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ROCKSOIL S.p.A.

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PROGETTO ESECUTIVO

ITINERARIO NAPOLI - BARI
RADDOPPIO TRATTA APICE - ORSARA
I LOTTO FUNZIONALE APICE - HIRPINIA

GN06 - GALLERIA MELITO - FINESTRA COSTRUTTIVA/USCITA DI EMERGENZA CARRABILE F3 pk 7+825 E CUNICOLO PEDONALE pk 7+050
IMBOCCO

ELABORATI GENERALI

Relazione geotecnica e di calcolo delle opere di imbocco

APPALTATORE	DIRETTORE DELLA PROGETTAZIONE	PROGETTISTA
Consorzio HIRPINIA AV Il Direttore Tecnico Ing. Vincenzo Moriello 10/06/2020	Il Responsabile integrazione fra le varie prestazioni specialistiche Ing. G. Cassani	ROCKSOIL S.p.A. Ing. G. Cassani

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC.	OPERA/DISCIPLINA	PROGR.	REV.	SCALA:
IF28	01	E	ZZ	RB	GA0900	001	B	-

Rev.	Descrizione	Redatto	Data	Verificato	Data	Approvato	Data	Autorizzato Data
A	Emissione per consegna	A. Zimbaldi	21/02/2020	B. Spigarelli	21/02/2020	M. Gatti	21/02/2020	Ing. G. Cassani
B	Revisione per istruttoria	A. Zimbaldi	10/06/2020	B. Spigarelli	10/06/2020	M. Gatti	10/06/2020	Ing. G. Cassani
								10/06/2020

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1 PREMESSA

Il presente documento è parte integrante del progetto definitivo della galleria Grottaminarda, inclusa nel raddoppio ferroviario della tratta compresa tra Apice ed Orsara, sulla linea Caserta – Foggia, itinerario Napoli – Bari.

La galleria Melito risulta ubicata fra le progressive km 5+063.50 (inizio imbocco lato Bari) e km 9+573.00 (imbocco lato Napoli) per una lunghezza totale di 4509.50 m, con una lunghezza coperta pari a 4479.50. Il tratto in naturale è compreso fra le progressive km 5+096.50 e km 9+510.00 ed è caratterizzato da una lunghezza di 4413.50 m.

In particolare è oggetto della relazione la descrizione e verifica delle opere civili e delle modalità di esecuzione dell'imbocco della finestra F3 che si innesta nella galleria di linea al km 7+825 e si sviluppa per una lunghezza di circa 500 m.

Le opere di stabilizzazione e sostegno degli scavi sono realizzate mediante paratie di pali di grande diametro contrastate attraverso tiranti.

Nel seguito sono illustrate le soluzioni progettuali e le verifiche di dimensionamento delle opere di sostegno provvisionali.

2 SCOPO E CONTENUTI DEL DOCUMENTO

Nella presente relazione si affrontano le problematiche progettuali connesse alla realizzazione delle opere di imbocco della finestra F3 della galleria Melito facente parte della linea ferroviaria Napoli-Bari. Per l'inquadramento generale delle opere in sotterraneo si rimanda al documento "Relazione tecnica delle opere in sotterraneo"

3 NORMATIVA DI RIFERIMENTO

3.1 LEGGI E NORMATIVE COGENTI

Rif. [1] C.S.LL.PP., Circolare n°617 del 02/02/2009, "Istruzioni per l'applicazione delle "nuove norme tecniche per le costruzioni" di cui al DM 14/01/2008".

3.2 NORMATIVE NON COGENTI E RACCOMANDAZIONI

Rif. [2] UNI EN 14487-1:2006, "Calcestruzzo proiettato – parte 1: definizioni, specificazioni e conformità";

Rif. [3] UNI EN 14487-2:2006, "Calcestruzzo proiettato – parte 2: esecuzione";

Rif. [4] UNI EN 206-1 2006, "Calcestruzzo – parte 1: specificazione, prestazione, produzione e conformità".

3.3 PRESCRIZIONI E SPECIFICHE TECNICHE (RFI, ITF)

Rif. [5] RFI, doc S.OC.S.3870 "Sagome. Profili minimi degli ostacoli" datato Lug 1990;

Rif. [6] RFI, doc RFIDINICMAGAGN00001B "Manuale Progettazione Gallerie" datato Dic 2003;

Rif. [7] RFI,"Manuale di progettazione delle opere civili" codifica RFIDTCSIPSMAIFS001C, datato 21.12.2018;

Rif. [8] ITALFERR, Specifica Tecnica PPA.0002403 "Linee guida per la progettazione geotecnica delle gallerie naturali" datato Dicembre 2015.

Rif. [9] RFI,"Capitolato generale tecnico di appalto delle opere civili" codifica RFIDTCSISPIFS001C, datato 21.12.2018;

4 DOCUMENTI DI RIFERIMENTO

4.1 DOCUMENTI REFERENZIATI

Sono stati utilizzati come input per il presente documento i seguenti elaborati:

Rif. [9] U.O. Geologia, elaborati di progetto;

Rif. [10] U. O. Geologia, documento n° IF2801EZZRGGE0102001B, " Relazione geomorfologica generale" ;

Rif. [11] U. O. Geotecnica, documento n° IF2801EZZRBOC0201001B, " Relazione di caratterizzazione geotecnica/ geomeccanica del Flysch Rosso interagente con le gallerie Grottaminarda e Melito ";

Rif. [12] U. O. Geotecnica, documento n° IF2801EZZRBOC0101001B, " Relazione geotecnica generale ";

Rif. [13] U. O. Geotecnica, documento n° IF2801EZZRBOC0201001B, "Relazione di caratterizzazione geotecnica / geomeccanica generale ";

4.2 DOCUMENTI CORRELATI

Non sono presenti documenti correlati.

4.3 DOCUMENTI SUPERATI

Non sono presenti documenti superati.

5 ALLEGATI

Il documento è corredato dai seguenti allegati:

[Risultati delle analisi di stabilità globale – Allegato 0]
[Risultati delle analisi di verifica delle paratie. Sez. 1 – STR - Allegato 1];
[Risultati delle analisi di verifica delle paratie. Sez. 1 – GEO - Allegato 2];
[Risultati delle analisi di verifica delle paratie. Sez. 2 – STR - Allegato 3];
[Risultati delle analisi di verifica delle paratie. Sez. 2 – GEO - Allegato 4];

6 DOCUMENTI PRODOTTI A SUPPORTO

I contenuti della presente relazione sono utilmente completati e arricchiti dai seguenti elaborati di progetto:

Rif. [14] U.O. Gallerie, documento n.° IF2801EZZLAGA0900001B "Planimetria";

Rif [15] U.O. Gallerie, documento n° IF2801EZZfaGA0900001B "Profilo longitudinale";

Rif [16] U.O. Gallerie, documento n° IF2801EZZPAGA0900001B "Sviluppata paratia e planimetria di tracciamento paratia" ;

Rif [17] UO Gallerie, documento n IF2801EZZWAGA0900001B "Sezioni trasversali";

Rif [18] UO Gallerie, documento n° IF2801EZZWAGA0900002B "Sezioni tipo e particolari";

Rif [19] UO Gallerie, documento n° IF2801EZZF6GN0600001B "Profilo geotecnico/geomeccanico – Finestra F3".

