ANAS S.p.A.

Direzione Progettazione e Realizzazione Lavori

S.S. 38 - LOTTO 4: VARIANTE DI TIRANO DALLO SVINCOLO DI STAZZONA (COMPRESO) ALLO SVINCOLO DI LORETO (CON COLLEGAMENTO ALLA DOGANA DI POSCHIAVO)

S.S. 38 - LOTTO 4: NODO DI TIRANO - TRATTA "A" (SVINCOLO DI BIANZONE - SVINCOLO LA GANDA) E TRATTA "B" (SVINCOLO LA GANDA - CAMPONE IN TIRANO)

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(Ordine degli Ingg. di Torino e Provincia n° 4663 W)

Ingegneria del Territorio s.r.l.
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VISTO: IL RESPONSABILE DEL PROCEDIMENTO	RESPONSABILE DELL'INTEGRAZIONE DELLE PRESTAZIONI SPECIALISTICHE	GEOLOGO	IL COORDINATORE DELLA SICUREZZA IN FASE DI PROGETTAZIONE
Dott. Ing. Giancarlo LUONGO	Ing. Valerio BAJETTI	Dott. Geol. Francesco AMANTIA SCUDERI	Ing. Gaetano RANIERI

HB04

H - PROGETTO STRUTTURALE OPERE PRINCIPALI

HB – VI02 PONTE SULL'ADDA DI TIRANO

RELAZIONE DI CALCOLO PARATIA DI PALI PILA 1

CODICE PROGETTO			NOME FILE	REVISIONE	SCALA:
PROGETTO	LIV. PROG.	N. PROG.	HB04-P00VI02STRRE04_A.dwg		
MI324	E	1801	CODICE ELAB. P00VI02STRRE04	A	----------

REV.	DESCRIZIONE	DATA	REDATTO	VERIFICATO	APPROVATO
C					
B					
A	EMISSIONE	SETTEMBRE 2018	ING. NICOLA LIGAS	ING. FABRIZIO BAJETTI	ING. VALERIO BAJETTI

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1 PREMESSA

La presente relazione riporta il dimensionamento e le verifiche strutturali della paratia di pali Ø600 a protezione della zattera di fondazione della pila 1 del ponte VI-02 nell'ambito del progetto esecutivo "*S.S. 38 – Lotto 4: Nodo di Tirano – Tratta "A" (Svincolo di Biazone – Svincolo La Ganda) – Tratta "B" (Svincolo La Ganda – Campone in Tirano)*".

2 NORMATIVA

Nella redazione dei calcoli statici ci si è attenuti alle prescrizioni della Normativa vigente; in particolare:

- **Legge n°1086 del 05/11/1971** "Norme per la disciplina delle opere in conglomerato cementizio armato, normale e precompresso ed a struttura metallica"
- **Legge n°64 del 02/02/1974** "Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche"
- **Decreto Ministeriale 17/01/2018 "**Norme Tecniche per le Costruzioni"
- **Circolare Min. 02/02/2009, n° 617** "Istruzioni per l'applicazione delle Nuove Norme Tecniche per le Costruzioni di cui al D.M. 14/01/2008"
- **UNI EN 1991-2 (Eurocodice 1 – Parte 2)** → Azioni sulle strutture – Carichi da traffico sui ponti
- **UNI EN 1992-1 (Eurocodice 2 – Parte 1)** → Progettazione delle strutture in calcestruzzo – Regole generali
- **UNI EN 1992-2 (Eurocodice 2 – Parte 2)** → Progettazione delle strutture in calcestruzzo – Ponti
- **UNI EN 1998-2 (Eurocodice 8 – Parte 2)** → Progettazione delle strutture per la resistenza sismica – Ponti
- **UNI EN 206-1:2006** → Calcestruzzo – Specificazione, prestazione e conformità
- **UNI 11104** → Calcestruzzo – Specificazione, prestazione, produzione e conformità – Istruzioni complementari per l'applicazione della EN 2016-1

3 UNITA' DI MISURA

Nei calcoli è stato fatto uso delle seguenti unità di misura:

- per i carichi: kN/m^2, kN/m, kN
- per i momenti: kNm
- per i tagli e sforzi normali: kN
- per le tensioni: N/mm^2
- per le accelerazioni: m/sec^2

4 MATERIALI

4.1 CALCESTRUZZI

4.1.1 CALCESTRUZZO PER PALI Ø600 DELLA PARATIA (UNI 11104-2016)

Per i pali Ø600 della paratia è stato previsto un calcestruzzo con classe di resistenza **C25/30** con le seguenti caratteristiche meccaniche:

CARATTERISTICHE MECCANICHE DEI CALCESTRUZZI - D.M. 17.01.2018			
Classe di resistenza del calcestruzzo	C25/30		
Resistenza caratteristica cubica a compressione	R_{ck}	**30,00**	[N/mm^2]
Resistenza caratteristica cilindrica a compressione	f_{ck}	**24,90**	[N/mm^2]
Resistenza cilindrica media a compressione a 28 gg	f_{cm}	**32,90**	[N/mm^2]
Resistenza di calcolo a compressione	f_{cd}	**14,11**	[N/mm^2]
Resistenza media a trazione	f_{ctm}	**2,56**	[N/mm^2]
Resistenza caratteristica a trazione	f_{ctk}	**1,79**	[N/mm^2]
Resistenza di calcolo a trazione	f_{ctd}	**1,19**	[N/mm^2]
Modulo elastico istantaneo	E_c	**31.220,19**	[N/mm^2]
Modulo elastico medio	E_{cm}	**30.440,77**	[N/mm^2]

- Classe di esposizione: **XC2**
- Classe di consistenza: **S4**
- Rapporto minimo acqua / cemento: **0,60**
- Contenuto minimo di cemento: **300 kg/mc**
- Diametro massimo degli inerti: **30 mm**
- Copriferro netto minimo: **60 mm**

4.1.2 CALCESTRUZZO PER CORDOLO DI TESTA (UNI 11104-2016)

Per il cordolo di testa è stato previsto un calcestruzzo con classe di resistenza **C25/30** con le seguenti caratteristiche meccaniche:

CARATTERISTICHE MECCANICHE DEI CALCESTRUZZI - D.M. 17.01.2018			
Classe di resistenza del calcestruzzo	C25/30		
Resistenza caratteristica cubica a compressione	R_{ck}	**30,00**	[N/mm^2]
Resistenza caratteristica cilindrica a compressione	f_{ck}	**24,90**	[N/mm^2]
Resistenza cilindrica media a compressione a 28 gg	f_{cm}	**32,90**	[N/mm^2]
Resistenza di calcolo a compressione	f_{cd}	**14,11**	[N/mm^2]
Resistenza media a trazione	f_{ctm}	**2,56**	[N/mm^2]
Resistenza caratteristica a trazione	f_{ctk}	**1,79**	[N/mm^2]
Resistenza di calcolo a trazione	f_{ctd}	**1,19**	[N/mm^2]
Modulo elastico istantaneo	E_c	**31.220,19**	[N/mm^2]
Modulo elastico medio	E_{cm}	**30.440,77**	[N/mm^2]

- Classe di esposizione: **XC2**
- Classe di consistenza: **S4**
- Rapporto minimo acqua / cemento: **0,60**
- Contenuto minimo di cemento: **300 kg/mc**
- Diametro massimo degli inerti: **30 mm**

- Copriferro netto minimo: **40 mm**

4.2 ACCIAI

4.2.1 ACCIAIO PER ARMATURA LENTA

Per le armature lente è stato previsto un acciaio del tipo **B450C,** con le seguenti caratteristiche meccaniche:

- $f_{t,k}$ = 540,00 N/mm^2 (resistenza caratteristica a rottura)
- $f_{y,k}$ = 450,00 N/mm^2 (tensione caratteristica di snervamento)
- $f_{y,d}$ = 391,30 N/mm^2 (resistenza di calcolo – γ_s=1,15)
- E_s = 210.000,00 N/mm^2 (modulo elastico istantaneo)

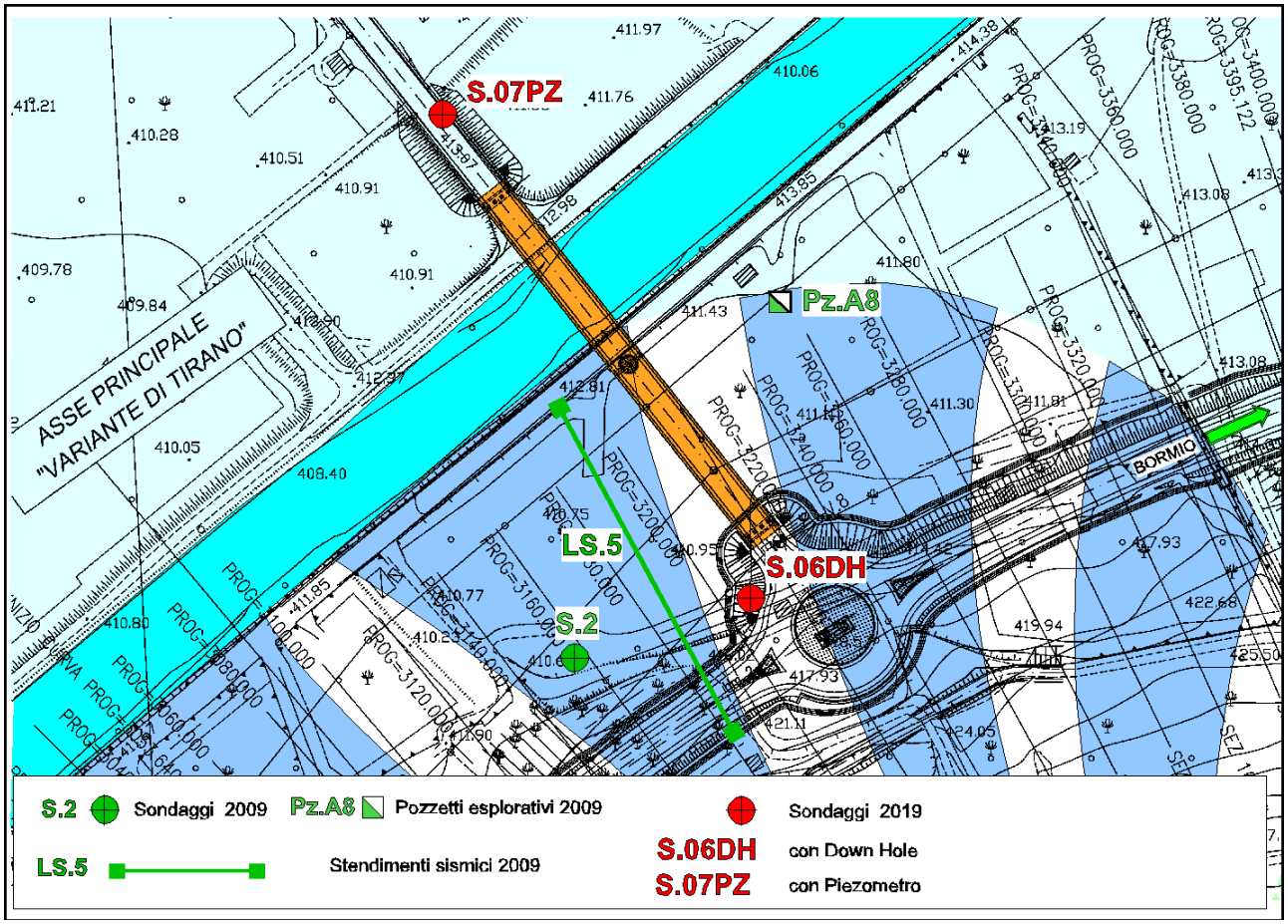
5 CARATTERIZZAZIONE GEOTECNICA DEI TERRENI

5.1 DEFINIZIONE DELLA STRATIGRAFIA E DEI PARAMETRI GEOTECNICI DI CALCOLO

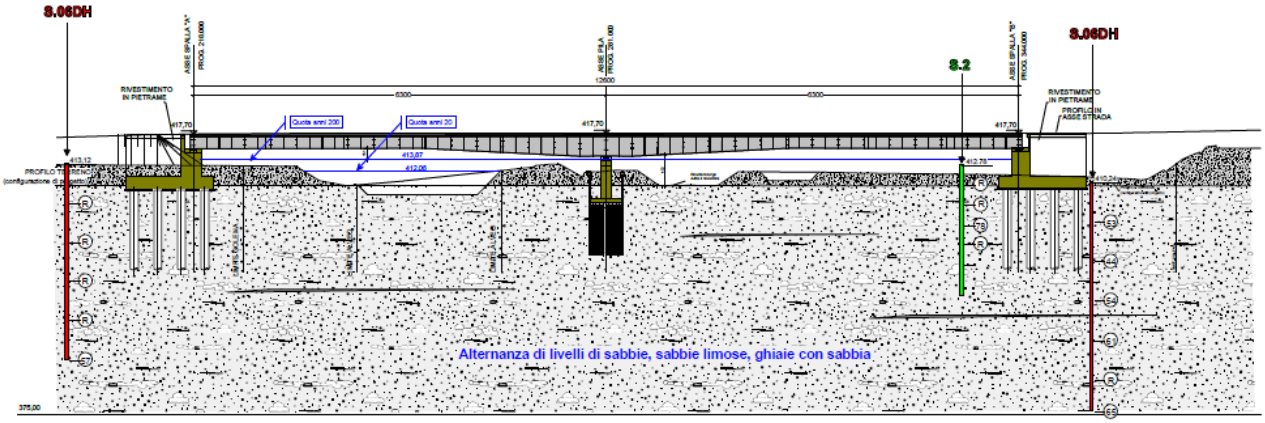
Per la determinazione della stratigrafia dei terreni utilizzata per le verifiche delle strutture di fondazione si è fatto riferimento ai seguenti sondaggi:

- Sondaggio S.2 (2009)
- Sondaggio S.06DH (2019)
- Sondaggio S.07PZ (2019)

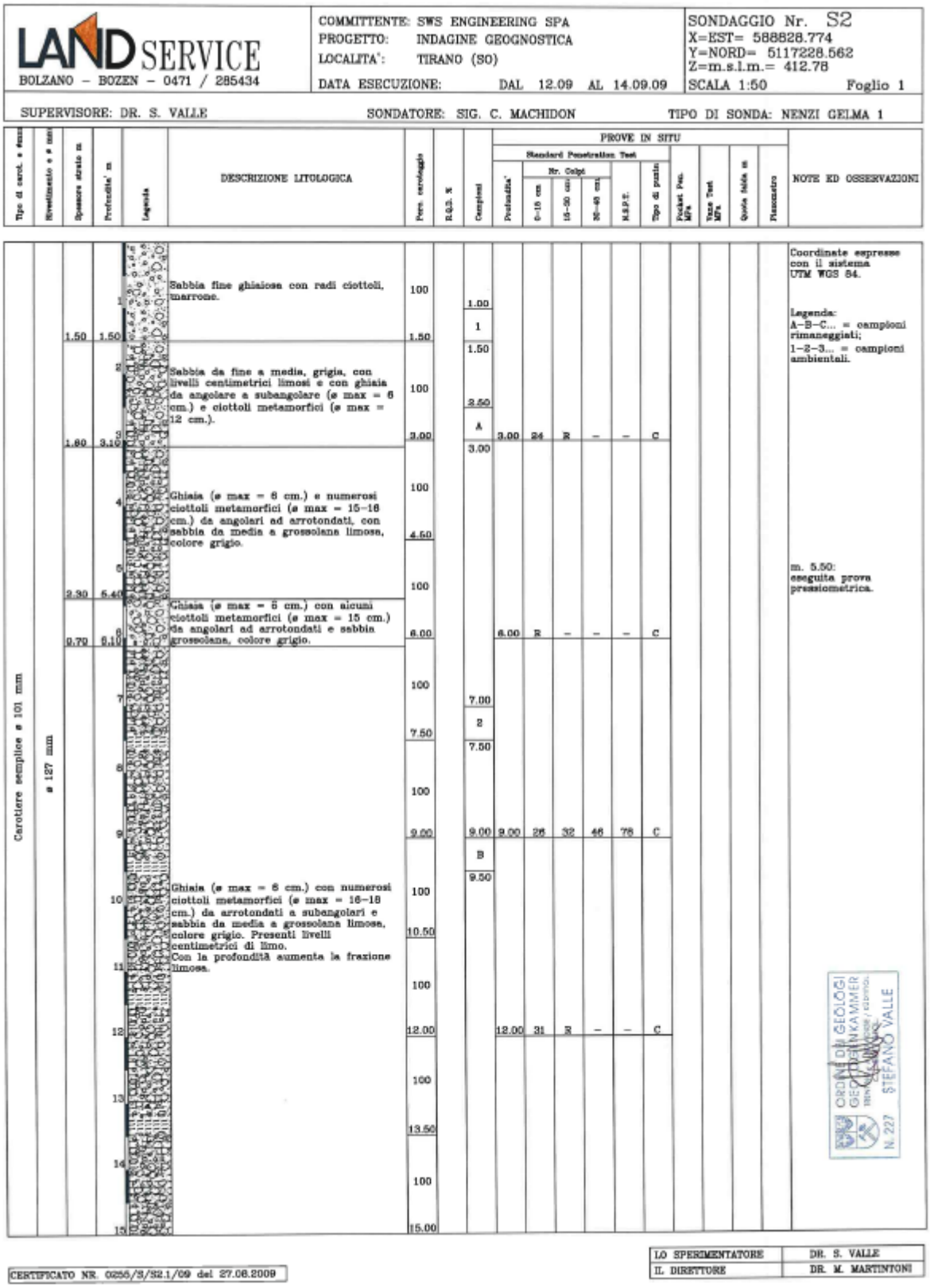
I sondaggi sopra elencati risultano ubicati come mostrato nell'immagine seguente:



Il viadotto, come da schema litologico di seguito riportato, ricade a cavallo tra le formazioni litologiche UG1 e UG2_1 e poiché dal sondaggio S.2 non è possibile distinguere il passaggio dai depositi di conoide a quelli alluvionali, nel modello geologico di calcolo verranno considerati i parametri medi relativi alla formazione UG2_1 (strato nel quale ricadono completamente i pali di fondazione):



Nell'immagine seguente è riportata la stratigrafia del sondaggio **S.2** (2009):



LAND SERVICE
BOLZANO – BOZEN – 0471 / 285434

COMMITTENTE: SWS ENGINEERING SPA
PROGETTO: INDAGINE GEOGNOSTICA
LOCALITA': TIRANO (SO)
DATA ESECUZIONE: DAL 12.09 AL 14.09.09

SONDAGGIO Nr. S2
X=EST= 588828.774
Y=NORD= 5117228.562
Z=m.s.l.m.= 412.78
SCALA 1:50 Foglio 1

SUPERVISORE: DR. S. VALLE SONDATORE: SIG. C. MACHIDON TIPO DI SONDA: NENZI GELMA 1

Tipo di carot. e ø	Rivestimento e ø	Spessore strato m	Profondita' m	Legenda	DESCRIZIONE LITOLOGICA	Perc. carotaggio	R.Q.D. %	Campioni	PROVE IN SITU: Standard Penetration Test – Profondita'	Nr. Colpi 0-15 cm	Nr. Colpi 15-30 cm	Nr. Colpi 30-45 cm	N.S.P.T.	Tipo di punta	Pocket Pen. MPa	Taxe Test MPa	Quota falda m	Piezometro	NOTE ED OSSERVAZIONI
Carotiere semplice ø 101 mm	ø 127 mm	1.50	1.50		Sabbia fine ghiaiosa con radi ciottoli, marrone.	100		1.00											Coordinate espresse con il sistema UTM WGS 84.
								1											Legenda: A–B–C... = campioni rimaneggiati; 1–2–3... = campioni ambientali.
						1.50		1.50											
		1.80	3.30		Sabbia da fine a media, grigia, con livelli centimetrici limosi e con ghiaia da angolare a subangolare (ø max = 6 cm.) e ciottoli metamorfici (ø max = 12 cm.).	100		2.50											
								A	3.00	24	R	–	–	C					
						3.00		3.00											
		2.30	5.60		Ghiaia (ø max = 6 cm.) e numerosi ciottoli metamorfici (ø max = 15–18 cm.) da angolari ad arrotondati, con sabbia da media a grossolana limosa, colore grigio.	100		4.50											
						100													m. 5.50: eseguita prova pressiometrica.
		0.70	6.30		Ghiaia (ø max = 6 cm.) con alcuni ciottoli metamorfici (ø max = 15 cm.) da angolari ad arrotondati e sabbia grossolana, colore grigio.	6.00			6.00	R	–	–	–	C					
						100		7.00											
								2											
						7.50		7.50											
						100													
						9.00		9.00	9.00	26	32	46	78	C					
								B											
								9.50											
					Ghiaia (ø max = 6 cm.) con numerosi ciottoli metamorfici (ø max = 16–18 cm.) da arrotondati a subangolari e sabbia da media a grossolana limosa, colore grigio. Presenti livelli centimetrici di limo. Con la profondità aumenta la frazione limosa.	100													
						10.50													
						100													
						12.00			12.00	31	R	–	–	C					
						100													
						13.50													
						100													
						15.00													

CERTIFICATO NR. 0256/S/S2.1/09 del 27.08.2009

LO SPERIMENTATORE DR. S. VALLE
IL DIRETTORE DR. M. MARTINTONI

ORDINE DEI GEOLOGI DELLA CAMERA – STEFANO VALLE – N. 227

LAND SERVICE
BOLZANO – BOZEN – 0471 / 285434

COMMITTENTE: SWS ENGINEERING SPA
PROGETTO: INDAGINE GEOGNOSTICA
LOCALITA': TIRANO (SO)
DATA ESECUZIONE: DAL 12.09 AL 14.09.09

SONDAGGIO Nr. S2
X=EST= 588828.774
Y=NORD= 5117228.562
Z=m.s.l.m.= 412.78
SCALA 1:50 Foglio 2

SUPERVISORE: DR. S. VALLE SONDATORE: SIG. C. MACHIDON TIPO DI SONDA: NENZI GELMA 1

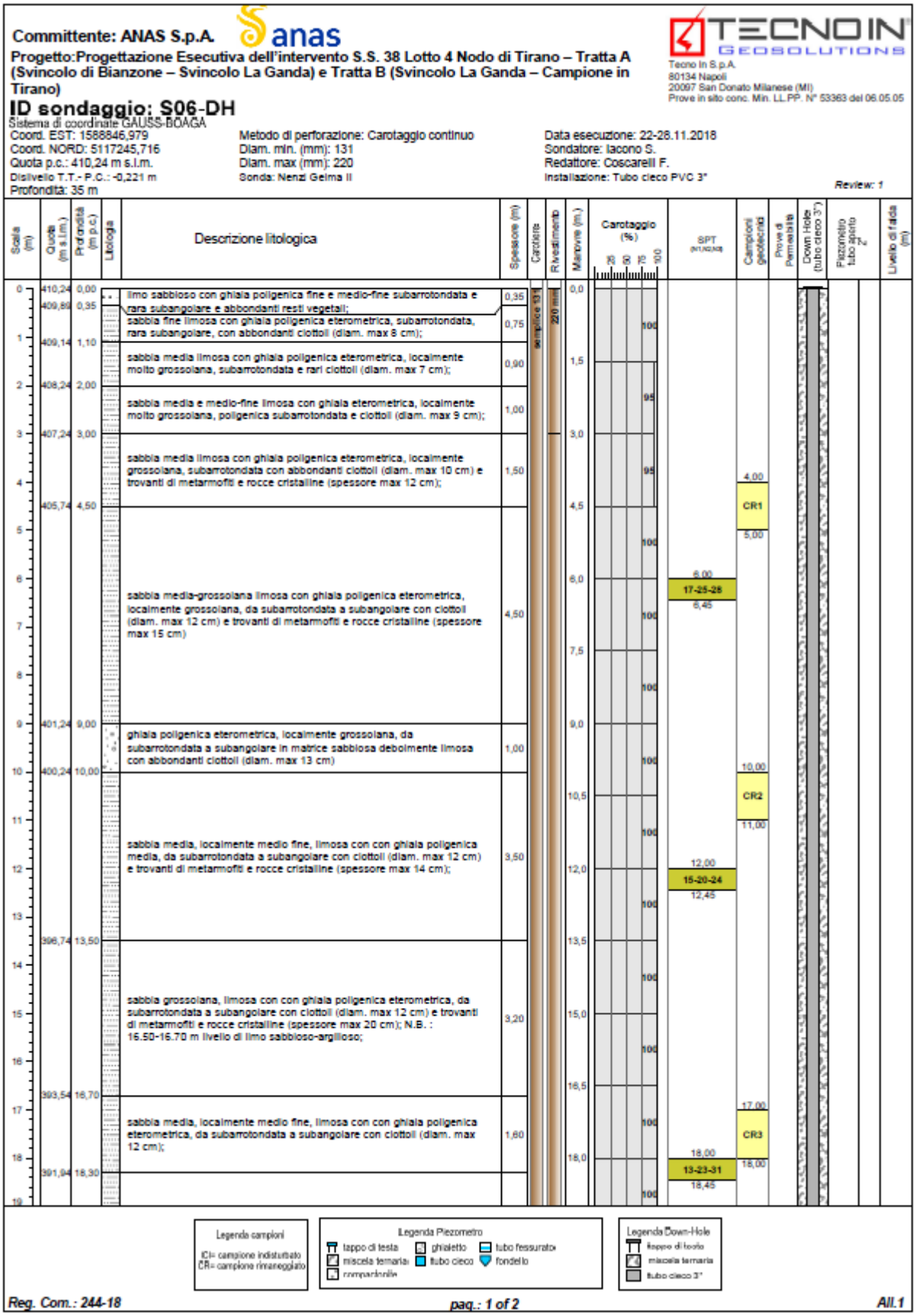
Tipo di carot. e diam.	Rivestimento e diam.	Spessore strato m	Profondità m	Legenda	DESCRIZIONE LITOLOGICA	Perc. carotaggio	R.Q.D. %	Campioni	PROVE IN SITU: Standard Penetration Test – Profondità	Nr. Colpi 0-15 cm	Nr. Colpi 15-30 cm	Nr. Colpi 30-45 cm	S.P.T.	Tipo di punta	Pocket Pen. kPa	Vane Test kPa	Quota falda m	Piezometro	NOTE ED OSSERVAZIONI
Carotiere semplice ø 101 mm	ø 127 mm	10.30	16		Ghiaia (ø max = 6 cm.) con numerosi ciottoli metamorfici (ø max = 18-18 cm.) da arrotondati a subangolari e sabbia da media a grossolana limosa, colore grigio. Presenti livelli centimetrici di limo. Con la profondità aumenta la frazione limosa.	100													
			16.40			16.50													
			17			100		17.00 C 17.50											
			18		Ghiaia (ø max = 6 cm.) con alcuni ciottoli metamorfici (ø max = 15 cm.) da subarrotondati a subangolari e sabbia media con limo, colore grigio.	18.00													
			19			100													
						19.50													
20.00	20.00	3.60	20			100 20.00													
					F.F. m. 20.00.														
			21																
			22																
			23																
			24																
			25																
			26																
			27																
			28																
			29																
			30																

ORDINE DEI GEOLOGI GEOLOGE DELLA LOMBARDIA N. 227 STEFANO VALLE

CERTIFICATO NR. 0255/S/S2.2/09 del 27.08.2009

LO SPERIMENTATORE	DR. S. VALLE
IL DIRETTORE	DR. M. MARTINTONI

Nell'immagine seguente è riportata la stratigrafia del sondaggio **S.06DH** (2019):



Committente: ANAS S.p.A.

Progetto: Progettazione Esecutiva dell'intervento S.S. 38 Lotto 4 Nodo di Tirano – Tratta A (Svincolo di Bianzone – Svincolo La Ganda) e Tratta B (Svincolo La Ganda – Campione in Tirano)

Tecno In S.p.A.
80134 Napoli
20097 San Donato Milanese (MI)
Prove in sito conc. Min. LL.PP. N° 53363 del 06.05.05

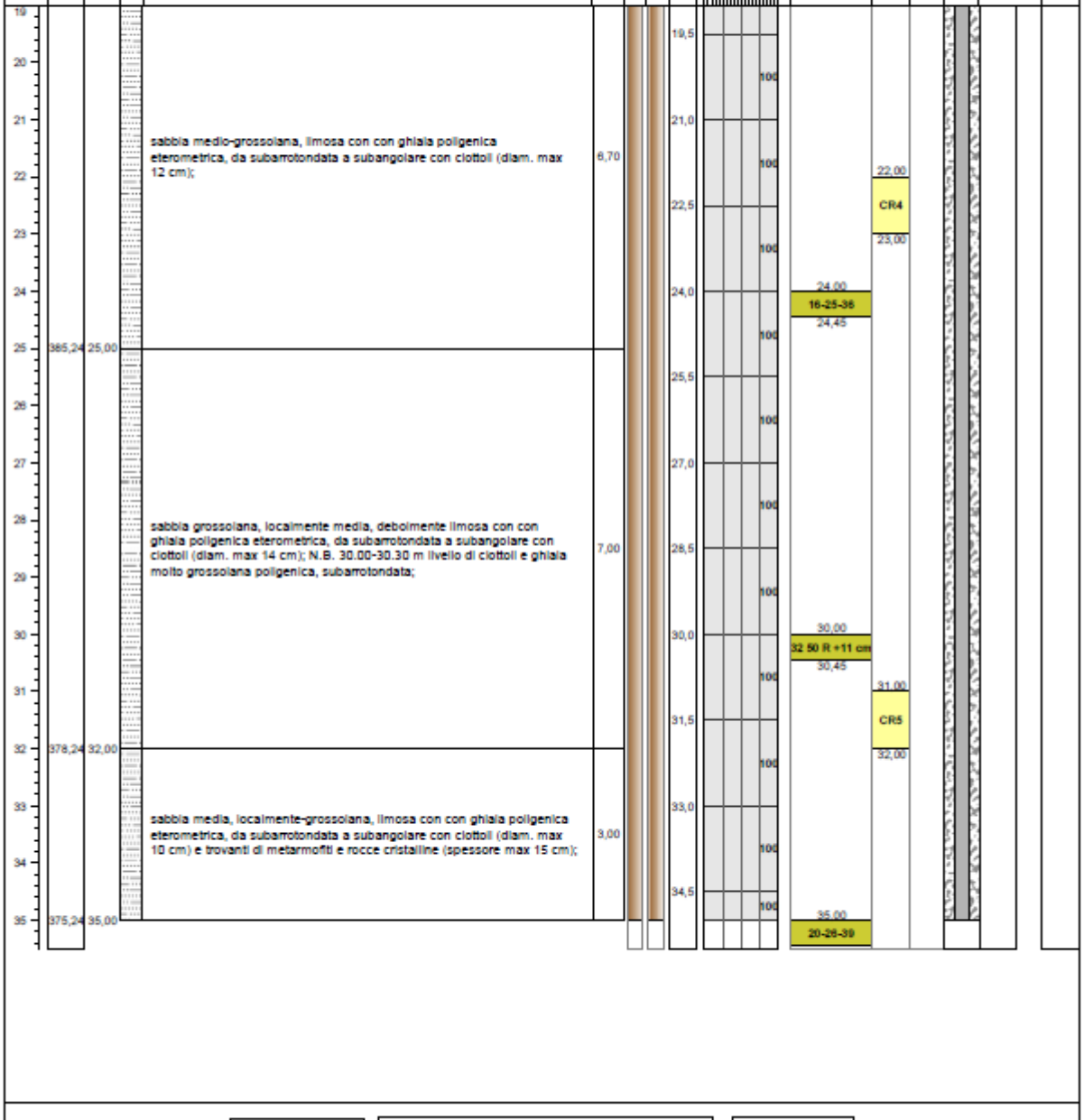
ID sondaggio: S06-DH

Sistema di coordinate GAUSS-BOAGA
Coord. EST: 1588846,979
Coord. NORD: 5117245,716
Quota p.c.: 410,24 m s.l.m.
Dislivello T.T.- P.C.: -0,221 m
Profondità: 35 m

Metodo di perforazione: Carotaggio continuo
Diam. min. (mm): 131
Diam. max (mm): 220
Sonda: Nenzi Geima II

Data esecuzione: 22-28.11.2018
Sondatore: Iacono S.
Redattore: Coscarelli F.
Installazione: Tubo cieco PVC 3"

Review: 1



Legenda campioni
IC= campione indisturbato
CR= campione rimaneggiato

Legenda Piezometro
tappo di testa
miscela bentonitica
cemento-bentonite
ghiaietto
tubo cieco
tubo fessurato
fondello

Legenda Down-Hole
tappo di fondo
miscela bentonitica
tubo cieco 3"

Reg. Com.: 244-18

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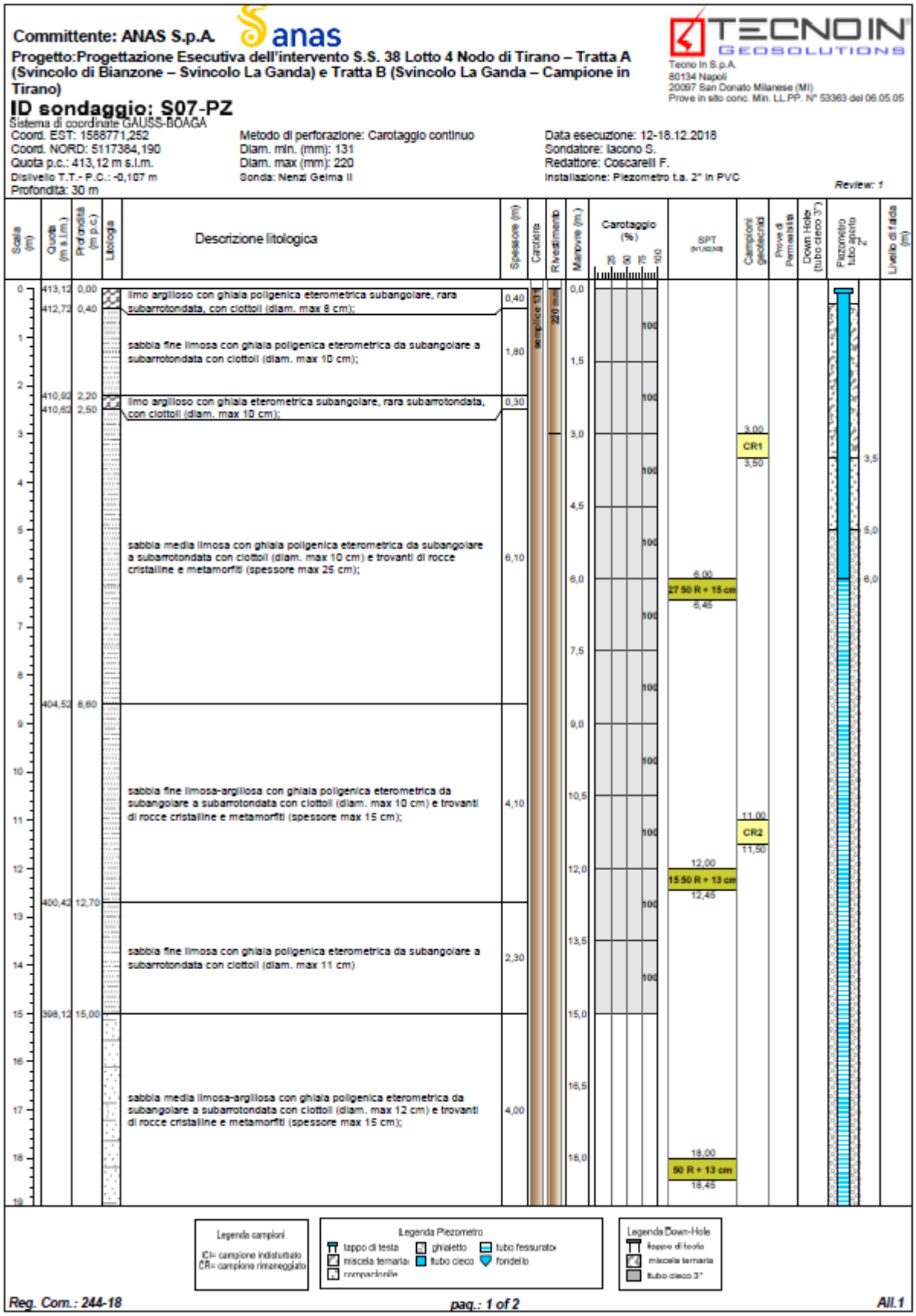
All.1

Nell'immagine seguente è riportata la stratigrafia del sondaggio **S.07PZ** (2019):



Committente: ANAS S.p.A. anas

Progetto:Progettazione Esecutiva dell'intervento S.S. 38 Lotto 4 Nodo di Tirano – Tratta A (Svincolo di Bianzone – Svincolo La Ganda) e Tratta B (Svincolo La Ganda – Campione in Tirano)

TECNO IN GEOSOLUTIONS
Tecno In S.p.A.
80134 Napoli
20097 San Donato Milanese (MI)
Prove in sito conc. Min. LL.PP. N° 53363 del 06.05.05

ID sondaggio: S07-PZ

Sistema di coordinate GAUSS-BOAGA
Coord. EST: 1588771,252
Coord. NORD: 5117384,190
Quota p.c.: 413,12 m s.l.m.
Dislivello T.T.- P.C.: -0,107 m
Profondità: 30 m

Metodo di perforazione: Carotaggio continuo
Diam. min. (mm): 131
Diam. max (mm): 220
Sonda: Nenzi Gelma II

Data esecuzione: 12-18.12.2018
Sondatore: Iacono S.
Redattore: Coscarelli F.
Installazione: Piezometro t.a. 2" in PVC

Review: 1

Quota (m s.l.m.)	Profondità (m p.c.)	Descrizione litologica	Spessore (m)	Manovre (m)	SPT (N1,N2,N3)	Campioni geotecnici	Prove di Permeabilità
394,12	19,00	sabbia media limosa con abbondanti ciottoli (diam. max 12 cm)	1,00	19,5			
393,12	20,00	sabbia media limosa con ghiaia poligenica eterometrica da subangolare a subarrotondata con ciottoli (diam. max 12 cm);	2,00	21,0			20,40 LF01 21,00
391,12	22,00	sabbia media limosa-argillosa con ghiaia poligenica eterometrica da subangolare a subarrotondata con ciottoli (diam. max 12 cm);	3,00	22,5; 24,0	24,00 50 R + 14 cm 24,45	22,50 CR3 23,00	
388,12	25,00	sabbia media limosa con ghiaia poligenica eterometrica da subangolare a subarrotondata con ciottoli (diam. max 11 cm) e trovanti di rocce cristalline e metamorfiti (spessore max 15 cm);	2,00	25,5; 27,0			
386,12	27,00	sabbia media limosa-argillosa con ghiaia poligenica eterometrica da subangolare a subarrotondata con ciottoli (diam. max 9 cm) e trovanti di rocce cristalline e metamorfiti (spessore max 15 cm);	3,00	28,5	30,00 15-24-33	29,00 CR4 29,50	
383,12	30,00						

Piezometro tubo aperto 2": 30,0

Legenda campioni
CI= campione indisturbato
CR= campione rimaneggiato

Legenda Piezometro
tappo di testa; ghiaietto; tubo fessurato; miscela ternaria; tubo cieco; fondello; compactonite

Legenda Down-Hole
tappo di testa; miscela ternaria; tubo cieco 3"

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Di seguito sono riepilogati i parametri geotecnici e geomeccanici relativi alla formazione litologica UG2_1 (Conoidi):

- Peso di volume saturo	**γ_s = 21,00 kN/m^3**
- Peso di volume	**γ = 19,00 kN/m^3**
- Coesione efficace	**c' = 0,00 kN/m^2**
- Angolo di attrito (valore caratteristico)	**φ' = 37,00°**
- Densità relativa (Bazaraa, 1962 – da valori medi di $N_1(60)$	**Dr = 63,00 %**
- Modulo elastico (Young)	**E = 337,40 N/mm^2**
- Modulo Edometrico	**E_d = 404,90 N/mm^2**

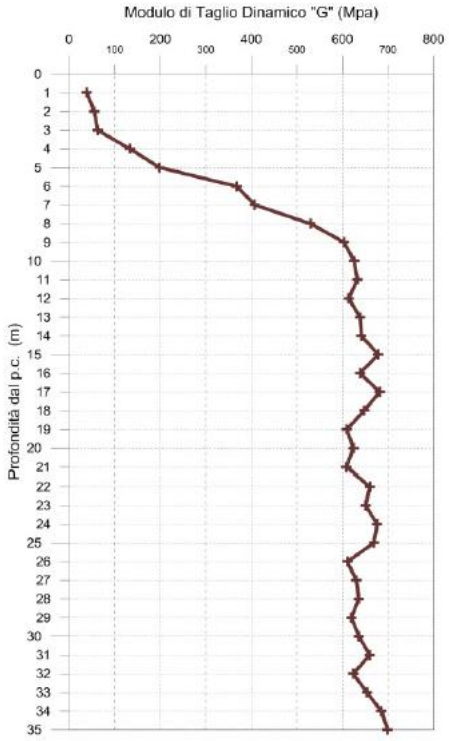
La falda è assunta alla quota di imposta della zattera di fondazione (testa palo).

Per la valutazione del modulo E_{vc} del terreno si è fatto riferimento alla seguente relazione:

$$E_{vc} = 0,80 \cdot G_0$$

dove G_0 è il modulo di taglio per piccole deformazioni stimato in base a V_s e γ_d.

Per la valutazione di G si è fatto riferimento alle risultanze dell'indagine sismica down – hole S.06DH (2019):



Sismostrato	Profondità dal p.c. (m) da	a	$(V_P)_{medio}$ m/s	$(V_S)_{medio}$ m/s
1°	1,0	3,0	309	158
2°	3,0	5,0	581	255
3°	5,0	9,0	881	452
4°	9,0	16,0	1.183	574
5°	16,0	35,0	1.393	783

Profondità (m dal p.c.)	tempi osservati t_o "P" (ms)	tempi osservati t_o "S" (ms)	tempi corretti t_c "P" (ms)	tempi corretti t_c "S" (ms)	velocità intervallo Vp (m/s)	velocità intervallo Vs (m/s)	Vp/Vs	Poisson (n)	γ_n gamma NATURALE	G Mpa	E Mpa	K Mpa
1	9.17	15.22	4.10	6.81	244	147	1.7	0.22	1.8	39	94	55
2	10.20	18.61	7.21	13.16	574	175	3.3	0.45	1.8	55	160	521
3	11.48	22.78	9.55	18.95	607	186	3.3	0.45	1.8	62	181	580
4	12.69	25.97	11.35	23.23	719	272	2.6	0.42	1.8	133	376	754
5	13.95	28.72	12.95	26.66	720	332	2.2	0.36	1.8	199	543	668
6	14.99	30.80	14.22	29.22	904	452	2.0	0.33	1.8	367	979	982
7	15.99	32.80	15.37	31.54	958	476	2.0	0.34	1.8	408	1089	1110
8	16.94	34.59	16.43	33.55	1018	543	1.9	0.30	1.8	530	1379	1159
9	17.88	36.24	17.45	35.38	1037	587	1.8	0.26	1.8	603	1525	1076
10	18.75	37.86	18.39	37.12	1121	607	1.8	0.29	1.7	626	1618	1301
11	19.62	39.51	19.30	38.88	1129	593	1.9	0.31	1.8	632	1656	1452
12	20.44	41.24	20.16	40.68	1201	571	2.1	0.35	1.9	613	1661	1896
13	21.20	42.87	20.95	42.38	1307	604	2.2	0.36	1.8	638	1741	2138
14	21.92	44.53	21.70	44.08	1365	597	2.3	0.38	1.8	641	1772	2499
15	22.68	46.19	22.48	45.78	1304	598	2.2	0.37	1.9	679	1855	2327
16	23.44	47.94	23.26	47.57	1305	568	2.3	0.38	2.0	638	1765	2519
17	24.18	49.59	24.01	49.25	1342	599	2.2	0.38	1.9	681	1875	2511
18	24.89	51.30	24.74	50.98	1399	584	2.4	0.39	1.9	647	1805	2858
19	25.61	53.09	25.47	52.80	1381	555	2.5	0.40	2.0	609	1711	2963
20	26.32	54.82	26.19	54.55	1401	573	2.4	0.40	1.9	624	1746	2898
21	27.06	56.58	26.93	56.33	1354	566	2.4	0.39	1.9	609	1697	2672
22	27.81	58.22	27.70	57.98	1319	609	2.2	0.36	1.8	660	1801	2216
23	28.58	59.94	28.47	59.72	1294	577	2.2	0.38	2.0	650	1789	2396
24	29.28	61.58	29.18	61.36	1423	609	2.3	0.39	1.8	676	1876	2787
25	30.00	63.26	29.90	63.06	1384	593	2.3	0.39	1.9	669	1856	2746
26	30.70	65.07	30.61	64.87	1432	551	2.6	0.41	2.0	611	1726	3306
27	31.38	66.75	31.30	66.57	1455	592	2.5	0.40	1.8	630	1765	2969
28	32.09	68.48	32.01	68.30	1410	578	2.4	0.40	1.9	635	1778	2931
29	32.77	70.22	32.69	70.06	1466	571	2.6	0.41	1.9	619	1747	3256
30	33.48	71.95	33.41	71.79	1405	578	2.4	0.40	1.9	636	1778	2904
31	34.16	73.61	34.09	73.45	1467	602	2.4	0.40	1.8	660	1845	3040
32	34.88	75.40	34.81	75.25	1386	557	2.5	0.40	2.0	623	1750	3030
33	35.59	77.10	35.52	76.96	1416	586	2.4	0.40	1.9	653	1824	2938
34	36.29	78.76	36.23	78.62	1410	602	2.3	0.39	1.9	685	1903	2843
35	36.99	80.40	36.93	80.27	1436	606	2.4	0.39	1.9	699	1944	2984

Il modulo di taglio è valutato come valore medio dei valori determinati nella prova down – hole fino alla profondità della base dei pali:

G_{medio} = 355,583 Mpa → 355.583,00 kPa

Risulta pertanto:

E_{vc} = 0,80 x 355.583,00 = 284.466,40 kPa

A favore di sicurezza è stato assunto un parametro E_{vc} ridotti, pari rispettivamente a:

E_{vc} = 30.000,00 kPa

Per la valutazione del modulo E_{ur} del terreno si è fatto riferimento alla seguente relazione:

$$E_{ur} = 3 \cdot E_{vc}$$

Risulta pertanto:

E_{ur} = 3 x 30.000,00 = 90.000,00 kPa

5.2 APPROCCIO DI CALCOLO

Le verifiche geotecniche di carico limite ultimo e di portanza laterale vengono condotte secondo l'approccio 2 previsto dal D.M.17.01.2018 "Norme Tecniche per le Costruzioni" - Combinazione A1 - M1 - R3.

Tab. 6.4.II – *Coefficienti parziali γ_R da applicare alle resistenze caratteristiche a carico verticale dei pali*

Resistenza	Simbolo	Pali infissi	Pali trivellati	Pali ad elica continua
	γ_R	(R3)	(R3)	(R3)
Base	γ_b	1,15	1,35	1,3
Laterale in compressione	γ_s	1,15	1,15	1,15
Totale (*)	γ	1,15	1,30	1,25
Laterale in trazione	γ_{st}	1,25	1,25	1,25

(*) da applicare alle resistenze caratteristiche dedotte dai risultati di prove di carico di progetto.

È stata considerata la presenza di tre verticali indagate al fine di determinare il valore dei fattori di riduzione delle resistenze caratteristiche ξ_3 e ξ_4:

Numero di verticali indagate	1	2	3	4	5	7	≥ 10
ξ_3	1,70	1,65	1,60	1,55	1,50	1,45	1,40
ξ_4	1,70	1,55	1,48	1,42	1,34	1,28	1,21

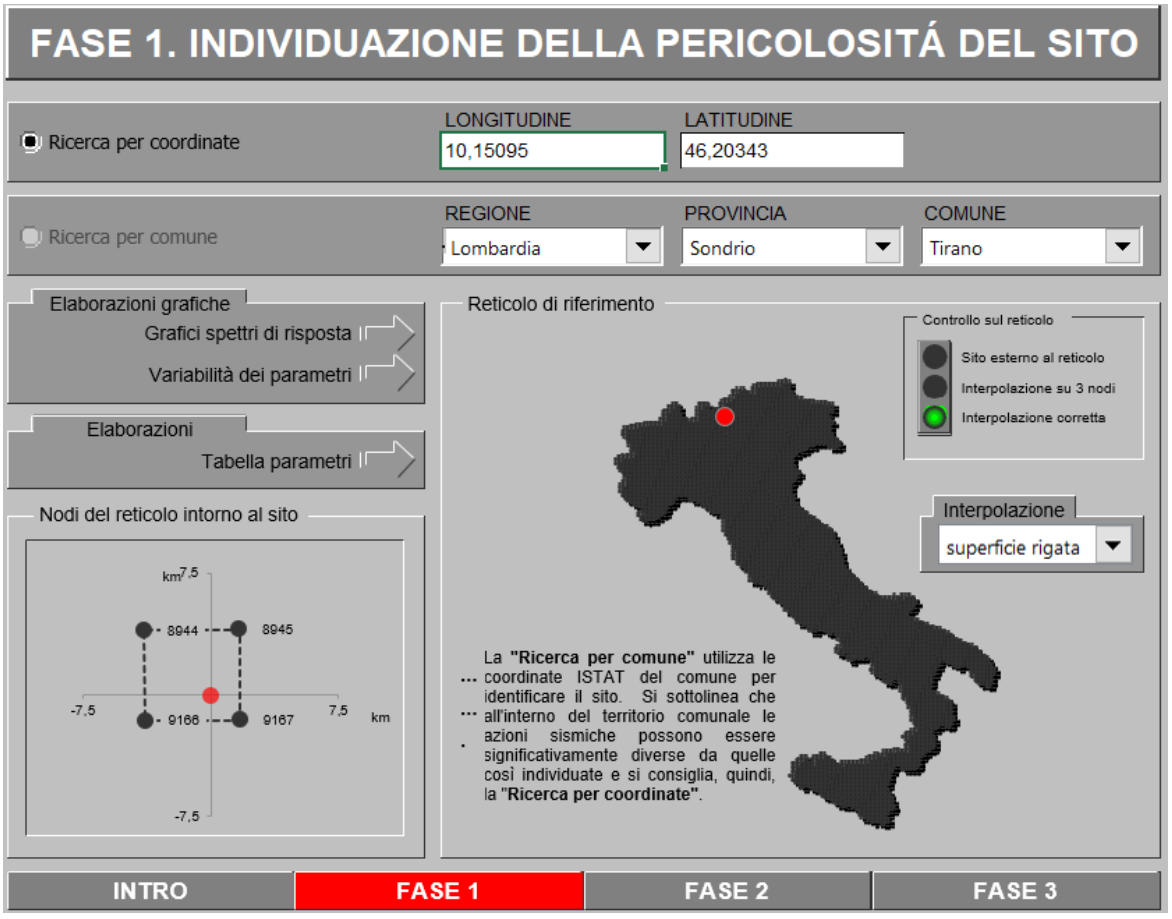
Tabella 6.4.IV – *Fattori di correlazione* ξ per *la determinazione della resistenza caratteristica in funzione del numero di verticali indagate.*

6 ZONIZZAZIONE E CARATTERIZZAZIONE SISMICA

6.1 IDENTIFICAZIONE DELLA LOCALITÀ E DEI PARAMETRI SISMICI GENERALI

Il sito è definito dalle seguenti coordinate geografiche:

- Longitudine: **10,150951**
- Latitudine: **46,203434**



6.2 DEFINIZIONE DELLA STRATEGIA PROGETTUALE

In riferimento al D.M. 17.01.2018 "Norme Tecniche per le Costruzioni", le opere sono progettate (in funzione dell'importanza strategica dell'infrastruttura) secondo i seguenti parametri:

- Vita Nominale dell'opera: **100 anni**

Tabella 2.4.I – *Vita nominale* V_N *per diversi tipi di opere*

	TIPI DI COSTRUZIONE	Vita Nominale V_N (in anni)
1	Opere provvisorie – Opere provvisionali - Strutture in fase costruttiva[1]	≤ 10
2	Opere ordinarie, ponti, opere infrastrutturali e dighe di dimensioni contenute o di importanza normale	≥ 50
3	Grandi opere, ponti, opere infrastrutturali e dighe di grandi dimensioni o di importanza strategica	≥ 100

- Classe d'uso dell'opera: **III**

2.4.2 CLASSI D'USO

In presenza di azioni sismiche, con riferimento alle conseguenze di una interruzione di operatività o di un eventuale collasso, le costruzioni sono suddivise in classi d'uso così definite:

Classe I: Costruzioni con presenza solo occasionale di persone, edifici agricoli.

Classe II: Costruzioni il cui uso preveda normali affollamenti, senza contenuti pericolosi per l'ambiente e senza funzioni pubbliche e sociali essenziali. Industrie con attività non pericolose per l'ambiente. Ponti, opere infrastrutturali, reti viarie non ricadenti in Classe d'uso *III* o in Classe d'uso *IV*, reti ferroviarie la cui interruzione non provochi situazioni di emergenza. Dighe il cui collasso non provochi conseguenze rilevanti.

Classe III: Costruzioni il cui uso preveda affollamenti significativi. Industrie con attività pericolose per l'ambiente. Reti viarie extraurbane non ricadenti in Classe d'uso *IV*. Ponti e reti ferroviarie la cui interruzione provochi situazioni di emergenza. Dighe rilevanti per le conseguenze di un loro eventuale collasso.

Classe IV: Costruzioni con funzioni pubbliche o strategiche importanti, anche con riferimento alla gestione della protezione civile in caso di calamità. Industrie con attività particolarmente pericolose per l'ambiente. Reti viarie di tipo A o B, di cui al D.M. 5 novembre 2001, n. 6792, "Norme funzionali e geometriche per la costruzione delle strade", e di tipo C quando appartenenti ad itinerari di collegamento tra capoluoghi di provincia non altresì serviti da strade di tipo A o B. Ponti e reti ferroviarie di importanza critica per il mantenimento delle vie di comunicazione, particolarmente dopo un evento sismico. Dighe connesse al funzionamento di acquedotti e a impianti di produzione di energia elettrica.

- Coefficiente di utilizzo dell'opera: **1,50**

Tab. 2.4.II – *Valori del coefficiente d'uso* C_U

CLASSE D'USO	I	II	III	IV
COEFFICIENTE C_U	0,7	1,0	1,5	2,0

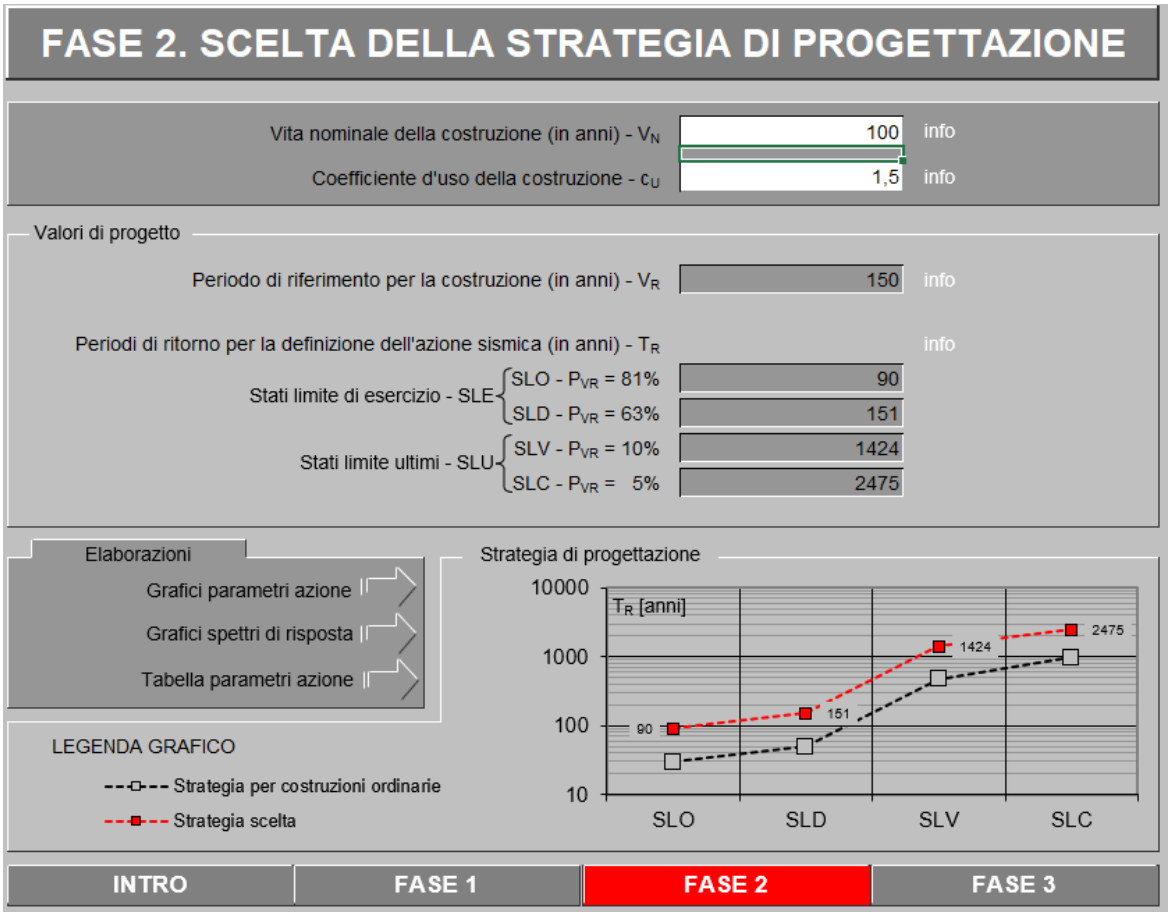
- Vita di riferimento dell'opera: **150 anni**

2.4.3 PERIODO DI RIFERIMENTO PER L'AZIONE SISMICA

Le azioni sismiche su ciascuna costruzione vengono valutate in relazione ad un periodo di riferimento V_R che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale V_N per il coefficiente d'uso C_U :

$$V_R = V_N \cdot C_U \qquad (2.4.1)$$

Qui di seguito si riporta la sintesi delle scelte progettuali adottati con i tempi di ritorno dell'azione sismica identificati in funzione del singolo stato limite.



6.3 PARAMETRI DI CALCOLO

6.3.1 PARAMETRI NUMERICI SISMICI

Sono stati definiti e utilizzati nei calcoli 3 differenti spettri di risposta di progetto:

- Spettro di progetto elastico valutato per lo Stato Limite di Salvaguardia della Vita (SLV) per la valutazione delle azioni sismiche dovute alla massa delle sottostrutture e del terreno e dei sovraccarichi direttamente gravanti su di esse.
- Spettro di progetto "smorzato" (per la presenza dell'isolamento sismico alla base dell'impalcato) valutato per lo Stato Limite di Salvaguardia della Vita (SLV) per la valutazione delle azioni sismiche dovute alla massa dell'impalcato e ai sovraccarichi su esso agenti e trasmessi dagli isolatori sismici alle sottostrutture inferiori.
- Spettro di progetto "smorzato" (per la presenza dell'isolamento sismico alla base dell'impalcato) valutato allo Stato Limite di Collasso per il dimensionamento degli isolatori sismici e la verifica dello spostamento di progetto degli stessi.

Nella tabella successiva sono riportati i parametri numerici sismici per i periodi di ritorno associati ai diversi Stati Limite:

SLATO LIMITE	T_R [anni]	a_g [g]	F_o [-]	T_C^* [s]
SLO	90	0,043	2,553	0,228
SLD	151	0,053	2,549	0,243
SLV	1424	0,115	2,600	0,286
SLC	2475	0,136	2,626	0,292

6.3.2 CATEGORIA DEI TERRENI DI FONDAZIONE E CATEGORIA TOPOGRAFICA

Ai sensi di quanto riportato nella Relazione Geotecnica e all'interno dei profili geotecnici allegati al presente progetto esecutivo il terreno di fondazione è classificato simicamente come di **categoria B**.

Tabella 3.2.II – *Categorie di sottosuolo*

Categoria	Descrizione
A	*Ammassi rocciosi affioranti o terreni molto rigidi* caratterizzati da valori di $V_{s,30}$ superiori a 800 m/s, eventualmente comprendenti in superficie uno strato di alterazione, con spessore massimo pari a 3 m.
B	*Rocce tenere e depositi di terreni a grana grossa molto addensati o terreni a grana fina molto consistenti* con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di $V_{s,30}$ compresi tra 360 m/s e 800 m/s (ovvero $N_{SPT,30} > 50$ nei terreni a grana grossa e $c_{u,30} > 250$ kPa nei terreni a grana fina).
C	*Depositi di terreni a grana grossa mediamente addensati o terreni a grana fina mediamente consistenti* con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di $V_{s,30}$ compresi tra 180 m/s e 360 m/s (ovvero $15 < N_{SPT,30} < 50$ nei terreni a grana grossa e $70 < c_{u,30} < 250$ kPa nei terreni a grana fina).
D	*Depositi di terreni a grana grossa scarsamente addensati o di terreni a grana fina scarsamente consistenti,* con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di $V_{s,30}$ inferiori a 180 m/s (ovvero $N_{SPT,30} < 15$ nei terreni a grana grossa e $c_{u,30} < 70$ kPa nei terreni a grana fina).
E	*Terreni dei sottosuoli di tipo C o D per spessore non superiore a 20 m,* posti sul substrato di riferimento (con $V_s > 800$ m/s).

6.3.3 CATEGORIA DEI TERRENI DI FONDAZIONE E CATEGORIA TOPOGRAFICA

Considerando che il territorio si presenta essenzialmente pianeggiante e privo di significati salti di quota la categoria topografica del sito è stata assunta pari a **categoria T_1**.

