

ANEXO E-1. CALCULO DE CAPACIDAD PORTANTE PARA CIMIENTOS CUADRADOS - METODO DE MEYERHOF

L (m)	B
F.S	3.00

C (kPa)	φ (°)	B (m)	Df (m)	γ1 (kN/m3)	γ2 (kN/m3)	Nc	Nq	Nγ	Qu (kPa)	Qadm (kPa)	Padm (kN)
2.5	27.9	0.50	1.00	17.00	17.00	31.36	17.61	14.58	450.8	150.3	37.6
2.5	27.9	1.00	1.00	17.00	17.00	31.36	17.61	14.58	500.3	166.8	166.8
2.5	27.9	1.50	1.00	17.00	17.00	31.36	17.61	14.58	549.9	183.3	412.4
2.5	27.9	2.00	1.00	17.00	17.00	31.36	17.61	14.58	599.5	199.8	799.3
2.5	27.9	2.50	1.00	17.00	17.00	31.36	17.61	14.58	649.0	216.3	1352.1
2.5	27.9	3.00	1.00	17.00	17.00	31.36	17.61	14.58	698.6	232.9	2095.7
2.5	27.9	3.50	1.00	17.00	17.00	31.36	17.61	14.58	748.1	249.4	3054.8
2.5	27.9	4.00	1.00	17.00	17.00	31.36	17.61	14.58	797.7	265.9	4254.3
2.5	27.9	4.50	1.00	17.00	17.00	31.36	17.61	14.58	847.2	282.4	5718.8
2.5	27.9	5.00	1.00	17.00	17.00	31.36	17.61	14.58	896.8	298.9	7473.3

Metodo de Meyerhof - Cimientos Cuadrados

Cu (kPa)	φ (°)	B (m)	Df (m)	γ1 (kN/m3)	γ2 (kN/m3)	Nc	Nq	Nγ	Qu (kPa)	Qadm (kPa)	Padm (kN)
2.5	27.9	0.50	1.00	17.00	17.00	25.61	14.56	16.48	747.1	249.0	62.3
2.5	27.9	1.00	1.00	17.00	17.00	25.61	14.56	16.48	828.7	276.2	276.2
2.5	27.9	1.50	1.00	17.00	17.00	25.61	14.56	16.48	875.5	291.8	656.6
2.5	27.9	2.00	1.00	17.00	17.00	25.61	14.56	16.48	947.9	316.0	1263.9
2.5	27.9	2.50	1.00	17.00	17.00	25.61	14.56	16.48	1030.6	343.5	2147.1
2.5	27.9	3.00	1.00	17.00	17.00	25.61	14.56	16.48	1118.4	372.8	3355.2
2.5	27.9	3.50	1.00	17.00	17.00	25.61	14.56	16.48	1209.1	403.0	4937.2
2.5	27.9	4.00	1.00	17.00	17.00	25.61	14.56	16.48	1301.7	433.9	6942.2
2.5	27.9	4.50	1.00	17.00	17.00	25.61	14.56	16.48	1395.4	465.1	9419.1
2.5	27.9	5.00	1.00	17.00	17.00	25.61	14.56	16.48	1490.0	496.7	12417.0

ANEXO E-1. CALCULO DE CAPACIDAD PORTANTE PARA CIMIENTOS CONTINUOS - METODO DE TERZAGHI Y MEYERHOF

Metodo de Terzaghi - Cimientos Continuos

L (m)	26.50
F.S	3.00

C (kPa)	ϕ (°)	B (m)	Df (m)	γ_1 (kN/m ³)	γ_2 (kN/m ³)	Nc	Nq	N γ	Qu (kPa)	Qadm (kPa)	Padm (kN/m)
2.30	27.90	0.30	0.90	17.00	17.00	31.36	17.61	14.58	378.67	126.22	37.87
2.30	27.90	0.50	0.90	17.00	17.00	31.36	17.61	14.58	403.45	134.48	67.24
2.30	27.90	0.75	0.90	17.00	17.00	31.36	17.61	14.58	434.42	144.81	108.61
2.30	27.90	1.00	0.90	17.00	17.00	31.36	17.61	14.58	465.40	155.13	155.13
2.30	27.90	1.50	0.90	17.00	17.00	31.36	17.61	14.58	527.34	175.78	263.67
2.30	27.90	2.00	0.90	17.00	17.00	31.36	17.61	14.58	589.29	196.43	392.86
2.30	27.90	2.50	0.90	17.00	17.00	31.36	17.61	14.58	651.23	217.08	542.69
2.30	27.90	3.00	0.90	17.00	17.00	31.36	17.61	14.58	713.18	237.73	713.18
2.30	27.90	3.50	0.90	17.00	17.00	31.36	17.61	14.58	775.12	258.37	904.31
2.30	27.90	4.00	0.90	17.00	17.00	31.36	17.61	14.58	837.07	279.02	1116.09