7 FASE CONOSCITIVA

Nella fase conoscitiva si acquisiscono gli elementi necessari alla caratterizzazione e modellazione geologica del sito e alla caratterizzazione e modellazione geotecnica del volume significativo del mezzo interessato dall'opera. Nel seguito si riporta un breve inquadramento geologico e la sintesi della caratterizzazione e modellazione geotecnica con specifico riferimento al volume significativo interessato dalle opere di imbocco della finestra F3 della galleria Melito.

7.1 INQUADRAMENTO GEOLOGICO

Lo studio geologico ha individuato in corrispondenza dell'imbocco dell'uscita di emergenza F3 le seguenti unità geologiche:

- ✓ Formazione della Baronia – BNA1b Membro dei conglomerati e delle sabbie di S.Sossio Baronia (Pliocene inf.) rappresentato da una litofacies sabbiosa con arenarie e sabbbie da cementate a poco cementate alternate a siltiti e marne.
- ✓ Formazione della Baronia – BNA2 Litofacies pelitica (Pliocene Inf.)rappresentata da argille piu o meno siltoese e marnose, silt più o meno argillosi e sabbiosi, marne.

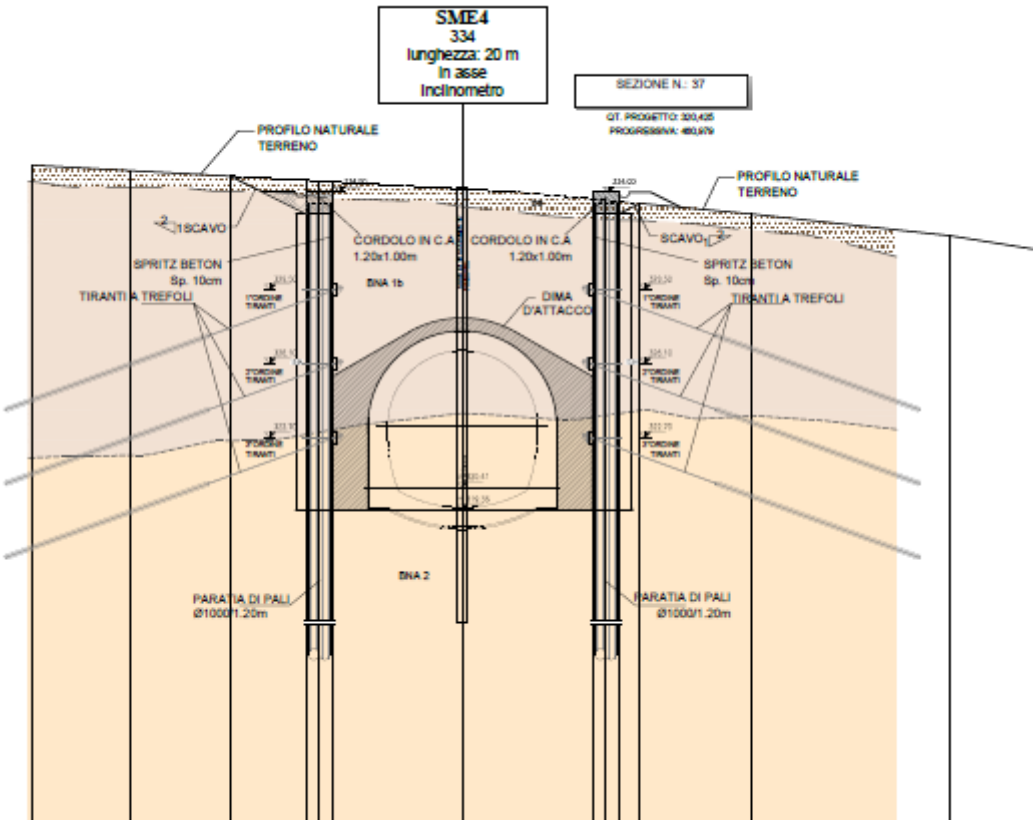


Fig. 1 – Sezione trasversale geologica - geomorfologica

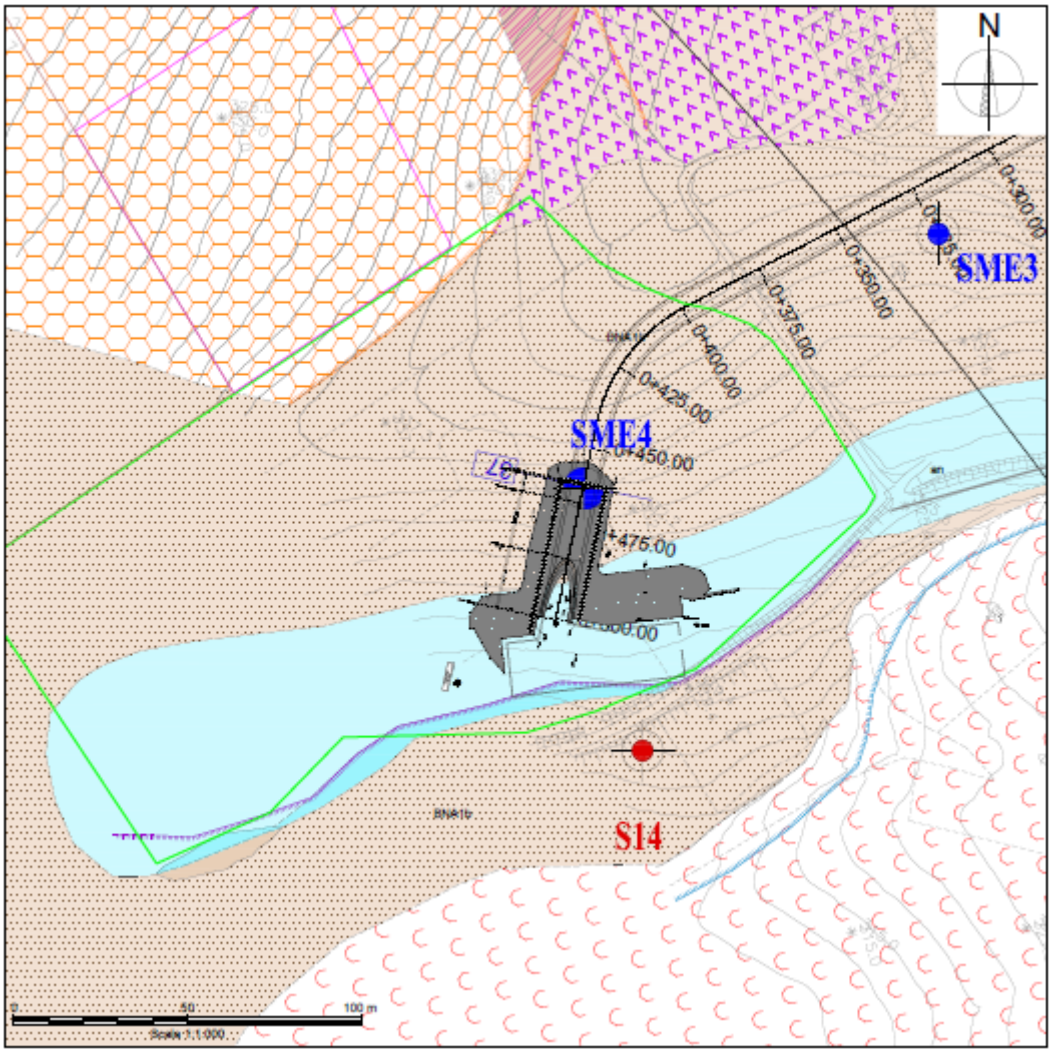


Fig. 2 – Stralcio carta geologica - geomorfologica

7.2 INDAGINI GEOTECNICHE

In corrispondenza dell'imbocco della presente galleria sono stati eseguiti i sondaggi:

- SME4 – Campagna Indagini 2019
- SME3 – Campagna Indagini 2019
- S14 – Campagna Indagini 2017

7.3 MODELLAZIONE GEOTECNICA

I risultati delle indagini geotecniche, in sito e di laboratorio, hanno permesso di definire il modello geotecnico, rappresentativo delle condizioni stratigrafiche e delle caratteristiche fisico-meccaniche dei terreni/rocce interessati dalle opere di imbocco. Il modello geotecnico complessivo dell'opera in sotterraneo è rappresentato nell'elaborato "Galleria Melito – uscita di emergenza pedonale F3 PK 7+825 - Profilo geotecnico/geomeccanico – Finestra F3".