Tabella 3.2.IV – *Categorie topografiche*

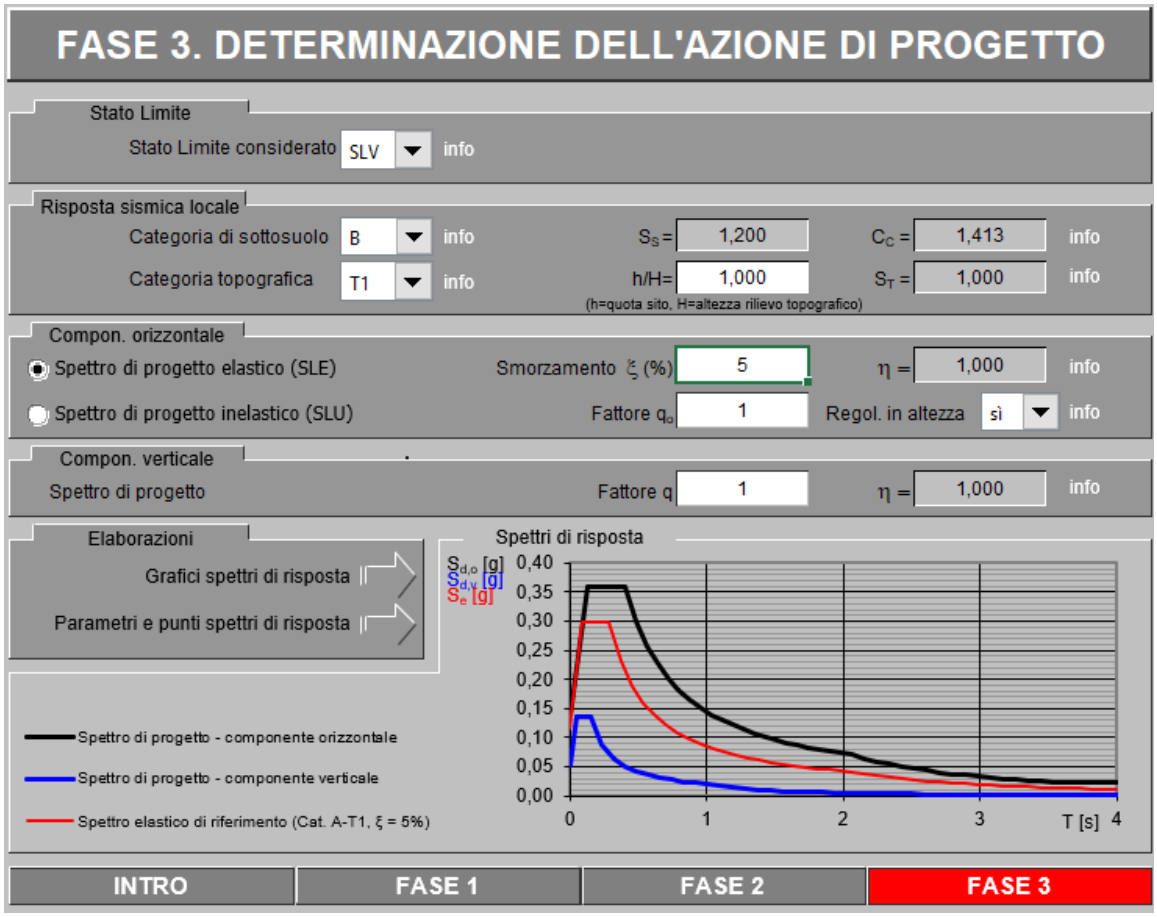
Categoria	Caratteristiche della superficie topografica
T1	Superficie pianeggiante, pendii e rilievi isolati con inclinazione media $i \leq 15°$
T2	Pendii con inclinazione media $i > 15°$
T3	Rilievi con larghezza in cresta molto minore che alla base e inclinazione media $15° \leq i \leq 30°$
T4	Rilievi con larghezza in cresta molto minore che alla base e inclinazione media $i > 30°$

6.3.4 FATTORI DI STRUTTURA

A favore di sicurezza il calcolo e le verifiche sono stati effettuati in campo elastico.
Il fattore di struttura è stato pertanto posto pari a **q = 1,00**.

6.4 DEFINIZIONE DELLO SPETTRO DI PROGETTO ELASTICO PER LO SLV

Nell'immagine successiva è riportata la determinazione dei parametri dello spettro di risposta elastico valutato per lo Stato Limite di Salvaguardia della Vita (SLV):



Nella tabella successiva sono riportati analiticamente i parametri sismici ed i valori delle accelerazioni normalizzate in funzione del periodo di vibrazione:

Parametri e punti dello spettro di risposta orizzontale per lo stato SLV

Parametri indipendenti

STATO LIMITE	SLV
a_g	0,115 g
F_o	2,600
T_C^*	0,286 s
S_S	1,200
C_C	1,413
S_T	1,000
q	1,000

Parametri dipendenti

S	1,200
η	1,000
T_B	0,135 s
T_C	0,405 s
T_D	2,060 s

Espressioni dei parametri dipendenti

$S = S_S \cdot S_T$ (NTC-08 Eq. 3.2.5)

$\eta = \sqrt{10/(5+\xi)} \geq 0{,}55; \ \eta = 1/q$ (NTC-08 Eq. 3.2.6; §. 3.2.3.5)

$T_B = T_C / 3$ (NTC-07 Eq. 3.2.8)

$T_C = C_C \cdot T_C^*$ (NTC-07 Eq. 3.2.7)

$T_D = 4{,}0 \cdot a_g / g + 1{,}6$ (NTC-07 Eq. 3.2.9)

Espressioni dello spettro di risposta (NTC-08 Eq. 3.2.4)

$$0 \leq T < T_B \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o} \left(1 - \frac{T}{T_B} \right) \right]$$

$$T_B \leq T < T_C \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o$$

$$T_C \leq T < T_D \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C}{T} \right)$$

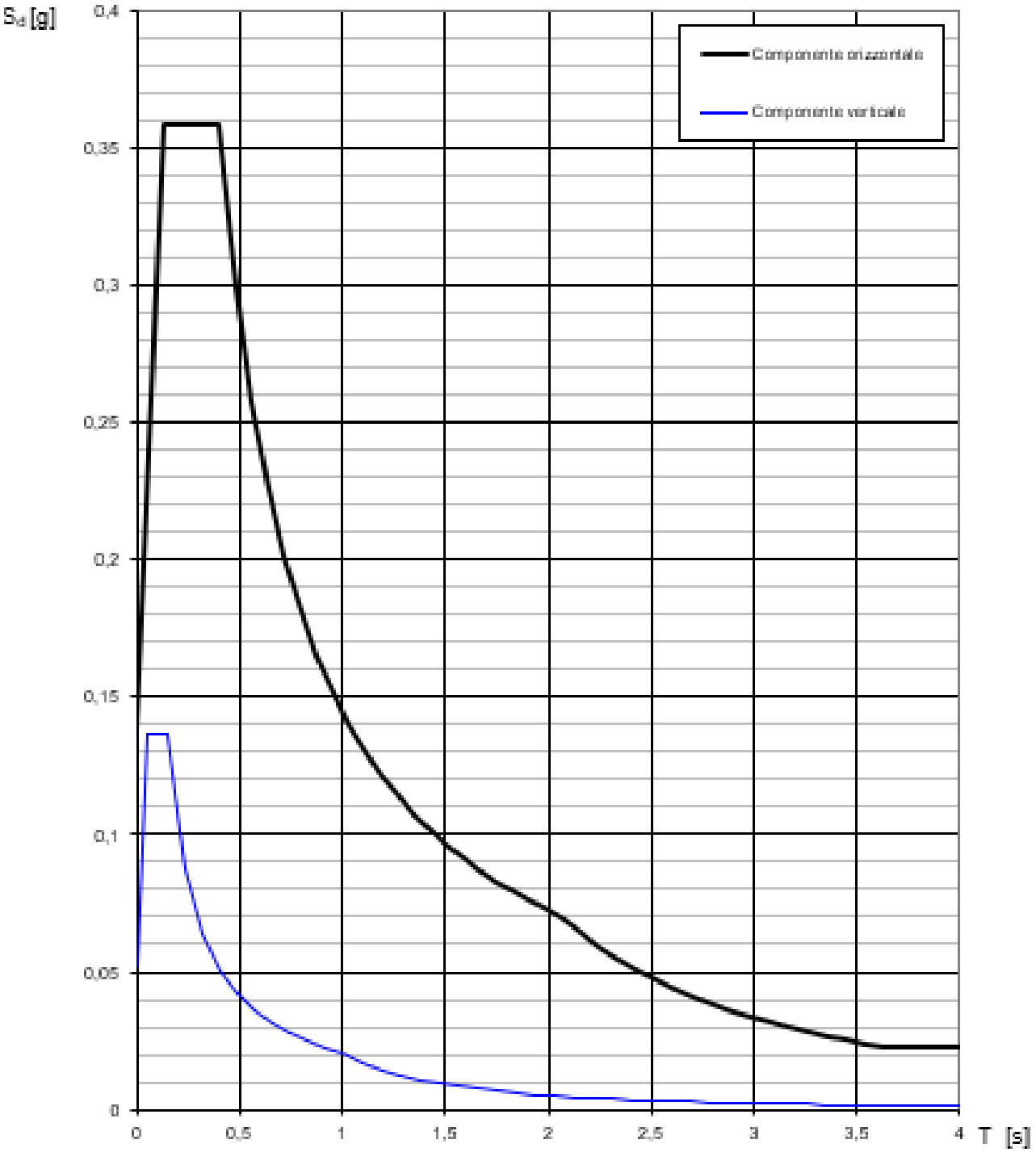
$$T_D \leq T \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C T_D}{T^2} \right)$$

Lo spettro di progetto $S_d(T)$ per le verifiche agli Stati Limite Ultimi è ottenuto dalle espressioni dello spettro elastico $S_e(T)$ sostituendo η con $1/q$, dove q è il fattore di struttura. (NTC-08 § 3.2.3.5)

Punti dello spettro di risposta

	T [s]	Se [g]
	0,000	0,138
T_B	0,135	0,359
T_C	0,405	0,359
	0,483	0,300
	0,562	0,258
	0,641	0,226
	0,720	0,201
	0,799	0,182
	0,877	0,165
	0,956	0,152
	1,035	0,140
	1,114	0,130
	1,193	0,122
	1,271	0,114
	1,350	0,107
	1,429	0,101
	1,508	0,096
	1,587	0,091
	1,666	0,087
	1,744	0,083
	1,823	0,080
	1,902	0,076
	1,981	0,073
T_D	2,060	0,070
	2,152	0,065
	2,244	0,059
	2,337	0,055
	2,429	0,051
	2,522	0,047
	2,614	0,044
	2,706	0,041
	2,799	0,038
	2,891	0,036
	2,984	0,034
	3,076	0,032
	3,168	0,030
	3,261	0,028
	3,353	0,027
	3,446	0,025
	3,538	0,024
	3,630	0,023
	3,723	0,023
	3,815	0,023
	3,908	0,023
	4,000	0,023

Nell'immagine successiva è riportato il diagramma dello spettro di risposta per lo Stato Limite di Salvaguardia della Vita:



7 ANALISI DEI CARICHI

7.1 PESO PROPRIO DELLE STRUTTURE IN CEMENTO ARMATO

7.1.1 STRUTTURE IN CALCESTRUZZO ARMATO

Il peso per unità di volume del cemento armato è assunto pari a **25,00 kN/m³**.

7.1.2 STRUTTURE IN CARPENTERIA METALLICA

Il peso per unità di volume dell'acciaio da carpenteria è assunto pari a **78,50 kN/m³**.

7.2 SPINTA LATERALE DEI TERRENI A TERGO DELLE PARATIE

La spinta dei terreni a tergo delle paratie è valutata in condizioni di equilibrio limite attivo dei terreni.

La spinta attiva dei terreni viene pertanto valutata mediante la seguente relazione:

$$S_t = \frac{1}{2} \cdot \gamma \cdot k_a \cdot H^2$$

dove:

- γ è il peso per unità di volume del terreno
- k_a è il coefficiente di spinta attiva, valutato mediante la formulazione di Coulomb:

$$k_a = \frac{sen^2(\beta + \varphi)}{sen^2\beta \cdot sen(\beta - \delta) \cdot \left[1 + \sqrt{\frac{sen(\varphi + \delta) \cdot sen(\varphi - \varepsilon)}{sen(\beta - \delta) \cdot sen(\beta + \varepsilon)}}\right]}$$

con:

- φ = angolo di attrito interno
- β = inclinazione del paramento di monte rispetto all'orizzontale
- δ = angolo di attrito terra – muro
- ε = inclinazione del terreno di monte rispetto all'orizzontale

- H è l'altezza complessiva dello strato di terreno.

7.3 SPINTA DEI SOVRACCARICHI ACCIDENTALI A TERGO DELLE PARATIE

La spinta sovraccarichi accidentali a tergo delle paratie è valutata in condizioni di equilibrio limite attivo dei terreni.

La spinta attiva dei sovraccarichi accidentali viene pertanto valutata mediante la seguente relazione:

$$S_q = q \cdot k_a \cdot H$$

dove:

- q è l'entità del sovraccarico accidentale a tergo delle paratie
- k_a è il coefficiente di spinta attiva, valutato mediante la formulazione di Coulomb:

$$k_a = \frac{sen^2(\beta + \varphi)}{sen^2\beta \cdot sen(\beta - \delta) \cdot \left[1 + \sqrt{\frac{sen(\varphi + \delta) \cdot sen(\varphi - \varepsilon)}{sen(\beta - \delta) \cdot sen(\beta + \varepsilon)}}\right]}$$

con:

- φ = angolo di attrito interno
- β = inclinazione del paramento di monte rispetto all'orizzontale
- δ = angolo di attrito terra – muro
- ε = inclinazione del terreno di monte rispetto all'orizzontale

- H è l'altezza complessiva dello strato di terreno.

Per le paratie di micropali a protezione degli scavi per la realizzazione delle opere di fondazione delle nuove sottostrutture verrà considerato forfettariamente un sovraccarico accidentale pari a **q = 10,00 kN/m^2** per tener conto dell'eventuale presenza di mezzi d'opera.

7.4 AZIONE SISMICA

L'azione sismica è stata applicata mediante un'analisi pseudo - statica basata sul Metodo di Wood.

8 COMBINAZIONI DI CARICO

8.1 COMBINAZIONI DI CARICO STATICHE

8.1.1 COMBINAZIONI DI CARICO ALLO STATO LIMITE DI ESERCIZIO – COMBINAZIONI QUASI PERMANENTI

Per le combinazioni di carico statiche relative alla struttura in oggetto si è fatto riferimento a quanto riportato nel capitolo nel D.M. 17.01.2018 "Norme Tecniche per le Costruzioni", par. 2.5.3.

Sulla base di ciò sono state individuate le combinazioni di carico statiche quasi permanenti allo Stato Limite di Esercizio, ottenute tramite la relazione generale:

$$F_d = \sum G_{kj} + \sum (\psi_{2i} \cdot Q_{ki})$$

- G_{kj} rappresenta il valore caratteristico della j-esima azione permanente
- Q_{ki} rappresenta il valore caratteristico della i-esima azione variabile
- Ψ_{2i} rappresentano i coefficienti di combinazione per tener conto della ridotta probabilità di concomitanza delle azioni variabili con i loro valori quasi permanenti

8.1.2 COMBINAZIONI DI CARICO ALLO STATO LIMITE DI ESERCIZIO – COMBINAZIONI FREQUENTI

Per le combinazioni di carico statiche relative alla struttura in oggetto si è fatto riferimento a quanto riportato nel capitolo nel D.M. 17.01.2018 "Norme Tecniche per le Costruzioni", par. 2.5.3.

Sulla base di ciò sono state individuate le combinazioni di carico statiche frequenti allo Stato Limite di Esercizio, ottenute tramite la relazione generale:

$$F_d = \sum G_{kj} + \psi_{11} \cdot Q_{k1} + \sum (\psi_{2i} \cdot Q_{ki})$$

- G_{kj} rappresenta il valore caratteristico della j-esima azione permanente
- Q_{k1} rappresenta il valore caratteristico dell'azione variabile di base in ogni combinazione
- Q_{ki} rappresenta il valore caratteristico della i-esima azione variabile
- Ψ_{1i} rappresentano i coefficienti di combinazione per tener conto della ridotta probabilità di concomitanza delle azioni variabili con i loro valori frequenti

8.1.3 COMBINAZIONI DI CARICO ALLO STATO LIMITE DI ESERCIZIO – COMBINAZIONI CARATTERISTICHE

Per le combinazioni di carico statiche relative alla struttura in oggetto si è fatto riferimento a quanto riportato nel capitolo nel D.M. 17.01.2018 "Norme Tecniche per le Costruzioni" par. 2.5.3.

Sulla base di ciò sono state individuate le combinazioni di carico statiche caratteristiche allo Stato Limite di Esercizio, ottenute tramite la relazione generale:

$$F_d = \sum G_{kj} + Q_{k1} + \sum (\psi_{0i} \cdot Q_{ki})$$

- G_{kj} rappresenta il valore caratteristico della j-esima azione permanente
- Q_{k1} rappresenta il valore caratteristico dell'azione variabile di base in ogni combinazione
- Q_{ki} rappresenta il valore caratteristico della i-esima azione variabile
- Ψ_{0i} rappresentano i coefficienti di combinazione per tener conto della ridotta probabilità di concomitanza delle azioni variabili con i loro valori caratteristici

8.1.4 COMBINAZIONI DI CARICO ALLO STATO LIMITE ULTIMO

Per le combinazioni di carico statiche relative alla struttura in oggetto si è fatto riferimento a quanto riportato nel capitolo nel D.M. 17.01.2018 "Norme Tecniche per le Costruzioni", par. 2.5.3.

Sulla base di ciò sono state individuate le combinazioni di carico statiche allo Stato Limite Ultimo, ottenute tramite la relazione generale:

$$F_d = \sum_{j=1}^{m} \left(\gamma_{Gj} \cdot G_{kj} \right) + \gamma_{Q1} \cdot Q_{k1} + \sum_{i=2}^{n} \left(\psi_{0i} \cdot \gamma_{Qi} \cdot Q_{ki} \right)$$

dove:

- γ_G e γ_Q rappresentano i coefficienti parziali di amplificazione dei carichi
- G_{kj} rappresenta il valore caratteristico della j-esima azione permanente
- Q_{k1} rappresenta il valore caratteristico dell'azione variabile di base in ogni combinazione
- Q_{ki} rappresenta il valore caratteristico della i-esima azione variabile
- Ψ_{0i} rappresentano i coefficienti di combinazione per tener conto della ridotta probabilità di concomitanza delle azioni variabili con i loro valori caratteristici

9 PARATIA PALI Ø600 – MODELLO DI CALCOLO E VALUTAZIONE DELLE AZIONI SOLLECITANTI

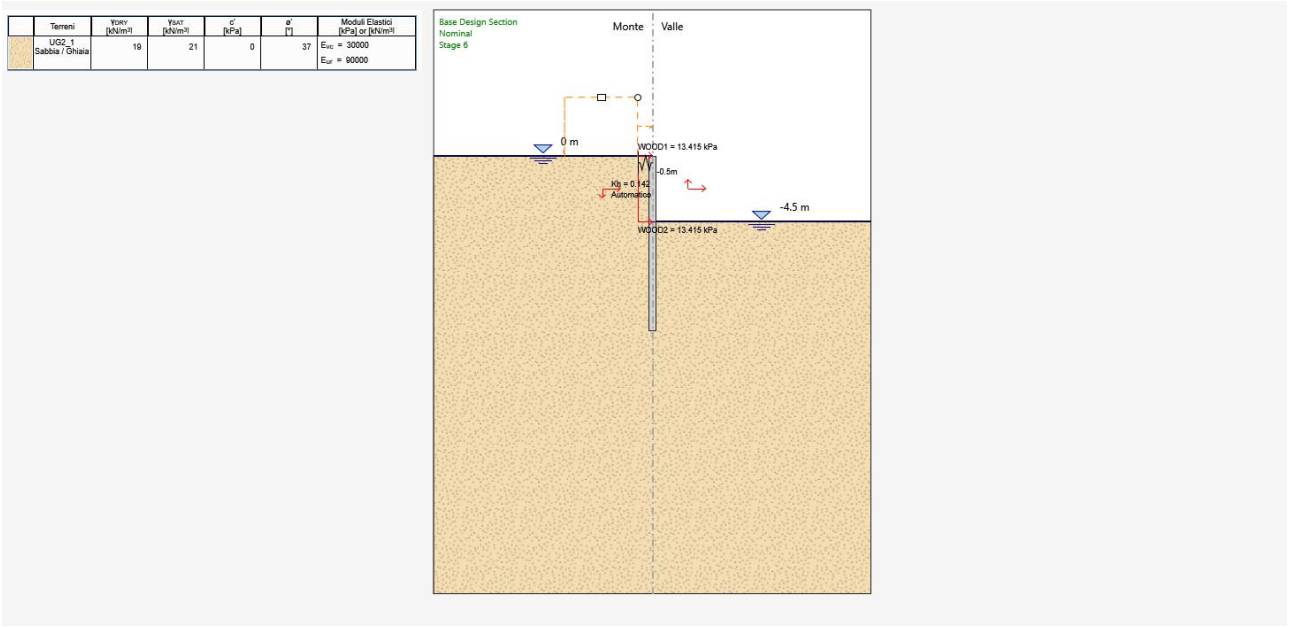
9.1 MODELLO DI CALCOLO

Al fine della valutazione delle azioni sollecitanti è stato approntato un apposito modello di calcolo mediante il software **Paratie Plus 2018** (CeAS).

Nel modello di calcolo è stato valutato il comportamento di una paratia di pali **Ø600** tangenti, di lunghezza pari a **12,0 m**. La paratia è sormontata da un cordolo di testa a sezione quadrata **100 x 100 cm**. La paratia definisce una sezione interna chiusa **6,60 m x 13,80 m** (misurata in asse pali).

La presenza del cordolo di testa (trattandosi di sezione chiusa) è stata considerata inserendo una molla in testa con rigidezza pari a alla rigidezza del cordolo (valutata secondo lo schema ti trave a campata unica semplicemente appoggiata agli estremi di lunghezza pari alla lunghezza del lato lungo della sezione chiusa → **13,80 m**).

Nell'immagine successiva è riportata la fase finale del modello:



9.2 VALUTAZIONE DELLA COSTANTE DI RIGIDEZZA DELLE MOLLE ORIZZONTALI EQUIVALENTI

Viene preso in esame uno schema statico di trave a campata unica semplicemente appoggiata agli estremi (costituiti dai lati corti della paratia di pali).

Si considera la trave caricata da un'azione orizzontale lineare unitaria.

La freccia massima di una trave a campata unica semplicemente appoggiata agli estremi è determinata mediante la seguente relazione:

$$f = \frac{5}{384} \cdot \frac{p \cdot L^4}{E \cdot J} \rightarrow f = \frac{5}{384} \cdot \frac{1,00 \cdot 13,80^4}{31.220,19 \cdot 10^3 \cdot 0,083} = 0,000184\ m$$

La rigidezza della molla elastica mediante la quale è schematizzato il cordolo di testa è pari a:

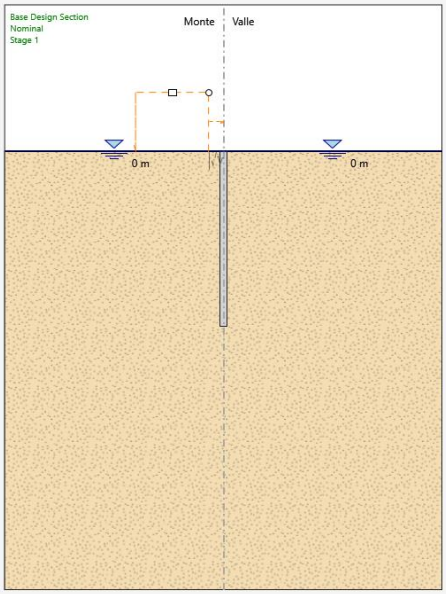
$$k = \frac{p}{f} \rightarrow k = \frac{1,00}{0,000184} = 5.424,13 \frac{kN/m}{m}$$

9.3 FASI DI REALIZZAZIONE

FASE 1 (geostatica)

- Esecuzione dei pali Ø600
- Falda a monte e falda a valle a piano campagna

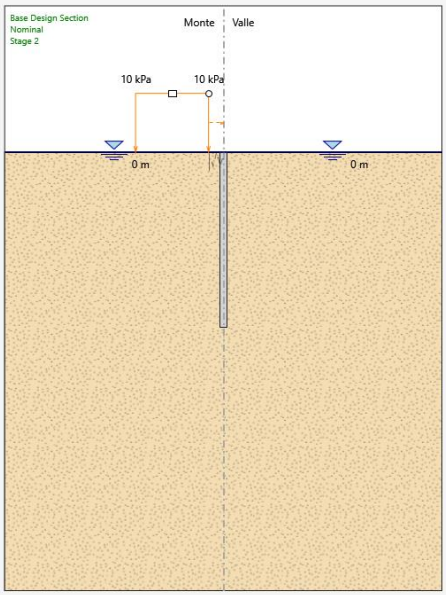
	Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	φ' [°]	Moduli Elastici [kPa] or [kN/m³]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{UR} = 90000



FASE 2

- Applicazione del sovraccarico accidentale a tergo della paratia
- Falda a monte e falda a valle a piano campagna

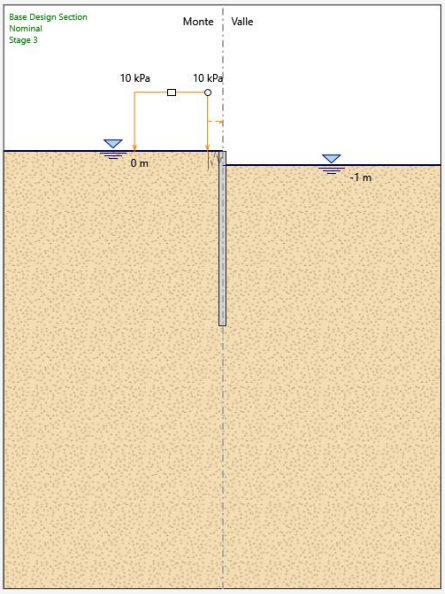
	Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	φ' [°]	Moduli Elastici [kPa] or [kN/m³]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{UR} = 90000



FASE 3

- Scavo fino a quota -1,00 m dal piano di campagna
- Falda a monte a piano campagna e falda a valle a quota -1,00 m rispetto al piano campagna

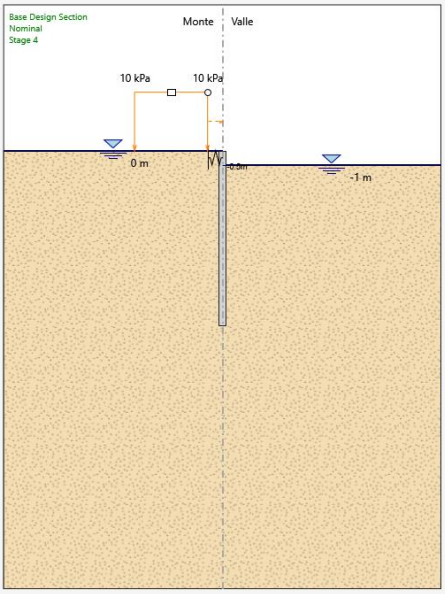
	Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	a' [°]	Moduli Elastici [kPa] or [kN/m²]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{inc} = 30000 E_{ref} = 90000



FASE 4

- Realizzazione del cordolo di testa
- Falda a monte a piano campagna e falda a valle a quota -1,00 m rispetto al piano campagna

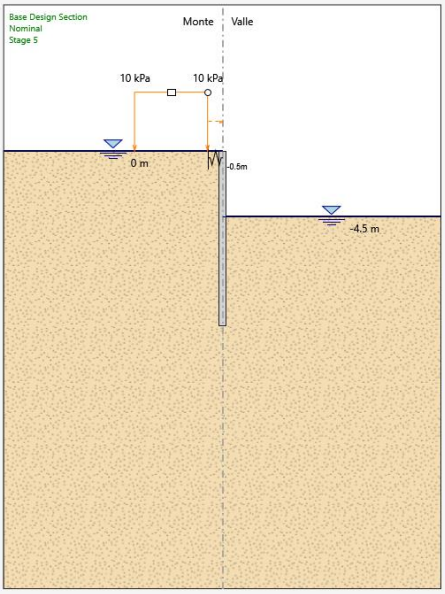
	Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	a' [°]	Moduli Elastici [kPa] or [kN/m²]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{inc} = 30000 E_{ref} = 90000



FASE 5

- Scavo fino a quota -4,50 m dal piano di campagna
- Falda a monte a piano campagna e falda a valle a quota -4,50 m rispetto al piano campagna

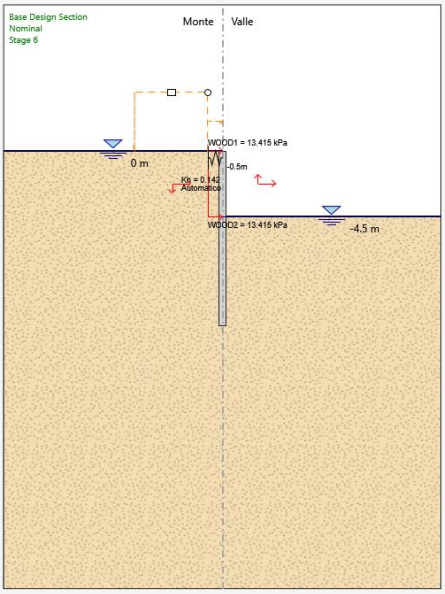
	Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	a' [°]	Moduli Elastici [kPa] or [kN/m²]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{UR} = 90000



FASE 6

- Applicazione dell'azione sismica
- Falda a monte a piano campagna e falda a valle a quota -4,50 m rispetto al piano campagna

	Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	a' [°]	Moduli Elastici [kPa] or [kN/m²]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{UR} = 90000

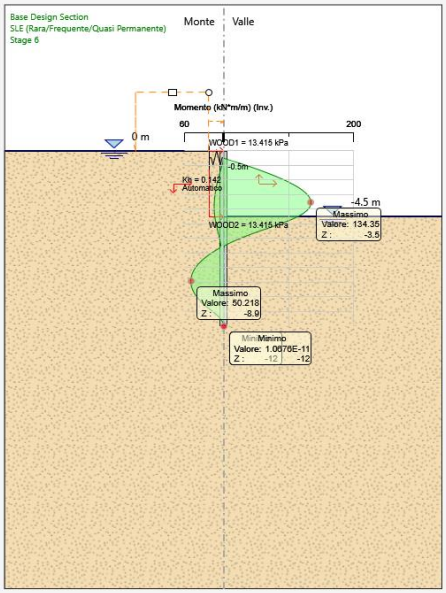


9.4 VALUTAZIONE DELLE AZIONI SOLLECITANTI SULLA PARATIA DI MICROPALI

9.4.1 COMBINAZIONE SLE – CARATTERISTICA

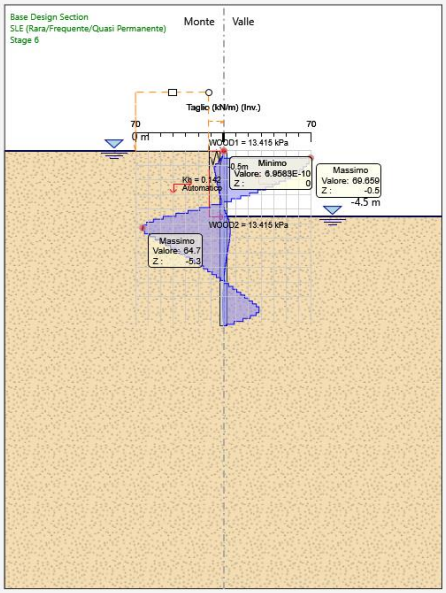
Nel diagramma successivo è riportato l'andamento dell'inviluppo del momento flettente risultante, valutato per una larghezza unitaria di paratia:

	Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	φ' [°]	Moduli Elastici [kPa] or [kN/m³]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{ur} = 90000



Nel diagramma successivo è riportato l'andamento dell'inviluppo dell'azione tagliante, valutato per una larghezza unitaria di paratia:

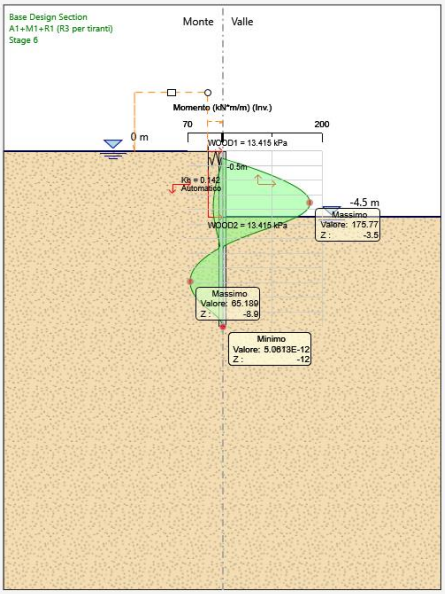
	Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	φ' [°]	Moduli Elastici [kPa] or [kN/m³]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{ur} = 90000



9.4.2 COMBINAZIONE SLU – STR

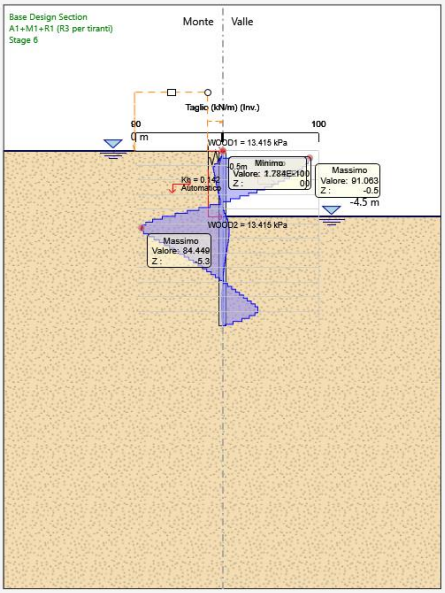
Nel diagramma successivo è riportato l'andamento dell'inviluppo del momento flettente risultante, valutato per una larghezza unitaria di paratia:

	Terreni	γ_{DRY} [kN/m³]	γ_{SAT} [kN/m³]	c' [kPa]	a' [°]	Moduli Elastici [kPa] or [kN/m³]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{UR} = 90000



Nel diagramma successivo è riportato l'andamento dell'inviluppo dell'azione tagliante, valutato per una larghezza unitaria di paratia:

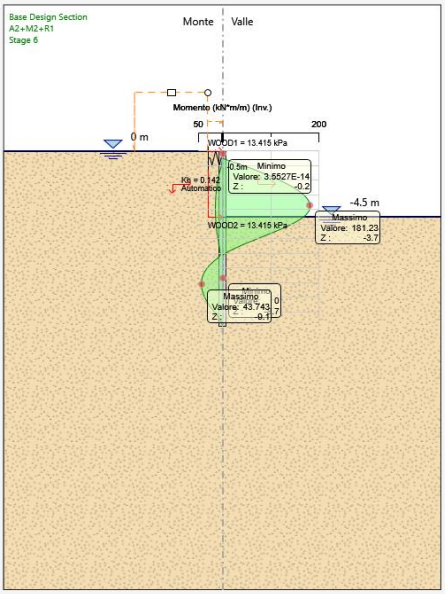
	Terreni	γ_{DRY} [kN/m³]	γ_{SAT} [kN/m³]	c' [kPa]	a' [°]	Moduli Elastici [kPa] or [kN/m³]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{UR} = 90000



9.4.3 COMBINAZIONE SLU – GEO

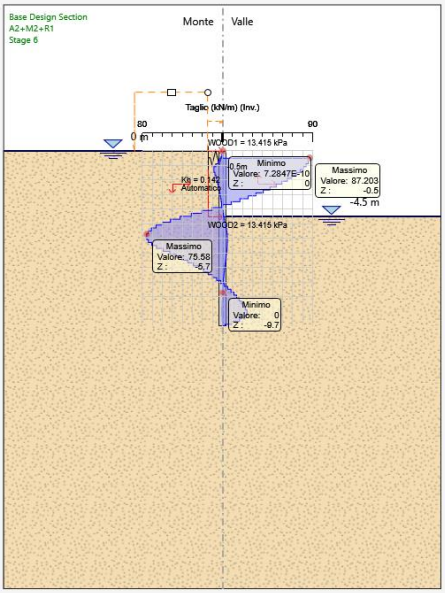
Nel diagramma successivo è riportato l'andamento dell'inviluppo del momento flettente risultante, valutato per una larghezza unitaria di paratia:

	Terreni	γ_{DRY} [kN/m³]	γ_{SAT} [kN/m³]	c' [kPa]	a' [°]	Moduli Elastici [kPa] or [kN/m³]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{ur} = 90000



Nel diagramma successivo è riportato l'andamento dell'inviluppo dell'azione tagliante, valutato per una larghezza unitaria di paratia:

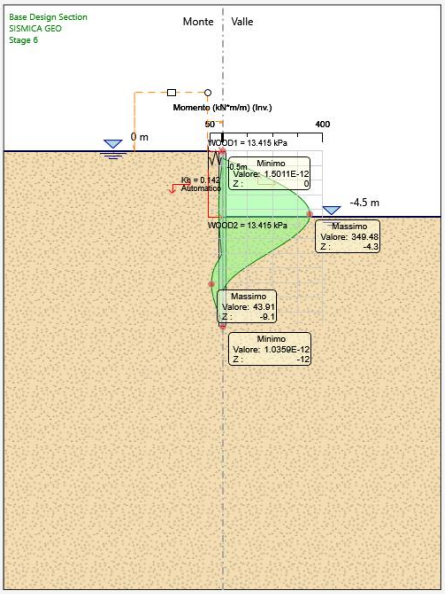
	Terreni	γ_{DRY} [kN/m³]	γ_{SAT} [kN/m³]	c' [kPa]	a' [°]	Moduli Elastici [kPa] or [kN/m³]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{ur} = 90000



9.4.4 COMBINAZIONE SLV

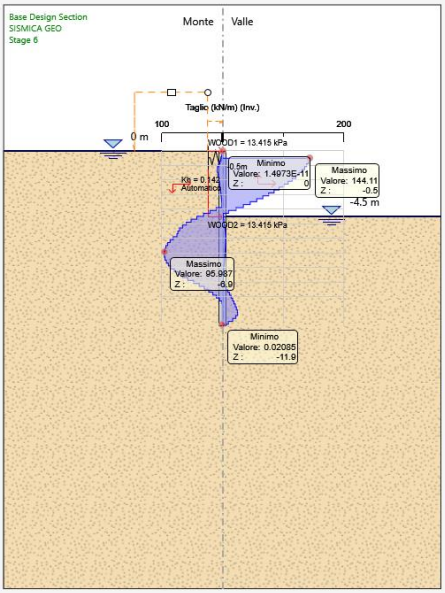
Nel diagramma successivo è riportato l'andamento dell'inviluppo del momento flettente risultante, valutato per una larghezza unitaria di paratia:

	Terreni	γ_{DRY} [kN/m³]	γ_{SAT} [kN/m³]	c' [kPa]	a' [°]	Moduli Elastici [kPa] or [kN/m³]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{ur} = 90000



Nel diagramma successivo è riportato l'andamento dell'inviluppo dell'azione tagliante, valutato per una larghezza unitaria di paratia:

	Terreni	γ_{DRY} [kN/m³]	γ_{SAT} [kN/m³]	c' [kPa]	a' [°]	Moduli Elastici [kPa] or [kN/m³]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{ur} = 90000



9.5 RIEPILOGO DELLE AZIONI SOLLECITANTI SUI PALI Ø600

Nella tabella successiva sono riepilogati i valori massimi delle azioni sollecitanti, valutate per una striscia di lunghezza unitaria di paratia, per le differenti combinazioni di carico considerate:

COMBINAZIONE	M_{Sd} [kNm/m]	V_{Sd} [kN/m]
SLE - CARATTERISTICA	134,35	69,66
SLU - STR	175,77	91,06
SLU - GEO	181,23	87,20
SLV	349,48	144,11

Nella tabella successiva sono riepilogati i valori massimi delle azioni sollecitanti, valutate per singolo micropalo, per le differenti combinazioni di carico considerate:

COMBINAZIONE	M_{Sd} [kNm/m]	V_{Sd} [kN/m]
SLE - CARATTERISTICA	80,61	41,80
SLU - STR	105,46	54,64
SLU - GEO	108,74	52,32
SLV	209,69	86,47

10 PARATIA DI PALI – VERIFICA STRUTTURALE DEI PALI Ø600

10.1 SEZIONE RESISTENTE E ARMATURA DI VERIFICA

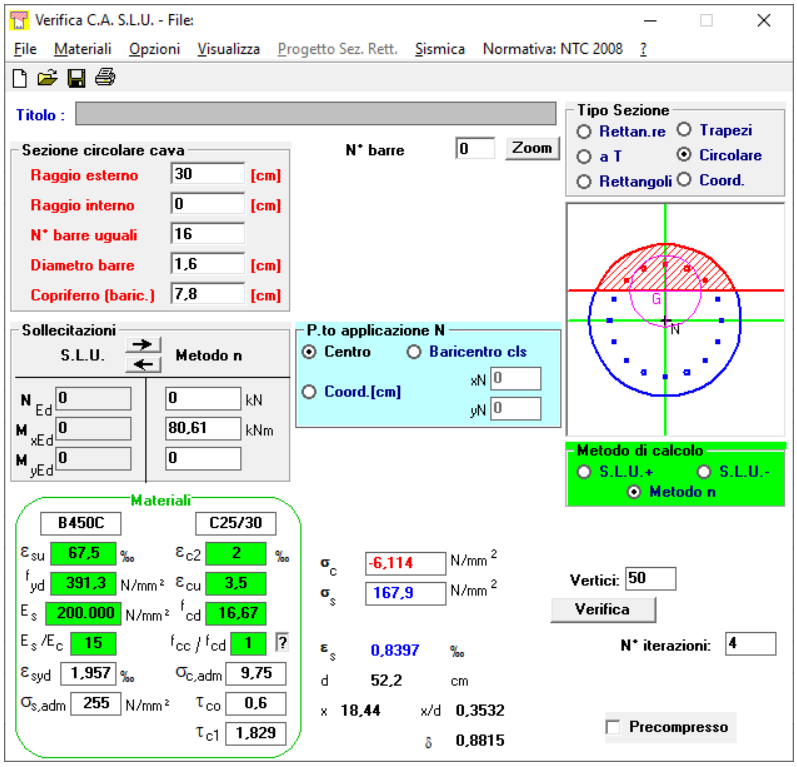
La sezione resistente è circolare con diametro pari a **600 cm**. L'armatura longitudinale è costituita da:

- **12Ø16** disposti a raggera

L'armatura a taglio è costituita da una spirale **Ø10/15**. Il copriferro minimo è assunto pari a **60 mm.**

10.2 VERIFICA ALLO STATO LIMITE DI LIMITAZIONE DELLE TENSIONI

Il momento flettente di calcolo è assunto pari a **M_{Sd} = 80,61 kNm**.



Le tensioni sui materiali risultano pari a:

- **σ_c = 6,11 N/mm² < 0,60 · f_{ck} = 14,73 N/mm²**
- **σ_s = 167,90 N/mm² < 0,80 · f_{yk} = 360,00 N/mm²**

La verifica risulta pertanto soddisfatta.

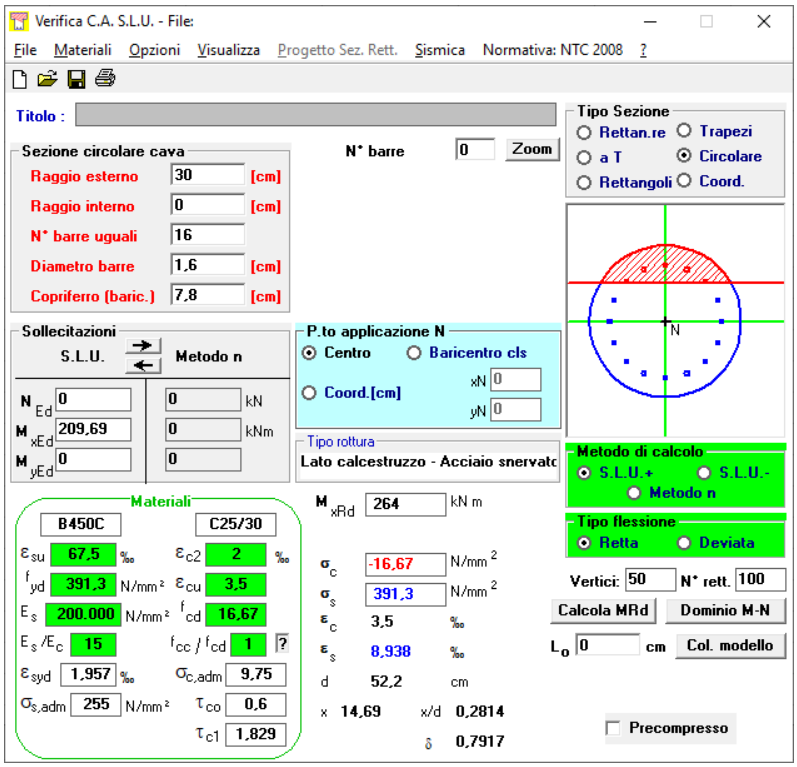
10.3 VERIFICA ALLO STATO LIMITE DI FESSURAZIONE

Dati	Verica fessurazione sezione circolare CIRCOLARE 2/02/2009 N°617 Par.C.4.1.2.2.4.6	
ϑ_s	168 N/mm²	*Tensione massima armatura tesa sezione fessurata*
Rck	30,0 N/mm²	*Resistenza caratteristica cubica cls*
ϕ_l	16 mm	*Diametro barre longitudinali*
ϕ_s	10 mm	*Diametro staffe o spirale*
n	16	*Numero ferri longitudinali*
c	60 mm	*Ricoprimento del calcestruzzo*
D	600 mm	*Diametro*
k_t	0,4	*kt=0,6 ;0,4 carichi breve durata/lunga durata*
k_2	0,5	*k2=0,5 ;1,0 caso flessione/trazione semplice*
k_1	0,8	*k1=0,8 ;1,6 barre aderenza migliorata/lisce*
w	0,3 mm	*Valore limite apertura fessure*
Dati		
fck	24,9 N/mm²	*Resistenza caratteristica cilindrica cls*
i	87 mm	*Interasse ferri longitudinali*
A_ϕ	201 mm²	*Area barra longitudinale*
E_s	210000,0 N/mm²	*Modulo elastico acciaio da c.a*
f_{ctm}	2,6 N/mm²	*Resistenza a trazione media cls*
E_{cm}	31447,2 N/mm²	*Modulo elastico medio cls*
α_e	6,68	*Rapporto Es/Ecm*
f_{cm}	32,9 N/mm²	*Resistenza media cls*
ρ_{eff}	0,0170	*Rapporto area acciaio/area efficace*
ε_{sm1}	0,000480	*Deformazione unitaria media barre di calcolo*
ε_{sm2}	0,000480	*Deformazione unitaria media barre valore minimo*
ε_{sm}	0,000480	*Deformazione unitaria media*
k_3	3,4	*Coefficiente*
k4	0,4	*Coefficiente*
Δsmax	364,4 mm	*Distanza massima tra le fessure*
w_d	✓ 0,175 mm	*Valore di calcolo apertura fessure*

10.4 VERIFICA ALLO STATO LIMITE ULTIMO PER FLESSIONE RETTA

La combinazione di carico maggiormente gravosa è risultata la combinazione **SLV**.

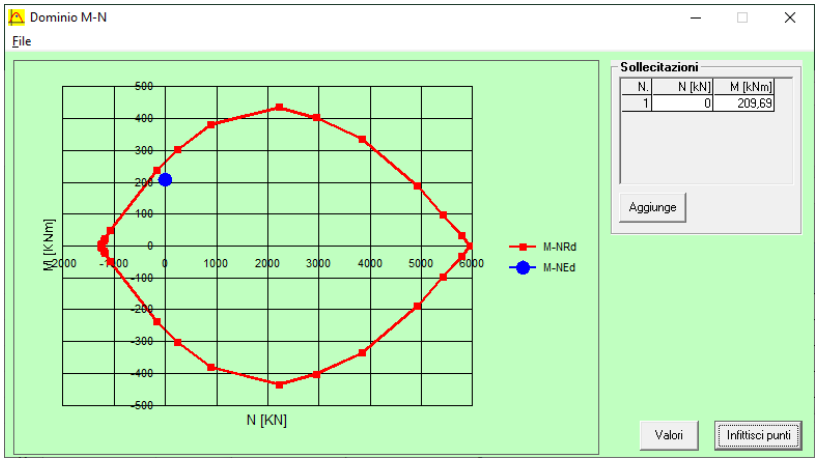
Il momento flettente di calcolo è assunto pari a **M_{Sd} = 209,69 kNm**.



Il momento resistente risulta pari a:

M_{Sd} = 264,00 kNm > M_{Sd} = 209,69 kNm

Nell'immagine successiva è riportato il dominio di resistenza della sezione:



La verifica risulta pertanto soddisfatta.

10.5 VERIFICA ALLO STATO LIMITE ULTIMO PER TAGLIO

La verifica verrà condotta su una sezione quadrata equivalente di lato pari a **53,17 cm** (equivalenza di area). La combinazione di carico maggiormente gravosa è risultata la combinazione **SLV**. L'azione tagliante di calcolo è assunta pari a **V_{Sd} = 86,47 kN**.

VERIFICA ALLO STATO LIMITE ULTIMO PER TAGLIO - ELEMENTI CON ARMATURE TRASVERSALI RESISTENTI AL TAGLIO D.M. 17.01.2018 - CAPITOLO 4.1.2.3.5.2			
CARATTERISTICHE GEOMETRICHE DELLA SEZIONE			
Base della zezione trasversale:	b	53,17	[cm]
Altezza della sezione trasversale:	h	53,17	[cm]
Copriferro netto:	c	6,00	[cm]
Altezza utile della sezione:	d	47,17	[cm]
CARATTERISTICHE DEI MATERIALI			
Classe di resistenza del calcestruzzo:		C25/30	
Resistenza caratteristica cubica a compressione:	R_{ck}	30,00	[N/mm^2]
Resistenza caratteristica cilindrica a compressione:	f_{ck}	24,90	[N/mm^2]
Resistenza di calcolo a compressione:	f_{cd}	14,11	[N/mm^2]
Tipologia dell'acciaio da armatura:		B450C	
Tensione caratteristica di rottura:	f_{tk}	540,00	[N/mm^2]
Tensione caratteristica di snervamento:	f_{yk}	450,00	[N/mm^2]
Resistenza di calcolo:	f_{yd}	391,30	[N/mm^2]
AZIONI SOLLECITANTI DI CALCOLO			
Azione tagliante di calcolo:	$V_{S,d}$	86,47	[kN]
Azione normale di calcolo:	$N_{S,d}$	0,00	[kN]
ARMATURA TRASVERSALE			
Inclinazione dei puntoni di calcestruzzo:	θ	45,00	[°]
Cotangente dell'angolo θ:	cot(θ)	1,00	
Inclinazione dell'armatura trasversale rispetto all'asse della trave:	α	90,00	[°]
Numero di bracci dell'armatura trasversale:	n	2,00	
Passo longitudinale delle armature trasversali:	s	20,00	[cm]
Diametro dell'armatura trasversale:	$Ø_{trasv}$	10,00	[mm]
Area della singola barra:	A_{barra}	0,79	[cm^2]
Area totale dell'armatura trasversale:	A_{tot}	7,90	[cm^2/m]
VERIFICA ALLO S.L.U. PER TAGLIO			

La resistenza di calcolo a "taglio trazione" viene valutata mediante la seguente relazione - D.M. 17.01.2018 [4.1.27]:

$$V_{Rsd} = 0,9 \cdot d \cdot \frac{A_{sw}}{s} \cdot f_{yd} \cdot [\cot(\alpha) + \cot(\theta)] \cdot sen(\alpha)$$

La resistenza di calcolo a "taglio compressione" viene valutata mediante la seguente relazione - D.M. 17.01.2018 [4.1.28]:

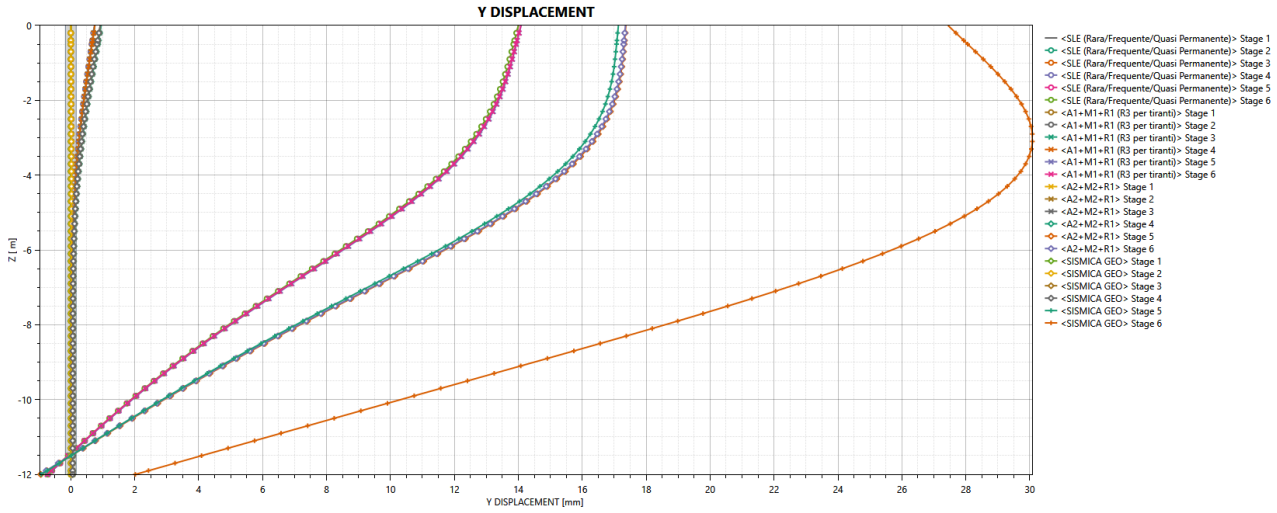
$$V_{Rcd} = 0,9 \cdot d \cdot b_w \cdot \alpha_c \cdot f'_{cd} \cdot \frac{[\cot(\alpha) + \cot(\theta)]}{[1 + \cot^2(\theta)]}$$

Larghezza minima della sezione:	b_w	53,17	[cm]
Resistenza a compressione ridotta del calcestruzzo:	f'_{yd}	7,06	[N/mm^2]
Tensione media di compressione nella sezione:	σ_{cp}	0,00	[N/mm^2]
Coefficiente maggiorativo α_c:	α_c	1,00	
RESISTENZA DI CALCOLO A "TAGLIO TRAZIONE"	V_{Rsd}	131,24	[kN]
RESISTENZA DI CALCOLO A "TAGLIO COMPRESSIONE"	V_{Rcd}	796,24	[kN]
AZIONE TAGLIANTE RESISTENTE DELLA SEZIONE:	$V_{R,d}$	131,24	**[kN]**
COEFFICIENTE DI SICUREZZA:	$F_S=V_{R,d}/V_{S,d}$	1,52	

LA VERIFICA RISULTA POSITIVA.

11 PARATIA DI PALI - VERIFICA DELLO SPOSTAMENTO MASSIMO

Nel diagramma successivo è riportato l'andamento dello spostamento massimo della paratia:



Lo spostamento massimo in testa della paratia è stato determinato pari a **30,082 mm** (Combinazione SLU – GEO).
Lo spostamento risulta inferiore ai limiti di normativa:
d_{max} = 30,082 mm < d_{lim} = 0,005 x 12.000,00 = 60,00 mm

Lo spostamento massimo in esercizio della paratia è stato determinato pari a **14,00 mm**, compatibile con la funzionalità dell'opera.

12 VERIFICA DI STABILITÀ ALLA ROTAZIONE

La verifica di stabilità della paratia è effettuata considerando il rispetto dei due seguenti criteri:

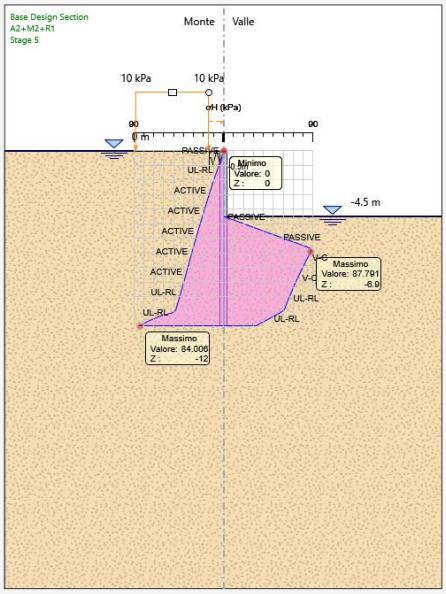
1) Il calcolo non lineare della paratia deve convergere a una soluzione equilibrata e congruente

2) Sul lato di scavo (valle) la spinta efficace mobilitata deve essere minore della spinta passiva disponibile, quindi il loro rapporto deve essere ≤ 1.

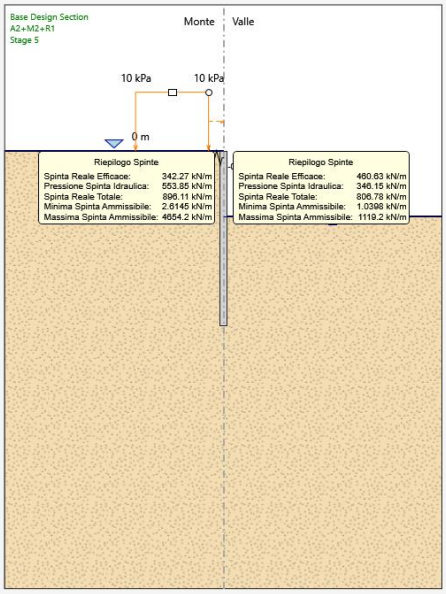
12.1 COMBINAZIONE SLU - GEO

Di seguito è riportato l'andamento delle spinte in fase finale a valle e a monte della paratia:

	Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	φ' [°]	Moduli Elastici [kPa] or [kN/m²]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{inc} = 30000 E_{ur} = 90000



	Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	φ' [°]	Moduli Elastici [kPa] or [kN/m²]
	UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{inc} = 30000 E_{ur} = 90000



Dall'esame dei tabulati di calcolo si desume:

1) Il calcolo non lineare converge a una soluzione equilibrata per tutte le fasi di calcolo

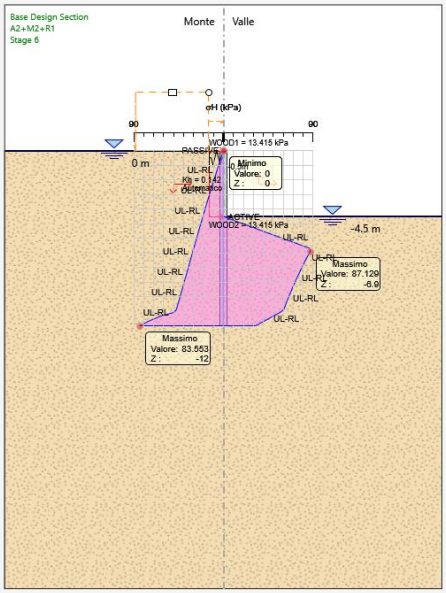
2) Il rapporto tra la spinta passiva possibile e la spinta mobilitata assume il minimo nello stage 5 (con sovraccarichi) con il valore:

$$\frac{\text{Spinta reale totale}}{\text{Spinta passiva possibile}} = \frac{896{,}11}{1.119{,}20} = 0{,}80 < 1{,}00 \rightarrow \textbf{VERIFICATO}$$

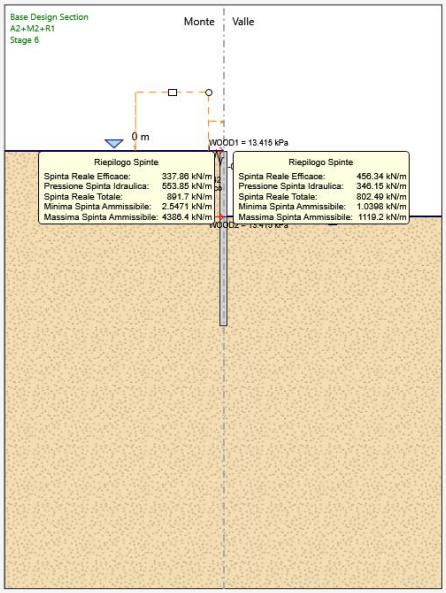
12.2 COMBINAZIONE SLV

Di seguito è riportato l'andamento delle spinte in fase finale a valle e a monte della paratia:

Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	φ' [°]	Moduli Elastici [kPa] or [kN/m³]
UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{UR} = 90000



Terreni	γDRY [kN/m³]	γSAT [kN/m³]	c' [kPa]	φ' [°]	Moduli Elastici [kPa] or [kN/m³]
UG2_1 Sabbia / Ghiaia	19	21	0	37	E_{VC} = 30000 E_{UR} = 90000



Dall'esame dei tabulati di calcolo si desume:

1) Il calcolo non lineare converge a una soluzione equilibrata per tutte le fasi di calcolo

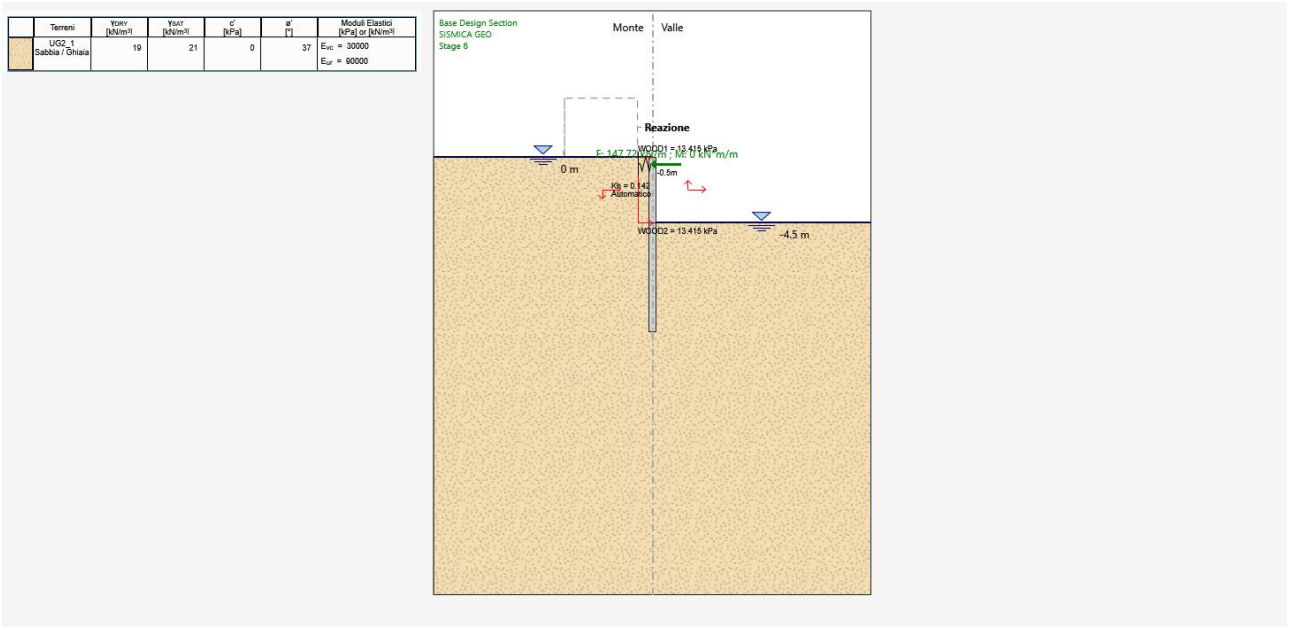
2) Il rapporto tra la spinta passiva possibile e la spinta mobilitata assume il minimo nello stage 5 (con sovraccarichi) con il valore:

$$\frac{\text{Spinta reale totale}}{\text{Spinta passiva possibile}} = \frac{891,70}{1.119,20} = 0,79 < 1,00 \rightarrow \textbf{VERIFICATO}$$

13 CORDOLO DI TESTA – VERIFICHE STRUTTURALI

13.1 VALUTAZIONE DELLE AZIONI SOLLECITANTI

Nell'immagine successiva è riportata la reazione lineare applicata sul cordolo di testa per la combinazione allo SLV (maggiormente gravosa):



La reazione lineare massima è risultata pari a **147,72 kN/m**.

