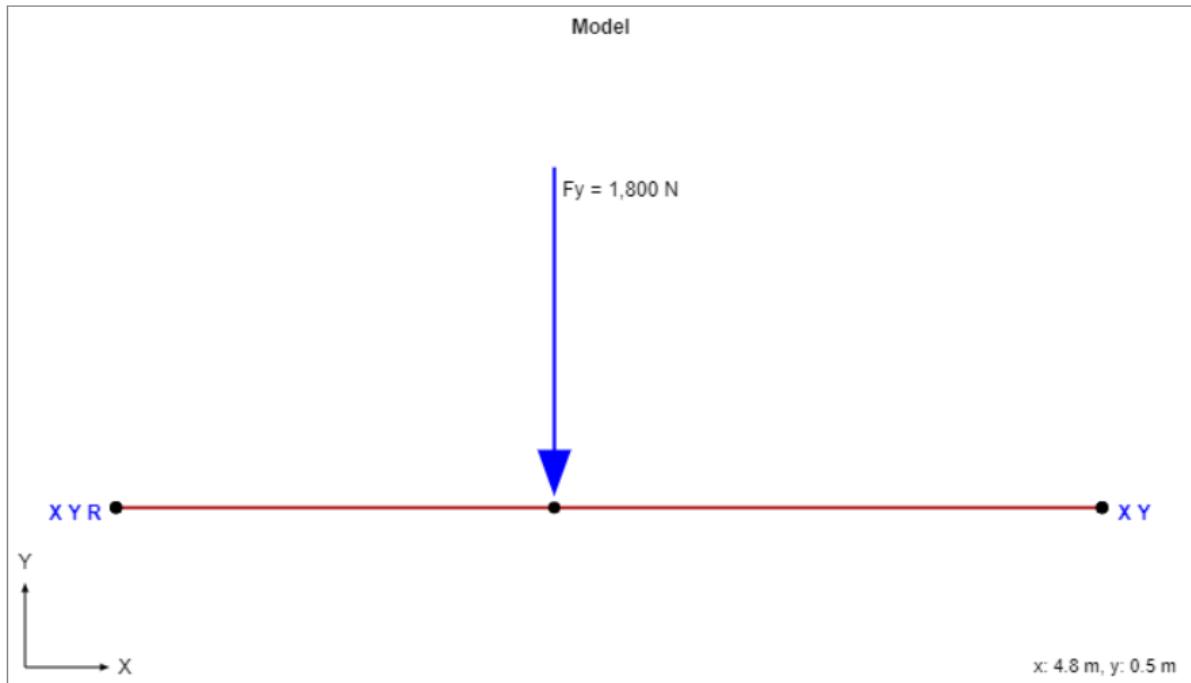
Moment Peak Values

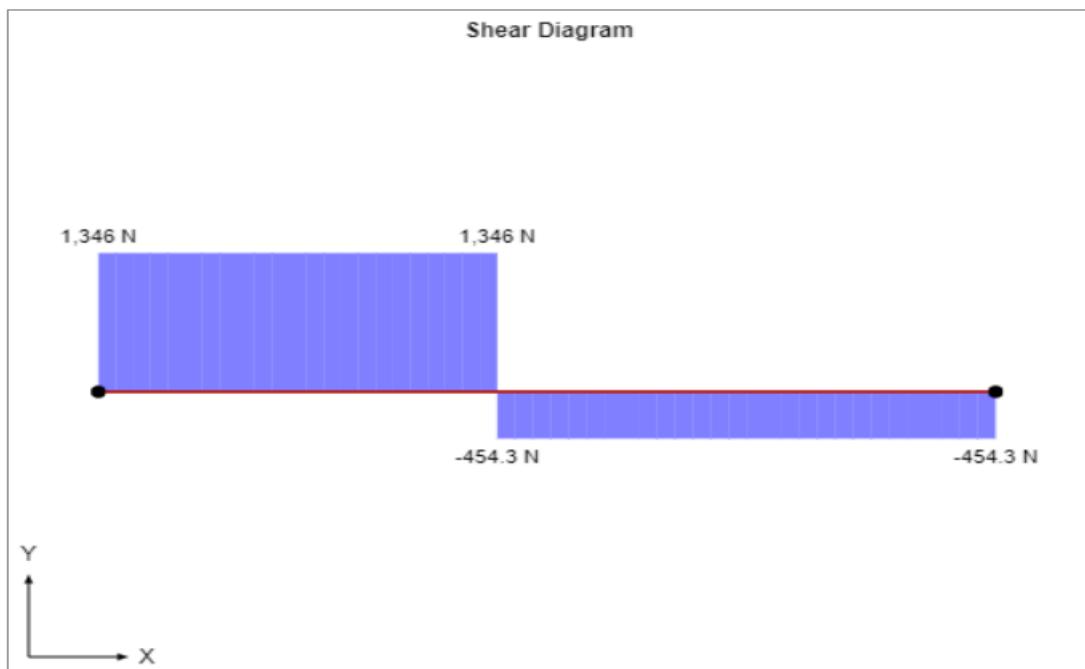
Location	Value
0.000 m	-2,183 N*m
2.000 m	1,491 N*m
2.000 m	-9.409 N*m



	Value	Location
Max Deflection:	0.0008524 m	1.509 m
Max Slope:	-0.04824 deg	0.7222 m