Metodo de Meyerhof - Cimientos Continuos

I	ϕ (°)	B (m)	Df (m)	γ_1 (kN/m ³)	γ_2 (kN/m ³)	Nc	Nq	N γ	Qu (kPa)	Qadm (kPa)	Padm (kN/m)
2.50	27.90	0.30	0.90	17.00	17.00	25.61	14.56	16.48	446.83	148.94	44.68
2.50	27.90	0.50	0.90	17.00	17.00	25.61	14.56	16.48	459.52	153.17	76.59
2.50	27.90	0.75	0.90	17.00	17.00	25.61	14.56	16.48	479.55	159.85	119.89
2.50	27.90	1.00	0.90	17.00	17.00	25.61	14.56	16.48	519.61	173.20	173.20
2.50	27.90	1.50	0.90	17.00	17.00	25.61	14.56	16.48	567.47	189.16	283.74
2.50	27.90	2.00	0.90	17.00	17.00	25.61	14.56	16.48	630.25	210.08	420.17
2.50	27.90	2.50	0.90	17.00	17.00	25.61	14.56	16.48	699.63	233.21	583.02
2.50	27.90	3.00	0.90	17.00	17.00	25.61	14.56	16.48	772.83	257.61	772.83
2.50	27.90	3.50	0.90	17.00	17.00	25.61	14.56	16.48	848.68	282.89	990.13
2.50	27.90	4.00	0.90	17.00	17.00	25.61	14.56	16.48	926.57	308.86	1235.43

**ANEXO E-2. CALCULO DE ASENTAMIENTOS INMEDIATOS PARA CIMIENTOS
CUADRADOS - METODO DE HART**

Cimientos Flexibles

B (m)	Qadm (kPa)	Es (kPa)	μ_s	L/B	α	Se (mm)
0.50	150.00	17000.00	0.30	1.00	1.122	4.5
1.00	150.00	17000.00	0.30	1.00	1.122	9.0
1.50	150.00	17000.00	0.30	1.00	1.122	13.5
2.00	150.00	17000.00	0.30	1.00	1.122	18.0
2.50	150.00	17000.00	0.30	1.00	1.122	22.5
3.00	150.00	17000.00	0.30	1.00	1.122	27.0
3.50	150.00	17000.00	0.30	1.00	1.122	31.5
4.00	150.00	17000.00	0.30	1.00	1.122	36.0
4.50	150.00	17000.00	0.30	1.00	1.122	40.5
5.00	150.00	17000.00	0.30	1.00	1.122	45.1

Cimientos Rígidos

B (m)	Qapl. (kPa)	Es (kPa)	μ_s	L/B	α_r	Se (mm)
0.50	150.00	17000.00	0.30	1.00	0.988	4.0
1.00	150.00	17000.00	0.30	1.00	0.988	7.9
1.50	150.00	17000.00	0.30	1.00	0.988	11.9
2.00	150.00	17000.00	0.30	1.00	0.988	15.9
2.50	150.00	17000.00	0.30	1.00	0.988	19.8
3.00	150.00	17000.00	0.30	1.00	0.988	23.8
3.50	150.00	17000.00	0.30	1.00	0.988	27.8
4.00	150.00	17000.00	0.30	1.00	0.988	31.7
4.50	150.00	17000.00	0.30	1.00	0.988	35.7
5.00	150.00	17000.00	0.30	1.00	0.988	39.6

**ANEXO E-2. CALCULO DE ASENTAMIENTOS INMEDIATOS PARA CIMIENTOS
CONTINUOS - METODO DE HART**

Cimientos Flexibles

B (m)	Qadm (kPa)	Es (kPa)	μs	L/B	α	Se (mm)
0.30	120	17000	0.30	66.67	3.752	7.23
0.50	120	17000	0.30	40.00	3.426	11.00
0.75	120	17000	0.30	26.67	3.168	15.26
1.00	120	17000	0.30	20.00	2.985	19.18
1.50	120	17000	0.30	13.33	2.727	26.28
2.00	120	17000	0.30	10.00	2.544	32.69
2.50	120	17000	0.30	8.00	2.403	38.58
3.00	120	17000	0.30	6.67	2.287	44.07
3.50	120	17000	0.30	5.71	2.189	49.22
4.00	120	17000	0.30	5.00	2.105	54.08

Cimientos Rigos

B (m)	Qadm (kPa)	Es (kPa)	μs	L/B	αr	Se (mm)
0.30	120	17000	0.30	66.67	3.301	6.36
0.50	120	17000	0.30	40.00	3.015	9.68
0.75	120	17000	0.30	26.67	2.788	13.43
1.00	120	17000	0.30	20.00	2.627	16.87
1.50	120	17000	0.30	13.33	2.400	23.12
2.00	120	17000	0.30	10.00	2.239	28.76
2.50	120	17000	0.30	8.00	2.114	33.95
3.00	120	17000	0.30	6.67	2.012	38.78
3.50	120	17000	0.30	5.71	1.926	43.31
4.00	120	17000	0.30	5.00	1.852	47.59