Il momento flettente massimo sul cordolo di testa, secondo lo schema di trave a campata unica di luce pari a **13,80 m**, semplicemente appoggiata alle estremità, risulta pari a:

M_{Sd} = 147,72 x 13,80^2 / 8 = 3.516,47 kNm

Il taglio massimo sul cordolo di testa, secondo il medesimo schema statico, risulta pari a:

V_{Sd} = 147,72 x 13,80 / 2 = 1.019,27 kN

13.2 SEZIONE E ARMATURA DI VERIFICA

La sezione di verifica è quadrata con lato pari a **100 cm**.

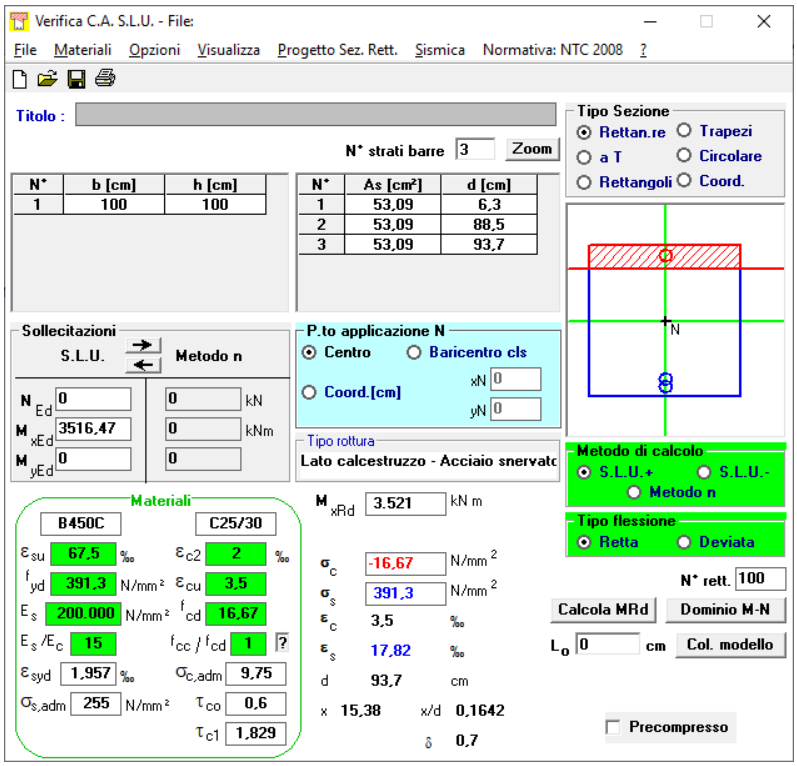
L'armatura longitudinale è costituita da:

- **10Ø26** interni
- **10Ø26** esterni – I strato
- **10Ø26** esterni – II strato

L'armatura a taglio è costituita da staffe a **Ø10/10**. Il copriferro netto minimo è assunto pari a **40 mm**.

13.3 VERIFICA ALLO SLU PER FLESSIONE SEMPLICE

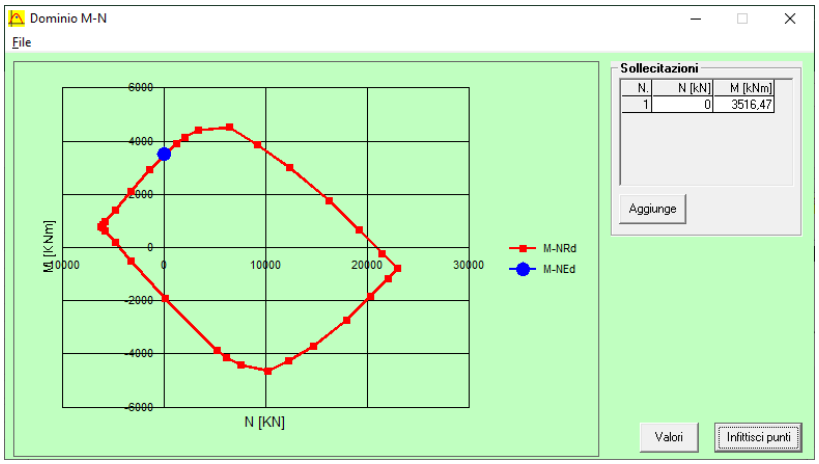
Il momento flettente di calcolo è assunto pari a **M_{Sd} = 3.516,47 kNm**.



Il momento resistente risulta pari a:

M_{Sd} = 3.521,00 kNm > M_{Rd} = 3.516,47 kNm

Nell'immagine successiva è riportato il dominio di resistenza della sezione:



La verifica risulta pertanto soddisfatta.

13.4 VERIFICA ALLO SLU PER TAGLIO

L'azione tagliante di calcolo è assunta pari a V_{Sd} = **1.019,27 kN**.

VERIFICA ALLO STATO LIMITE ULTIMO PER TAGLIO - ELEMENTI CON ARMATURE TRASVERSALI RESISTENTI AL TAGLIO D.M. 17.01.2018 - CAPITOLO 4.1.2.3.5.2			
CARATTERISTICHE GEOMETRICHE DELLA SEZIONE			
Base della zezione trasversale:	b	100,00	[cm]
Altezza della sezione trasversale:	h	100,00	[cm]
Copriferro netto:	c	4,00	[cm]
Altezza utile della sezione:	d	96,00	[cm]
CARATTERISTICHE DEI MATERIALI			
Classe di resistenza del calcestruzzo:		C25/30	
Resistenza caratteristica cubica a compressione:	R_{ck}	30,00	[N/mm^2]
Resistenza caratteristica cilindrica a compressione:	f_{ck}	24,90	[N/mm^2]
Resistenza di calcolo a compressione:	f_{cd}	14,11	[N/mm^2]
Tipologia dell'acciaio da armatura:		B450C	
Tensione caratteristica di rottura:	f_{tk}	540,00	[N/mm^2]
Tensione caratteristica di snervamento:	f_{yk}	450,00	[N/mm^2]
Resistenza di calcolo:	f_{yd}	391,30	[N/mm^2]
AZIONI SOLLECITANTI DI CALCOLO			
Azione tagliante di calcolo:	$V_{S,d}$	1019,27	[kN]
Azione normale di calcolo:	$N_{S,d}$	0,00	[kN]
ARMATURA TRASVERSALE			
Inclinazione dei puntoni di calcestruzzo:	θ	45,00	[°]
Cotangente dell'angolo θ:	cot(θ)	1,00	
Inclinazione dell'armatura trasversale rispetto all'asse della trave:	α	90,00	[°]
Numero di bracci dell'armatura trasversale:	n	4,00	
Passo longitudinale delle armature trasversali:	s	10,00	[cm]
Diametro dell'armatura trasversale:	$Ø_{trasv}$	10,00	[mm]
Area della singola barra:	A_{barra}	0,79	[cm^2]
Area totale dell'armatura trasversale:	A_{tot}	31,60	[cm^2/m]
VERIFICA ALLO S.L.U. PER TAGLIO			

La resistenza di calcolo a "taglio trazione" viene valutata mediante la seguente relazione - D.M. 17.01.2018 [4.1.27]:

$$V_{Rsd} = 0,9 \cdot d \cdot \frac{A_{sw}}{s} \cdot f_{yd} \cdot [\cot(\alpha) + \cot(\theta)] \cdot sen(\alpha)$$

La resistenza di calcolo a "taglio compressione" viene valutata mediante la seguente relazione - D.M. 17.01.2018 [4.1.28]:

$$V_{Rcd} = 0,9 \cdot d \cdot b_w \cdot \alpha_c \cdot f'_{cd} \cdot \frac{[\cot(\alpha) + \cot(\theta)]}{[1 + \cot^2(\theta)]}$$

Larghezza minima della sezione:	b_w	100,00	[cm]
Resistenza a compressione ridotta del calcestruzzo:	f'_{yd}	7,06	[N/mm^2]
Tensione media di compressione nella sezione:	σ_{cp}	0,00	[N/mm^2]
Coefficiente maggiorativo α_c:	α_c	1,00	
RESISTENZA DI CALCOLO A "TAGLIO TRAZIONE"	V_{Rsd}	1068,35	[kN]
RESISTENZA DI CALCOLO A "TAGLIO COMPRESSIONE"	V_{Rcd}	3047,76	[kN]
AZIONE TAGLIANTE RESISTENTE DELLA SEZIONE:	$V_{R,d}$	1.068,35	**[kN]**
COEFFICIENTE DI SICUREZZA:	$F_S=V_{R,d}/V_{S,d}$	1,05	

LA VERIFICA RISULTA POSITIVA.

14 TABULATI DI CALCOLO

PARATIE plus™ by CeAS

Report di Calcolo

Sommario

Contenuto Sommario

Descrizione del Software

ParatiePlus analizza il comportamento meccanico di una struttura di sostegno flessibile di uno scavo in terreno o roccia, ponendo l'accento sull'aspetto dell'interazione "locale" fra parete e terreno.

ParatiePlus non permette lo studio di problematiche che coinvolgano un movimento esteso del versante di scavo, in quanto ParatiePlus non consente lo sviluppo di movimenti rigidi della parete o parti di ammasso rispetto ad altre parti di terreno.

Scopo precipuo di ParatiePlus è quindi il calcolo delle azioni flettenti e taglianti e delle deformazioni laterali della parete di sostegno, e la valutazione di tutte quelle grandezze a queste connesse.

Lo studio di una parete flessibile è condotto attraverso una simulazione numerica del reale: il programma stabilisce e risolve un sistema di equazioni algebriche la cui soluzione permette di riprodurre abbastanza realisticamente l'effettivo comportamento dell'opera di sostegno.

La simulazione numerica è quella offerta dal metodo degli elementi finiti.

La schematizzazione in elementi finiti avviene in questo modo:

• si analizza un problema piano (nel piano Y-Z): i gradi di libertà nodali attivi sono lo spostamento laterale e la rotazione fuori piano: gli spostamenti verticali sono automaticamente vincolati(di conseguenza le azioni assiali nelle pareti verticali non sono calcolate);

• la parete flessibile di sostegno vera e propria è schematizzata da una serie di elementi finiti BEAM verticali;

• il terreno, che spinge contro la parete (da monte e da valle) e che reagisce in modo complesso alle deformazioni della parete, è simulato attraverso un doppio letto di molle elasto-plastiche connesse agli stessi nodi della parete;

• i tiranti, i puntoni, le solette, gli appoggi cedevoli o fissi, sono schematizzati tramite molle puntuali convergenti in alcuni punti (nodi) della parete ove convergono parimenti elementi BEAM ed elementi terreno.

Descrizione della Stratigrafia e degli Strati di Terreno

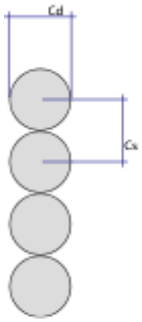
Tipo : HORIZONTAL
Quota : 0 m
OCR : 1

Strato di Terreno	Terreno	γ dry kN/m³	γ sat kN/m³	ø' °	øcv °	øp °	c' kPa	Su kPa	Modulo Elastico	Eu	Evc kPa	Eur kPa	Ah	Av	exp	Pa kPa	Rur/Rvc	Rvc kPa	Ku kN/m³	Kvc kN/m³	Kur kN/m³
1	UG2_1	19	21	37			0		Constant		30000	90000									

Descrizione Pareti

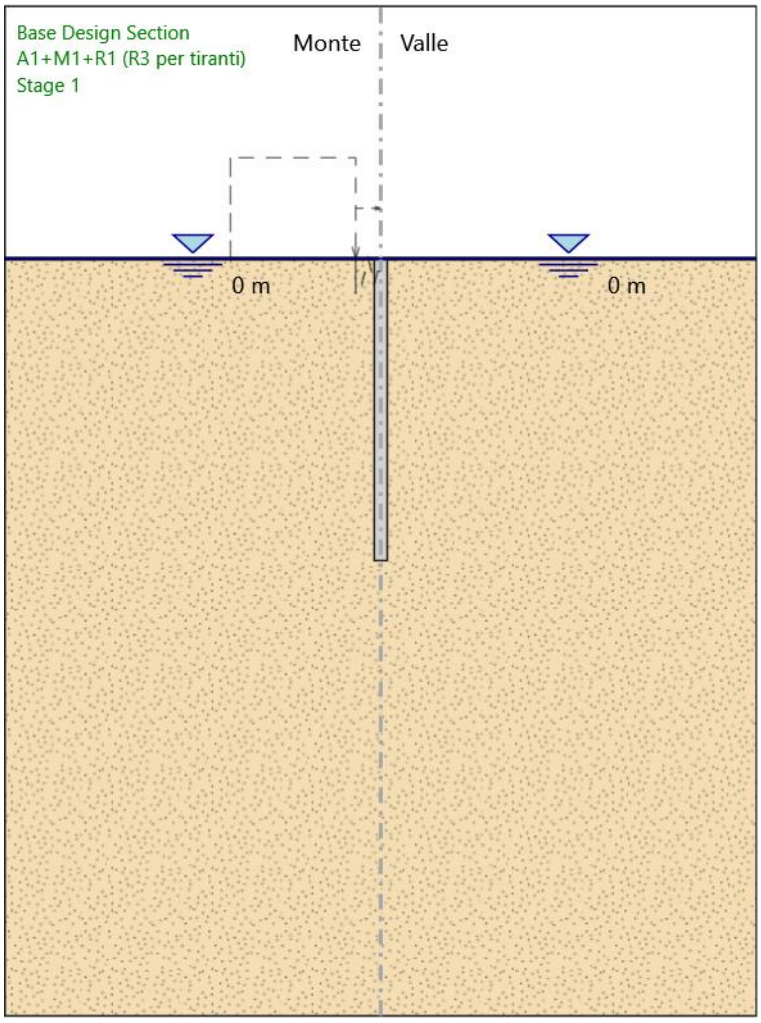
X : 0 m
Quota in alto : 0 m
Quota di fondo : -12 m
Muro di sinistra

Sezione : PALI 600
Area equivalente : 0.471238898038469 m
Inerzia equivalente : 0.0106 m^4/m
Materiale calcestruzzo : C25/30
Tipo sezione : Tangent
Spaziatura : 0.6 m
Diametro : 0.6 m
Efficacia : 1



Fasi di Calcolo

Stage 1



Stage 1

Scavo

Muro di sinistra

Lato monte : 0 m

Lato valle : 0 m

Linea di scavo di sinistra (Orizzontale)

0 m

Linea di scavo di destra (Orizzontale)

0 m

Falda acquifera

Falda di sinistra : 0 m

Falda di destra : 0 m

Elementi strutturali

Paratia : WallElement

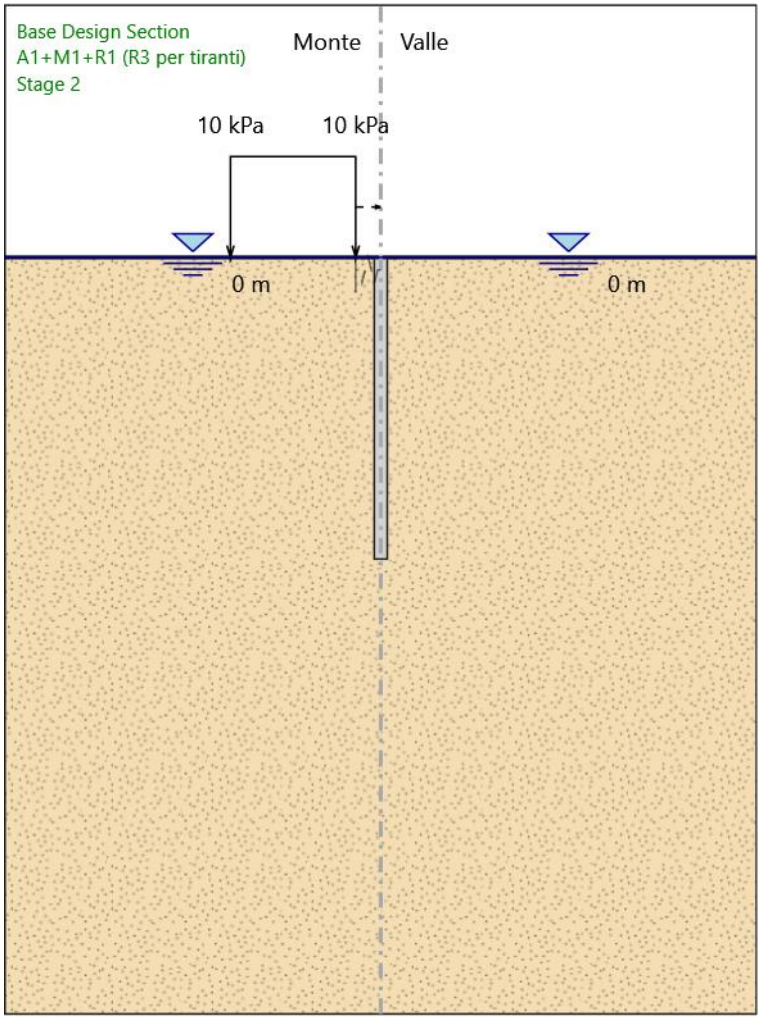
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : PALI 600

Stage 2



Stage 2

Scavo

Muro di sinistra

Lato monte : 0 m

Lato valle : 0 m

Linea di scavo di sinistra (Orizzontale)

0 m

Linea di scavo di destra (Orizzontale)

0 m

Falda acquifera

Falda di sinistra : 0 m

Falda di destra : 0 m

Carichi

Carico lineare in superficie : SOVRACCARICO ACCIDENTALE

X iniziale : -6 m

X finale : -1 m

Pressione iniziale : 10 kPa

Pressione finale : 10 kPa

Elementi strutturali

Paratia : WallElement

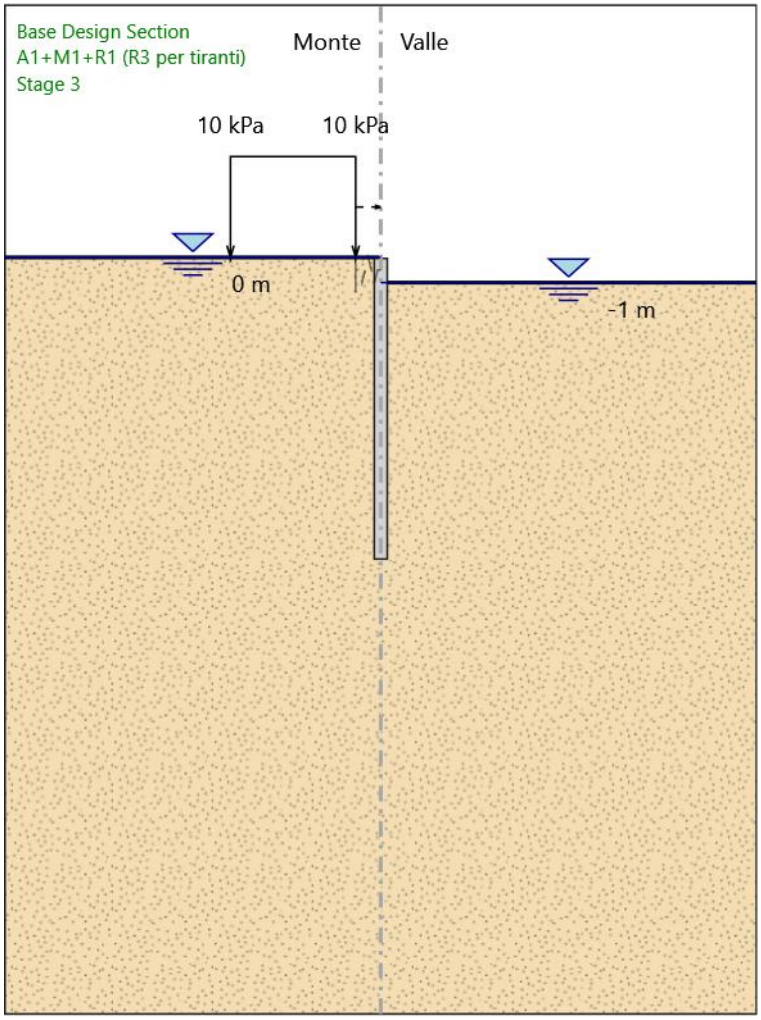
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : PALI 600

Stage 3



Stage 3

Scavo

Muro di sinistra

Lato monte : 0 m

Lato valle : -1 m

Linea di scavo di sinistra (Orizzontale)

0 m

Linea di scavo di destra (Orizzontale)

-1 m

Falda acquifera

Falda di sinistra : 0 m

Falda di destra : -1 m

Carichi

Carico lineare in superficie : SOVRACCARICO ACCIDENTALE

X iniziale : -6 m

X finale : -1 m

Pressione iniziale : 10 kPa

Pressione finale : 10 kPa

Elementi strutturali

Paratia : WallElement

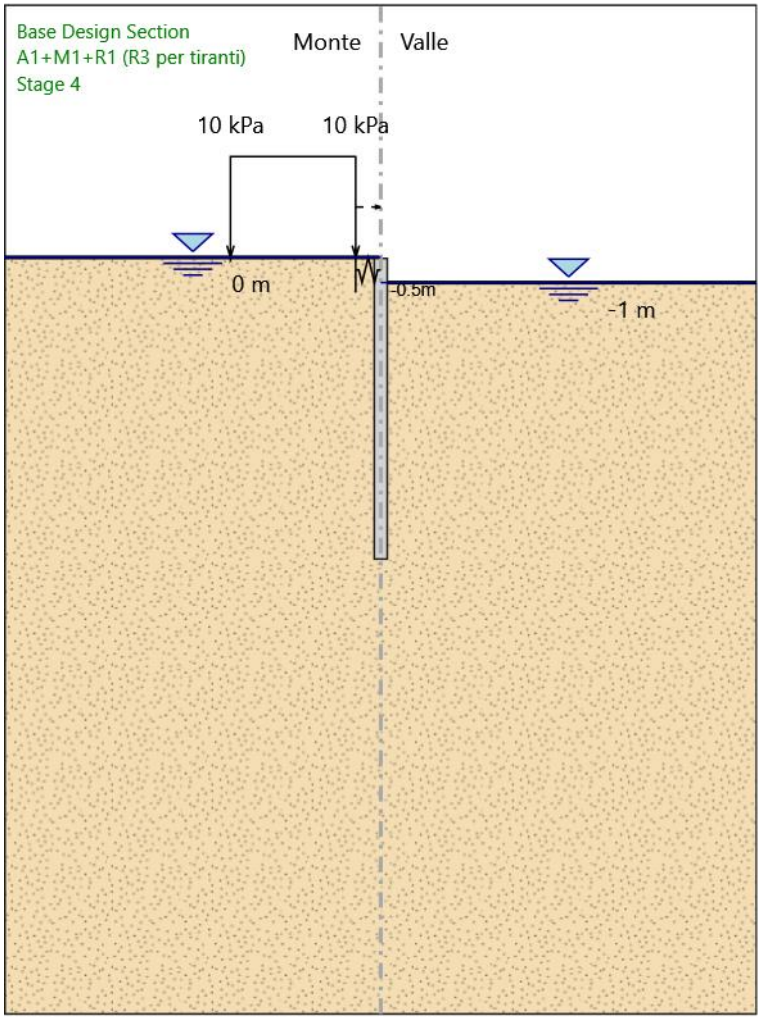
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : PALI 600

Stage 4



Stage 4

Scavo

Muro di sinistra

Lato monte : 0 m

Lato valle : -1 m

Linea di scavo di sinistra (Orizzontale)

0 m

Linea di scavo di destra (Orizzontale)

-1 m

Falda acquifera

Falda di sinistra : 0 m

Falda di destra : -1 m

Carichi

Carico lineare in superficie : SOVRACCARICO ACCIDENTALE

X iniziale : -6 m

X finale : -1 m

Pressione iniziale : 10 kPa

Pressione finale : 10 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : PALI 600

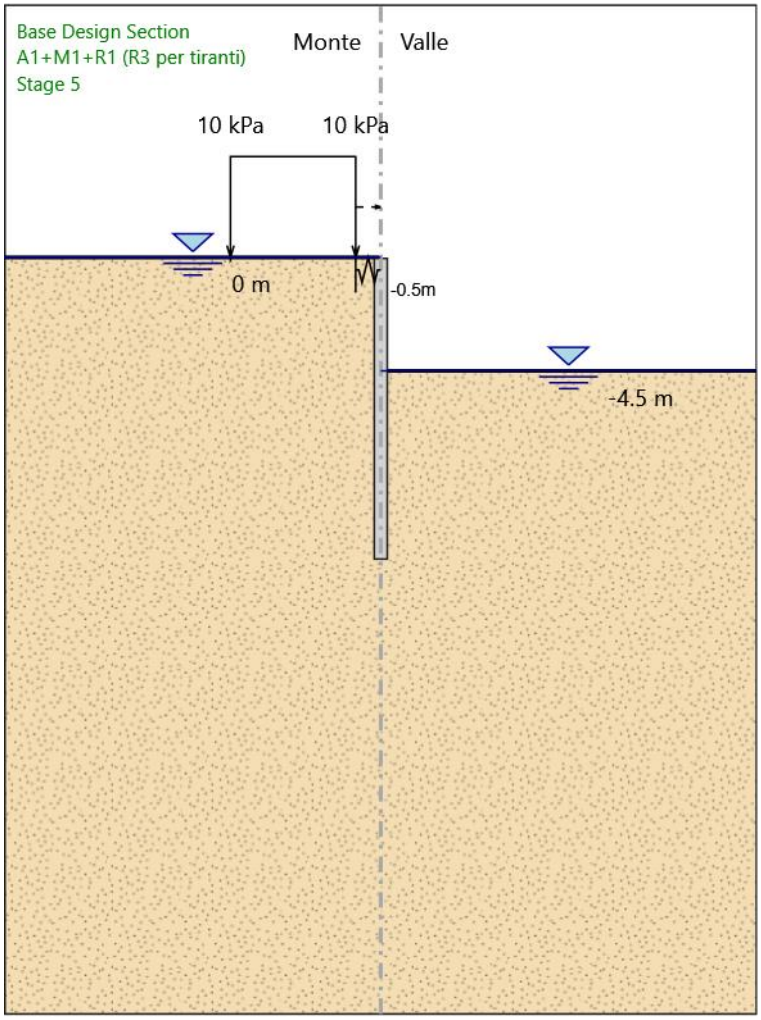
Vincolo elastico : Spring

X : 0 m

Z : -0.5 m

Angolo : 0 °

Stage 5



Stage 5

Scavo

Muro di sinistra

Lato monte : 0 m

Lato valle : -4.5 m

Linea di scavo di sinistra (Orizzontale)

0 m

Linea di scavo di destra (Orizzontale)

-4.5 m

Falda acquifera

Falda di sinistra : 0 m

Falda di destra : -4.5 m

Carichi

Carico lineare in superficie : SOVRACCARICO ACCIDENTALE

X iniziale : -6 m

X finale : -1 m

Pressione iniziale : 10 kPa

Pressione finale : 10 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : PALI 600

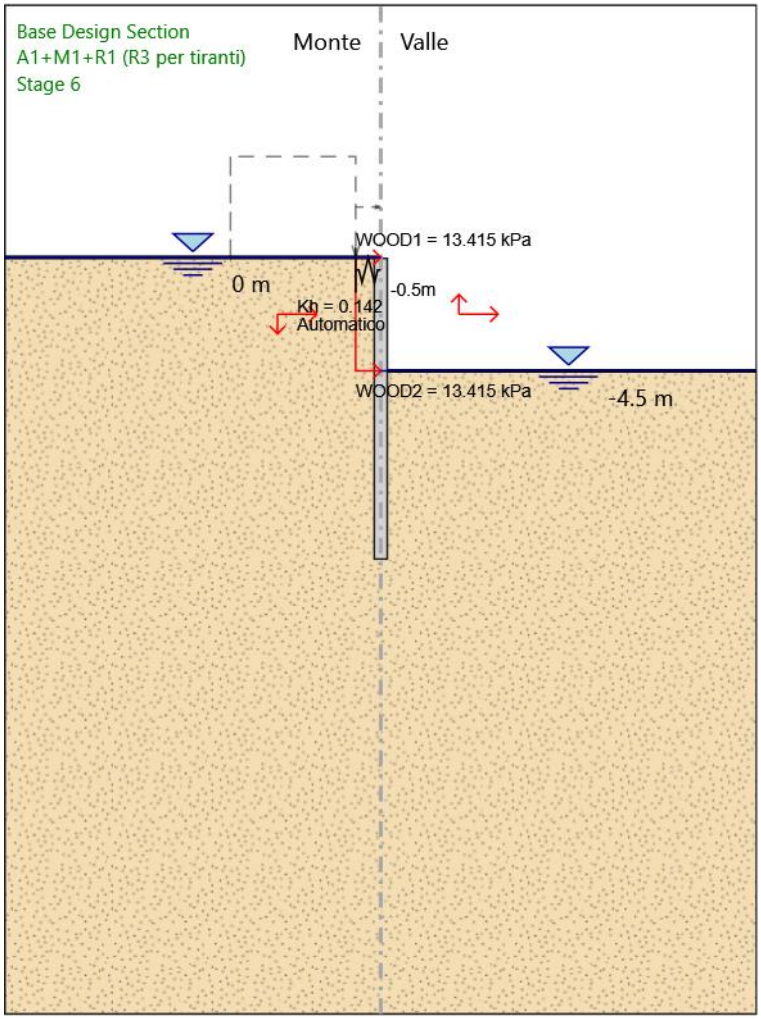
Vincolo elastico : Spring

X : 0 m

Z : -0.5 m

Angolo : 0 °

Stage 6



Stage 6

Scavo

Muro di sinistra

Lato monte : 0 m

Lato valle : -4.5 m

Linea di scavo di sinistra (Orizzontale)

0 m

Linea di scavo di destra (Orizzontale)

-4.5 m

Falda acquifera

Falda di sinistra : 0 m

Falda di destra : -4.5 m

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : PALI 600

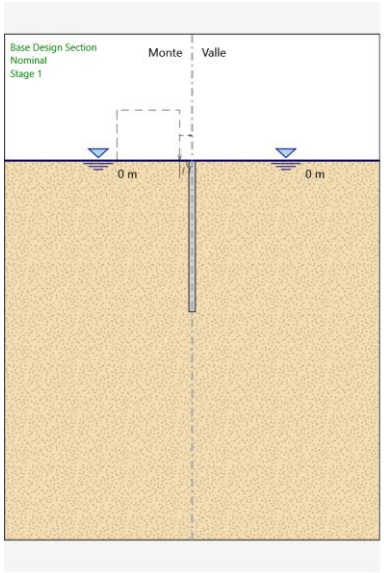
Vincolo elastico : Spring

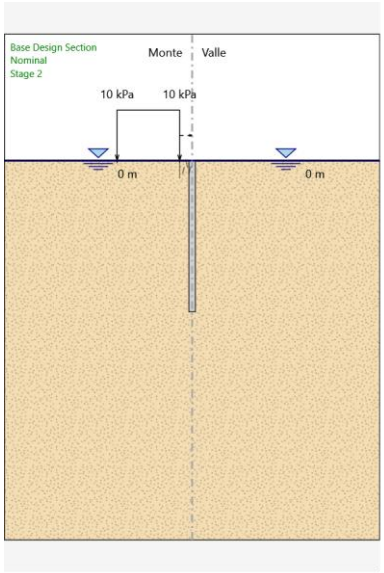
X : 0 m

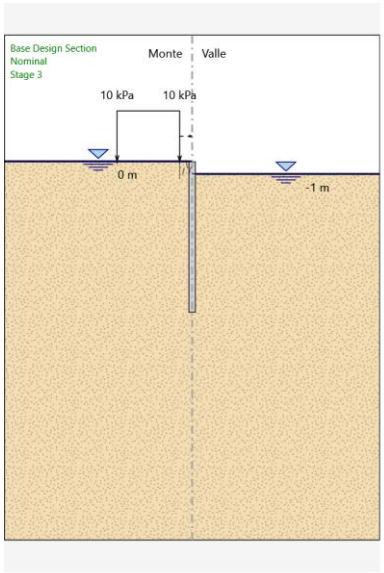
Z : -0.5 m

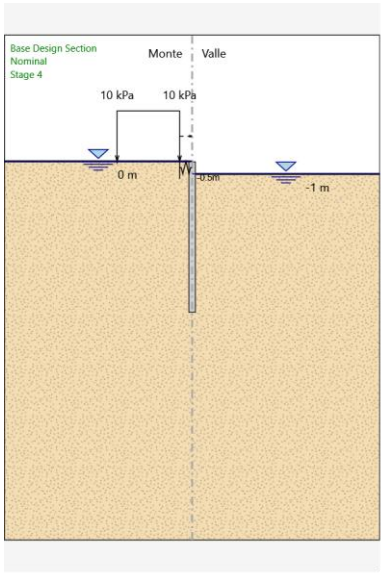
Angolo : 0 °

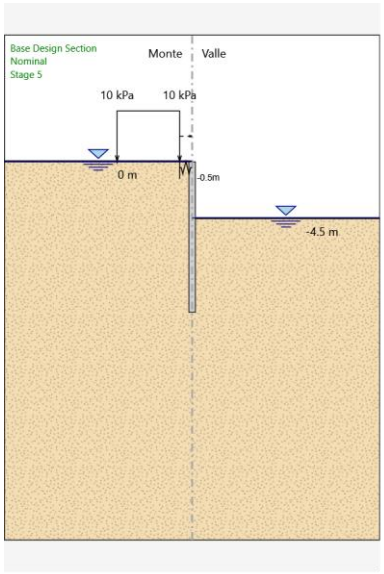
Tabella Configurazione Stage (Nominal)

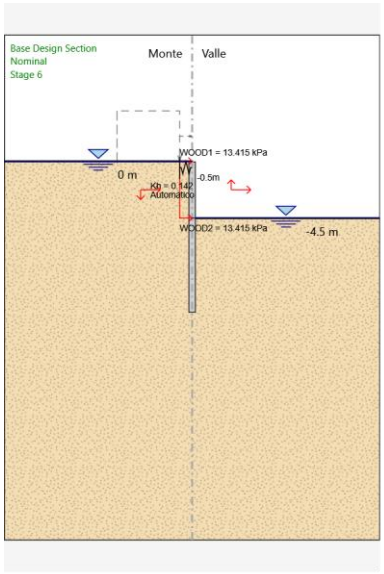












Grafici dei Risultati

Design Assumption : Nominal

Tabella Spostamento Nominal - LEFT Stage: Stage 1

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	0	0
Stage 1	-0.2	0
Stage 1	-0.4	0
Stage 1	-0.5	0
Stage 1	-0.7	0
Stage 1	-0.9	0
Stage 1	-1.1	0
Stage 1	-1.3	0
Stage 1	-1.5	0
Stage 1	-1.7	0
Stage 1	-1.9	0
Stage 1	-2.1	0
Stage 1	-2.3	0
Stage 1	-2.5	0
Stage 1	-2.7	0
Stage 1	-2.9	0
Stage 1	-3.1	0
Stage 1	-3.3	0
Stage 1	-3.5	0
Stage 1	-3.7	0
Stage 1	-3.9	0
Stage 1	-4.1	0
Stage 1	-4.3	0
Stage 1	-4.5	0
Stage 1	-4.7	0
Stage 1	-4.9	0
Stage 1	-5.1	0
Stage 1	-5.3	0
Stage 1	-5.5	0
Stage 1	-5.7	0
Stage 1	-5.9	0
Stage 1	-6.1	0
Stage 1	-6.3	0
Stage 1	-6.5	0
Stage 1	-6.7	0
Stage 1	-6.9	0
Stage 1	-7.1	0
Stage 1	-7.3	0
Stage 1	-7.5	0
Stage 1	-7.7	0
Stage 1	-7.9	0
Stage 1	-8.1	0
Stage 1	-8.3	0
Stage 1	-8.5	0
Stage 1	-8.7	0
Stage 1	-8.9	0
Stage 1	-9.1	0
Stage 1	-9.3	0
Stage 1	-9.5	0
Stage 1	-9.7	0
Stage 1	-9.9	0
Stage 1	-10.1	0
Stage 1	-10.3	0
Stage 1	-10.5	0
Stage 1	-10.7	0
Stage 1	-10.9	0
Stage 1	-11.1	0
Stage 1	-11.3	0
Stage 1	-11.5	0
Stage 1	-11.7	0
Stage 1	-11.9	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	-12	0

Tabella Spostamento Nominal - LEFT Stage: Stage 2

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	0	0
Stage 2	-0.2	0
Stage 2	-0.4	0
Stage 2	-0.5	0
Stage 2	-0.7	0
Stage 2	-0.9	0
Stage 2	-1.1	0.01
Stage 2	-1.3	0.01
Stage 2	-1.5	0.01
Stage 2	-1.7	0.01
Stage 2	-1.9	0.01
Stage 2	-2.1	0.01
Stage 2	-2.3	0.01
Stage 2	-2.5	0.01
Stage 2	-2.7	0.01
Stage 2	-2.9	0.01
Stage 2	-3.1	0.01
Stage 2	-3.3	0.02
Stage 2	-3.5	0.02
Stage 2	-3.7	0.02
Stage 2	-3.9	0.02
Stage 2	-4.1	0.02
Stage 2	-4.3	0.02
Stage 2	-4.5	0.02
Stage 2	-4.7	0.02
Stage 2	-4.9	0.02
Stage 2	-5.1	0.02
Stage 2	-5.3	0.02
Stage 2	-5.5	0.02
Stage 2	-5.7	0.02
Stage 2	-5.9	0.02
Stage 2	-6.1	0.02
Stage 2	-6.3	0.02
Stage 2	-6.5	0.02
Stage 2	-6.7	0.02
Stage 2	-6.9	0.02
Stage 2	-7.1	0.02
Stage 2	-7.3	0.02
Stage 2	-7.5	0.02
Stage 2	-7.7	0.02
Stage 2	-7.9	0.02
Stage 2	-8.1	0.02
Stage 2	-8.3	0.02
Stage 2	-8.5	0.02
Stage 2	-8.7	0.02
Stage 2	-8.9	0.02
Stage 2	-9.1	0.02
Stage 2	-9.3	0.02
Stage 2	-9.5	0.02
Stage 2	-9.7	0.01
Stage 2	-9.9	0.01
Stage 2	-10.1	0.01
Stage 2	-10.3	0.01
Stage 2	-10.5	0.01
Stage 2	-10.7	0.01
Stage 2	-10.9	0.01
Stage 2	-11.1	0.01
Stage 2	-11.3	0.01
Stage 2	-11.5	0.01
Stage 2	-11.7	0.01
Stage 2	-11.9	0.01
Stage 2	-12	0.01

Tabella Spostamento Nominal - LEFT Stage: Stage 3

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	0	0.74
Stage 3	-0.2	0.71
Stage 3	-0.4	0.67
Stage 3	-0.5	0.66
Stage 3	-0.7	0.62
Stage 3	-0.9	0.59
Stage 3	-1.1	0.55
Stage 3	-1.3	0.52
Stage 3	-1.5	0.48
Stage 3	-1.7	0.45
Stage 3	-1.9	0.42
Stage 3	-2.1	0.39
Stage 3	-2.3	0.36
Stage 3	-2.5	0.33
Stage 3	-2.7	0.3
Stage 3	-2.9	0.27
Stage 3	-3.1	0.25
Stage 3	-3.3	0.23
Stage 3	-3.5	0.21
Stage 3	-3.7	0.19
Stage 3	-3.9	0.17
Stage 3	-4.1	0.15
Stage 3	-4.3	0.14
Stage 3	-4.5	0.12
Stage 3	-4.7	0.11
Stage 3	-4.9	0.1
Stage 3	-5.1	0.09
Stage 3	-5.3	0.09
Stage 3	-5.5	0.08
Stage 3	-5.7	0.08
Stage 3	-5.9	0.07
Stage 3	-6.1	0.07
Stage 3	-6.3	0.07
Stage 3	-6.5	0.07
Stage 3	-6.7	0.06
Stage 3	-6.9	0.06
Stage 3	-7.1	0.06
Stage 3	-7.3	0.06
Stage 3	-7.5	0.06
Stage 3	-7.7	0.06
Stage 3	-7.9	0.06
Stage 3	-8.1	0.06
Stage 3	-8.3	0.06
Stage 3	-8.5	0.06
Stage 3	-8.7	0.06
Stage 3	-8.9	0.06
Stage 3	-9.1	0.06
Stage 3	-9.3	0.06
Stage 3	-9.5	0.06
Stage 3	-9.7	0.06
Stage 3	-9.9	0.06
Stage 3	-10.1	0.06
Stage 3	-10.3	0.06
Stage 3	-10.5	0.06
Stage 3	-10.7	0.06
Stage 3	-10.9	0.06
Stage 3	-11.1	0.06
Stage 3	-11.3	0.06
Stage 3	-11.5	0.06
Stage 3	-11.7	0.05
Stage 3	-11.9	0.05
Stage 3	-12	0.05

Tabella Spostamento Nominal - LEFT Stage: Stage 4

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	0	0.74
Stage 4	-0.2	0.71
Stage 4	-0.4	0.67
Stage 4	-0.5	0.66
Stage 4	-0.7	0.62
Stage 4	-0.9	0.59
Stage 4	-1.1	0.55
Stage 4	-1.3	0.52
Stage 4	-1.5	0.48
Stage 4	-1.7	0.45
Stage 4	-1.9	0.42
Stage 4	-2.1	0.39
Stage 4	-2.3	0.36
Stage 4	-2.5	0.33
Stage 4	-2.7	0.3
Stage 4	-2.9	0.27
Stage 4	-3.1	0.25
Stage 4	-3.3	0.23
Stage 4	-3.5	0.21
Stage 4	-3.7	0.19
Stage 4	-3.9	0.17
Stage 4	-4.1	0.15
Stage 4	-4.3	0.14
Stage 4	-4.5	0.12
Stage 4	-4.7	0.11
Stage 4	-4.9	0.1
Stage 4	-5.1	0.09
Stage 4	-5.3	0.09
Stage 4	-5.5	0.08
Stage 4	-5.7	0.08
Stage 4	-5.9	0.07
Stage 4	-6.1	0.07
Stage 4	-6.3	0.07
Stage 4	-6.5	0.07
Stage 4	-6.7	0.06
Stage 4	-6.9	0.06
Stage 4	-7.1	0.06
Stage 4	-7.3	0.06
Stage 4	-7.5	0.06
Stage 4	-7.7	0.06
Stage 4	-7.9	0.06
Stage 4	-8.1	0.06
Stage 4	-8.3	0.06
Stage 4	-8.5	0.06
Stage 4	-8.7	0.06
Stage 4	-8.9	0.06
Stage 4	-9.1	0.06
Stage 4	-9.3	0.06
Stage 4	-9.5	0.06
Stage 4	-9.7	0.06
Stage 4	-9.9	0.06
Stage 4	-10.1	0.06
Stage 4	-10.3	0.06
Stage 4	-10.5	0.06
Stage 4	-10.7	0.06
Stage 4	-10.9	0.06
Stage 4	-11.1	0.06
Stage 4	-11.3	0.06
Stage 4	-11.5	0.06
Stage 4	-11.7	0.05
Stage 4	-11.9	0.05
Stage 4	-12	0.05

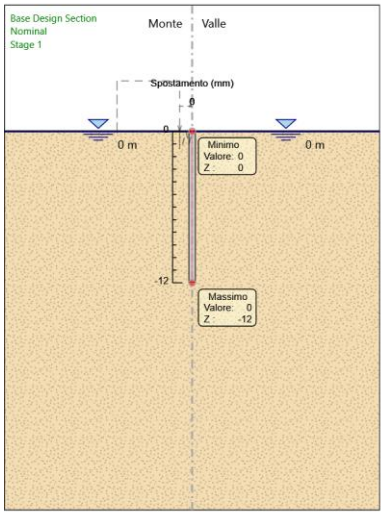
Tabella Spostamento Nominal - LEFT Stage: Stage 5

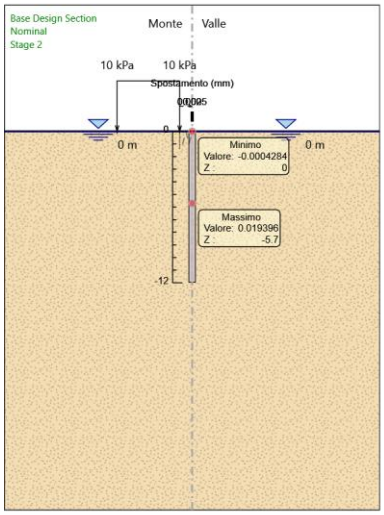
Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	0	14.01
Stage 5	-0.2	13.95
Stage 5	-0.4	13.89
Stage 5	-0.5	13.86
Stage 5	-0.7	13.8
Stage 5	-0.9	13.74
Stage 5	-1.1	13.67
Stage 5	-1.3	13.6
Stage 5	-1.5	13.53
Stage 5	-1.7	13.45
Stage 5	-1.9	13.35
Stage 5	-2.1	13.25
Stage 5	-2.3	13.14
Stage 5	-2.5	13.01
Stage 5	-2.7	12.87
Stage 5	-2.9	12.71
Stage 5	-3.1	12.54
Stage 5	-3.3	12.35
Stage 5	-3.5	12.15
Stage 5	-3.7	11.93
Stage 5	-3.9	11.7
Stage 5	-4.1	11.45
Stage 5	-4.3	11.18
Stage 5	-4.5	10.9
Stage 5	-4.7	10.61
Stage 5	-4.9	10.3
Stage 5	-5.1	9.99
Stage 5	-5.3	9.66
Stage 5	-5.5	9.32
Stage 5	-5.7	8.98
Stage 5	-5.9	8.63
Stage 5	-6.1	8.28
Stage 5	-6.3	7.93
Stage 5	-6.5	7.57
Stage 5	-6.7	7.22
Stage 5	-6.9	6.86
Stage 5	-7.1	6.51
Stage 5	-7.3	6.16
Stage 5	-7.5	5.81
Stage 5	-7.7	5.47
Stage 5	-7.9	5.13
Stage 5	-8.1	4.79
Stage 5	-8.3	4.47
Stage 5	-8.5	4.14
Stage 5	-8.7	3.83
Stage 5	-8.9	3.51
Stage 5	-9.1	3.21
Stage 5	-9.3	2.91
Stage 5	-9.5	2.62
Stage 5	-9.7	2.33
Stage 5	-9.9	2.04
Stage 5	-10.1	1.77
Stage 5	-10.3	1.49
Stage 5	-10.5	1.23
Stage 5	-10.7	0.96
Stage 5	-10.9	0.7
Stage 5	-11.1	0.44
Stage 5	-11.3	0.18
Stage 5	-11.5	-0.07
Stage 5	-11.7	-0.33
Stage 5	-11.9	-0.58
Stage 5	-12	-0.71

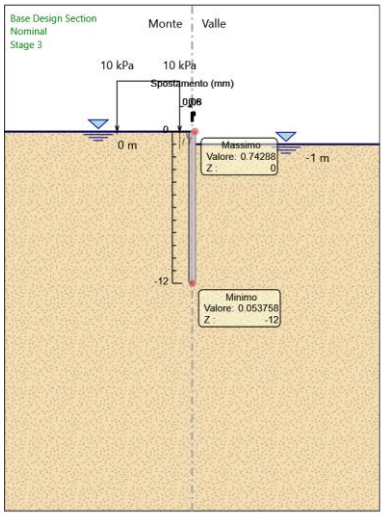
Tabella Spostamento Nominal - LEFT Stage: Stage 6

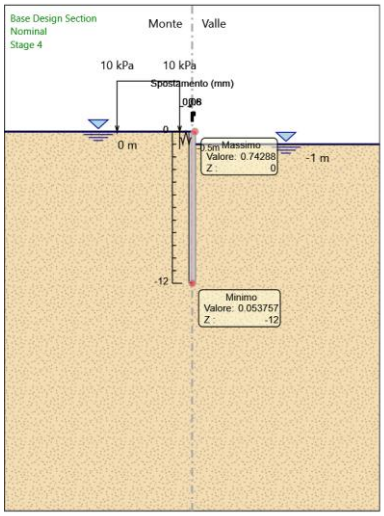
Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	0	20.46
Stage 6	-0.2	20.5
Stage 6	-0.4	20.54
Stage 6	-0.5	20.56
Stage 6	-0.7	20.6
Stage 6	-0.9	20.63
Stage 6	-1.1	20.66
Stage 6	-1.3	20.68
Stage 6	-1.5	20.7
Stage 6	-1.7	20.7
Stage 6	-1.9	20.68
Stage 6	-2.1	20.66
Stage 6	-2.3	20.61
Stage 6	-2.5	20.54
Stage 6	-2.7	20.46
Stage 6	-2.9	20.35
Stage 6	-3.1	20.22
Stage 6	-3.3	20.06
Stage 6	-3.5	19.88
Stage 6	-3.7	19.67
Stage 6	-3.9	19.43
Stage 6	-4.1	19.17
Stage 6	-4.3	18.89
Stage 6	-4.5	18.57
Stage 6	-4.7	18.23
Stage 6	-4.9	17.87
Stage 6	-5.1	17.49
Stage 6	-5.3	17.08
Stage 6	-5.5	16.65
Stage 6	-5.7	16.21
Stage 6	-5.9	15.75
Stage 6	-6.1	15.28
Stage 6	-6.3	14.79
Stage 6	-6.5	14.29
Stage 6	-6.7	13.79
Stage 6	-6.9	13.27
Stage 6	-7.1	12.76
Stage 6	-7.3	12.23
Stage 6	-7.5	11.71
Stage 6	-7.7	11.18
Stage 6	-7.9	10.66
Stage 6	-8.1	10.13
Stage 6	-8.3	9.6
Stage 6	-8.5	9.08
Stage 6	-8.7	8.55
Stage 6	-8.9	8.03
Stage 6	-9.1	7.51
Stage 6	-9.3	6.99
Stage 6	-9.5	6.48
Stage 6	-9.7	5.96
Stage 6	-9.9	5.45
Stage 6	-10.1	4.94
Stage 6	-10.3	4.44
Stage 6	-10.5	3.93
Stage 6	-10.7	3.43
Stage 6	-10.9	2.92
Stage 6	-11.1	2.42
Stage 6	-11.3	1.92
Stage 6	-11.5	1.42
Stage 6	-11.7	0.92
Stage 6	-11.9	0.42
Stage 6	-12	0.17

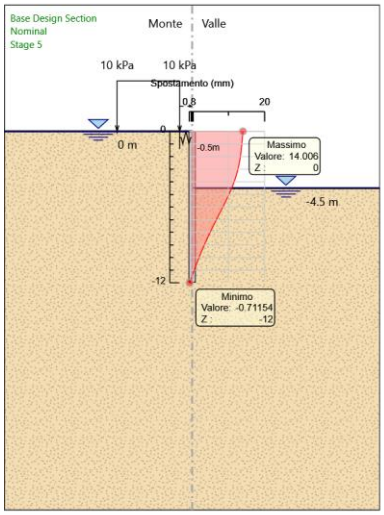
Grafici Spostamento in tabella

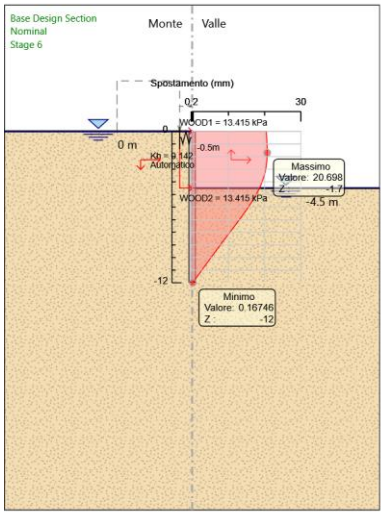












Risultati Paratia

Tabella Risultati Paratia Nominal - Stage: Stage 1

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.5	0	0
Stage 1	-0.7	0	0
Stage 1	-0.9	0	0
Stage 1	-1.1	0	0
Stage 1	-1.3	0	0
Stage 1	-1.5	0	0
Stage 1	-1.7	0	0
Stage 1	-1.9	0	0
Stage 1	-2.1	0	0
Stage 1	-2.3	0	0
Stage 1	-2.5	0	0
Stage 1	-2.7	0	0
Stage 1	-2.9	0	0
Stage 1	-3.1	0	0
Stage 1	-3.3	0	0
Stage 1	-3.5	0	0
Stage 1	-3.7	0	0
Stage 1	-3.9	0	0
Stage 1	-4.1	0	0
Stage 1	-4.3	0	0
Stage 1	-4.5	0	0
Stage 1	-4.7	0	0
Stage 1	-4.9	0	0
Stage 1	-5.1	0	0
Stage 1	-5.3	0	0
Stage 1	-5.5	0	0
Stage 1	-5.7	0	0
Stage 1	-5.9	0	0
Stage 1	-6.1	0	0
Stage 1	-6.3	0	0
Stage 1	-6.5	0	0
Stage 1	-6.7	0	0
Stage 1	-6.9	0	0
Stage 1	-7.1	0	0
Stage 1	-7.3	0	0
Stage 1	-7.5	0	0
Stage 1	-7.7	0	0
Stage 1	-7.9	0	0
Stage 1	-8.1	0	0
Stage 1	-8.3	0	0
Stage 1	-8.5	0	0
Stage 1	-8.7	0	0
Stage 1	-8.9	0	0
Stage 1	-9.1	0	0
Stage 1	-9.3	0	0
Stage 1	-9.5	0	0
Stage 1	-9.7	0	0
Stage 1	-9.9	0	0
Stage 1	-10.1	0	0
Stage 1	-10.3	0	0
Stage 1	-10.5	0	0
Stage 1	-10.7	0	0
Stage 1	-10.9	0	0
Stage 1	-11.1	0	0
Stage 1	-11.3	0	0
Stage 1	-11.5	0	0
Stage 1	-11.7	0	0
Stage 1	-11.9	0	0
Stage 1	-12	0	0

Tabella Risultati Paratia Nominal - Stage: Stage 2

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	0
Stage 2	-0.2	0	0
Stage 2	-0.2	0	0
Stage 2	-0.4	0	0.02
Stage 2	-0.5	0.01	0.04
Stage 2	-0.7	0.02	0.07
Stage 2	-0.9	0.04	0.11
Stage 2	-1.1	0.07	0.15
Stage 2	-1.3	0.11	0.19
Stage 2	-1.5	0.16	0.23
Stage 2	-1.7	0.21	0.25
Stage 2	-1.9	0.26	0.24
Stage 2	-2.1	0.3	0.23
Stage 2	-2.3	0.34	0.2
Stage 2	-2.5	0.38	0.17
Stage 2	-2.7	0.41	0.14
Stage 2	-2.9	0.43	0.12
Stage 2	-3.1	0.45	0.09
Stage 2	-3.3	0.46	0.06
Stage 2	-3.5	0.47	0.04
Stage 2	-3.7	0.47	0.03
Stage 2	-3.9	0.47	0.01
Stage 2	-4.1	0.47	-0.01
Stage 2	-4.3	0.47	-0.02
Stage 2	-4.5	0.46	-0.03
Stage 2	-4.7	0.45	-0.04
Stage 2	-4.9	0.45	-0.04
Stage 2	-5.1	0.44	-0.05
Stage 2	-5.3	0.42	-0.06
Stage 2	-5.5	0.41	-0.07
Stage 2	-5.7	0.39	-0.09
Stage 2	-5.9	0.37	-0.11
Stage 2	-6.1	0.34	-0.13
Stage 2	-6.3	0.31	-0.15
Stage 2	-6.5	0.28	-0.17
Stage 2	-6.7	0.25	-0.18
Stage 2	-6.9	0.21	-0.18
Stage 2	-7.1	0.18	-0.17
Stage 2	-7.3	0.14	-0.16
Stage 2	-7.5	0.11	-0.15
Stage 2	-7.7	0.08	-0.14
Stage 2	-7.9	0.06	-0.13
Stage 2	-8.1	0.04	-0.11
Stage 2	-8.3	0.02	-0.1
Stage 2	-8.5	0	-0.08
Stage 2	-8.7	-0.01	-0.07
Stage 2	-8.9	-0.02	-0.05
Stage 2	-9.1	-0.03	-0.04
Stage 2	-9.3	-0.04	-0.03
Stage 2	-9.5	-0.04	-0.02
Stage 2	-9.7	-0.04	-0.01
Stage 2	-9.9	-0.04	0
Stage 2	-10.1	-0.04	0.01
Stage 2	-10.3	-0.03	0.02
Stage 2	-10.5	-0.03	0.02
Stage 2	-10.7	-0.03	0.03
Stage 2	-10.9	-0.02	0.03
Stage 2	-11.1	-0.01	0.03
Stage 2	-11.3	-0.01	0.03
Stage 2	-11.5	-0.01	0.02
Stage 2	-11.7	0	0.02
Stage 2	-11.9	0	0.01
Stage 2	-12	0	0

Tabella Risultati Paratia Nominal - Stage: Stage 3

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	0
Stage 3	-0.2	0	0
Stage 3	-0.2	0	0
Stage 3	-0.4	-0.1	-0.5
Stage 3	-0.5	-0.22	-1.25
Stage 3	-0.7	-0.66	-2.18
Stage 3	-0.9	-1.45	-3.94
Stage 3	-1.1	-2.69	-6.22
Stage 3	-1.3	-4.17	-7.37
Stage 3	-1.5	-5.55	-6.92
Stage 3	-1.7	-6.84	-6.47
Stage 3	-1.9	-8.05	-6.02
Stage 3	-2.1	-9.16	-5.56
Stage 3	-2.3	-10.18	-5.09
Stage 3	-2.5	-11.1	-4.61
Stage 3	-2.7	-11.92	-4.1
Stage 3	-2.9	-12.64	-3.57
Stage 3	-3.1	-13.24	-3
Stage 3	-3.3	-13.72	-2.4
Stage 3	-3.5	-14.07	-1.74
Stage 3	-3.7	-14.27	-1.03
Stage 3	-3.9	-14.33	-0.27
Stage 3	-4.1	-14.21	0.56
Stage 3	-4.3	-13.92	1.47
Stage 3	-4.5	-13.43	2.46
Stage 3	-4.7	-12.72	3.51
Stage 3	-4.9	-11.87	4.27
Stage 3	-5.1	-10.91	4.79
Stage 3	-5.3	-9.89	5.11
Stage 3	-5.5	-8.83	5.26
Stage 3	-5.7	-7.78	5.28
Stage 3	-5.9	-6.75	5.16
Stage 3	-6.1	-5.76	4.91
Stage 3	-6.3	-4.85	4.59
Stage 3	-6.5	-4	4.22
Stage 3	-6.7	-3.24	3.82
Stage 3	-6.9	-2.56	3.41
Stage 3	-7.1	-1.96	2.99
Stage 3	-7.3	-1.44	2.59
Stage 3	-7.5	-1	2.21
Stage 3	-7.7	-0.63	1.85
Stage 3	-7.9	-0.32	1.52
Stage 3	-8.1	-0.08	1.22
Stage 3	-8.3	0.11	0.95
Stage 3	-8.5	0.26	0.72
Stage 3	-8.7	0.36	0.51
Stage 3	-8.9	0.43	0.33
Stage 3	-9.1	0.46	0.18
Stage 3	-9.3	0.47	0.06
Stage 3	-9.5	0.47	-0.04
Stage 3	-9.7	0.44	-0.12
Stage 3	-9.9	0.41	-0.18
Stage 3	-10.1	0.36	-0.22
Stage 3	-10.3	0.31	-0.25
Stage 3	-10.5	0.26	-0.26
Stage 3	-10.7	0.21	-0.26
Stage 3	-10.9	0.16	-0.25
Stage 3	-11.1	0.11	-0.23
Stage 3	-11.3	0.07	-0.2
Stage 3	-11.5	0.04	-0.16
Stage 3	-11.7	0.01	-0.12
Stage 3	-11.9	0	-0.06
Stage 3	-12	0	-0.02

Tabella Risultati Paratia Nominal - Stage: Stage 4

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	0
Stage 4	-0.2	0	0
Stage 4	-0.2	0	0
Stage 4	-0.4	-0.1	-0.5
Stage 4	-0.5	-0.22	-1.25
Stage 4	-0.7	-0.66	-2.18
Stage 4	-0.9	-1.45	-3.94
Stage 4	-1.1	-2.69	-6.22
Stage 4	-1.3	-4.17	-7.37
Stage 4	-1.5	-5.55	-6.92
Stage 4	-1.7	-6.85	-6.47
Stage 4	-1.9	-8.05	-6.02
Stage 4	-2.1	-9.16	-5.56
Stage 4	-2.3	-10.18	-5.09
Stage 4	-2.5	-11.1	-4.61
Stage 4	-2.7	-11.92	-4.1
Stage 4	-2.9	-12.64	-3.57
Stage 4	-3.1	-13.24	-3
Stage 4	-3.3	-13.72	-2.4
Stage 4	-3.5	-14.07	-1.74
Stage 4	-3.7	-14.27	-1.03
Stage 4	-3.9	-14.33	-0.27
Stage 4	-4.1	-14.21	0.56
Stage 4	-4.3	-13.92	1.47
Stage 4	-4.5	-13.42	2.47
Stage 4	-4.7	-12.72	3.51
Stage 4	-4.9	-11.87	4.27
Stage 4	-5.1	-10.91	4.8
Stage 4	-5.3	-9.89	5.12
Stage 4	-5.5	-8.83	5.27
Stage 4	-5.7	-7.78	5.28
Stage 4	-5.9	-6.75	5.15
Stage 4	-6.1	-5.76	4.91
Stage 4	-6.3	-4.85	4.59
Stage 4	-6.5	-4	4.22
Stage 4	-6.7	-3.24	3.82
Stage 4	-6.9	-2.56	3.41
Stage 4	-7.1	-1.96	2.99
Stage 4	-7.3	-1.44	2.59
Stage 4	-7.5	-1	2.21
Stage 4	-7.7	-0.63	1.85
Stage 4	-7.9	-0.32	1.52
Stage 4	-8.1	-0.08	1.22
Stage 4	-8.3	0.11	0.95
Stage 4	-8.5	0.26	0.72
Stage 4	-8.7	0.36	0.51
Stage 4	-8.9	0.42	0.33
Stage 4	-9.1	0.46	0.18
Stage 4	-9.3	0.47	0.06
Stage 4	-9.5	0.47	-0.04
Stage 4	-9.7	0.44	-0.12
Stage 4	-9.9	0.41	-0.18
Stage 4	-10.1	0.36	-0.22
Stage 4	-10.3	0.31	-0.25
Stage 4	-10.5	0.26	-0.26
Stage 4	-10.7	0.21	-0.26
Stage 4	-10.9	0.16	-0.25
Stage 4	-11.1	0.11	-0.23
Stage 4	-11.3	0.07	-0.2
Stage 4	-11.5	0.04	-0.16
Stage 4	-11.7	0.01	-0.12
Stage 4	-11.9	0	-0.06
Stage 4	-12	0	-0.02