7.3.1 Approccio procedurale

La stratigrafia dell'area in esame, in relazione all'opera in progetto, è caratterizzata dalla presenza della formazione della Baronia.

L'attività di caratterizzazione geotecnica è finalizzata alla definizione dei parametri geotecnici che competono alle differenti unità individuate nello specifico contesto di imbocco in esame.

L'iter logico/operativo adottato nell'attività di caratterizzazione condotta è il seguente:

- Identificazione dei sondaggi eseguiti nell'area in esame;
- Individuazione delle unità/livelli geotecnici discriminati in funzione dell'esame visivo delle cassette stratigrafiche associato alla lettura delle schede stratigrafiche e all'analisi della dimensione prevalente dei grani;
- Elaborazione dei risultati delle prove di laboratorio e delle prove in situ analizzando separatamente tutte le determinazioni provenienti dai campioni prelevati entro la medesima unità. Per dettagli sulla procedura di elaborazione delle prove si rimanda alla "Relazione Geotecnica Generale". Per la determinazione delle proprietà meccaniche la caratterizzazione geotecnica si è avvalsa primariamente dei risultati delle prove di laboratorio, successivamente, laddove questi fossero assenti o si ritenessero necessario integrare le valutazioni con altre prove sono stati presi in considerazione i risultati delle prove in foro SPT (con correlazioni appropriate ai litotipi) e Pocket Penetrometer. Le proprietà di deformabilità vengono determinate sulla base risultati delle prove in foro.
- Caratterizzazione geotecnica dei livelli geotecnici individuati sulla base delle elaborazioni condotte, definendo il set di parametri geotecnici ad uso progettuale:
    - peso di volume naturale (γ);
    - coesione efficace (c')
    - angolo di attrito interno di picco (φ)
    - moduli elastici operativi (E_{op}), desunti dai moduli elastici a piccole deformazioni e dalle risultanze dell'interpretazione delle prove in situ e in laboratorio.

7.3.2 Caratterizzazione geotecnica imbocco uscita F3

In corrispondenza dell'imbocco della finestra F3 la formazione del BNA1b si presenta in silt debolmente sabbioso e limo argilloso a tratti debolmente sabbioso da mediamente a fortemente consistente. Considerata la litologia con rilevante componente granulometrica grossolana, e data la ridotta quantità di prove di laboratorio condotte in corrispondenza di questa opera (n°1 TxCIU), la caratterizzazione meccanica del materiale si è mossa dai risultati delle prove in foro di Pocket penetrometer, che hanno registrato valori variabili di resistenza (2 – 4.0 kg/m2), e dalle prove penetrometriche dinamiche che hanno misurato valori di Nspt compresi tra 20 e 40. E' stata eseguita una prova pressiometrica sui suddetti terreni per indagare le proprietà di deformabilità

Fig. 3 – Livello geotecnico 1 (Formazione geologica del BNA1b) nel sondaggio SME4

Oltre i 10 m di profondità, l'imbocco è interessato dalla formazione del BNA2, facies pelitica della Baronia, con marne argillose e argille marnose. Le prove penetrometriche misurano un numero molto elevato di colpi o vanno a rifiuto. Data la natura semilitoide del materiale è stata svolta una prova di compressione monoassiale e n°2 prove dilatometriche.

Fig. 4 – Livello geotecnico 2 (Formazione geologica del BNA2) nel sondaggio SME4

Di seguito vengono riportati i grafici risultanti dalle elaborazioni delle prove e delle indagini geotecniche di laboratorio ed in situ.