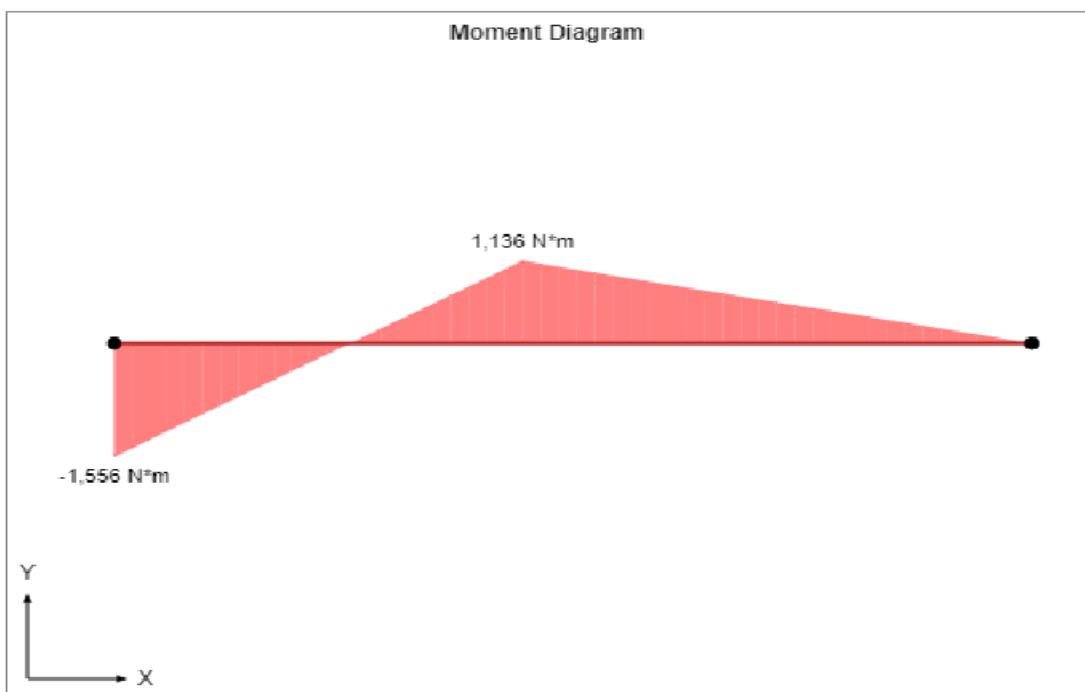
Case 29: Fixed – PIN: Circular section





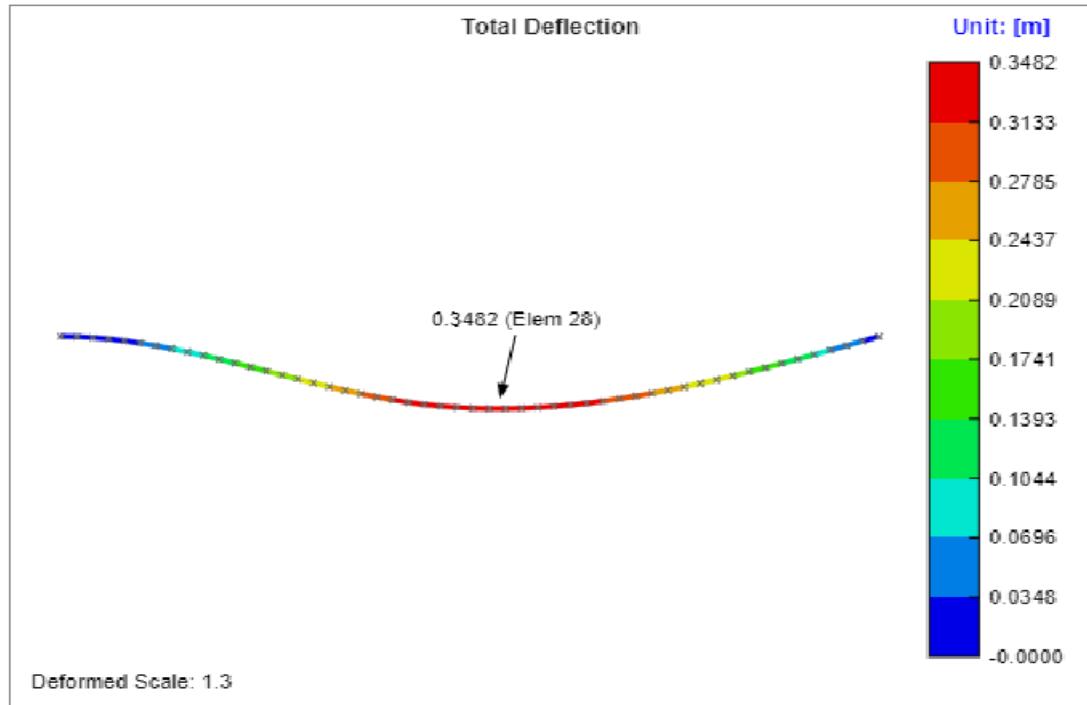
Shear Peak Values

Location	Value
0.000 m	1,346 N
2.000 m	1,346 N
2.000 m	-454.3 N
4.500 m	-454.3 N



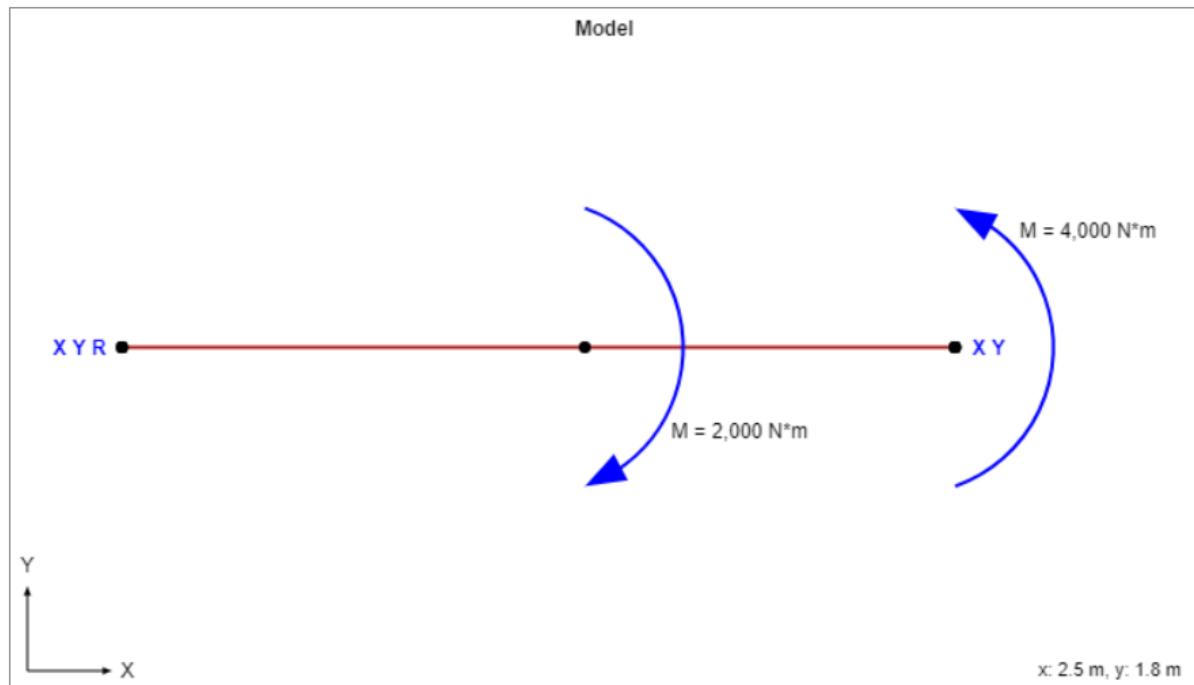
Moment Peak Values

Location	Value
0.000 m	-1,556 N*m
2.000 m	1,136 N*m

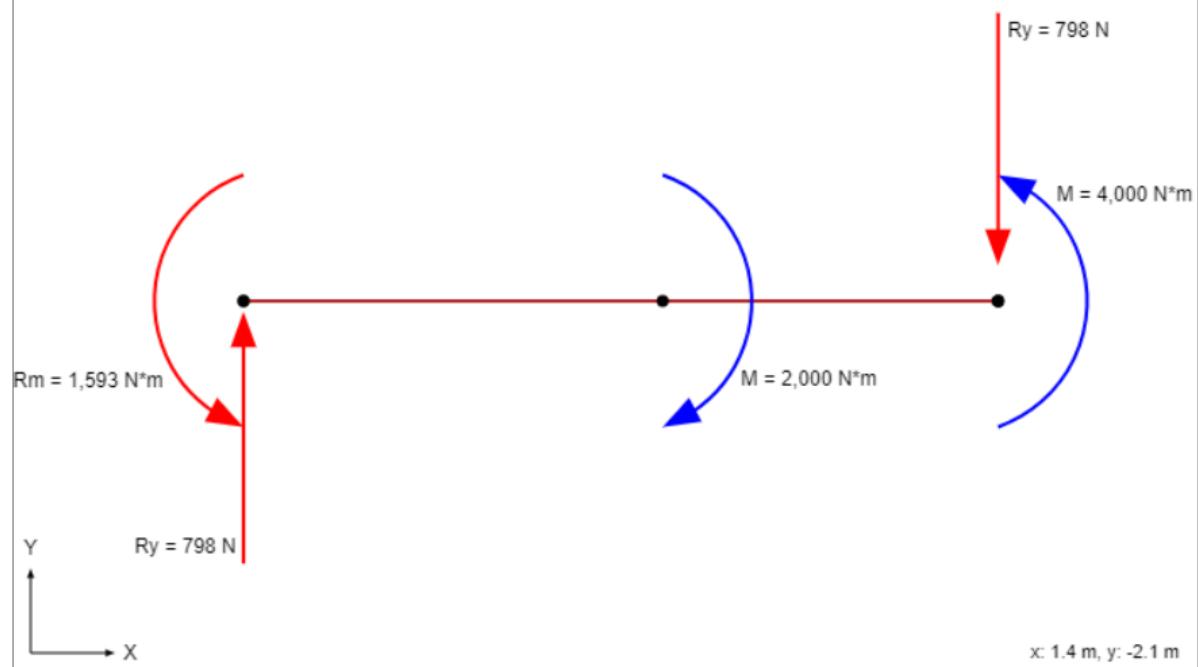


	Value	Location
Max Deflection:	0.3482 m	2.446 m
Max Slope:	14.27 deg	4.500 m

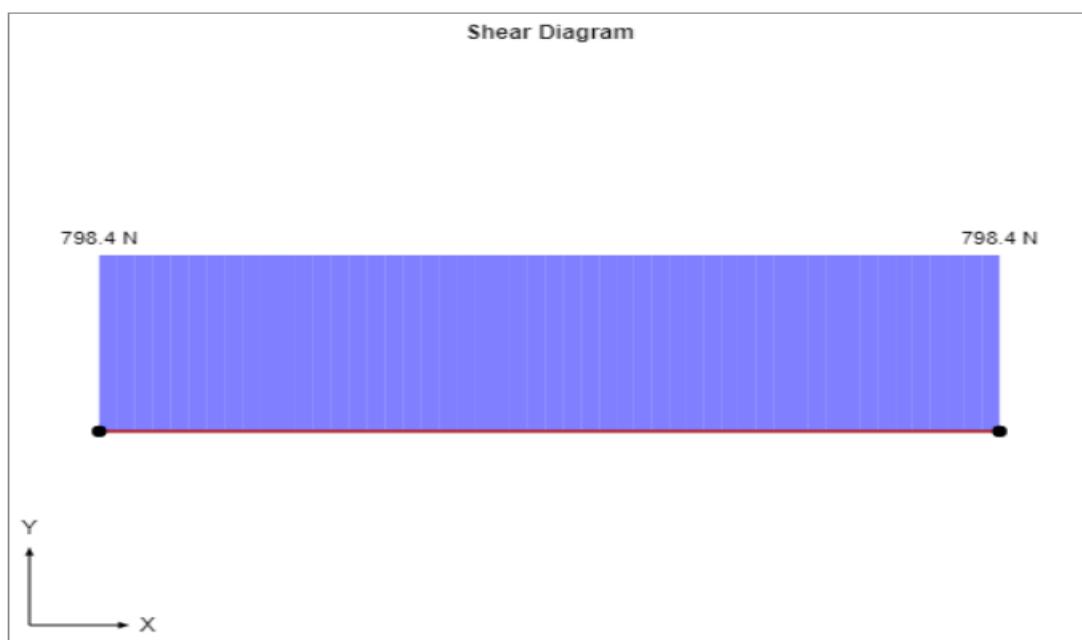
Case 30: Fixed – PIN: Circular section



Free Body Diagram

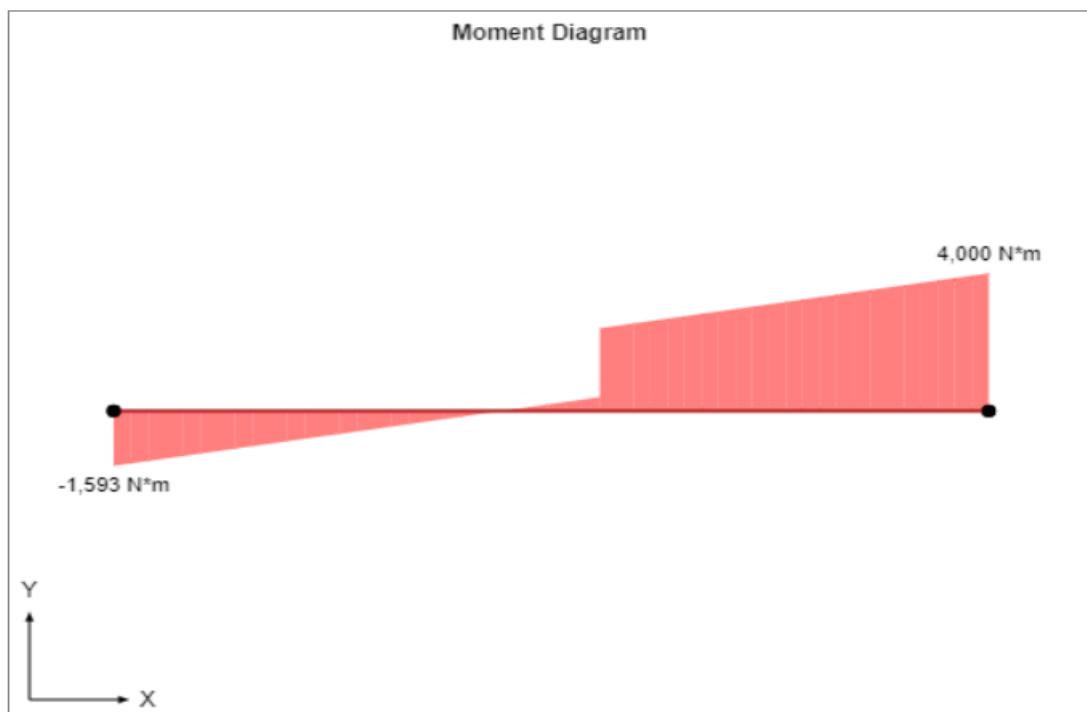


Shear Diagram



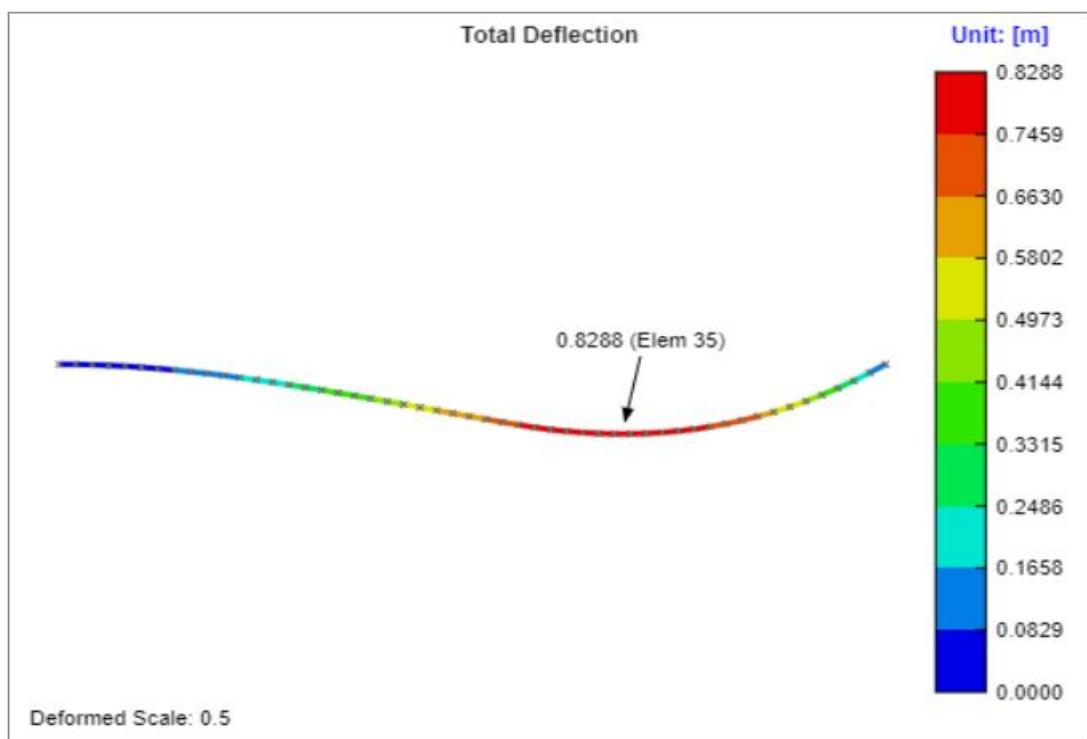
Shear Peak Values

Location	Value
0.000 m	798.4 N
4.500 m	798.4 N



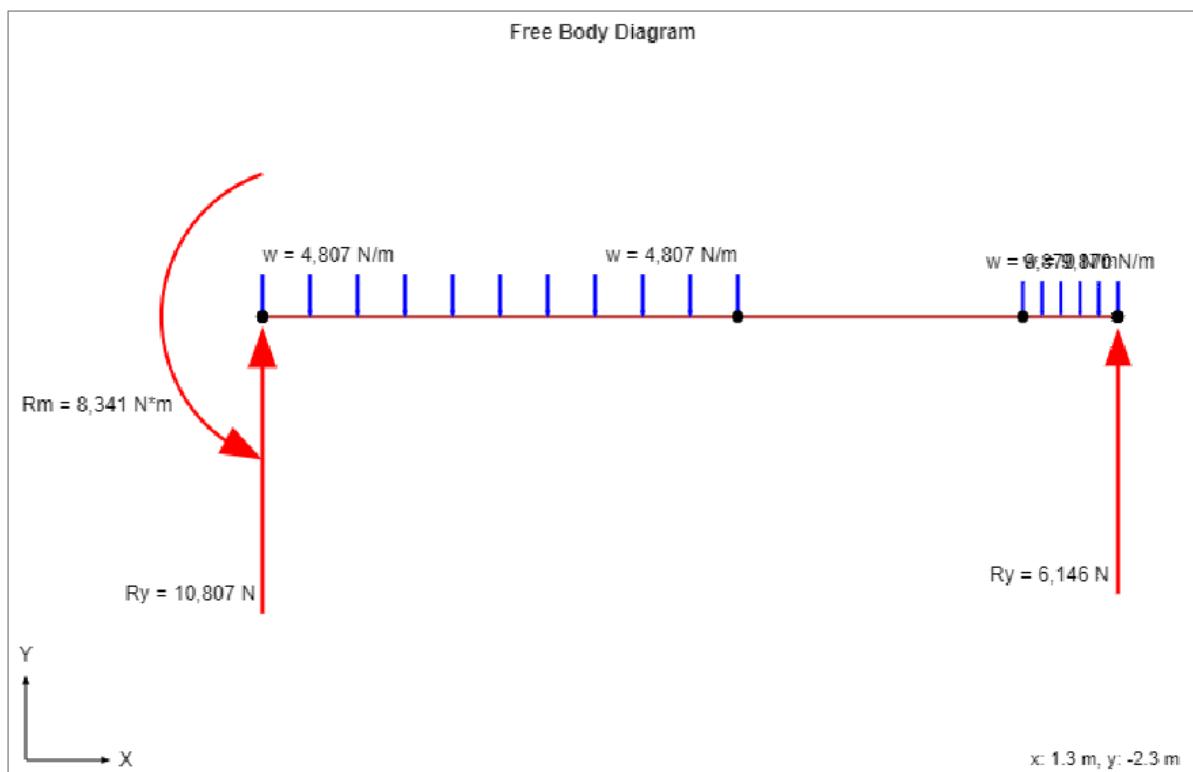
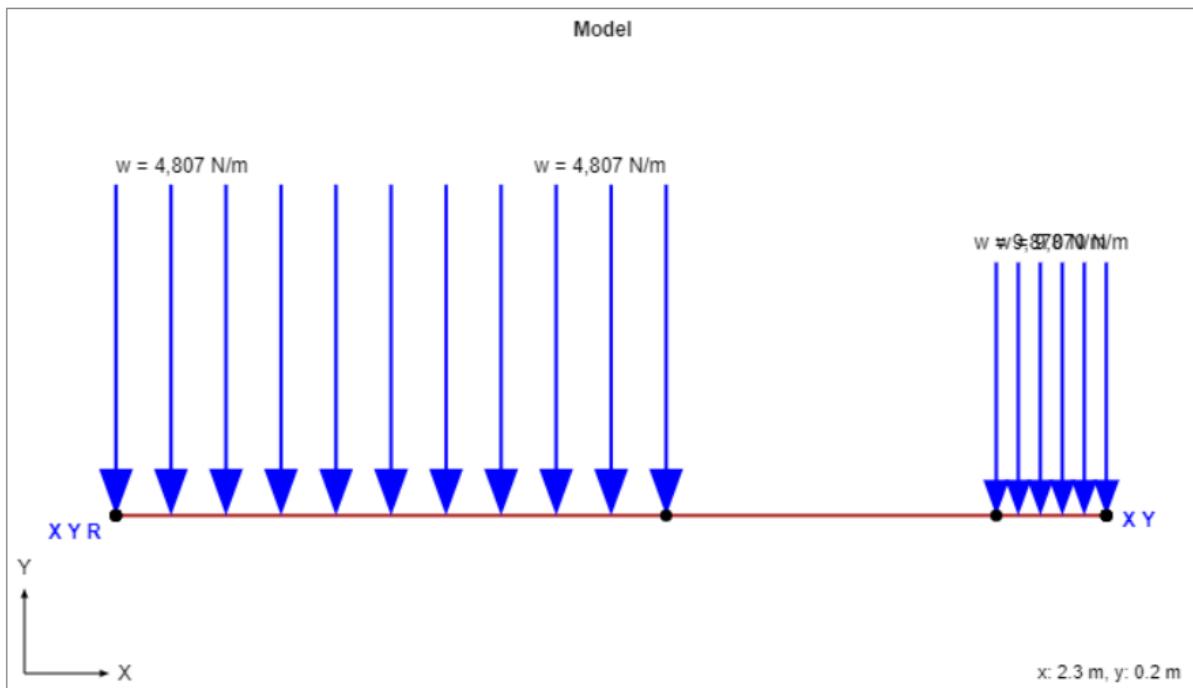
Moment Peak Values

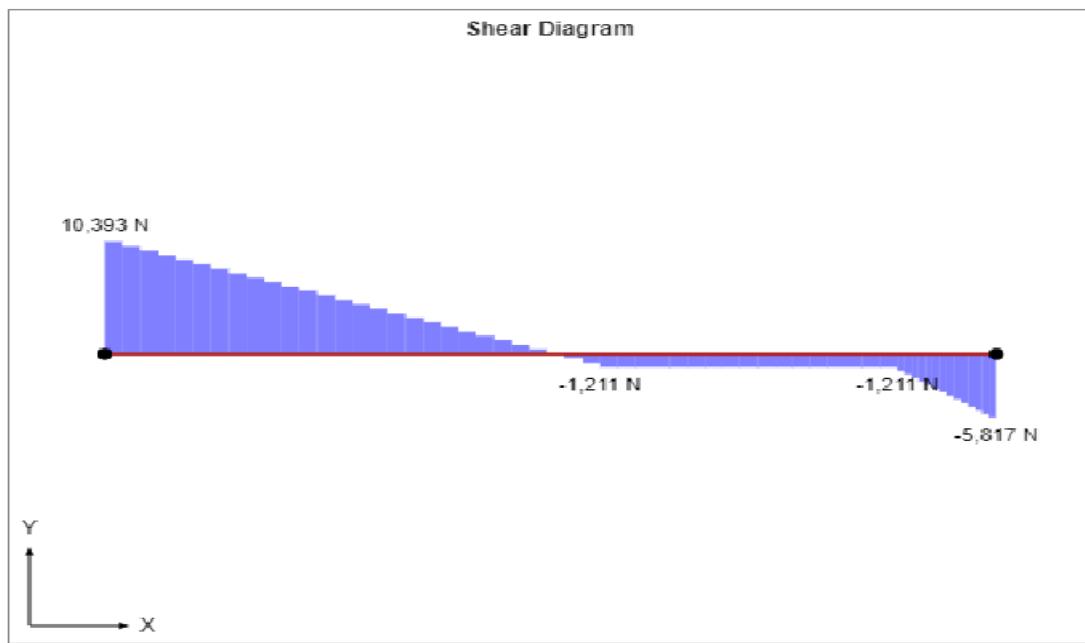
Location	Value
0.000 m	-1,593 N*m
4.500 m	4,000 N*m



	Value	Location
Max Deflection:	0.8288 m	3.109 m
Max Slope:	70.17 deg	4.500 m

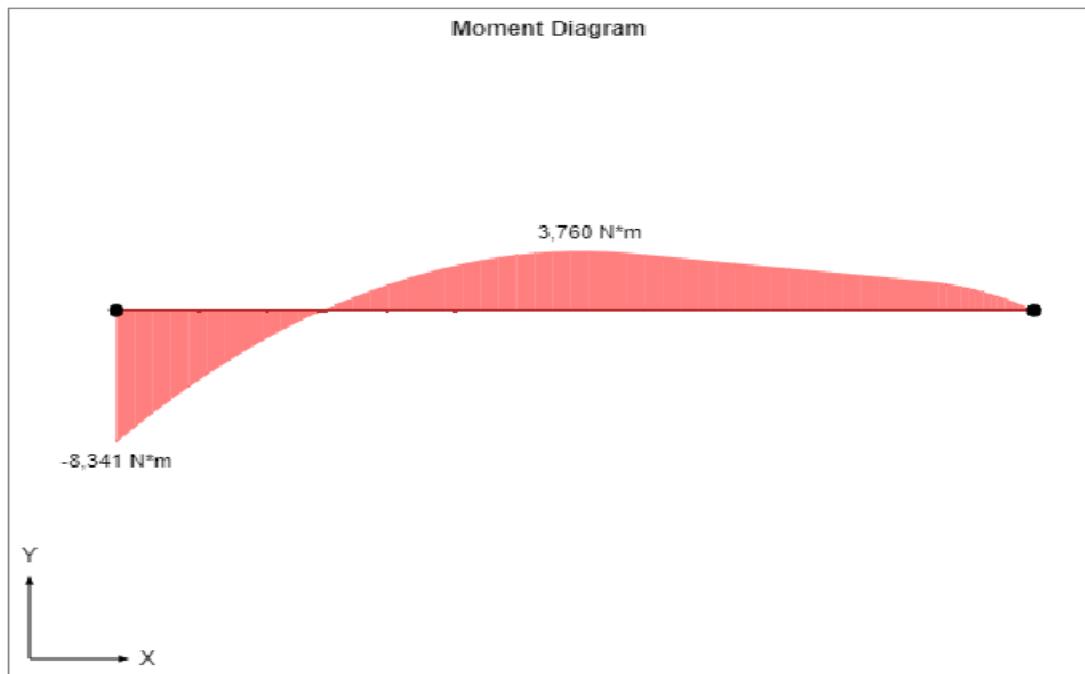
Case 31: Fixed – PIN: Circular section





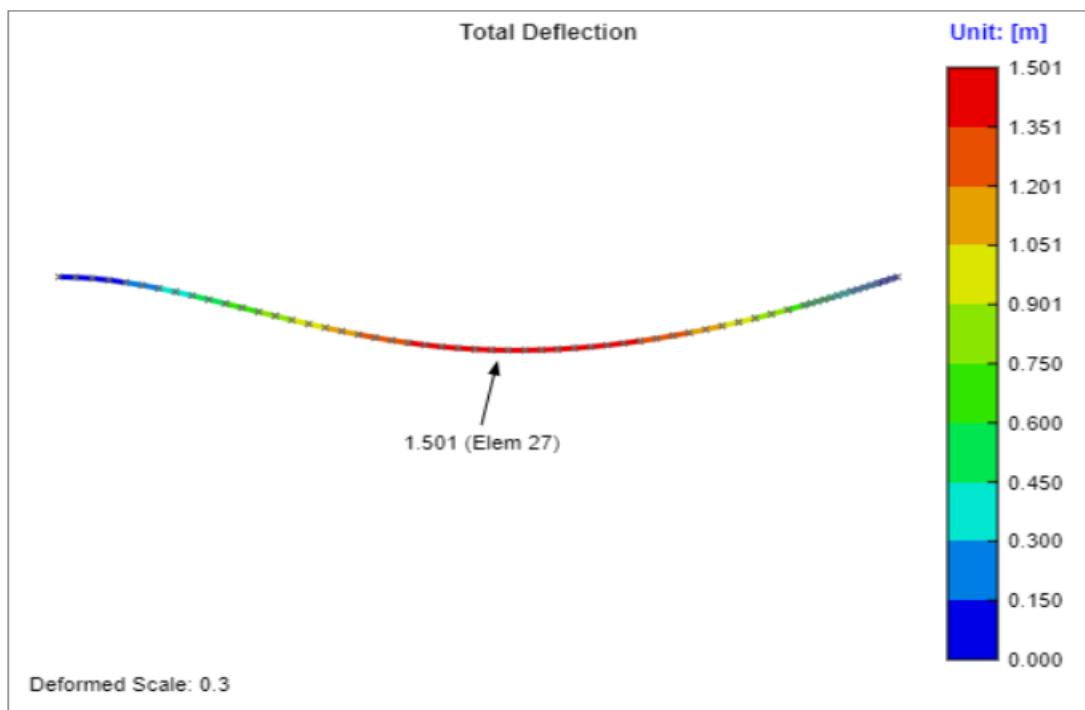
Shear Peak Values

Location	Value
0.000 m	10,393 N
2.500 m	-1,211 N
4.000 m	-1,211 N
4.500 m	-5,817 N