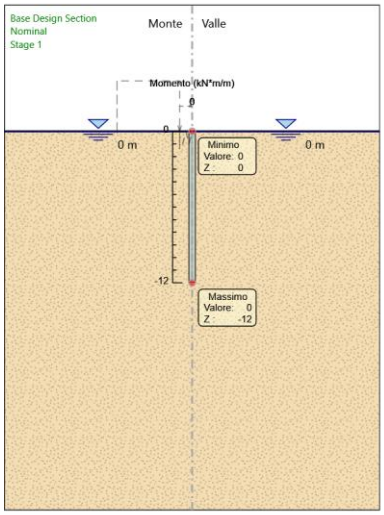
Tabella Risultati Paratia Nominal - Stage: Stage 5

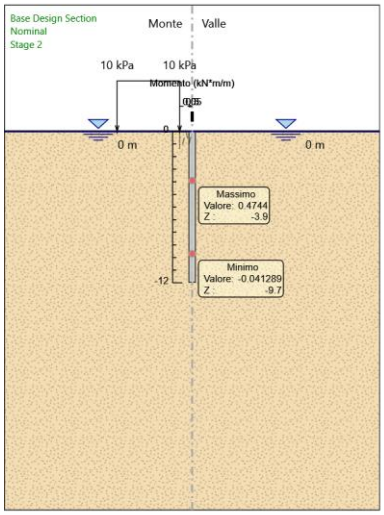
Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	0
Stage 5	-0.2	0	0
Stage 5	-0.2	0	0
Stage 5	-0.4	-0.09	-0.44
Stage 5	-0.5	-0.2	-1.11
Stage 5	-0.7	13.73	69.66
Stage 5	-0.9	27.35	68.1
Stage 5	-1.1	40.57	66.08
Stage 5	-1.3	53.29	63.6
Stage 5	-1.5	65.42	60.67
Stage 5	-1.7	76.88	57.28
Stage 5	-1.9	87.57	53.43
Stage 5	-2.1	97.39	49.11
Stage 5	-2.3	106.26	44.34
Stage 5	-2.5	114.08	39.11
Stage 5	-2.7	120.76	33.43
Stage 5	-2.9	126.22	27.3
Stage 5	-3.1	130.37	20.72
Stage 5	-3.3	133.11	13.69
Stage 5	-3.5	134.35	6.22
Stage 5	-3.7	134.01	-1.71
Stage 5	-3.9	131.99	-10.08
Stage 5	-4.1	128.21	-18.9
Stage 5	-4.3	122.58	-28.16
Stage 5	-4.5	115.01	-37.86
Stage 5	-4.7	105.41	-48.01
Stage 5	-4.9	94.25	-55.77
Stage 5	-5.1	82.03	-61.14
Stage 5	-5.3	69.2	-64.12
Stage 5	-5.5	56.26	-64.7
Stage 5	-5.7	43.68	-62.89
Stage 5	-5.9	31.95	-58.69
Stage 5	-6.1	21.06	-54.43
Stage 5	-6.3	11.01	-50.24
Stage 5	-6.5	1.79	-46.13
Stage 5	-6.7	-6.63	-42.1
Stage 5	-6.9	-14.26	-38.14
Stage 5	-7.1	-21.11	-34.26
Stage 5	-7.3	-27.21	-30.46
Stage 5	-7.5	-32.55	-26.74
Stage 5	-7.7	-37.17	-23.08
Stage 5	-7.9	-41.07	-19.49
Stage 5	-8.1	-44.26	-15.97
Stage 5	-8.3	-46.76	-12.51
Stage 5	-8.5	-48.58	-9.1
Stage 5	-8.7	-49.73	-5.74
Stage 5	-8.9	-50.22	-2.43
Stage 5	-9.1	-50.05	0.85
Stage 5	-9.3	-49.23	4.1
Stage 5	-9.5	-47.76	7.32
Stage 5	-9.7	-45.66	10.51
Stage 5	-9.9	-42.93	13.67
Stage 5	-10.1	-39.57	16.8
Stage 5	-10.3	-35.59	19.92
Stage 5	-10.5	-30.98	23.02
Stage 5	-10.7	-25.76	26.12
Stage 5	-10.9	-20.1	28.28
Stage 5	-11.1	-14.47	28.19
Stage 5	-11.3	-9.29	25.89
Stage 5	-11.5	-5.01	21.38
Stage 5	-11.7	-1.91	15.51
Stage 5	-11.9	-0.22	8.44
Stage 5	-12	0	2.22

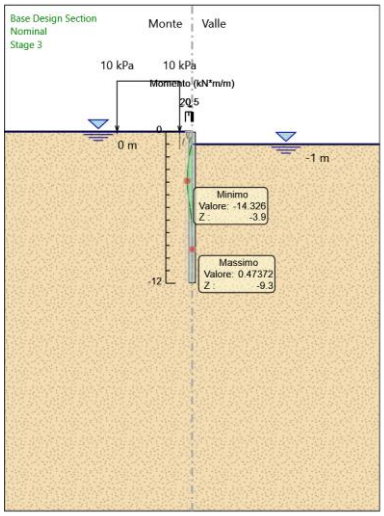
Tabella Risultati Paratia Nominal - Stage: Stage 6

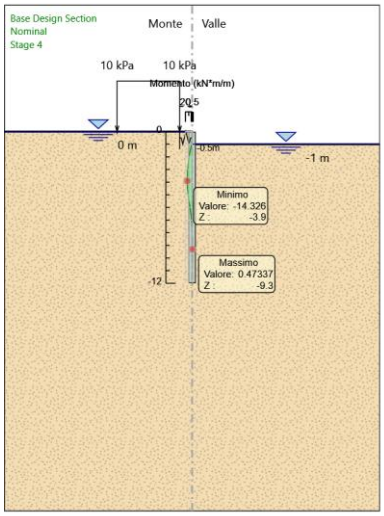
Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	-0.17
Stage 6	-0.2	-0.03	-0.17
Stage 6	-0.4	-0.25	-1.1
Stage 6	-0.5	-0.47	-2.19
Stage 6	-0.7	20.42	104.45
Stage 6	-0.9	40.86	102.2
Stage 6	-1.1	60.74	99.42
Stage 6	-1.3	79.96	96.11
Stage 6	-1.5	98.42	92.28
Stage 6	-1.7	116	87.9
Stage 6	-1.9	132.59	82.98
Stage 6	-2.1	148.1	77.51
Stage 6	-2.3	162.4	71.51
Stage 6	-2.5	175.39	64.97
Stage 6	-2.7	186.97	57.89
Stage 6	-2.9	197.03	50.27
Stage 6	-3.1	205.45	42.11
Stage 6	-3.3	212.13	33.41
Stage 6	-3.5	216.96	24.17
Stage 6	-3.7	219.84	14.39
Stage 6	-3.9	220.65	4.07
Stage 6	-4.1	219.3	-6.79
Stage 6	-4.3	215.66	-18.19
Stage 6	-4.5	209.63	-30.13
Stage 6	-4.7	201.14	-42.44
Stage 6	-4.9	190.57	-52.89
Stage 6	-5.1	178.24	-61.64
Stage 6	-5.3	164.5	-68.69
Stage 6	-5.5	149.69	-74.05
Stage 6	-5.7	134.15	-77.71
Stage 6	-5.9	118.22	-79.67
Stage 6	-6.1	102.23	-79.94
Stage 6	-6.3	86.53	-78.51
Stage 6	-6.5	71.45	-75.39
Stage 6	-6.7	57.34	-70.56
Stage 6	-6.9	44.53	-64.04
Stage 6	-7.1	33.13	-56.96
Stage 6	-7.3	23.09	-50.23
Stage 6	-7.5	14.32	-43.84
Stage 6	-7.7	6.76	-37.8
Stage 6	-7.9	0.34	-32.12
Stage 6	-8.1	-5.02	-26.79
Stage 6	-8.3	-9.39	-21.82
Stage 6	-8.5	-12.83	-17.21
Stage 6	-8.7	-15.42	-12.95
Stage 6	-8.9	-17.23	-9.04
Stage 6	-9.1	-18.32	-5.49
Stage 6	-9.3	-18.78	-2.28
Stage 6	-9.5	-18.67	0.57
Stage 6	-9.7	-18.05	3.08
Stage 6	-9.9	-17	5.24
Stage 6	-10.1	-15.6	7.02
Stage 6	-10.3	-13.91	8.41
Stage 6	-10.5	-12.03	9.41
Stage 6	-10.7	-10.03	10.01
Stage 6	-10.9	-7.99	10.23
Stage 6	-11.1	-5.98	10.05
Stage 6	-11.3	-4.08	9.47
Stage 6	-11.5	-2.4	8.43
Stage 6	-11.7	-1.02	6.9
Stage 6	-11.9	-0.13	4.44
Stage 6	-12	0	1.28

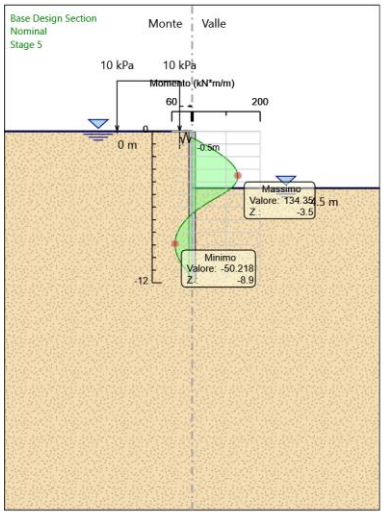
Grafico Momento Nominal











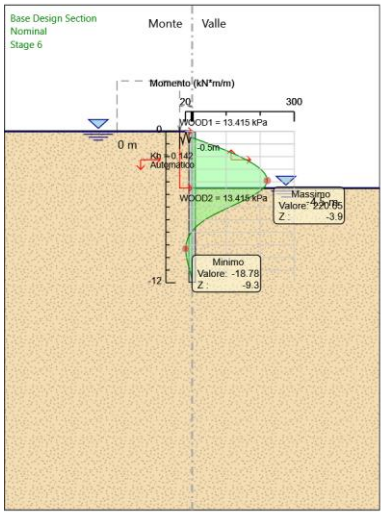
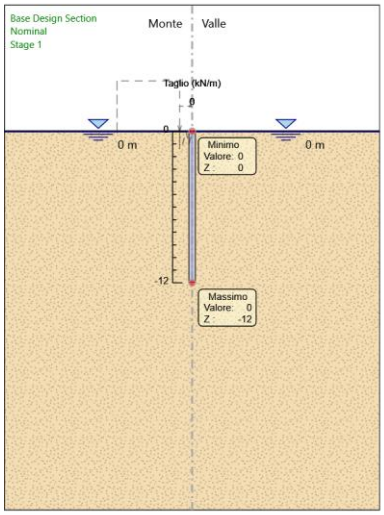
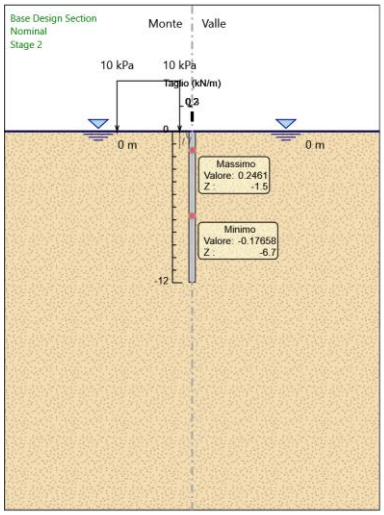
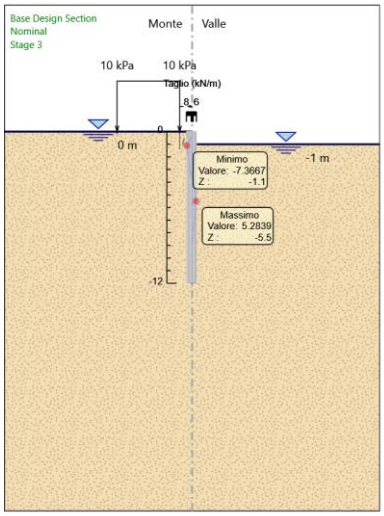
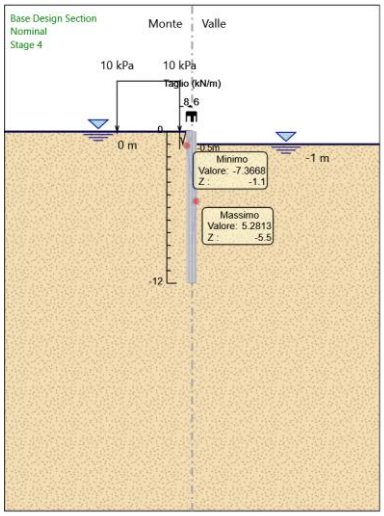


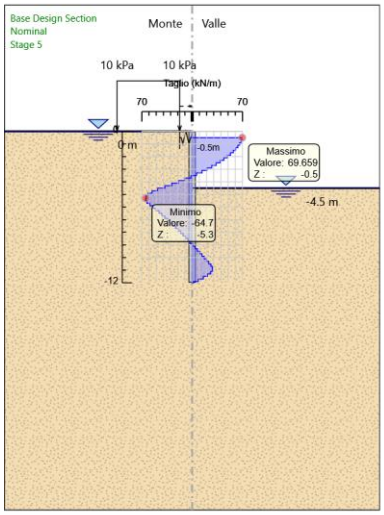
Grafico Taglio Nominal











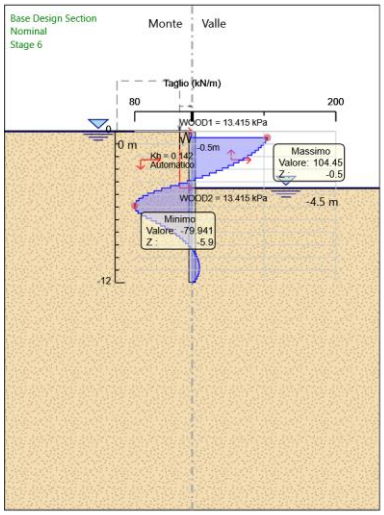
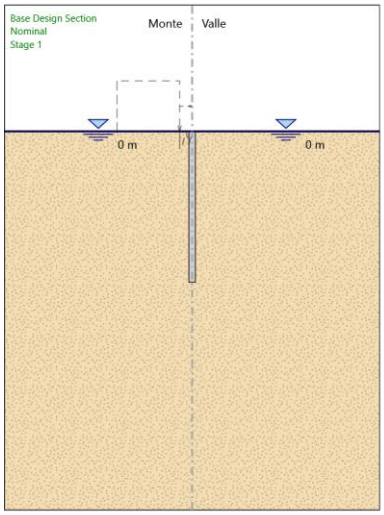
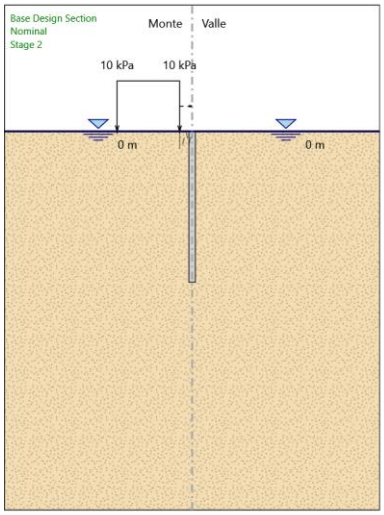
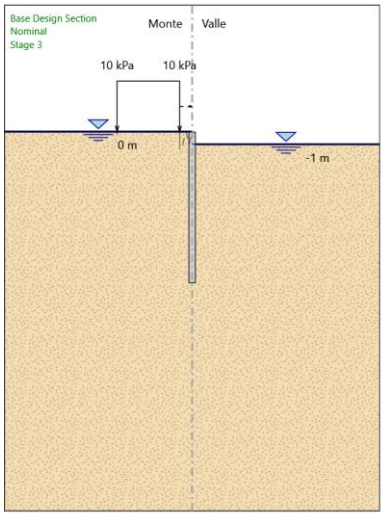
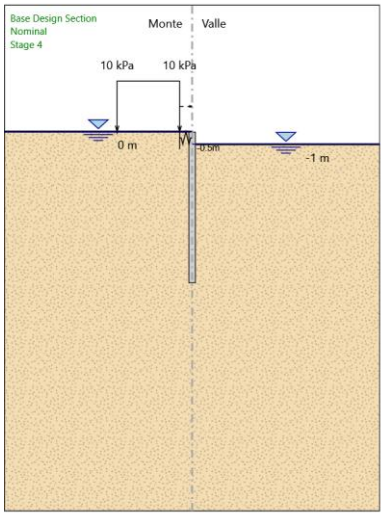


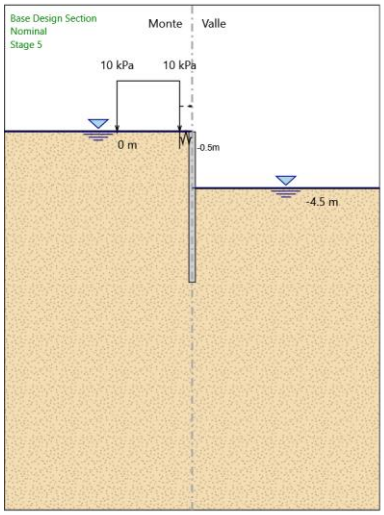
Grafico Momento Nominal











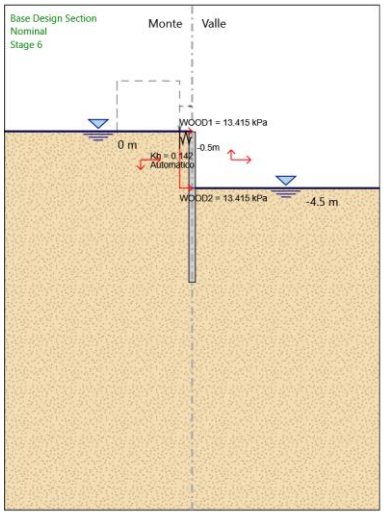
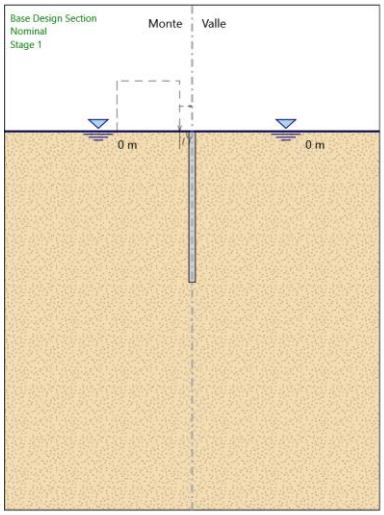
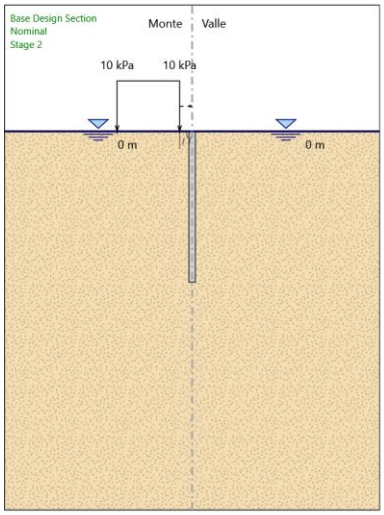
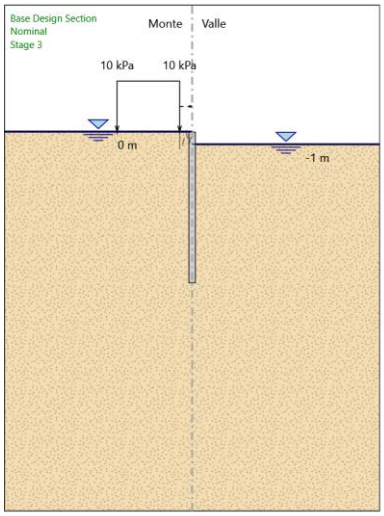
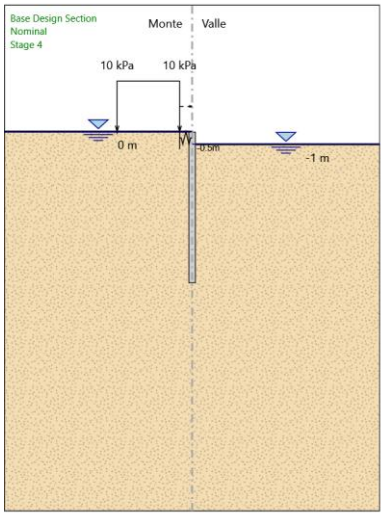


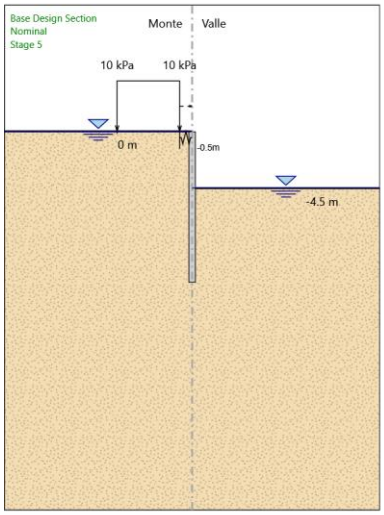
Grafico Taglio Nominal

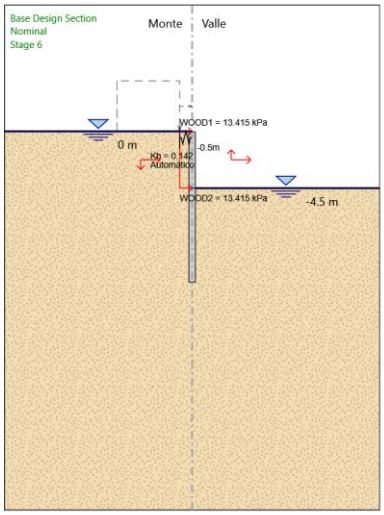












Risultati Elementi strutturali

Design Assumption: Nominal	Sollecitazione Spring
Stage	Forza (kN/m)
Stage 4	-6.3092093E-06
Stage 5	71.59735
Stage 6	107.9336

Risultati Terreno

Tabella Risultati Terreno Left Wall - Nominal - Stage 1

Design Assumption: Nominal	Risultati Terreno		Muro:	LEFT		Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 1	0	0	0	V-C	0.249	6.738	0	0	0	0	0
Stage 1	-0.2	2.2	1.1	V-C	0.249	6.738	0	2	0	0	3.1
Stage 1	-0.4	4.4	2.2	V-C	0.249	6.738	0	4	0	0	6.2
Stage 1	-0.5	5.5	2.75	V-C	0.249	6.738	0	5	0	0	7.75
Stage 1	-0.7	7.7	3.85	V-C	0.249	6.738	0	7	0	0	10.85
Stage 1	-0.9	9.9	4.95	V-C	0.249	6.738	0	9	0	0	13.95
Stage 1	-1.1	12.1	6.05	V-C	0.249	6.738	0	11	0	0	17.05
Stage 1	-1.3	14.3	7.15	V-C	0.249	6.738	0	13	0	0	20.15
Stage 1	-1.5	16.5	8.25	V-C	0.249	6.738	0	15	0	0	23.25
Stage 1	-1.7	18.7	9.35	V-C	0.249	6.738	0	17	0	0	26.35
Stage 1	-1.9	20.9	10.45	V-C	0.249	6.738	0	19	0	0	29.45
Stage 1	-2.1	23.1	11.55	V-C	0.249	6.738	0	21	0	0	32.55
Stage 1	-2.3	25.3	12.65	V-C	0.249	6.738	0	23	0	0	35.65
Stage 1	-2.5	27.5	13.75	V-C	0.249	6.738	0	25	0	0	38.75
Stage 1	-2.7	29.7	14.85	V-C	0.249	6.738	0	27	0	0	41.85
Stage 1	-2.9	31.9	15.95	V-C	0.249	6.738	0	29	0	0	44.95
Stage 1	-3.1	34.1	17.05	V-C	0.249	6.738	0	31	0	0	48.05
Stage 1	-3.3	36.3	18.15	V-C	0.249	6.738	0	33	0	0	51.15
Stage 1	-3.5	38.5	19.25	V-C	0.249	6.738	0	35	0	0	54.25
Stage 1	-3.7	40.7	20.35	V-C	0.249	6.738	0	37	0	0	57.35
Stage 1	-3.9	42.9	21.45	V-C	0.249	6.738	0	39	0	0	60.45
Stage 1	-4.1	45.1	22.55	V-C	0.249	6.738	0	41	0	0	63.55
Stage 1	-4.3	47.3	23.65	V-C	0.249	6.738	0	43	0	0	66.65
Stage 1	-4.5	49.5	24.75	V-C	0.249	6.738	0	45	0	0	69.75
Stage 1	-4.7	51.7	25.85	V-C	0.249	6.738	0	47	0	0	72.85
Stage 1	-4.9	53.9	26.95	V-C	0.249	6.738	0	49	0	0	75.95
Stage 1	-5.1	56.1	28.05	V-C	0.249	6.738	0	51	0	0	79.05
Stage 1	-5.3	58.3	29.15	V-C	0.249	6.738	0	53	0	0	82.15
Stage 1	-5.5	60.5	30.25	V-C	0.249	6.738	0	55	0	0	85.25
Stage 1	-5.7	62.7	31.35	V-C	0.249	6.738	0	57	0	0	88.35
Stage 1	-5.9	64.9	32.45	V-C	0.249	6.738	0	59	0	0	91.45
Stage 1	-6.1	67.1	33.55	V-C	0.249	6.738	0	61	0	0	94.55
Stage 1	-6.3	69.3	34.65	V-C	0.249	6.738	0	63	0	0	97.65
Stage 1	-6.5	71.5	35.75	V-C	0.249	6.738	0	65	0	0	100.75
Stage 1	-6.7	73.7	36.85	V-C	0.249	6.738	0	67	0	0	103.85
Stage 1	-6.9	75.9	37.95	V-C	0.249	6.738	0	69	0	0	106.95
Stage 1	-7.1	78.1	39.05	V-C	0.249	6.738	0	71	0	0	110.05
Stage 1	-7.3	80.3	40.15	V-C	0.249	6.738	0	73	0	0	113.15
Stage 1	-7.5	82.5	41.25	V-C	0.249	6.738	0	75	0	0	116.25
Stage 1	-7.7	84.7	42.35	V-C	0.249	6.738	0	77	0	0	119.35
Stage 1	-7.9	86.9	43.45	V-C	0.249	6.738	0	79	0	0	122.45
Stage 1	-8.1	89.1	44.55	V-C	0.249	6.738	0	81	0	0	125.55
Stage 1	-8.3	91.3	45.65	V-C	0.249	6.738	0	83	0	0	128.65
Stage 1	-8.5	93.5	46.75	V-C	0.249	6.738	0	85	0	0	131.75
Stage 1	-8.7	95.7	47.85	V-C	0.249	6.738	0	87	0	0	134.85
Stage 1	-8.9	97.9	48.95	V-C	0.249	6.738	0	89	0	0	137.95
Stage 1	-9.1	100.1	50.05	V-C	0.249	6.738	0	91	0	0	141.05
Stage 1	-9.3	102.3	51.15	V-C	0.249	6.738	0	93	0	0	144.15
Stage 1	-9.5	104.5	52.25	V-C	0.249	6.738	0	95	0	0	147.25
Stage 1	-9.7	106.7	53.35	V-C	0.249	6.738	0	97	0	0	150.35
Stage 1	-9.9	108.9	54.45	V-C	0.249	6.738	0	99	0	0	153.45
Stage 1	-10.1	111.1	55.55	V-C	0.249	6.738	0	101	0	0	156.55
Stage 1	-10.3	113.3	56.65	V-C	0.249	6.738	0	103	0	0	159.65
Stage 1	-10.5	115.5	57.75	V-C	0.249	6.738	0	105	0	0	162.75
Stage 1	-10.7	117.7	58.85	V-C	0.249	6.738	0	107	0	0	165.85
Stage 1	-10.9	119.9	59.95	V-C	0.249	6.738	0	109	0	0	168.95
Stage 1	-11.1	122.1	61.05	V-C	0.249	6.738	0	111	0	0	172.05
Stage 1	-11.3	124.3	62.15	V-C	0.249	6.738	0	113	0	0	175.15
Stage 1	-11.5	126.5	63.25	V-C	0.249	6.738	0	115	0	0	178.25
Stage 1	-11.7	128.7	64.35	V-C	0.249	6.738	0	117	0	0	181.35
Stage 1	-11.9	130.9	65.45	V-C	0.249	6.738	0	119	0	0	184.45
Stage 1	-12	132	66	V-C	0.249	6.738	0	120	0	0	186

Design Assumption: Nominal	Risultati Terreno		Muro:	LEFT		Lato	RIGHT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 1	0	0	0	V-C	0.249	6.738	0	0	0	0	0
Stage 1	-0.2	2.2	1.1	V-C	0.249	6.738	0	2	0	0	3.1
Stage 1	-0.4	4.4	2.2	V-C	0.249	6.738	0	4	0	0	6.2
Stage 1	-0.5	5.5	2.75	V-C	0.249	6.738	0	5	0	0	7.75
Stage 1	-0.7	7.7	3.85	V-C	0.249	6.738	0	7	0	0	10.85
Stage 1	-0.9	9.9	4.95	V-C	0.249	6.738	0	9	0	0	13.95
Stage 1	-1.1	12.1	6.05	V-C	0.249	6.738	0	11	0	0	17.05
Stage 1	-1.3	14.3	7.15	V-C	0.249	6.738	0	13	0	0	20.15
Stage 1	-1.5	16.5	8.25	V-C	0.249	6.738	0	15	0	0	23.25
Stage 1	-1.7	18.7	9.35	V-C	0.249	6.738	0	17	0	0	26.35
Stage 1	-1.9	20.9	10.45	V-C	0.249	6.738	0	19	0	0	29.45
Stage 1	-2.1	23.1	11.55	V-C	0.249	6.738	0	21	0	0	32.55
Stage 1	-2.3	25.3	12.65	V-C	0.249	6.738	0	23	0	0	35.65
Stage 1	-2.5	27.5	13.75	V-C	0.249	6.738	0	25	0	0	38.75
Stage 1	-2.7	29.7	14.85	V-C	0.249	6.738	0	27	0	0	41.85
Stage 1	-2.9	31.9	15.95	V-C	0.249	6.738	0	29	0	0	44.95
Stage 1	-3.1	34.1	17.05	V-C	0.249	6.738	0	31	0	0	48.05
Stage 1	-3.3	36.3	18.15	V-C	0.249	6.738	0	33	0	0	51.15
Stage 1	-3.5	38.5	19.25	V-C	0.249	6.738	0	35	0	0	54.25
Stage 1	-3.7	40.7	20.35	V-C	0.249	6.738	0	37	0	0	57.35
Stage 1	-3.9	42.9	21.45	V-C	0.249	6.738	0	39	0	0	60.45
Stage 1	-4.1	45.1	22.55	V-C	0.249	6.738	0	41	0	0	63.55
Stage 1	-4.3	47.3	23.65	V-C	0.249	6.738	0	43	0	0	66.65
Stage 1	-4.5	49.5	24.75	V-C	0.249	6.738	0	45	0	0	69.75
Stage 1	-4.7	51.7	25.85	V-C	0.249	6.738	0	47	0	0	72.85
Stage 1	-4.9	53.9	26.95	V-C	0.249	6.738	0	49	0	0	75.95
Stage 1	-5.1	56.1	28.05	V-C	0.249	6.738	0	51	0	0	79.05
Stage 1	-5.3	58.3	29.15	V-C	0.249	6.738	0	53	0	0	82.15
Stage 1	-5.5	60.5	30.25	V-C	0.249	6.738	0	55	0	0	85.25
Stage 1	-5.7	62.7	31.35	V-C	0.249	6.738	0	57	0	0	88.35
Stage 1	-5.9	64.9	32.45	V-C	0.249	6.738	0	59	0	0	91.45
Stage 1	-6.1	67.1	33.55	V-C	0.249	6.738	0	61	0	0	94.55
Stage 1	-6.3	69.3	34.65	V-C	0.249	6.738	0	63	0	0	97.65
Stage 1	-6.5	71.5	35.75	V-C	0.249	6.738	0	65	0	0	100.75
Stage 1	-6.7	73.7	36.85	V-C	0.249	6.738	0	67	0	0	103.85
Stage 1	-6.9	75.9	37.95	V-C	0.249	6.738	0	69	0	0	106.95
Stage 1	-7.1	78.1	39.05	V-C	0.249	6.738	0	71	0	0	110.05
Stage 1	-7.3	80.3	40.15	V-C	0.249	6.738	0	73	0	0	113.15
Stage 1	-7.5	82.5	41.25	V-C	0.249	6.738	0	75	0	0	116.25
Stage 1	-7.7	84.7	42.35	V-C	0.249	6.738	0	77	0	0	119.35
Stage 1	-7.9	86.9	43.45	V-C	0.249	6.738	0	79	0	0	122.45
Stage 1	-8.1	89.1	44.55	V-C	0.249	6.738	0	81	0	0	125.55
Stage 1	-8.3	91.3	45.65	V-C	0.249	6.738	0	83	0	0	128.65
Stage 1	-8.5	93.5	46.75	V-C	0.249	6.738	0	85	0	0	131.75
Stage 1	-8.7	95.7	47.85	V-C	0.249	6.738	0	87	0	0	134.85
Stage 1	-8.9	97.9	48.95	V-C	0.249	6.738	0	89	0	0	137.95
Stage 1	-9.1	100.1	50.05	V-C	0.249	6.738	0	91	0	0	141.05
Stage 1	-9.3	102.3	51.15	V-C	0.249	6.738	0	93	0	0	144.15
Stage 1	-9.5	104.5	52.25	V-C	0.249	6.738	0	95	0	0	147.25
Stage 1	-9.7	106.7	53.35	V-C	0.249	6.738	0	97	0	0	150.35
Stage 1	-9.9	108.9	54.45	V-C	0.249	6.738	0	99	0	0	153.45
Stage 1	-10.1	111.1	55.55	V-C	0.249	6.738	0	101	0	0	156.55
Stage 1	-10.3	113.3	56.65	V-C	0.249	6.738	0	103	0	0	159.65
Stage 1	-10.5	115.5	57.75	V-C	0.249	6.738	0	105	0	0	162.75
Stage 1	-10.7	117.7	58.85	V-C	0.249	6.738	0	107	0	0	165.85
Stage 1	-10.9	119.9	59.95	V-C	0.249	6.738	0	109	0	0	168.95
Stage 1	-11.1	122.1	61.05	V-C	0.249	6.738	0	111	0	0	172.05
Stage 1	-11.3	124.3	62.15	V-C	0.249	6.738	0	113	0	0	175.15
Stage 1	-11.5	126.5	63.25	V-C	0.249	6.738	0	115	0	0	178.25
Stage 1	-11.7	128.7	64.35	V-C	0.249	6.738	0	117	0	0	181.35
Stage 1	-11.9	130.9	65.45	V-C	0.249	6.738	0	119	0	0	184.45
Stage 1	-12	132	66	V-C	0.249	6.738	0	120	0	0	186

Tabella Risultati Terreno Left Wall - Nominal - Stage 2

Design Assumption: Nominal	Risultati Terreno		Muro:	LEFT		Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 2	0	0	0	PASSIVE	0.249	6.738	0	0	0	0	0
Stage 2	-0.2	2.216	1.035	UL-RL	0.249	6.738	0	2	0	0	3.035
Stage 2	-0.4	4.513	2.063	UL-RL	0.249	6.738	0	4	0	0	6.063
Stage 2	-0.5	5.701	2.597	UL-RL	0.249	6.738	0	5	0	0	7.597
Stage 2	-0.7	8.145	3.698	UL-RL	0.249	6.738	0	7	0	0	10.698
Stage 2	-0.9	10.643	4.826	UL-RL	0.249	6.738	0	9	0	0	13.826
Stage 2	-1.1	13.155	5.962	UL-RL	0.249	6.738	0	11	0	0	16.962
Stage 2	-1.3	15.654	7.093	UL-RL	0.249	6.738	0	13	0	0	20.093
Stage 2	-1.5	18.307	8.301	UL-RL	0.249	6.738	0	15	0	0	23.301
Stage 2	-1.7	20.986	9.526	UL-RL	0.249	6.738	0	17	0	0	26.526
Stage 2	-1.9	23.583	10.712	UL-RL	0.249	6.738	0	19	0	0	29.712
Stage 2	-2.1	26.116	11.869	UL-RL	0.249	6.738	0	21	0	0	32.869
Stage 2	-2.3	28.6	13.007	UL-RL	0.249	6.738	0	23	0	0	36.007
Stage 2	-2.5	31.045	14.129	UL-RL	0.249	6.738	0	25	0	0	39.129
Stage 2	-2.7	33.459	15.241	UL-RL	0.249	6.738	0	27	0	0	42.241
Stage 2	-2.9	35.848	16.345	UL-RL	0.249	6.738	0	29	0	0	45.345
Stage 2	-3.1	38.215	17.445	UL-RL	0.249	6.738	0	31	0	0	48.445
Stage 2	-3.3	40.564	18.542	UL-RL	0.249	6.738	0	33	0	0	51.542
Stage 2	-3.5	42.899	19.637	UL-RL	0.249	6.738	0	35	0	0	54.637
Stage 2	-3.7	45.287	20.766	UL-RL	0.249	6.738	0	37	0	0	57.766
Stage 2	-3.9	47.594	21.86	UL-RL	0.249	6.738	0	39	0	0	60.86
Stage 2	-4.1	49.83	22.926	UL-RL	0.249	6.738	0	41	0	0	63.926
Stage 2	-4.3	52.122	24.026	UL-RL	0.249	6.738	0	43	0	0	67.026
Stage 2	-4.5	54.407	25.128	UL-RL	0.249	6.738	0	45	0	0	70.128
Stage 2	-4.7	56.685	26.233	UL-RL	0.249	6.738	0	47	0	0	73.233
Stage 2	-4.9	58.957	27.342	UL-RL	0.249	6.738	0	49	0	0	76.342
Stage 2	-5.1	61.225	28.454	UL-RL	0.249	6.738	0	51	0	0	79.454
Stage 2	-5.3	63.487	29.57	UL-RL	0.249	6.738	0	53	0	0	82.57
Stage 2	-5.5	65.745	30.689	UL-RL	0.249	6.738	0	55	0	0	85.689
Stage 2	-5.7	68	31.812	UL-RL	0.249	6.738	0	57	0	0	88.812
Stage 2	-5.9	70.251	32.938	UL-RL	0.249	6.738	0	59	0	0	91.938
Stage 2	-6.1	72.417	34.027	UL-RL	0.249	6.738	0	61	0	0	95.027
Stage 2	-6.3	74.503	35.081	UL-RL	0.249	6.738	0	63	0	0	98.081
Stage 2	-6.5	76.595	36.142	UL-RL	0.249	6.738	0	65	0	0	101.142
Stage 2	-6.7	78.691	37.208	UL-RL	0.249	6.738	0	67	0	0	104.208
Stage 2	-6.9	80.791	38.28	UL-RL	0.249	6.738	0	69	0	0	107.28
Stage 2	-7.1	82.896	39.357	UL-RL	0.249	6.738	0	71	0	0	110.357
Stage 2	-7.3	85.004	40.438	UL-RL	0.249	6.738	0	73	0	0	113.438
Stage 2	-7.5	87.115	41.523	UL-RL	0.249	6.738	0	75	0	0	116.523
Stage 2	-7.7	89.23	42.611	UL-RL	0.249	6.738	0	77	0	0	119.611
Stage 2	-7.9	91.348	43.702	UL-RL	0.249	6.738	0	79	0	0	122.702
Stage 2	-8.1	93.469	44.795	UL-RL	0.249	6.738	0	81	0	0	125.795
Stage 2	-8.3	95.593	45.89	UL-RL	0.249	6.738	0	83	0	0	128.89
Stage 2	-8.5	97.719	46.986	UL-RL	0.249	6.738	0	85	0	0	131.986
Stage 2	-8.7	99.848	48.084	UL-RL	0.249	6.738	0	87	0	0	135.084
Stage 2	-8.9	101.98	49.183	UL-RL	0.249	6.738	0	89	0	0	138.183
Stage 2	-9.1	104.113	50.282	UL-RL	0.249	6.738	0	91	0	0	141.282
Stage 2	-9.3	106.249	51.382	UL-RL	0.249	6.738	0	93	0	0	144.382
Stage 2	-9.5	108.387	52.483	UL-RL	0.249	6.738	0	95	0	0	147.483
Stage 2	-9.7	110.527	53.584	UL-RL	0.249	6.738	0	97	0	0	150.584
Stage 2	-9.9	112.668	54.686	UL-RL	0.249	6.738	0	99	0	0	153.686
Stage 2	-10.1	114.812	55.788	UL-RL	0.249	6.738	0	101	0	0	156.787
Stage 2	-10.3	116.957	56.89	UL-RL	0.249	6.738	0	103	0	0	159.89
Stage 2	-10.5	119.103	57.992	UL-RL	0.249	6.738	0	105	0	0	162.992
Stage 2	-10.7	121.252	59.095	UL-RL	0.249	6.738	0	107	0	0	166.095
Stage 2	-10.9	123.401	60.198	UL-RL	0.249	6.738	0	109	0	0	169.198
Stage 2	-11.1	125.553	61.302	UL-RL	0.249	6.738	0	111	0	0	172.302
Stage 2	-11.3	127.705	62.406	UL-RL	0.249	6.738	0	113	0	0	175.406
Stage 2	-11.5	129.859	63.511	UL-RL	0.249	6.738	0	115	0	0	178.511
Stage 2	-11.7	132.014	64.616	UL-RL	0.249	6.738	0	117	0	0	181.616
Stage 2	-11.9	134.17	65.722	UL-RL	0.249	6.738	0	119	0	0	184.722
Stage 2	-12	135.249	66.275	UL-RL	0.249	6.738	0	120	0	0	186.275

Design Assumption: Nominal	Risultati Terreno		Muro:	LEFT		Lato	RIGHT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 2	0	0	0	ACTIVE	0.249	6.738	0	0	0	0	0
Stage 2	-0.2	2.2	1.112	V-C	0.249	6.738	0	2	0	0	3.112
Stage 2	-0.4	4.4	2.232	V-C	0.249	6.738	0	4	0	0	6.232
Stage 2	-0.5	5.5	2.792	V-C	0.249	6.738	0	5	0	0	7.792
Stage 2	-0.7	7.7	3.912	V-C	0.249	6.738	0	7	0	0	10.912
Stage 2	-0.9	9.9	5.032	V-C	0.249	6.738	0	9	0	0	14.032
Stage 2	-1.1	12.1	6.152	V-C	0.249	6.738	0	11	0	0	17.152
Stage 2	-1.3	14.3	7.272	V-C	0.249	6.738	0	13	0	0	20.272
Stage 2	-1.5	16.5	8.391	V-C	0.249	6.738	0	15	0	0	23.391
Stage 2	-1.7	18.7	9.51	V-C	0.249	6.738	0	17	0	0	26.51
Stage 2	-1.9	20.9	10.629	V-C	0.249	6.738	0	19	0	0	29.629
Stage 2	-2.1	23.1	11.747	V-C	0.249	6.738	0	21	0	0	32.747
Stage 2	-2.3	25.3	12.864	V-C	0.249	6.738	0	23	0	0	35.864
Stage 2	-2.5	27.5	13.981	V-C	0.249	6.738	0	25	0	0	38.981
Stage 2	-2.7	29.7	15.097	V-C	0.249	6.738	0	27	0	0	42.097
Stage 2	-2.9	31.9	16.212	V-C	0.249	6.738	0	29	0	0	45.212
Stage 2	-3.1	34.1	17.326	V-C	0.249	6.738	0	31	0	0	48.326
Stage 2	-3.3	36.3	18.438	V-C	0.249	6.738	0	33	0	0	51.438
Stage 2	-3.5	38.5	19.55	V-C	0.249	6.738	0	35	0	0	54.55
Stage 2	-3.7	40.7	20.661	V-C	0.249	6.738	0	37	0	0	57.661
Stage 2	-3.9	42.9	21.771	V-C	0.249	6.738	0	39	0	0	60.771
Stage 2	-4.1	45.1	22.88	V-C	0.249	6.738	0	41	0	0	63.88
Stage 2	-4.3	47.3	23.987	V-C	0.249	6.738	0	43	0	0	66.987
Stage 2	-4.5	49.5	25.094	V-C	0.249	6.738	0	45	0	0	70.094
Stage 2	-4.7	51.7	26.2	V-C	0.249	6.738	0	47	0	0	73.2
Stage 2	-4.9	53.9	27.304	V-C	0.249	6.738	0	49	0	0	76.304
Stage 2	-5.1	56.1	28.408	V-C	0.249	6.738	0	51	0	0	79.408
Stage 2	-5.3	58.3	29.51	V-C	0.249	6.738	0	53	0	0	82.51
Stage 2	-5.5	60.5	30.612	V-C	0.249	6.738	0	55	0	0	85.612
Stage 2	-5.7	62.7	31.713	V-C	0.249	6.738	0	57	0	0	88.713
Stage 2	-5.9	64.9	32.812	V-C	0.249	6.738	0	59	0	0	91.812
Stage 2	-6.1	67.1	33.911	V-C	0.249	6.738	0	61	0	0	94.911
Stage 2	-6.3	69.3	35.01	V-C	0.249	6.738	0	63	0	0	98.01
Stage 2	-6.5	71.5	36.107	V-C	0.249	6.738	0	65	0	0	101.107
Stage 2	-6.7	73.7	37.204	V-C	0.249	6.738	0	67	0	0	104.204
Stage 2	-6.9	75.9	38.301	V-C	0.249	6.738	0	69	0	0	107.3
Stage 2	-7.1	78.1	39.396	V-C	0.249	6.738	0	71	0	0	110.396
Stage 2	-7.3	80.3	40.492	V-C	0.249	6.738	0	73	0	0	113.492
Stage 2	-7.5	82.5	41.587	V-C	0.249	6.738	0	75	0	0	116.587
Stage 2	-7.7	84.7	42.682	V-C	0.249	6.738	0	77	0	0	119.682
Stage 2	-7.9	86.9	43.777	V-C	0.249	6.738	0	79	0	0	122.777
Stage 2	-8.1	89.1	44.871	V-C	0.249	6.738	0	81	0	0	125.871
Stage 2	-8.3	91.3	45.966	V-C	0.249	6.738	0	83	0	0	128.966
Stage 2	-8.5	93.5	47.06	V-C	0.249	6.738	0	85	0	0	132.06
Stage 2	-8.7	95.7	48.155	V-C	0.249	6.738	0	87	0	0	135.155
Stage 2	-8.9	97.9	49.249	V-C	0.249	6.738	0	89	0	0	138.249
Stage 2	-9.1	100.1	50.344	V-C	0.249	6.738	0	91	0	0	141.344
Stage 2	-9.3	102.3	51.439	V-C	0.249	6.738	0	93	0	0	144.439
Stage 2	-9.5	104.5	52.533	V-C	0.249	6.738	0	95	0	0	147.533
Stage 2	-9.7	106.7	53.628	V-C	0.249	6.738	0	97	0	0	150.628
Stage 2	-9.9	108.9	54.723	V-C	0.249	6.738	0	99	0	0	153.723
Stage 2	-10.1	111.1	55.818	V-C	0.249	6.738	0	101	0	0	156.818
Stage 2	-10.3	113.3	56.913	V-C	0.249	6.738	0	103	0	0	159.913
Stage 2	-10.5	115.5	58.008	V-C	0.249	6.738	0	105	0	0	163.008
Stage 2	-10.7	117.7	59.104	V-C	0.249	6.738	0	107	0	0	166.104
Stage 2	-10.9	119.9	60.199	V-C	0.249	6.738	0	109	0	0	169.199
Stage 2	-11.1	122.1	61.294	V-C	0.249	6.738	0	111	0	0	172.294
Stage 2	-11.3	124.3	62.39	V-C	0.249	6.738	0	113	0	0	175.39
Stage 2	-11.5	126.5	63.485	V-C	0.249	6.738	0	115	0	0	178.485
Stage 2	-11.7	128.7	64.58	V-C	0.249	6.738	0	117	0	0	181.58
Stage 2	-11.9	130.9	65.676	V-C	0.249	6.738	0	119	0	0	184.676
Stage 2	-12	132	66.224	V-C	0.249	6.738	0	120	0	0	186.224

Tabella Risultati Terreno Left Wall - Nominal - Stage 3

Design Assumption: Nominal	Risultati Terreno		Muro:	LEFT		Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 3	0	0	0	ACTIVE	0.249	6.738	0	0	0	0	0
Stage 3	-0.2	2.303	0.573	ACTIVE	0.249	6.738	0	1.913	0.043	0	2.487
Stage 3	-0.4	4.687	1.167	ACTIVE	0.249	6.738	0	3.826	0.043	0	4.993
Stage 3	-0.5	5.919	1.474	ACTIVE	0.249	6.738	0	4.783	0.043	0	6.256
Stage 3	-0.7	8.45	2.104	ACTIVE	0.249	6.738	0	6.696	0.043	0	8.8
Stage 3	-0.9	11.034	2.748	ACTIVE	0.249	6.738	0	8.609	0.043	0	11.356
Stage 3	-1.1	13.633	3.395	ACTIVE	0.249	6.738	0	10.522	0.043	0	13.916
Stage 3	-1.3	16.219	4.039	ACTIVE	0.249	6.738	0	12.435	0.043	0	16.473
Stage 3	-1.5	18.959	4.721	ACTIVE	0.249	6.738	0	14.348	0.043	0	19.069
Stage 3	-1.7	21.725	5.41	ACTIVE	0.249	6.738	0	16.261	0.043	0	21.67
Stage 3	-1.9	24.409	6.078	ACTIVE	0.249	6.738	0	18.174	0.043	0	24.252
Stage 3	-2.1	27.029	6.73	ACTIVE	0.249	6.738	0	20.087	0.043	0	26.817
Stage 3	-2.3	29.6	7.37	ACTIVE	0.249	6.738	0	22	0.043	0	29.37
Stage 3	-2.5	32.132	8.001	ACTIVE	0.249	6.738	0	23.913	0.043	0	31.914
Stage 3	-2.7	34.633	8.624	ACTIVE	0.249	6.738	0	25.826	0.043	0	34.45
Stage 3	-2.9	37.109	9.24	ACTIVE	0.249	6.738	0	27.739	0.043	0	36.979
Stage 3	-3.1	39.563	9.851	ACTIVE	0.249	6.738	0	29.652	0.043	0	39.503
Stage 3	-3.3	41.999	10.458	ACTIVE	0.249	6.738	0	31.565	0.043	0	42.023
Stage 3	-3.5	44.42	11.061	ACTIVE	0.249	6.738	0	33.478	0.043	0	44.539
Stage 3	-3.7	46.896	11.677	ACTIVE	0.249	6.738	0	35.391	0.043	0	47.068
Stage 3	-3.9	49.289	12.273	ACTIVE	0.249	6.738	0	37.304	0.043	0	49.577
Stage 3	-4.1	51.613	12.852	ACTIVE	0.249	6.738	0	39.217	0.043	0	52.069
Stage 3	-4.3	53.992	13.444	ACTIVE	0.249	6.738	0	41.13	0.043	0	54.574
Stage 3	-4.5	56.364	14.202	UL-RL	0.249	6.738	0	43.043	0.043	0	57.246
Stage 3	-4.7	58.729	16.666	UL-RL	0.249	6.738	0	44.957	0.043	0	61.623
Stage 3	-4.9	61.088	18.956	UL-RL	0.249	6.738	0	46.87	0.043	0	65.826
Stage 3	-5.1	63.442	21.083	UL-RL	0.249	6.738	0	48.783	0.043	0	69.866
Stage 3	-5.3	65.791	23.06	UL-RL	0.249	6.738	0	50.696	0.043	0	73.756
Stage 3	-5.5	68.137	24.902	UL-RL	0.249	6.738	0	52.609	0.043	0	77.511
Stage 3	-5.7	70.478	26.622	UL-RL	0.249	6.738	0	54.522	0.043	0	81.144
Stage 3	-5.9	72.816	28.236	UL-RL	0.249	6.738	0	56.435	0.043	0	84.67
Stage 3	-6.1	75.069	29.715	UL-RL	0.249	6.738	0	58.348	0.043	0	88.063
Stage 3	-6.3	77.242	31.077	UL-RL	0.249	6.738	0	60.261	0.043	0	91.338
Stage 3	-6.5	79.421	32.376	UL-RL	0.249	6.738	0	62.174	0.043	0	94.549
Stage 3	-6.7	81.604	33.622	UL-RL	0.249	6.738	0	64.087	0.043	0	97.709
Stage 3	-6.9	83.791	34.827	UL-RL	0.249	6.738	0	66	0.043	0	100.827
Stage 3	-7.1	85.983	35.999	UL-RL	0.249	6.738	0	67.913	0.043	0	103.912
Stage 3	-7.3	88.178	37.146	UL-RL	0.249	6.738	0	69.826	0.043	0	106.972
Stage 3	-7.5	90.376	38.275	UL-RL	0.249	6.738	0	71.739	0.043	0	110.014
Stage 3	-7.7	92.578	39.392	UL-RL	0.249	6.738	0	73.652	0.043	0	113.044
Stage 3	-7.9	94.783	40.503	UL-RL	0.249	6.738	0	75.565	0.043	0	116.068
Stage 3	-8.1	96.991	41.61	UL-RL	0.249	6.738	0	77.478	0.043	0	119.088
Stage 3	-8.3	99.202	42.717	UL-RL	0.249	6.738	0	79.391	0.043	0	122.108
Stage 3	-8.5	101.415	43.827	UL-RL	0.249	6.738	0	81.304	0.043	0	125.132
Stage 3	-8.7	103.631	44.942	UL-RL	0.249	6.738	0	83.217	0.043	0	128.159
Stage 3	-8.9	105.849	46.063	UL-RL	0.249	6.738	0	85.13	0.043	0	131.193
Stage 3	-9.1	108.07	47.19	UL-RL	0.249	6.738	0	87.043	0.043	0	134.234
Stage 3	-9.3	110.293	48.325	UL-RL	0.249	6.738	0	88.956	0.043	0	137.281
Stage 3	-9.5	112.517	49.467	UL-RL	0.249	6.738	0	90.87	0.043	0	140.337
Stage 3	-9.7	114.744	50.617	UL-RL	0.249	6.738	0	92.783	0.043	0	143.399
Stage 3	-9.9	116.973	51.773	UL-RL	0.249	6.738	0	94.696	0.043	0	146.468
Stage 3	-10.1	119.203	52.935	UL-RL	0.249	6.738	0	96.609	0.043	0	149.544
Stage 3	-10.3	121.435	54.104	UL-RL	0.249	6.738	0	98.522	0.043	0	152.625
Stage 3	-10.5	123.669	55.277	UL-RL	0.249	6.738	0	100.435	0.043	0	155.712
Stage 3	-10.7	125.904	56.455	UL-RL	0.249	6.738	0	102.348	0.043	0	158.802
Stage 3	-10.9	128.141	57.636	UL-RL	0.249	6.738	0	104.261	0.043	0	161.897
Stage 3	-11.1	130.379	58.82	UL-RL	0.249	6.738	0	106.174	0.043	0	164.994
Stage 3	-11.3	132.618	60.006	UL-RL	0.249	6.738	0	108.087	0.043	0	168.093
Stage 3	-11.5	134.859	61.194	UL-RL	0.249	6.738	0	110	0.043	0	171.194
Stage 3	-11.7	137.101	62.383	UL-RL	0.249	6.738	0	111.913	0.043	0	174.296
Stage 3	-11.9	139.344	63.573	UL-RL	0.249	6.738	0	113.826	0.043	0	177.399
Stage 3	-12	140.466	64.168	UL-RL	0.249	6.738	0	114.783	0.043	0	178.951

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT		Lato	RIGHT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 3	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.9	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.1	1.057	7.119	PASSIVE	0.249	6.738	0	1.043	0.043	0	8.162
Stage 3	-1.3	3.17	15.569	V-C	0.249	6.738	0	3.13	0.043	0	18.699
Stage 3	-1.5	5.283	16.106	V-C	0.249	6.738	0	5.217	0.043	0	21.324
Stage 3	-1.7	7.396	16.626	V-C	0.249	6.738	0	7.304	0.043	0	23.931
Stage 3	-1.9	9.509	17.147	V-C	0.249	6.738	0	9.391	0.043	0	26.538
Stage 3	-2.1	11.622	17.678	V-C	0.249	6.738	0	11.478	0.043	0	29.156
Stage 3	-2.3	13.735	18.224	V-C	0.249	6.738	0	13.565	0.043	0	31.789
Stage 3	-2.5	15.848	18.789	V-C	0.249	6.738	0	15.652	0.043	0	34.441
Stage 3	-2.7	17.961	19.376	V-C	0.249	6.738	0	17.739	0.043	0	37.115
Stage 3	-2.9	20.074	19.988	V-C	0.249	6.738	0	19.826	0.043	0	39.814
Stage 3	-3.1	22.187	20.628	V-C	0.249	6.738	0	21.913	0.043	0	42.541
Stage 3	-3.3	24.3	21.295	V-C	0.249	6.738	0	24	0.043	0	45.295
Stage 3	-3.5	26.413	21.993	V-C	0.249	6.738	0	26.087	0.043	0	48.08
Stage 3	-3.7	28.526	22.721	V-C	0.249	6.738	0	28.174	0.043	0	50.895
Stage 3	-3.9	30.639	23.48	V-C	0.249	6.738	0	30.261	0.043	0	53.741
Stage 3	-4.1	32.752	24.272	V-C	0.249	6.738	0	32.348	0.043	0	56.619
Stage 3	-4.3	34.865	25.094	V-C	0.249	6.738	0	34.435	0.043	0	59.529
Stage 3	-4.5	36.978	25.947	V-C	0.249	6.738	0	36.522	0.043	0	62.469
Stage 3	-4.7	39.091	26.83	V-C	0.249	6.738	0	38.609	0.043	0	65.439
Stage 3	-4.9	41.204	27.741	V-C	0.249	6.738	0	40.696	0.043	0	68.437
Stage 3	-5.1	43.317	28.679	V-C	0.249	6.738	0	42.783	0.043	0	71.462
Stage 3	-5.3	45.43	29.641	V-C	0.249	6.738	0	44.87	0.043	0	74.51
Stage 3	-5.5	47.543	30.624	V-C	0.249	6.738	0	46.957	0.043	0	77.581
Stage 3	-5.7	49.657	31.458	UL-RL	0.249	6.738	0	49.043	0.043	0	80.501
Stage 3	-5.9	51.77	32.32	UL-RL	0.249	6.738	0	51.13	0.043	0	83.451
Stage 3	-6.1	53.883	33.229	UL-RL	0.249	6.738	0	53.217	0.043	0	86.446
Stage 3	-6.3	55.996	34.178	UL-RL	0.249	6.738	0	55.304	0.043	0	89.482
Stage 3	-6.5	58.109	35.161	UL-RL	0.249	6.738	0	57.391	0.043	0	92.552
Stage 3	-6.7	60.222	36.172	UL-RL	0.249	6.738	0	59.478	0.043	0	95.65
Stage 3	-6.9	62.335	37.205	UL-RL	0.249	6.738	0	61.565	0.043	0	98.77
Stage 3	-7.1	64.448	38.257	UL-RL	0.249	6.738	0	63.652	0.043	0	101.909
Stage 3	-7.3	66.561	39.322	UL-RL	0.249	6.738	0	65.739	0.043	0	105.061
Stage 3	-7.5	68.674	40.398	UL-RL	0.249	6.738	0	67.826	0.043	0	108.224
Stage 3	-7.7	70.787	41.48	UL-RL	0.249	6.738	0	69.913	0.043	0	111.393
Stage 3	-7.9	72.9	42.568	UL-RL	0.249	6.738	0	72	0.043	0	114.568
Stage 3	-8.1	75.013	43.657	UL-RL	0.249	6.738	0	74.087	0.043	0	117.744
Stage 3	-8.3	77.126	44.748	UL-RL	0.249	6.738	0	76.174	0.043	0	120.921
Stage 3	-8.5	79.239	45.837	UL-RL	0.249	6.738	0	78.261	0.043	0	124.098
Stage 3	-8.7	81.352	46.925	UL-RL	0.249	6.738	0	80.348	0.043	0	127.273
Stage 3	-8.9	83.465	48.01	UL-RL	0.249	6.738	0	82.435	0.043	0	130.445
Stage 3	-9.1	85.578	49.092	UL-RL	0.249	6.738	0	84.522	0.043	0	133.614
Stage 3	-9.3	87.691	50.171	UL-RL	0.249	6.738	0	86.609	0.043	0	136.78
Stage 3	-9.5	89.804	51.247	UL-RL	0.249	6.738	0	88.696	0.043	0	139.942
Stage 3	-9.7	91.917	52.319	UL-RL	0.249	6.738	0	90.783	0.043	0	143.101
Stage 3	-9.9	94.03	53.388	UL-RL	0.249	6.738	0	92.87	0.043	0	146.257
Stage 3	-10.1	96.143	54.453	UL-RL	0.249	6.738	0	94.956	0.043	0	149.41
Stage 3	-10.3	98.256	55.517	UL-RL	0.249	6.738	0	97.043	0.043	0	152.56
Stage 3	-10.5	100.37	56.578	UL-RL	0.249	6.738	0	99.13	0.043	0	155.708
Stage 3	-10.7	102.482	57.637	UL-RL	0.249	6.738	0	101.217	0.043	0	158.854
Stage 3	-10.9	104.596	58.694	UL-RL	0.249	6.738	0	103.304	0.043	0	161.998
Stage 3	-11.1	106.709	59.751	UL-RL	0.249	6.738	0	105.391	0.043	0	165.142
Stage 3	-11.3	108.822	60.806	UL-RL	0.249	6.738	0	107.478	0.043	0	168.284
Stage 3	-11.5	110.935	61.861	UL-RL	0.249	6.738	0	109.565	0.043	0	171.426
Stage 3	-11.7	113.048	62.915	UL-RL	0.249	6.738	0	111.652	0.043	0	174.567
Stage 3	-11.9	115.161	63.97	UL-RL	0.249	6.738	0	113.739	0.043	0	177.709
Stage 3	-12	116.217	64.497	UL-RL	0.249	6.738	0	114.783	0.043	0	179.28