7.3.2.1 Elaborazione prove fisiche di laboratorio

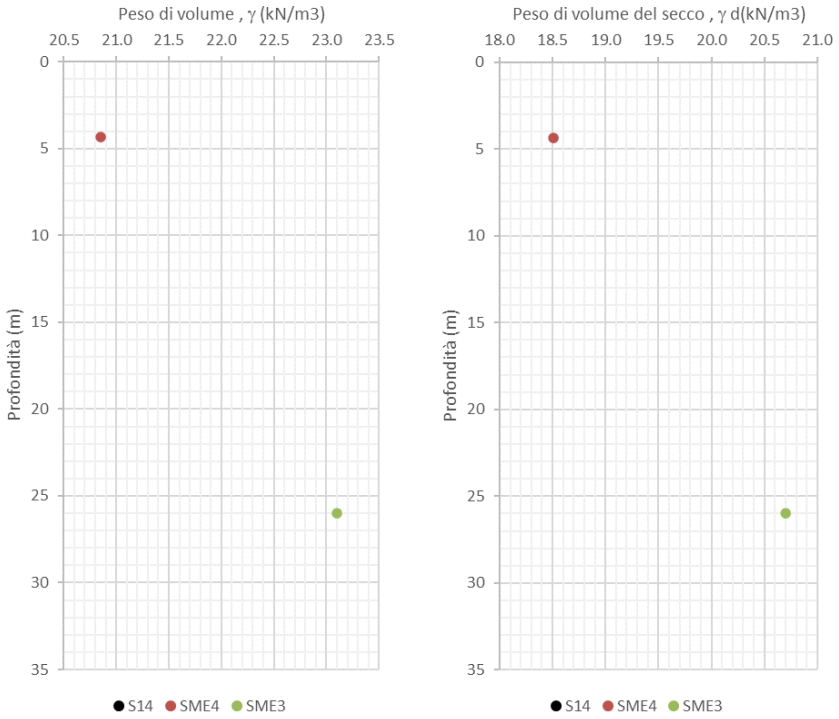


Fig. 5 – Peso specifico unità di volume e peso di volume del secco

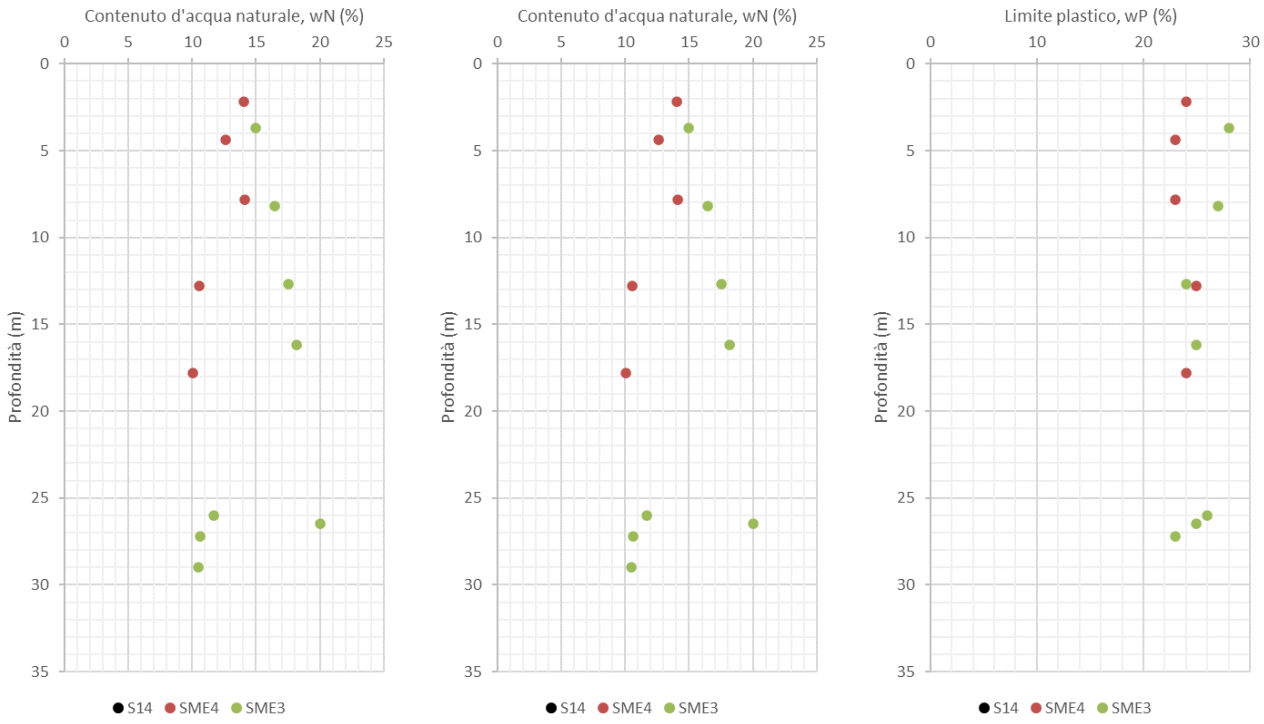


Fig. 6 – Contenuto d'acqua, limite liquido e limite plastico

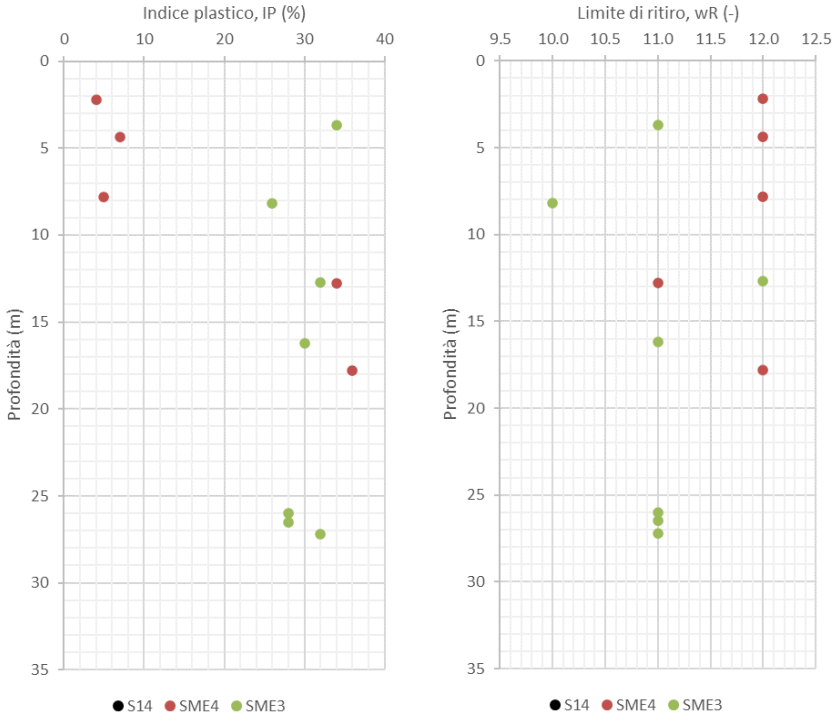


Fig. 7 – Indice plastico e limite di ritiro

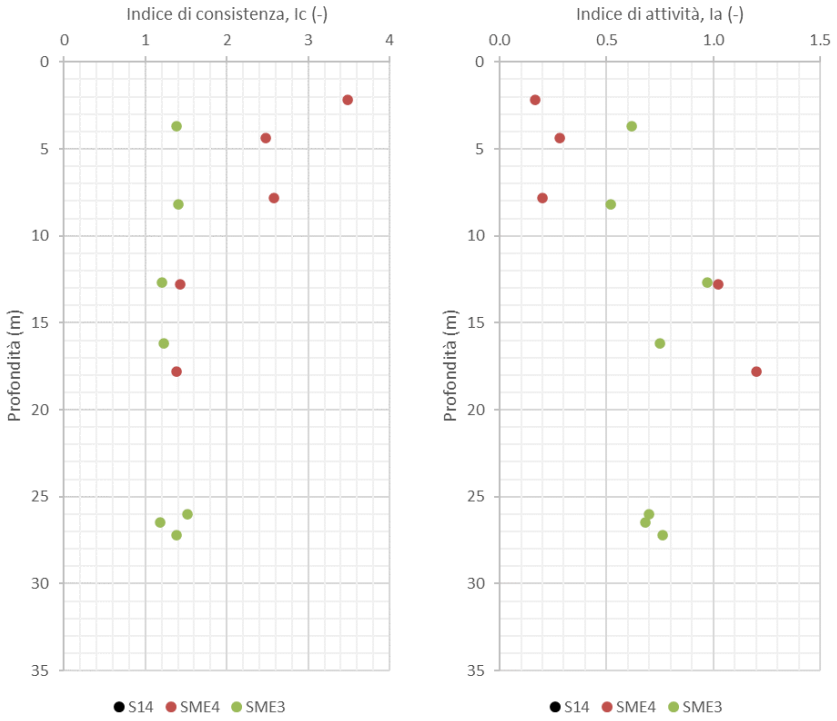


Fig. 8 – Indice di consistenza e di attività

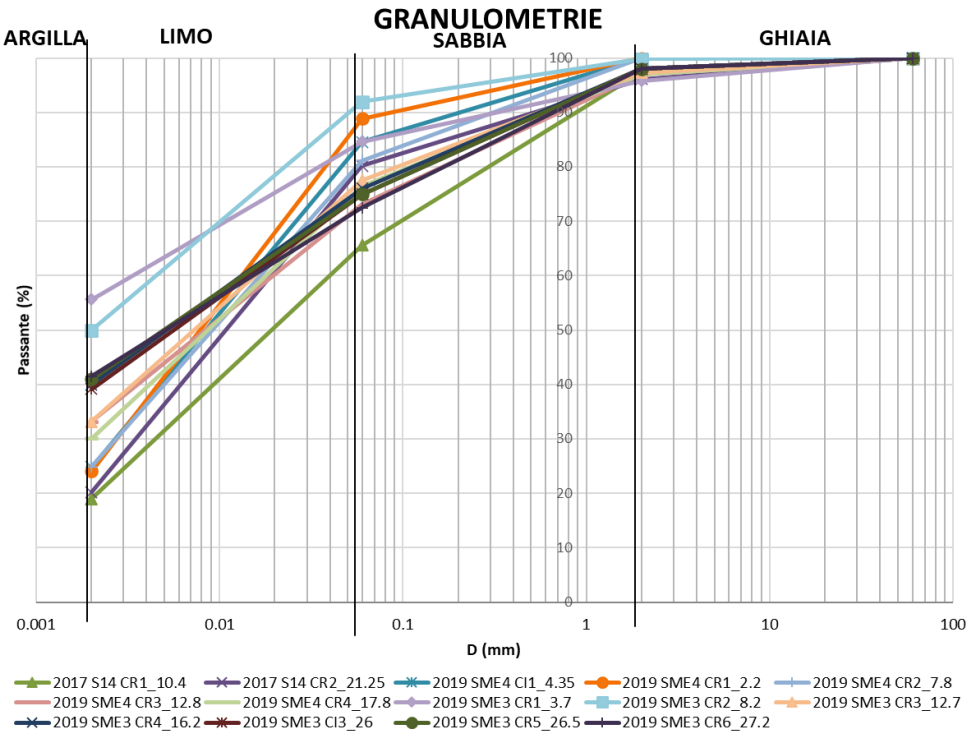


Fig. 9 – Curve Granulometriche