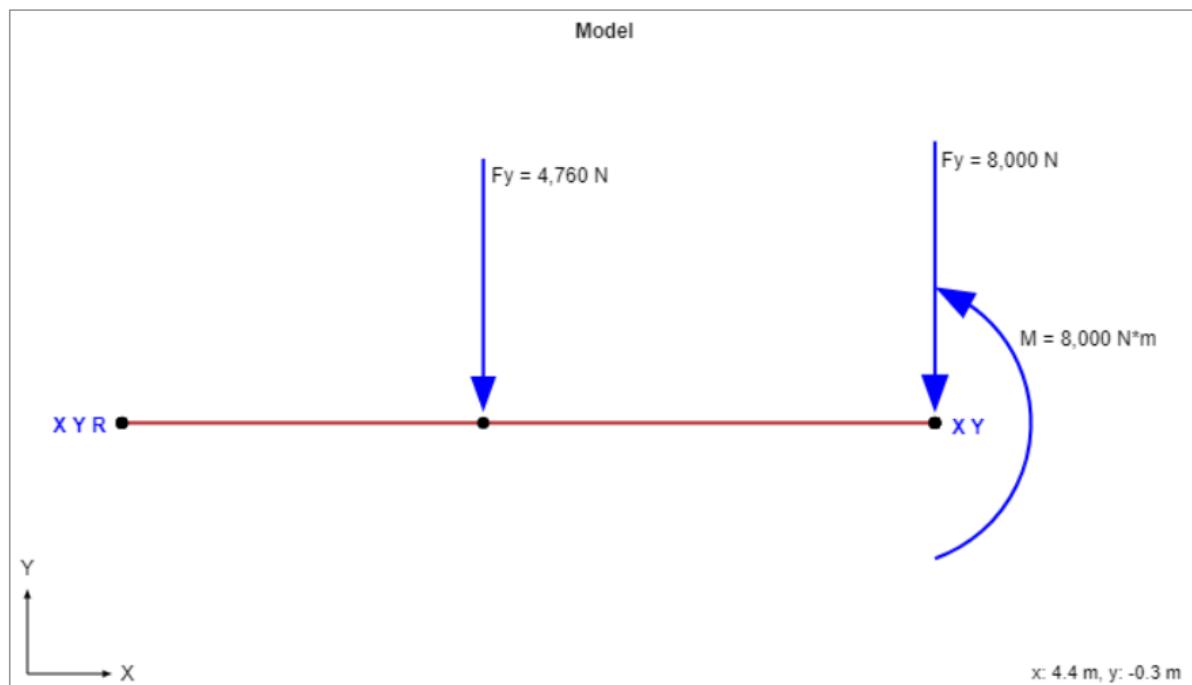
Moment Peak Values

Location	Value
0.000 m	-8,341 N*m
2.321 m	3,760 N*m

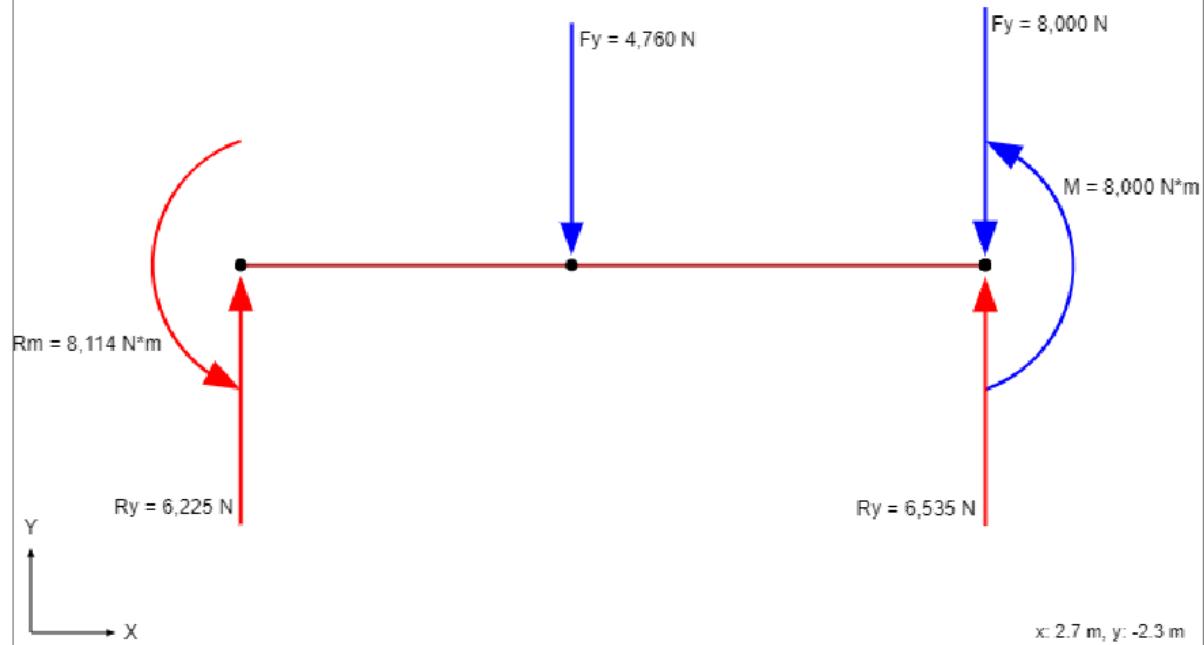


	Value	Location
Max Deflection:	1.501 m	2.411 m
Max Slope:	69.27 deg	4.500 m

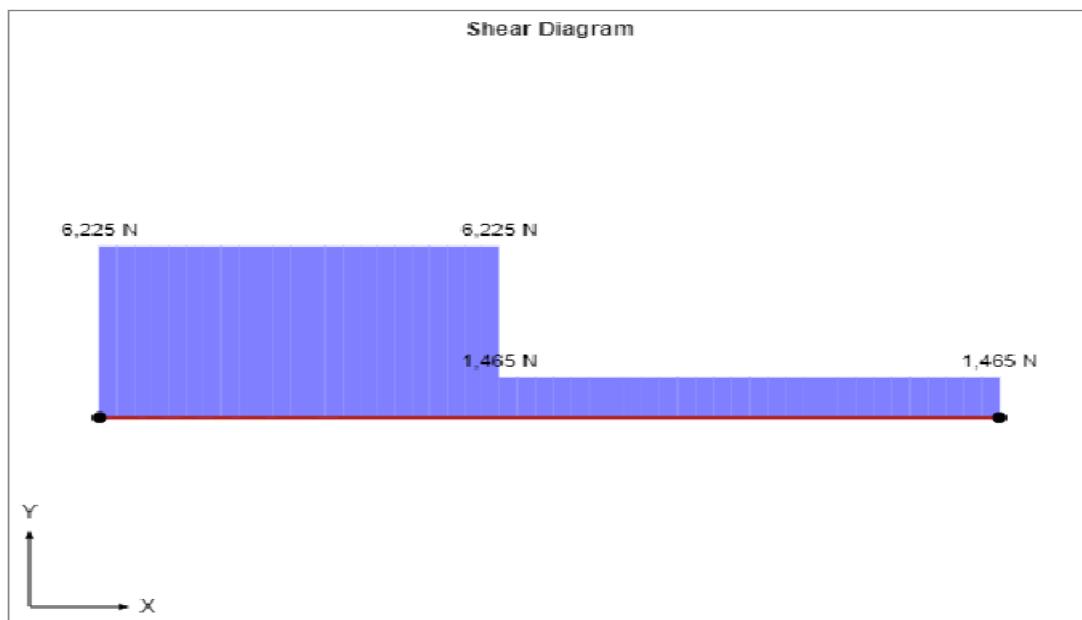
Case 32: Fixed – PIN: Circular section



Free Body Diagram

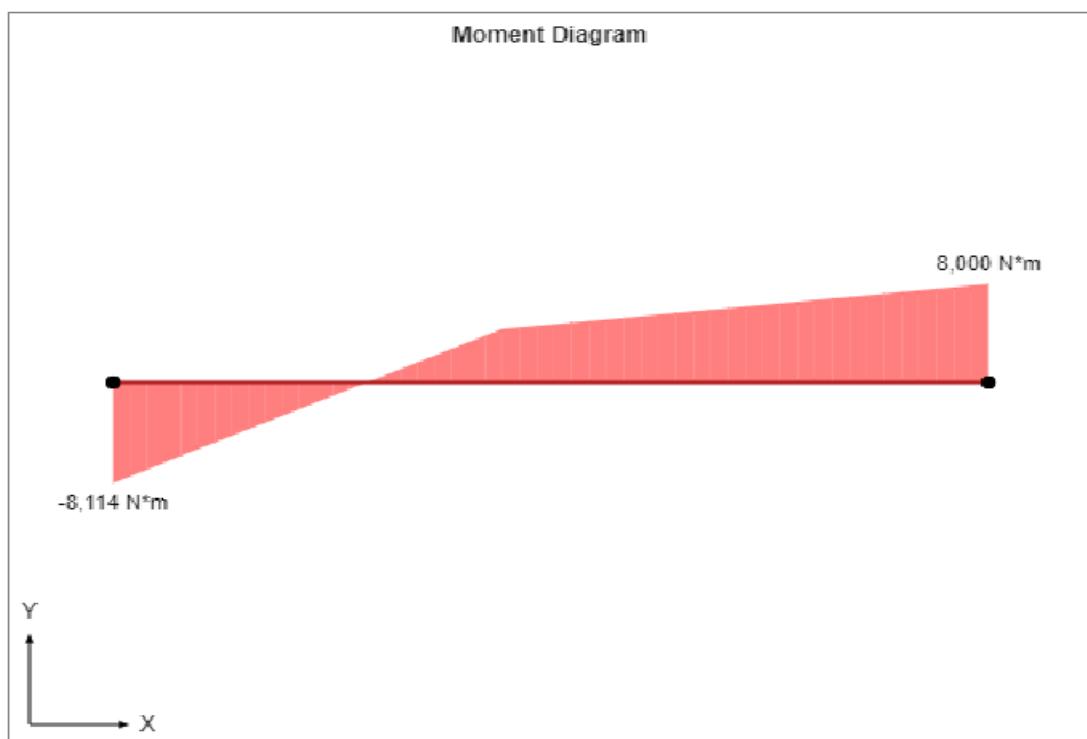


Shear Diagram



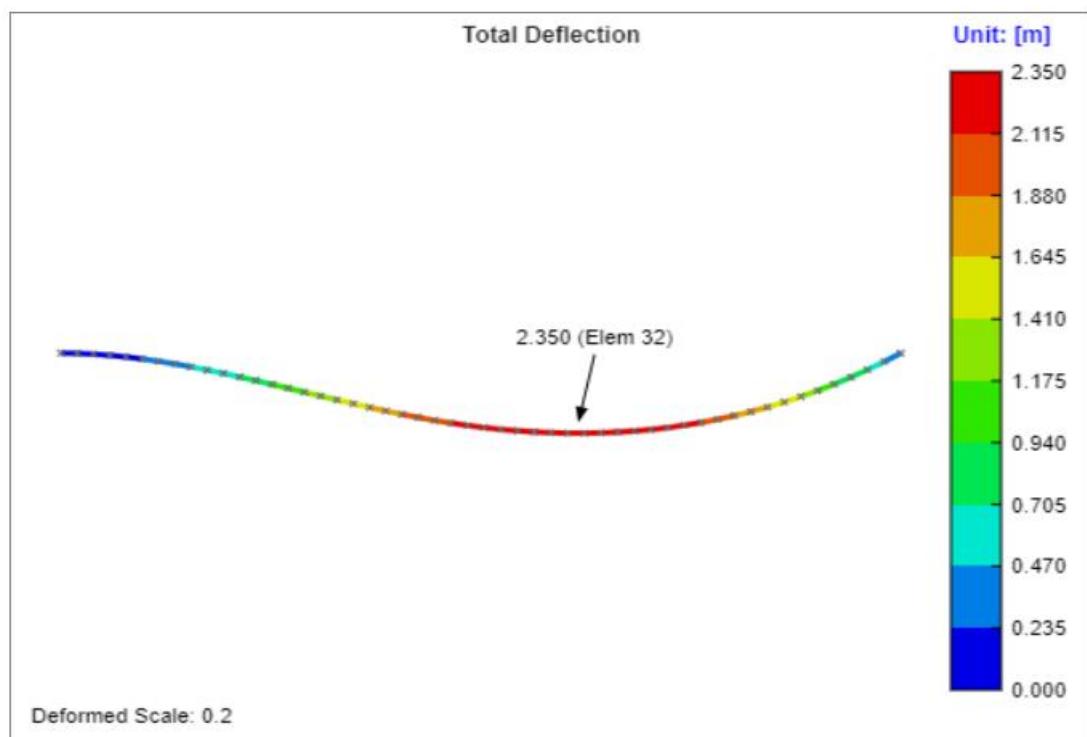
Shear Peak Values

Location	Value
0.000 m	6,225 N
2.000 m	6,225 N
2.000 m	1,465 N
4.500 m	1,465 N



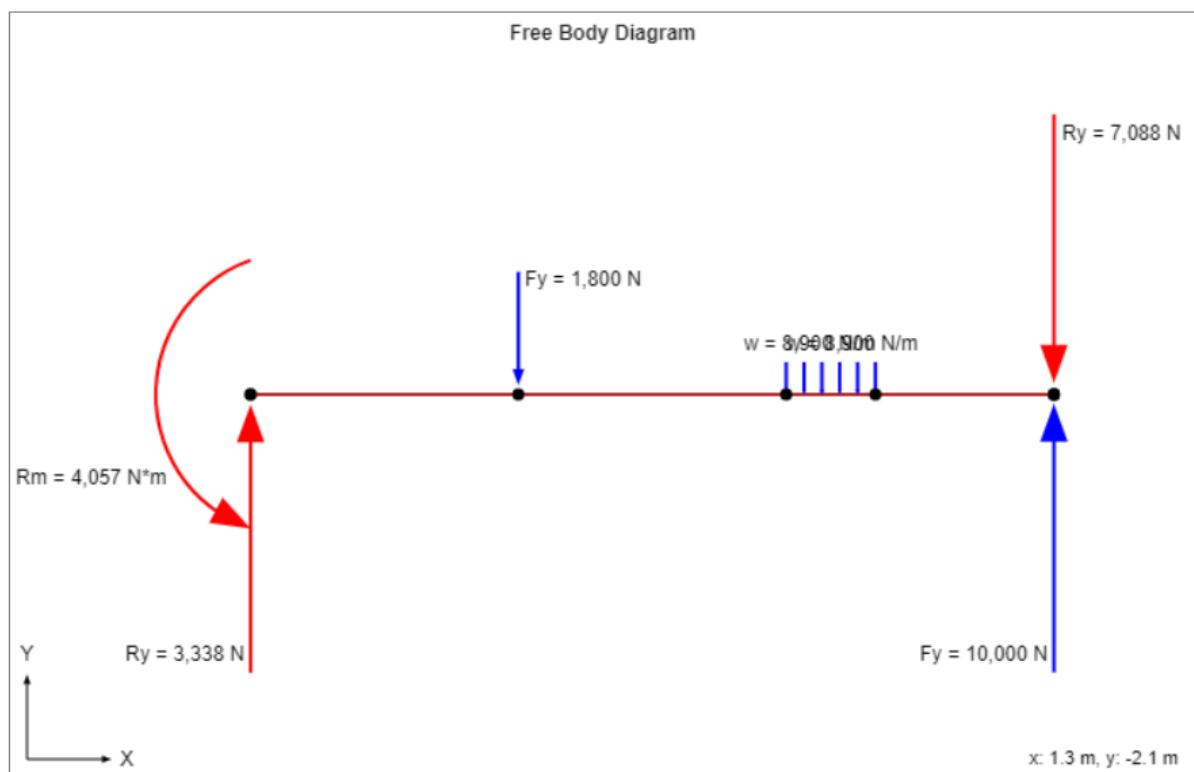
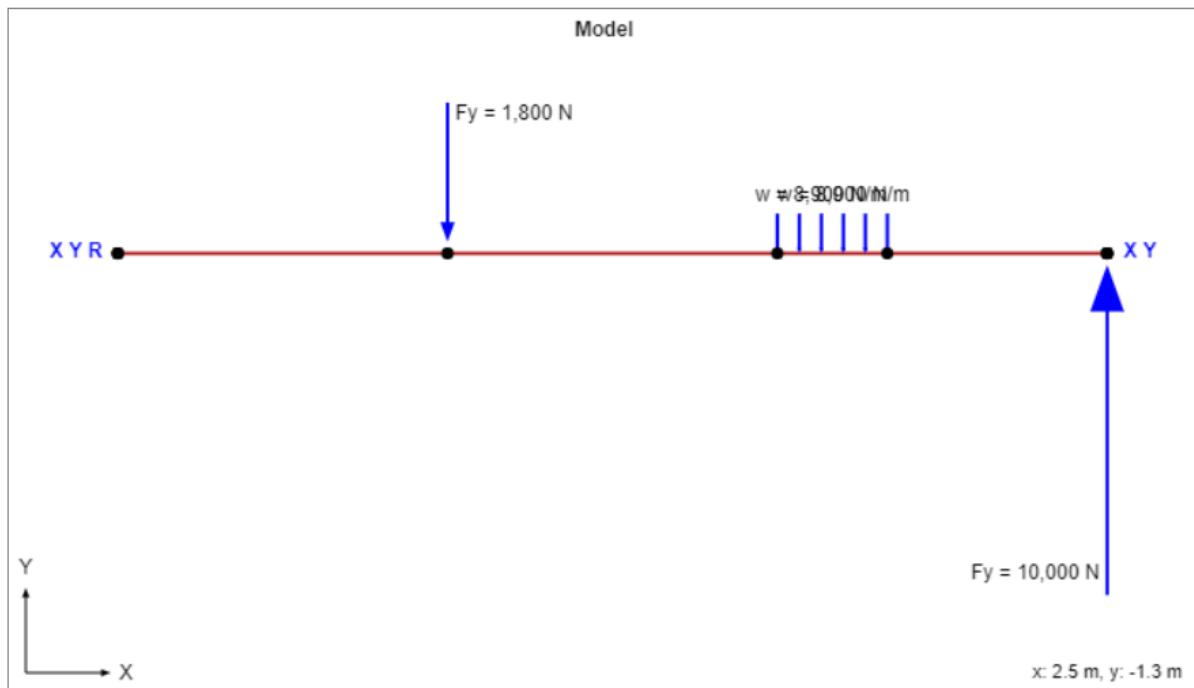
Moment Peak Values

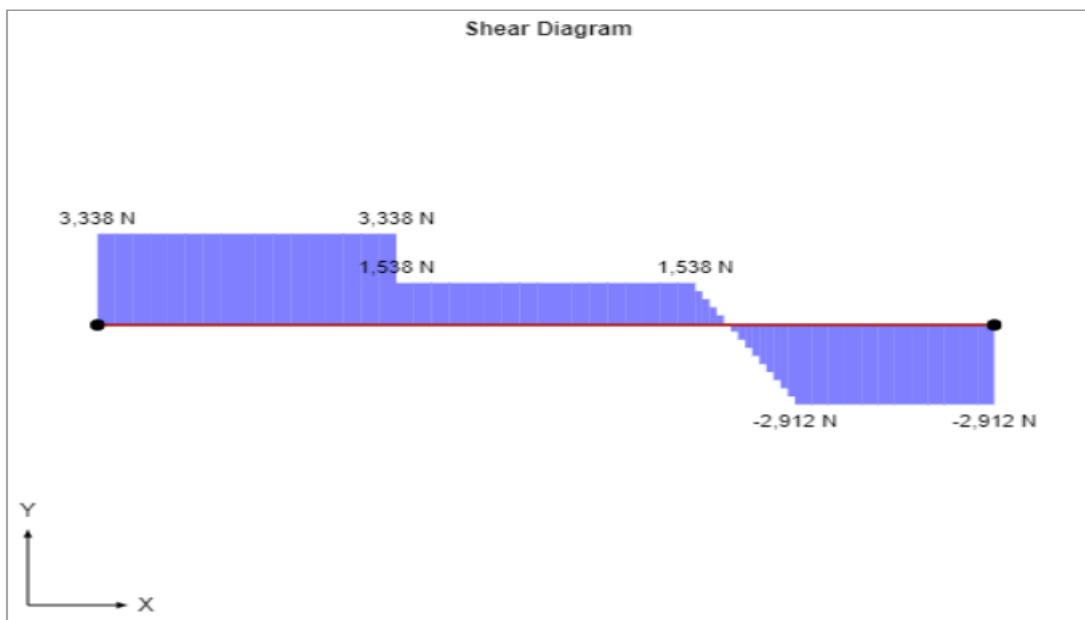
Location	Value
0.000 m	-8,114 N*m
4.500 m	8,000 N*m



	Value	Location
Max Deflection:	2.350 m	2.804 m
Max Slope:	166.2 deg	4.500 m

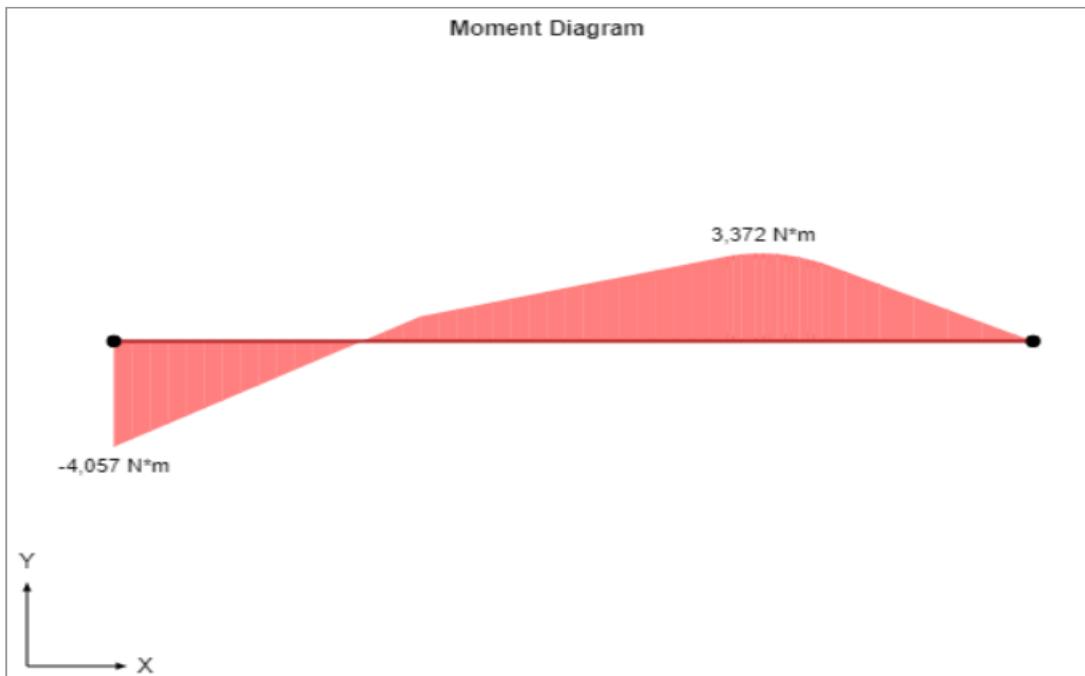
Case 33: Fixed – PIN: Circular section





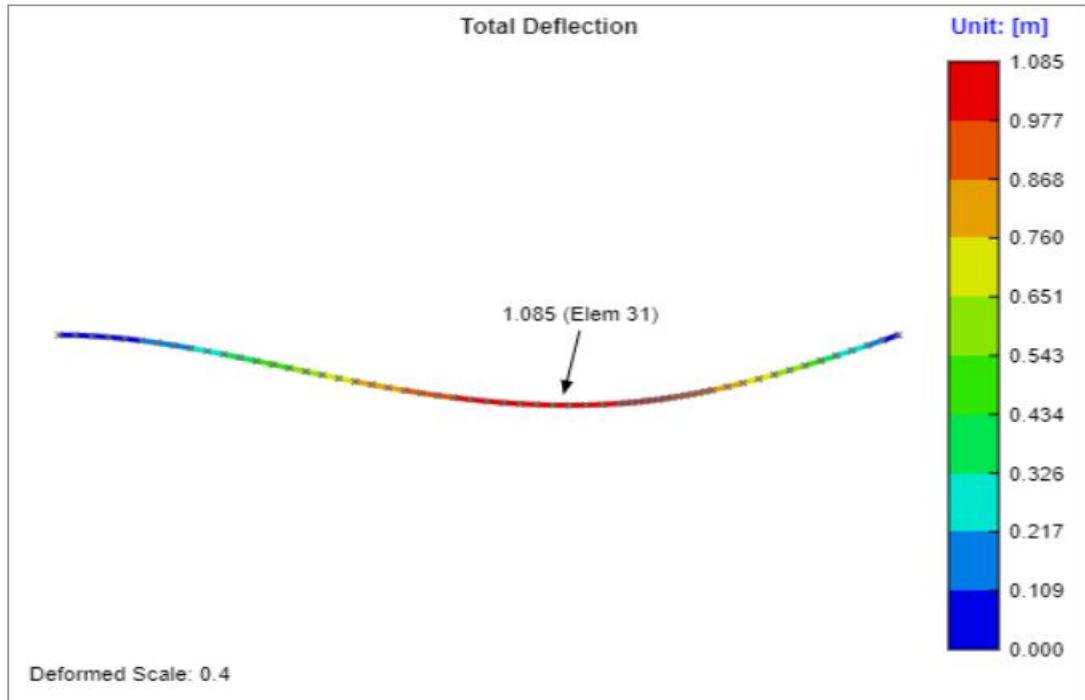
Shear Peak Values

Location	Value
0.000 m	3,338 N
1.500 m	3,338 N
1.500 m	1,538 N
3.000 m	1,538 N
3.500 m	-2,912 N
4.500 m	-2,912 N