Tabella Risultati Terreno Left Wall - Nominal - Stage 4

Design Assumption: Nominal	Risultati Terreno		Muro:	LEFT		Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 4	0	0	0	PASSIVE	0.249	6.738	0	0	0	0	0
Stage 4	-0.2	2.303	0.574	UL-RL	0.249	6.738	0	1.913	0.043	0	2.487
Stage 4	-0.4	4.687	1.167	UL-RL	0.249	6.738	0	3.826	0.043	0	4.993
Stage 4	-0.5	5.919	1.474	UL-RL	0.249	6.738	0	4.783	0.043	0	6.257
Stage 4	-0.7	8.45	2.104	UL-RL	0.249	6.738	0	6.696	0.043	0	8.8
Stage 4	-0.9	11.034	2.748	ACTIVE	0.249	6.738	0	8.609	0.043	0	11.356
Stage 4	-1.1	13.633	3.395	ACTIVE	0.249	6.738	0	10.522	0.043	0	13.916
Stage 4	-1.3	16.219	4.039	ACTIVE	0.249	6.738	0	12.435	0.043	0	16.473
Stage 4	-1.5	18.959	4.721	ACTIVE	0.249	6.738	0	14.348	0.043	0	19.069
Stage 4	-1.7	21.725	5.41	ACTIVE	0.249	6.738	0	16.261	0.043	0	21.67
Stage 4	-1.9	24.409	6.078	ACTIVE	0.249	6.738	0	18.174	0.043	0	24.252
Stage 4	-2.1	27.029	6.73	ACTIVE	0.249	6.738	0	20.087	0.043	0	26.817
Stage 4	-2.3	29.6	7.37	ACTIVE	0.249	6.738	0	22	0.043	0	29.37
Stage 4	-2.5	32.132	8.001	ACTIVE	0.249	6.738	0	23.913	0.043	0	31.914
Stage 4	-2.7	34.633	8.624	ACTIVE	0.249	6.738	0	25.826	0.043	0	34.45
Stage 4	-2.9	37.109	9.24	ACTIVE	0.249	6.738	0	27.739	0.043	0	36.979
Stage 4	-3.1	39.563	9.851	ACTIVE	0.249	6.738	0	29.652	0.043	0	39.503
Stage 4	-3.3	41.999	10.458	ACTIVE	0.249	6.738	0	31.565	0.043	0	42.023
Stage 4	-3.5	44.42	11.061	ACTIVE	0.249	6.738	0	33.478	0.043	0	44.539
Stage 4	-3.7	46.896	11.677	ACTIVE	0.249	6.738	0	35.391	0.043	0	47.068
Stage 4	-3.9	49.289	12.273	ACTIVE	0.249	6.738	0	37.304	0.043	0	49.577
Stage 4	-4.1	51.613	12.852	ACTIVE	0.249	6.738	0	39.217	0.043	0	52.069
Stage 4	-4.3	53.992	13.444	ACTIVE	0.249	6.738	0	41.13	0.043	0	54.574
Stage 4	-4.5	56.364	14.201	UL-RL	0.249	6.738	0	43.043	0.043	0	57.244
Stage 4	-4.7	58.729	16.665	UL-RL	0.249	6.738	0	44.957	0.043	0	61.622
Stage 4	-4.9	61.088	18.955	UL-RL	0.249	6.738	0	46.87	0.043	0	65.824
Stage 4	-5.1	63.442	21.082	UL-RL	0.249	6.738	0	48.783	0.043	0	69.864
Stage 4	-5.3	65.791	23.059	UL-RL	0.249	6.738	0	50.696	0.043	0	73.755
Stage 4	-5.5	68.137	24.901	UL-RL	0.249	6.738	0	52.609	0.043	0	77.509
Stage 4	-5.7	70.478	26.621	UL-RL	0.249	6.738	0	54.522	0.043	0	81.143
Stage 4	-5.9	72.816	28.234	UL-RL	0.249	6.738	0	56.435	0.043	0	84.669
Stage 4	-6.1	75.069	29.714	UL-RL	0.249	6.738	0	58.348	0.043	0	88.062
Stage 4	-6.3	77.242	31.076	UL-RL	0.249	6.738	0	60.261	0.043	0	91.337
Stage 4	-6.5	79.421	32.375	UL-RL	0.249	6.738	0	62.174	0.043	0	94.549
Stage 4	-6.7	81.604	33.621	UL-RL	0.249	6.738	0	64.087	0.043	0	97.708
Stage 4	-6.9	83.791	34.826	UL-RL	0.249	6.738	0	66	0.043	0	100.826
Stage 4	-7.1	85.983	35.998	UL-RL	0.249	6.738	0	67.913	0.043	0	103.911
Stage 4	-7.3	88.178	37.145	UL-RL	0.249	6.738	0	69.826	0.043	0	106.971
Stage 4	-7.5	90.376	38.275	UL-RL	0.249	6.738	0	71.739	0.043	0	110.014
Stage 4	-7.7	92.578	39.392	UL-RL	0.249	6.738	0	73.652	0.043	0	113.044
Stage 4	-7.9	94.783	40.502	UL-RL	0.249	6.738	0	75.565	0.043	0	116.067
Stage 4	-8.1	96.991	41.609	UL-RL	0.249	6.738	0	77.478	0.043	0	119.088
Stage 4	-8.3	99.202	42.717	UL-RL	0.249	6.738	0	79.391	0.043	0	122.108
Stage 4	-8.5	101.415	43.827	UL-RL	0.249	6.738	0	81.304	0.043	0	125.131
Stage 4	-8.7	103.631	44.942	UL-RL	0.249	6.738	0	83.217	0.043	0	128.159
Stage 4	-8.9	105.849	46.063	UL-RL	0.249	6.738	0	85.13	0.043	0	131.193
Stage 4	-9.1	108.07	47.19	UL-RL	0.249	6.738	0	87.043	0.043	0	134.234
Stage 4	-9.3	110.293	48.325	UL-RL	0.249	6.738	0	88.956	0.043	0	137.281
Stage 4	-9.5	112.517	49.467	UL-RL	0.249	6.738	0	90.87	0.043	0	140.337
Stage 4	-9.7	114.744	50.617	UL-RL	0.249	6.738	0	92.783	0.043	0	143.399
Stage 4	-9.9	116.973	51.773	UL-RL	0.249	6.738	0	94.696	0.043	0	146.468
Stage 4	-10.1	119.203	52.935	UL-RL	0.249	6.738	0	96.609	0.043	0	149.544
Stage 4	-10.3	121.435	54.104	UL-RL	0.249	6.738	0	98.522	0.043	0	152.626
Stage 4	-10.5	123.669	55.277	UL-RL	0.249	6.738	0	100.435	0.043	0	155.712
Stage 4	-10.7	125.904	56.455	UL-RL	0.249	6.738	0	102.348	0.043	0	158.803
Stage 4	-10.9	128.141	57.636	UL-RL	0.249	6.738	0	104.261	0.043	0	161.897
Stage 4	-11.1	130.379	58.82	UL-RL	0.249	6.738	0	106.174	0.043	0	164.994
Stage 4	-11.3	132.618	60.006	UL-RL	0.249	6.738	0	108.087	0.043	0	168.093
Stage 4	-11.5	134.859	61.194	UL-RL	0.249	6.738	0	110	0.043	0	171.194
Stage 4	-11.7	137.101	62.383	UL-RL	0.249	6.738	0	111.913	0.043	0	174.296
Stage 4	-11.9	139.344	63.573	UL-RL	0.249	6.738	0	113.826	0.043	0	177.399
Stage 4	-12	140.466	64.168	UL-RL	0.249	6.738	0	114.783	0.043	0	178.951

Design Assumption: Nominal	Risultati Terreno		Muro:	LEFT		Lato	RIGHT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 4	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.9	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.1	1.057	7.119	PASSIVE	0.249	6.738	0	1.043	0.043	0	8.162
Stage 4	-1.3	3.17	15.569	V-C	0.249	6.738	0	3.13	0.043	0	18.699
Stage 4	-1.5	5.283	16.106	V-C	0.249	6.738	0	5.217	0.043	0	21.324
Stage 4	-1.7	7.396	16.626	V-C	0.249	6.738	0	7.304	0.043	0	23.931
Stage 4	-1.9	9.509	17.147	V-C	0.249	6.738	0	9.391	0.043	0	26.538
Stage 4	-2.1	11.622	17.678	V-C	0.249	6.738	0	11.478	0.043	0	29.156
Stage 4	-2.3	13.735	18.224	V-C	0.249	6.738	0	13.565	0.043	0	31.789
Stage 4	-2.5	15.848	18.789	V-C	0.249	6.738	0	15.652	0.043	0	34.441
Stage 4	-2.7	17.961	19.376	V-C	0.249	6.738	0	17.739	0.043	0	37.115
Stage 4	-2.9	20.074	19.989	V-C	0.249	6.738	0	19.826	0.043	0	39.815
Stage 4	-3.1	22.187	20.628	V-C	0.249	6.738	0	21.913	0.043	0	42.541
Stage 4	-3.3	24.3	21.295	V-C	0.249	6.738	0	24	0.043	0	45.295
Stage 4	-3.5	26.413	21.993	V-C	0.249	6.738	0	26.087	0.043	0	48.08
Stage 4	-3.7	28.526	22.721	V-C	0.249	6.738	0	28.174	0.043	0	50.895
Stage 4	-3.9	30.639	23.481	V-C	0.249	6.738	0	30.261	0.043	0	53.741
Stage 4	-4.1	32.752	24.272	V-C	0.249	6.738	0	32.348	0.043	0	56.62
Stage 4	-4.3	34.865	25.094	V-C	0.249	6.738	0	34.435	0.043	0	59.529
Stage 4	-4.5	36.978	25.948	V-C	0.249	6.738	0	36.522	0.043	0	62.469
Stage 4	-4.7	39.091	26.83	V-C	0.249	6.738	0	38.609	0.043	0	65.439
Stage 4	-4.9	41.204	27.742	V-C	0.249	6.738	0	40.696	0.043	0	68.437
Stage 4	-5.1	43.317	28.679	V-C	0.249	6.738	0	42.783	0.043	0	71.462
Stage 4	-5.3	45.43	29.641	V-C	0.249	6.738	0	44.87	0.043	0	74.51
Stage 4	-5.5	47.543	30.625	V-C	0.249	6.738	0	46.957	0.043	0	77.581
Stage 4	-5.7	49.657	31.459	UL-RL	0.249	6.738	0	49.043	0.043	0	80.502
Stage 4	-5.9	51.77	32.321	UL-RL	0.249	6.738	0	51.13	0.043	0	83.451
Stage 4	-6.1	53.883	33.23	UL-RL	0.249	6.738	0	53.217	0.043	0	86.447
Stage 4	-6.3	55.996	34.179	UL-RL	0.249	6.738	0	55.304	0.043	0	89.483
Stage 4	-6.5	58.109	35.161	UL-RL	0.249	6.738	0	57.391	0.043	0	92.553
Stage 4	-6.7	60.222	36.172	UL-RL	0.249	6.738	0	59.478	0.043	0	95.65
Stage 4	-6.9	62.335	37.206	UL-RL	0.249	6.738	0	61.565	0.043	0	98.771
Stage 4	-7.1	64.448	38.257	UL-RL	0.249	6.738	0	63.652	0.043	0	101.909
Stage 4	-7.3	66.561	39.322	UL-RL	0.249	6.738	0	65.739	0.043	0	105.061
Stage 4	-7.5	68.674	40.398	UL-RL	0.249	6.738	0	67.826	0.043	0	108.224
Stage 4	-7.7	70.787	41.481	UL-RL	0.249	6.738	0	69.913	0.043	0	111.394
Stage 4	-7.9	72.9	42.568	UL-RL	0.249	6.738	0	72	0.043	0	114.568
Stage 4	-8.1	75.013	43.657	UL-RL	0.249	6.738	0	74.087	0.043	0	117.744
Stage 4	-8.3	77.126	44.748	UL-RL	0.249	6.738	0	76.174	0.043	0	120.922
Stage 4	-8.5	79.239	45.837	UL-RL	0.249	6.738	0	78.261	0.043	0	124.098
Stage 4	-8.7	81.352	46.925	UL-RL	0.249	6.738	0	80.348	0.043	0	127.273
Stage 4	-8.9	83.465	48.01	UL-RL	0.249	6.738	0	82.435	0.043	0	130.445
Stage 4	-9.1	85.578	49.092	UL-RL	0.249	6.738	0	84.522	0.043	0	133.614
Stage 4	-9.3	87.691	50.171	UL-RL	0.249	6.738	0	86.609	0.043	0	136.78
Stage 4	-9.5	89.804	51.247	UL-RL	0.249	6.738	0	88.696	0.043	0	139.942
Stage 4	-9.7	91.917	52.319	UL-RL	0.249	6.738	0	90.783	0.043	0	143.101
Stage 4	-9.9	94.03	53.388	UL-RL	0.249	6.738	0	92.87	0.043	0	146.257
Stage 4	-10.1	96.143	54.453	UL-RL	0.249	6.738	0	94.956	0.043	0	149.41
Stage 4	-10.3	98.256	55.517	UL-RL	0.249	6.738	0	97.043	0.043	0	152.56
Stage 4	-10.5	100.37	56.578	UL-RL	0.249	6.738	0	99.13	0.043	0	155.708
Stage 4	-10.7	102.482	57.637	UL-RL	0.249	6.738	0	101.217	0.043	0	158.854
Stage 4	-10.9	104.596	58.694	UL-RL	0.249	6.738	0	103.304	0.043	0	161.998
Stage 4	-11.1	106.709	59.751	UL-RL	0.249	6.738	0	105.391	0.043	0	165.142
Stage 4	-11.3	108.822	60.806	UL-RL	0.249	6.738	0	107.478	0.043	0	168.284
Stage 4	-11.5	110.935	61.861	UL-RL	0.249	6.738	0	109.565	0.043	0	171.426
Stage 4	-11.7	113.048	62.915	UL-RL	0.249	6.738	0	111.652	0.043	0	174.567
Stage 4	-11.9	115.161	63.97	UL-RL	0.249	6.738	0	113.739	0.043	0	177.709
Stage 4	-12	116.217	64.497	UL-RL	0.249	6.738	0	114.783	0.043	0	179.28

Tabella Risultati Terreno Left Wall - Nominal - Stage 5

Design Assumption: Nominal	Risultati Terreno		Muro:	LEFT		Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 5	0	0	0	PASSIVE	0.249	6.738	0	0	0	0	0
Stage 5	-0.2	2.678	0.667	UL-RL	0.249	6.738	0	1.538	0.231	0	2.205
Stage 5	-0.4	5.436	1.354	ACTIVE	0.249	6.738	0	3.077	0.231	0	4.43
Stage 5	-0.5	6.855	1.707	ACTIVE	0.249	6.738	0	3.846	0.231	0	5.553
Stage 5	-0.7	9.761	2.43	ACTIVE	0.249	6.738	0	5.385	0.231	0	7.815
Stage 5	-0.9	12.72	3.167	ACTIVE	0.249	6.738	0	6.923	0.231	0	10.09
Stage 5	-1.1	15.693	3.908	ACTIVE	0.249	6.738	0	8.462	0.231	0	12.369
Stage 5	-1.3	18.654	4.645	ACTIVE	0.249	6.738	0	10	0.231	0	14.645
Stage 5	-1.5	21.768	5.42	ACTIVE	0.249	6.738	0	11.538	0.231	0	16.959
Stage 5	-1.7	24.909	6.202	ACTIVE	0.249	6.738	0	13.077	0.231	0	19.279
Stage 5	-1.9	27.967	6.964	ACTIVE	0.249	6.738	0	14.615	0.231	0	21.579
Stage 5	-2.1	30.962	7.71	ACTIVE	0.249	6.738	0	16.154	0.231	0	23.863
Stage 5	-2.3	33.908	8.443	ACTIVE	0.249	6.738	0	17.692	0.231	0	26.135
Stage 5	-2.5	36.815	9.167	ACTIVE	0.249	6.738	0	19.231	0.231	0	28.398
Stage 5	-2.7	39.69	9.883	ACTIVE	0.249	6.738	0	20.769	0.231	0	30.652
Stage 5	-2.9	42.54	10.593	ACTIVE	0.249	6.738	0	22.308	0.231	0	32.9
Stage 5	-3.1	45.369	11.297	ACTIVE	0.249	6.738	0	23.846	0.231	0	35.143
Stage 5	-3.3	48.18	11.997	ACTIVE	0.249	6.738	0	25.385	0.231	0	37.381
Stage 5	-3.5	50.975	12.693	ACTIVE	0.249	6.738	0	26.923	0.231	0	39.616
Stage 5	-3.7	53.825	13.403	ACTIVE	0.249	6.738	0	28.462	0.231	0	41.864
Stage 5	-3.9	56.594	14.092	ACTIVE	0.249	6.738	0	30	0.231	0	44.092
Stage 5	-4.1	59.292	14.764	ACTIVE	0.249	6.738	0	31.538	0.231	0	46.302
Stage 5	-4.3	62.046	15.449	ACTIVE	0.249	6.738	0	33.077	0.231	0	48.526
Stage 5	-4.5	64.792	16.133	ACTIVE	0.249	6.738	0	34.615	0.231	0	50.749
Stage 5	-4.7	67.531	16.815	ACTIVE	0.249	6.738	0	36.154	0.231	0	52.969
Stage 5	-4.9	70.265	17.496	ACTIVE	0.249	6.738	0	37.692	0.231	0	55.188
Stage 5	-5.1	72.994	18.175	ACTIVE	0.249	6.738	0	39.231	0.231	0	57.406
Stage 5	-5.3	75.718	18.854	ACTIVE	0.249	6.738	0	40.769	0.231	0	59.623
Stage 5	-5.5	78.438	19.531	ACTIVE	0.249	6.738	0	42.308	0.231	0	61.839
Stage 5	-5.7	81.154	20.207	ACTIVE	0.249	6.738	0	43.846	0.231	0	64.053
Stage 5	-5.9	83.866	20.883	ACTIVE	0.249	6.738	0	45.385	0.231	0	66.267
Stage 5	-6.1	86.493	21.537	ACTIVE	0.249	6.738	0	46.923	0.231	0	68.46
Stage 5	-6.3	89.042	22.171	ACTIVE	0.249	6.738	0	48.462	0.231	0	70.633
Stage 5	-6.5	91.595	22.807	ACTIVE	0.249	6.738	0	50	0.231	0	72.807
Stage 5	-6.7	94.153	23.444	ACTIVE	0.249	6.738	0	51.538	0.231	0	74.982
Stage 5	-6.9	96.714	24.082	ACTIVE	0.249	6.738	0	53.077	0.231	0	77.159
Stage 5	-7.1	99.28	24.721	ACTIVE	0.249	6.738	0	54.615	0.231	0	79.336
Stage 5	-7.3	101.85	25.361	ACTIVE	0.249	6.738	0	56.154	0.231	0	81.514
Stage 5	-7.5	104.423	26.001	ACTIVE	0.249	6.738	0	57.692	0.231	0	83.694
Stage 5	-7.7	107	26.643	ACTIVE	0.249	6.738	0	59.231	0.231	0	85.874
Stage 5	-7.9	109.579	27.285	ACTIVE	0.249	6.738	0	60.769	0.231	0	88.054
Stage 5	-8.1	112.162	27.928	ACTIVE	0.249	6.738	0	62.308	0.231	0	90.236
Stage 5	-8.3	114.747	28.572	ACTIVE	0.249	6.738	0	63.846	0.231	0	92.418
Stage 5	-8.5	117.335	29.216	ACTIVE	0.249	6.738	0	65.385	0.231	0	94.601
Stage 5	-8.7	119.925	29.861	ACTIVE	0.249	6.738	0	66.923	0.231	0	96.784
Stage 5	-8.9	122.518	30.507	ACTIVE	0.249	6.738	0	68.462	0.231	0	98.969
Stage 5	-9.1	125.113	31.153	ACTIVE	0.249	6.738	0	70	0.231	0	101.153
Stage 5	-9.3	127.711	31.8	ACTIVE	0.249	6.738	0	71.538	0.231	0	103.338
Stage 5	-9.5	130.31	32.456	UL-RL	0.249	6.738	0	73.077	0.231	0	105.533
Stage 5	-9.7	132.911	33.139	UL-RL	0.249	6.738	0	74.615	0.231	0	107.754
Stage 5	-9.9	135.514	33.824	UL-RL	0.249	6.738	0	76.154	0.231	0	109.978
Stage 5	-10.1	138.119	34.512	UL-RL	0.249	6.738	0	77.692	0.231	0	112.204
Stage 5	-10.3	140.726	35.202	UL-RL	0.249	6.738	0	79.231	0.231	0	114.432
Stage 5	-10.5	143.334	35.894	UL-RL	0.249	6.738	0	80.769	0.231	0	116.663
Stage 5	-10.7	145.944	39.273	UL-RL	0.249	6.738	0	82.308	0.231	0	121.58
Stage 5	-10.9	148.555	48.494	UL-RL	0.249	6.738	0	83.846	0.231	0	132.34
Stage 5	-11.1	151.168	57.646	UL-RL	0.249	6.738	0	85.385	0.231	0	143.03
Stage 5	-11.3	153.782	66.746	UL-RL	0.249	6.738	0	86.923	0.231	0	153.669
Stage 5	-11.5	156.397	71.593	UL-RL	0.249	6.738	0	88.461	0.231	0	160.055
Stage 5	-11.7	159.014	75.741	UL-RL	0.249	6.738	0	90	0.231	0	165.741
Stage 5	-11.9	161.632	79.887	UL-RL	0.249	6.738	0	91.538	0.231	0	171.426
Stage 5	-12	162.941	81.961	UL-RL	0.249	6.738	0	92.308	0.231	0	174.268

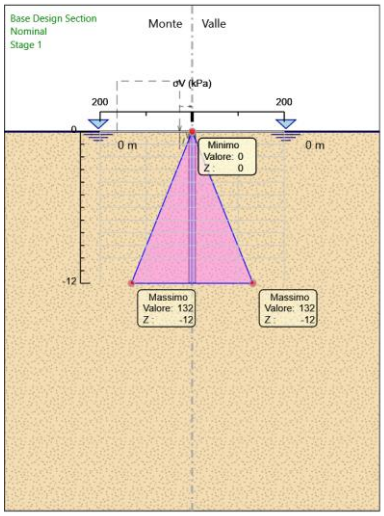
Design Assumption: Nominal	Risultati Terreno		Muro:	LEFT		Lato	RIGHT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 5	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.9	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.9	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.9	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.9	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-4.1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-4.3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-4.5	0	0	PASSIVE	0.249	6.738	0	0	0	0	0
Stage 5	-4.7	1.738	11.714	PASSIVE	0.249	6.738	0	2.462	0.231	0	14.175
Stage 5	-4.9	3.477	23.428	PASSIVE	0.249	6.738	0	4.923	0.231	0	28.351
Stage 5	-5.1	5.215	35.141	PASSIVE	0.249	6.738	0	7.385	0.231	0	42.526
Stage 5	-5.3	6.954	46.855	PASSIVE	0.249	6.738	0	9.846	0.231	0	56.701
Stage 5	-5.5	8.692	58.569	PASSIVE	0.249	6.738	0	12.308	0.231	0	70.876
Stage 5	-5.7	10.431	70.282	PASSIVE	0.249	6.738	0	14.769	0.231	0	85.052
Stage 5	-5.9	12.169	70.358	V-C	0.249	6.738	0	17.231	0.231	0	87.589
Stage 5	-6.1	13.908	69.704	V-C	0.249	6.738	0	19.692	0.231	0	89.396
Stage 5	-6.3	15.646	69.035	V-C	0.249	6.738	0	22.154	0.231	0	91.189
Stage 5	-6.5	17.385	68.359	V-C	0.249	6.738	0	24.615	0.231	0	92.975
Stage 5	-6.7	19.123	67.682	V-C	0.249	6.738	0	27.077	0.231	0	94.759
Stage 5	-6.9	20.862	67.007	V-C	0.249	6.738	0	29.538	0.231	0	96.546
Stage 5	-7.1	22.6	66.341	V-C	0.249	6.738	0	32	0.231	0	98.341
Stage 5	-7.3	24.338	65.686	V-C	0.249	6.738	0	34.462	0.231	0	100.148
Stage 5	-7.5	26.077	65.046	V-C	0.249	6.738	0	36.923	0.231	0	101.969
Stage 5	-7.7	27.815	64.424	V-C	0.249	6.738	0	39.385	0.231	0	103.809
Stage 5	-7.9	29.554	63.823	V-C	0.249	6.738	0	41.846	0.231	0	105.669
Stage 5	-8.1	31.292	63.244	V-C	0.249	6.738	0	44.308	0.231	0	107.552
Stage 5	-8.3	33.031	62.689	V-C	0.249	6.738	0	46.769	0.231	0	109.459
Stage 5	-8.5	34.769	62.161	V-C	0.249	6.738	0	49.231	0.231	0	111.392
Stage 5	-8.7	36.508	61.659	V-C	0.249	6.738	0	51.692	0.231	0	113.351
Stage 5	-8.9	38.246	61.185	V-C	0.249	6.738	0	54.154	0.231	0	115.339
Stage 5	-9.1	39.985	60.739	V-C	0.249	6.738	0	56.615	0.231	0	117.354
Stage 5	-9.3	41.723	60.32	V-C	0.249	6.738	0	59.077	0.231	0	119.397
Stage 5	-9.5	43.461	59.926	UL-RL	0.249	6.738	0	61.538	0.231	0	121.465
Stage 5	-9.7	45.2	59.55	UL-RL	0.249	6.738	0	64	0.231	0	123.55
Stage 5	-9.9	46.938	59.199	UL-RL	0.249	6.738	0	66.461	0.231	0	125.661
Stage 5	-10.1	48.677	58.872	UL-RL	0.249	6.738	0	68.923	0.231	0	127.795
Stage 5	-10.3	50.415	58.566	UL-RL	0.249	6.738	0	71.384	0.231	0	129.951
Stage 5	-10.5	52.154	58.28	UL-RL	0.249	6.738	0	73.846	0.231	0	132.126
Stage 5	-10.7	53.892	56.069	UL-RL	0.249	6.738	0	76.308	0.231	0	132.376
Stage 5	-10.9	55.631	53.156	UL-RL	0.249	6.738	0	78.769	0.231	0	131.925
Stage 5	-11.1	57.369	50.277	UL-RL	0.249	6.738	0	81.231	0.231	0	131.508
Stage 5	-11.3	59.108	47.422	UL-RL	0.249	6.738	0	83.692	0.231	0	131.114
Stage 5	-11.5	60.846	44.582	UL-RL	0.249	6.738	0	86.154	0.231	0	130.735
Stage 5	-11.7	62.585	41.749	UL-RL	0.249	6.738	0	88.615	0.231	0	130.364
Stage 5	-11.9	64.323	38.919	UL-RL	0.249	6.738	0	91.077	0.231	0	129.996
Stage 5	-12	65.192	37.504	UL-RL	0.249	6.738	0	92.308	0.231	0	129.812

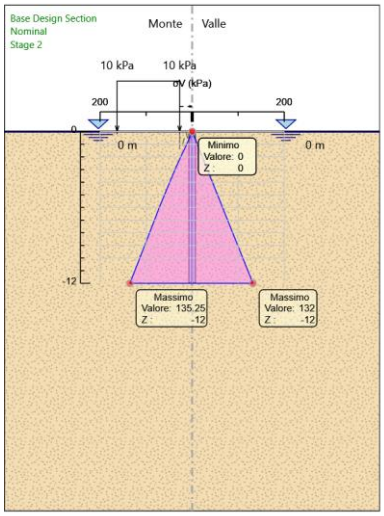
Tabella Risultati Terreno Left Wall - Nominal - Stage 6

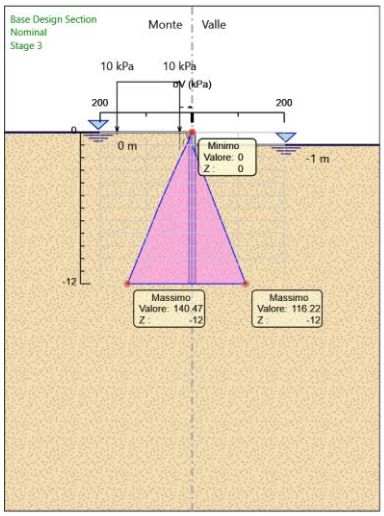
Design Assumption: Nominal	Risultati Terreno		Muro:	LEFT		Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 6	0	0	0	ACTIVE	0.436	6.012	0	0	0	0	0
Stage 6	-0.2	2.662	1.452	UL-RL	0.436	6.012	0	1.538	0.231	0	2.99
Stage 6	-0.4	5.323	2.549	UL-RL	0.436	6.012	0	3.077	0.231	0	5.626
Stage 6	-0.5	6.654	3.098	UL-RL	0.436	6.012	0	3.846	0.231	0	6.944
Stage 6	-0.7	9.315	4.195	UL-RL	0.436	6.012	0	5.385	0.231	0	9.58
Stage 6	-0.9	11.977	5.292	UL-RL	0.436	6.012	0	6.923	0.231	0	12.215
Stage 6	-1.1	14.638	6.389	UL-RL	0.436	6.012	0	8.462	0.231	0	14.85
Stage 6	-1.3	17.3	7.541	ACTIVE	0.436	6.012	0	10	0.231	0	17.541
Stage 6	-1.5	19.962	8.701	ACTIVE	0.436	6.012	0	11.538	0.231	0	20.24
Stage 6	-1.7	22.623	9.861	ACTIVE	0.436	6.012	0	13.077	0.231	0	22.938
Stage 6	-1.9	25.285	11.022	ACTIVE	0.436	6.012	0	14.615	0.231	0	25.637
Stage 6	-2.1	27.946	12.182	ACTIVE	0.436	6.012	0	16.154	0.231	0	28.336
Stage 6	-2.3	30.608	13.342	ACTIVE	0.436	6.012	0	17.692	0.231	0	31.034
Stage 6	-2.5	33.269	14.502	ACTIVE	0.436	6.012	0	19.231	0.231	0	33.733
Stage 6	-2.7	35.931	15.662	ACTIVE	0.436	6.012	0	20.769	0.231	0	36.431
Stage 6	-2.9	38.592	16.822	ACTIVE	0.436	6.012	0	22.308	0.231	0	39.13
Stage 6	-3.1	41.254	17.983	ACTIVE	0.436	6.012	0	23.846	0.231	0	41.829
Stage 6	-3.3	43.915	19.143	ACTIVE	0.436	6.012	0	25.385	0.231	0	44.527
Stage 6	-3.5	46.577	20.303	ACTIVE	0.436	6.012	0	26.923	0.231	0	47.226
Stage 6	-3.7	49.238	21.463	ACTIVE	0.436	6.012	0	28.462	0.231	0	49.925
Stage 6	-3.9	51.9	22.623	ACTIVE	0.436	6.012	0	30	0.231	0	52.623
Stage 6	-4.1	54.562	23.783	ACTIVE	0.436	6.012	0	31.538	0.231	0	55.322
Stage 6	-4.3	57.223	24.944	ACTIVE	0.436	6.012	0	33.077	0.231	0	58.02
Stage 6	-4.5	59.885	26.104	ACTIVE	0.436	6.012	0	34.615	0.231	0	60.719
Stage 6	-4.7	62.546	27.264	ACTIVE	0.436	6.012	0	36.154	0.231	0	63.418
Stage 6	-4.9	65.208	28.424	ACTIVE	0.436	6.012	0	37.692	0.231	0	66.116
Stage 6	-5.1	67.869	29.584	ACTIVE	0.436	6.012	0	39.231	0.231	0	68.815
Stage 6	-5.3	70.531	30.744	ACTIVE	0.436	6.012	0	40.769	0.231	0	71.514
Stage 6	-5.5	73.192	31.905	ACTIVE	0.436	6.012	0	42.308	0.231	0	74.212
Stage 6	-5.7	75.854	33.065	ACTIVE	0.436	6.012	0	43.846	0.231	0	76.911
Stage 6	-5.9	78.515	34.225	ACTIVE	0.436	6.012	0	45.385	0.231	0	79.609
Stage 6	-6.1	81.177	35.385	ACTIVE	0.436	6.012	0	46.923	0.231	0	82.308
Stage 6	-6.3	83.838	36.545	ACTIVE	0.436	6.012	0	48.462	0.231	0	85.007
Stage 6	-6.5	86.5	37.705	ACTIVE	0.436	6.012	0	50	0.231	0	87.705
Stage 6	-6.7	89.162	38.866	ACTIVE	0.436	6.012	0	51.538	0.231	0	90.404
Stage 6	-6.9	91.823	40.026	ACTIVE	0.436	6.012	0	53.077	0.231	0	93.103
Stage 6	-7.1	94.485	41.186	ACTIVE	0.436	6.012	0	54.615	0.231	0	95.801
Stage 6	-7.3	97.146	42.346	ACTIVE	0.436	6.012	0	56.154	0.231	0	98.5
Stage 6	-7.5	99.808	43.506	ACTIVE	0.436	6.012	0	57.692	0.231	0	101.198
Stage 6	-7.7	102.469	44.666	ACTIVE	0.436	6.012	0	59.231	0.231	0	103.897
Stage 6	-7.9	105.131	45.826	ACTIVE	0.436	6.012	0	60.769	0.231	0	106.596
Stage 6	-8.1	107.792	46.987	ACTIVE	0.436	6.012	0	62.308	0.231	0	109.294
Stage 6	-8.3	110.454	48.147	ACTIVE	0.436	6.012	0	63.846	0.231	0	111.993
Stage 6	-8.5	113.115	49.307	ACTIVE	0.436	6.012	0	65.385	0.231	0	114.692
Stage 6	-8.7	115.777	50.467	ACTIVE	0.436	6.012	0	66.923	0.231	0	117.39
Stage 6	-8.9	118.438	51.627	ACTIVE	0.436	6.012	0	68.462	0.231	0	120.089
Stage 6	-9.1	121.1	52.787	ACTIVE	0.436	6.012	0	70	0.231	0	122.787
Stage 6	-9.3	123.762	53.948	ACTIVE	0.436	6.012	0	71.538	0.231	0	125.486
Stage 6	-9.5	126.423	55.108	ACTIVE	0.436	6.012	0	73.077	0.231	0	128.185
Stage 6	-9.7	129.084	56.268	ACTIVE	0.436	6.012	0	74.615	0.231	0	130.883
Stage 6	-9.9	131.746	57.591	UL-RL	0.436	6.012	0	76.154	0.231	0	133.745
Stage 6	-10.1	134.408	58.928	UL-RL	0.436	6.012	0	77.692	0.231	0	136.62
Stage 6	-10.3	137.069	60.275	UL-RL	0.436	6.012	0	79.231	0.231	0	139.506
Stage 6	-10.5	139.731	61.633	UL-RL	0.436	6.012	0	80.769	0.231	0	142.402
Stage 6	-10.7	142.392	63.001	UL-RL	0.436	6.012	0	82.308	0.231	0	145.308
Stage 6	-10.9	145.054	64.377	UL-RL	0.436	6.012	0	83.846	0.231	0	148.223
Stage 6	-11.1	147.715	65.759	UL-RL	0.436	6.012	0	85.385	0.231	0	151.144
Stage 6	-11.3	150.377	67.146	UL-RL	0.436	6.012	0	86.923	0.231	0	154.069
Stage 6	-11.5	153.038	68.536	UL-RL	0.436	6.012	0	88.461	0.231	0	156.998
Stage 6	-11.7	155.7	71.286	UL-RL	0.436	6.012	0	90	0.231	0	161.286
Stage 6	-11.9	158.361	74.547	UL-RL	0.436	6.012	0	91.538	0.231	0	166.085
Stage 6	-12	159.692	76.177	UL-RL	0.436	6.012	0	92.308	0.231	0	168.485

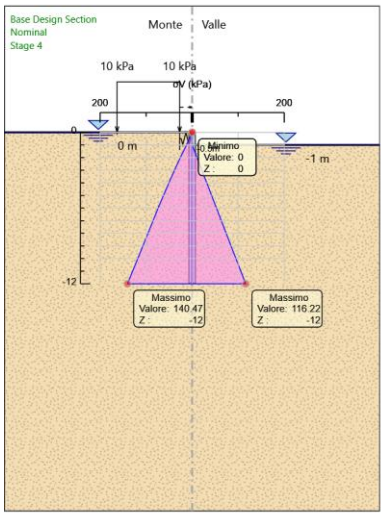
Design Assumption: Nominal	Risultati Terreno		Muro:	LEFT		Lato	RIGHT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 6	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.9	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.9	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.9	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.9	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.5	0	0	PASSIVE	0.408	5.016	0	0	0	0	0
Stage 6	-4.7	1.738	8.72	PASSIVE	0.408	5.016	0	2.462	0.231	0	11.182
Stage 6	-4.9	3.477	17.44	PASSIVE	0.408	5.016	0	4.923	0.231	0	22.363
Stage 6	-5.1	5.215	26.16	PASSIVE	0.408	5.016	0	7.385	0.231	0	33.545
Stage 6	-5.3	6.954	34.88	PASSIVE	0.408	5.016	0	9.846	0.231	0	44.727
Stage 6	-5.5	8.692	43.601	PASSIVE	0.408	5.016	0	12.308	0.231	0	55.908
Stage 6	-5.7	10.431	52.321	PASSIVE	0.408	5.016	0	14.769	0.231	0	67.09
Stage 6	-5.9	12.169	61.041	PASSIVE	0.408	5.016	0	17.231	0.231	0	78.272
Stage 6	-6.1	13.908	69.761	PASSIVE	0.408	5.016	0	19.692	0.231	0	89.453
Stage 6	-6.3	15.646	78.481	PASSIVE	0.408	5.016	0	22.154	0.231	0	100.635
Stage 6	-6.5	17.385	87.201	PASSIVE	0.408	5.016	0	24.615	0.231	0	111.816
Stage 6	-6.7	19.123	95.921	PASSIVE	0.408	5.016	0	27.077	0.231	0	122.998
Stage 6	-6.9	20.862	98.973	V-C	0.408	5.016	0	29.538	0.231	0	128.511
Stage 6	-7.1	22.6	97.485	V-C	0.408	5.016	0	32	0.231	0	129.485
Stage 6	-7.3	24.338	95.977	V-C	0.408	5.016	0	34.462	0.231	0	130.439
Stage 6	-7.5	26.077	94.454	V-C	0.408	5.016	0	36.923	0.231	0	131.377
Stage 6	-7.7	27.815	92.921	V-C	0.408	5.016	0	39.385	0.231	0	132.306
Stage 6	-7.9	29.554	91.382	V-C	0.408	5.016	0	41.846	0.231	0	133.228
Stage 6	-8.1	31.292	89.841	V-C	0.408	5.016	0	44.308	0.231	0	134.148
Stage 6	-8.3	33.031	88.3	V-C	0.408	5.016	0	46.769	0.231	0	135.07
Stage 6	-8.5	34.769	86.764	V-C	0.408	5.016	0	49.231	0.231	0	135.994
Stage 6	-8.7	36.508	85.232	V-C	0.408	5.016	0	51.692	0.231	0	136.924
Stage 6	-8.9	38.246	83.708	V-C	0.408	5.016	0	54.154	0.231	0	137.862
Stage 6	-9.1	39.985	82.192	V-C	0.408	5.016	0	56.615	0.231	0	138.807
Stage 6	-9.3	41.723	80.685	V-C	0.408	5.016	0	59.077	0.231	0	139.762
Stage 6	-9.5	43.461	79.187	V-C	0.408	5.016	0	61.538	0.231	0	140.725
Stage 6	-9.7	45.2	77.698	V-C	0.408	5.016	0	64	0.231	0	141.698
Stage 6	-9.9	46.938	76.165	UL-RL	0.408	5.016	0	66.461	0.231	0	142.626
Stage 6	-10.1	48.677	74.636	UL-RL	0.408	5.016	0	68.923	0.231	0	143.559
Stage 6	-10.3	50.415	73.111	UL-RL	0.408	5.016	0	71.384	0.231	0	144.495
Stage 6	-10.5	52.154	71.59	UL-RL	0.408	5.016	0	73.846	0.231	0	145.436
Stage 6	-10.7	53.892	70.071	UL-RL	0.408	5.016	0	76.308	0.231	0	146.378
Stage 6	-10.9	55.631	68.555	UL-RL	0.408	5.016	0	78.769	0.231	0	147.324
Stage 6	-11.1	57.369	67.04	UL-RL	0.408	5.016	0	81.231	0.231	0	148.271
Stage 6	-11.3	59.108	65.142	UL-RL	0.408	5.016	0	83.692	0.231	0	148.834
Stage 6	-11.5	60.846	63.202	UL-RL	0.408	5.016	0	86.154	0.231	0	149.356
Stage 6	-11.7	62.585	60.395	UL-RL	0.408	5.016	0	88.615	0.231	0	149.01
Stage 6	-11.9	64.323	53.9	UL-RL	0.408	5.016	0	91.077	0.231	0	144.976
Stage 6	-12	65.192	50.651	UL-RL	0.408	5.016	0	92.308	0.231	0	142.959

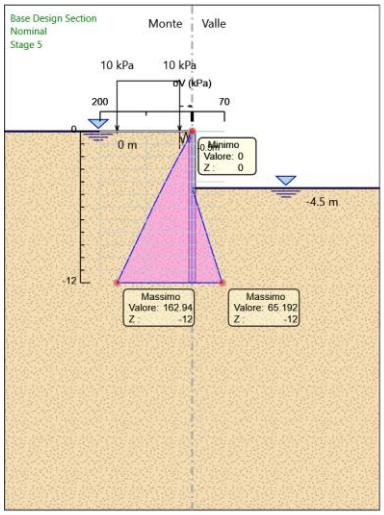
Grafico Risultati Terreno Sigma V











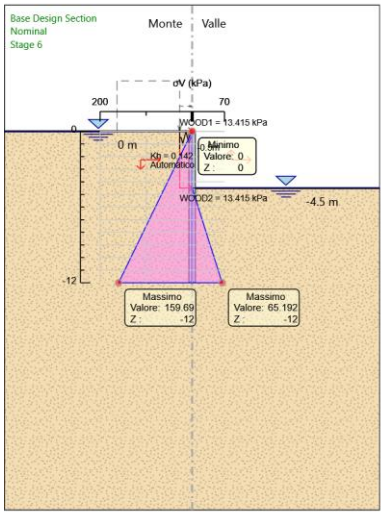
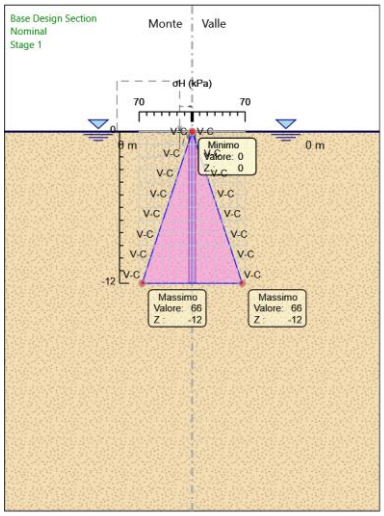
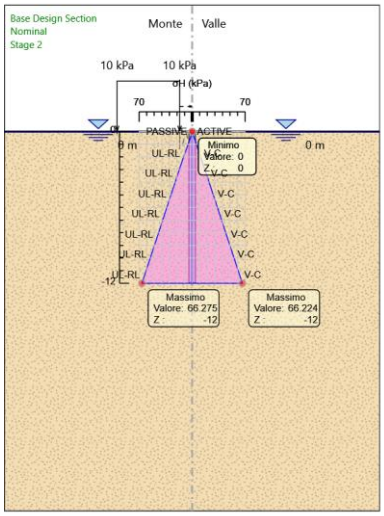
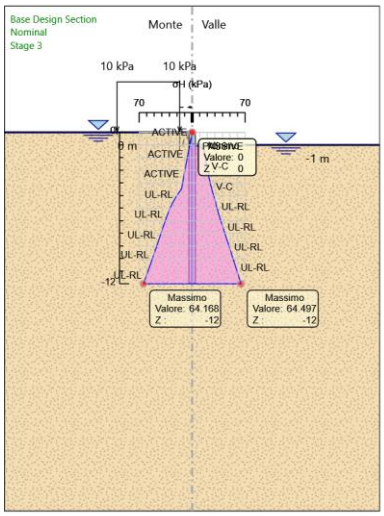
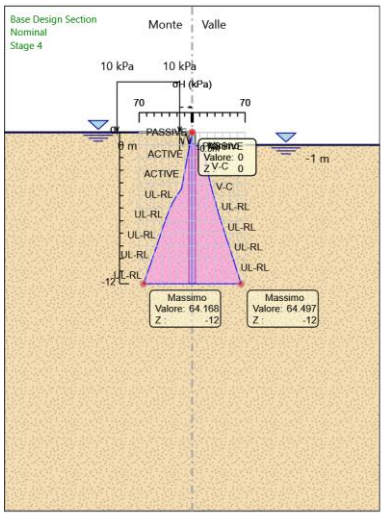


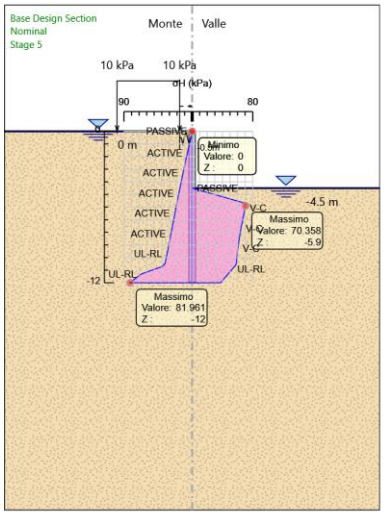
Grafico Risultati Terreno Sigma H











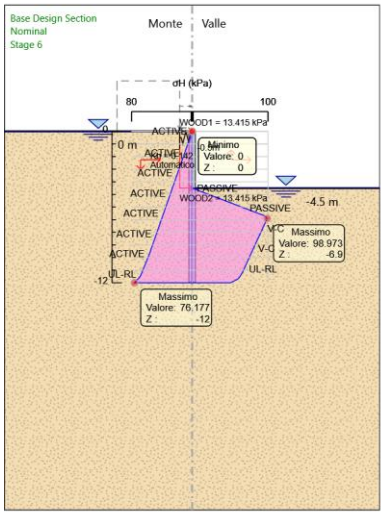
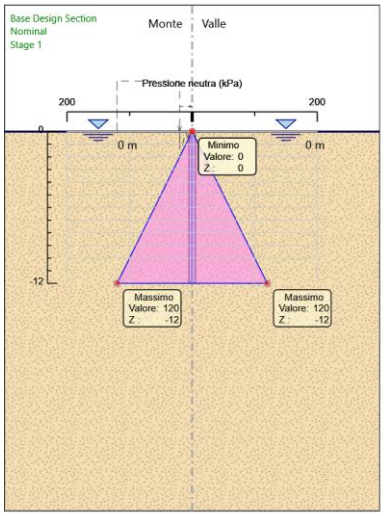
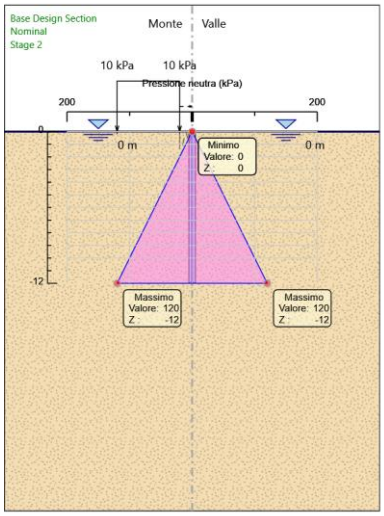
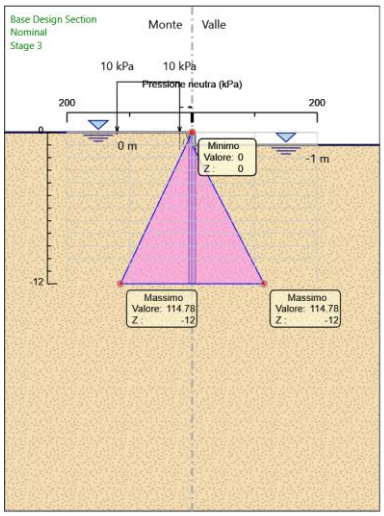
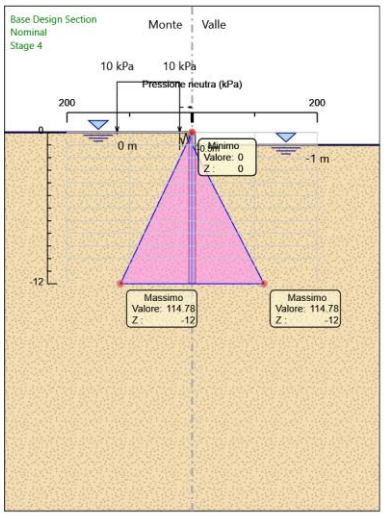


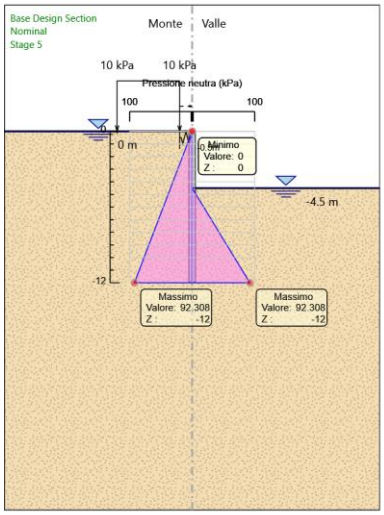
Grafico Risultati Terreno Pressione neutra











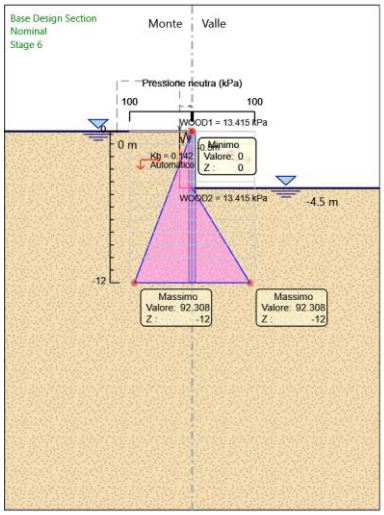
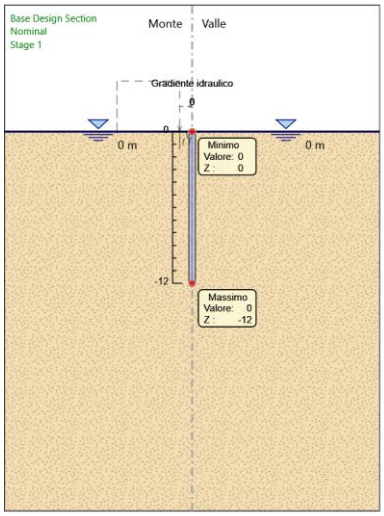
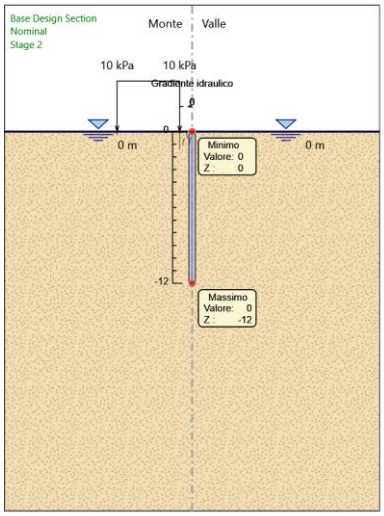
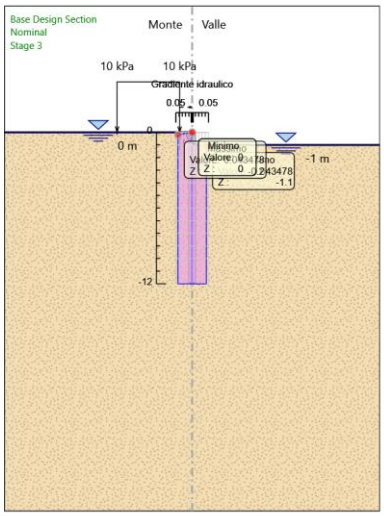
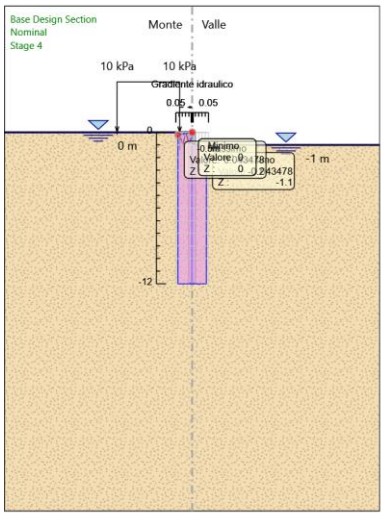


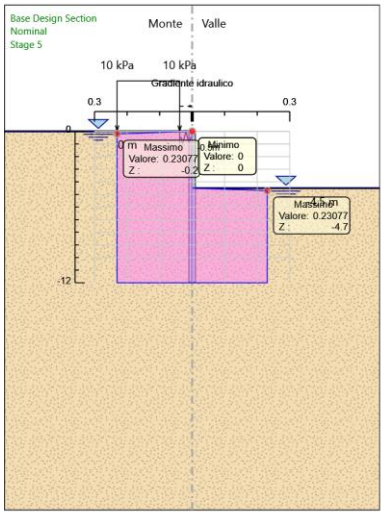
Grafico Risultati Terreno Gradiente idraulico











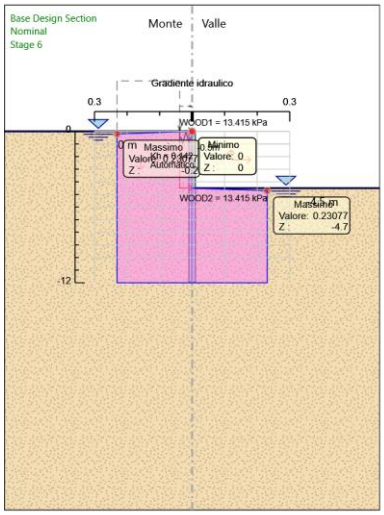
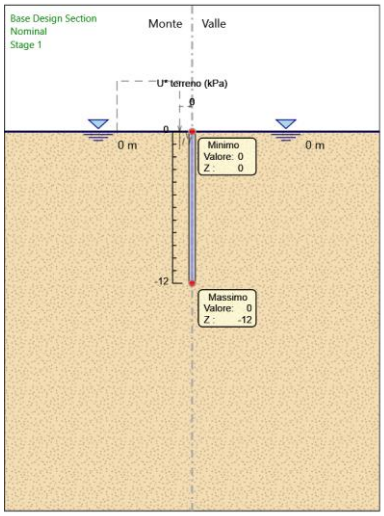
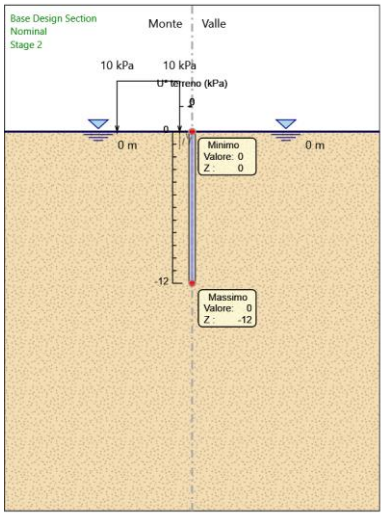
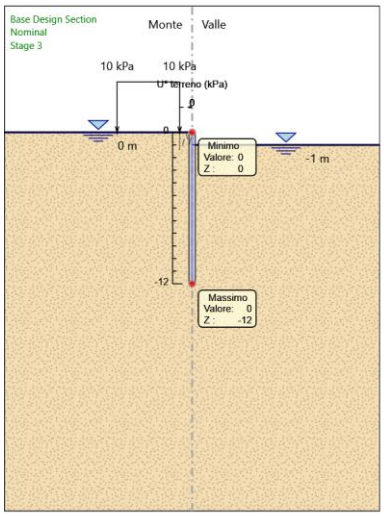
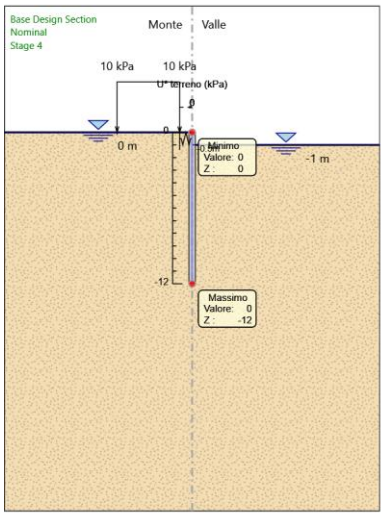


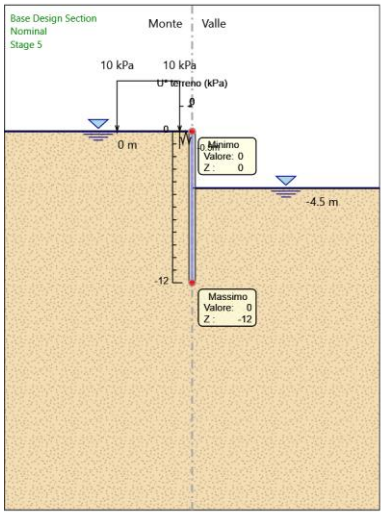
Grafico Risultati Terreno U* terreno

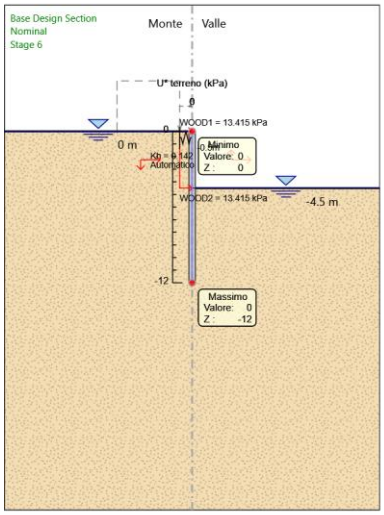












Riepilogo spinte

Design Assumption:	Tipo Risultato:	Muro:	LEFT	Lato	LEFT		
Nominal	Riepilogo spinte						
Stage	Vera effettiva (kN/m)	Pressione neutra (kN/m)	Vera Totale (kN/m)	Min ammissibile (kN/m)	Max ammissibile (kN/m)	Percentuale di resistenza massima	Vera / Attiva
Stage 1	396	720	1116	1.6	5336.5	7.42%	247.5
Stage 2	399.2	720	1119.2	1.7	5639.6	7.08%	234.82
Stage 3	345.7	688.7	1034.4	1.7	5850.5	5.91%	203.35
Stage 4	345.7	688.7	1034.4	1.7	5850.5	5.91%	203.35
Stage 5	284.3	553.8	838.1	2	6759.2	4.21%	142.15
Stage 6	421.4	553.8	975.2	3.5	5760.4	7.32%	120.4

Design Assumption:	Tipo Risultato:	Muro:	LEFT	Lato	RIGHT		
Nominal	Riepilogo spinte						
Stage	Vera effettiva (kN/m)	Pressione neutra (kN/m)	Vera Totale (kN/m)	Min ammissibile (kN/m)	Max ammissibile (kN/m)	Percentuale di resistenza massima	Vera / Attiva
Stage 1	396	720	1116	1.6	5336.5	7.42%	247.5
Stage 2	399.2	720	1119.2	1.6	5336.5	7.48%	249.5
Stage 3	403	631.4	1034.4	1.4	4307.3	9.36%	287.86
Stage 4	403	631.4	1034.4	1.4	4307.3	9.36%	287.86
Stage 5	420.3	346.2	766.5	0.8	1647.2	25.52%	525.38
Stage 6	528.7	346.2	874.8	1.3	1226.3	43.11%	406.69

Descrizione Coefficienti Design Assumption

Coefficienti A

Nome	Carichi Permanenti Sfavorevoli (F_dead_load_unfavour)	Carichi Permanenti Favorevoli (F_dead_load_favour)	Carichi Variabili Sfavorevoli (F_live_load_unfavour)	Carichi Variabili Favorevoli (F_live_load_favour)	Carico Sismico (F_seism_load)	Pressioni Acqua Lato Monte (F_WaterDR)	Pressioni Acqua Lato Valle (F_WaterRes)	Carichi Permanenti Destabilizzanti (F_UPL_GDStab)	Carichi Permanenti Stabilizzanti (F_UPL_GStab)	Carichi Variabili Destabilizzanti (F_UPL_QDStab)	Carichi Permanenti Destabilizzanti (F_HYD_GDStab)	Carichi Permanenti Stabilizzanti (F_HYD_GStab)	Carichi Variabili Destabilizzanti (F_HYD_QDStab)
Simbolo	γG	γG	γQ	γQ	γQE	γG	γG	γGdst	γGstb	γQdst	γGdst	γGstb	γQdst
Nominal	1	1	1	1	1	1	1	1	1	1	1	1	1
SLE (Rara/Frequente/Quasi Permanente)	1	1	1	1	0	1	1	1	1	1	1	1	1
A1+M1+R1 (R3 per tiranti)	1.3	1	1.5	1	0	1.3	1	1	1	1	1.3	0.9	1
A2+M2+R1	1	1	1.3	1	0	1	1	1	1	1	1.3	0.9	1
SISMICA GEO	1	1	1	1	1	1	1	1	1	1	1.3	0.9	1

Coefficienti M

Nome	Parziale su tan(ø') (F_Fr)	Parziale su c' (F_eff_cohe)	Parziale su Su (F_Su)	Parziale su qu (F_qu)	Parziale su peso specifico (F_gamma)
Simbolo	γϕ	γc	γcu	γqu	γγ
Nominal	1	1	1	1	1
SLE (Rara/Frequente/Quasi Permanente)	1	1	1	1	1
A1+M1+R1 (R3 per tiranti)	1	1	1	1	1
A2+M2+R1	1.25	1.25	1.4	1	1
SISMICA GEO	1.25	1.25	1.4	1	1