7.3.2.2 Elaborazione proprietà fisiche da prove in foro

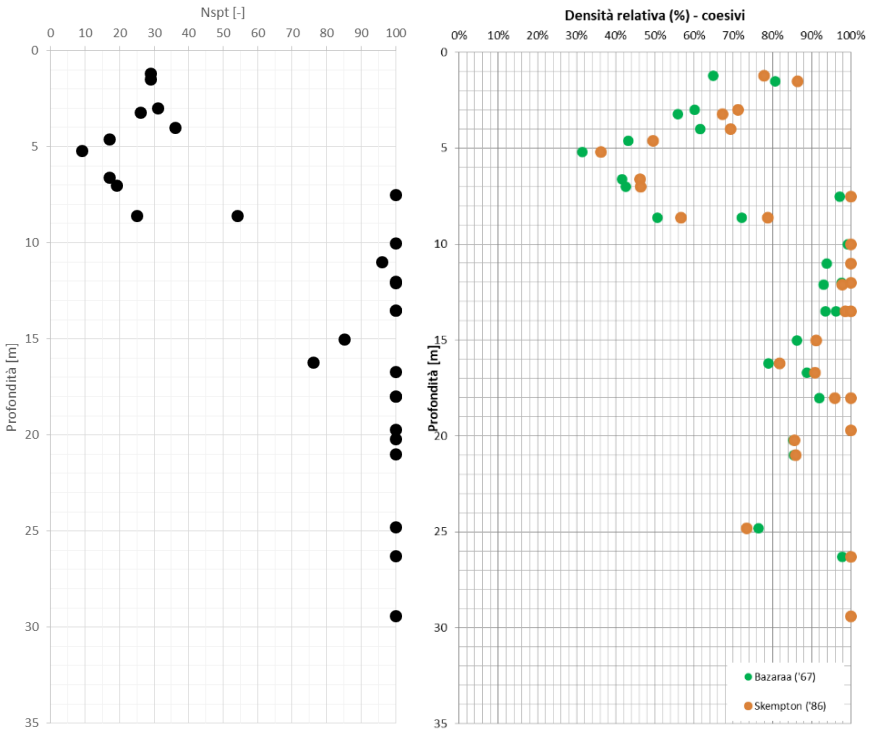


Fig. 10 – Valori Nspt e densità relativa

7.3.2.3 Elaborazione proprietà meccaniche da prove in laboratorio

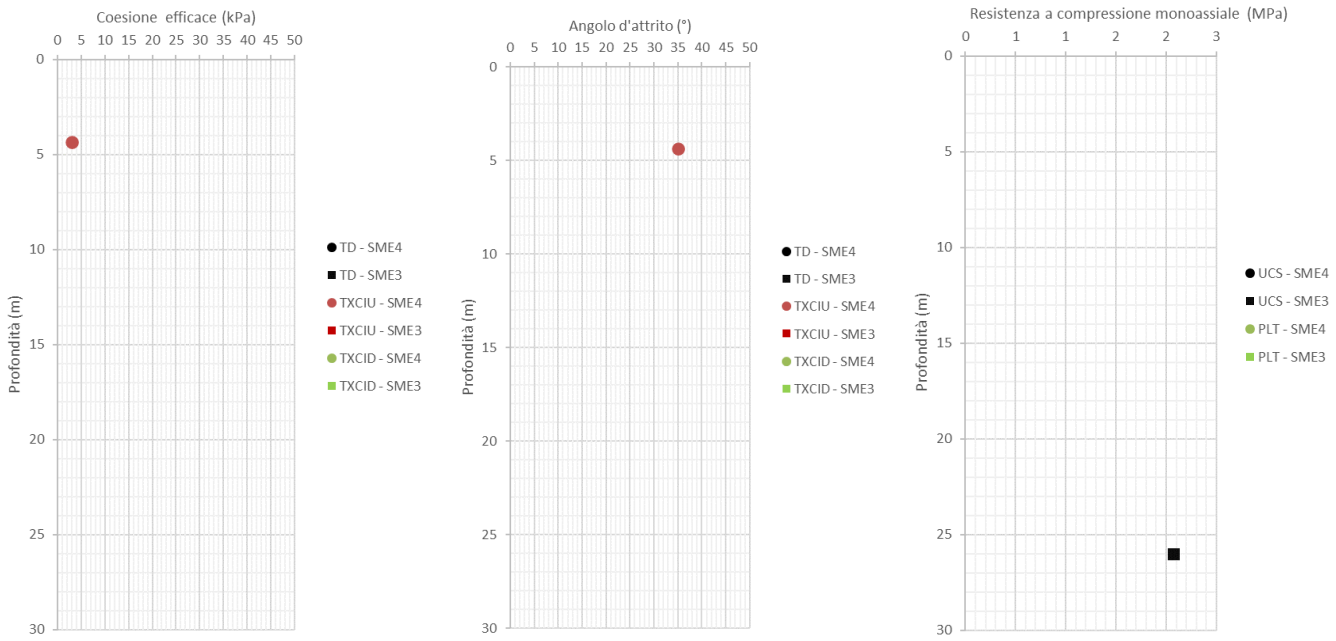


Fig. 11 – Proprietà meccaniche – Coesione e angolo d'attrito e resistenza a compressione monoassiale

7.3.2.4 Elaborazione proprietà meccaniche da prove in foro

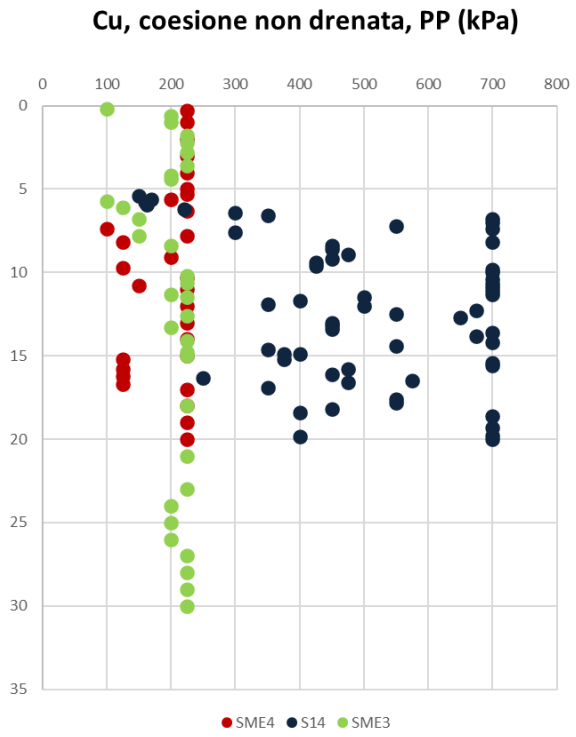


Fig. 12 – Proprietà meccaniche – Coesione non drenata derivante da Pocket Penetrometer

