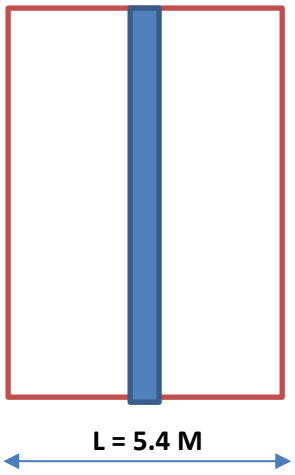
Engin Aydeniz
Erasmus Student

2nd Homework – CM01

Loads



PERMANENT LOAD IN TYPICAL FLOOR

Name	fd (kN/m²)	fd (kN/ml)
g-go floor	1.6	1.6 x5.4 =8.64
Self-weight of the slab	25x0.21 = 5,25	28.35
gk,t		**36.99**

PERMANENT LOAD ON THE ROOF

Name	fd (kN/m²)	fd (kN/ml)
g-go roof,	1.8	1.8 x5.4 =9.72
Self-weight of the slab	25x0.21 = 5,25	28.35
gk,r		**38.07**

VARIABLE LOAD IN TYPICAL FLOOR

Name	fd (kN/m²)	fd (kN/ml)
qfloor,k	3.9	3.9 x5.4 =21.06
qk,t		**21.06**

VARIABLE LOAD ON THE FLOOR

Name	fd (kN/m²)	fd (kN/ml)
qfloor,k	0.75	0.75 x5.4 =4.05
qk,r		**4.05**

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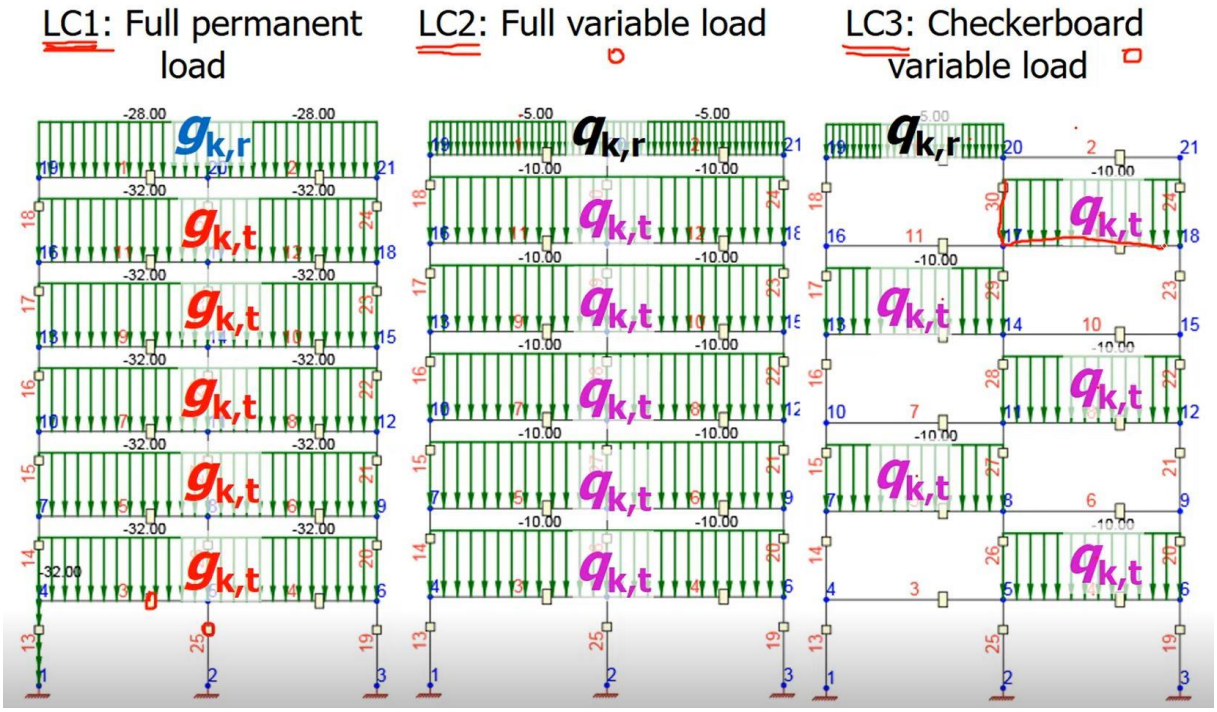