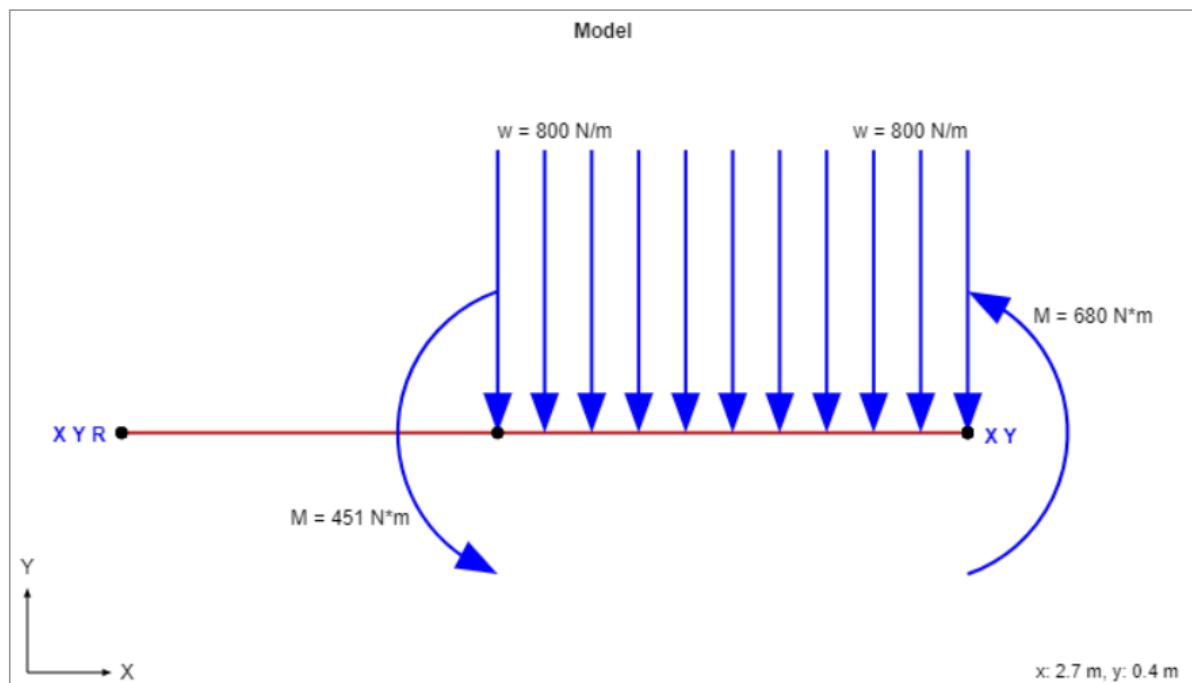
Moment Peak Values

Location	Value
0.000 m	-4,057 N*m
3.179 m	3,372 N*m

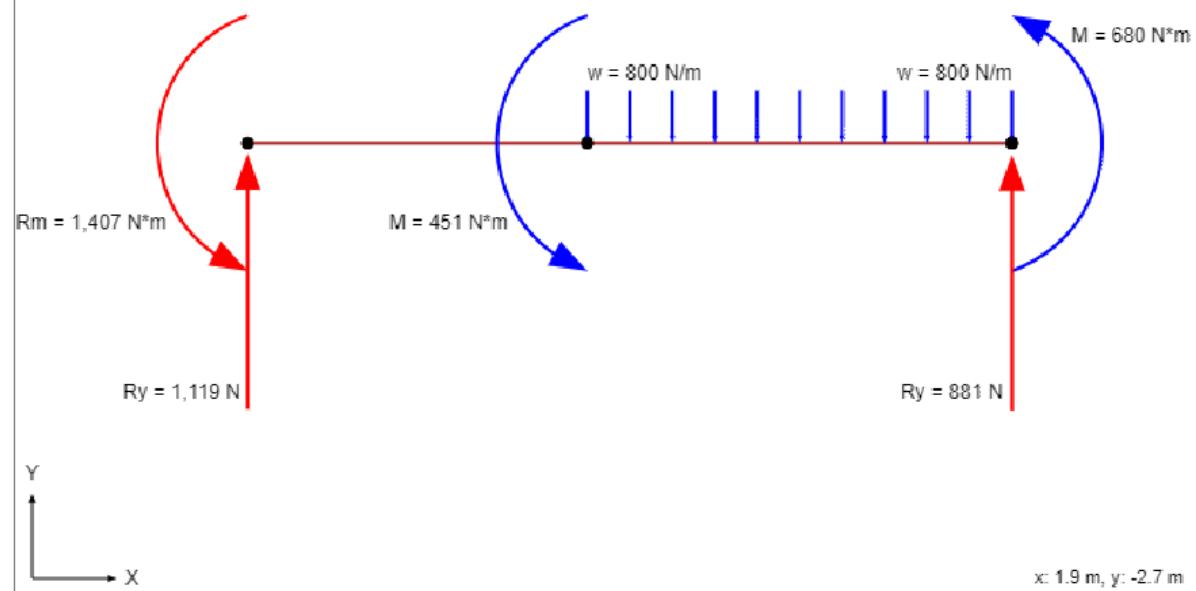


	Value	Location
Max Deflection:	1.085 m	2.735 m
Max Slope:	55.77 deg	4.500 m

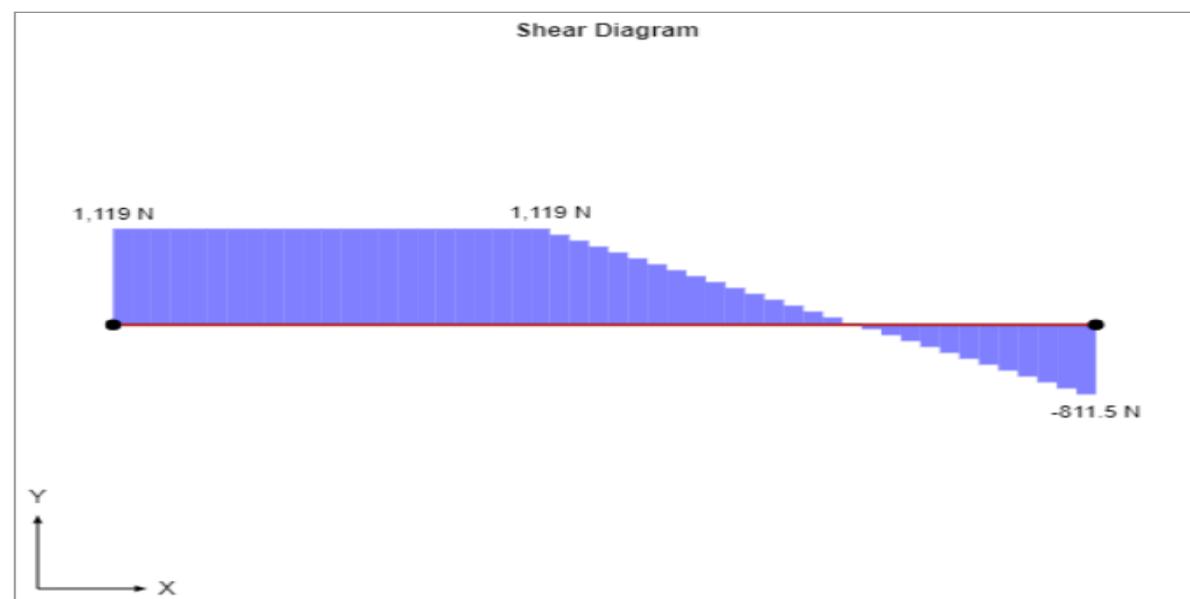
Case 34: Fixed – PIN: Circular section



Free Body Diagram

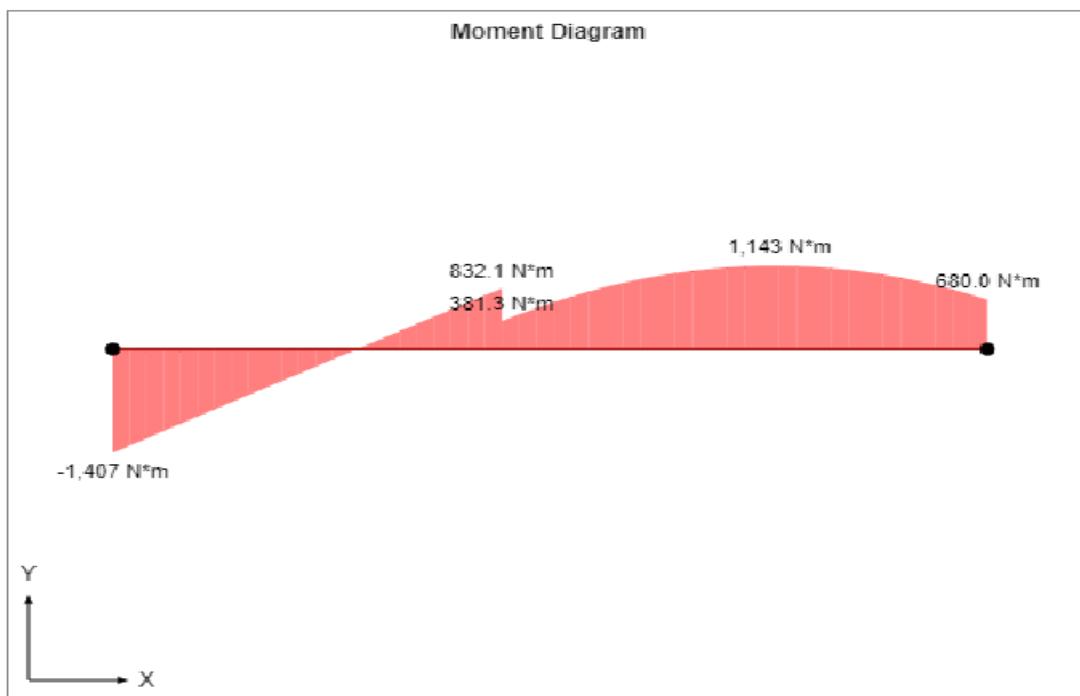


Shear Diagram



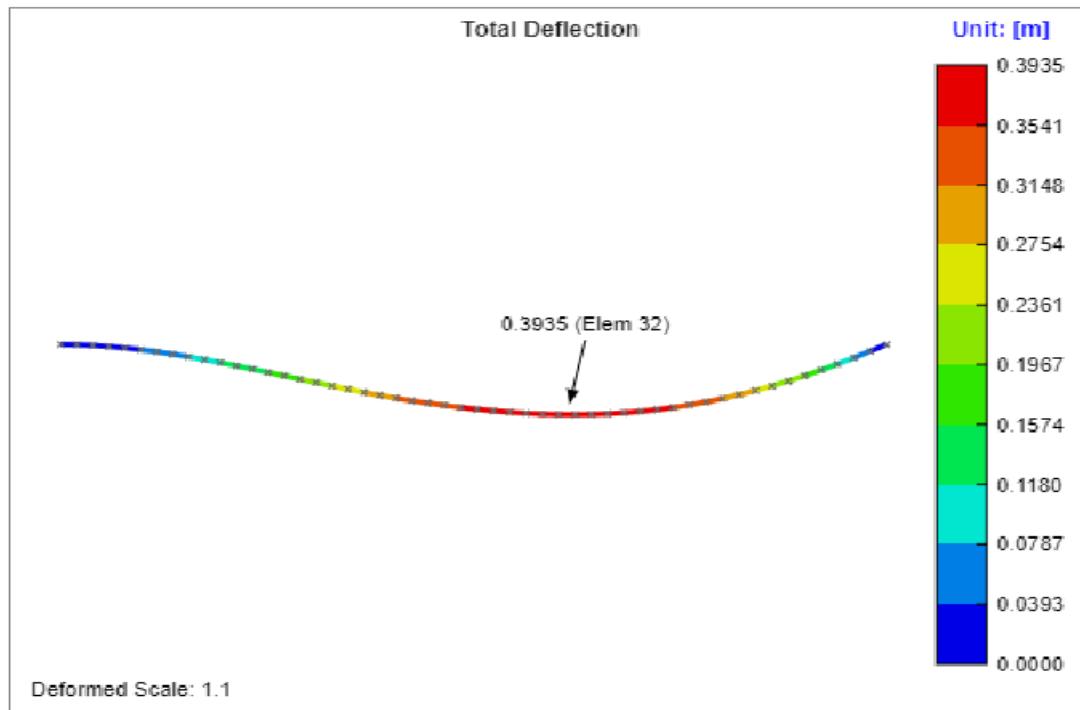
Shear Peak Values

Location	Value
0.000 m	1,119 N
2.000 m	1,119 N
4.500 m	-811.5 N



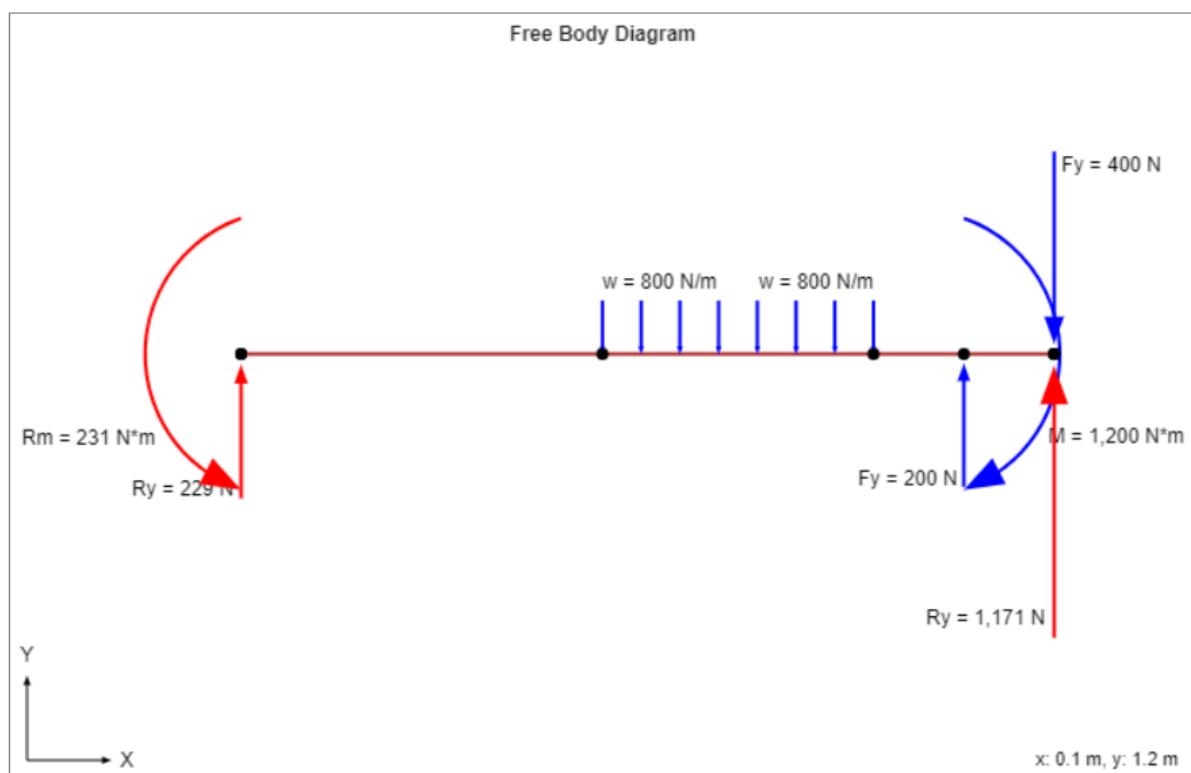
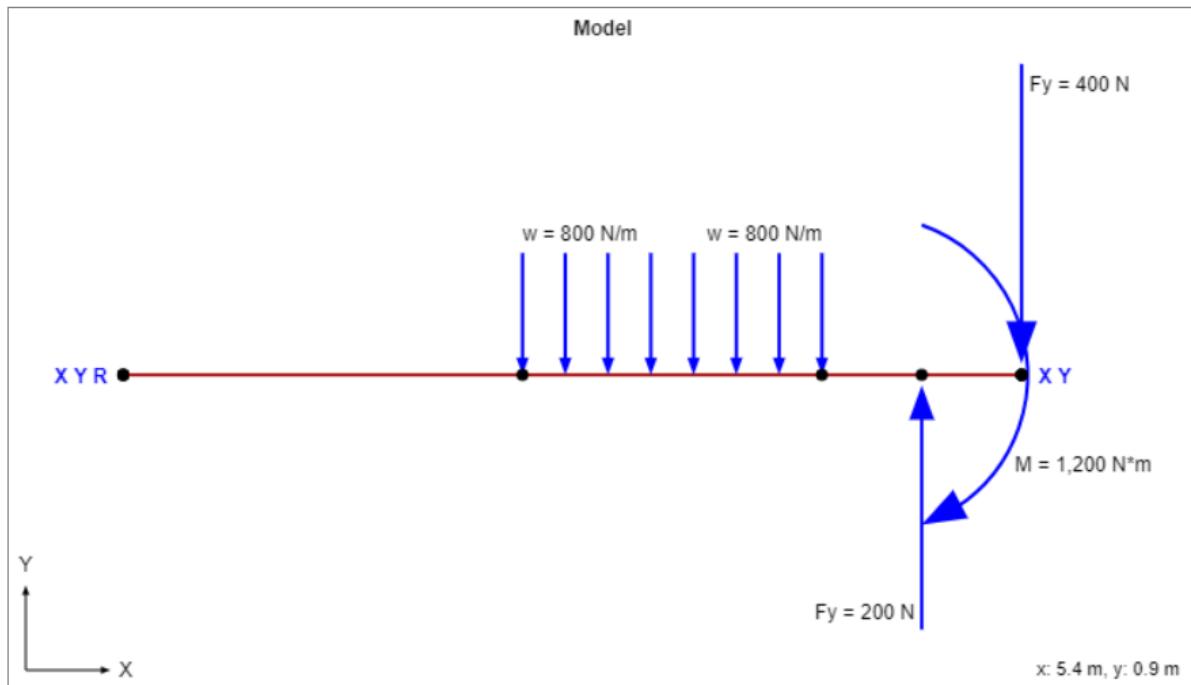
Moment Peak Values

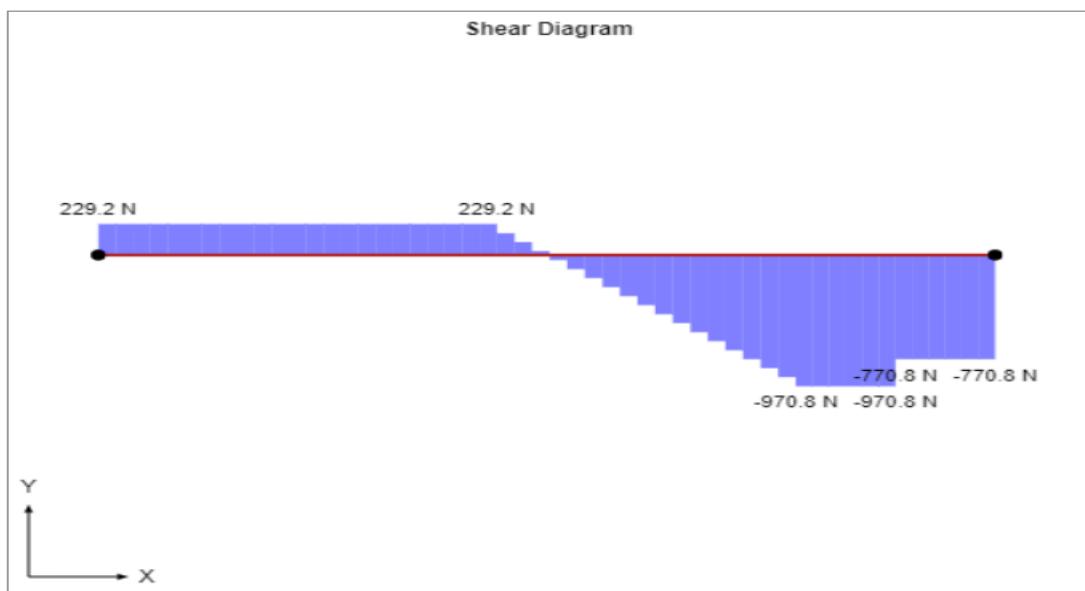
Location	Value
0.000 m	-1,407 N*m
2.000 m	832.1 N*m
2.000 m	381.3 N*m
3.429 m	1,143 N*m
4.500 m	680.0 N*m



	Value	Location
Max Deflection:	0.3935 m	2.804 m
Max Slope:	25.06 deg	4.500 m

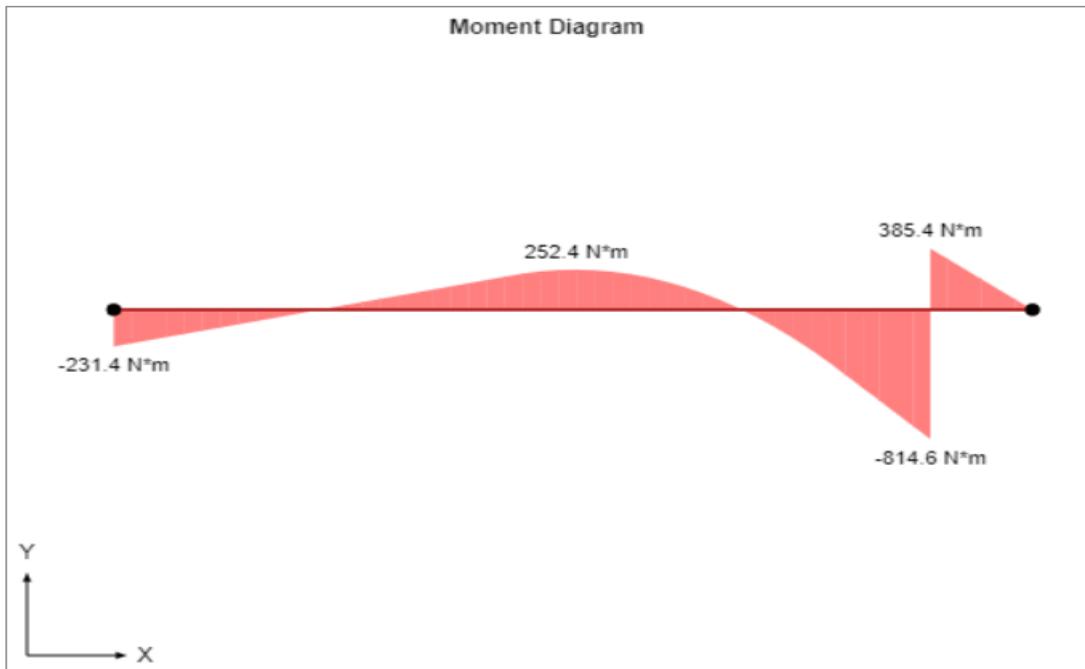
Case 35: Fixed – PIN: Circular section





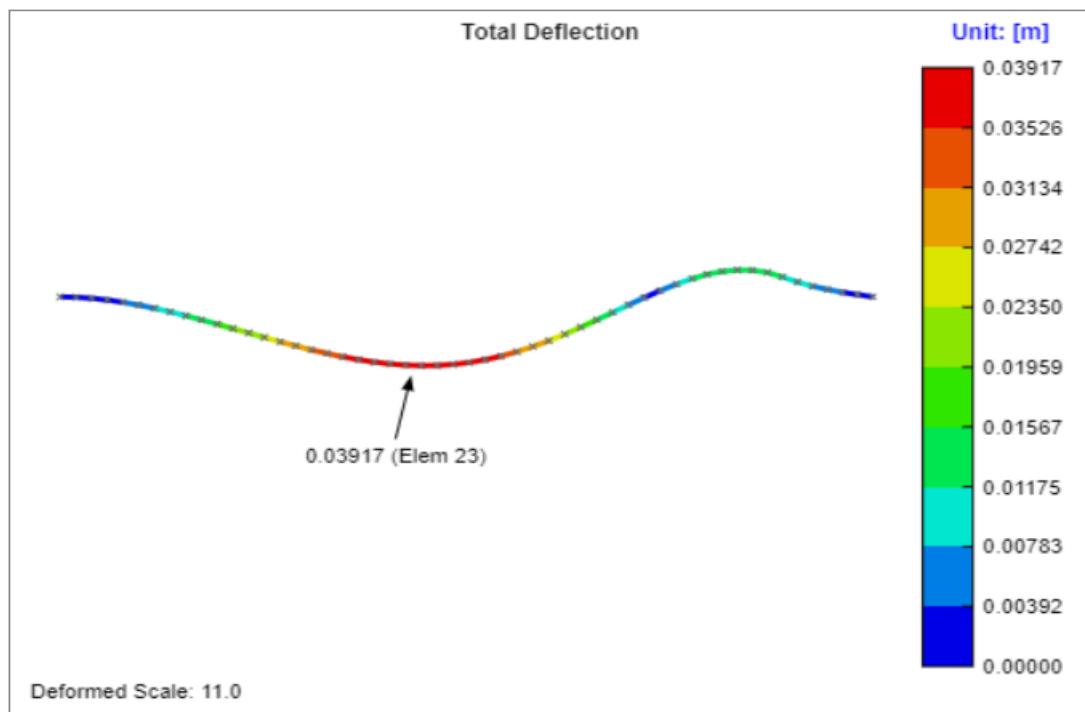
Shear Peak Values

Location	Value
0.000 m	229.2 N
2.000 m	229.2 N
3.500 m	-970.8 N
4.000 m	-970.8 N
4.000 m	-770.8 N
4.500 m	-770.8 N



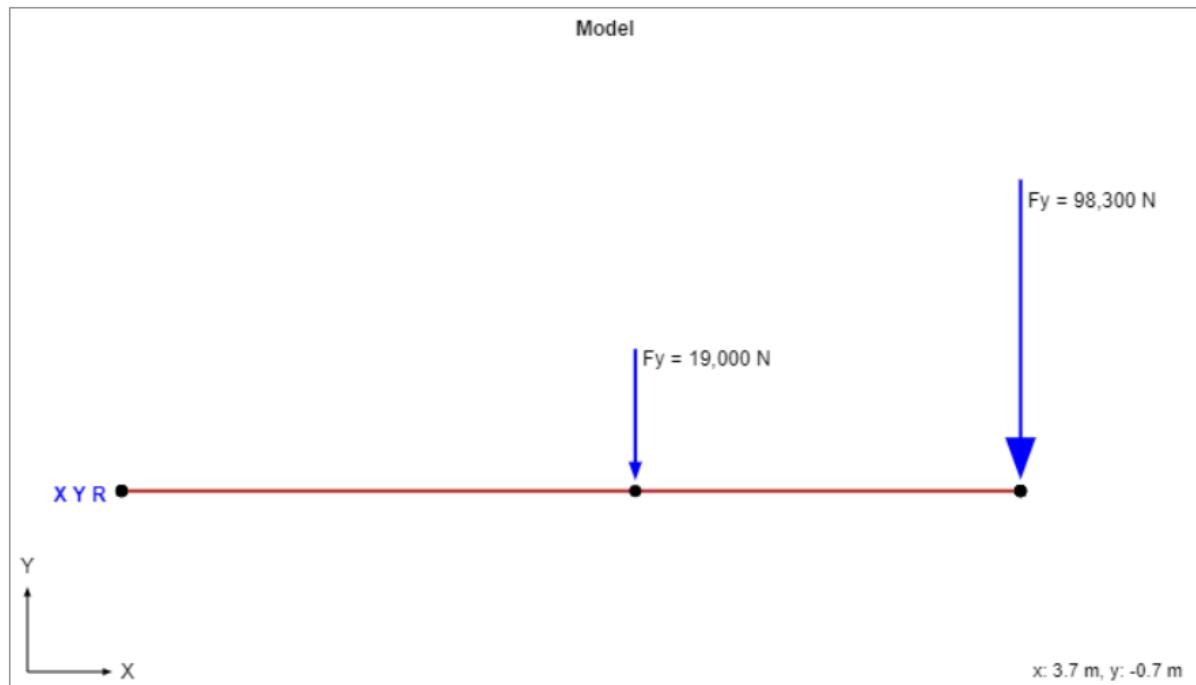
Moment Peak Values

Location	Value
0.000 m	-231.4 N*m
2.265 m	252.4 N*m
4.000 m	-814.6 N*m
4.000 m	385.4 N*m

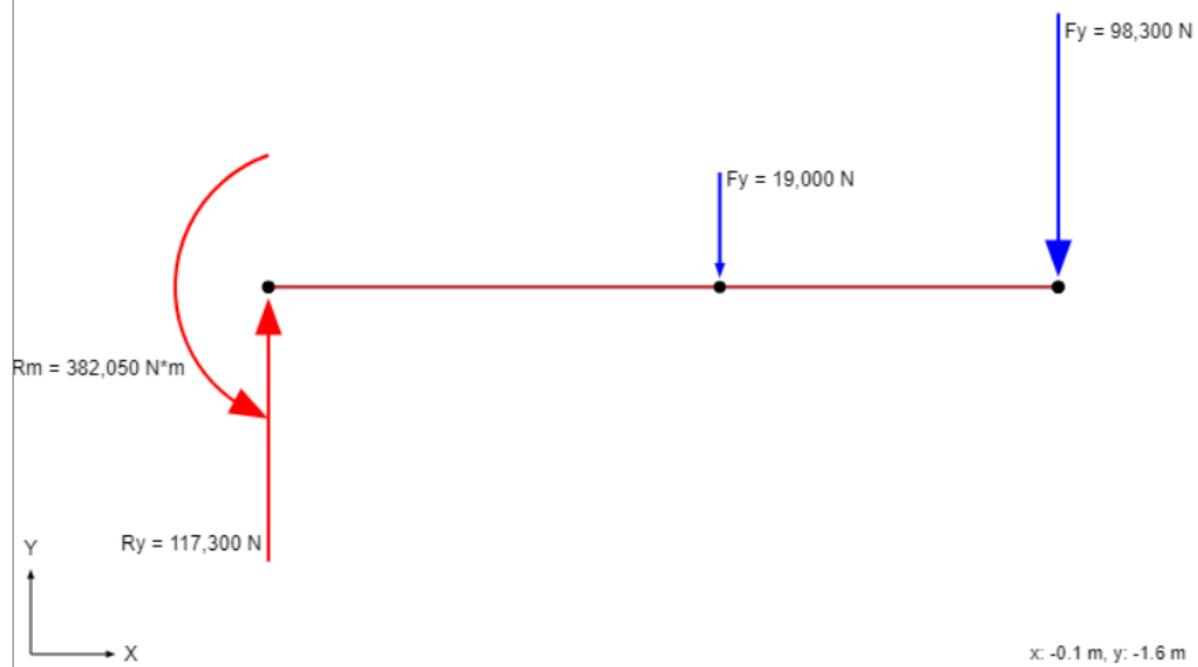


	Value	Location
Max Deflection:	0.03917 m	2.000 m
Max Slope:	2.792 deg	3.059 m

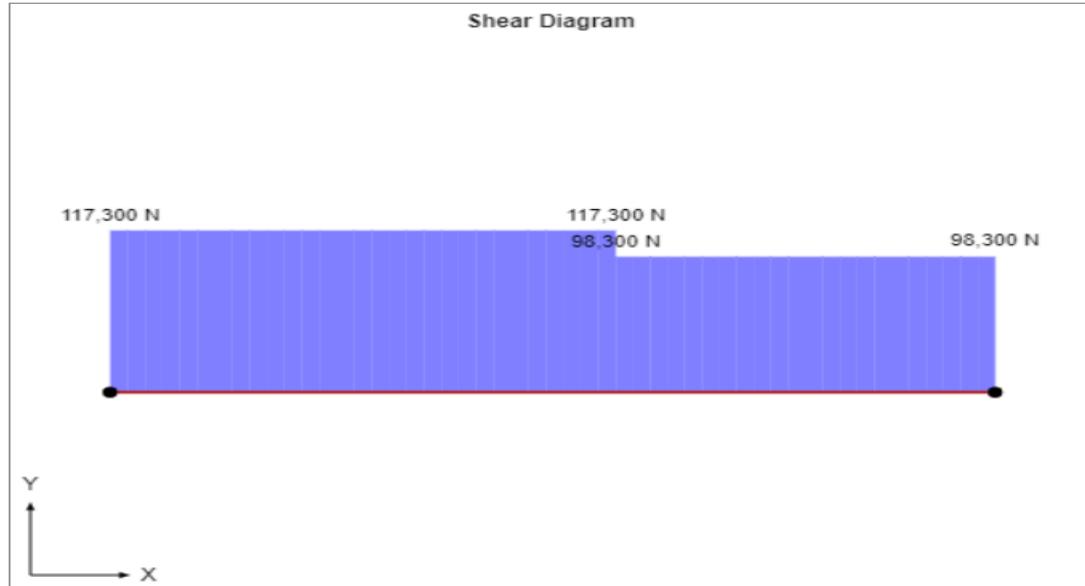
Case 36: I-Section Cantilever



Free Body Diagram

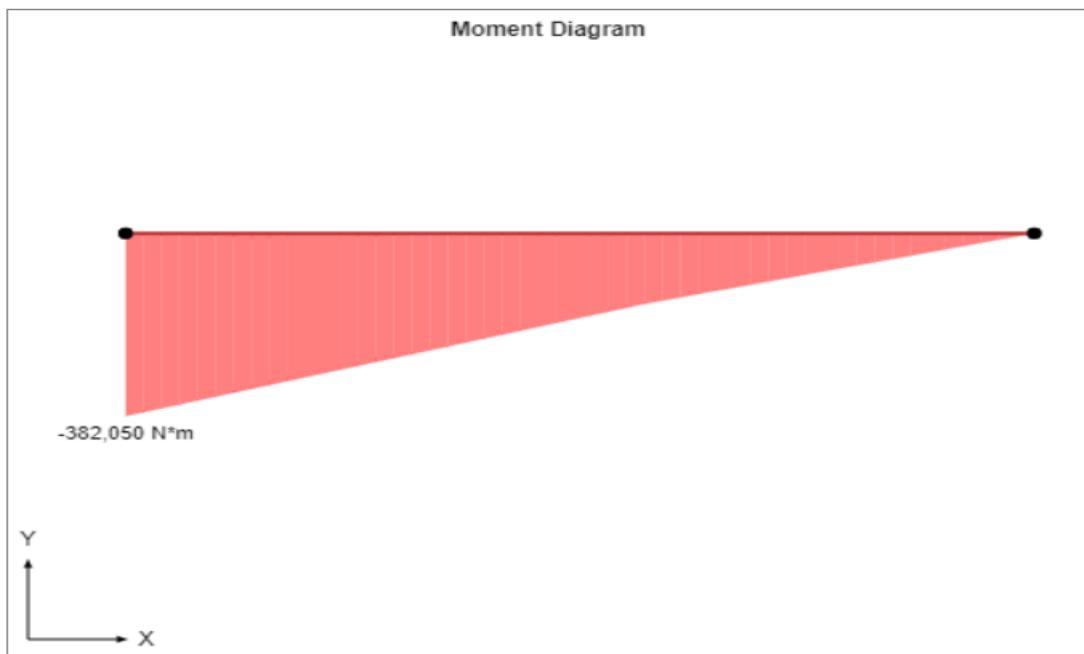


Shear Diagram



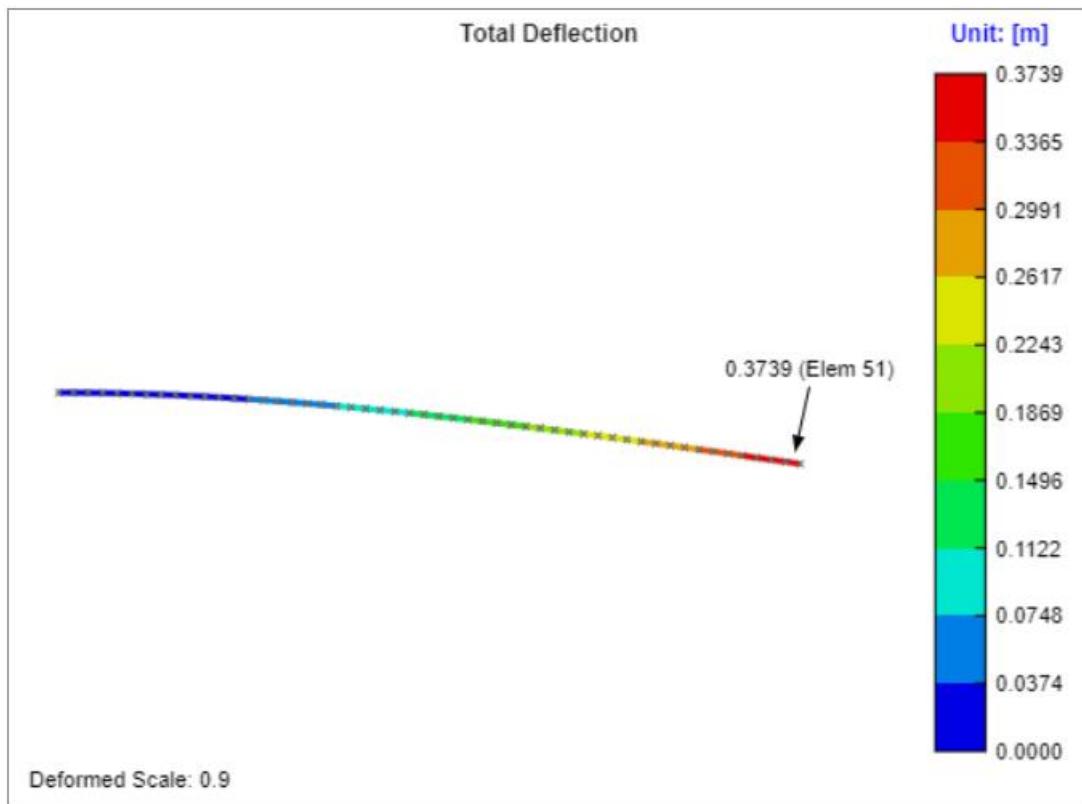
Shear Peak Values

Location	Value
0.000 m	117,300 N
2.000 m	117,300 N
2.000 m	98,300 N
3.500 m	98,300 N