Coefficienti R

Nome	Parziale resistenza terreno (es. Kp) (F_Soil_Res_walls)	Parziale resistenza Tiranti permanenti (F_Anch_P)	Parziale resistenza Tiranti temporanei (F_Anch_T)	Parziale elementi strutturali (F_wall)
Simbolo	γRe	γap	γat	
Nominal	1	1	1	1
SLE (Rara/Frequente/Quasi Permanente)	1	1	1	1
A1+M1+R1 (R3 per tiranti)	1	1.2	1.1	1
A2+M2+R1	1	1.2	1.1	1
SISMICA GEO	1	1.2	1.1	1

Risultati SLE (Rara/Frequente/Quasi Permanente)

Tabella Spostamento SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 1

Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	0	0
Stage 1	-0.2	0
Stage 1	-0.4	0
Stage 1	-0.5	0
Stage 1	-0.7	0
Stage 1	-0.9	0
Stage 1	-1.1	0
Stage 1	-1.3	0
Stage 1	-1.5	0
Stage 1	-1.7	0
Stage 1	-1.9	0
Stage 1	-2.1	0
Stage 1	-2.3	0
Stage 1	-2.5	0
Stage 1	-2.7	0
Stage 1	-2.9	0
Stage 1	-3.1	0
Stage 1	-3.3	0
Stage 1	-3.5	0
Stage 1	-3.7	0
Stage 1	-3.9	0
Stage 1	-4.1	0
Stage 1	-4.3	0
Stage 1	-4.5	0
Stage 1	-4.7	0
Stage 1	-4.9	0
Stage 1	-5.1	0
Stage 1	-5.3	0
Stage 1	-5.5	0
Stage 1	-5.7	0
Stage 1	-5.9	0
Stage 1	-6.1	0
Stage 1	-6.3	0
Stage 1	-6.5	0
Stage 1	-6.7	0
Stage 1	-6.9	0
Stage 1	-7.1	0
Stage 1	-7.3	0
Stage 1	-7.5	0
Stage 1	-7.7	0
Stage 1	-7.9	0
Stage 1	-8.1	0
Stage 1	-8.3	0
Stage 1	-8.5	0
Stage 1	-8.7	0
Stage 1	-8.9	0
Stage 1	-9.1	0
Stage 1	-9.3	0
Stage 1	-9.5	0
Stage 1	-9.7	0
Stage 1	-9.9	0
Stage 1	-10.1	0
Stage 1	-10.3	0
Stage 1	-10.5	0
Stage 1	-10.7	0
Stage 1	-10.9	0
Stage 1	-11.1	0
Stage 1	-11.3	0
Stage 1	-11.5	0
Stage 1	-11.7	0
Stage 1	-11.9	0
Stage 1	-12	0

Tabella Risultati Paratia SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 1

Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.5	0	0
Stage 1	-0.7	0	0
Stage 1	-0.9	0	0
Stage 1	-1.1	0	0
Stage 1	-1.3	0	0
Stage 1	-1.5	0	0
Stage 1	-1.7	0	0
Stage 1	-1.9	0	0
Stage 1	-2.1	0	0
Stage 1	-2.3	0	0
Stage 1	-2.5	0	0
Stage 1	-2.7	0	0
Stage 1	-2.9	0	0
Stage 1	-3.1	0	0
Stage 1	-3.3	0	0
Stage 1	-3.5	0	0
Stage 1	-3.7	0	0
Stage 1	-3.9	0	0
Stage 1	-4.1	0	0
Stage 1	-4.3	0	0
Stage 1	-4.5	0	0
Stage 1	-4.7	0	0
Stage 1	-4.9	0	0
Stage 1	-5.1	0	0
Stage 1	-5.3	0	0
Stage 1	-5.5	0	0
Stage 1	-5.7	0	0
Stage 1	-5.9	0	0
Stage 1	-6.1	0	0
Stage 1	-6.3	0	0
Stage 1	-6.5	0	0
Stage 1	-6.7	0	0
Stage 1	-6.9	0	0
Stage 1	-7.1	0	0
Stage 1	-7.3	0	0
Stage 1	-7.5	0	0
Stage 1	-7.7	0	0
Stage 1	-7.9	0	0
Stage 1	-8.1	0	0
Stage 1	-8.3	0	0
Stage 1	-8.5	0	0
Stage 1	-8.7	0	0
Stage 1	-8.9	0	0
Stage 1	-9.1	0	0
Stage 1	-9.3	0	0
Stage 1	-9.5	0	0
Stage 1	-9.7	0	0
Stage 1	-9.9	0	0
Stage 1	-10.1	0	0
Stage 1	-10.3	0	0
Stage 1	-10.5	0	0
Stage 1	-10.7	0	0
Stage 1	-10.9	0	0
Stage 1	-11.1	0	0
Stage 1	-11.3	0	0
Stage 1	-11.5	0	0
Stage 1	-11.7	0	0
Stage 1	-11.9	0	0
Stage 1	-12	0	0

Tabella Spostamento SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 2

Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	0	0
Stage 2	-0.2	0
Stage 2	-0.4	0
Stage 2	-0.5	0
Stage 2	-0.7	0
Stage 2	-0.9	0
Stage 2	-1.1	0.01
Stage 2	-1.3	0.01
Stage 2	-1.5	0.01
Stage 2	-1.7	0.01
Stage 2	-1.9	0.01
Stage 2	-2.1	0.01
Stage 2	-2.3	0.01
Stage 2	-2.5	0.01
Stage 2	-2.7	0.01
Stage 2	-2.9	0.01
Stage 2	-3.1	0.01
Stage 2	-3.3	0.02
Stage 2	-3.5	0.02
Stage 2	-3.7	0.02
Stage 2	-3.9	0.02
Stage 2	-4.1	0.02
Stage 2	-4.3	0.02
Stage 2	-4.5	0.02
Stage 2	-4.7	0.02
Stage 2	-4.9	0.02
Stage 2	-5.1	0.02
Stage 2	-5.3	0.02
Stage 2	-5.5	0.02
Stage 2	-5.7	0.02
Stage 2	-5.9	0.02
Stage 2	-6.1	0.02
Stage 2	-6.3	0.02
Stage 2	-6.5	0.02
Stage 2	-6.7	0.02
Stage 2	-6.9	0.02
Stage 2	-7.1	0.02
Stage 2	-7.3	0.02
Stage 2	-7.5	0.02
Stage 2	-7.7	0.02
Stage 2	-7.9	0.02
Stage 2	-8.1	0.02
Stage 2	-8.3	0.02
Stage 2	-8.5	0.02
Stage 2	-8.7	0.02
Stage 2	-8.9	0.02
Stage 2	-9.1	0.02
Stage 2	-9.3	0.02
Stage 2	-9.5	0.02
Stage 2	-9.7	0.01
Stage 2	-9.9	0.01
Stage 2	-10.1	0.01
Stage 2	-10.3	0.01
Stage 2	-10.5	0.01
Stage 2	-10.7	0.01
Stage 2	-10.9	0.01
Stage 2	-11.1	0.01
Stage 2	-11.3	0.01
Stage 2	-11.5	0.01
Stage 2	-11.7	0.01
Stage 2	-11.9	0.01
Stage 2	-12	0.01

Tabella Risultati Paratia SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 2

Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	0
Stage 2	-0.2	0	0
Stage 2	-0.2	0	0
Stage 2	-0.4	0	0.02
Stage 2	-0.5	0.01	0.04
Stage 2	-0.7	0.02	0.07
Stage 2	-0.9	0.04	0.11
Stage 2	-1.1	0.07	0.15
Stage 2	-1.3	0.11	0.19
Stage 2	-1.5	0.16	0.23
Stage 2	-1.7	0.21	0.25
Stage 2	-1.9	0.26	0.24
Stage 2	-2.1	0.3	0.23
Stage 2	-2.3	0.34	0.2
Stage 2	-2.5	0.38	0.17
Stage 2	-2.7	0.41	0.14
Stage 2	-2.9	0.43	0.12
Stage 2	-3.1	0.45	0.09
Stage 2	-3.3	0.46	0.06
Stage 2	-3.5	0.47	0.04
Stage 2	-3.7	0.47	0.03
Stage 2	-3.9	0.47	0.01
Stage 2	-4.1	0.47	-0.01
Stage 2	-4.3	0.47	-0.02
Stage 2	-4.5	0.46	-0.03
Stage 2	-4.7	0.45	-0.04
Stage 2	-4.9	0.45	-0.04
Stage 2	-5.1	0.44	-0.05
Stage 2	-5.3	0.42	-0.06
Stage 2	-5.5	0.41	-0.07
Stage 2	-5.7	0.39	-0.09
Stage 2	-5.9	0.37	-0.11
Stage 2	-6.1	0.34	-0.13
Stage 2	-6.3	0.31	-0.15
Stage 2	-6.5	0.28	-0.17
Stage 2	-6.7	0.25	-0.18
Stage 2	-6.9	0.21	-0.18
Stage 2	-7.1	0.18	-0.17
Stage 2	-7.3	0.14	-0.16
Stage 2	-7.5	0.11	-0.15
Stage 2	-7.7	0.08	-0.14
Stage 2	-7.9	0.06	-0.13
Stage 2	-8.1	0.04	-0.11
Stage 2	-8.3	0.02	-0.1
Stage 2	-8.5	0	-0.08
Stage 2	-8.7	-0.01	-0.07
Stage 2	-8.9	-0.02	-0.05
Stage 2	-9.1	-0.03	-0.04
Stage 2	-9.3	-0.04	-0.03
Stage 2	-9.5	-0.04	-0.02
Stage 2	-9.7	-0.04	-0.01
Stage 2	-9.9	-0.04	0
Stage 2	-10.1	-0.04	0.01
Stage 2	-10.3	-0.03	0.02
Stage 2	-10.5	-0.03	0.02
Stage 2	-10.7	-0.03	0.03
Stage 2	-10.9	-0.02	0.03
Stage 2	-11.1	-0.01	0.03
Stage 2	-11.3	-0.01	0.03
Stage 2	-11.5	-0.01	0.02
Stage 2	-11.7	0	0.02
Stage 2	-11.9	0	0.01
Stage 2	-12	0	0

Tabella Spostamento SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 3

Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	0	0.74
Stage 3	-0.2	0.71
Stage 3	-0.4	0.67
Stage 3	-0.5	0.66
Stage 3	-0.7	0.62
Stage 3	-0.9	0.59
Stage 3	-1.1	0.55
Stage 3	-1.3	0.52
Stage 3	-1.5	0.48
Stage 3	-1.7	0.45
Stage 3	-1.9	0.42
Stage 3	-2.1	0.39
Stage 3	-2.3	0.36
Stage 3	-2.5	0.33
Stage 3	-2.7	0.3
Stage 3	-2.9	0.27
Stage 3	-3.1	0.25
Stage 3	-3.3	0.23
Stage 3	-3.5	0.21
Stage 3	-3.7	0.19
Stage 3	-3.9	0.17
Stage 3	-4.1	0.15
Stage 3	-4.3	0.14
Stage 3	-4.5	0.12
Stage 3	-4.7	0.11
Stage 3	-4.9	0.1
Stage 3	-5.1	0.09
Stage 3	-5.3	0.09
Stage 3	-5.5	0.08
Stage 3	-5.7	0.08
Stage 3	-5.9	0.07
Stage 3	-6.1	0.07
Stage 3	-6.3	0.07
Stage 3	-6.5	0.07
Stage 3	-6.7	0.06
Stage 3	-6.9	0.06
Stage 3	-7.1	0.06
Stage 3	-7.3	0.06
Stage 3	-7.5	0.06
Stage 3	-7.7	0.06
Stage 3	-7.9	0.06
Stage 3	-8.1	0.06
Stage 3	-8.3	0.06
Stage 3	-8.5	0.06
Stage 3	-8.7	0.06
Stage 3	-8.9	0.06
Stage 3	-9.1	0.06
Stage 3	-9.3	0.06
Stage 3	-9.5	0.06
Stage 3	-9.7	0.06
Stage 3	-9.9	0.06
Stage 3	-10.1	0.06
Stage 3	-10.3	0.06
Stage 3	-10.5	0.06
Stage 3	-10.7	0.06
Stage 3	-10.9	0.06
Stage 3	-11.1	0.06
Stage 3	-11.3	0.06
Stage 3	-11.5	0.06
Stage 3	-11.7	0.05
Stage 3	-11.9	0.05
Stage 3	-12	0.05

Tabella Risultati Paratia SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 3

Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	0
Stage 3	-0.2	0	0
Stage 3	-0.2	0	0
Stage 3	-0.4	-0.1	-0.5
Stage 3	-0.5	-0.22	-1.25
Stage 3	-0.7	-0.66	-2.18
Stage 3	-0.9	-1.45	-3.94
Stage 3	-1.1	-2.69	-6.22
Stage 3	-1.3	-4.17	-7.37
Stage 3	-1.5	-5.55	-6.92
Stage 3	-1.7	-6.84	-6.47
Stage 3	-1.9	-8.05	-6.02
Stage 3	-2.1	-9.16	-5.56
Stage 3	-2.3	-10.18	-5.09
Stage 3	-2.5	-11.1	-4.61
Stage 3	-2.7	-11.92	-4.1
Stage 3	-2.9	-12.64	-3.57
Stage 3	-3.1	-13.24	-3
Stage 3	-3.3	-13.72	-2.4
Stage 3	-3.5	-14.07	-1.74
Stage 3	-3.7	-14.27	-1.03
Stage 3	-3.9	-14.33	-0.27
Stage 3	-4.1	-14.21	0.56
Stage 3	-4.3	-13.92	1.47
Stage 3	-4.5	-13.43	2.46
Stage 3	-4.7	-12.72	3.51
Stage 3	-4.9	-11.87	4.27
Stage 3	-5.1	-10.91	4.79
Stage 3	-5.3	-9.89	5.11
Stage 3	-5.5	-8.83	5.26
Stage 3	-5.7	-7.78	5.28
Stage 3	-5.9	-6.75	5.16
Stage 3	-6.1	-5.76	4.91
Stage 3	-6.3	-4.85	4.59
Stage 3	-6.5	-4	4.22
Stage 3	-6.7	-3.24	3.82
Stage 3	-6.9	-2.56	3.41
Stage 3	-7.1	-1.96	2.99
Stage 3	-7.3	-1.44	2.59
Stage 3	-7.5	-1	2.21
Stage 3	-7.7	-0.63	1.85
Stage 3	-7.9	-0.32	1.52
Stage 3	-8.1	-0.08	1.22
Stage 3	-8.3	0.11	0.95
Stage 3	-8.5	0.26	0.72
Stage 3	-8.7	0.36	0.51
Stage 3	-8.9	0.43	0.33
Stage 3	-9.1	0.46	0.18
Stage 3	-9.3	0.47	0.06
Stage 3	-9.5	0.47	-0.04
Stage 3	-9.7	0.44	-0.12
Stage 3	-9.9	0.41	-0.18
Stage 3	-10.1	0.36	-0.22
Stage 3	-10.3	0.31	-0.25
Stage 3	-10.5	0.26	-0.26
Stage 3	-10.7	0.21	-0.26
Stage 3	-10.9	0.16	-0.25
Stage 3	-11.1	0.11	-0.23
Stage 3	-11.3	0.07	-0.2
Stage 3	-11.5	0.04	-0.16
Stage 3	-11.7	0.01	-0.12
Stage 3	-11.9	0	-0.06
Stage 3	-12	0	-0.02

Tabella Spostamento SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 4

Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	0	0.74
Stage 4	-0.2	0.71
Stage 4	-0.4	0.67
Stage 4	-0.5	0.66
Stage 4	-0.7	0.62
Stage 4	-0.9	0.59
Stage 4	-1.1	0.55
Stage 4	-1.3	0.52
Stage 4	-1.5	0.48
Stage 4	-1.7	0.45
Stage 4	-1.9	0.42
Stage 4	-2.1	0.39
Stage 4	-2.3	0.36
Stage 4	-2.5	0.33
Stage 4	-2.7	0.3
Stage 4	-2.9	0.27
Stage 4	-3.1	0.25
Stage 4	-3.3	0.23
Stage 4	-3.5	0.21
Stage 4	-3.7	0.19
Stage 4	-3.9	0.17
Stage 4	-4.1	0.15
Stage 4	-4.3	0.14
Stage 4	-4.5	0.12
Stage 4	-4.7	0.11
Stage 4	-4.9	0.1
Stage 4	-5.1	0.09
Stage 4	-5.3	0.09
Stage 4	-5.5	0.08
Stage 4	-5.7	0.08
Stage 4	-5.9	0.07
Stage 4	-6.1	0.07
Stage 4	-6.3	0.07
Stage 4	-6.5	0.07
Stage 4	-6.7	0.06
Stage 4	-6.9	0.06
Stage 4	-7.1	0.06
Stage 4	-7.3	0.06
Stage 4	-7.5	0.06
Stage 4	-7.7	0.06
Stage 4	-7.9	0.06
Stage 4	-8.1	0.06
Stage 4	-8.3	0.06
Stage 4	-8.5	0.06
Stage 4	-8.7	0.06
Stage 4	-8.9	0.06
Stage 4	-9.1	0.06
Stage 4	-9.3	0.06
Stage 4	-9.5	0.06
Stage 4	-9.7	0.06
Stage 4	-9.9	0.06
Stage 4	-10.1	0.06
Stage 4	-10.3	0.06
Stage 4	-10.5	0.06
Stage 4	-10.7	0.06
Stage 4	-10.9	0.06
Stage 4	-11.1	0.06
Stage 4	-11.3	0.06
Stage 4	-11.5	0.06
Stage 4	-11.7	0.05
Stage 4	-11.9	0.05
Stage 4	-12	0.05

Tabella Risultati Paratia SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 4

Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	0
Stage 4	-0.2	0	0
Stage 4	-0.2	0	0
Stage 4	-0.4	-0.1	-0.5
Stage 4	-0.5	-0.22	-1.25
Stage 4	-0.7	-0.66	-2.18
Stage 4	-0.9	-1.45	-3.94
Stage 4	-1.1	-2.69	-6.22
Stage 4	-1.3	-4.17	-7.37
Stage 4	-1.5	-5.55	-6.92
Stage 4	-1.7	-6.85	-6.47
Stage 4	-1.9	-8.05	-6.02
Stage 4	-2.1	-9.16	-5.56
Stage 4	-2.3	-10.18	-5.09
Stage 4	-2.5	-11.1	-4.61
Stage 4	-2.7	-11.92	-4.1
Stage 4	-2.9	-12.64	-3.57
Stage 4	-3.1	-13.24	-3
Stage 4	-3.3	-13.72	-2.4
Stage 4	-3.5	-14.07	-1.74
Stage 4	-3.7	-14.27	-1.03
Stage 4	-3.9	-14.33	-0.27
Stage 4	-4.1	-14.21	0.56
Stage 4	-4.3	-13.92	1.47
Stage 4	-4.5	-13.42	2.47
Stage 4	-4.7	-12.72	3.51
Stage 4	-4.9	-11.87	4.27
Stage 4	-5.1	-10.91	4.8
Stage 4	-5.3	-9.89	5.12
Stage 4	-5.5	-8.83	5.27
Stage 4	-5.7	-7.78	5.28
Stage 4	-5.9	-6.75	5.15
Stage 4	-6.1	-5.76	4.91
Stage 4	-6.3	-4.85	4.59
Stage 4	-6.5	-4	4.22
Stage 4	-6.7	-3.24	3.82
Stage 4	-6.9	-2.56	3.41
Stage 4	-7.1	-1.96	2.99
Stage 4	-7.3	-1.44	2.59
Stage 4	-7.5	-1	2.21
Stage 4	-7.7	-0.63	1.85
Stage 4	-7.9	-0.32	1.52
Stage 4	-8.1	-0.08	1.22
Stage 4	-8.3	0.11	0.95
Stage 4	-8.5	0.26	0.72
Stage 4	-8.7	0.36	0.51
Stage 4	-8.9	0.42	0.33
Stage 4	-9.1	0.46	0.18
Stage 4	-9.3	0.47	0.06
Stage 4	-9.5	0.47	-0.04
Stage 4	-9.7	0.44	-0.12
Stage 4	-9.9	0.41	-0.18
Stage 4	-10.1	0.36	-0.22
Stage 4	-10.3	0.31	-0.25
Stage 4	-10.5	0.26	-0.26
Stage 4	-10.7	0.21	-0.26
Stage 4	-10.9	0.16	-0.25
Stage 4	-11.1	0.11	-0.23
Stage 4	-11.3	0.07	-0.2
Stage 4	-11.5	0.04	-0.16
Stage 4	-11.7	0.01	-0.12
Stage 4	-11.9	0	-0.06
Stage 4	-12	0	-0.02

Tabella Spostamento SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 5

Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	0	14.01
Stage 5	-0.2	13.95
Stage 5	-0.4	13.89
Stage 5	-0.5	13.86
Stage 5	-0.7	13.8
Stage 5	-0.9	13.74
Stage 5	-1.1	13.67
Stage 5	-1.3	13.6
Stage 5	-1.5	13.53
Stage 5	-1.7	13.45
Stage 5	-1.9	13.35
Stage 5	-2.1	13.25
Stage 5	-2.3	13.14
Stage 5	-2.5	13.01
Stage 5	-2.7	12.87
Stage 5	-2.9	12.71
Stage 5	-3.1	12.54
Stage 5	-3.3	12.35
Stage 5	-3.5	12.15
Stage 5	-3.7	11.93
Stage 5	-3.9	11.7
Stage 5	-4.1	11.45
Stage 5	-4.3	11.18
Stage 5	-4.5	10.9
Stage 5	-4.7	10.61
Stage 5	-4.9	10.3
Stage 5	-5.1	9.99
Stage 5	-5.3	9.66
Stage 5	-5.5	9.32
Stage 5	-5.7	8.98
Stage 5	-5.9	8.63
Stage 5	-6.1	8.28
Stage 5	-6.3	7.93
Stage 5	-6.5	7.57
Stage 5	-6.7	7.22
Stage 5	-6.9	6.86
Stage 5	-7.1	6.51
Stage 5	-7.3	6.16
Stage 5	-7.5	5.81
Stage 5	-7.7	5.47
Stage 5	-7.9	5.13
Stage 5	-8.1	4.79
Stage 5	-8.3	4.47
Stage 5	-8.5	4.14
Stage 5	-8.7	3.83
Stage 5	-8.9	3.51
Stage 5	-9.1	3.21
Stage 5	-9.3	2.91
Stage 5	-9.5	2.62
Stage 5	-9.7	2.33
Stage 5	-9.9	2.04
Stage 5	-10.1	1.77
Stage 5	-10.3	1.49
Stage 5	-10.5	1.23
Stage 5	-10.7	0.96
Stage 5	-10.9	0.7
Stage 5	-11.1	0.44
Stage 5	-11.3	0.18
Stage 5	-11.5	-0.07
Stage 5	-11.7	-0.33
Stage 5	-11.9	-0.58
Stage 5	-12	-0.71

Tabella Risultati Paratia SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 5

Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	0
Stage 5	-0.2	0	0
Stage 5	-0.2	0	0
Stage 5	-0.4	-0.09	-0.44
Stage 5	-0.5	-0.2	-1.11
Stage 5	-0.7	13.73	69.66
Stage 5	-0.9	27.35	68.1
Stage 5	-1.1	40.57	66.08
Stage 5	-1.3	53.29	63.6
Stage 5	-1.5	65.42	60.67
Stage 5	-1.7	76.88	57.28
Stage 5	-1.9	87.57	53.43
Stage 5	-2.1	97.39	49.11
Stage 5	-2.3	106.26	44.34
Stage 5	-2.5	114.08	39.11
Stage 5	-2.7	120.76	33.43
Stage 5	-2.9	126.22	27.3
Stage 5	-3.1	130.37	20.72
Stage 5	-3.3	133.11	13.69
Stage 5	-3.5	134.35	6.22
Stage 5	-3.7	134.01	-1.71
Stage 5	-3.9	131.99	-10.08
Stage 5	-4.1	128.21	-18.9
Stage 5	-4.3	122.58	-28.16
Stage 5	-4.5	115.01	-37.86
Stage 5	-4.7	105.41	-48.01
Stage 5	-4.9	94.25	-55.77
Stage 5	-5.1	82.03	-61.14
Stage 5	-5.3	69.2	-64.12
Stage 5	-5.5	56.26	-64.7
Stage 5	-5.7	43.68	-62.89
Stage 5	-5.9	31.95	-58.69
Stage 5	-6.1	21.06	-54.43
Stage 5	-6.3	11.01	-50.24
Stage 5	-6.5	1.79	-46.13
Stage 5	-6.7	-6.63	-42.1
Stage 5	-6.9	-14.26	-38.14
Stage 5	-7.1	-21.11	-34.26
Stage 5	-7.3	-27.21	-30.46
Stage 5	-7.5	-32.55	-26.74
Stage 5	-7.7	-37.17	-23.08
Stage 5	-7.9	-41.07	-19.49
Stage 5	-8.1	-44.26	-15.97
Stage 5	-8.3	-46.76	-12.51
Stage 5	-8.5	-48.58	-9.1
Stage 5	-8.7	-49.73	-5.74
Stage 5	-8.9	-50.22	-2.43
Stage 5	-9.1	-50.05	0.85
Stage 5	-9.3	-49.23	4.1
Stage 5	-9.5	-47.76	7.32
Stage 5	-9.7	-45.66	10.51
Stage 5	-9.9	-42.93	13.67
Stage 5	-10.1	-39.57	16.8
Stage 5	-10.3	-35.59	19.92
Stage 5	-10.5	-30.98	23.02
Stage 5	-10.7	-25.76	26.12
Stage 5	-10.9	-20.1	28.28
Stage 5	-11.1	-14.47	28.19
Stage 5	-11.3	-9.29	25.89
Stage 5	-11.5	-5.01	21.38
Stage 5	-11.7	-1.91	15.51
Stage 5	-11.9	-0.22	8.44
Stage 5	-12	0	2.22

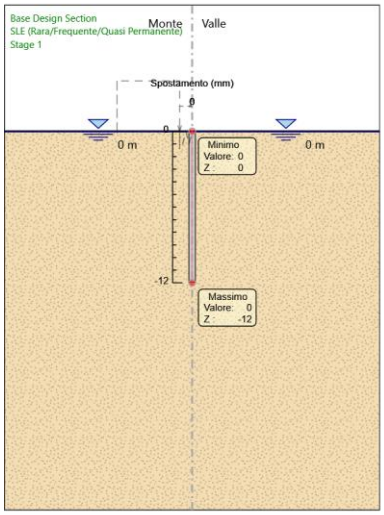
Tabella Spostamento SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 6

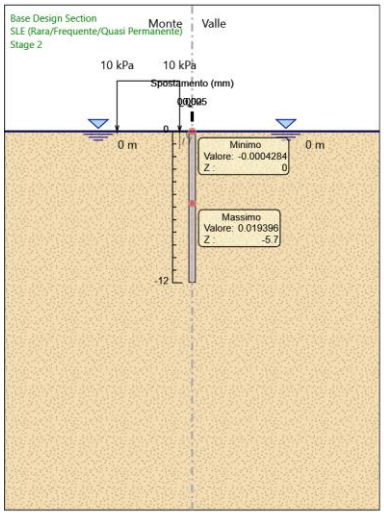
Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	0	14
Stage 6	-0.2	13.94
Stage 6	-0.4	13.88
Stage 6	-0.5	13.85
Stage 6	-0.7	13.79
Stage 6	-0.9	13.72
Stage 6	-1.1	13.66
Stage 6	-1.3	13.59
Stage 6	-1.5	13.51
Stage 6	-1.7	13.43
Stage 6	-1.9	13.33
Stage 6	-2.1	13.23
Stage 6	-2.3	13.11
Stage 6	-2.5	12.98
Stage 6	-2.7	12.84
Stage 6	-2.9	12.69
Stage 6	-3.1	12.51
Stage 6	-3.3	12.33
Stage 6	-3.5	12.12
Stage 6	-3.7	11.91
Stage 6	-3.9	11.67
Stage 6	-4.1	11.42
Stage 6	-4.3	11.15
Stage 6	-4.5	10.87
Stage 6	-4.7	10.58
Stage 6	-4.9	10.27
Stage 6	-5.1	9.96
Stage 6	-5.3	9.63
Stage 6	-5.5	9.29
Stage 6	-5.7	8.95
Stage 6	-5.9	8.6
Stage 6	-6.1	8.25
Stage 6	-6.3	7.9
Stage 6	-6.5	7.54
Stage 6	-6.7	7.19
Stage 6	-6.9	6.83
Stage 6	-7.1	6.48
Stage 6	-7.3	6.13
Stage 6	-7.5	5.78
Stage 6	-7.7	5.44
Stage 6	-7.9	5.1
Stage 6	-8.1	4.77
Stage 6	-8.3	4.44
Stage 6	-8.5	4.12
Stage 6	-8.7	3.8
Stage 6	-8.9	3.49
Stage 6	-9.1	3.19
Stage 6	-9.3	2.89
Stage 6	-9.5	2.59
Stage 6	-9.7	2.31
Stage 6	-9.9	2.02
Stage 6	-10.1	1.75
Stage 6	-10.3	1.47
Stage 6	-10.5	1.21
Stage 6	-10.7	0.94
Stage 6	-10.9	0.68
Stage 6	-11.1	0.42
Stage 6	-11.3	0.16
Stage 6	-11.5	-0.09
Stage 6	-11.7	-0.35
Stage 6	-11.9	-0.6
Stage 6	-12	-0.73

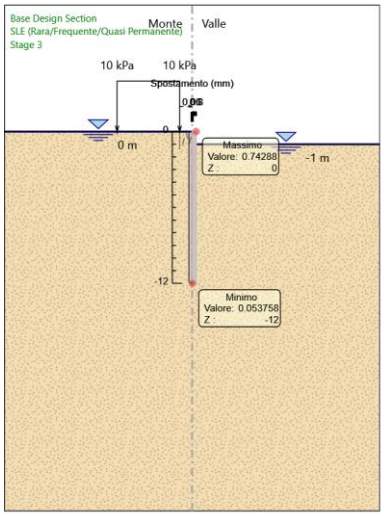
Tabella Risultati Paratia SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 6

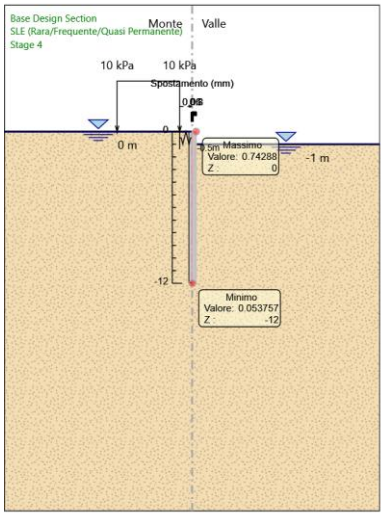
Design Assumption: SLE (Rara/Frequente/Quasi Permanente)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	0
Stage 6	-0.2	0	0
Stage 6	-0.2	0	0
Stage 6	-0.4	-0.1	-0.49
Stage 6	-0.5	-0.22	-1.19
Stage 6	-0.7	13.68	69.48
Stage 6	-0.9	27.25	67.86
Stage 6	-1.1	40.41	65.8
Stage 6	-1.3	53.07	63.3
Stage 6	-1.5	65.14	60.34
Stage 6	-1.7	76.52	56.93
Stage 6	-1.9	87.14	53.08
Stage 6	-2.1	96.89	48.77
Stage 6	-2.3	105.7	44.02
Stage 6	-2.5	113.47	38.83
Stage 6	-2.7	120.1	33.18
Stage 6	-2.9	125.52	27.09
Stage 6	-3.1	129.63	20.55
Stage 6	-3.3	132.35	13.57
Stage 6	-3.5	133.57	6.15
Stage 6	-3.7	133.23	-1.73
Stage 6	-3.9	131.22	-10.04
Stage 6	-4.1	127.46	-18.8
Stage 6	-4.3	121.86	-28
Stage 6	-4.5	114.33	-37.65
Stage 6	-4.7	104.78	-47.73
Stage 6	-4.9	93.68	-55.51
Stage 6	-5.1	81.5	-60.9
Stage 6	-5.3	68.72	-63.9
Stage 6	-5.5	55.82	-64.49
Stage 6	-5.7	43.28	-62.7
Stage 6	-5.9	31.58	-58.5
Stage 6	-6.1	20.74	-54.24
Stage 6	-6.3	10.73	-50.05
Stage 6	-6.5	1.54	-45.94
Stage 6	-6.7	-6.85	-41.92
Stage 6	-6.9	-14.44	-37.97
Stage 6	-7.1	-21.26	-34.1
Stage 6	-7.3	-27.32	-30.31
Stage 6	-7.5	-32.64	-26.6
Stage 6	-7.7	-37.24	-22.96
Stage 6	-7.9	-41.11	-19.38
Stage 6	-8.1	-44.29	-15.87
Stage 6	-8.3	-46.77	-12.42
Stage 6	-8.5	-48.58	-9.03
Stage 6	-8.7	-49.71	-5.68
Stage 6	-8.9	-50.19	-2.38
Stage 6	-9.1	-50.01	0.89
Stage 6	-9.3	-49.19	4.12
Stage 6	-9.5	-47.72	7.32
Stage 6	-9.7	-45.62	10.5
Stage 6	-9.9	-42.89	13.65
Stage 6	-10.1	-39.54	16.78
Stage 6	-10.3	-35.56	19.9
Stage 6	-10.5	-30.96	23
Stage 6	-10.7	-25.74	26.09
Stage 6	-10.9	-20.09	28.25
Stage 6	-11.1	-14.45	28.17
Stage 6	-11.3	-9.28	25.87
Stage 6	-11.5	-5.01	21.36
Stage 6	-11.7	-1.91	15.5
Stage 6	-11.9	-0.22	8.43
Stage 6	-12	0	2.22

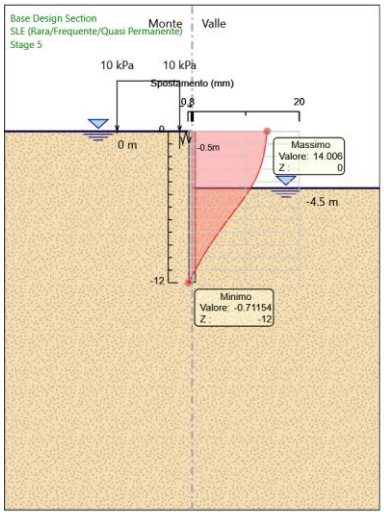
Tabella Grafici dei Risultati

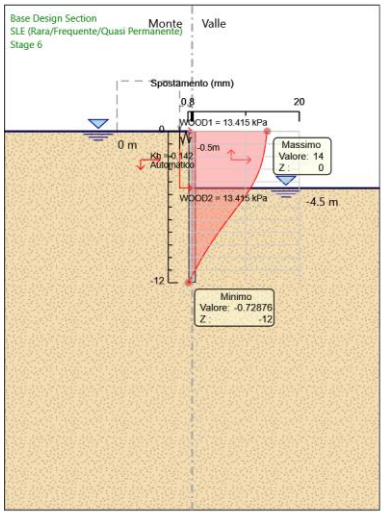


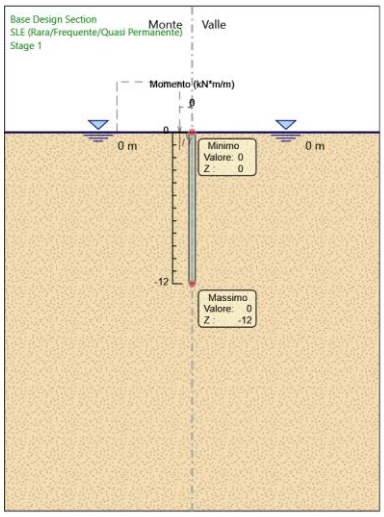


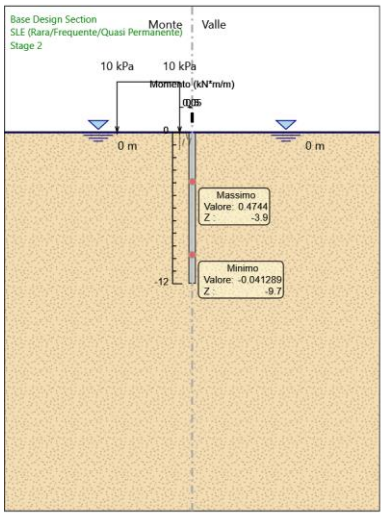


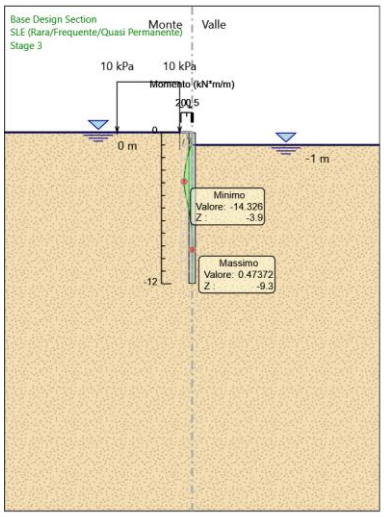


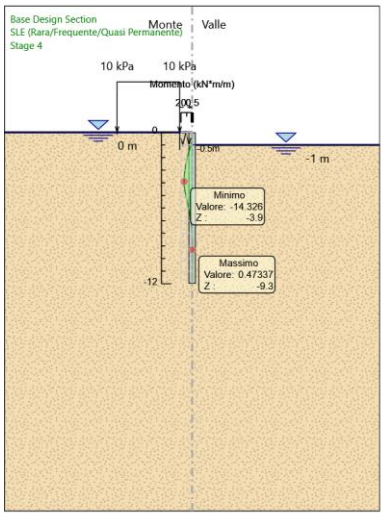


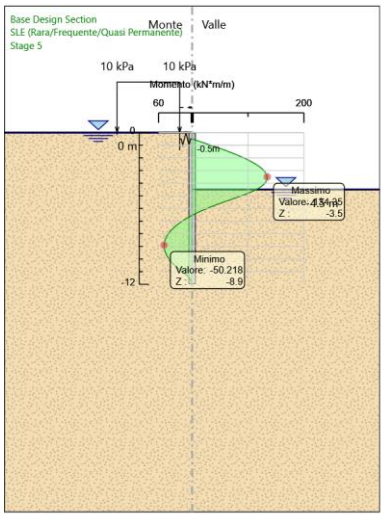


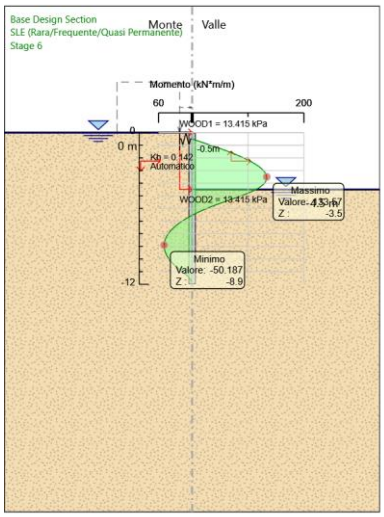

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 1
Monte
Valle
Momento (kN*m/m)
0 m
0 m
Minimo
Valore: 0
Z : 0
-12
Massimo
Valore: 0
Z : -12

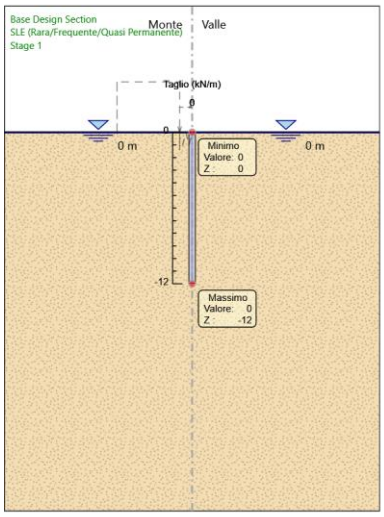

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 2
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
0 m
Massimo
Valore: 0.4744
Z : -3.9
Minimo
Valore: -0.041289
Z : -9.7
-12

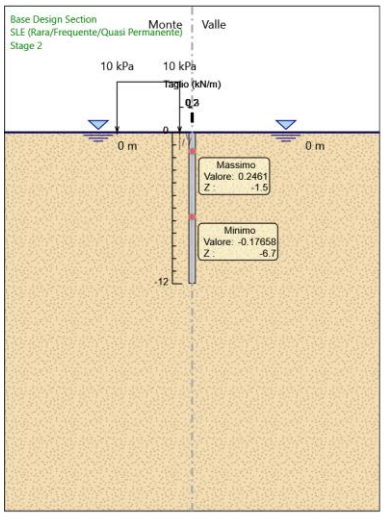

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 3
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
-1 m
Minimo
Valore: -14.326
Z : -3.9
Massimo
Valore: 0.47372
Z : -9.3
-12

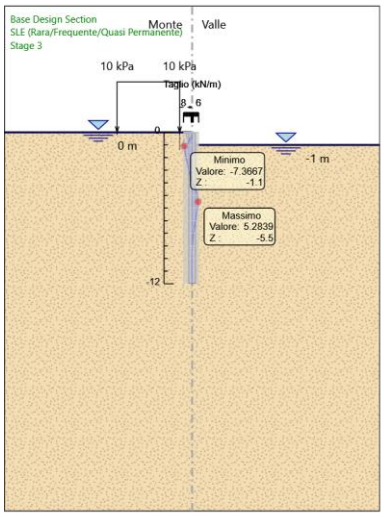

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 4
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
-1 m
Minimo
Valore: -14.326
Z : -3.9
Massimo
Valore: 0.47337
Z : -9.3
-12

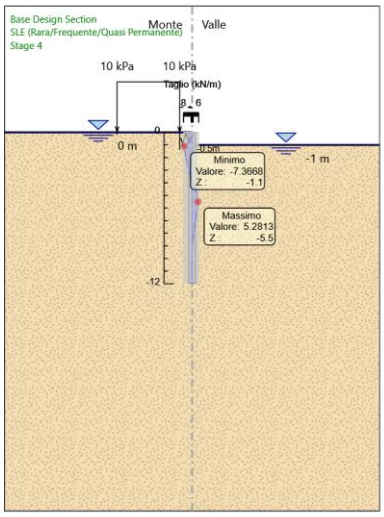

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 5
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
60
200
0 m
-0.5m
Minimo
Valore: -50.218
Z : -8.9
-12

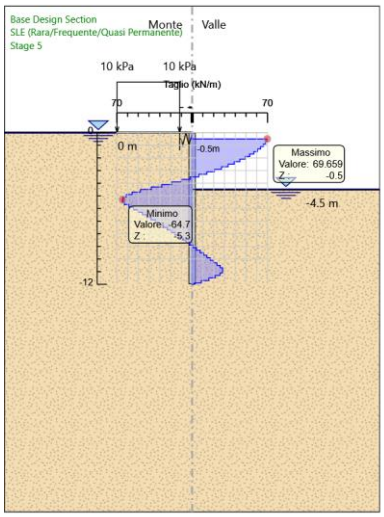

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 6
Monte
Valle
Momento (kN*m/m)
60
200
WOD1 = 13.415 kPa
0 m
-0.5m
Kb = 0.142
Automatico
WOD2 = 13.415 kPa
Minimo
Valore: -50.187
Z : -8.9
-12

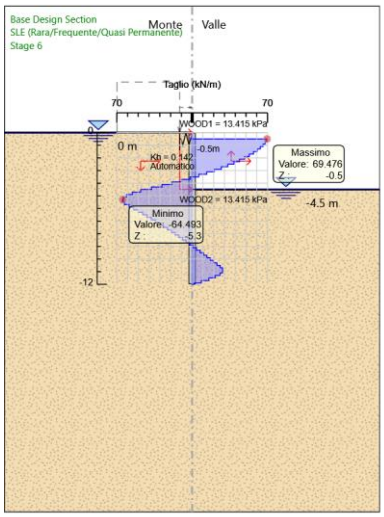

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 1
Monte
Valle
Taglio (kN/m)
0 m
0 m
Minimo
Valore: 0
Z: 0
-12
Massimo
Valore: 0
Z: -12

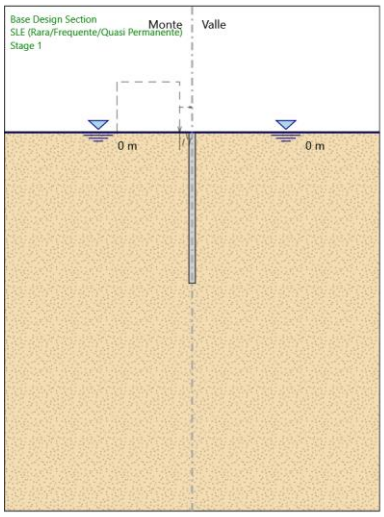

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 2
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
0 m
Massimo
Valore: 0.2461
Z: -1.5
Minimo
Valore: -0.17658
Z: -6.7
-12

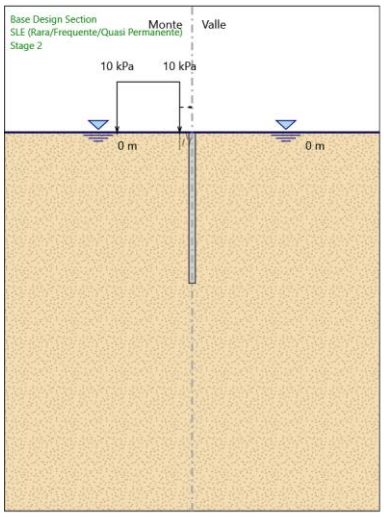

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 3
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
-1 m
Minimo
Valore: -7.3667
Z: -1.1
Massimo
Valore: 5.2839
Z: -5.5
-12

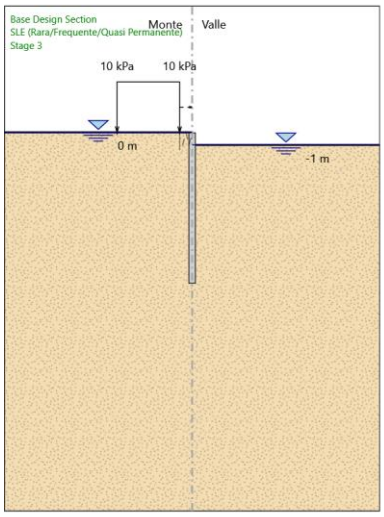

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 4
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
-0.5m
-1 m
Minimo
Valore: -7.3668
Z: -1.1
Massimo
Valore: 5.2813
Z: -5.5
-12

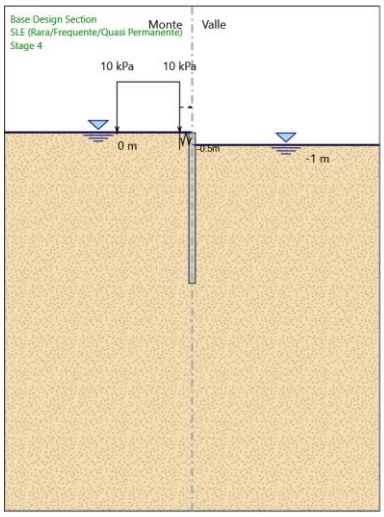

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 5
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
70
70
0 m
-0.5m
Massimo
Valore: 69.659
Z: -0.5
-4.5 m
Minimo
Valore: -64.7
Z: -5.3
-12

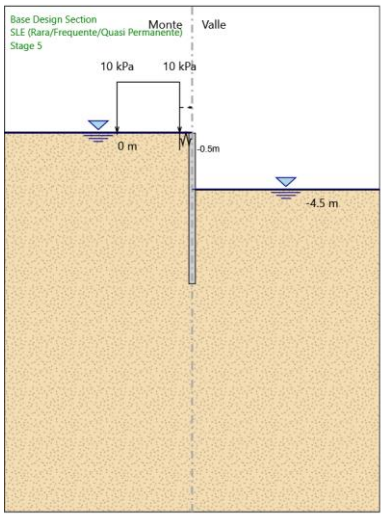

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 6
Monte
Valle
Taglio (kN/m)
70
70
WOD1 = 13.415 kPa
0 m
-0.5m
Kb = 0.142
Automatico
Massimo
Valore: 69.476
Z: -0.5
WOD2 = 13.415 kPa
-4.5 m
Minimo
Valore: -64.493
Z: -5.3
-12

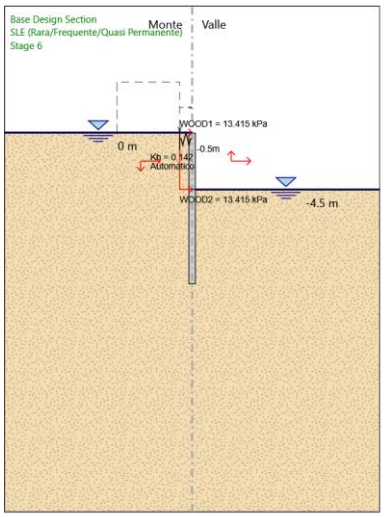

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 1
Monte
Valle
0 m
0 m

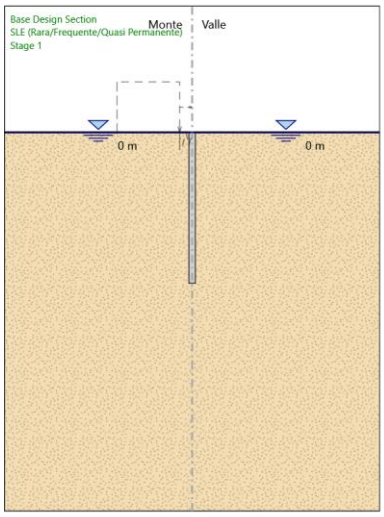

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 2
Monte
Valle
10 kPa
10 kPa
0 m
0 m

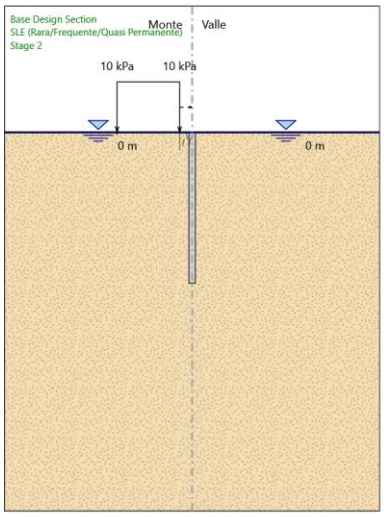

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 3
Monte
Valle
10 kPa
10 kPa
0 m
-1 m

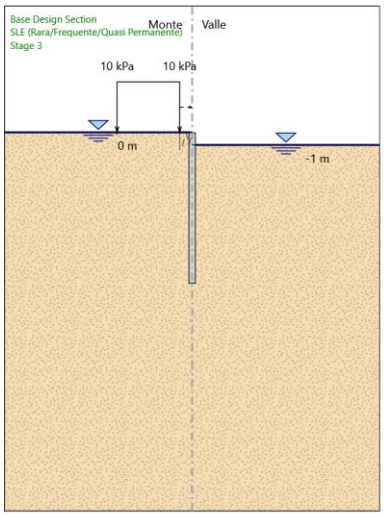

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 4
Monte
Valle
10 kPa
10 kPa
0 m
-0.5m
-1 m

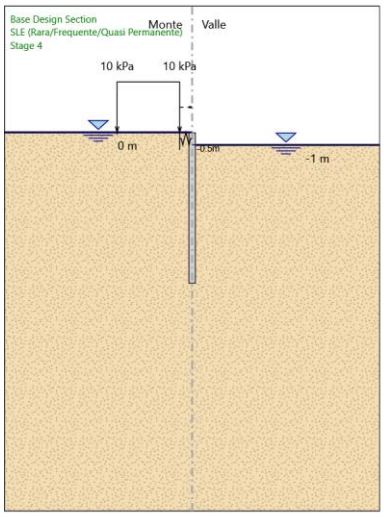

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 5
Monte
Valle
10 kPa
10 kPa
0 m
-0.5m
-4.5 m

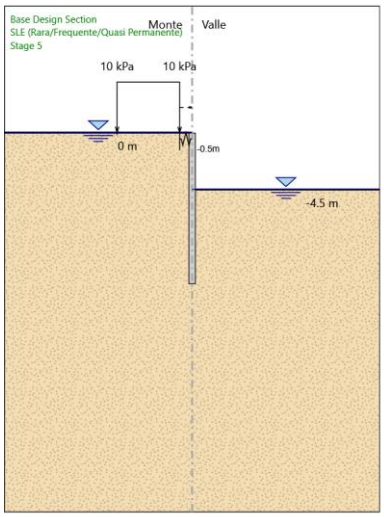

Base Design Section
SLE (Rara/Frequente/Quasi Permanente)
Stage 6
Monte
Valle
WOOD1 = 13.415 kPa
0 m
-0.5m
Kb = 0.142
Automatico
WOOD2 = 13.415 kPa
-4.5 m

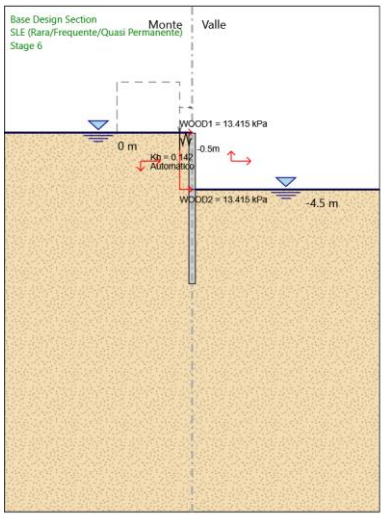












Risultati Elementi strutturali - SLE (Rara/Frequente/Quasi Permanente)

Design Assumption: SLE (Rara/Frequente/Quasi Permanente) Sollecitazione Spring

Stage	Forza (kN/m)
Stage 4	-6.3092093E-06
Stage 5	71.59735
Stage 6	71.54137

Risultati A1+M1+R1 (R3 per tiranti)

Tabella Risultati Paratia A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 1

Design Assumption: A1+M1+R1 (R3 per tiranti)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.5	0	0
Stage 1	-0.7	0	0
Stage 1	-0.9	0	0
Stage 1	-1.1	0	0
Stage 1	-1.3	0	0
Stage 1	-1.5	0	0
Stage 1	-1.7	0	0
Stage 1	-1.9	0	0
Stage 1	-2.1	0	0
Stage 1	-2.3	0	0
Stage 1	-2.5	0	0
Stage 1	-2.7	0	0
Stage 1	-2.9	0	0
Stage 1	-3.1	0	0
Stage 1	-3.3	0	0
Stage 1	-3.5	0	0
Stage 1	-3.7	0	0
Stage 1	-3.9	0	0
Stage 1	-4.1	0	0
Stage 1	-4.3	0	0
Stage 1	-4.5	0	0
Stage 1	-4.7	0	0
Stage 1	-4.9	0	0
Stage 1	-5.1	0	0
Stage 1	-5.3	0	0
Stage 1	-5.5	0	0
Stage 1	-5.7	0	0
Stage 1	-5.9	0	0
Stage 1	-6.1	0	0
Stage 1	-6.3	0	0
Stage 1	-6.5	0	0
Stage 1	-6.7	0	0
Stage 1	-6.9	0	0
Stage 1	-7.1	0	0
Stage 1	-7.3	0	0
Stage 1	-7.5	0	0
Stage 1	-7.7	0	0
Stage 1	-7.9	0	0
Stage 1	-8.1	0	0
Stage 1	-8.3	0	0
Stage 1	-8.5	0	0
Stage 1	-8.7	0	0
Stage 1	-8.9	0	0
Stage 1	-9.1	0	0
Stage 1	-9.3	0	0
Stage 1	-9.5	0	0
Stage 1	-9.7	0	0
Stage 1	-9.9	0	0
Stage 1	-10.1	0	0
Stage 1	-10.3	0	0
Stage 1	-10.5	0	0
Stage 1	-10.7	0	0
Stage 1	-10.9	0	0
Stage 1	-11.1	0	0
Stage 1	-11.3	0	0
Stage 1	-11.5	0	0
Stage 1	-11.7	0	0
Stage 1	-11.9	0	0
Stage 1	-12	0	0

Tabella Risultati Paratia A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 2

Design Assumption: A1+M1+R1 (R3 per tiranti)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	0
Stage 2	-0.2	0	0
Stage 2	-0.2	0	0
Stage 2	-0.4	0	0.02
Stage 2	-0.5	0.01	0.06
Stage 2	-0.7	0.03	0.11
Stage 2	-0.9	0.07	0.17
Stage 2	-1.1	0.11	0.23
Stage 2	-1.3	0.17	0.29
Stage 2	-1.5	0.24	0.34
Stage 2	-1.7	0.31	0.37
Stage 2	-1.9	0.38	0.36
Stage 2	-2.1	0.45	0.34
Stage 2	-2.3	0.51	0.3
Stage 2	-2.5	0.57	0.26
Stage 2	-2.7	0.61	0.22
Stage 2	-2.9	0.64	0.17
Stage 2	-3.1	0.67	0.13
Stage 2	-3.3	0.69	0.1
Stage 2	-3.5	0.7	0.07
Stage 2	-3.7	0.71	0.04
Stage 2	-3.9	0.71	0.01
Stage 2	-4.1	0.71	-0.02
Stage 2	-4.3	0.7	-0.03
Stage 2	-4.5	0.69	-0.04
Stage 2	-4.7	0.68	-0.05
Stage 2	-4.9	0.67	-0.06
Stage 2	-5.1	0.65	-0.08
Stage 2	-5.3	0.64	-0.09
Stage 2	-5.5	0.61	-0.11
Stage 2	-5.7	0.59	-0.13
Stage 2	-5.9	0.56	-0.16
Stage 2	-6.1	0.52	-0.2
Stage 2	-6.3	0.47	-0.23
Stage 2	-6.5	0.42	-0.25
Stage 2	-6.7	0.37	-0.26
Stage 2	-6.9	0.31	-0.26
Stage 2	-7.1	0.26	-0.26
Stage 2	-7.3	0.21	-0.25
Stage 2	-7.5	0.17	-0.23
Stage 2	-7.7	0.12	-0.21
Stage 2	-7.9	0.09	-0.19
Stage 2	-8.1	0.05	-0.17
Stage 2	-8.3	0.02	-0.15
Stage 2	-8.5	0	-0.12
Stage 2	-8.7	-0.02	-0.1
Stage 2	-8.9	-0.04	-0.08
Stage 2	-9.1	-0.05	-0.06
Stage 2	-9.3	-0.06	-0.04
Stage 2	-9.5	-0.06	-0.02
Stage 2	-9.7	-0.06	-0.01
Stage 2	-9.9	-0.06	0.01
Stage 2	-10.1	-0.06	0.02
Stage 2	-10.3	-0.05	0.03
Stage 2	-10.5	-0.05	0.03
Stage 2	-10.7	-0.04	0.04
Stage 2	-10.9	-0.03	0.04
Stage 2	-11.1	-0.02	0.04
Stage 2	-11.3	-0.01	0.04
Stage 2	-11.5	-0.01	0.03
Stage 2	-11.7	0	0.03
Stage 2	-11.9	0	0.01
Stage 2	-12	0	0

Tabella Risultati Paratia A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 3

Design Assumption: A1+M1+R1 (R3 per tiranti)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	0
Stage 3	-0.2	0	0
Stage 3	-0.2	0	0
Stage 3	-0.4	-0.13	-0.65
Stage 3	-0.5	-0.29	-1.62
Stage 3	-0.7	-0.86	-2.84
Stage 3	-0.9	-1.89	-5.13
Stage 3	-1.1	-3.51	-8.1
Stage 3	-1.3	-5.43	-9.6
Stage 3	-1.5	-7.23	-9
Stage 3	-1.7	-8.91	-8.4
Stage 3	-1.9	-10.47	-7.8
Stage 3	-2.1	-11.91	-7.2
Stage 3	-2.3	-13.22	-6.59
Stage 3	-2.5	-14.42	-5.96
Stage 3	-2.7	-15.48	-5.31
Stage 3	-2.9	-16.4	-4.63
Stage 3	-3.1	-17.18	-3.9
Stage 3	-3.3	-17.81	-3.12
Stage 3	-3.5	-18.27	-2.29
Stage 3	-3.7	-18.54	-1.39
Stage 3	-3.9	-18.63	-0.41
Stage 3	-4.1	-18.5	0.65
Stage 3	-4.3	-18.14	1.81
Stage 3	-4.5	-17.52	3.07
Stage 3	-4.7	-16.63	4.44
Stage 3	-4.9	-15.54	5.48
Stage 3	-5.1	-14.3	6.19
Stage 3	-5.3	-12.97	6.63
Stage 3	-5.5	-11.6	6.85
Stage 3	-5.7	-10.23	6.88
Stage 3	-5.9	-8.88	6.73
Stage 3	-6.1	-7.6	6.42
Stage 3	-6.3	-6.4	6
Stage 3	-6.5	-5.29	5.52
Stage 3	-6.7	-4.29	5.01
Stage 3	-6.9	-3.4	4.47
Stage 3	-7.1	-2.61	3.93
Stage 3	-7.3	-1.93	3.41
Stage 3	-7.5	-1.35	2.91
Stage 3	-7.7	-0.86	2.44
Stage 3	-7.9	-0.45	2.01
Stage 3	-8.1	-0.13	1.62
Stage 3	-8.3	0.12	1.26
Stage 3	-8.5	0.31	0.95
Stage 3	-8.7	0.45	0.68
Stage 3	-8.9	0.54	0.45
Stage 3	-9.1	0.59	0.25
Stage 3	-9.3	0.61	0.09
Stage 3	-9.5	0.6	-0.04
Stage 3	-9.7	0.57	-0.15
Stage 3	-9.9	0.52	-0.23
Stage 3	-10.1	0.47	-0.28
Stage 3	-10.3	0.4	-0.32
Stage 3	-10.5	0.34	-0.34
Stage 3	-10.7	0.27	-0.34
Stage 3	-10.9	0.2	-0.32
Stage 3	-11.1	0.14	-0.3
Stage 3	-11.3	0.09	-0.26
Stage 3	-11.5	0.05	-0.21
Stage 3	-11.7	0.02	-0.15
Stage 3	-11.9	0	-0.08
Stage 3	-12	0	-0.02

Tabella Risultati Paratia A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 4

