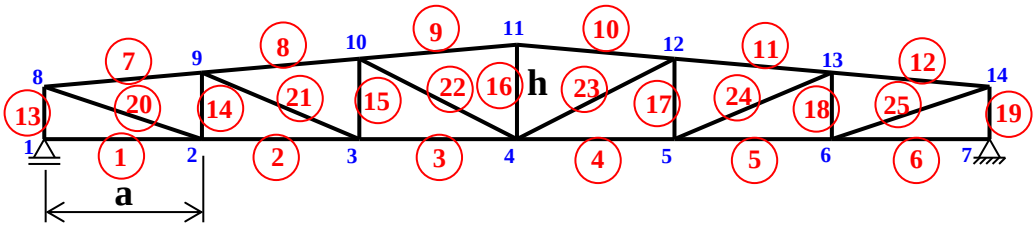


$$\alpha = \text{arctg}\left(\frac{0{,}8\text{m}}{9{,}0\text{m}}\right) = 5{,}08^{\text{o}}$$

Combinação de Carregamento C1

$$C_1:\ 1{,}3\times g + 1{,}4\times p + 1{,}4\times 0{,}6\times V_1$$

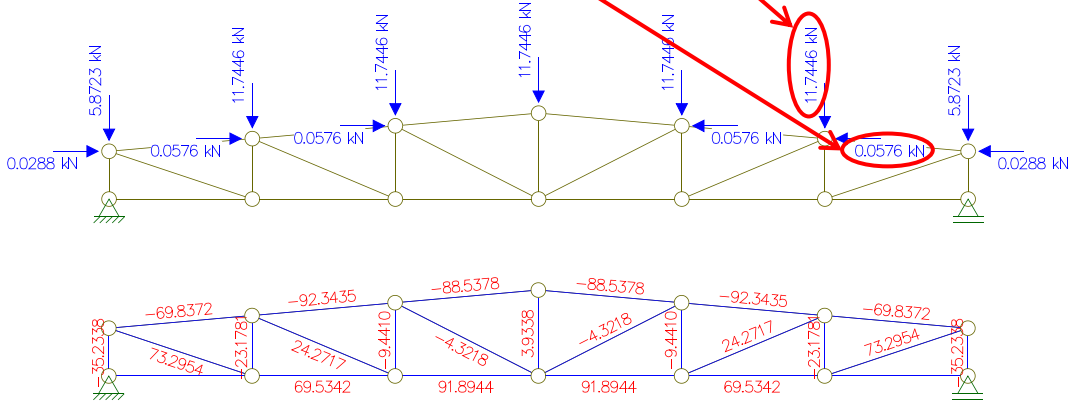
$$F_g = 1{,}3\times 0{,}205\,\frac{\text{kN}}{\text{m}^2}\times(6\text{m}\times 3\text{m}) = 4{,}797\ \text{kN}$$

$$F_p = 1{,}4\times 0{,}25\,\frac{\text{kN}}{\text{m}^2}\times(6\text{m}\times 3\text{m}) = 6{,}3\ \text{kN}$$

$$F_v = 1{,}4\times 0{,}6\times\left(0{,}1\times 0{,}43\,\frac{\text{kN}}{\text{m}^2}\right)\times(6\text{m}\times 3\text{m}) = 0{,}65016\ \text{kN}$$

$$P_v = 4{,}797 + 6{,}3 + 0{,}65016\times\cos(5{,}08^{\text{o}}) = \mathbf{11{,}7446}\ \text{kN}$$

$$P_h = 0{,}65016\times\text{sen}(5{,}08^{\text{o}}) = \mathbf{0{,}0576}\ \text{kN}$$