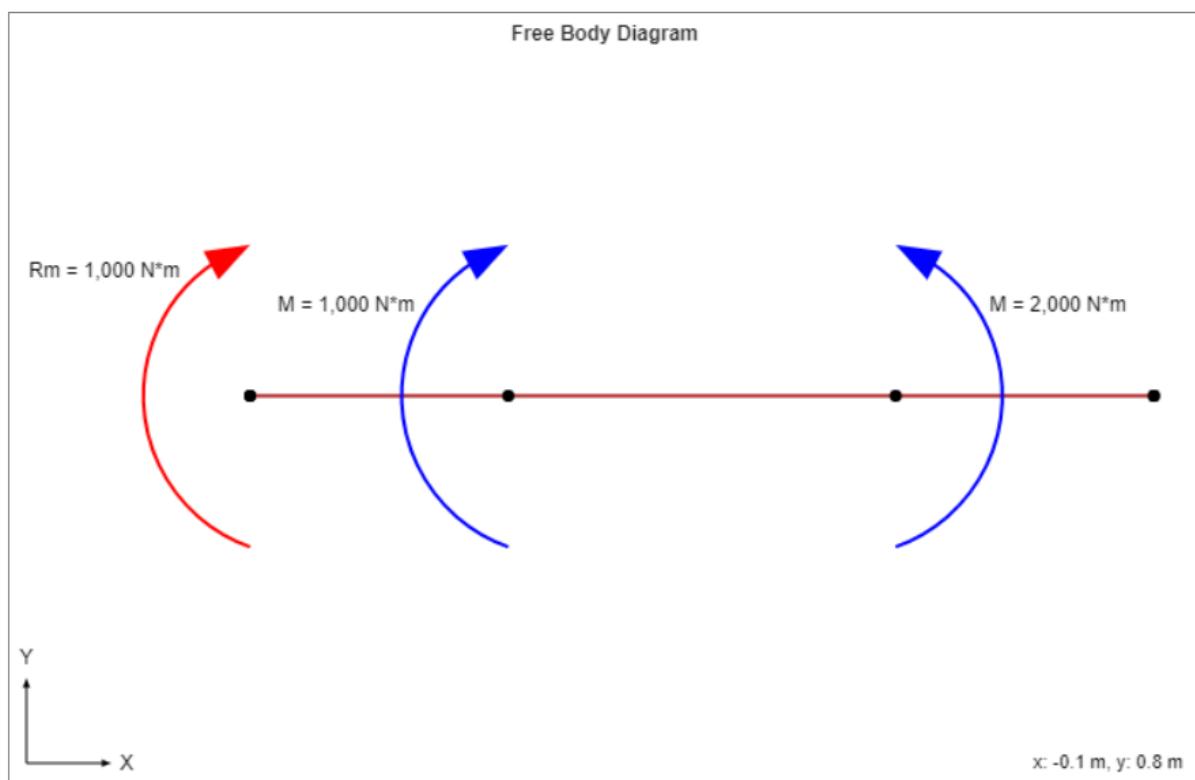
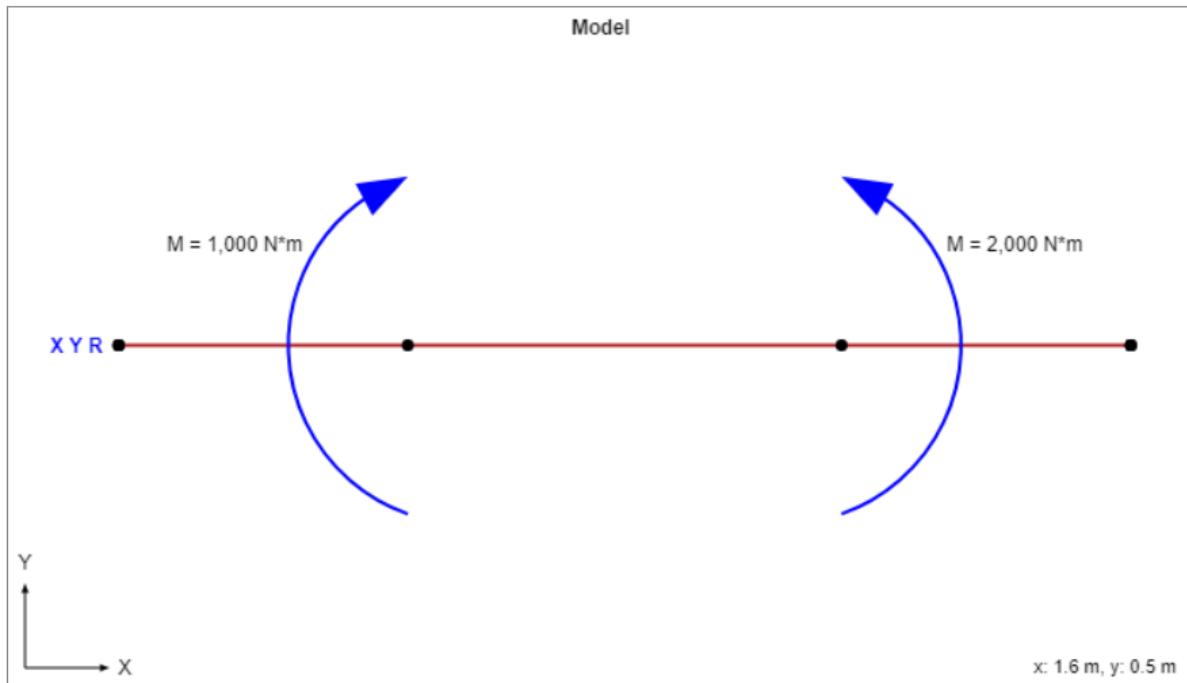
Moment Peak Values

Location	Value
0.000 m	-382,050 N*m



	Value	Location
Max Deflection:	0.3739 m	3.500 m
Max Slope:	-9.065 deg	3.500 m

Case 37: I-Section Cantilever



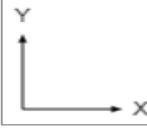
Shear Diagram



Shear Peak Values

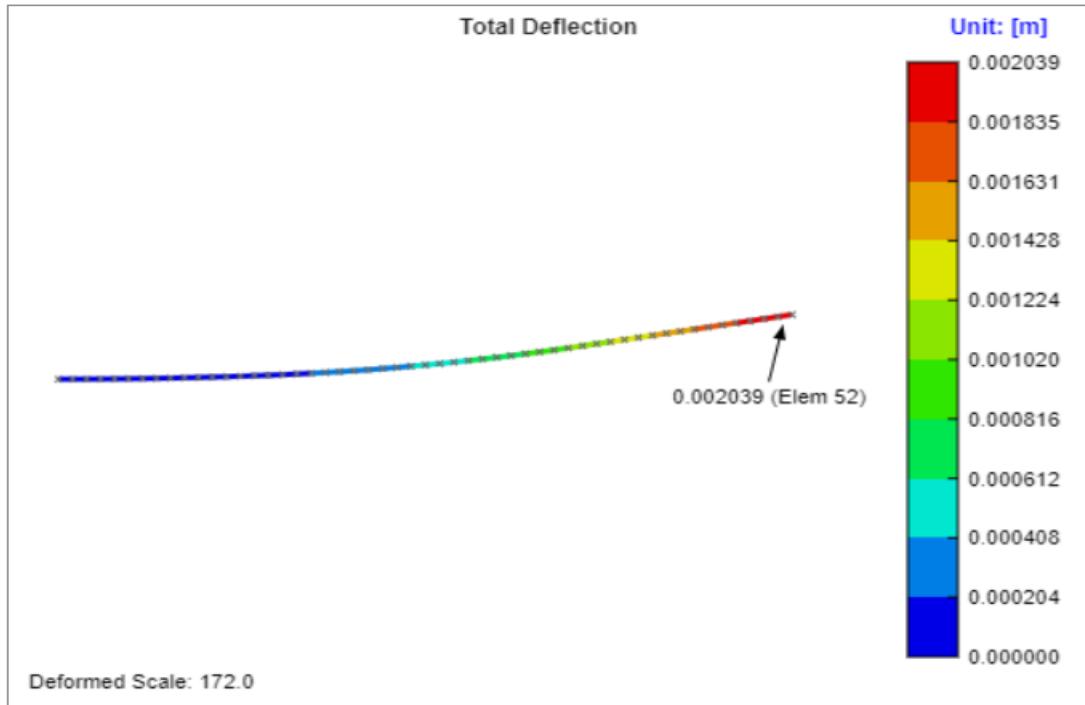
Location	Value
0.000 m	$467.3\text{E-}9 \text{ N}$
3.500 m	$-97.35\text{E-}9 \text{ N}$

Moment Diagram



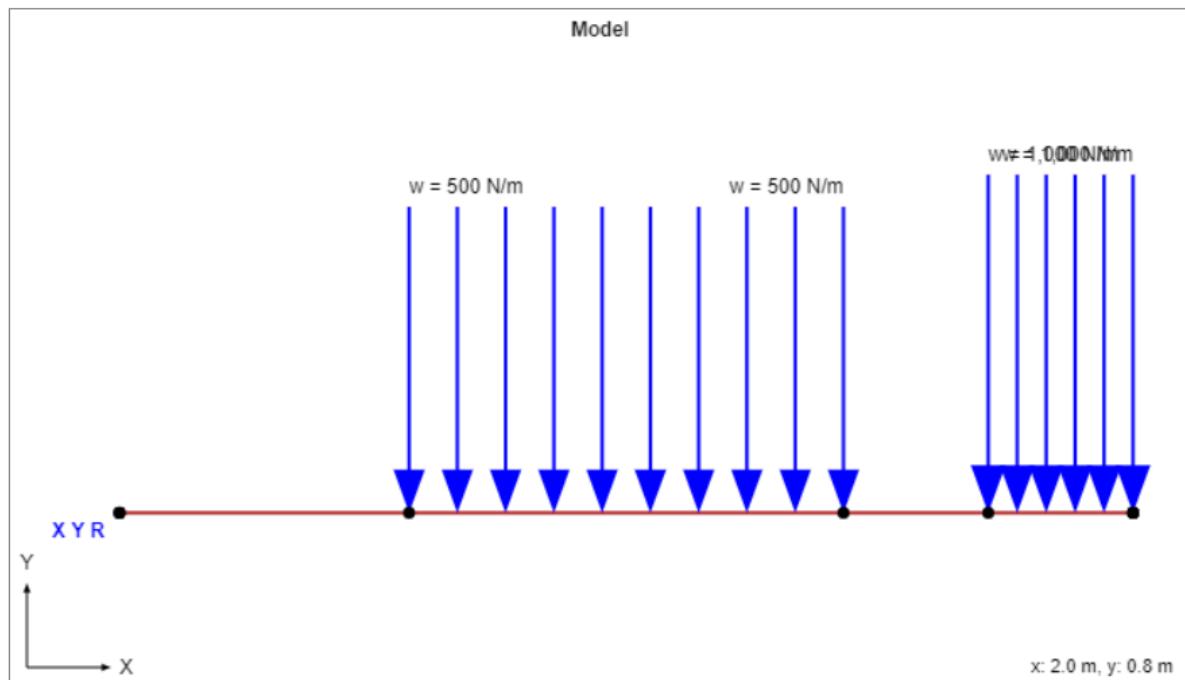
Moment Peak Values

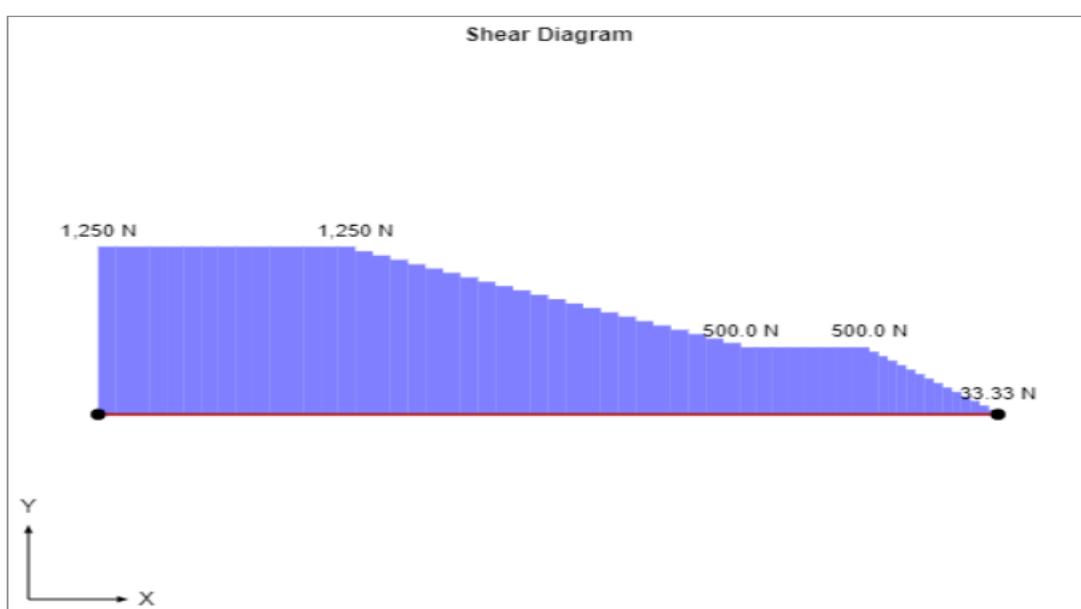
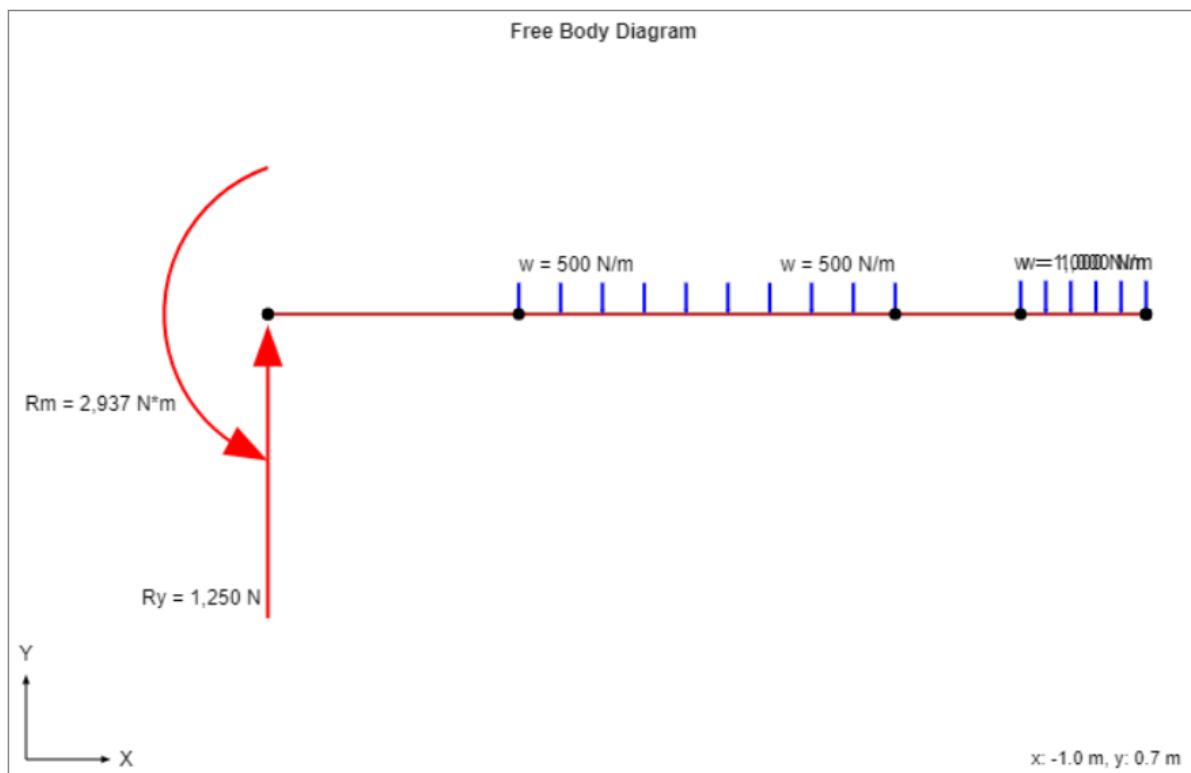
Location	Value
0.000 m	$1,000.0 \text{ N*m}$
1.000 m	$1,000.0 \text{ N*m}$
1.000 m	$2,000 \text{ N*m}$
2.500 m	$2,000 \text{ N*m}$



	Value	Location
Max Deflection:	0.002039 m	3.500 m
Max Slope:	0.05665 deg	2.500 m

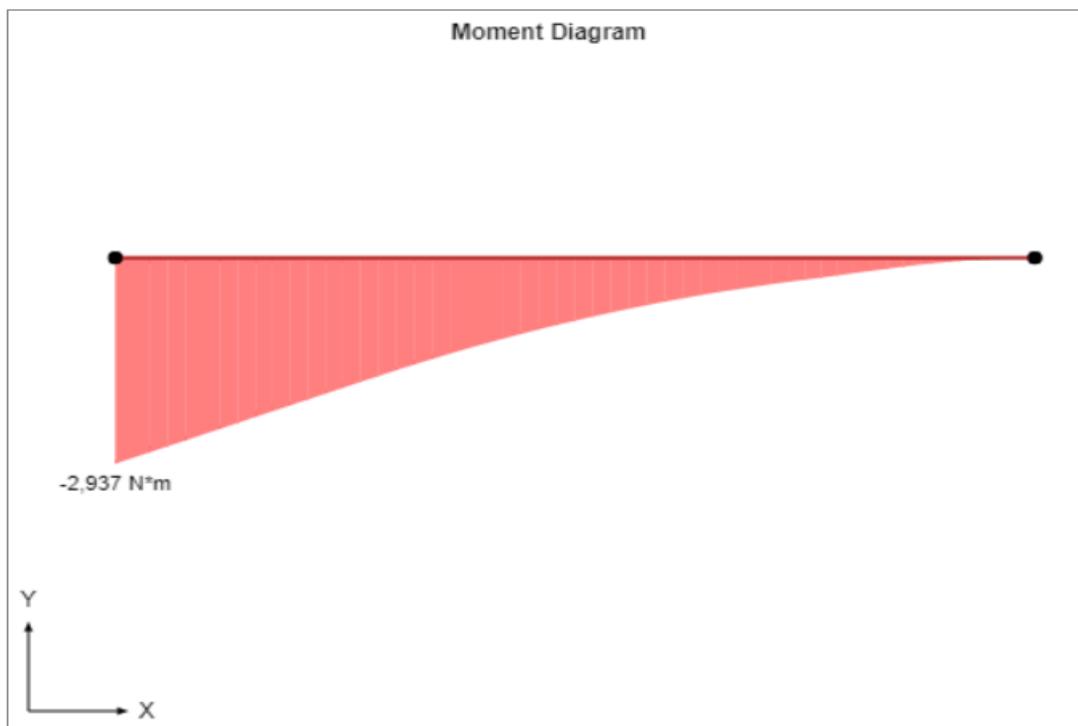
Case 38: I-Section Cantilever





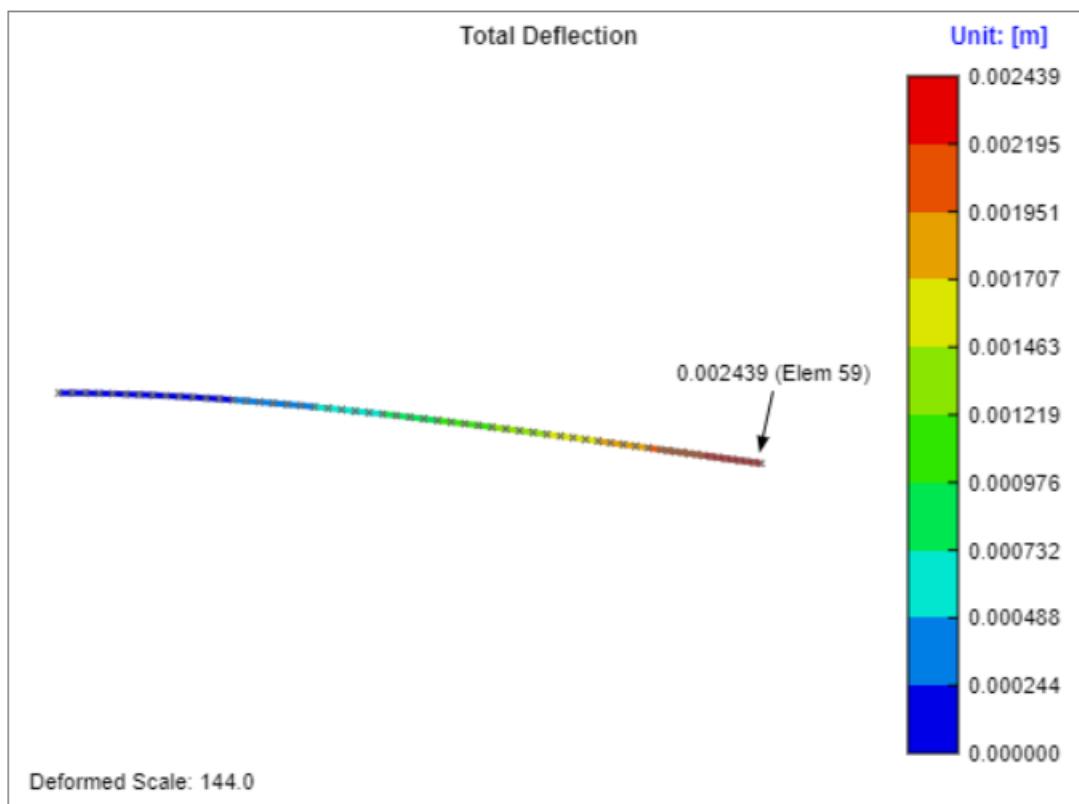
Shear Peak Values

Location	Value
0.000 m	1,250 N
1.000 m	1,250 N
2.500 m	500.0 N
3.000 m	500.0 N
3.500 m	33.33 N