COMBINATIONS

CO1 Full = SW + LC1 +LC2

CO2 Checkerboard = SW + LC1 + LC3

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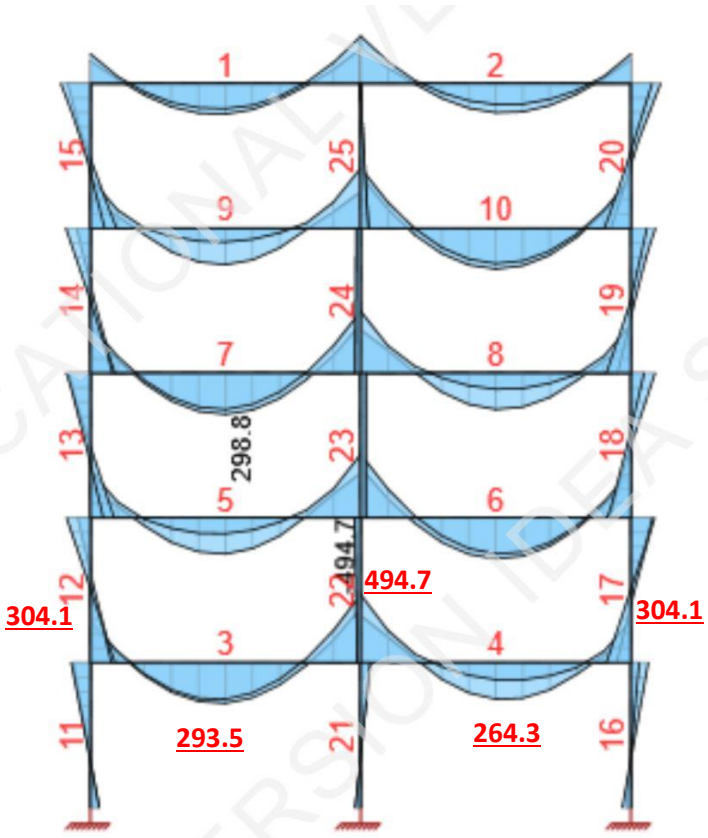

All combinations, My [kNm], Centroidal forces

Internal forces, Member Extreme, Centroidal forces

Member	Combi	Position [m]	N [kN]	V_z [kN]	M_y [kNm]
1	CO1 Full(1)	0.00	-109.3	265.8	-215.1
1	CO1 Full(12)	0.00	-68.3	184.4	-141.5
1	CO2 checkerboard(2)	6.90	-93.5	-303.5	-335.3
1	CO1 Full(1)	6.90	-109.3	-303.2	-344.2
1	CO2 checkerboard(2)	3.45	-93.5	-19.0	221.1
2	CO1 Full(1)	0.00	-109.3	303.2	-344.2
2	CO1 Full(12)	0.00	-68.3	216.5	-252.0
2	CO1 Full(1)	6.90	-109.3	-265.8	-215.1
2	CO1 Full(1)	3.45	-109.3	18.7	211.1
3	CO2 checkerboard(6)	0.00	14.4	339.1	-281.4
3	CO1 Full(3)	0.00	43.8	357.1	-304.1
3	CO1 Full(3)	6.90	43.8	-412.4	-494.7
3	CO2 checkerboard(5)	0.00	17.7	365.6	-304.0
3	CO2 checkerboard(5)	3.45	17.7	-19.2	293.5
4	CO1 Full(12)	0.00	23.0	214.1	-256.2
4	CO2 checkerboard(5)	0.00	51.5	245.3	-341.7
4	CO1 Full(3)	6.90	43.8	-357.1	-304.1
4	CO1 Full(3)	0.00	43.8	412.4	-494.7
4	CO1 Full(3)	3.45	43.8	27.6	264.3
5	CO1 Full(3)	0.00	-1.1	367.6	-344.0
5	CO2 checkerboard(6)	0.00	1.8	177.4	-184.9