

ANEXOS

ANEXO 1

Parámetros mecánicos de la albañilería para el modelo no lineal plástico de la pila: modelo 1

Propiedades elásticas	Em		5720	
	ν		0.26	
Densidad	γ N/mm ³		1.376E-09	
Concrete damaged plasticity	Plasticity	Dilation angle	10	
		Eccentricity	0.1	
		Fb ₀ /fc ₀	1.16	
		K	0.66	
		Viscosity parameter	0	
	Compressive behavior	Esfuerzo	Deformación unitaria	
		7	0	
		8.19896	0.0002	
		8.65831	0.0004	
		8.98431	0.0006	
		9.23607	0.0008	
		9.43670	0.0010	
		9.59808	0.0012	
		9.72718	0.0014	
		9.82843	0.0016	
9.90474	0.0018			
9.95804	0.0020			
9.98957	0.0022			
10.00000	0.0024			
9.96528	0.0026			
9.86111	0.0028			
9.68750	0.0030			
9.44444	0.0032			
9.13194	0.0034			
8.29861	0.0038			
7.18750	0.0042			
5.79861	0.0046			
4.25675	0.0050			
3.20209	0.0054			
2.54073	0.0058			
2.12599	0.0062			
1.86592	0.0066			
1.70283	0.0070			
1.53642	0.0078			
1.47098	0.0086			
1.44525	0.0094			
1.43513	0.0102			
1.43115	0.0110			
1.42959	0.0118			
1.42897	0.0126			
1.42873	0.0134			
1.42863	0.0142			
1.42860	0.0150			
Tensile behaviour	Esfuerzo	Desplazamiento		
	1.4	0		
	14	0.0623		

ANEXO 2

Parámetros mecánicos de la albañilería para el modelo no lineal plástico de la pila modelo 2

Propiedades elásticas	Em		5720	
	ν		0.26	
Densidad Concrete damaged plasticity	γ N/mm ³		1.376E-09	
	Plasticity	Dilation angle		10
		Eccentricity		0.1
		Fb ₀ /fc ₀		1.16
		K		0.66
		Viscosity parameter		0
	Compressive behavior	Esfuerzo	Deformación unitaria	
		7	0	
		8.19896	0.0002	
		8.65831	0.0004	
		8.98431	0.0006	
		9.23607	0.0008	
		9.43670	0.0010	
		9.59808	0.0012	
9.72718		0.0014		
9.82843		0.0016		
9.90474		0.0018		
9.95804		0.0020		
9.98957		0.0022		
10.00000		0.0024		
9.96528		0.0026		
9.86111		0.0028		
9.68750		0.0030		
9.44444		0.0032		
9.13194		0.0034		
8.29861		0.0038		
7.18750	0.0042			
5.79861	0.0046			
4.25675	0.0050			
3.20209	0.0054			
2.54073	0.0058			
2.12599	0.0062			
1.86592	0.0066			
1.70283	0.0070			
1.53642	0.0078			
1.47098	0.0086			
1.44525	0.0094			
1.43513	0.0102			
1.43115	0.0110			
1.42959	0.0118			
1.42897	0.0126			
1.42873	0.0134			
1.42863	0.0142			
1.42860	0.0150			
Tensile behaviour	Esfuerzo	Desplazamiento		
	1.4	0		
	1.26	1		

ANEXO 3

Parámetros mecánicos de la albañilería para el modelo no lineal plástico de la pila: modelo 3

Propiedades elásticas	Em		5720	
	ν		0.26	
Densidad	γ N/mm ³		1.376E-09	
Concrete damaged plasticity	Plasticity	Dilation angle	10	
		Eccentricity	0.1	
		Fb ₀ /fc ₀	1.16	
		K	0.66	
		Viscosity parameter	0	
	Compressive behavior	Esfuerzo	Deformación unitaria	
		7	0	
		8.19896	0.0002	
		8.65831	0.0004	
		8.98431	0.0006	
		9.23607	0.0008	
		9.43670	0.0010	
		9.59808	0.0012	
		9.72718	0.0014	
		9.82843	0.0016	
		9.90474	0.0018	
		9.95804	0.0020	
9.98957	0.0022			
10.00000	0.0024			
9.96528	0.0026			
9.86111	0.0028			
9.68750	0.0030			
9.44444	0.0032			
9.13194	0.0034			
8.29861	0.0038			
7.18750	0.0042			
5.79861	0.0046			
4.25675	0.0050			
3.20209	0.0054			
2.54073	0.0058			
2.12599	0.0062			
1.86592	0.0066			
1.70283	0.0070			
1.53642	0.0078			
1.47098	0.0086			
1.44525	0.0094			
1.43513	0.0102			
1.43115	0.0110			
1.42959	0.0118			
1.42897	0.0126			
1.42873	0.0134			
1.42863	0.0142			
1.42860	0.0150			
Tensile behaviour	Esfuerzo	Desplazamiento		
	1.4	0		
	1.21710153	0.025		
	1.058097238	0.05		
	0.919865548	0.075		
	0.799692689	0.1		
	0.695219425	0.125		
0.604394733	0.15			