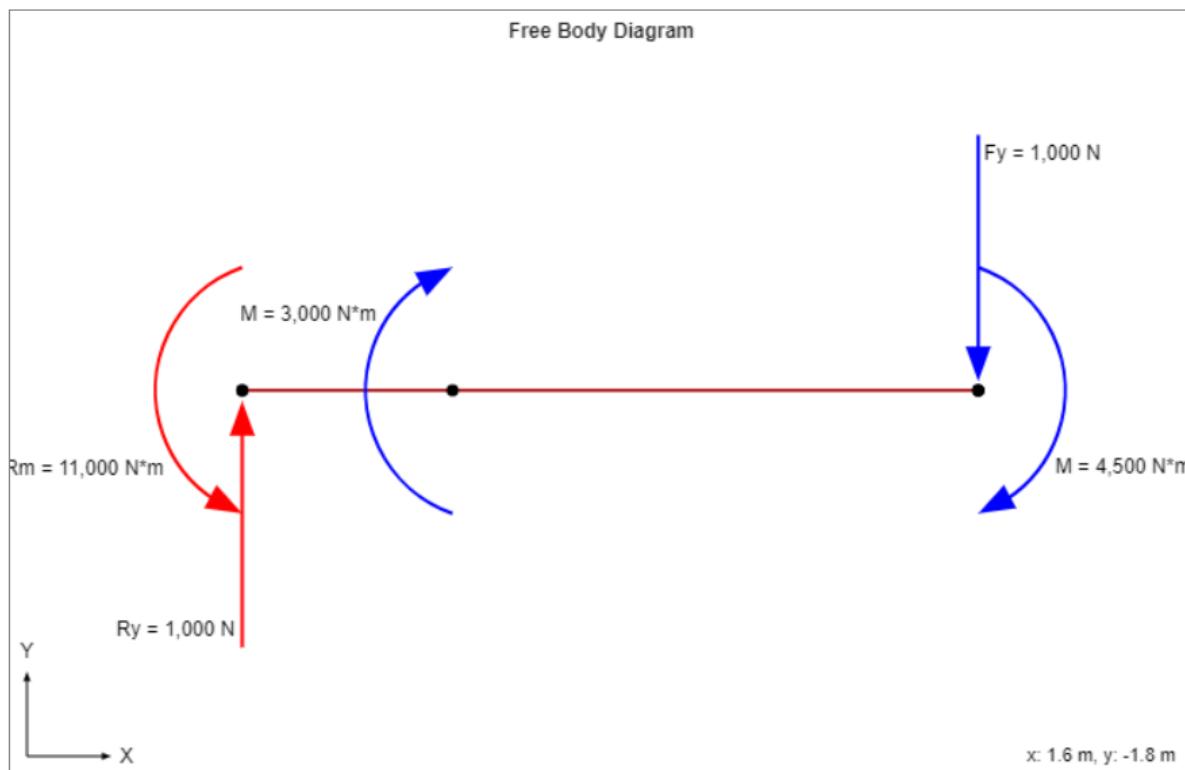
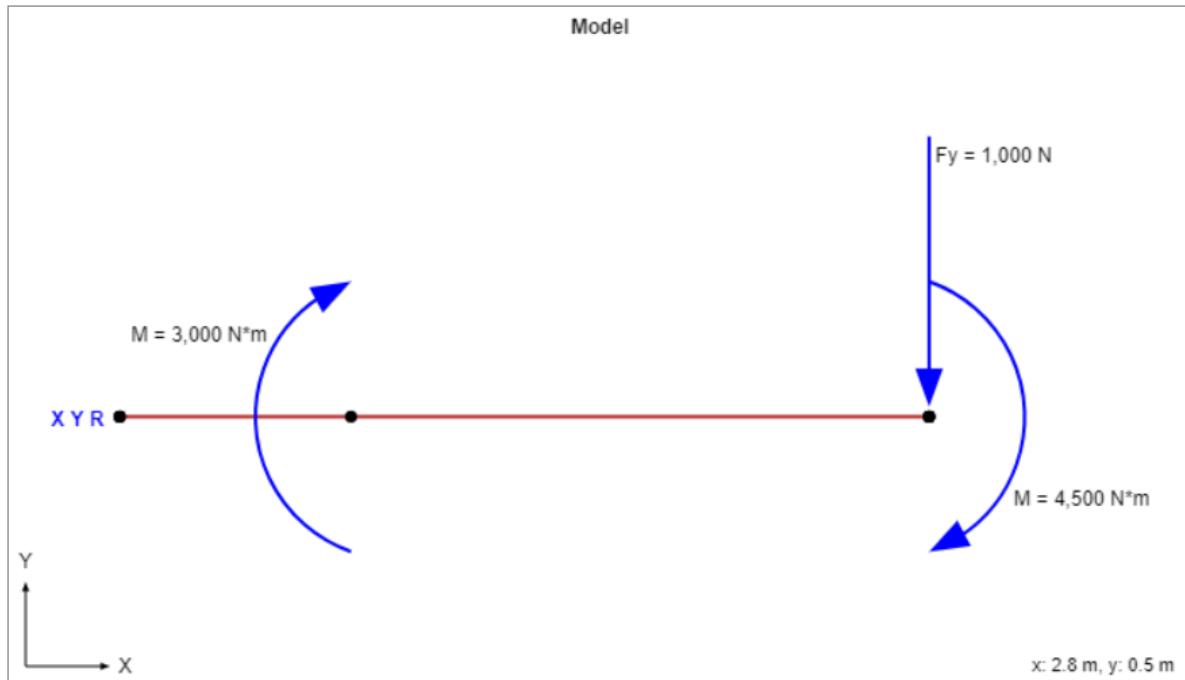
Moment Peak Values

Location	Value
0.000 m	-2,937 N*m

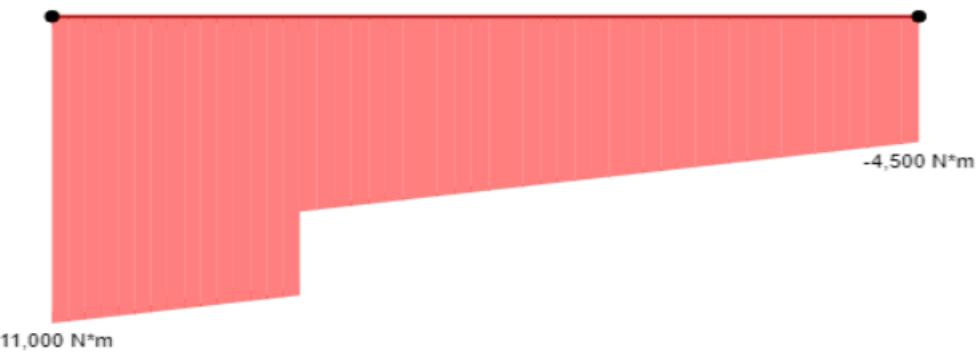


	Value	Location
Max Deflection:	0.002439 m	3.500 m
Max Slope:	-0.05483 deg	3.500 m

Case 39: I-Section Cantilever



Moment Diagram



Moment Peak Values

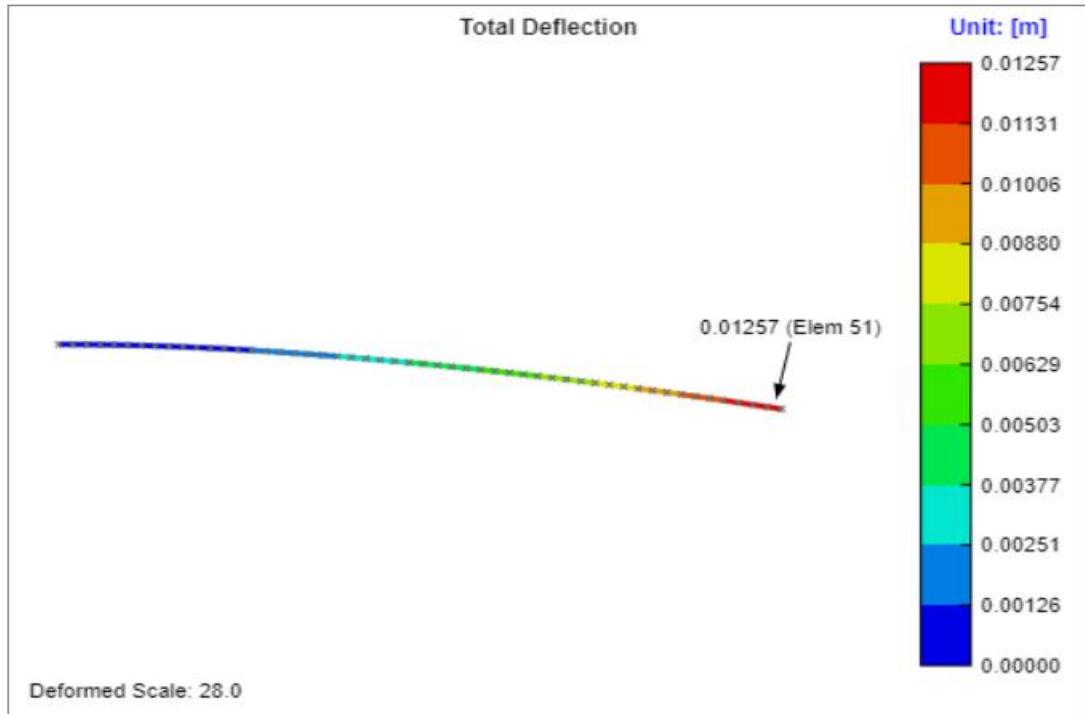
Location	Value
0.000 m	-11,000 N*m
3.500 m	-4,500 N*m

Shear Diagram



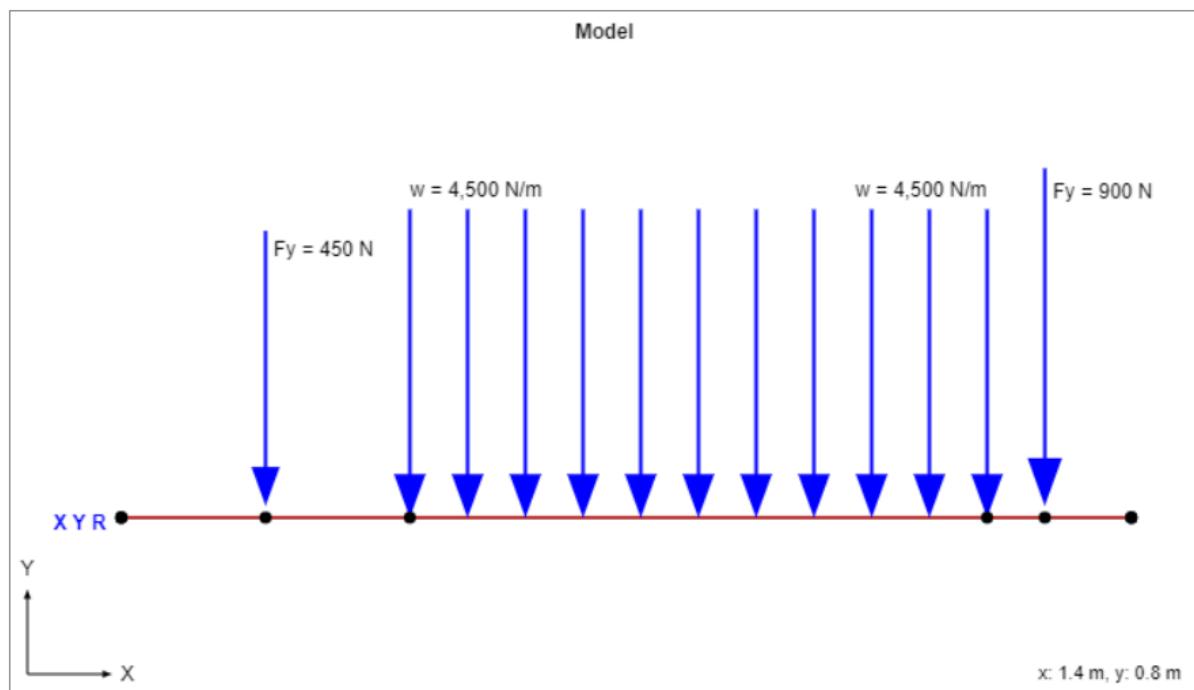
Shear Peak Values

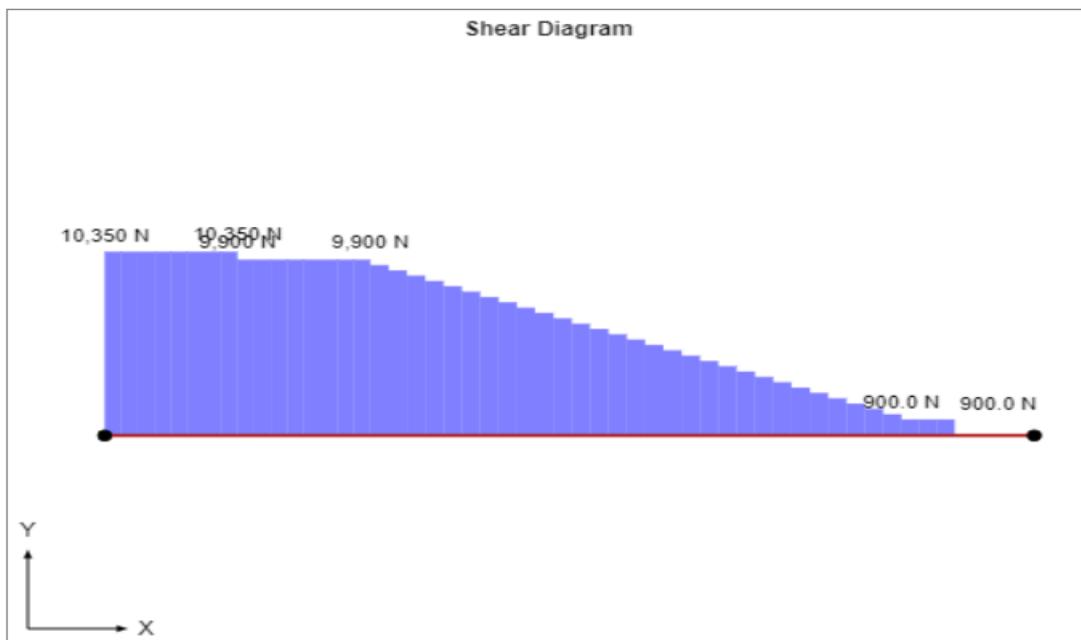
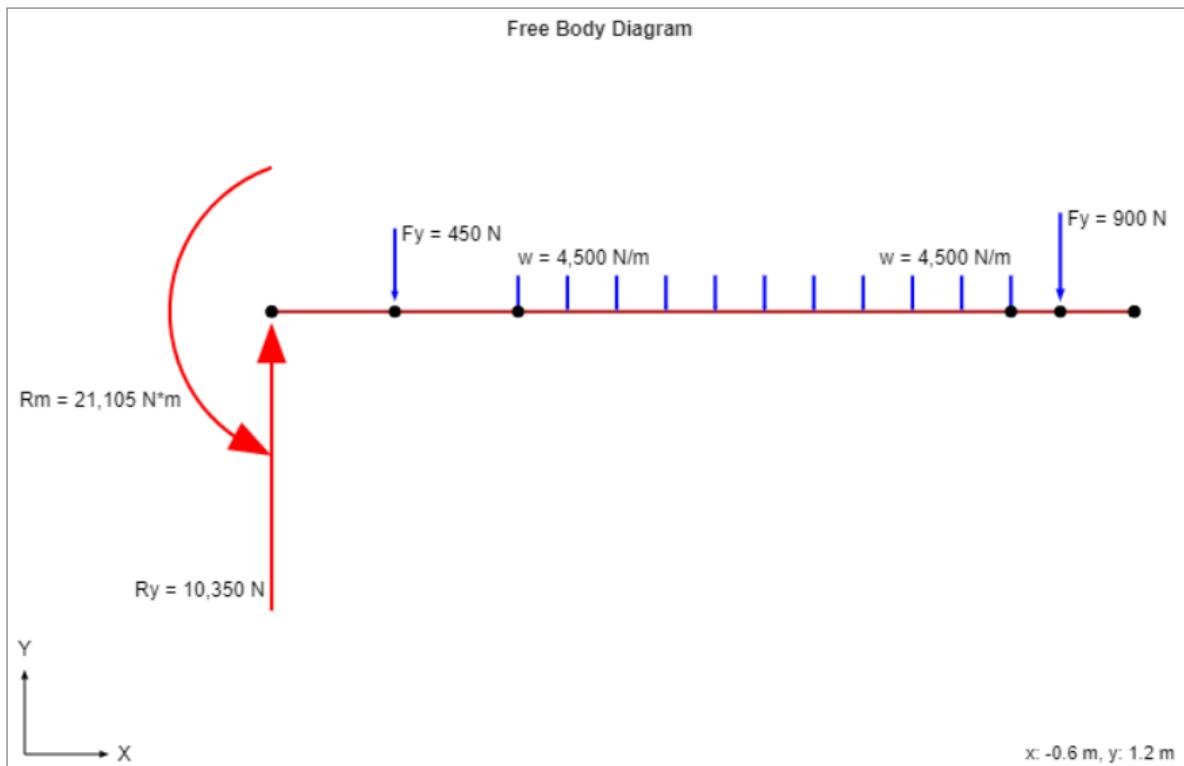
Location	Value
0.000 m	1,000 N
3.500 m	1,000.0 N



	Value	Location
Max Deflection:	0.01257 m	3.500 m
Max Slope:	-0.3523 deg	3.500 m

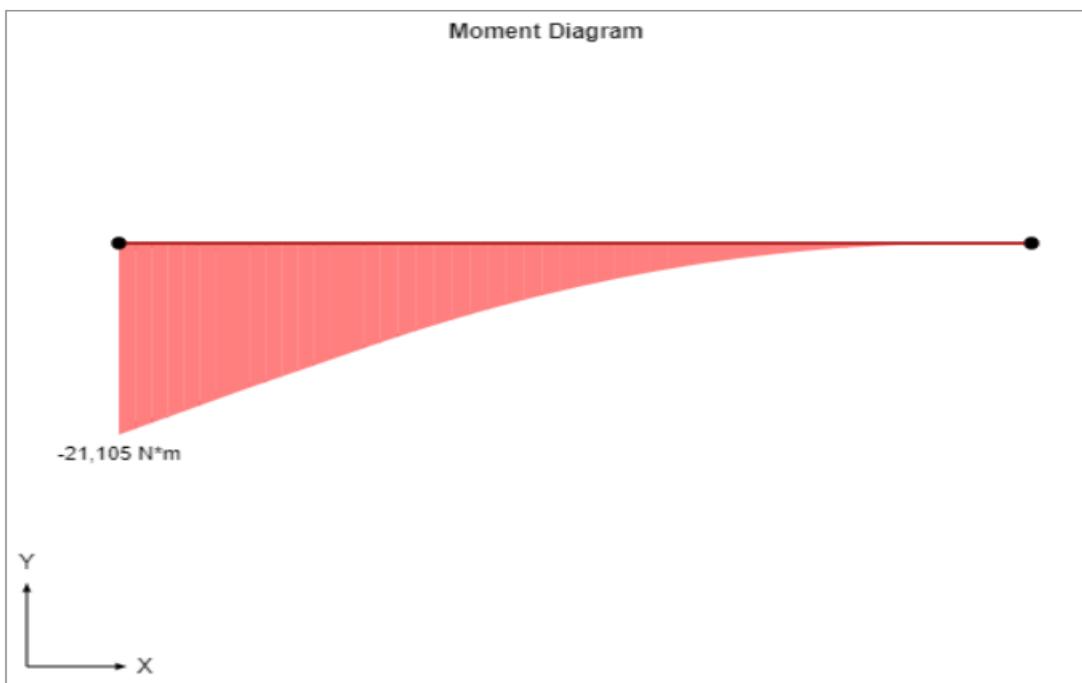
Case 40: I-Section Cantilever





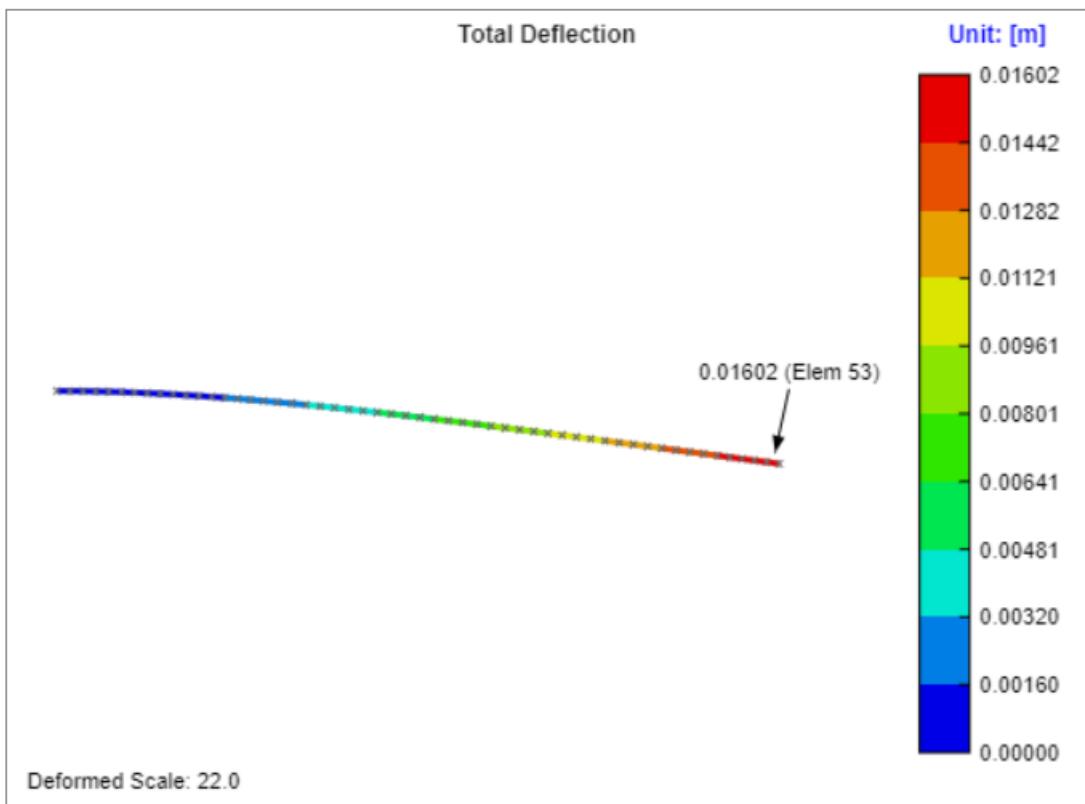
Shear Peak Values

Location	Value
0.000 m	10,350 N
0.5000 m	10,350 N
0.5000 m	9,900 N
1.000 m	9,900 N
3.000 m	900.0 N
3.200 m	900.0 N