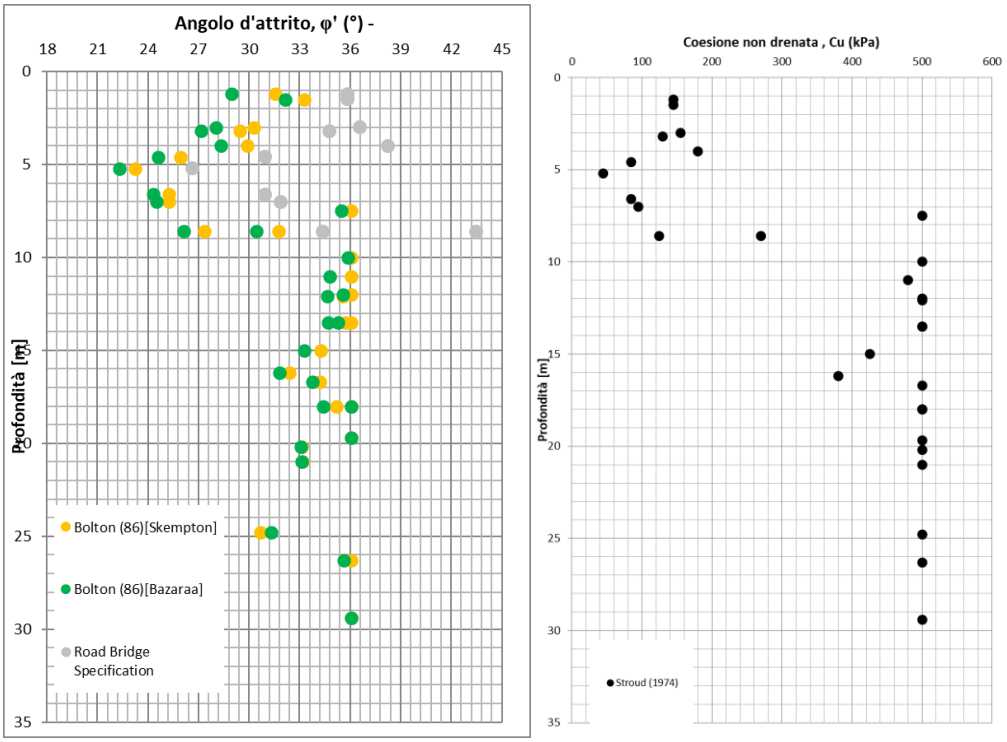


Fig. 13 –angolo d'attrito e coesione non drenata derivanti dai valori di Nspt

7.3.2.5 Elaborazione proprietà di deformabilità da prove in foro

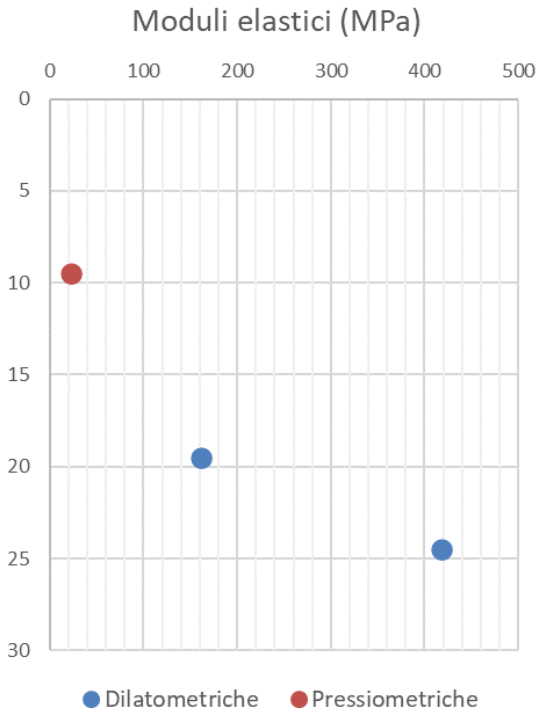


Fig. 14 – Modulo elastico da prove pressiometriche e dilatometriche

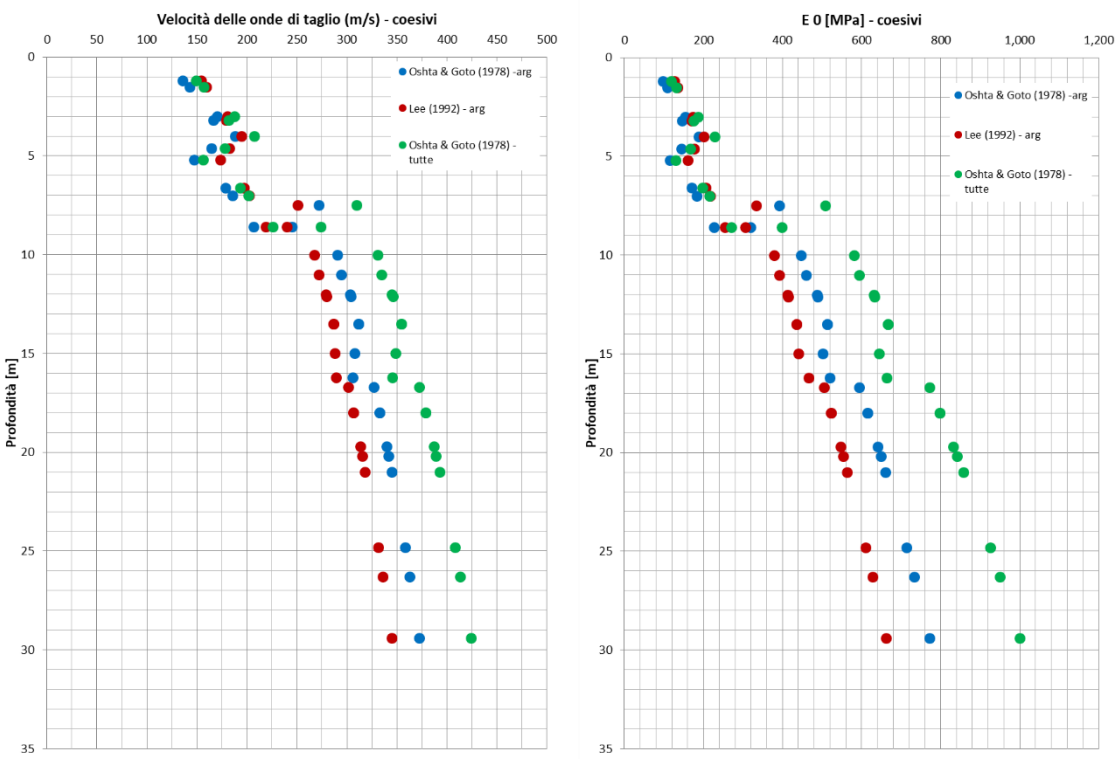


Fig. 15 – Velocità delle onde di taglio e del modulo elastico a piccole deformazioni derivanti dai valori di Nspt