Design Assumption: A1+M1+R1 (R3 per tiranti)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	0
Stage 4	-0.2	0	0
Stage 4	-0.2	0	0
Stage 4	-0.4	-0.13	-0.65
Stage 4	-0.5	-0.29	-1.62
Stage 4	-0.7	-0.86	-2.84
Stage 4	-0.9	-1.89	-5.13
Stage 4	-1.1	-3.51	-8.1
Stage 4	-1.3	-5.43	-9.6
Stage 4	-1.5	-7.23	-9
Stage 4	-1.7	-8.91	-8.4
Stage 4	-1.9	-10.47	-7.8
Stage 4	-2.1	-11.91	-7.2
Stage 4	-2.3	-13.22	-6.59
Stage 4	-2.5	-14.42	-5.96
Stage 4	-2.7	-15.48	-5.31
Stage 4	-2.9	-16.4	-4.63
Stage 4	-3.1	-17.18	-3.9
Stage 4	-3.3	-17.81	-3.12
Stage 4	-3.5	-18.27	-2.29
Stage 4	-3.7	-18.54	-1.39
Stage 4	-3.9	-18.63	-0.41
Stage 4	-4.1	-18.5	0.65
Stage 4	-4.3	-18.14	1.81
Stage 4	-4.5	-17.52	3.07
Stage 4	-4.7	-16.63	4.44
Stage 4	-4.9	-15.54	5.48
Stage 4	-5.1	-14.3	6.19
Stage 4	-5.3	-12.97	6.63
Stage 4	-5.5	-11.6	6.85
Stage 4	-5.7	-10.23	6.88
Stage 4	-5.9	-8.88	6.73
Stage 4	-6.1	-7.6	6.42
Stage 4	-6.3	-6.4	6
Stage 4	-6.5	-5.29	5.52
Stage 4	-6.7	-4.29	5.01
Stage 4	-6.9	-3.4	4.47
Stage 4	-7.1	-2.61	3.93
Stage 4	-7.3	-1.93	3.41
Stage 4	-7.5	-1.35	2.91
Stage 4	-7.7	-0.86	2.44
Stage 4	-7.9	-0.45	2.01
Stage 4	-8.1	-0.13	1.62
Stage 4	-8.3	0.12	1.26
Stage 4	-8.5	0.31	0.95
Stage 4	-8.7	0.45	0.68
Stage 4	-8.9	0.54	0.45
Stage 4	-9.1	0.59	0.25
Stage 4	-9.3	0.61	0.09
Stage 4	-9.5	0.6	-0.04
Stage 4	-9.7	0.57	-0.15
Stage 4	-9.9	0.52	-0.23
Stage 4	-10.1	0.47	-0.28
Stage 4	-10.3	0.4	-0.32
Stage 4	-10.5	0.34	-0.34
Stage 4	-10.7	0.27	-0.34
Stage 4	-10.9	0.2	-0.32
Stage 4	-11.1	0.14	-0.3
Stage 4	-11.3	0.09	-0.26
Stage 4	-11.5	0.05	-0.21
Stage 4	-11.7	0.02	-0.15
Stage 4	-11.9	0	-0.08
Stage 4	-12	0	-0.02

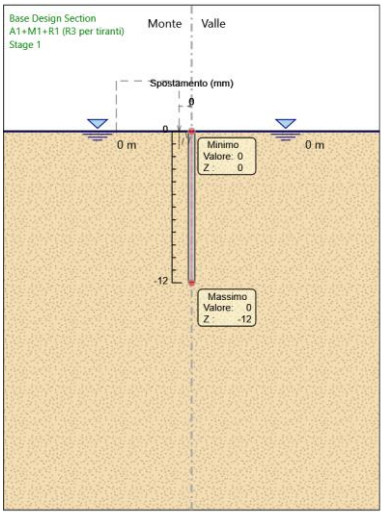
Tabella Risultati Paratia A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 5

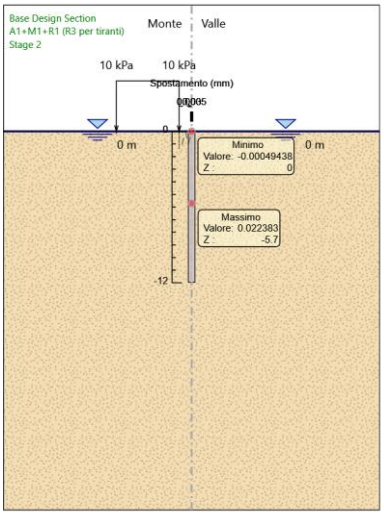
Design Assumption: A1+M1+R1 (R3 per tiranti)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	0
Stage 5	-0.2	0	0
Stage 5	-0.2	0	0
Stage 5	-0.4	-0.11	-0.57
Stage 5	-0.5	-0.26	-1.44
Stage 5	-0.7	17.95	91.06
Stage 5	-0.9	35.76	89.03
Stage 5	-1.1	53.04	86.4
Stage 5	-1.3	69.67	83.17
Stage 5	-1.5	85.54	79.35
Stage 5	-1.7	100.53	74.92
Stage 5	-1.9	114.5	69.89
Stage 5	-2.1	127.35	64.25
Stage 5	-2.3	138.96	58.01
Stage 5	-2.5	149.19	51.19
Stage 5	-2.7	157.95	43.77
Stage 5	-2.9	165.1	35.76
Stage 5	-3.1	170.53	27.17
Stage 5	-3.3	174.13	17.99
Stage 5	-3.5	175.77	8.23
Stage 5	-3.7	175.35	-2.12
Stage 5	-3.9	172.74	-13.05
Stage 5	-4.1	167.83	-24.56
Stage 5	-4.3	160.5	-36.64
Stage 5	-4.5	150.64	-49.31
Stage 5	-4.7	138.13	-62.55
Stage 5	-4.9	123.59	-72.69
Stage 5	-5.1	107.65	-79.72
Stage 5	-5.3	90.92	-83.64
Stage 5	-5.5	74.03	-84.45
Stage 5	-5.7	57.6	-82.15
Stage 5	-5.9	42.25	-76.74
Stage 5	-6.1	28.02	-71.16
Stage 5	-6.3	14.88	-65.68
Stage 5	-6.5	2.82	-60.3
Stage 5	-6.7	-8.18	-55.03
Stage 5	-6.9	-18.15	-49.85
Stage 5	-7.1	-27.11	-44.78
Stage 5	-7.3	-35.07	-39.82
Stage 5	-7.5	-42.06	-34.95
Stage 5	-7.7	-48.1	-30.17
Stage 5	-7.9	-53.19	-25.49
Stage 5	-8.1	-57.37	-20.89
Stage 5	-8.3	-60.65	-16.37
Stage 5	-8.5	-63.03	-11.93
Stage 5	-8.7	-64.54	-7.55
Stage 5	-8.9	-65.19	-3.23
Stage 5	-9.1	-64.98	1.03
Stage 5	-9.3	-63.93	5.24
Stage 5	-9.5	-62.05	9.42
Stage 5	-9.7	-59.34	13.57
Stage 5	-9.9	-55.8	17.69
Stage 5	-10.1	-51.44	21.77
Stage 5	-10.3	-46.28	25.82
Stage 5	-10.5	-40.31	29.85
Stage 5	-10.7	-33.54	33.86
Stage 5	-10.9	-26.19	36.74
Stage 5	-11.1	-18.85	36.69
Stage 5	-11.3	-12.11	33.72
Stage 5	-11.5	-6.54	27.86
Stage 5	-11.7	-2.49	20.23
Stage 5	-11.9	-0.29	11.01
Stage 5	-12	0	2.9

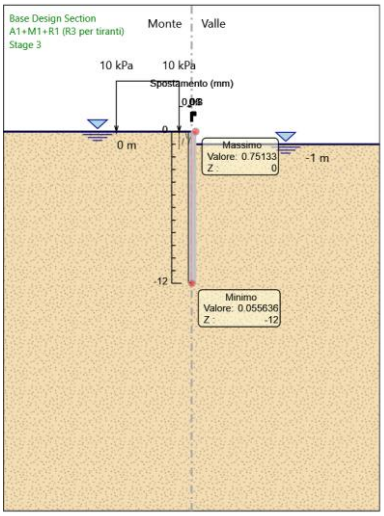
Tabella Risultati Paratia A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 6

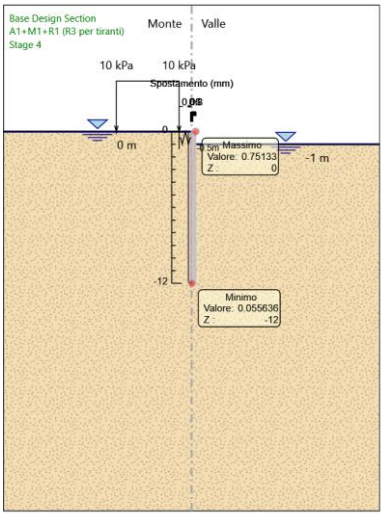
Design Assumption: A1+M1+R1 (R3 per tiranti)	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	0
Stage 6	-0.2	0	0
Stage 6	-0.2	0	0
Stage 6	-0.4	-0.13	-0.65
Stage 6	-0.5	-0.29	-1.57
Stage 6	-0.7	17.87	90.79
Stage 6	-0.9	35.61	88.68
Stage 6	-1.1	52.8	85.99
Stage 6	-1.3	69.35	82.71
Stage 6	-1.5	85.11	78.84
Stage 6	-1.7	99.99	74.39
Stage 6	-1.9	113.87	69.36
Stage 6	-2.1	126.61	63.74
Stage 6	-2.3	138.12	57.54
Stage 6	-2.5	148.27	50.76
Stage 6	-2.7	156.95	43.39
Stage 6	-2.9	164.04	35.45
Stage 6	-3.1	169.43	26.92
Stage 6	-3.3	172.99	17.81
Stage 6	-3.5	174.61	8.12
Stage 6	-3.7	174.18	-2.15
Stage 6	-3.9	171.58	-12.99
Stage 6	-4.1	166.7	-24.41
Stage 6	-4.3	159.42	-36.41
Stage 6	-4.5	149.62	-48.98
Stage 6	-4.7	137.2	-62.13
Stage 6	-4.9	122.73	-72.3
Stage 6	-5.1	106.86	-79.36
Stage 6	-5.3	90.2	-83.31
Stage 6	-5.5	73.37	-84.14
Stage 6	-5.7	57	-81.86
Stage 6	-5.9	41.71	-76.46
Stage 6	-6.1	27.53	-70.88
Stage 6	-6.3	14.45	-65.4
Stage 6	-6.5	2.45	-60.03
Stage 6	-6.7	-8.5	-54.76
Stage 6	-6.9	-18.42	-49.6
Stage 6	-7.1	-27.33	-44.55
Stage 6	-7.3	-35.25	-39.59
Stage 6	-7.5	-42.2	-34.74
Stage 6	-7.7	-48.2	-29.99
Stage 6	-7.9	-53.26	-25.33
Stage 6	-8.1	-57.41	-20.75
Stage 6	-8.3	-60.66	-16.25
Stage 6	-8.5	-63.03	-11.82
Stage 6	-8.7	-64.52	-7.47
Stage 6	-8.9	-65.15	-3.17
Stage 6	-9.1	-64.94	1.08
Stage 6	-9.3	-63.88	5.28
Stage 6	-9.5	-61.99	9.44
Stage 6	-9.7	-59.28	13.57
Stage 6	-9.9	-55.74	17.68
Stage 6	-10.1	-51.4	21.75
Stage 6	-10.3	-46.24	25.79
Stage 6	-10.5	-40.27	29.82
Stage 6	-10.7	-33.51	33.82
Stage 6	-10.9	-26.17	36.71
Stage 6	-11.1	-18.83	36.66
Stage 6	-11.3	-12.1	33.69
Stage 6	-11.5	-6.53	27.83
Stage 6	-11.7	-2.49	20.21
Stage 6	-11.9	-0.29	11
Stage 6	-12	0	2.9

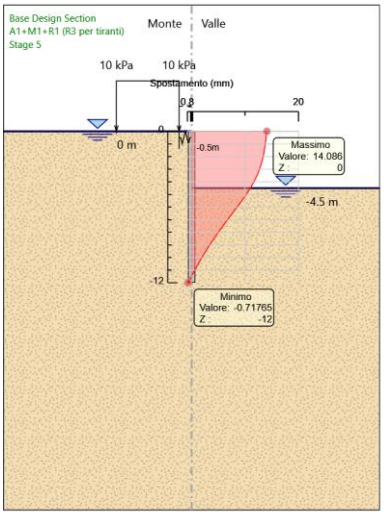
Tabella Grafici dei Risultati

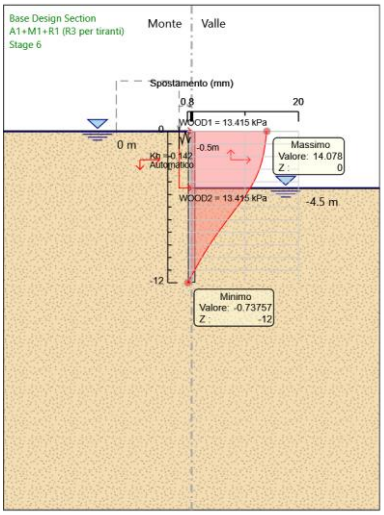


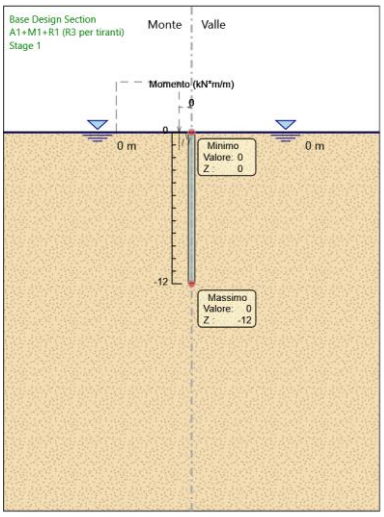


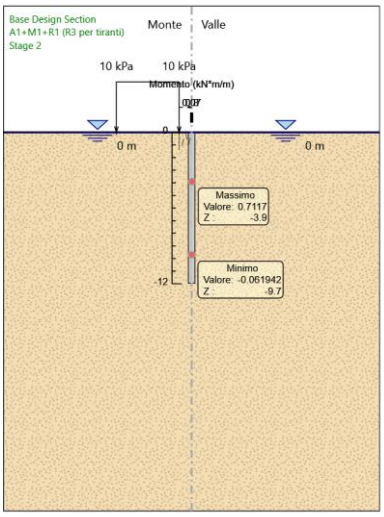


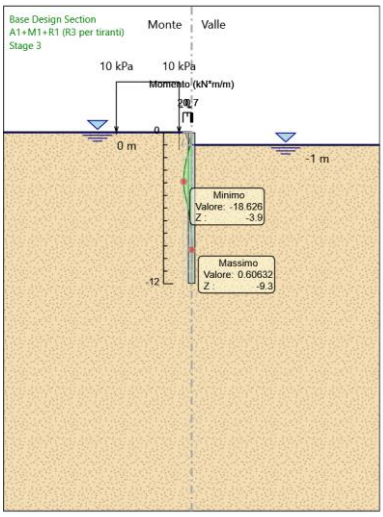


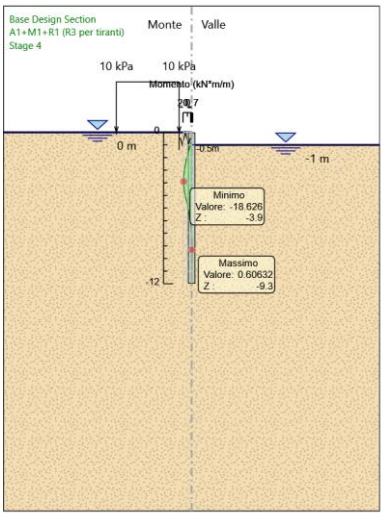


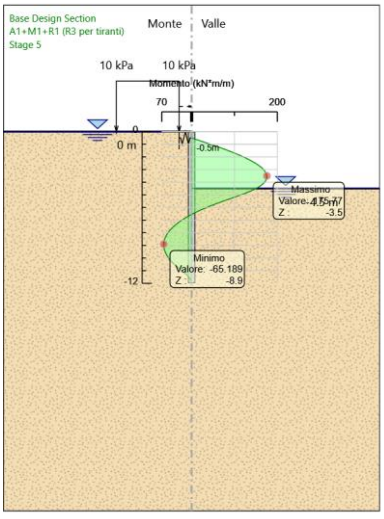


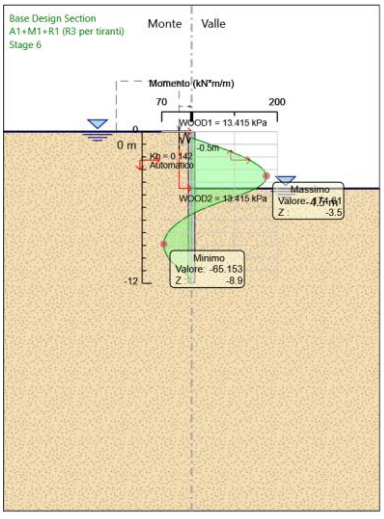

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 1
Monte
Valle
Momento (kN*m/m)
0 m
0 m
Minimo
Valore: 0
Z : 0
-12
Massimo
Valore: 0
Z : -12

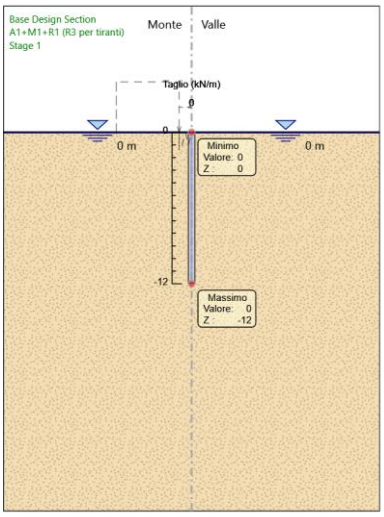

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 2
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
0 m
Massimo
Valore: 0.7117
Z : -3.9
Minimo
Valore: -0.061942
Z : -9.7
-12

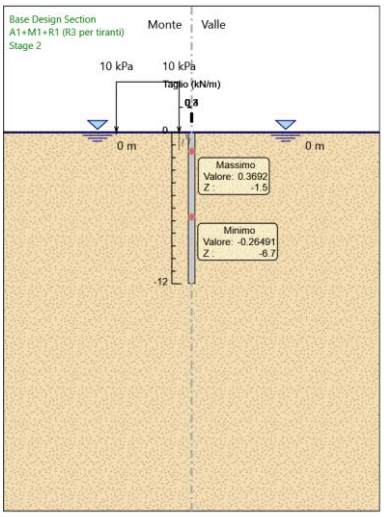

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 3
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
-1 m
Minimo
Valore: -18.626
Z : -3.9
Massimo
Valore: 0.60632
Z : -9.3
-12

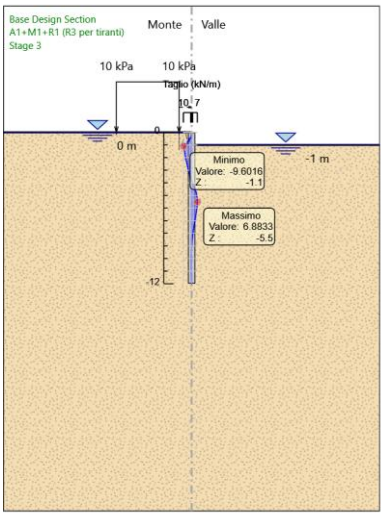

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 4
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
-0.5m
-1 m
Minimo
Valore: -18.626
Z : -3.9
Massimo
Valore: 0.60632
Z : -9.3
-12

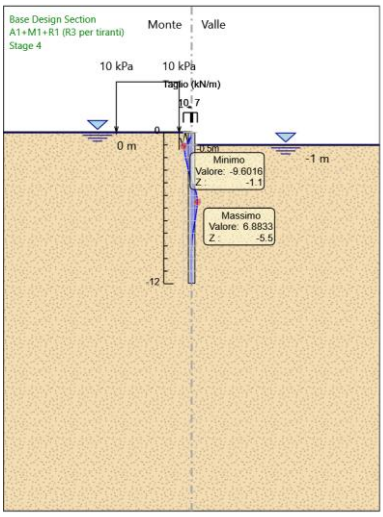

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 5
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
70
200
0 m
-0.5m
Massimo
Valore: 4.754
Z : -3.5
Minimo
Valore: -65.189
Z : -8.9
-12

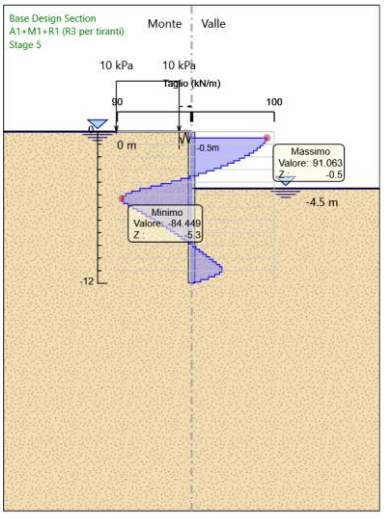

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 6
Monte
Valle
Momento (kN*m/m)
70
200
WOOD1 = 13.415 kPa
0 m
-0.5m
Kp = 0.142
Automatico
WOOD2 = 13.415 kPa
Massimo
Valore: 4.754
Z : -3.5
Minimo
Valore: -65.153
Z : -8.9
-12

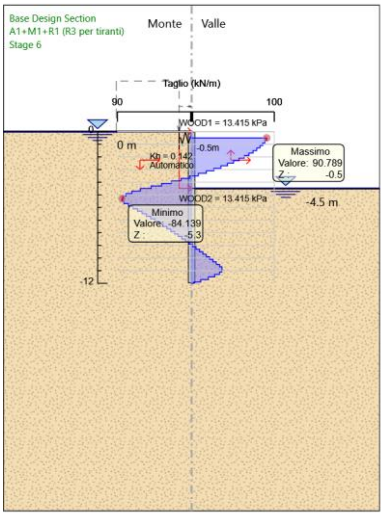

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 1
Monte
Valle
Taglio (kN/m)
0
0 m
0 m
Minimo
Valore: 0
Z: 0
-12
Massimo
Valore: 0
Z: -12

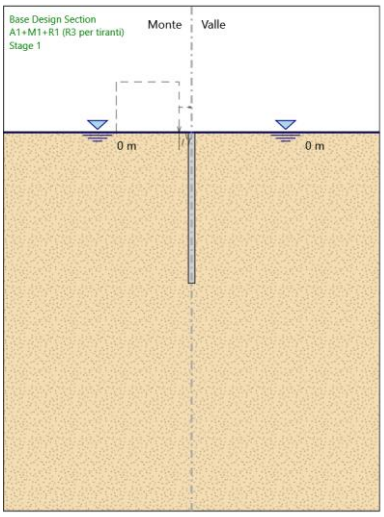

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 2
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
0 m
Massimo
Valore: 0.3692
Z: -1.5
Minimo
Valore: -0.26491
Z: -6.7
-12

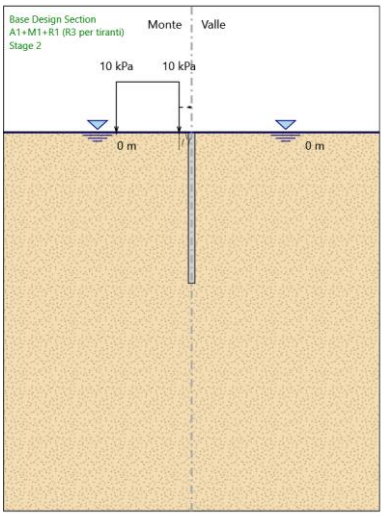

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 3
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
-1 m
Minimo
Valore: -9.6016
Z: -1.1
Massimo
Valore: 6.8833
Z: -5.5
-12

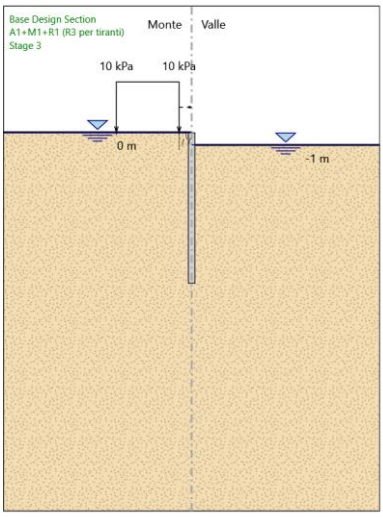

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 4
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
-1 m
Minimo
Valore: -9.6016
Z: -1.1
Massimo
Valore: 6.8833
Z: -5.5
-12

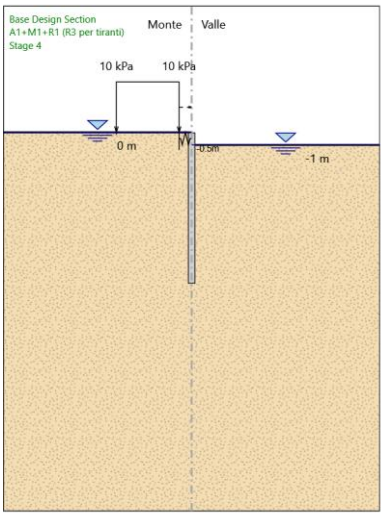

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 5
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
90
100
0 m
-0.5m
Massimo
Valore: 91.063
Z: -0.5
-4.5 m
Minimo
Valore: -84.449
Z: -5.3
-12

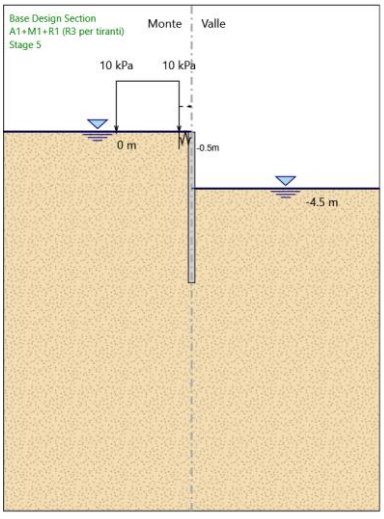

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 6
Monte
Valle
Taglio (kN/m)
90
100
WOOD1 = 13.415 kPa
0 m
-0.5m
Massimo
Valore: 90.789
Z: -0.5
WOOD2 = 13.415 kPa
-4.5 m
Minimo
Valore: -84.139
Z: -5.3
-12

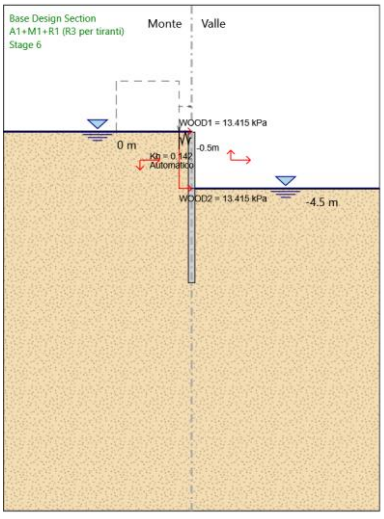

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 1
Monte
Valle
0 m
0 m

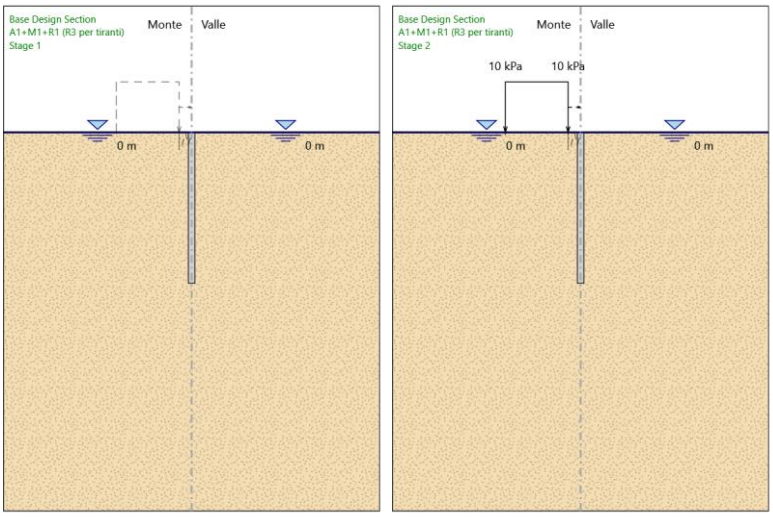

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 2
Monte
Valle
10 kPa
10 kPa
0 m
0 m

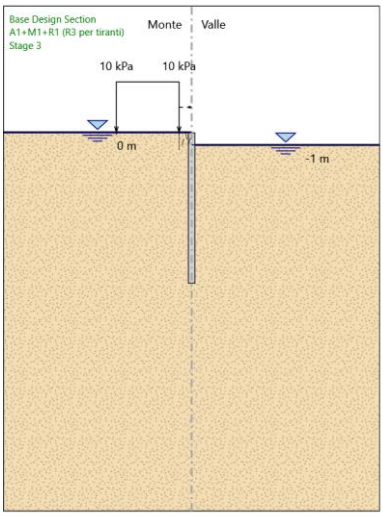

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 3
Monte
Valle
10 kPa
10 kPa
0 m
-1 m

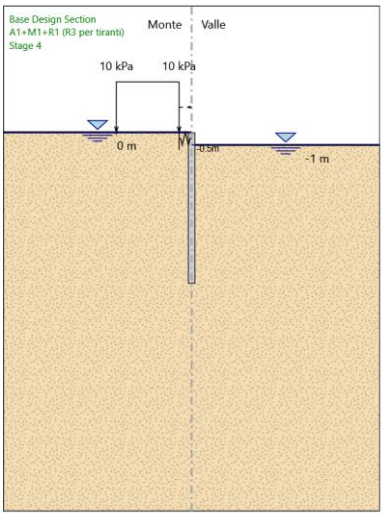

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 4
Monte
Valle
10 kPa
10 kPa
0 m
-0.5m
-1 m

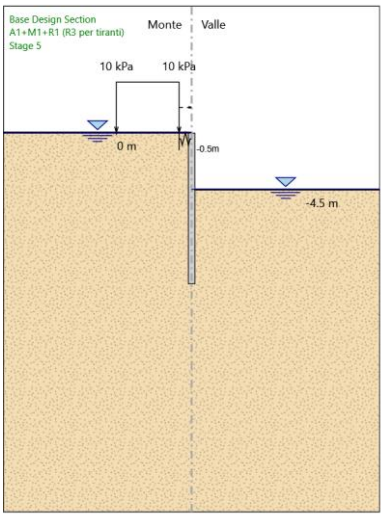

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 5
Monte
Valle
10 kPa
10 kPa
0 m
-0.5m
-4.5 m

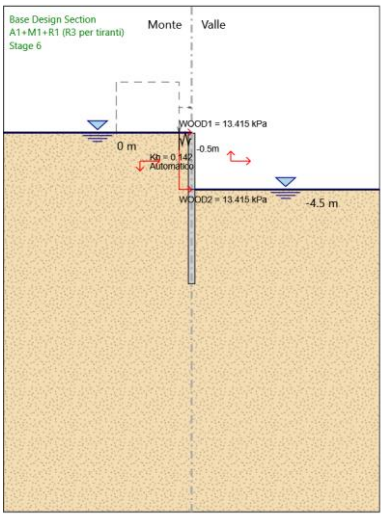

Base Design Section
A1+M1+R1 (R3 per tiranti)
Stage 6
Monte
Valle
WOOD1 = 13.415 kPa
0 m
-0.5m
Kp = 0.142
Automatico
WOOD2 = 13.415 kPa
-4.5 m











Risultati Elementi strutturali - A1+M1+R1 (R3 per tiranti)

Design Assumption: A1+M1+R1 (R3 per tiranti) Sollecitazione Spring

Stage	Forza (kN/m)
Stage 4	-3.05740682E-15
Stage 5	93.585648
Stage 6	93.501707

Risultati A2+M2+R1

Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 1

Design Assumption: A2+M2+R1	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.5	0	0
Stage 1	-0.7	0	0
Stage 1	-0.9	0	0
Stage 1	-1.1	0	0
Stage 1	-1.3	0	0
Stage 1	-1.5	0	0
Stage 1	-1.7	0	0
Stage 1	-1.9	0	0
Stage 1	-2.1	0	0
Stage 1	-2.3	0	0
Stage 1	-2.5	0	0
Stage 1	-2.7	0	0
Stage 1	-2.9	0	0
Stage 1	-3.1	0	0
Stage 1	-3.3	0	0
Stage 1	-3.5	0	0
Stage 1	-3.7	0	0
Stage 1	-3.9	0	0
Stage 1	-4.1	0	0
Stage 1	-4.3	0	0
Stage 1	-4.5	0	0
Stage 1	-4.7	0	0
Stage 1	-4.9	0	0
Stage 1	-5.1	0	0
Stage 1	-5.3	0	0
Stage 1	-5.5	0	0
Stage 1	-5.7	0	0
Stage 1	-5.9	0	0
Stage 1	-6.1	0	0
Stage 1	-6.3	0	0
Stage 1	-6.5	0	0
Stage 1	-6.7	0	0
Stage 1	-6.9	0	0
Stage 1	-7.1	0	0
Stage 1	-7.3	0	0
Stage 1	-7.5	0	0
Stage 1	-7.7	0	0
Stage 1	-7.9	0	0
Stage 1	-8.1	0	0
Stage 1	-8.3	0	0
Stage 1	-8.5	0	0
Stage 1	-8.7	0	0
Stage 1	-8.9	0	0
Stage 1	-9.1	0	0
Stage 1	-9.3	0	0
Stage 1	-9.5	0	0
Stage 1	-9.7	0	0
Stage 1	-9.9	0	0
Stage 1	-10.1	0	0
Stage 1	-10.3	0	0
Stage 1	-10.5	0	0
Stage 1	-10.7	0	0
Stage 1	-10.9	0	0
Stage 1	-11.1	0	0
Stage 1	-11.3	0	0
Stage 1	-11.5	0	0
Stage 1	-11.7	0	0
Stage 1	-11.9	0	0
Stage 1	-12	0	0

Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 2

Design Assumption: A2+M2+R1	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	0
Stage 2	-0.2	0	0
Stage 2	-0.2	0	0
Stage 2	-0.4	0	0.02
Stage 2	-0.5	0.01	0.06
Stage 2	-0.7	0.03	0.1
Stage 2	-0.9	0.06	0.16
Stage 2	-1.1	0.1	0.21
Stage 2	-1.3	0.16	0.26
Stage 2	-1.5	0.22	0.31
Stage 2	-1.7	0.29	0.34
Stage 2	-1.9	0.35	0.33
Stage 2	-2.1	0.42	0.31
Stage 2	-2.3	0.47	0.28
Stage 2	-2.5	0.52	0.24
Stage 2	-2.7	0.56	0.2
Stage 2	-2.9	0.59	0.16
Stage 2	-3.1	0.62	0.13
Stage 2	-3.3	0.64	0.09
Stage 2	-3.5	0.65	0.07
Stage 2	-3.7	0.66	0.04
Stage 2	-3.9	0.66	0.01
Stage 2	-4.1	0.66	-0.01
Stage 2	-4.3	0.65	-0.03
Stage 2	-4.5	0.65	-0.04
Stage 2	-4.7	0.64	-0.05
Stage 2	-4.9	0.63	-0.06
Stage 2	-5.1	0.61	-0.07
Stage 2	-5.3	0.6	-0.08
Stage 2	-5.5	0.58	-0.1
Stage 2	-5.7	0.55	-0.12
Stage 2	-5.9	0.52	-0.15
Stage 2	-6.1	0.48	-0.18
Stage 2	-6.3	0.44	-0.21
Stage 2	-6.5	0.4	-0.23
Stage 2	-6.7	0.35	-0.24
Stage 2	-6.9	0.3	-0.24
Stage 2	-7.1	0.25	-0.24
Stage 2	-7.3	0.21	-0.23
Stage 2	-7.5	0.16	-0.21
Stage 2	-7.7	0.12	-0.2
Stage 2	-7.9	0.09	-0.18
Stage 2	-8.1	0.06	-0.16
Stage 2	-8.3	0.03	-0.14
Stage 2	-8.5	0.01	-0.12
Stage 2	-8.7	-0.01	-0.1
Stage 2	-8.9	-0.03	-0.08
Stage 2	-9.1	-0.04	-0.06
Stage 2	-9.3	-0.05	-0.04
Stage 2	-9.5	-0.05	-0.02
Stage 2	-9.7	-0.05	-0.01
Stage 2	-9.9	-0.05	0
Stage 2	-10.1	-0.05	0.01
Stage 2	-10.3	-0.05	0.02
Stage 2	-10.5	-0.04	0.03
Stage 2	-10.7	-0.03	0.03
Stage 2	-10.9	-0.03	0.04
Stage 2	-11.1	-0.02	0.04
Stage 2	-11.3	-0.01	0.03
Stage 2	-11.5	-0.01	0.03
Stage 2	-11.7	0	0.02
Stage 2	-11.9	0	0.01
Stage 2	-12	0	0

Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 3

Design Assumption: A2+M2+R1	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	0
Stage 3	-0.2	0	0
Stage 3	-0.2	0	0
Stage 3	-0.4	-0.11	-0.53
Stage 3	-0.5	-0.24	-1.33
Stage 3	-0.7	-0.71	-2.33
Stage 3	-0.9	-1.55	-4.22
Stage 3	-1.1	-2.88	-6.66
Stage 3	-1.3	-4.58	-8.48
Stage 3	-1.5	-6.28	-8.5
Stage 3	-1.7	-7.77	-7.47
Stage 3	-1.9	-9.08	-6.53
Stage 3	-2.1	-10.21	-5.67
Stage 3	-2.3	-11.19	-4.9
Stage 3	-2.5	-12.03	-4.18
Stage 3	-2.7	-12.73	-3.53
Stage 3	-2.9	-13.32	-2.93
Stage 3	-3.1	-13.8	-2.38
Stage 3	-3.3	-14.17	-1.85
Stage 3	-3.5	-14.44	-1.36
Stage 3	-3.7	-14.61	-0.88
Stage 3	-3.9	-14.7	-0.42
Stage 3	-4.1	-14.69	0.04
Stage 3	-4.3	-14.58	0.52
Stage 3	-4.5	-14.38	1
Stage 3	-4.7	-14.08	1.51
Stage 3	-4.9	-13.67	2.05
Stage 3	-5.1	-13.14	2.63
Stage 3	-5.3	-12.49	3.25
Stage 3	-5.5	-11.71	3.93
Stage 3	-5.7	-10.82	4.44
Stage 3	-5.9	-9.87	4.75
Stage 3	-6.1	-8.89	4.9
Stage 3	-6.3	-7.91	4.91
Stage 3	-6.5	-6.94	4.83
Stage 3	-6.7	-6.01	4.64
Stage 3	-6.9	-5.13	4.38
Stage 3	-7.1	-4.32	4.07
Stage 3	-7.3	-3.57	3.73
Stage 3	-7.5	-2.9	3.37
Stage 3	-7.7	-2.3	3
Stage 3	-7.9	-1.78	2.63
Stage 3	-8.1	-1.32	2.27
Stage 3	-8.3	-0.94	1.93
Stage 3	-8.5	-0.61	1.61
Stage 3	-8.7	-0.35	1.31
Stage 3	-8.9	-0.14	1.04
Stage 3	-9.1	0.02	0.8
Stage 3	-9.3	0.14	0.59
Stage 3	-9.5	0.22	0.4
Stage 3	-9.7	0.27	0.25
Stage 3	-9.9	0.29	0.11
Stage 3	-10.1	0.29	0.01
Stage 3	-10.3	0.27	-0.08
Stage 3	-10.5	0.24	-0.14
Stage 3	-10.7	0.21	-0.19
Stage 3	-10.9	0.16	-0.21
Stage 3	-11.1	0.12	-0.22
Stage 3	-11.3	0.08	-0.21
Stage 3	-11.5	0.04	-0.18
Stage 3	-11.7	0.02	-0.14
Stage 3	-11.9	0	-0.08
Stage 3	-12	0	-0.02

Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 4

Design Assumption: A2+M2+R1	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	0
Stage 4	-0.2	0	0
Stage 4	-0.2	0	0
Stage 4	-0.4	-0.11	-0.53
Stage 4	-0.5	-0.24	-1.33
Stage 4	-0.7	-0.71	-2.33
Stage 4	-0.9	-1.55	-4.22
Stage 4	-1.1	-2.88	-6.66
Stage 4	-1.3	-4.58	-8.48
Stage 4	-1.5	-6.28	-8.5
Stage 4	-1.7	-7.77	-7.47
Stage 4	-1.9	-9.08	-6.53
Stage 4	-2.1	-10.21	-5.67
Stage 4	-2.3	-11.19	-4.9
Stage 4	-2.5	-12.03	-4.18
Stage 4	-2.7	-12.73	-3.53
Stage 4	-2.9	-13.32	-2.93
Stage 4	-3.1	-13.8	-2.38
Stage 4	-3.3	-14.17	-1.85
Stage 4	-3.5	-14.44	-1.36
Stage 4	-3.7	-14.61	-0.88
Stage 4	-3.9	-14.7	-0.42
Stage 4	-4.1	-14.69	0.04
Stage 4	-4.3	-14.58	0.52
Stage 4	-4.5	-14.38	1
Stage 4	-4.7	-14.08	1.51
Stage 4	-4.9	-13.67	2.05
Stage 4	-5.1	-13.14	2.63
Stage 4	-5.3	-12.49	3.25
Stage 4	-5.5	-11.71	3.93
Stage 4	-5.7	-10.82	4.44
Stage 4	-5.9	-9.87	4.75
Stage 4	-6.1	-8.89	4.9
Stage 4	-6.3	-7.91	4.91
Stage 4	-6.5	-6.94	4.83
Stage 4	-6.7	-6.01	4.64
Stage 4	-6.9	-5.13	4.38
Stage 4	-7.1	-4.32	4.07
Stage 4	-7.3	-3.57	3.73
Stage 4	-7.5	-2.9	3.37
Stage 4	-7.7	-2.3	3
Stage 4	-7.9	-1.78	2.63
Stage 4	-8.1	-1.32	2.27
Stage 4	-8.3	-0.94	1.93
Stage 4	-8.5	-0.61	1.61
Stage 4	-8.7	-0.35	1.31
Stage 4	-8.9	-0.14	1.04
Stage 4	-9.1	0.02	0.8
Stage 4	-9.3	0.14	0.59
Stage 4	-9.5	0.22	0.4
Stage 4	-9.7	0.27	0.25
Stage 4	-9.9	0.29	0.11
Stage 4	-10.1	0.29	0.01
Stage 4	-10.3	0.27	-0.08
Stage 4	-10.5	0.24	-0.14
Stage 4	-10.7	0.21	-0.19
Stage 4	-10.9	0.16	-0.21
Stage 4	-11.1	0.12	-0.22
Stage 4	-11.3	0.08	-0.21
Stage 4	-11.5	0.04	-0.18
Stage 4	-11.7	0.02	-0.14
Stage 4	-11.9	0	-0.08
Stage 4	-12	0	-0.02

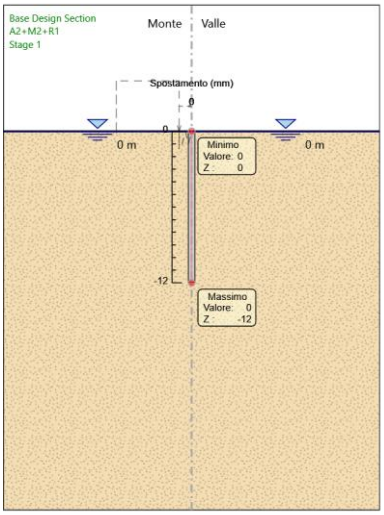
Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 5

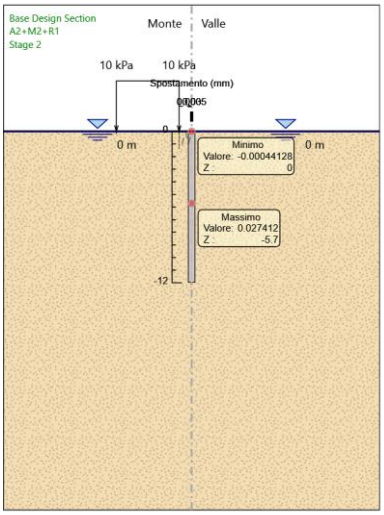
Design Assumption: A2+M2+R1	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	0
Stage 5	-0.2	0	0
Stage 5	-0.2	0	0
Stage 5	-0.4	-0.1	-0.48
Stage 5	-0.5	-0.22	-1.2
Stage 5	-0.7	17.22	87.2
Stage 5	-0.9	34.32	85.49
Stage 5	-1.1	50.98	83.28
Stage 5	-1.3	67.09	80.57
Stage 5	-1.5	82.57	77.35
Stage 5	-1.7	97.29	73.62
Stage 5	-1.9	111.17	69.38
Stage 5	-2.1	124.09	64.62
Stage 5	-2.3	135.96	59.35
Stage 5	-2.5	146.68	53.59
Stage 5	-2.7	156.14	47.33
Stage 5	-2.9	164.26	40.57
Stage 5	-3.1	170.92	33.32
Stage 5	-3.3	176.03	25.57
Stage 5	-3.5	179.5	17.34
Stage 5	-3.7	181.23	8.62
Stage 5	-3.9	181.11	-0.59
Stage 5	-4.1	179.05	-10.29
Stage 5	-4.3	174.95	-20.48
Stage 5	-4.5	168.72	-31.14
Stage 5	-4.7	160.27	-42.29
Stage 5	-4.9	149.9	-51.84
Stage 5	-5.1	137.94	-59.79
Stage 5	-5.3	124.71	-66.14
Stage 5	-5.5	110.53	-70.89
Stage 5	-5.7	95.72	-74.04
Stage 5	-5.9	80.61	-75.58
Stage 5	-6.1	65.5	-75.52
Stage 5	-6.3	50.73	-73.85
Stage 5	-6.5	36.62	-70.57
Stage 5	-6.7	23.48	-65.67
Stage 5	-6.9	11.65	-59.16
Stage 5	-7.1	1.14	-52.57
Stage 5	-7.3	-8.11	-46.27
Stage 5	-7.5	-16.16	-40.24
Stage 5	-7.7	-23.06	-34.5
Stage 5	-7.9	-28.87	-29.03
Stage 5	-8.1	-33.64	-23.84
Stage 5	-8.3	-37.42	-18.91
Stage 5	-8.5	-40.27	-14.25
Stage 5	-8.7	-42.24	-9.85
Stage 5	-8.9	-43.38	-5.71
Stage 5	-9.1	-43.74	-1.82
Stage 5	-9.3	-43.38	1.82
Stage 5	-9.5	-42.33	5.23
Stage 5	-9.7	-40.65	8.39
Stage 5	-9.9	-38.39	11.33
Stage 5	-10.1	-35.58	14.04
Stage 5	-10.3	-32.27	16.53
Stage 5	-10.5	-28.51	18.81
Stage 5	-10.7	-24.34	20.87
Stage 5	-10.9	-19.8	22.72
Stage 5	-11.1	-14.92	24.36
Stage 5	-11.3	-9.97	24.76
Stage 5	-11.5	-5.57	22.02
Stage 5	-11.7	-2.17	16.96
Stage 5	-11.9	-0.26	9.58
Stage 5	-12	0	2.57

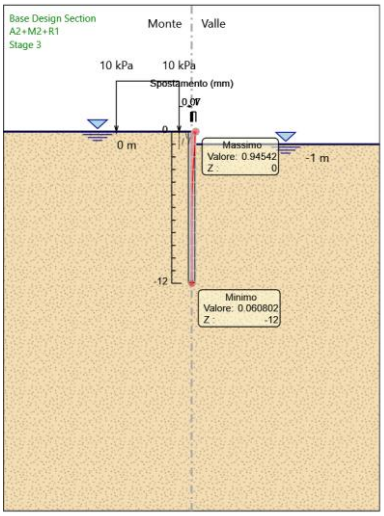
Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 6

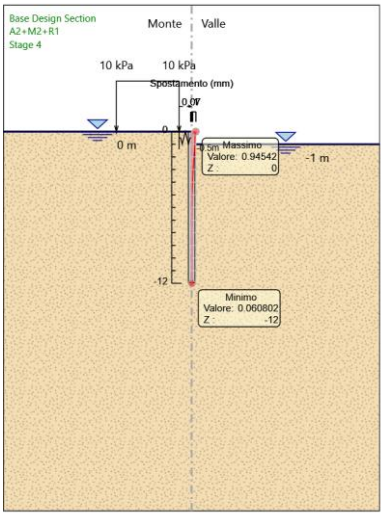
Design Assumption: A2+M2+R1	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	0
Stage 6	-0.2	0	0
Stage 6	-0.2	0	0
Stage 6	-0.4	-0.11	-0.55
Stage 6	-0.5	-0.24	-1.33
Stage 6	-0.7	17.14	86.93
Stage 6	-0.9	34.17	85.15
Stage 6	-1.1	50.75	82.88
Stage 6	-1.3	66.77	80.11
Stage 6	-1.5	82.14	76.86
Stage 6	-1.7	96.76	73.11
Stage 6	-1.9	110.53	68.86
Stage 6	-2.1	123.36	64.12
Stage 6	-2.3	135.14	58.89
Stage 6	-2.5	145.77	53.17
Stage 6	-2.7	155.16	46.96
Stage 6	-2.9	163.22	40.27
Stage 6	-3.1	169.83	33.08
Stage 6	-3.3	174.91	25.41
Stage 6	-3.5	178.37	17.25
Stage 6	-3.7	180.09	8.61
Stage 6	-3.9	179.98	-0.51
Stage 6	-4.1	177.96	-10.12
Stage 6	-4.3	173.92	-20.21
Stage 6	-4.5	167.76	-30.78
Stage 6	-4.7	159.39	-41.84
Stage 6	-4.9	149.11	-51.43
Stage 6	-5.1	137.22	-59.41
Stage 6	-5.3	124.07	-65.8
Stage 6	-5.5	109.95	-70.57
Stage 6	-5.7	95.2	-73.74
Stage 6	-5.9	80.15	-75.29
Stage 6	-6.1	65.1	-75.24
Stage 6	-6.3	50.38	-73.58
Stage 6	-6.5	36.32	-70.31
Stage 6	-6.7	23.23	-65.42
Stage 6	-6.9	11.45	-58.92
Stage 6	-7.1	0.98	-52.35
Stage 6	-7.3	-8.24	-46.07
Stage 6	-7.5	-16.25	-40.06
Stage 6	-7.7	-23.12	-34.34
Stage 6	-7.9	-28.89	-28.89
Stage 6	-8.1	-33.64	-23.71
Stage 6	-8.3	-37.4	-18.81
Stage 6	-8.5	-40.23	-14.17
Stage 6	-8.7	-42.19	-9.79
Stage 6	-8.9	-43.32	-5.67
Stage 6	-9.1	-43.68	-1.79
Stage 6	-9.3	-43.31	1.84
Stage 6	-9.5	-42.27	5.23
Stage 6	-9.7	-40.59	8.39
Stage 6	-9.9	-38.33	11.31
Stage 6	-10.1	-35.53	14.02
Stage 6	-10.3	-32.23	16.5
Stage 6	-10.5	-28.47	18.77
Stage 6	-10.7	-24.31	20.83
Stage 6	-10.9	-19.77	22.68
Stage 6	-11.1	-14.9	24.33
Stage 6	-11.3	-9.96	24.73
Stage 6	-11.5	-5.56	21.99
Stage 6	-11.7	-2.17	16.94
Stage 6	-11.9	-0.26	9.57
Stage 6	-12	0	2.57

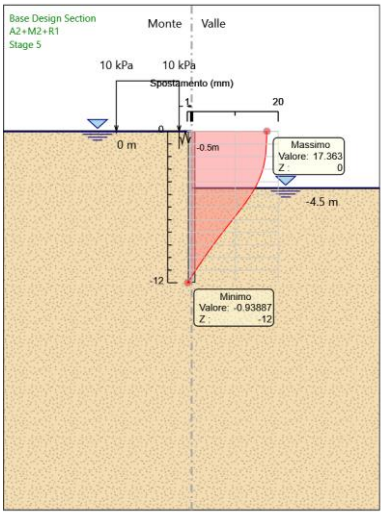
Tabella Grafici dei Risultati

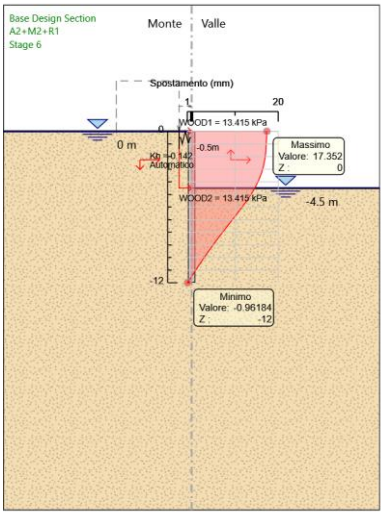


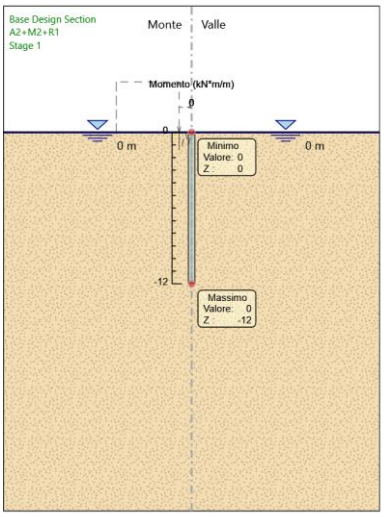


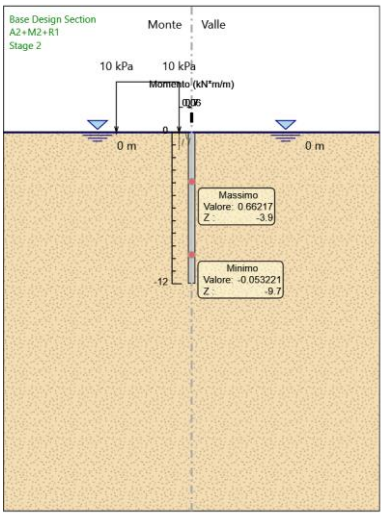


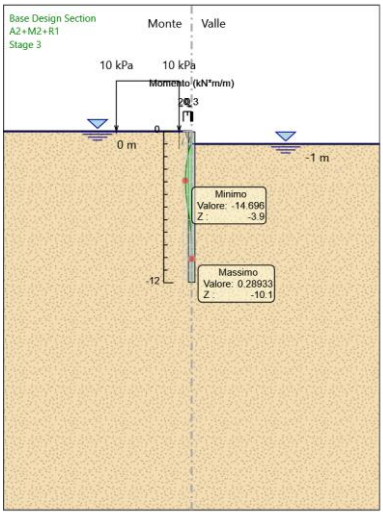


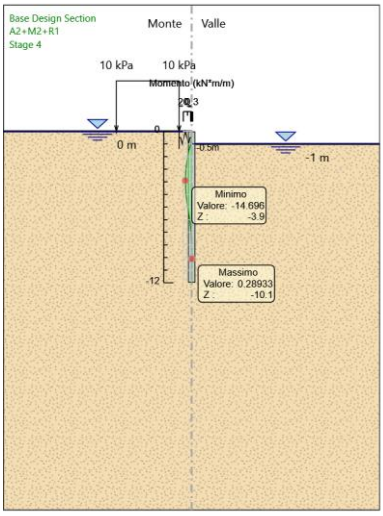


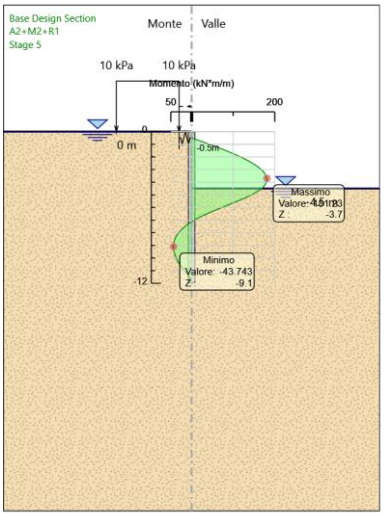


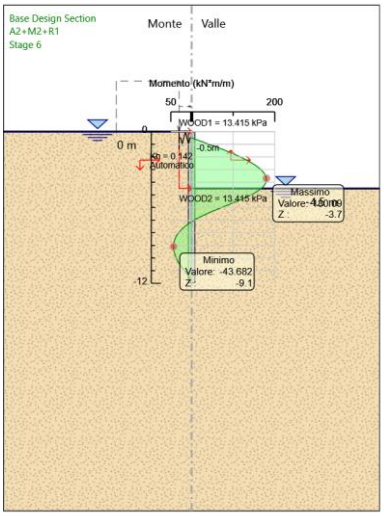

Base Design Section
A2+M2+R1
Stage 1
Monte
Valle
Momento (kN*m/m)
0 m
0 m
Minimo
Valore: 0
Z: 0
Massimo
Valore: 0
Z: -12
-12

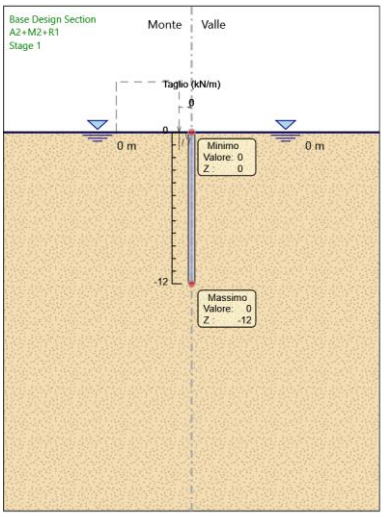

Base Design Section
A2+M2+R1
Stage 2
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
0 m
Massimo
Valore: 0.66217
Z: -3.9
Minimo
Valore: -0.053221
Z: -9.7
-12

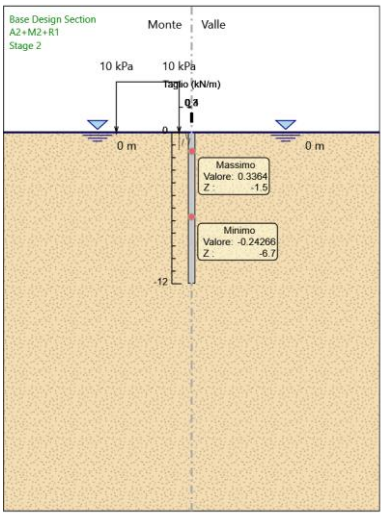

Base Design Section
A2+M2+R1
Stage 3
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
-1 m
Minimo
Valore: -14.696
Z: -3.9
Massimo
Valore: 0.28933
Z: -10.1
-12

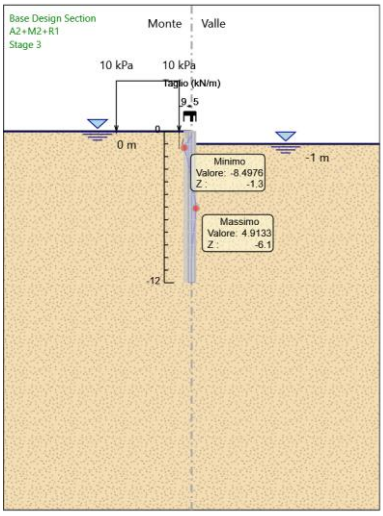

Base Design Section
A2+M2+R1
Stage 4
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
-0.5m
-1 m
Minimo
Valore: -14.696
Z: -3.9
Massimo
Valore: 0.28933
Z: -10.1
-12

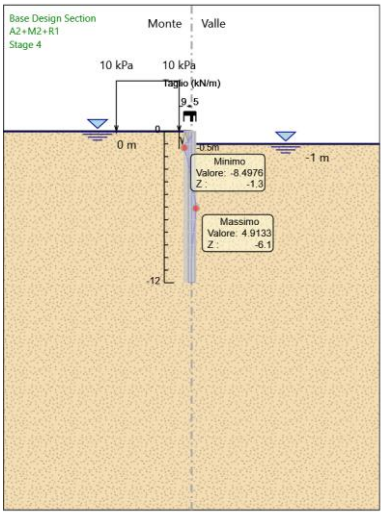

Base Design Section
A2+M2+R1
Stage 5
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
50
200
0 m
-0.5m
Massimo
Valore: 4.5m3
Z: -3.7
Minimo
Valore: -43.743
Z: -9.1
-12

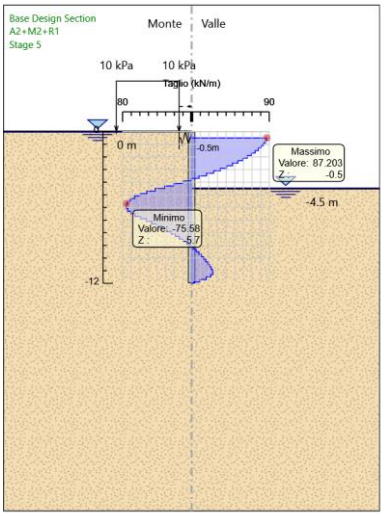

Base Design Section
A2+M2+R1
Stage 6
Monte
Valle
Momento (kN*m/m)
50
200
WOOD1 = 13.415 kPa
0 m
-0.5m
WOOD2 = 13.415 kPa
Massimo
Valore: 4.5m9
Z: -3.7
Minimo
Valore: -43.682
Z: -9.1
-12

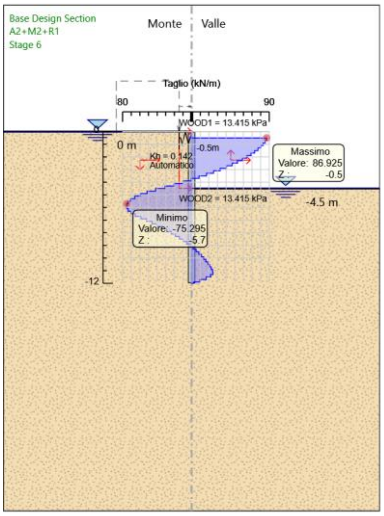

Base Design Section
A2+M2+R1
Stage 1
Monte
Valle
Taglio (kN/m)
0 m
0 m
Minimo
Valore: 0
Z : 0
Massimo
Valore: 0
Z : -12
-12

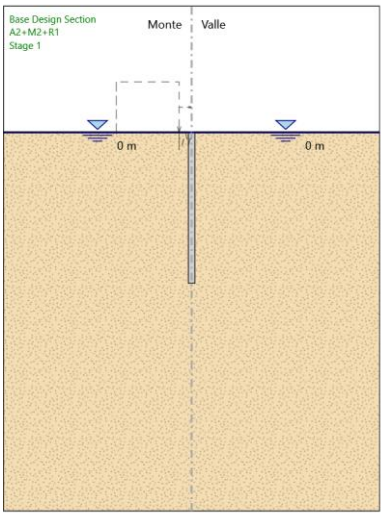

Base Design Section
A2+M2+R1
Stage 2
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
0 m
Massimo
Valore: 0.3364
Z : -1.5
Minimo
Valore: -0.24266
Z : -6.7
-12