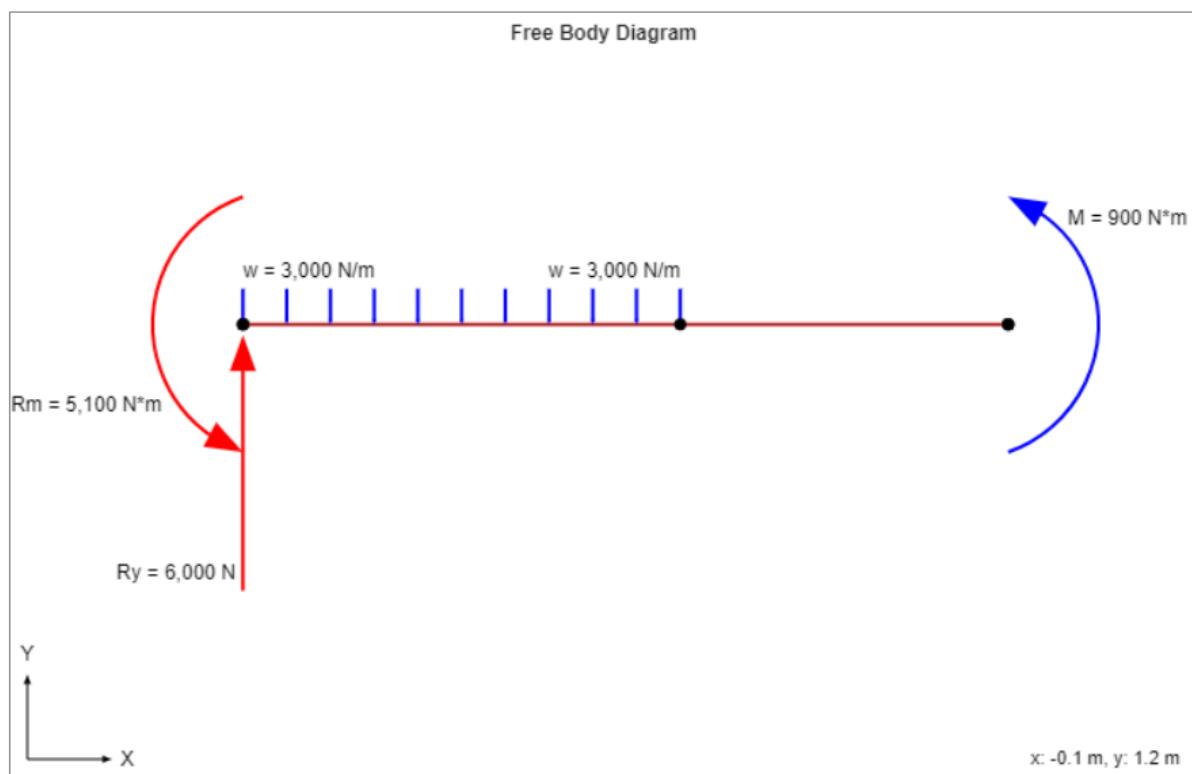
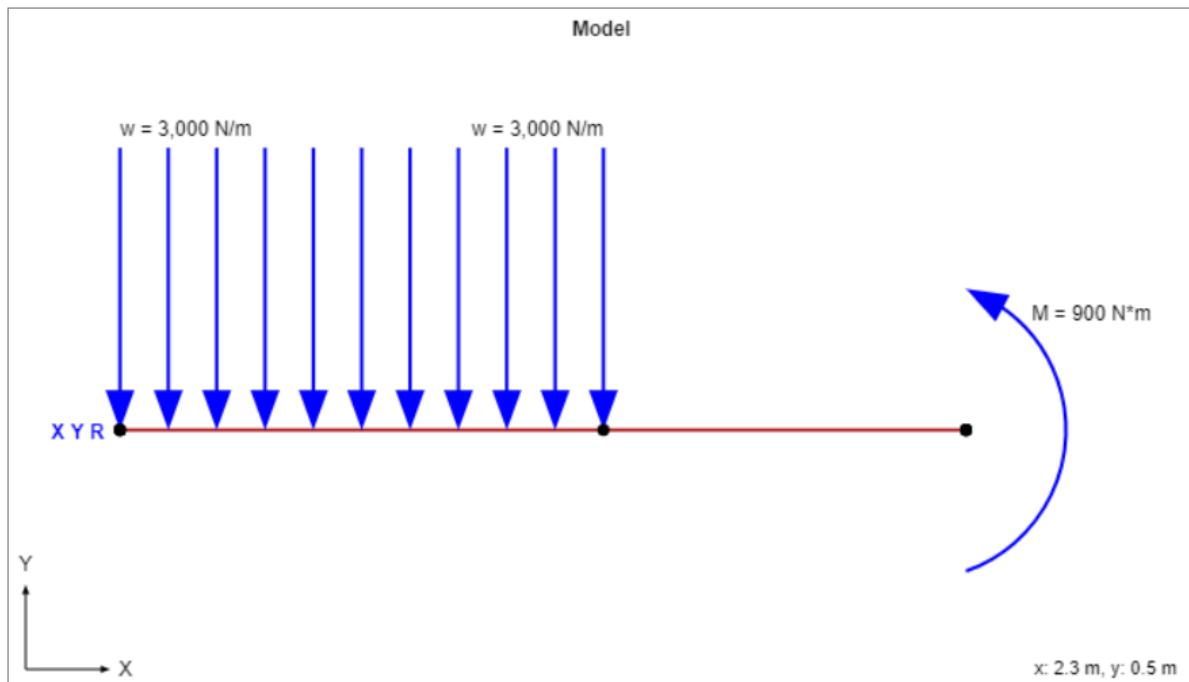
Moment Peak Values

Location	Value
0.000 m	-21,105 N*m

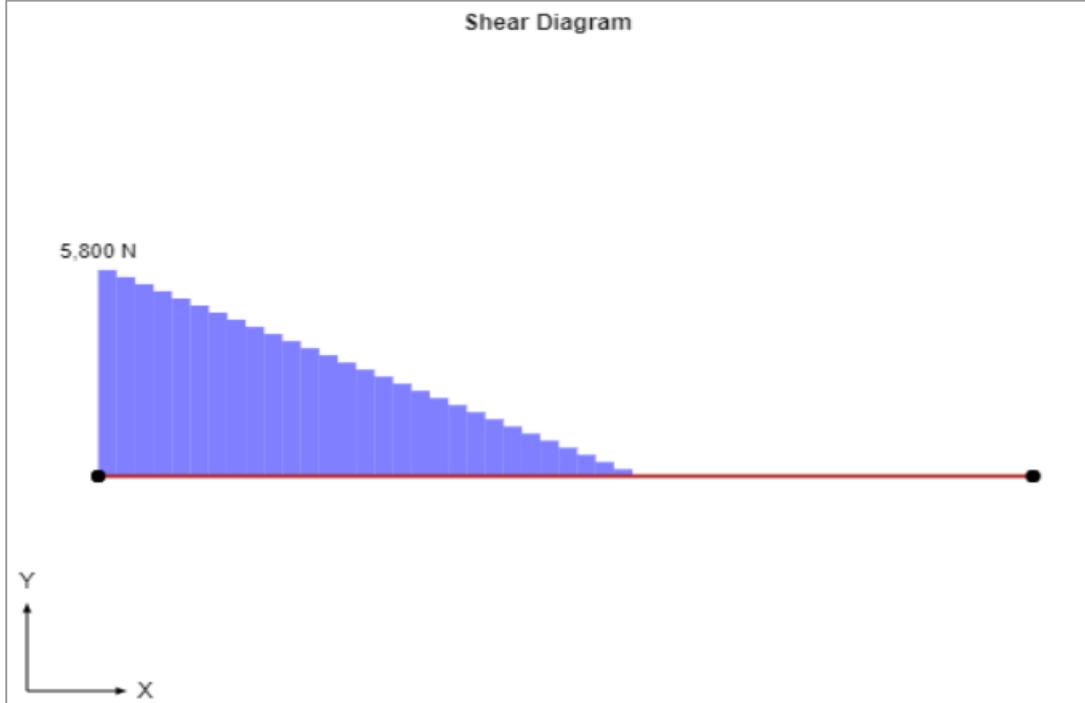


	Value	Location
Max Deflection:	0.01602 m	3.500 m
Max Slope:	-0.3437 deg	3.380 m

Case 41: I-Section Cantilever



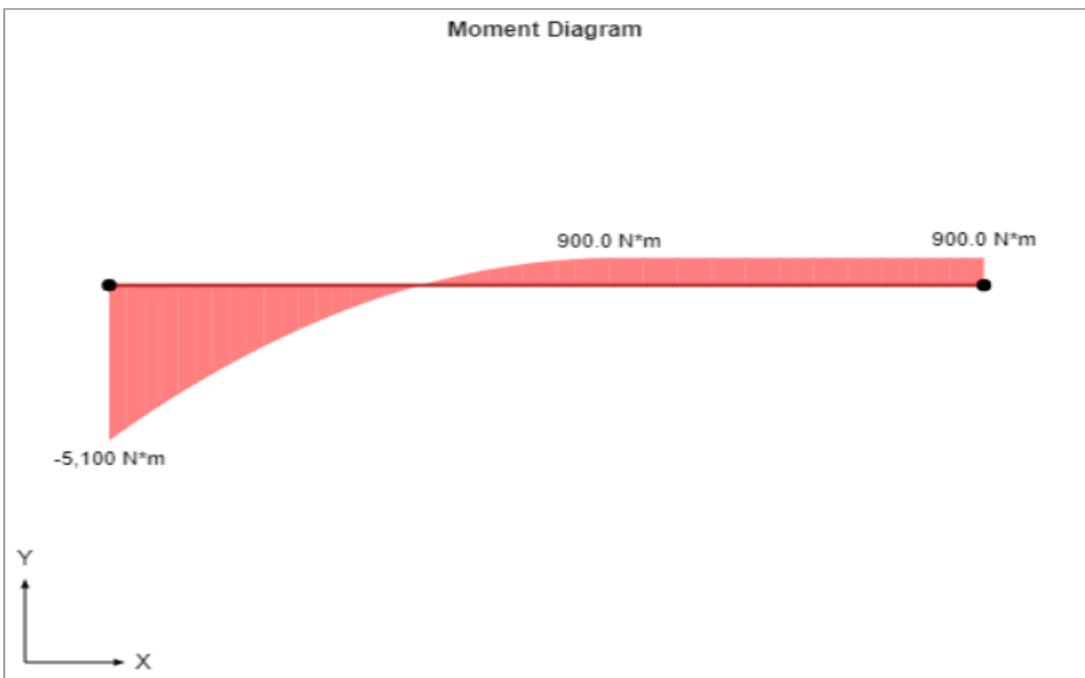
Shear Diagram



Shear Peak Values

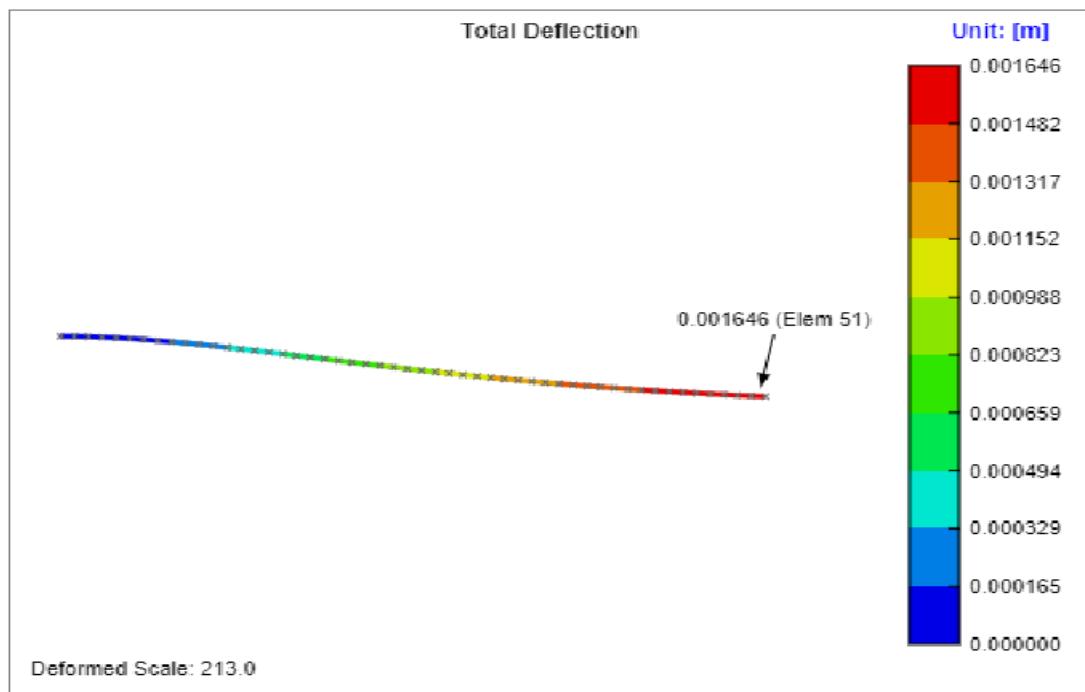
Location	Value
0.000 m	5,800 N

Moment Diagram



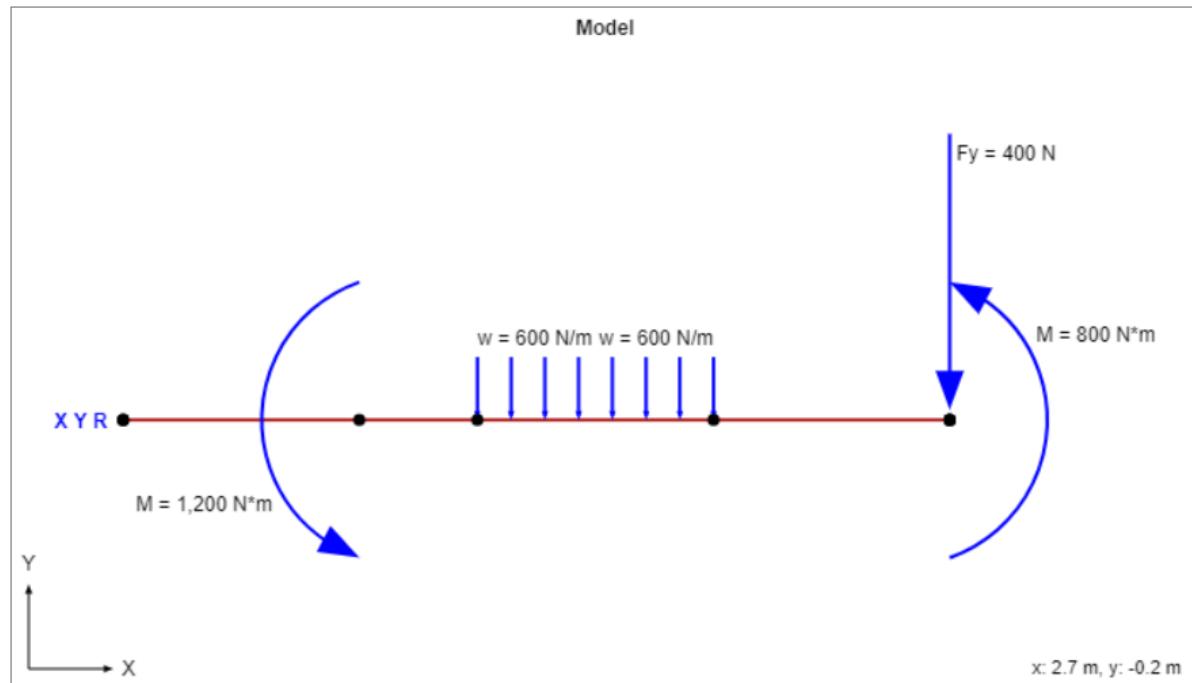
Moment Peak Values

Location	Value
0.000 m	-5,100 N*m
2.000 m	900.0 N*m
3.500 m	900.0 N*m

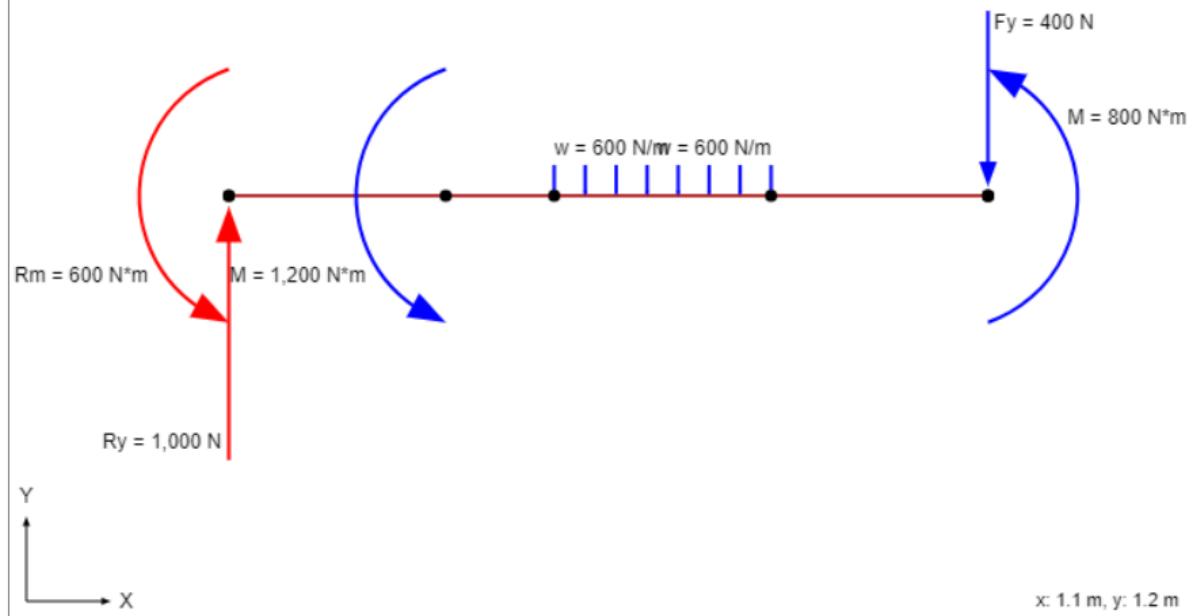


	Value	Location
Max Deflection:	0.001646 m	3.500 m
Max Slope:	-0.03840 deg	1.241 m