Combinação de Carregamento C2

$$C_2:\ 1{,}3\times g + 1{,}4\times V_1 + 1{,}4\times 0{,}5\times p$$

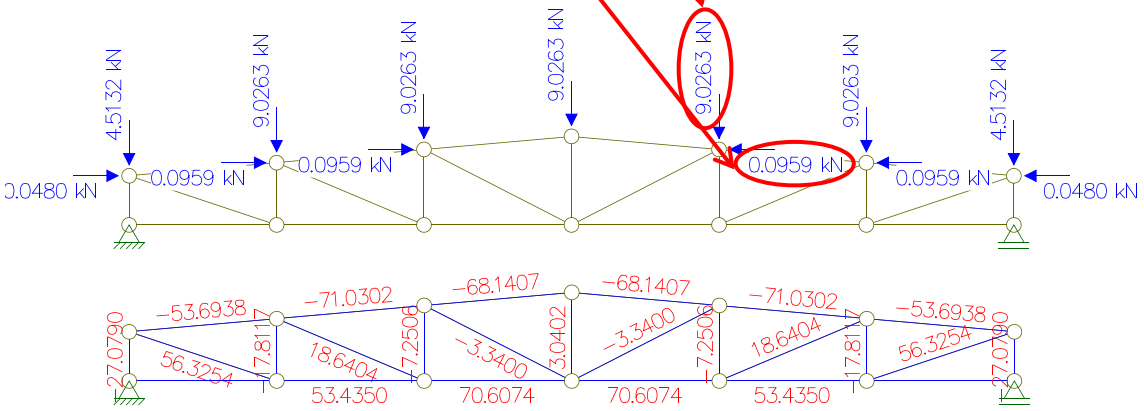
$$F_g = 1{,}3\times 0{,}205\,\frac{\text{kN}}{\text{m}^2}\times(6\text{m}\times 3\text{m}) = 4{,}797\ \text{kN}$$

$$F_v = 1{,}4\times\left(0{,}1\times 0{,}43\,\frac{\text{kN}}{\text{m}^2}\right)\times(6\text{m}\times 3\text{m}) = 1{,}0836\ \text{kN}$$

$$F_p = 1{,}4\times 0{,}5\times 0{,}25\,\frac{\text{kN}}{\text{m}^2}\times(6\text{m}\times 3\text{m}) = 3{,}15\ \text{kN}$$

$$P_v = 4{,}797 + 1{,}0836\times\cos(5{,}08^o) + 3{,}15 = \mathbf{9{,}0263}\ \text{kN}$$

$$P_h = 1{,}0836\times\text{sen}(5{,}08^o) = \mathbf{0{,}0959}\ \text{kN}$$



Combinação de Carregamento C3

$$C_3:\ 1{,}0\times g + 1{,}4\times V_2$$

$$F_g = 1{,}0\times 0{,}205\,\frac{\text{kN}}{\text{m}^2}\times(6\text{m}\times 3\text{m}) = 3{,}69\ \text{kN}$$

$$F_{v(\text{esq.})} = 1{,}4\times\left(-1{,}7\times 0{,}43\,\frac{\text{kN}}{\text{m}^2}\right)\times(6\text{m}\times 3\text{m}) = -18{,}4212\ \text{kN}$$

$$F_{v(\text{dir.})} = 1{,}4\times\left(-1{,}2\times 0{,}43\,\frac{\text{kN}}{\text{m}^2}\right)\times(6\text{m}\times 3\text{m}) = -13{,}0032\ \text{kN}$$

Carregamento nos banzos do lado esquerdo:

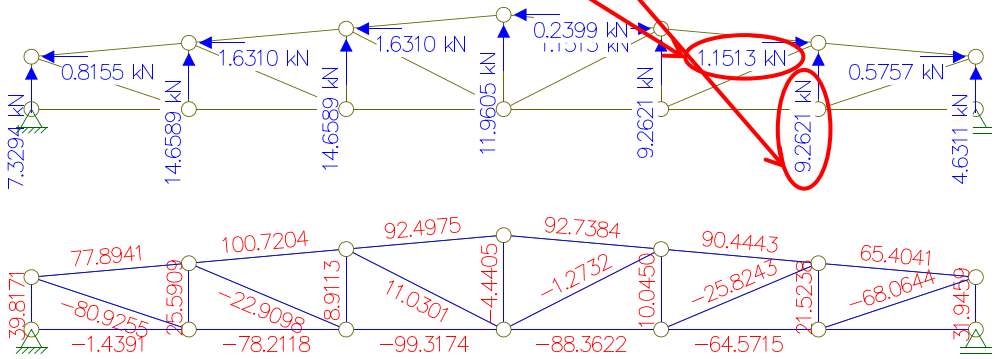
$$P_v = 3{,}69 - 18{,}4212\times\cos(5{,}08^o) = \mathbf{-14{,}6589}\ \text{kN}$$