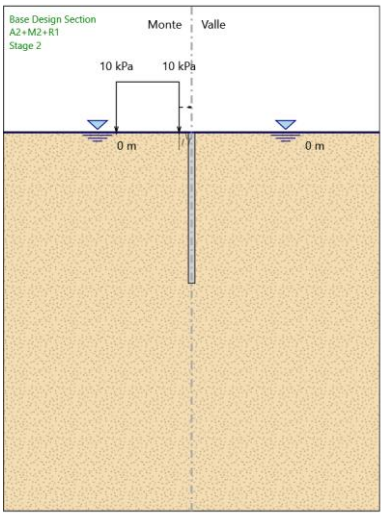

Base Design Section
A2+M2+R1
Stage 3
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
-1 m
Minimo
Valore: -8.4976
Z : -1.3
Massimo
Valore: 4.9133
Z : -6.1
-12

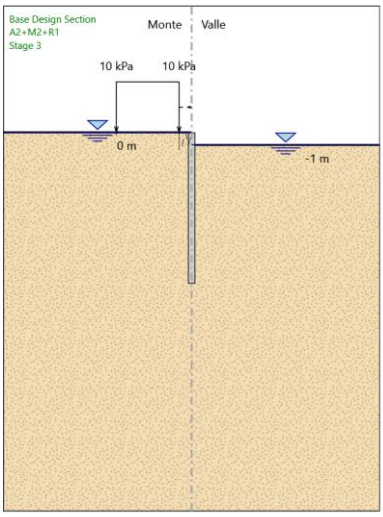

Base Design Section
A2+M2+R1
Stage 4
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
-0.5m
-1 m
Minimo
Valore: -8.4976
Z : -1.3
Massimo
Valore: 4.9133
Z : -6.1
-12

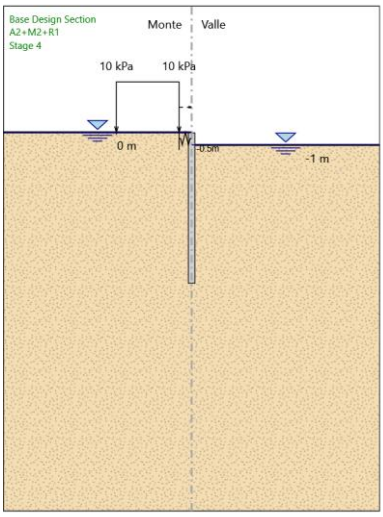

Base Design Section
A2+M2+R1
Stage 5
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
80
90
0 m
-0.5m
Massimo
Valore: 87.203
Z : -0.5
-4.5 m
Minimo
Valore: -75.58
Z : -5.7
-12

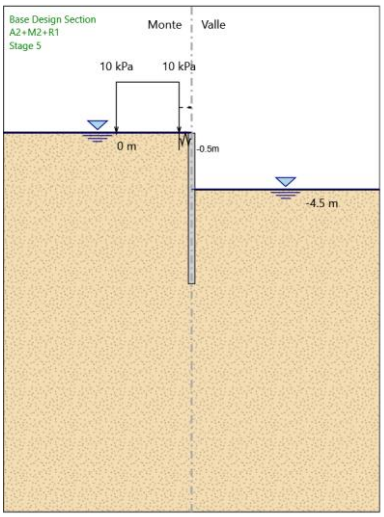

Base Design Section
A2+M2+R1
Stage 6
Monte
Valle
Taglio (kN/m)
80
90
WOOD1 = 13.415 kPa
0 m
-0.5m
Massimo
Valore: 86.925
Z : -0.5
WOOD2 = 13.415 kPa
-4.5 m
Minimo
Valore: -75.295
Z : -5.7
-12

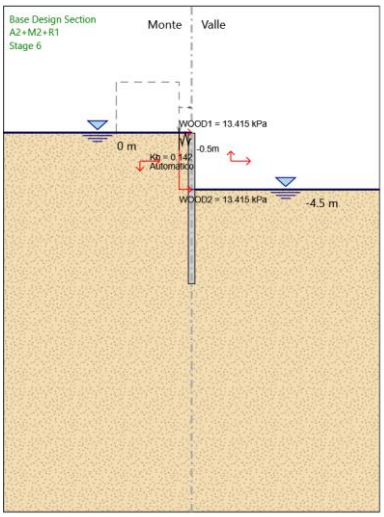

Base Design Section
A2+M2+R1
Stage 1
Monte
Valle
0 m
0 m

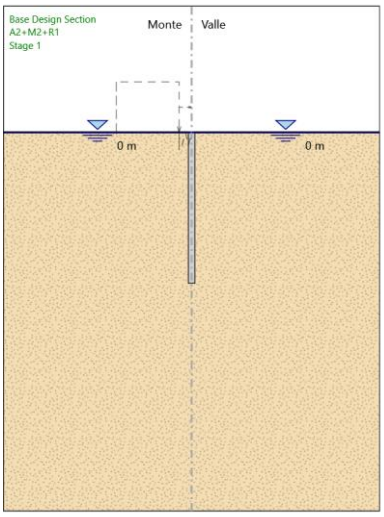

Base Design Section
A2+M2+R1
Stage 2
Monte
Valle
10 kPa
10 kPa
0 m
0 m

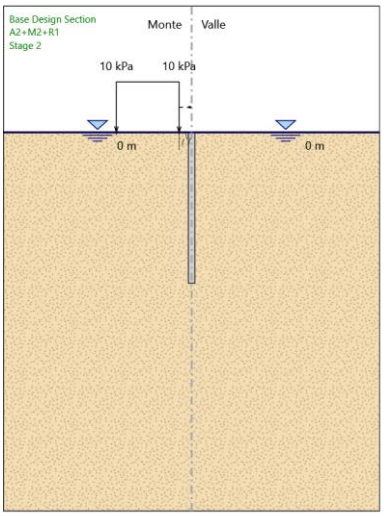

Base Design Section
A2+M2+R1
Stage 3
Monte
Valle
10 kPa
10 kPa
0 m
-1 m

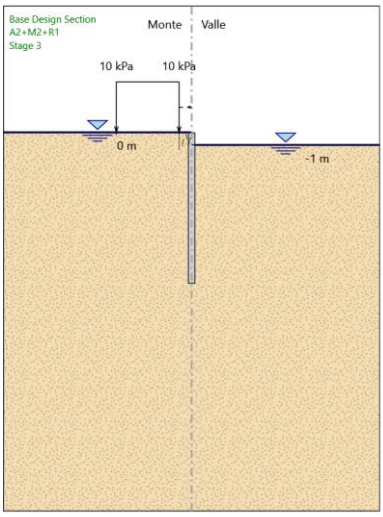

Base Design Section
A2+M2+R1
Stage 4
Monte
Valle
10 kPa
10 kPa
0 m
-0.5m
-1 m

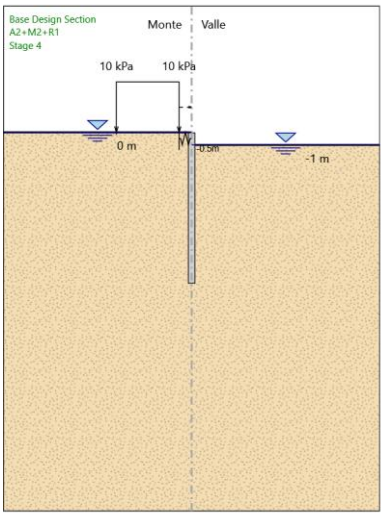

Base Design Section
A2+M2+R1
Stage 5
Monte
Valle
10 kPa
10 kPa
0 m
-0.5m
-4.5 m

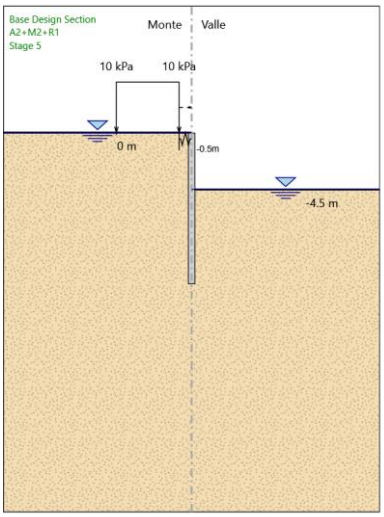

Base Design Section
A2+M2+R1
Stage 6
Monte
Valle
WOOD1 = 13.415 kPa
0 m
-0.5m
Kp = 0.142
Automatico
WOOD2 = 13.415 kPa
-4.5 m

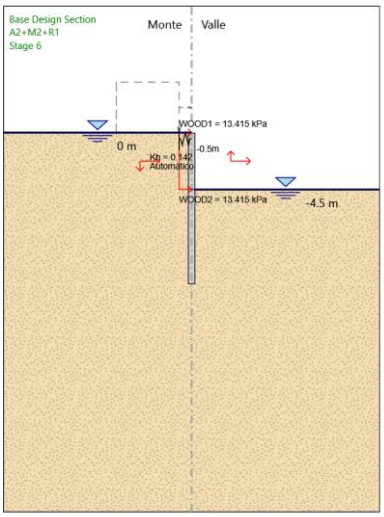












Risultati Elementi strutturali - A2+M2+R1

Design Assumption: A2+M2+R1 Sollecitazione Spring

Stage	Forza (kN/m)
Stage 4	-2.4694439E-14
Stage 5	89.31302
Stage 6	89.22243

Risultati SISMICA GEO

Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 1

Design Assumption: SISMICA GEO	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.5	0	0
Stage 1	-0.7	0	0
Stage 1	-0.9	0	0
Stage 1	-1.1	0	0
Stage 1	-1.3	0	0
Stage 1	-1.5	0	0
Stage 1	-1.7	0	0
Stage 1	-1.9	0	0
Stage 1	-2.1	0	0
Stage 1	-2.3	0	0
Stage 1	-2.5	0	0
Stage 1	-2.7	0	0
Stage 1	-2.9	0	0
Stage 1	-3.1	0	0
Stage 1	-3.3	0	0
Stage 1	-3.5	0	0
Stage 1	-3.7	0	0
Stage 1	-3.9	0	0
Stage 1	-4.1	0	0
Stage 1	-4.3	0	0
Stage 1	-4.5	0	0
Stage 1	-4.7	0	0
Stage 1	-4.9	0	0
Stage 1	-5.1	0	0
Stage 1	-5.3	0	0
Stage 1	-5.5	0	0
Stage 1	-5.7	0	0
Stage 1	-5.9	0	0
Stage 1	-6.1	0	0
Stage 1	-6.3	0	0
Stage 1	-6.5	0	0
Stage 1	-6.7	0	0
Stage 1	-6.9	0	0
Stage 1	-7.1	0	0
Stage 1	-7.3	0	0
Stage 1	-7.5	0	0
Stage 1	-7.7	0	0
Stage 1	-7.9	0	0
Stage 1	-8.1	0	0
Stage 1	-8.3	0	0
Stage 1	-8.5	0	0
Stage 1	-8.7	0	0
Stage 1	-8.9	0	0
Stage 1	-9.1	0	0
Stage 1	-9.3	0	0
Stage 1	-9.5	0	0
Stage 1	-9.7	0	0
Stage 1	-9.9	0	0
Stage 1	-10.1	0	0
Stage 1	-10.3	0	0
Stage 1	-10.5	0	0
Stage 1	-10.7	0	0
Stage 1	-10.9	0	0
Stage 1	-11.1	0	0
Stage 1	-11.3	0	0
Stage 1	-11.5	0	0
Stage 1	-11.7	0	0
Stage 1	-11.9	0	0
Stage 1	-12	0	0

Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 2

Design Assumption: SISMICA GEO	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	0
Stage 2	-0.2	0	0
Stage 2	-0.2	0	0
Stage 2	-0.4	0	0.02
Stage 2	-0.5	0.01	0.05
Stage 2	-0.7	0.02	0.08
Stage 2	-0.9	0.05	0.12
Stage 2	-1.1	0.08	0.16
Stage 2	-1.3	0.12	0.2
Stage 2	-1.5	0.17	0.24
Stage 2	-1.7	0.22	0.26
Stage 2	-1.9	0.27	0.26
Stage 2	-2.1	0.32	0.24
Stage 2	-2.3	0.36	0.21
Stage 2	-2.5	0.4	0.19
Stage 2	-2.7	0.43	0.16
Stage 2	-2.9	0.46	0.13
Stage 2	-3.1	0.48	0.1
Stage 2	-3.3	0.49	0.07
Stage 2	-3.5	0.5	0.05
Stage 2	-3.7	0.51	0.03
Stage 2	-3.9	0.51	0.01
Stage 2	-4.1	0.51	-0.01
Stage 2	-4.3	0.5	-0.02
Stage 2	-4.5	0.5	-0.03
Stage 2	-4.7	0.49	-0.04
Stage 2	-4.9	0.48	-0.04
Stage 2	-5.1	0.47	-0.05
Stage 2	-5.3	0.46	-0.06
Stage 2	-5.5	0.44	-0.08
Stage 2	-5.7	0.42	-0.09
Stage 2	-5.9	0.4	-0.11
Stage 2	-6.1	0.37	-0.14
Stage 2	-6.3	0.34	-0.16
Stage 2	-6.5	0.3	-0.18
Stage 2	-6.7	0.27	-0.19
Stage 2	-6.9	0.23	-0.19
Stage 2	-7.1	0.19	-0.18
Stage 2	-7.3	0.16	-0.17
Stage 2	-7.5	0.13	-0.16
Stage 2	-7.7	0.1	-0.15
Stage 2	-7.9	0.07	-0.14
Stage 2	-8.1	0.04	-0.12
Stage 2	-8.3	0.02	-0.1
Stage 2	-8.5	0.01	-0.09
Stage 2	-8.7	-0.01	-0.07
Stage 2	-8.9	-0.02	-0.06
Stage 2	-9.1	-0.03	-0.04
Stage 2	-9.3	-0.04	-0.03
Stage 2	-9.5	-0.04	-0.02
Stage 2	-9.7	-0.04	-0.01
Stage 2	-9.9	-0.04	0
Stage 2	-10.1	-0.04	0.01
Stage 2	-10.3	-0.04	0.02
Stage 2	-10.5	-0.03	0.02
Stage 2	-10.7	-0.03	0.03
Stage 2	-10.9	-0.02	0.03
Stage 2	-11.1	-0.02	0.03
Stage 2	-11.3	-0.01	0.03
Stage 2	-11.5	-0.01	0.02
Stage 2	-11.7	0	0.02
Stage 2	-11.9	0	0.01
Stage 2	-12	0	0

Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 3

Design Assumption: SISMICA GEO	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	0
Stage 3	-0.2	0	0
Stage 3	-0.2	0	0
Stage 3	-0.4	-0.11	-0.53
Stage 3	-0.5	-0.24	-1.33
Stage 3	-0.7	-0.7	-2.33
Stage 3	-0.9	-1.55	-4.21
Stage 3	-1.1	-2.87	-6.63
Stage 3	-1.3	-4.56	-8.43
Stage 3	-1.5	-6.24	-8.42
Stage 3	-1.7	-7.73	-7.44
Stage 3	-1.9	-9.04	-6.54
Stage 3	-2.1	-10.18	-5.72
Stage 3	-2.3	-11.18	-4.96
Stage 3	-2.5	-12.03	-4.26
Stage 3	-2.7	-12.75	-3.62
Stage 3	-2.9	-13.35	-3.02
Stage 3	-3.1	-13.85	-2.45
Stage 3	-3.3	-14.23	-1.92
Stage 3	-3.5	-14.51	-1.41
Stage 3	-3.7	-14.69	-0.91
Stage 3	-3.9	-14.78	-0.42
Stage 3	-4.1	-14.76	0.07
Stage 3	-4.3	-14.65	0.58
Stage 3	-4.5	-14.43	1.1
Stage 3	-4.7	-14.09	1.65
Stage 3	-4.9	-13.65	2.24
Stage 3	-5.1	-13.07	2.87
Stage 3	-5.3	-12.37	3.54
Stage 3	-5.5	-11.52	4.2
Stage 3	-5.7	-10.6	4.64
Stage 3	-5.9	-9.62	4.89
Stage 3	-6.1	-8.62	4.99
Stage 3	-6.3	-7.63	4.97
Stage 3	-6.5	-6.66	4.84
Stage 3	-6.7	-5.74	4.62
Stage 3	-6.9	-4.87	4.33
Stage 3	-7.1	-4.07	4
Stage 3	-7.3	-3.34	3.64
Stage 3	-7.5	-2.69	3.27
Stage 3	-7.7	-2.11	2.9
Stage 3	-7.9	-1.6	2.53
Stage 3	-8.1	-1.17	2.17
Stage 3	-8.3	-0.8	1.83
Stage 3	-8.5	-0.5	1.52
Stage 3	-8.7	-0.25	1.23
Stage 3	-8.9	-0.06	0.97
Stage 3	-9.1	0.09	0.73
Stage 3	-9.3	0.19	0.53
Stage 3	-9.5	0.26	0.35
Stage 3	-9.7	0.3	0.2
Stage 3	-9.9	0.32	0.07
Stage 3	-10.1	0.31	-0.03
Stage 3	-10.3	0.29	-0.11
Stage 3	-10.5	0.26	-0.17
Stage 3	-10.7	0.22	-0.21
Stage 3	-10.9	0.17	-0.23
Stage 3	-11.1	0.13	-0.23
Stage 3	-11.3	0.08	-0.21
Stage 3	-11.5	0.05	-0.18
Stage 3	-11.7	0.02	-0.14
Stage 3	-11.9	0	-0.08
Stage 3	-12	0	-0.02

Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 4

Design Assumption: SISMICA GEO	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	0
Stage 4	-0.2	0	0
Stage 4	-0.2	0	0
Stage 4	-0.4	-0.11	-0.53
Stage 4	-0.5	-0.24	-1.33
Stage 4	-0.7	-0.7	-2.33
Stage 4	-0.9	-1.55	-4.21
Stage 4	-1.1	-2.87	-6.63
Stage 4	-1.3	-4.56	-8.43
Stage 4	-1.5	-6.24	-8.42
Stage 4	-1.7	-7.73	-7.44
Stage 4	-1.9	-9.04	-6.54
Stage 4	-2.1	-10.18	-5.72
Stage 4	-2.3	-11.18	-4.96
Stage 4	-2.5	-12.03	-4.26
Stage 4	-2.7	-12.75	-3.62
Stage 4	-2.9	-13.35	-3.02
Stage 4	-3.1	-13.85	-2.45
Stage 4	-3.3	-14.23	-1.92
Stage 4	-3.5	-14.51	-1.41
Stage 4	-3.7	-14.69	-0.91
Stage 4	-3.9	-14.78	-0.42
Stage 4	-4.1	-14.76	0.07
Stage 4	-4.3	-14.65	0.58
Stage 4	-4.5	-14.43	1.1
Stage 4	-4.7	-14.09	1.65
Stage 4	-4.9	-13.65	2.24
Stage 4	-5.1	-13.07	2.87
Stage 4	-5.3	-12.37	3.54
Stage 4	-5.5	-11.52	4.2
Stage 4	-5.7	-10.6	4.64
Stage 4	-5.9	-9.62	4.89
Stage 4	-6.1	-8.62	4.99
Stage 4	-6.3	-7.63	4.97
Stage 4	-6.5	-6.66	4.84
Stage 4	-6.7	-5.74	4.62
Stage 4	-6.9	-4.87	4.33
Stage 4	-7.1	-4.07	4
Stage 4	-7.3	-3.34	3.64
Stage 4	-7.5	-2.69	3.27
Stage 4	-7.7	-2.11	2.9
Stage 4	-7.9	-1.6	2.53
Stage 4	-8.1	-1.17	2.17
Stage 4	-8.3	-0.8	1.83
Stage 4	-8.5	-0.5	1.52
Stage 4	-8.7	-0.25	1.23
Stage 4	-8.9	-0.06	0.97
Stage 4	-9.1	0.09	0.73
Stage 4	-9.3	0.19	0.53
Stage 4	-9.5	0.26	0.35
Stage 4	-9.7	0.3	0.2
Stage 4	-9.9	0.32	0.07
Stage 4	-10.1	0.31	-0.03
Stage 4	-10.3	0.29	-0.11
Stage 4	-10.5	0.26	-0.17
Stage 4	-10.7	0.22	-0.21
Stage 4	-10.9	0.17	-0.23
Stage 4	-11.1	0.13	-0.23
Stage 4	-11.3	0.08	-0.21
Stage 4	-11.5	0.05	-0.18
Stage 4	-11.7	0.02	-0.14
Stage 4	-11.9	0	-0.08
Stage 4	-12	0	-0.02

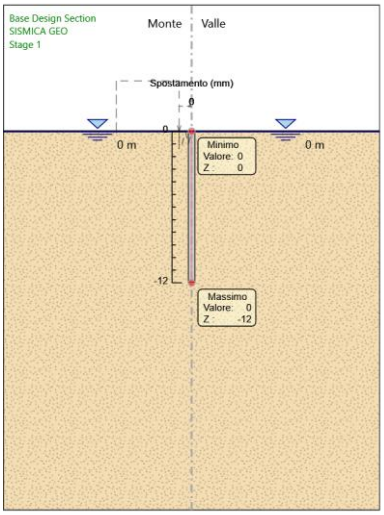
Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 5

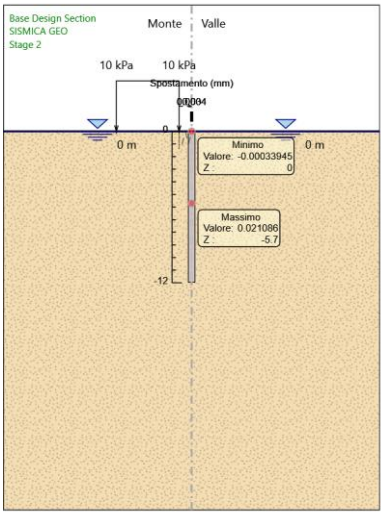
Design Assumption: SISMICA GEO	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	0
Stage 5	-0.2	0	0
Stage 5	-0.2	0	0
Stage 5	-0.4	-0.1	-0.48
Stage 5	-0.5	-0.22	-1.2
Stage 5	-0.7	16.99	86.04
Stage 5	-0.9	33.86	84.35
Stage 5	-1.1	50.29	82.15
Stage 5	-1.3	66.18	79.46
Stage 5	-1.5	81.44	76.27
Stage 5	-1.7	95.95	72.57
Stage 5	-1.9	109.62	68.36
Stage 5	-2.1	122.35	63.66
Stage 5	-2.3	134.04	58.45
Stage 5	-2.5	144.59	52.75
Stage 5	-2.7	153.91	46.55
Stage 5	-2.9	161.88	39.87
Stage 5	-3.1	168.42	32.69
Stage 5	-3.3	173.42	25.03
Stage 5	-3.5	176.8	16.88
Stage 5	-3.7	178.45	8.24
Stage 5	-3.9	178.27	-0.89
Stage 5	-4.1	176.17	-10.5
Stage 5	-4.3	172.05	-20.59
Stage 5	-4.5	165.82	-31.16
Stage 5	-4.7	157.38	-42.22
Stage 5	-4.9	147.04	-51.67
Stage 5	-5.1	135.14	-59.53
Stage 5	-5.3	121.98	-65.78
Stage 5	-5.5	107.9	-70.43
Stage 5	-5.7	93.2	-73.47
Stage 5	-5.9	78.22	-74.91
Stage 5	-6.1	63.27	-74.75
Stage 5	-6.3	48.67	-72.98
Stage 5	-6.5	34.75	-69.6
Stage 5	-6.7	21.83	-64.6
Stage 5	-6.9	10.23	-57.99
Stage 5	-7.1	-0.07	-51.53
Stage 5	-7.3	-9.14	-45.34
Stage 5	-7.5	-17.02	-39.42
Stage 5	-7.7	-23.78	-33.78
Stage 5	-7.9	-29.46	-28.4
Stage 5	-8.1	-34.12	-23.3
Stage 5	-8.3	-37.81	-18.46
Stage 5	-8.5	-40.58	-13.87
Stage 5	-8.7	-42.49	-9.54
Stage 5	-8.9	-43.59	-5.46
Stage 5	-9.1	-43.91	-1.62
Stage 5	-9.3	-43.51	1.98
Stage 5	-9.5	-42.45	5.34
Stage 5	-9.7	-40.75	8.48
Stage 5	-9.9	-38.47	11.4
Stage 5	-10.1	-35.65	14.11
Stage 5	-10.3	-32.33	16.6
Stage 5	-10.5	-28.55	18.88
Stage 5	-10.7	-24.36	20.96
Stage 5	-10.9	-19.79	22.84
Stage 5	-11.1	-14.89	24.52
Stage 5	-11.3	-9.93	24.8
Stage 5	-11.5	-5.53	21.97
Stage 5	-11.7	-2.16	16.88
Stage 5	-11.9	-0.26	9.52
Stage 5	-12	0	2.55

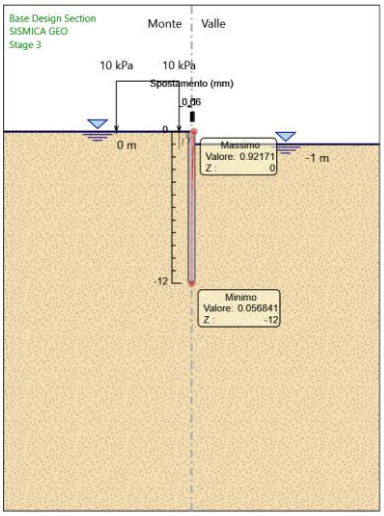
Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 6

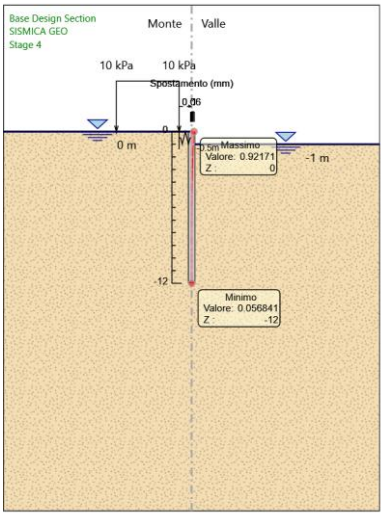
Design Assumption: SISMICA GEO	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	-0.17
Stage 6	-0.2	-0.03	-0.17
Stage 6	-0.4	-0.25	-1.1
Stage 6	-0.5	-0.48	-2.24
Stage 6	-0.7	28.34	144.11
Stage 6	-0.9	56.68	141.69
Stage 6	-1.1	84.42	138.68
Stage 6	-1.3	111.44	135.08
Stage 6	-1.5	137.61	130.89
Stage 6	-1.7	162.83	126.09
Stage 6	-1.9	186.97	120.71
Stage 6	-2.1	209.92	114.73
Stage 6	-2.3	231.55	108.16
Stage 6	-2.5	251.75	101
Stage 6	-2.7	270.4	93.24
Stage 6	-2.9	287.38	84.89
Stage 6	-3.1	302.57	75.94
Stage 6	-3.3	315.85	66.4
Stage 6	-3.5	327.1	56.27
Stage 6	-3.7	336.21	45.55
Stage 6	-3.9	343.06	34.23
Stage 6	-4.1	347.52	22.32
Stage 6	-4.3	349.48	9.82
Stage 6	-4.5	348.83	-3.28
Stage 6	-4.7	345.47	-16.8
Stage 6	-4.9	339.65	-29.11
Stage 6	-5.1	331.57	-40.38
Stage 6	-5.3	321.45	-50.6
Stage 6	-5.5	309.49	-59.81
Stage 6	-5.7	295.9	-67.97
Stage 6	-5.9	280.88	-75.09
Stage 6	-6.1	264.64	-81.17
Stage 6	-6.3	247.4	-86.22
Stage 6	-6.5	229.36	-90.22
Stage 6	-6.7	210.72	-93.18
Stage 6	-6.9	191.7	-95.1
Stage 6	-7.1	172.5	-95.99
Stage 6	-7.3	153.34	-95.83
Stage 6	-7.5	134.41	-94.63
Stage 6	-7.7	115.93	-92.4
Stage 6	-7.9	98.11	-89.12
Stage 6	-8.1	81.15	-84.8
Stage 6	-8.3	65.26	-79.45
Stage 6	-8.5	50.65	-73.05
Stage 6	-8.7	37.53	-65.61
Stage 6	-8.9	26.1	-57.14
Stage 6	-9.1	16.57	-47.62
Stage 6	-9.3	8.89	-38.44
Stage 6	-9.5	2.87	-30.09
Stage 6	-9.7	-1.64	-22.57
Stage 6	-9.9	-4.82	-15.88
Stage 6	-10.1	-6.83	-10.03
Stage 6	-10.3	-7.83	-5.01
Stage 6	-10.5	-7.99	-0.82
Stage 6	-10.7	-7.49	2.53
Stage 6	-10.9	-6.47	5.06
Stage 6	-11.1	-5.13	6.75
Stage 6	-11.3	-3.62	7.53
Stage 6	-11.5	-2.12	7.48
Stage 6	-11.7	-0.87	6.26
Stage 6	-11.9	-0.11	3.82
Stage 6	-12	0	1.07

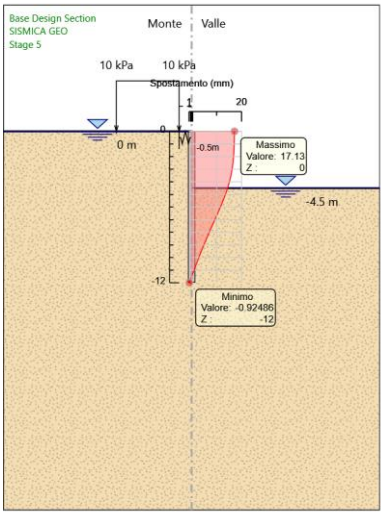
Tabella Grafici dei Risultati

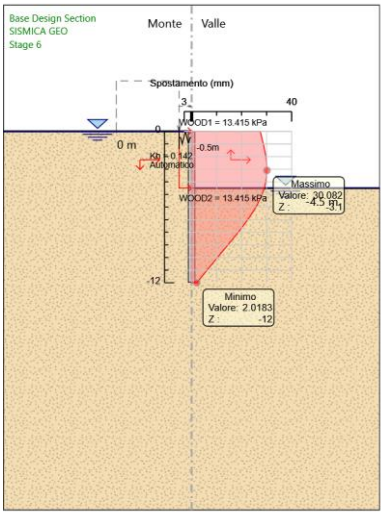


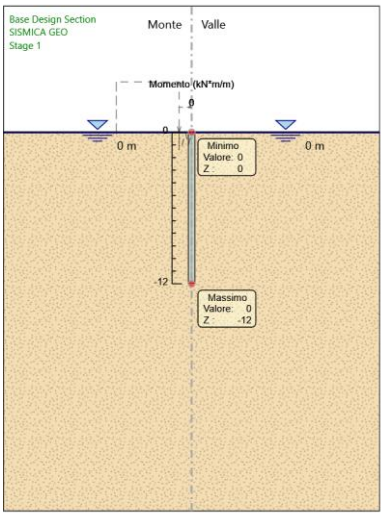


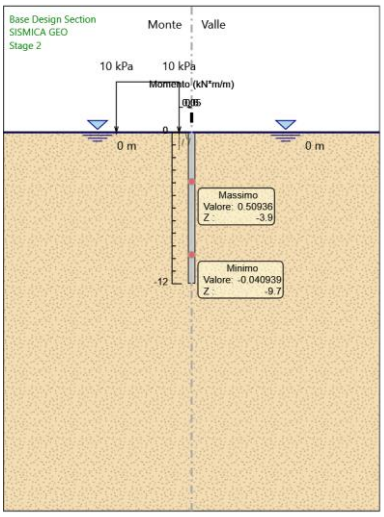


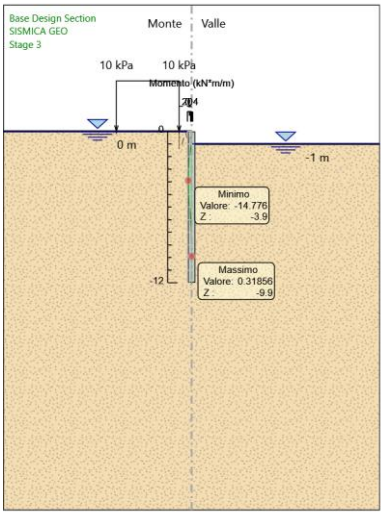


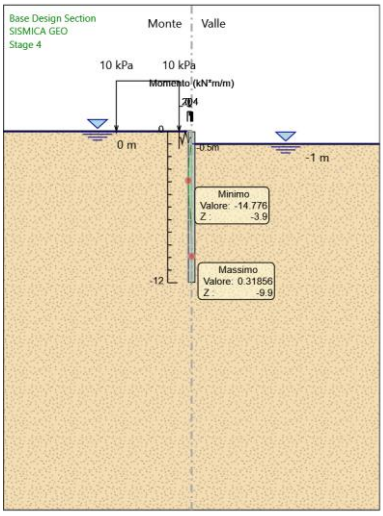


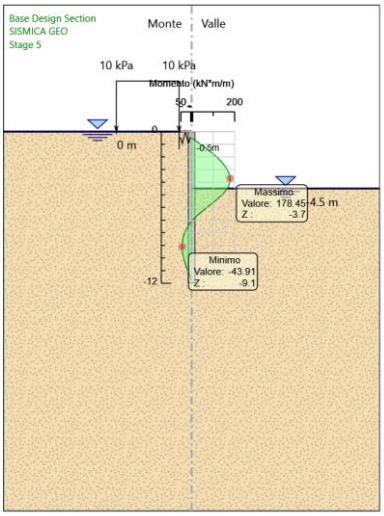


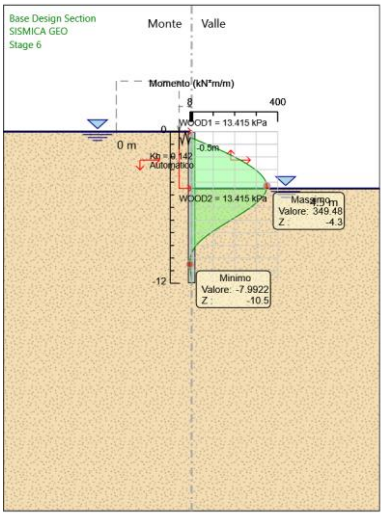

Base Design Section
SISMICA GEO
Stage 1
Monte
Valle
Momento (kN*m/m)
0 m
0 m
Minimo
Valore: 0
Z: 0
-12
Massimo
Valore: 0
Z: -12

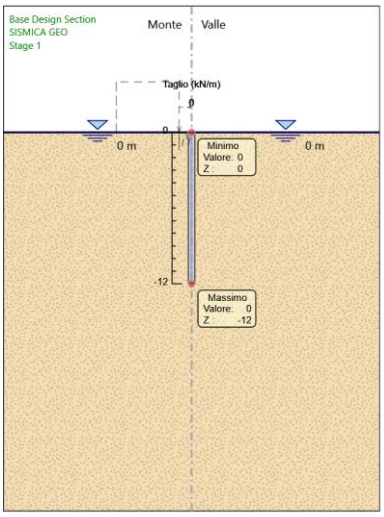

Base Design Section
SISMICA GEO
Stage 2
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
0 m
Massimo
Valore: 0.50936
Z: -3.9
Minimo
Valore: -0.040939
Z: -9.7
-12

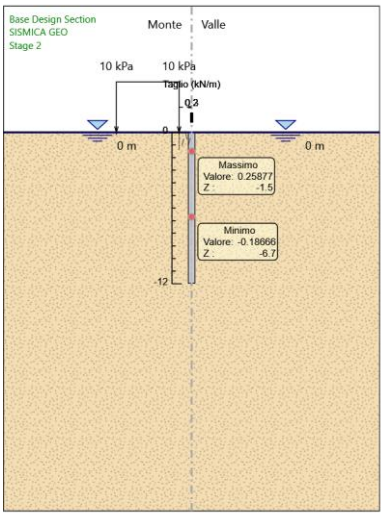

Base Design Section
SISMICA GEO
Stage 3
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
-1 m
Minimo
Valore: -14.776
Z: -3.9
Massimo
Valore: 0.31856
Z: -9.9
-12

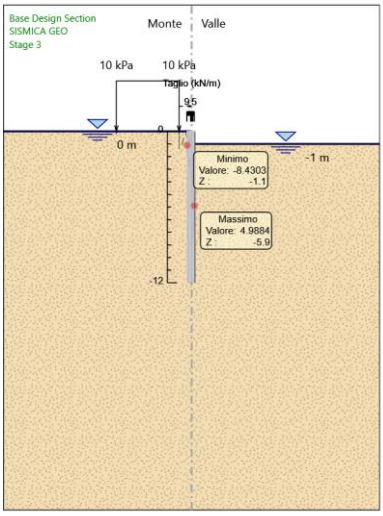

Base Design Section
SISMICA GEO
Stage 4
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
-1 m
Minimo
Valore: -14.776
Z: -3.9
Massimo
Valore: 0.31856
Z: -9.9
-12

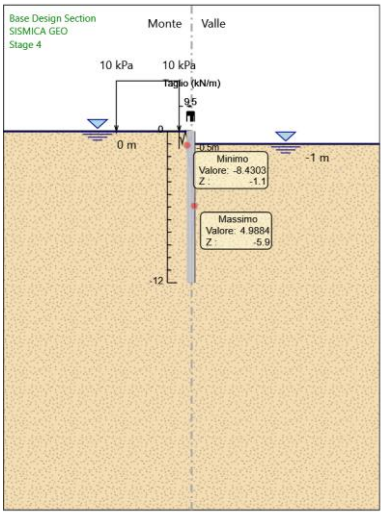

Base Design Section
SISMICA GEO
Stage 5
Monte
Valle
10 kPa
10 kPa
Momento (kN*m/m)
0 m
-0.5m
Massimo
Valore: 178.45
Z: -3.7
4.5 m
Minimo
Valore: -43.91
Z: -9.1
-12

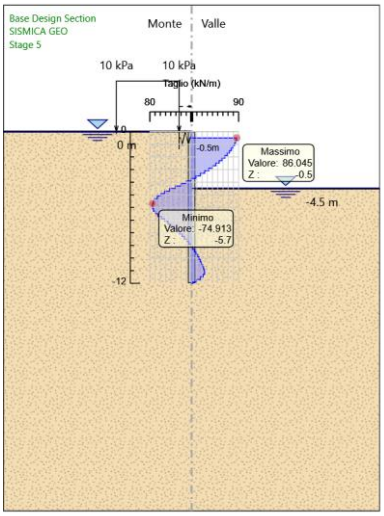

Base Design Section
SISMICA GEO
Stage 6
Monte
Valle
Momento (kN*m/m)
400
WOOD1 = 13.415 kPa
0 m
-0.5m
WOOD2 = 13.415 kPa
Massimo
Valore: 349.48
Z: -4.3
Minimo
Valore: -7.9922
Z: -10.5
-12

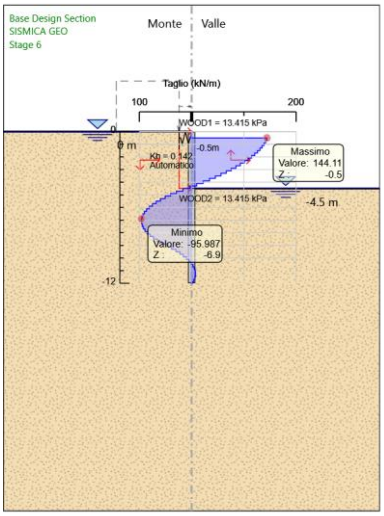

Base Design Section
SISMICA GEO
Stage 1
Monte
Valle
Taglio (kN/m)
0 m
0 m
Minimo
Valore: 0
Z : 0
Massimo
Valore: 0
Z : -12
-12

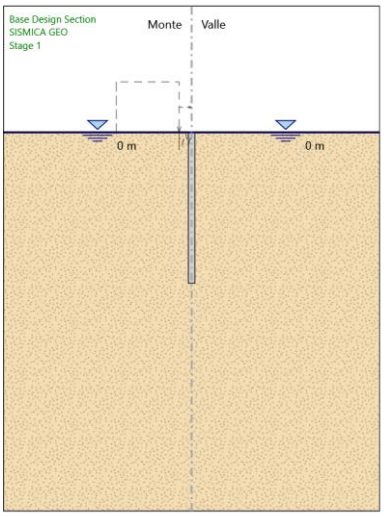

Base Design Section
SISMICA GEO
Stage 2
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
0 m
Massimo
Valore: 0.25877
Z : -1.5
Minimo
Valore: -0.18666
Z : -6.7
-12

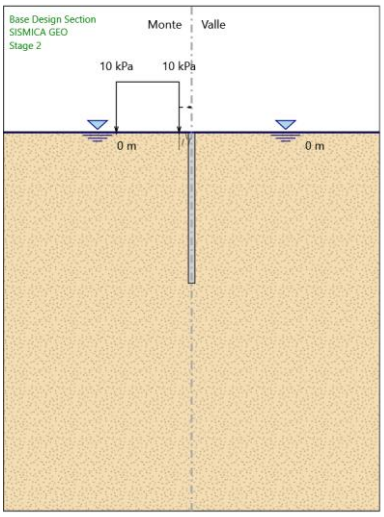

Base Design Section
SISMICA GEO
Stage 3
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
-1 m
Minimo
Valore: -8.4303
Z : -1.1
Massimo
Valore: 4.9884
Z : -5.9
-12

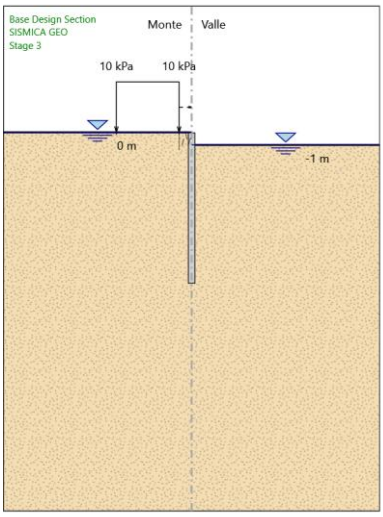

Base Design Section
SISMICA GEO
Stage 4
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
0 m
-1 m
Minimo
Valore: -8.4303
Z : -1.1
Massimo
Valore: 4.9884
Z : -5.9
-12

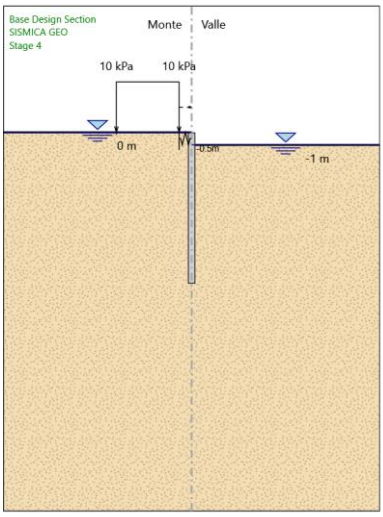

Base Design Section
SISMICA GEO
Stage 5
Monte
Valle
10 kPa
10 kPa
Taglio (kN/m)
80
90
0 m
-0.5m
Massimo
Valore: 86.045
Z : -0.5
-4.5 m
Minimo
Valore: -74.913
Z : -5.7
-12

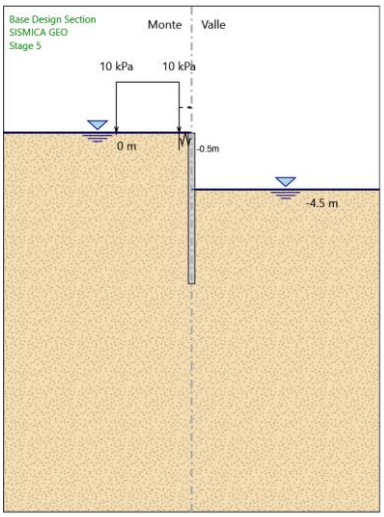

Base Design Section
SISMICA GEO
Stage 6
Monte
Valle
Taglio (kN/m)
100
200
WOOD1 = 13.415 kPa
0 m
-0.5m
Kp = 0.142
Automatico
Massimo
Valore: 144.11
Z : -0.5
WOOD2 = 13.415 kPa
-4.5 m
Minimo
Valore: -95.987
Z : -6.9
-12

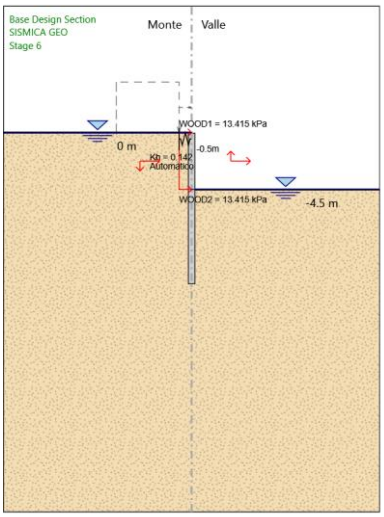

Base Design Section
SISMICA GEO
Stage 1
Monte
Valle
0 m
0 m

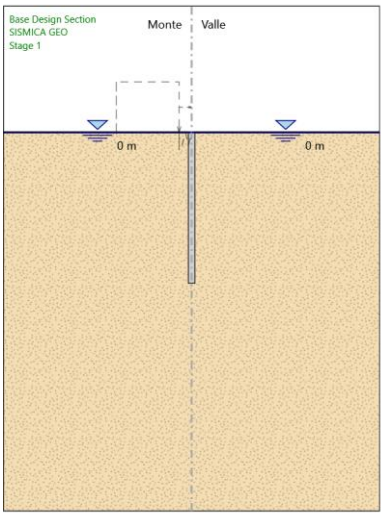

Base Design Section
SISMICA GEO
Stage 2
Monte
Valle
10 kPa
10 kPa
0 m
0 m

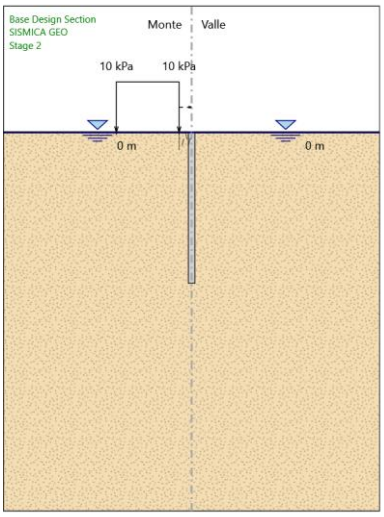

Base Design Section
SISMICA GEO
Stage 3
Monte
Valle
10 kPa
10 kPa
0 m
-1 m

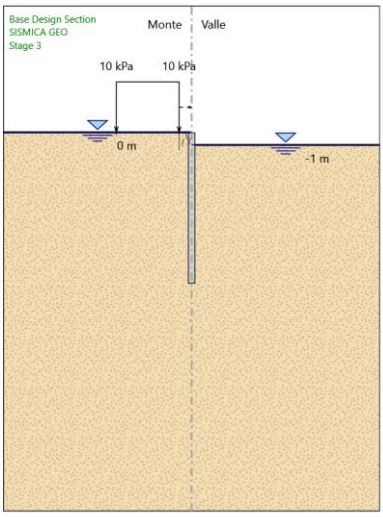

Base Design Section
SISMICA GEO
Stage 4
Monte
Valle
10 kPa
10 kPa
0 m
-0.5m
-1 m

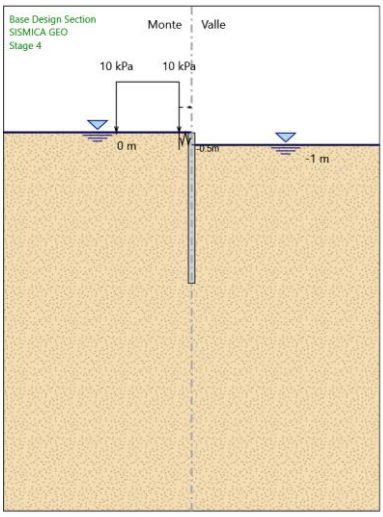

Base Design Section
SISMICA GEO
Stage 5
Monte
Valle
10 kPa
10 kPa
0 m
-0.5m
-4.5 m

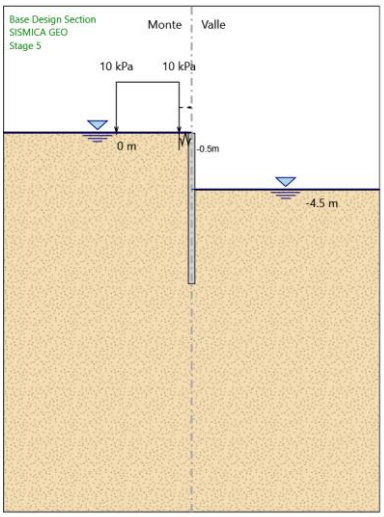

Base Design Section
SISMICA GEO
Stage 6
Monte
Valle
WOOD1 = 13.415 kPa
0 m
-0.5m
Kp = 0.142
Automatico
WOOD2 = 13.415 kPa
-4.5 m

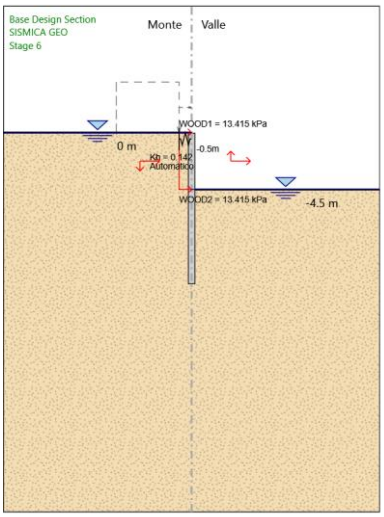












Risultati Elementi strutturali - SISMICA GEO

Design Assumption: SISMICA GEO Sollecitazione Spring

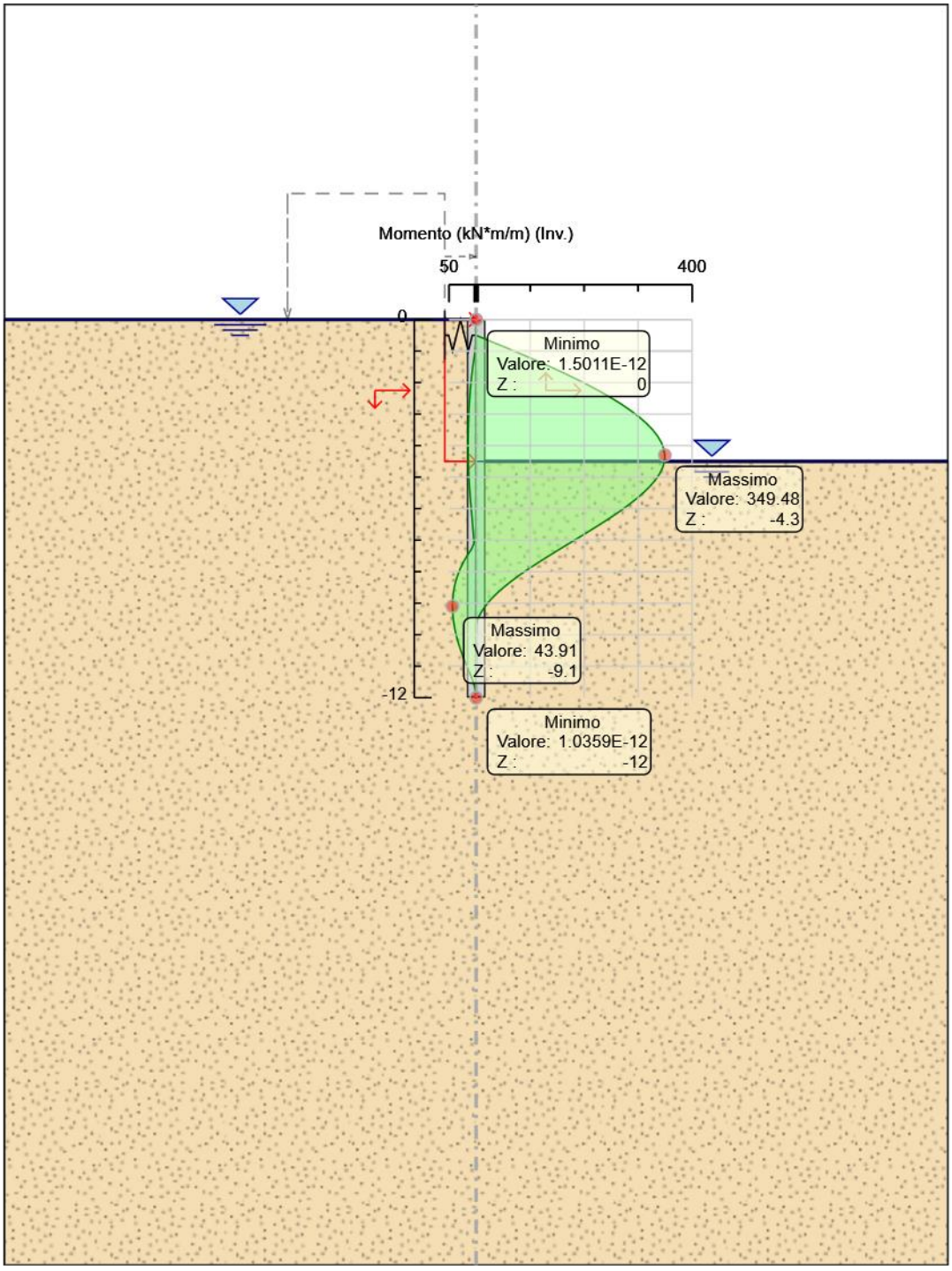
Stage	Forza (kN/m)
Stage 4	-1.4699071E-14
Stage 5	88.15009
Stage 6	147.7161

Descrizione sintetica dei risultati delle Design Assumption (Inviluppi)

Tabella Inviluppi Momento WallElement

Design Assumption: Nominal	Inviluppi: Momento	Muro: WallElement
Z (m)	Lato sinistro (kN*m/m)	Lato destro (kN*m/m)
0	0	0
-0.2	0.033	0
-0.4	0.253	0.004
-0.5	0.477	0.008
-0.7	0.704	28.345
-0.9	1.546	56.683
-1.1	2.872	84.42
-1.3	4.558	111.437
-1.5	6.243	137.614
-1.7	7.732	162.833
-1.9	9.04	186.975
-2.1	10.184	209.922
-2.3	11.176	231.554
-2.5	12.028	251.753
-2.7	12.752	270.401
-2.9	13.355	287.378
-3.1	13.845	302.566
-3.3	14.229	315.847
-3.5	14.51	327.101
-3.7	14.692	336.211
-3.9	14.776	343.057
-4.1	14.762	347.521
-4.3	14.646	349.484
-4.5	14.425	348.829
-4.7	14.094	345.47
-4.9	13.646	339.648
-5.1	13.073	331.573
-5.3	12.365	321.452
-5.5	11.525	309.491
-5.7	10.597	295.897
-5.9	9.619	280.879
-6.1	8.621	264.644
-6.3	7.628	247.401
-6.5	6.66	229.357
-6.7	5.736	210.721
-6.9	4.87	191.7
-7.1	4.07	172.502
-7.3	9.139	153.337
-7.5	17.023	134.41
-7.7	23.778	115.931
-7.9	29.459	98.107
-8.1	34.119	81.147
-8.3	37.81	65.257
-8.5	40.585	50.648
-8.7	42.493	37.525
-8.9	43.586	26.098
-9.1	43.91	16.574
-9.3	43.515	8.886
-9.5	42.446	2.869
-9.7	40.749	0.304
-9.9	38.468	0.319
-10.1	35.647	0.313
-10.3	32.328	0.291
-10.5	28.552	0.257
-10.7	24.36	0.216
-10.9	19.791	0.171
-11.1	14.886	0.125
-11.3	9.927	0.082
-11.5	5.533	0.045
-11.7	2.158	0.018
-11.9	0.255	0.002
-12	0	0

Grafico Inviluppi Momento

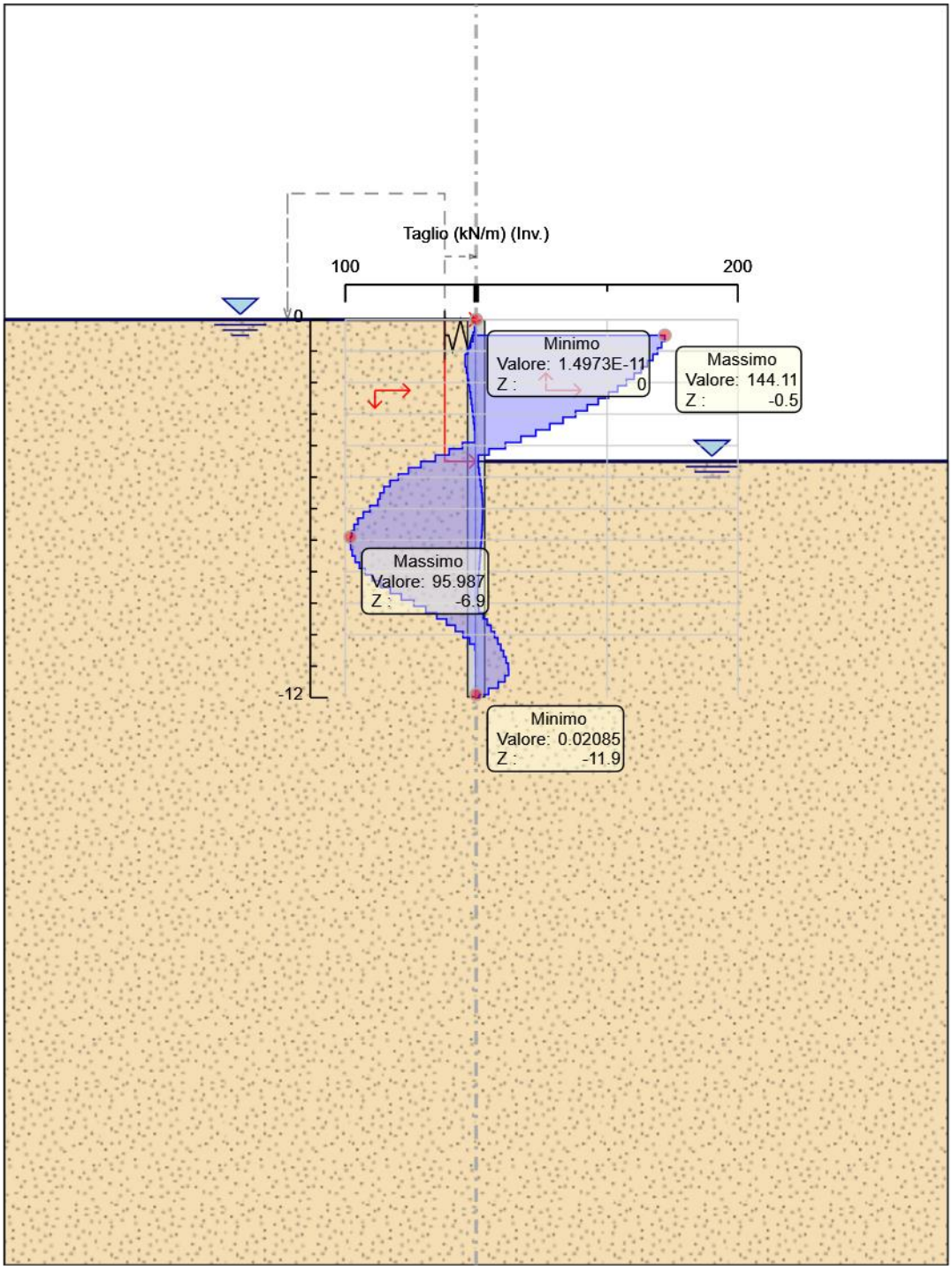


Momento

Tabella Inviluppi Taglio WallElement

Design Assumption: Nominal	Inviluppi: Taglio	Muro: WallElement
Z (m)	Lato sinistro (kN/m)	Lato destro (kN/m)
0	0.167	0
-0.2	1.098	0.018
-0.4	2.241	0.045
-0.5	2.328	144.109
-0.7	4.207	144.109
-0.9	6.632	141.694
-1.1	8.43	138.685
-1.3	8.43	135.082
-1.5	8.424	130.885
-1.7	7.444	126.095
-1.9	6.544	120.711
-2.1	5.718	114.733
-2.3	4.96	108.162
-2.5	4.262	100.997
-2.7	3.616	93.238
-2.9	3.016	84.886
-3.1	2.453	75.941
-3.3	1.919	66.403
-3.5	1.407	56.272
-3.7	0.908	45.547
-3.9	10.496	34.23
-4.1	20.586	22.32
-4.3	31.16	9.818
-4.5	42.217	1.654
-4.7	51.672	2.239
-4.9	59.526	2.866
-5.1	65.777	3.541
-5.3	70.425	4.201
-5.5	73.471	4.639
-5.7	75.091	4.892
-5.9	81.174	4.988
-6.1	86.216	4.988
-6.3	90.219	4.966
-6.5	93.181	4.839
-6.7	95.104	4.619
-6.9	95.987	4.332
-7.1	95.987	3.999
-7.3	95.83	3.641
-7.5	94.633	3.272
-7.7	92.396	2.898
-7.9	89.119	2.529
-8.1	84.802	2.172
-8.3	79.446	1.834
-8.5	73.049	1.519
-8.7	65.613	1.229
-8.9	57.136	0.967
-9.1	47.62	1.977
-9.3	38.438	5.344
-9.5	30.086	8.485
-9.7	22.567	11.404
-9.9	15.881	14.106
-10.1	10.028	16.597
-10.3	5.009	18.881
-10.5	0.822	20.961
-10.7	0.226	22.841
-10.9	0.229	24.525
-11.1	0.229	24.795
-11.3	0.215	24.795
-11.5	0.184	21.97
-11.7	0.139	16.876
-11.9	0.078	9.516
-12	0.021	2.55

Grafico Inviluppi Taglio



Taglio

Inviluppo Spinta Reale Efficace / Spinta Passiva

Design Assumption	Stage	Muro	Lato	Inviluppo Spinta Reale Efficace / Spinta Passiva %
SISMICA GEO	Stage 6	Left Wall	LEFT	13.57
SISMICA GEO	Stage 6	Left Wall	RIGHT	72.64

Inviluppo Spinta Reale Efficace / Spinta Attiva

Design Assumption	Stage	Muro	Lato	Inviluppo Spinta Reale Efficace / Spinta Attiva %
SISMICA GEO	Stage 6	Left Wall	LEFT	12011.68
SISMICA GEO	Stage 1	Left Wall	RIGHT	18808.77

Inviluppo Risultati Elementi Strutturali

Elemento strutturale	Design Assumption	Stage	Cela	Forza kN/m
Spring	SISMICA GEO	Stage 6	147.72	

Elemento strutturale	Design Assumption	Stage	Cela	Momento kN*m/m
Spring	SISMICA GEO	Stage 6	0	