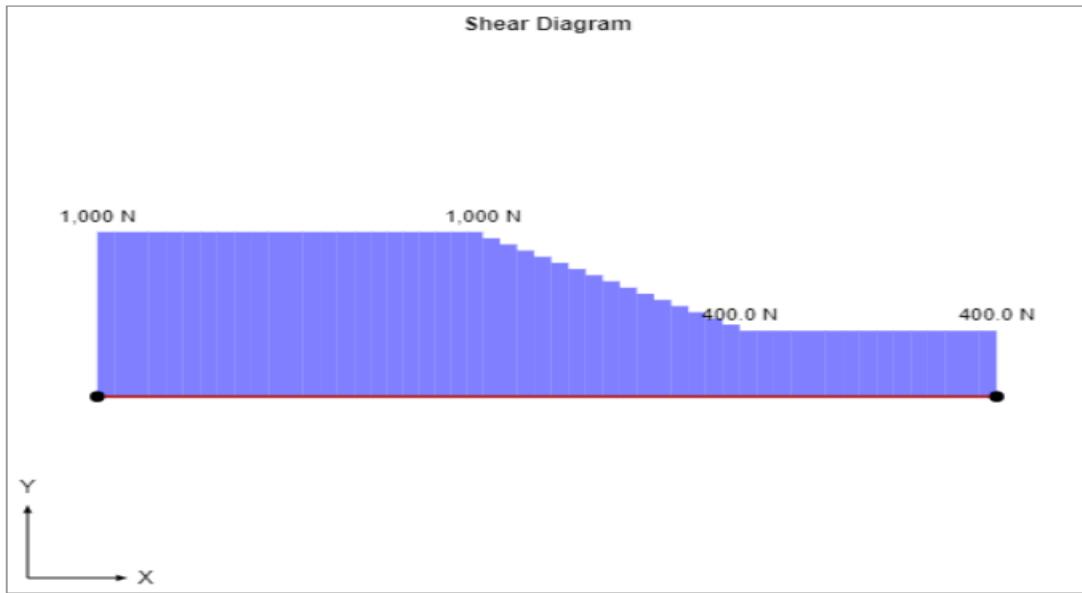
Case 42: I-Section Cantilever



Free Body Diagram

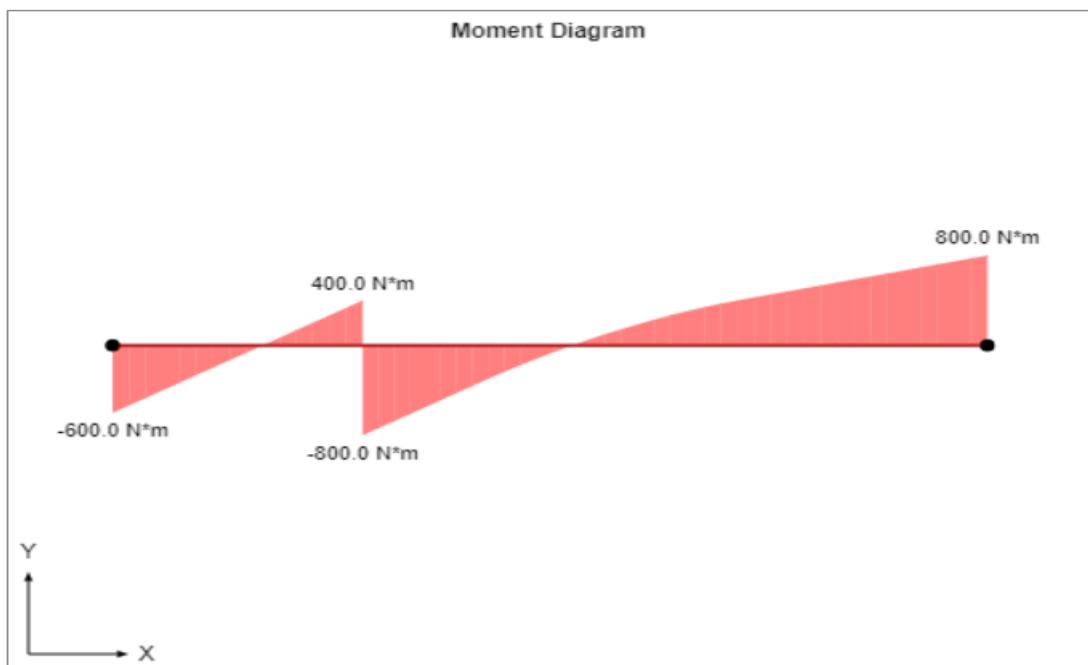


Shear Diagram



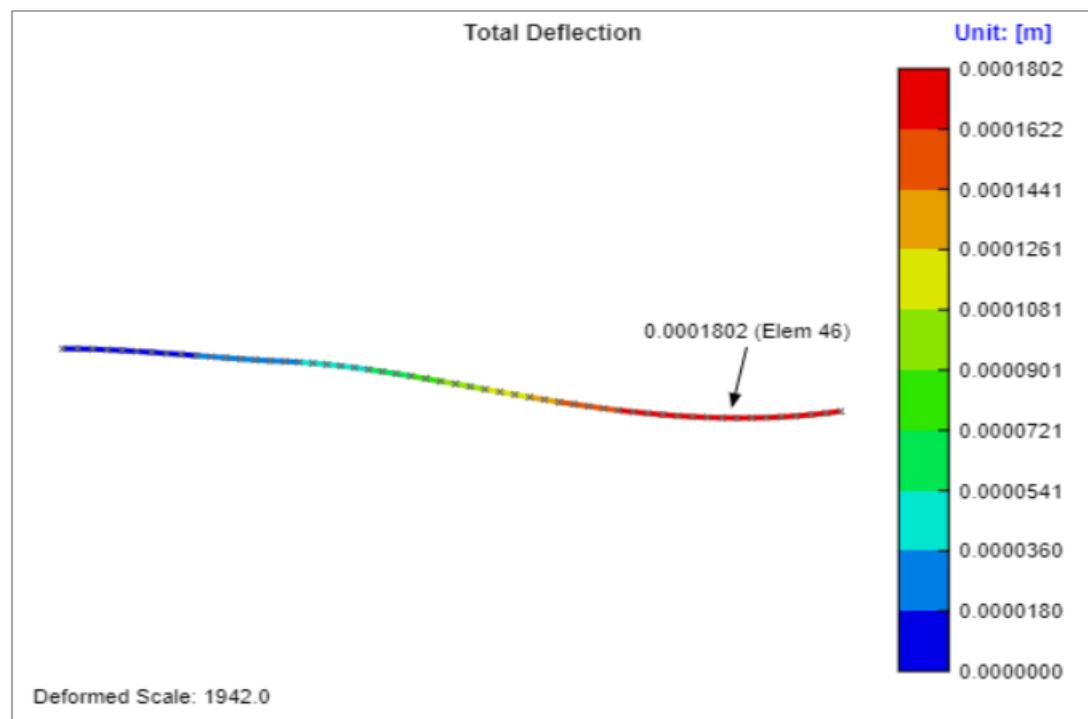
Shear Peak Values

Location	Value
0.000 m	1,000 N
1.500 m	1,000 N
2.500 m	400.0 N
3.500 m	400.0 N



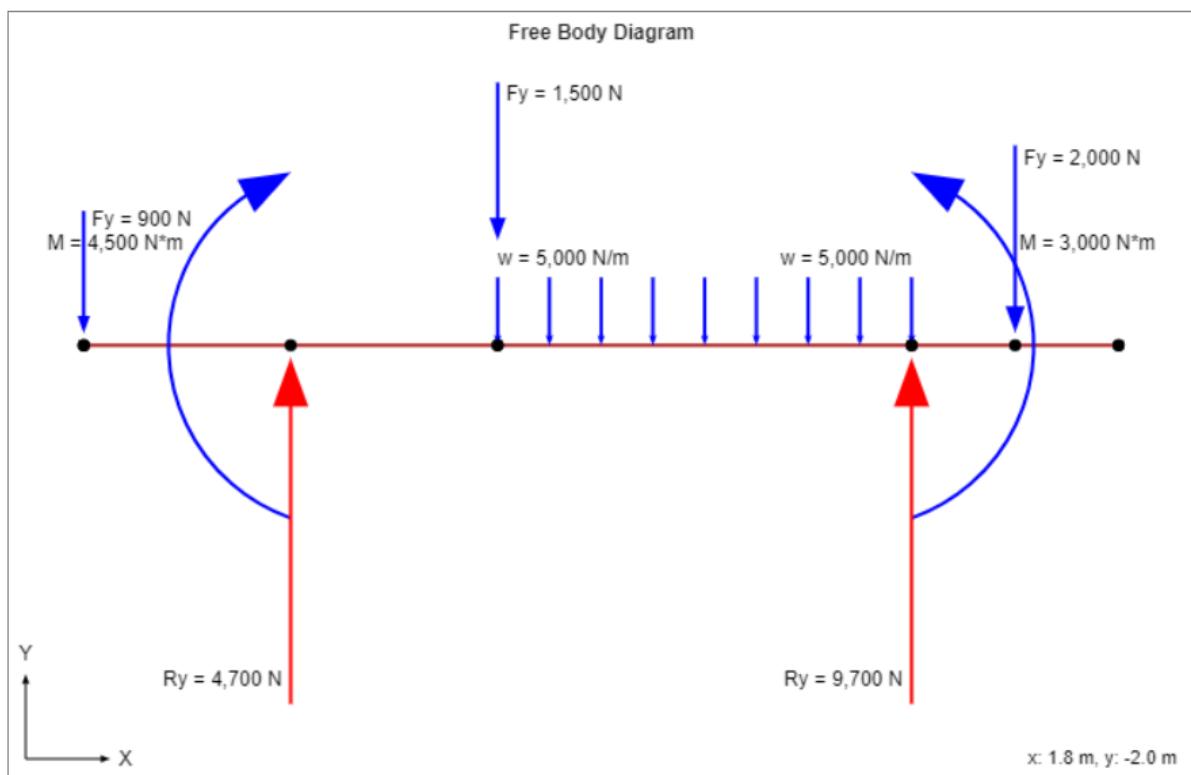
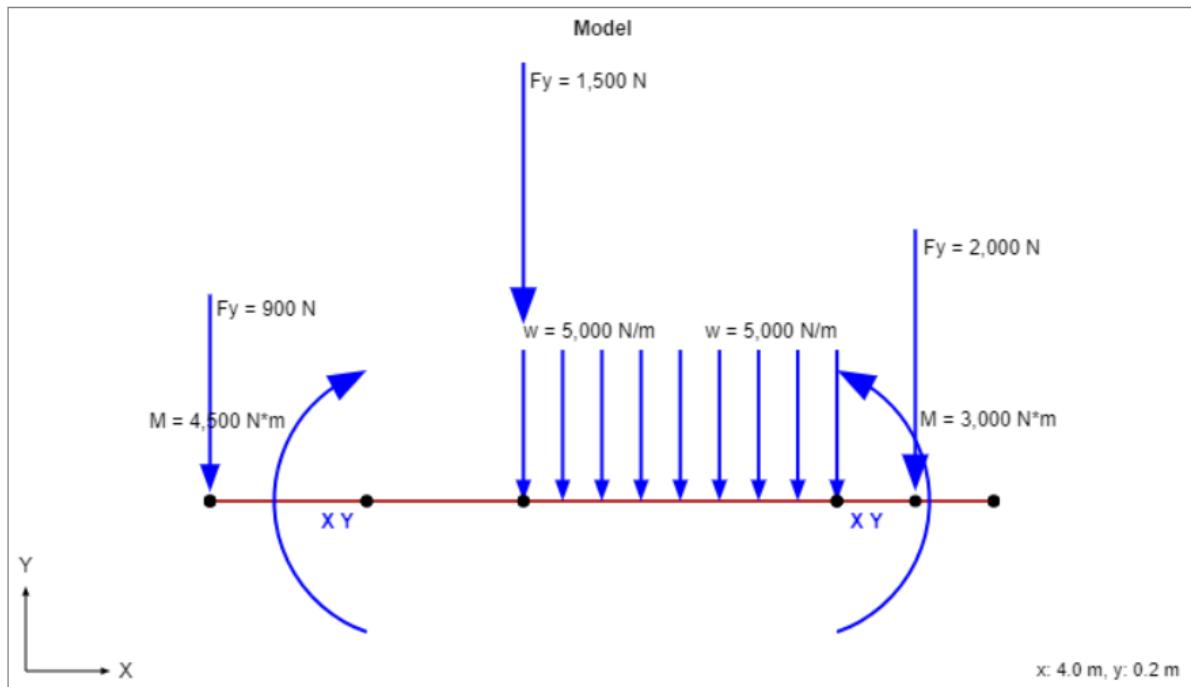
Moment Peak Values

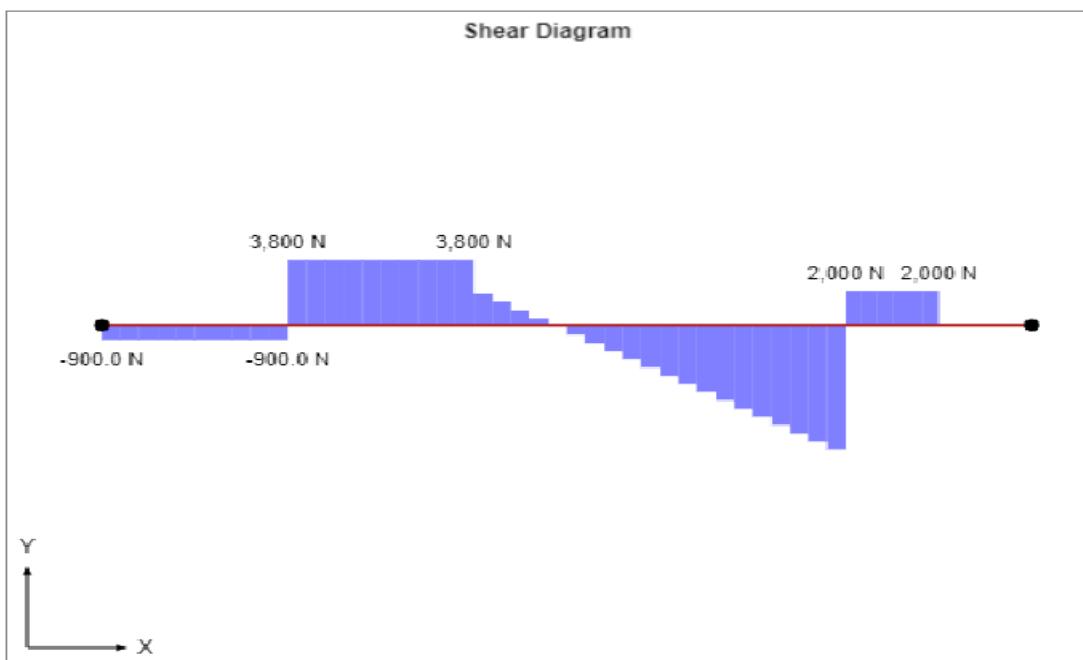
Location	Value
0.000 m	-600.0 N*m
1.000 m	400.0 N*m
1.000 m	-800.0 N*m
3.500 m	800.0 N*m



	Value	Location
Max Deflection:	0.0001802 m	3.033 m
Max Slope:	-0.006005 deg	1.833 m

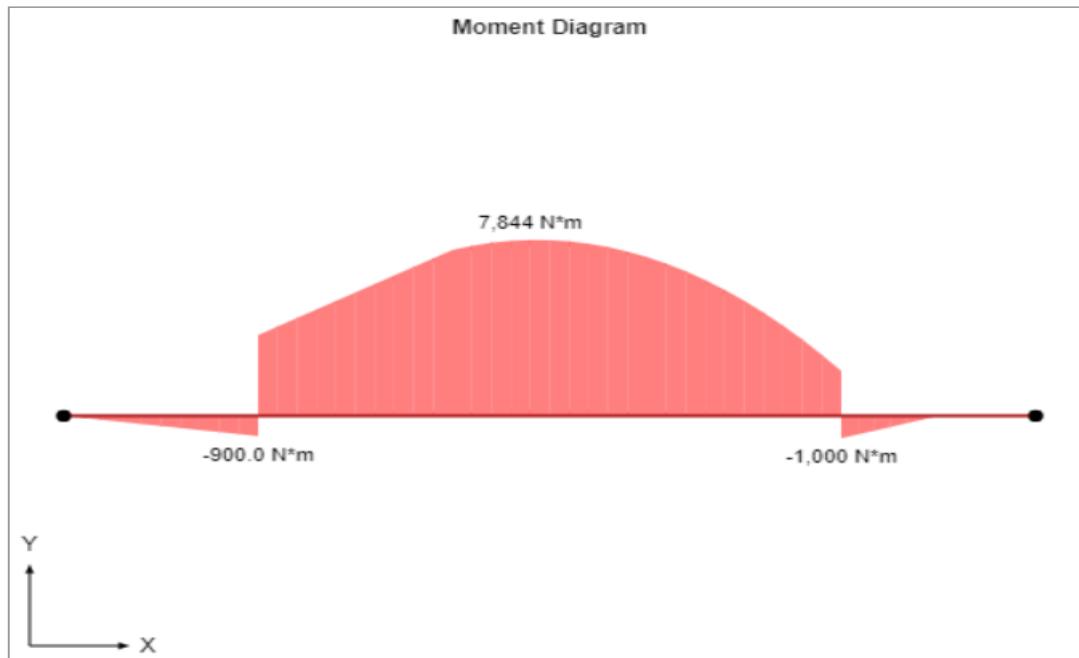
Case 43: PIN-PIN GENERAL





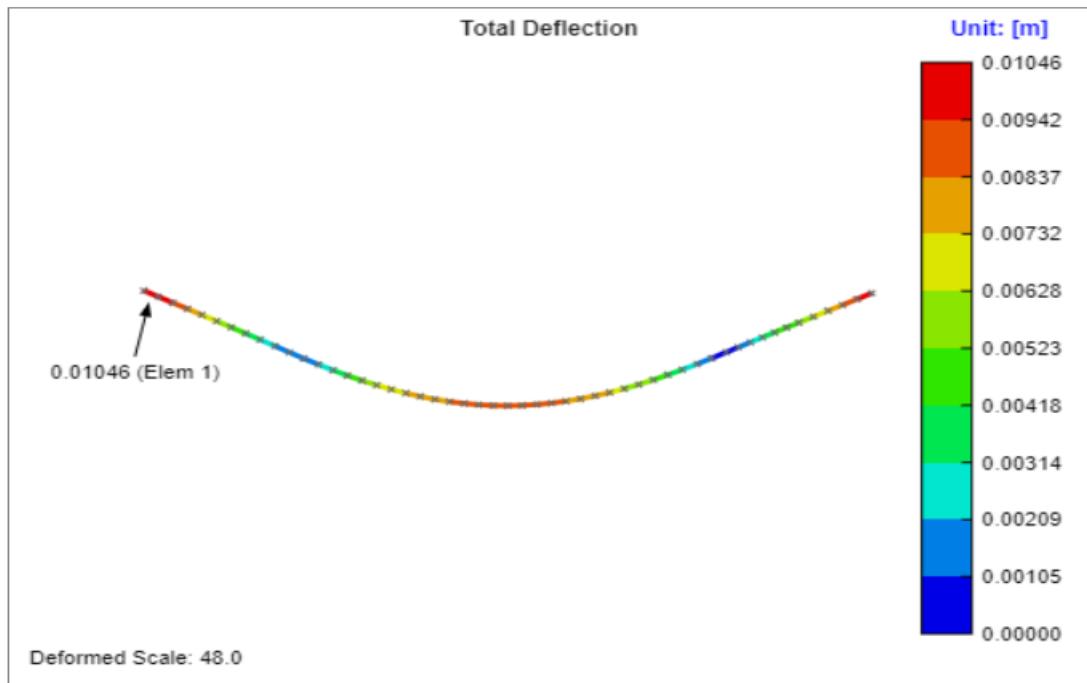
Shear Peak Values

Location	Value
0.000 m	-900.0 N
1.000 m	-900.0 N
1.000 m	3,800 N
2.000 m	3,800 N
4.000 m	2,000 N
4.500 m	2,000 N



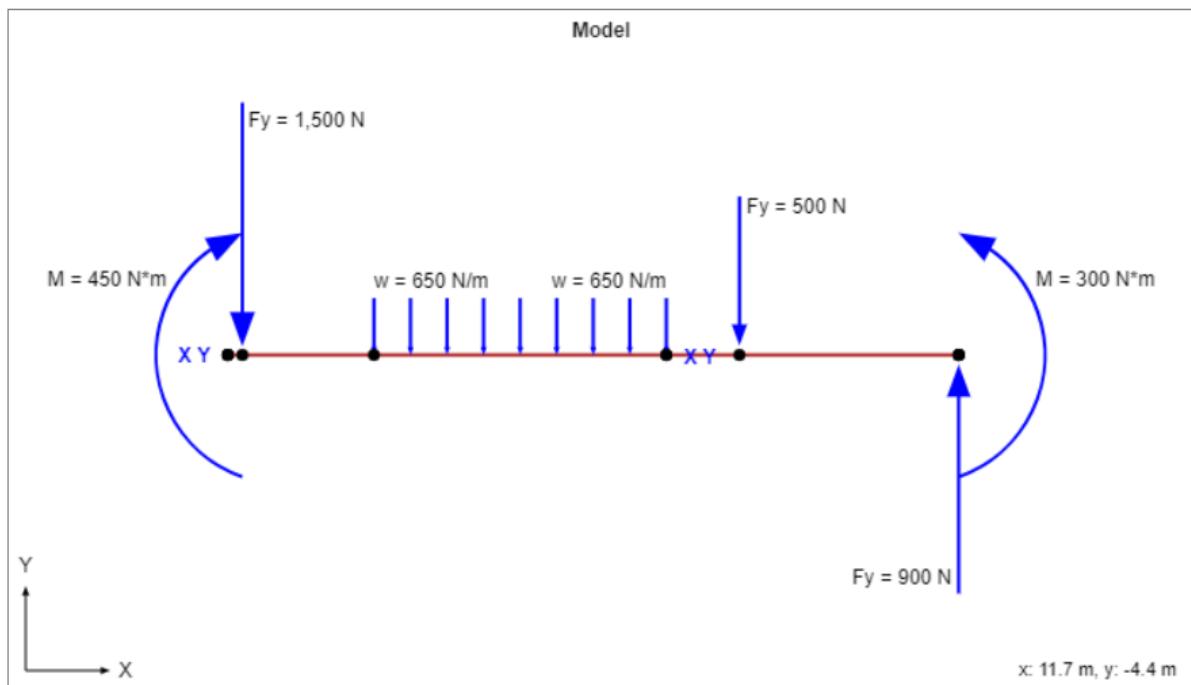
Moment Peak Values

Location	Value
1.000 m	-900.0 $\text{N}\cdot\text{m}$
2.400 m	7,844 $\text{N}\cdot\text{m}$
4.000 m	-1,000 $\text{N}\cdot\text{m}$

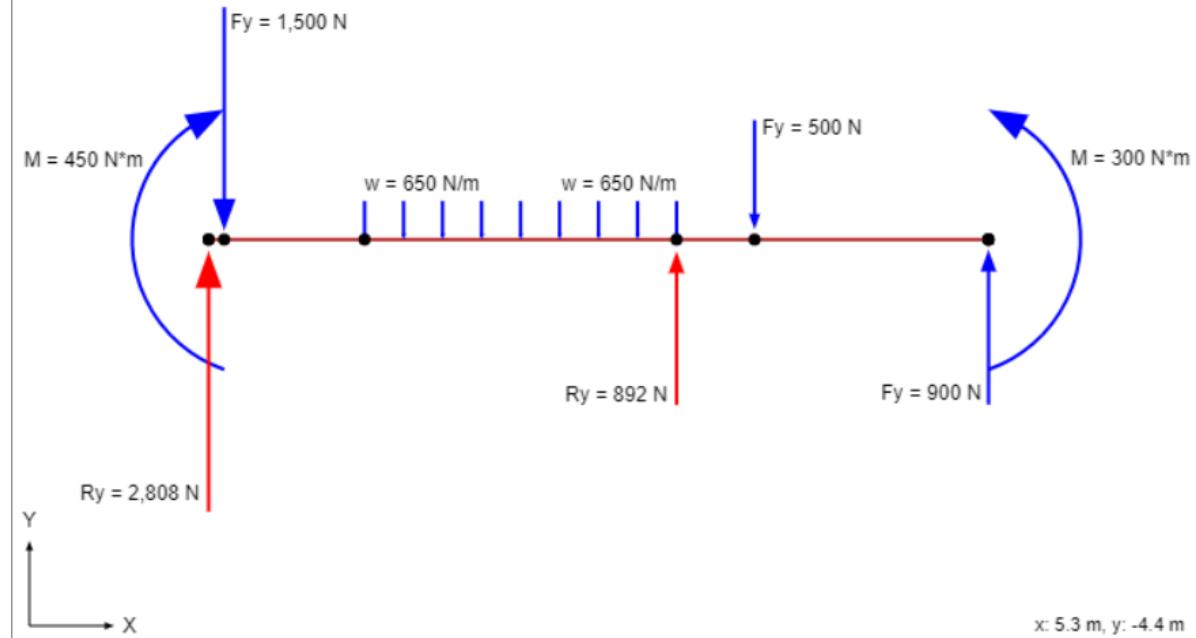


	Value	Location
Max Deflection:	0.01046 m	0.000 m
Max Slope:	-0.6194 deg	1.000 m

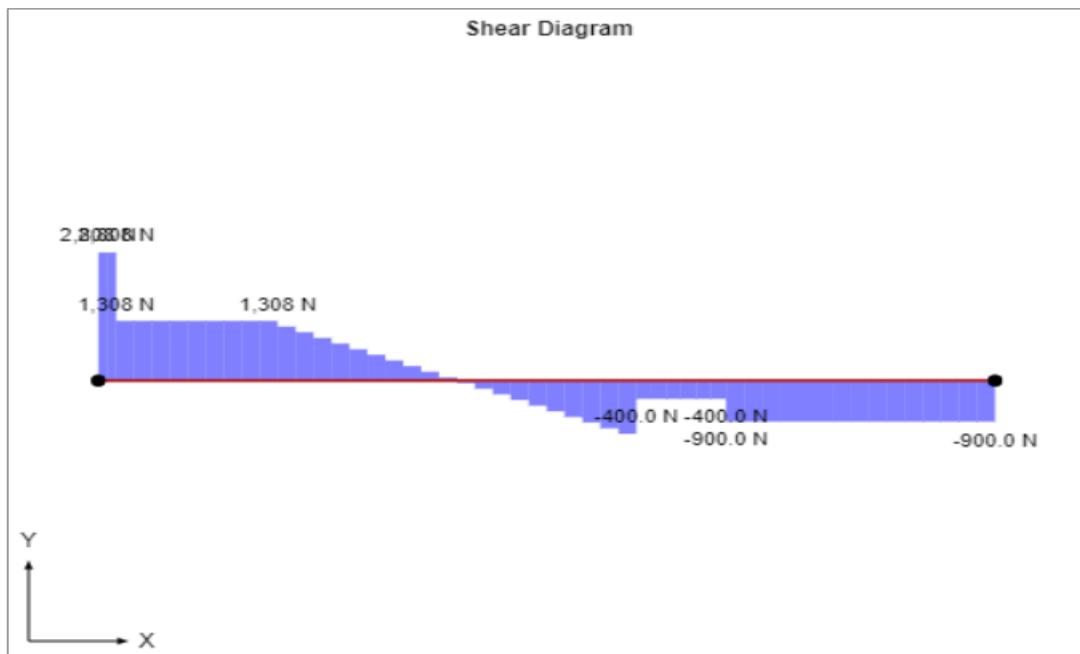
Case 44: PIN-PIN GENERAL



Free Body Diagram

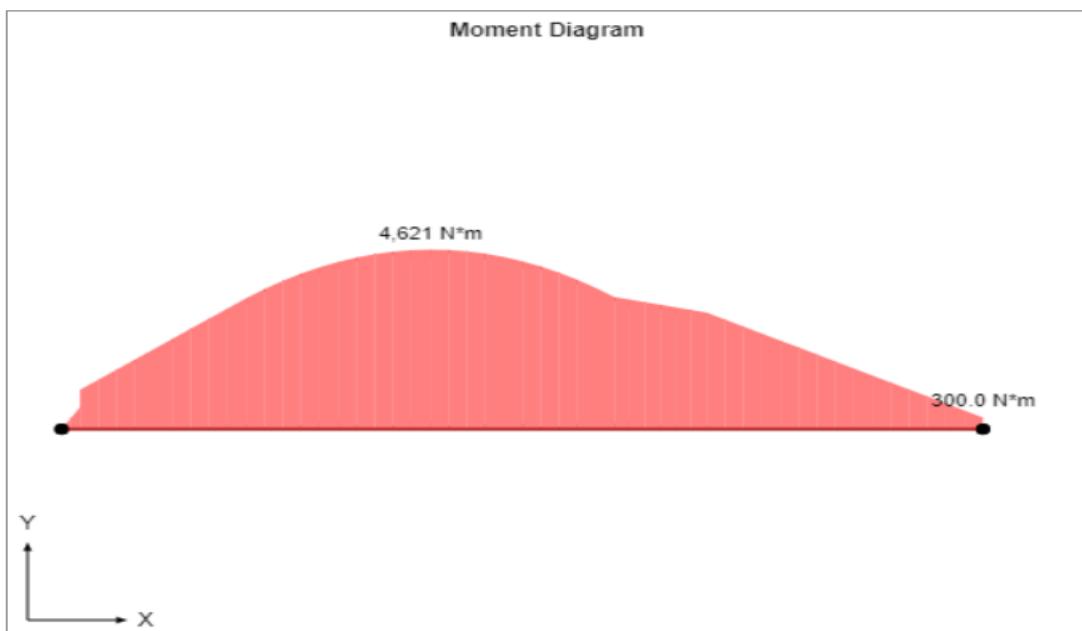


Shear Diagram



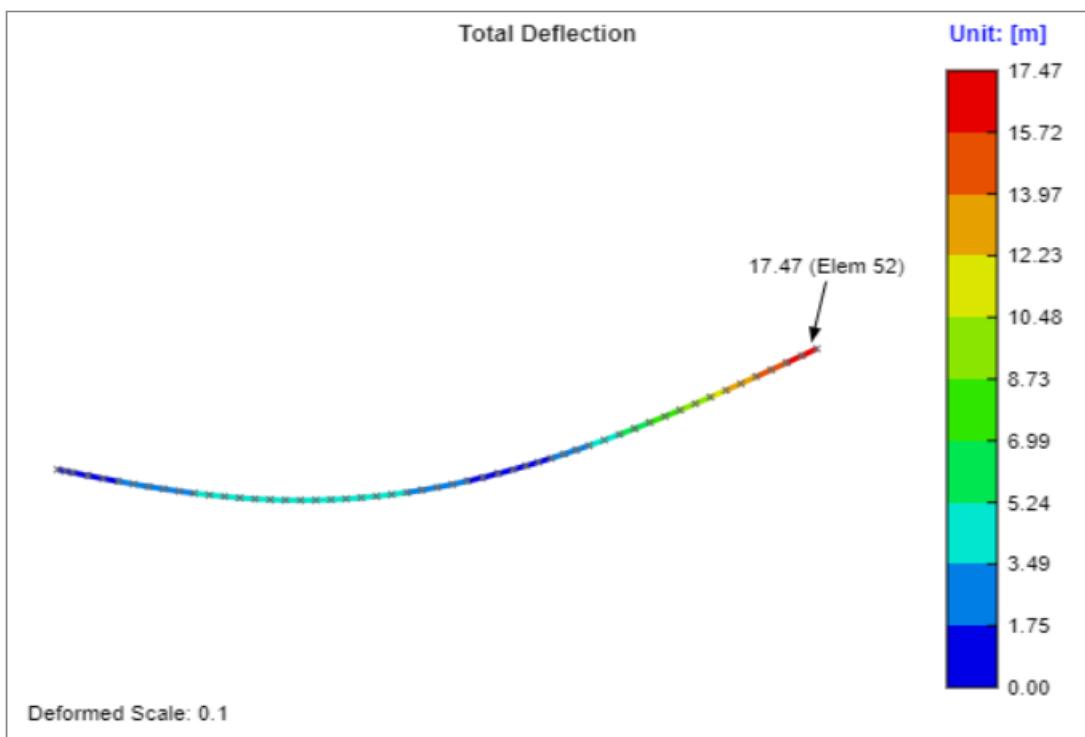
Shear Peak Values

Location	Value
0.000 m	2,808 N
0.2000 m	2,808 N
0.2000 m	1,308 N
2.000 m	1,308 N
6.000 m	-400.0 N
7.000 m	-400.0 N
7.000 m	-900.0 N
10.00 m	-900.0 N



Moment Peak Values

Location	Value
4.000 m	4,621 N*m
10.00 m	300.0 N*m



	Value	Location
Max Deflection:	17.47 m	10.00 m
Max Slope:	293.5 deg	10.00 m