$$P_h = -18{,}4212\times\text{sen}(5{,}08^o) = \mathbf{-1{,}6310}\ \text{kN}$$

Carregamento nos banzos do lado direito:

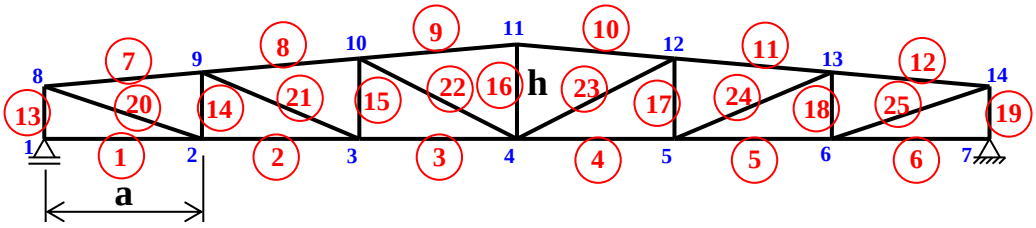
$$P_v = 3{,}69 - 13{,}0032\times\cos(5{,}08^o) = \mathbf{-9{,}2621}\ \text{kN}$$

$$P_h = -13{,}0032\times\text{sen}(5{,}08^o) = \mathbf{-1{,}1513}\ \text{kN}$$



Resumo:

Barra	L (m)	C_1 (kN)	C_2 (kN)	C_3 (kN)
B1	3,01	-69,84	-53,69	77,89
B2	3,01	-92,34	-71,03	100,72
B3	3,01	-88,54	-68,14	92,50
B4	3,00	0,00	0,00	-1,44
B5	3,00	69,53	53,44	-78,21
B6	3,00	91,89	70,61	-99,32
D1	3,16	73,30	56,33	-80,93
D2	3,26	24,27	18,64	-22,91
D3	3,37	-4,32	-3,34	11,03
M1	1,00	-35,23	-27,08	39,82
M2	1,27	-23,18	-17,81	25,59
M3	1,53	-9,44	-7,25	8,91
M4	1,80	3,93	3,04	-4,44



barra	L (m)	C_1 (kN)	C_2 (kN)	C_3 (kN)
1	3,0000	0,00	0,00	-1,44
2	3,0000	69,53	53,44	-78,21
3	3,0000	91,89	70,61	-99,32
4	3,0000	91,89	70,61	-88,36
5	3,0000	69,53	53,44	-64,57
6	3,0000	0,00	0,00	0,00
7	3,0118	-69,84	-53,69	77,89
8	3,0118	-92,34	-71,03	100,72
9	3,0118	-88,54	-68,14	92,50
10	3,0118	-88,54	-68,14	92,74
11	3,0118	-92,34	-71,03	90,44
12	3,0118	-69,84	-53,69	65,40
13	1,0000	-35,23	-27,08	39,82
14	1,2667	-23,18	-17,81	25,59
15	1,5333	-9,44	-7,25	8,91
16	1,8000	3,93	3,04	-4,44
17	1,5333	-9,44	-7,25	10,04
18	1,2667	-23,18	-17,81	21,52
19	1,0000	-35,23	-27,08	31,95
20	3,1623	73,30	56,33	-80,93
21	3,2564	24,27	18,64	-22,91
22	3,3691	-4,32	-3,34	11,03
23	3,3691	-4,32	-3,34	-1,27
24	3,2564	24,27	18,64	-25,82
25	3,1623	73,30	56,33	-68,06