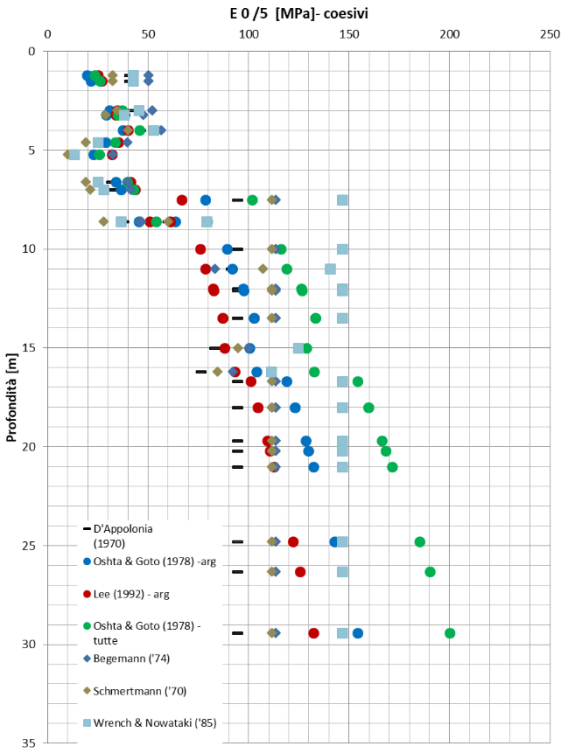


Fig. 16 – Modulo Elastico operativo

7.3.2.6 Conducibilità idraulica da prove in foro

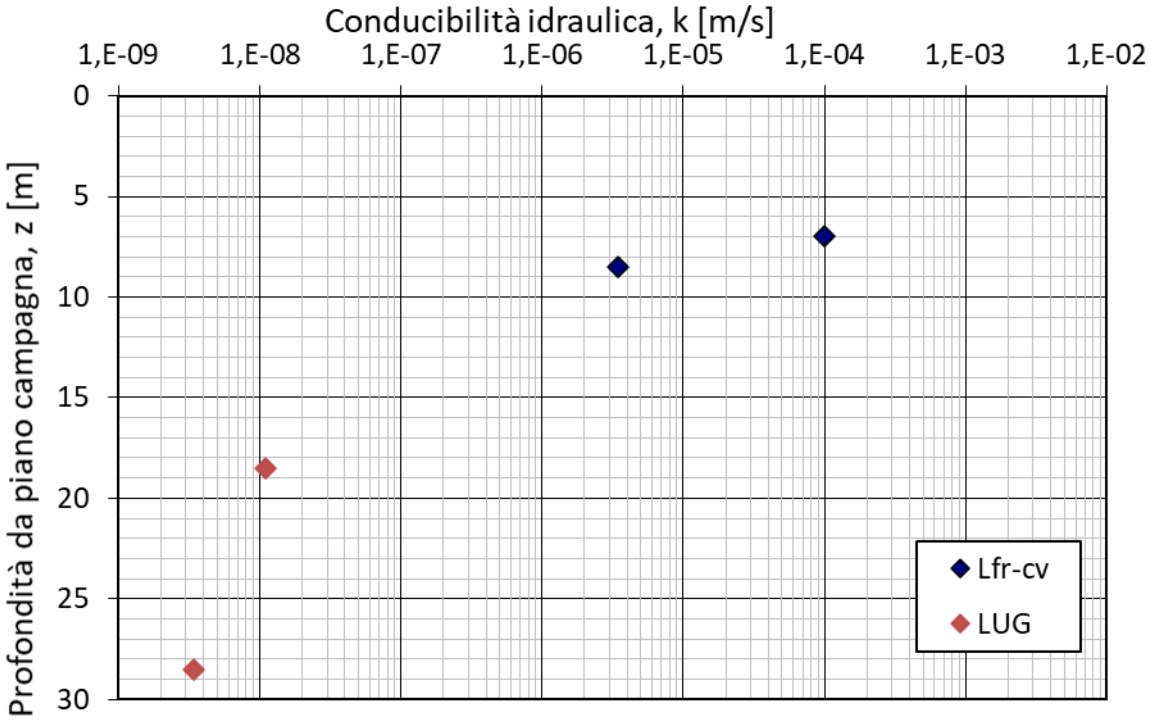


Fig. 17 – Conducibilità idraulica

7.3.2.7 Quadro di sintesi dei risultati

Le caratteristiche dei materiali sono di seguito riportate:

Litotipo	Profondità		γ	ø	c'	E'
	da	a	(kN/m³)	(°)	(kPa)	(MPa)
BNA1b_1	0	10	20	24-28	5÷10	50÷60
BNA2_2	10	30	21	24-28	10÷20	60÷80

γ = peso di volume naturale (kN/m³);
φ' = angolo di resistenza al taglio (°);
c' =valore della coesione efficace (kPa);
E ' = modulo di Young (MPa)

Tabella 1 – Valori di riferimento dei parametri geotecnici nell'area dell'imbocco finestra F3

7.3.3 Definizione dei valori caratteristici dei parametri geotecnici utilizzati nelle analisi

I parametri geotecnici caratteristici utilizzati nell'ambito della analisi di simulazione e verifica sono riportati nella tabella seguente

Litotipo	Profondità		γ	ø	c'	E'
	da	a	(kN/m³)	(°)	(kPa)	(MPa)
BNA1b_1	0	10	20	26	5	45
BNA2_2	10	30	21	26	15	80

γ = peso di volume naturale (kN/m³);
φ' = angolo di resistenza al taglio (°);
c' =valore della coesione efficace (kPa);
E ' = modulo di Young (MPa)

Tabella 2 – Valori caratteristici dei parametri geotecnici utilizzati nelle analisi per l'imbocco finestra F3

7.3.4 Il regime idraulico

E' segnalata la presenza di falda alla profondità di circa 5 m da pc, e si prevede il suo ribasso durante le fasi di scavo attraverso drenaggio

7.4 CARATTERISTICHE DEL SITO E DEFINIZIONE DELL'AZIONE SISMICA

Le opere in progetto per l'imbocco della finestra F3 si trovano nel comune di Melito Irpino, in un sito con le seguenti coordinate geografiche: geografiche: Latitudine 41° 07' 01.1'' N, Longitudine 15° 01' 28.3"E.

Alle strutture di sostegno, trattandosi di opere provvisionali, si attribuisce una vita nominale V_N di 35 anni Di conseguenza, il periodo di riferimento per la definizione dell'azione sismica, V_R, si assume pari a 35 anni (DM 14/01/2008). Tuttavia, poiché per le opere di sostegno degli imbocchi è prevista una vita inferiore ai 2 anni, queste non verranno verificate nei confronti del sisma. Per completezza si riportano ugualmente i parametri sismici ricavati.