	0.525435538	0.175
	0.456791712	0.2
	0.397115637	0.225
	0.34523575	0.25
	0.300133542	0.275
	0.260923566	0.3
	0.226836051	0.325
	0.197201789	0.35
	0.171439	0.375
	0.149041906	0.4
	0.129570809	0.425
	0.112643449	0.45
	0.09792751	0.475
	0.085134088	0.5
	0.07401202	0.525
	0.064342959	0.55
	0.055937082	0.575
	0.048629363	0.6
	0.042276337	0.625
	0.036753282	0.65
	0.031951768	0.675
	0.027777533	0.7
	0.024148627	0.725
	0.020993808	0.75
	0.018251139	0.775
	0.015866778	0.8
	0.013793914	0.825
	0.011991853	0.85
	0.010425216	0.875
	0.009063248	0.9
	0.007879209	0.925
	0.006849855	0.95
	0.005954978	0.975
	0.005177009	1
	0.004500676	1.025
	0.003912699	1.05
	0.003401537	1.075
	0.002957155	1.1
	0.002570827	1.125
	0.002234969	1.15
	0.001942989	1.175
	0.001689153	1.2
	0.00146848	1.225
	0.001276635	1.25
	0.001109853	1.275
	0.00096486	1.3
	0.000838809	1.325
	0.000729225	1.35
	0.000633958	1.375
	0.000551137	1.4
	0.000479135	1.425
	0.00041654	1.45
	0.000362123	1.475
	0.000314814	1.5
	0.000273686	1.525
	0.000237931	1.55

ANEXO 4

Parámetros mecánicos de la albañilería para el modelo no lineal plástico de muretes: modelo E

Propiedades elásticas	Em		5720	
	ν		0.26	
Densidad	γ N/mm ³		1.376E-09	
Concrete damaged plasticity	Plasticity	Dilation angle	10	
		Eccentricity	0.1	
		Fb ₀ /fc ₀	1.16	
		K	0.66	
		Viscosity parameter	0	
	Compressive behavior	Esfuerzo	Deformación unitaria	
		7	0	
		8.19896	0.0002	
		8.65831	0.0004	
		8.98431	0.0006	
		9.23607	0.0008	
		9.43670	0.0010	
		9.59808	0.0012	
		9.72718	0.0014	
		9.82843	0.0016	
		9.90474	0.0018	
		9.95804	0.0020	
9.98957	0.0022			
10.00000	0.0024			
9.96528	0.0026			
9.86111	0.0028			
9.68750	0.0030			
9.44444	0.0032			
9.13194	0.0034			
8.29861	0.0038			
7.18750	0.0042			
5.79861	0.0046			
4.25675	0.0050			
3.20209	0.0054			
2.54073	0.0058			
2.12599	0.0062			
1.86592	0.0066			
1.70283	0.0070			
1.53642	0.0078			
1.47098	0.0086			
1.44525	0.0094			
1.43513	0.0102			
1.43115	0.0110			
1.42959	0.0118			
1.42897	0.0126			
1.42873	0.0134			
1.42863	0.0142			
1.42860	0.0150			
Tensile behaviour	Esfuerzo	Desplazamiento		
	1.4	0		
	1.21710153	0.025		
	1.058097238	0.05		
	0.919865548	0.075		
	0.799692689	0.1		
	0.695219425	0.125		
0.604394733	0.15			

	0.525435538	0.175
	0.456791712	0.2
	0.397115637	0.225
	0.34523575	0.25
	0.300133542	0.275
	0.260923566	0.3
	0.226836051	0.325
	0.197201789	0.35
	0.171439	0.375
	0.149041906	0.4
	0.129570809	0.425
	0.112643449	0.45
	0.09792751	0.475
	0.085134088	0.5
	0.07401202	0.525
	0.064342959	0.55
	0.055937082	0.575
	0.048629363	0.6
	0.042276337	0.625
	0.036753282	0.65
	0.031951768	0.675
	0.027777533	0.7
	0.024148627	0.725
	0.020993808	0.75
	0.018251139	0.775
	0.015866778	0.8
	0.013793914	0.825
	0.011991853	0.85
	0.010425216	0.875
	0.009063248	0.9
	0.007879209	0.925
	0.006849855	0.95
	0.005954978	0.975
	0.005177009	1
	0.004500676	1.025
	0.003912699	1.05
	0.003401537	1.075
	0.002957155	1.1
	0.002570827	1.125
	0.002234969	1.15
	0.001942989	1.175
	0.001689153	1.2
	0.00146848	1.225
	0.001276635	1.25
	0.001109853	1.275
	0.00096486	1.3
	0.000838809	1.325
	0.000729225	1.35
	0.000633958	1.375
	0.000551137	1.4
	0.000479135	1.425
	0.00041654	1.45
	0.000362123	1.475
	0.000314814	1.5
	0.000273686	1.525
	0.000237931	1.55