Con riferimento alla probabilità di superamento dell'azione sismica, P_{VR}, attribuita allo stato limite ultimo di salvaguardia della vita (SLV), nel periodo V_R dell'opera in progetto, si determina il periodo di ritorno T_R del sisma di progetto Sulla base delle coordinate geografiche del sito e del tempo di ritorno del sisma di progetto, T_R, sopra definito, si ricavano i parametri che caratterizzano il sisma di progetto relativo al sito di riferimento, rigido ed orizzontale (Tabella 1 dell'allegato B del DM 14/01/2008):

- a_g: accelerazione orizzontale massima
- F_o: valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale
- T^*_C: periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale

Per le opere provvisionali di imbocco il periodo di ritorno si determina con l'espressione:

$$T_R = -\frac{V_R}{\ln(1 - P_{V_R})}$$

Per tenere conto dei fattori locali del sito, l'accelerazione orizzontale massima attesa al sito è valutata con la relazione (DM 14/01/2008):

$$a_{\max} = S_s \cdot S_T \cdot \left(\frac{a_g}{g}\right)$$

dove:

a_g è l'accelerazione orizzontale massima attesa su sito di riferimento rigido

S_S è il fattore di amplificazione stratigrafica del terreno, funzione della categoria del sottosuolo di fondazione e dei parametri sismici F_0 e a_g/g (Tabella 32V del DM 14/01/2008);

S_T è il fattore di amplificazione che tiene conto delle condizioni topografiche, il cui valore dipende dalla categoria topografica e dall'ubicazione dell'opera (Tabella 32VI del DM 14/01/2008)

I valori delle grandezze necessarie per la definizione dell'azione sismica per le opere d'imbocco sono riassunti nella seguente tabella:

	Imbocco F3
	Strutture di sostegno
Coord geografiche	41°07'01.1''N 15°01'28.3"E
Stato limite	SLV
T_R	332
a_g/g	0.225
F_0	2.287
Categoria sottosuolo	C
S_S	1.392
Categoria topografica	T1
S_T	1
a_{max}/g	0.313

Tabella 3 – Parametri per la definizione dell'azione sismica di progetto

8 CARATTERISTICHE DEI MATERIALI STRUTTURALI

Si riportano di seguito le principali caratteristiche dei diversi materiali impiegati nelle opere in progetto, con l'indicazione dei valori di resistenza e deformabilità adottati nelle verifiche, nel rispetto delle indicazioni del DM 14/01/2008 e della "Specifica per la progettazione geotecnica delle opere civili ferroviarie" RFI DTC INC CS SP IFS 001 A.

Nelle verifiche di resistenza, a favore di sicurezza, viene sempre considerato un calcestruzzo di classe di resistenza C25/30.

Per la completa e puntuale definizione delle caratteristiche dei materiali previsti per la realizzazione dell'opera si rimanda all'elaborato specifico.

Strutture di sostegno provvisionali

Calcestruzzo	
Classe di resistenza	C25/30
Resistenza di progetto a compressione a 28 giorni	$f_{cd} = 0.85\ f_{ck}/1.5 = 14.17$ MPa
Modulo elastico a 28 giorni	$E_{cm} = 22 * (f_{cm}/10)^{0.3} = 31475$ MPa

Acciaio per tubi e profilati	
Tipo	S 275 JR
Tensione di snervamento caratteristica	$f_{yk} \geq 275$ MPa
Tensione di rottura caratteristica	$f_{tk} \geq 430$ MPa
Tensione di snervamento di calcolo	cfr 4.2.4 a 4.2.9 del DM 14/01/08

Acciaio armonico per tiranti	
Tipo	Trefoli da 0,6''
Tensione di rottura caratteristica	$f_{ptk} \geq 1860$ MPa
Tensione elastica all'1% di deformazione	$f_{p(1)k} \geq 1670$ MPa

9 CRITERI DI VERIFICA DELLE OPERE

Le verifiche sono state condotte in accordo con le prescrizioni e le indicazioni del DM 14/01/2008 e della Circolare n617/09.

9.1 OPERE DI SOSTEGNO

9.1.1 Azioni

Le azioni considerate per la verifica delle strutture di sostegno dell'imbocco sono le seguenti:

- **azioni permanenti strutturali**: peso proprio degli elementi strutturali, spinta del terreno a monte e a valle dell'opera
- **azioni variabili**: carico variabile sul piano campagna a monte della struttura di sostegno, Q_{1M}, ove presente, atto a schematizzare nella fase costruttiva l'eventuale presenza di sovraccarichi di varia natura connessi alla realizzazione delle opere
- **azione sismica**: l'accelerazione orizzontale massima attesa al suolo è definita nel paragrafo 7.4. Come detto in precedenza, poiché per le opere di sostegno provvisionali degli imbocchi è prevista una vita inferiore ai 2 anni, queste non verranno verificate nei confronti del sisma.

Sulla base della definizione dei carichi di cui sopra, in accordo a quanto prescritto dal DM 14/01/2008, si considera la sola combinnazione fondamentale per le verifiche di stati limite ultimi e di esercizio in condizioni statiche.

9.1.2 Approcci progettuali e metodi di verifica

Le verifiche delle strutture di sostegno sono state condotte nei riguardi dei seguenti stati limite ultimi (SLU):

- collasso del complesso opera-terreno;
- instabilità globale dell'insieme terreno-opera;
- sfilamento di uno o più ancoraggi;
- raggiungimento della resistenza in uno o più ancoraggi,
- raggiungimento della resistenza degli elementi strutturali

Come prescritto dal DM 14/01/2008 per le strutture di sostegno flessibili, è stato adottato l'Approccio Progettuale 1 con le due combinazioni di coefficienti parziali (tabelle 62I, 62II e 65I del DM 14/01/2008):

- combinazione 1: A1 + M1 + R1
- combinazione 2: A2 + M2 + R1

Il dimensionamento geotecnico dell'opera è stato condotto con la verifica di stati limite ultimi GEO, applicando la Combinazione 2 (A2+M2+R1) Per le verifiche di stati limite ultimi STR l'analisi è stata condotta la combinazione 1 (A1+M1+R1), applicando i coefficienti parziali A1 (γ = 13) all'effetto delle azioni A tale scopo, nelle analisi, i valori caratteristici dei carichi variabili sfavorevoli sono stati amplificati di un coefficiente pari a 1.5/1.3= 115

Il corretto dimensionamento nei confronti degli SLU assicura che gli spostamenti dell'opera siano compatibili con le esigenze di funzionalità della stessa; pertanto, trattandosi di opere provvisionali, in assenza di fabbricati o altre opere da salvaguardare a ridosso delle stesse, non si ritengono necessarie ulteriori valutazioni di verifica nei confronti degli SLE

Per le verifiche di stabilità globale è stato applicato l'Approccio 1- Combinazione 2 (A2+M2+R2 – tabb 62I, 62II e 68I del DM 14/01/2008).

I coefficienti di spinta attiva sono stati determinati attraverso la relazione di Mononobe (1929) e Okabe (1926).
I coefficienti di spinta passiva sono stati determinati attraverso la relazione di Lancellotta (2007).
L'angolo di attrito terreno/struttura, δ, è stato assunto pari a 2/3 della resistenza al taglio del terreno naturale.

Le verifiche sono state condotte mediante l'ausilio del codice di calcolo PARATIE (versione 2017) .

9.1.3 Stabilità globale

Le verifiche di sicurezza SLU sono state condotte secondo l'Approccio 1 - Combinazione 2 (A2+M2+R2), in cui A2 sono i coefficienti moltiplicativi delle azioni e M2 e R2 sono i coefficienti riduttivi dei parametri di resistenza dei materiali e della resistenza globale del sistema. Il rapporto tra R_d ed E_d dovrà risultare sempre maggiore o uguale a γ_R = 1.1 in condizioni statiche per assicurare che la verifica di sicurezza richiesta da normativa sia rispettata.

Per la valutazione della superficie di scorrimento critica (ed in generale di tutte le superfici di scorrimento) è stato utilizzato il metodo di Morgenstern & Price.

10 VERIFICA DELLE OPERE DELL'IMBOCCO FINESTRA F3

10.1 OPERE DI SOSTEGNO

Di seguito sono riportate la planimetria e la sviluppata delle delle opere di sostegno per l'imbocco della finestra F3.

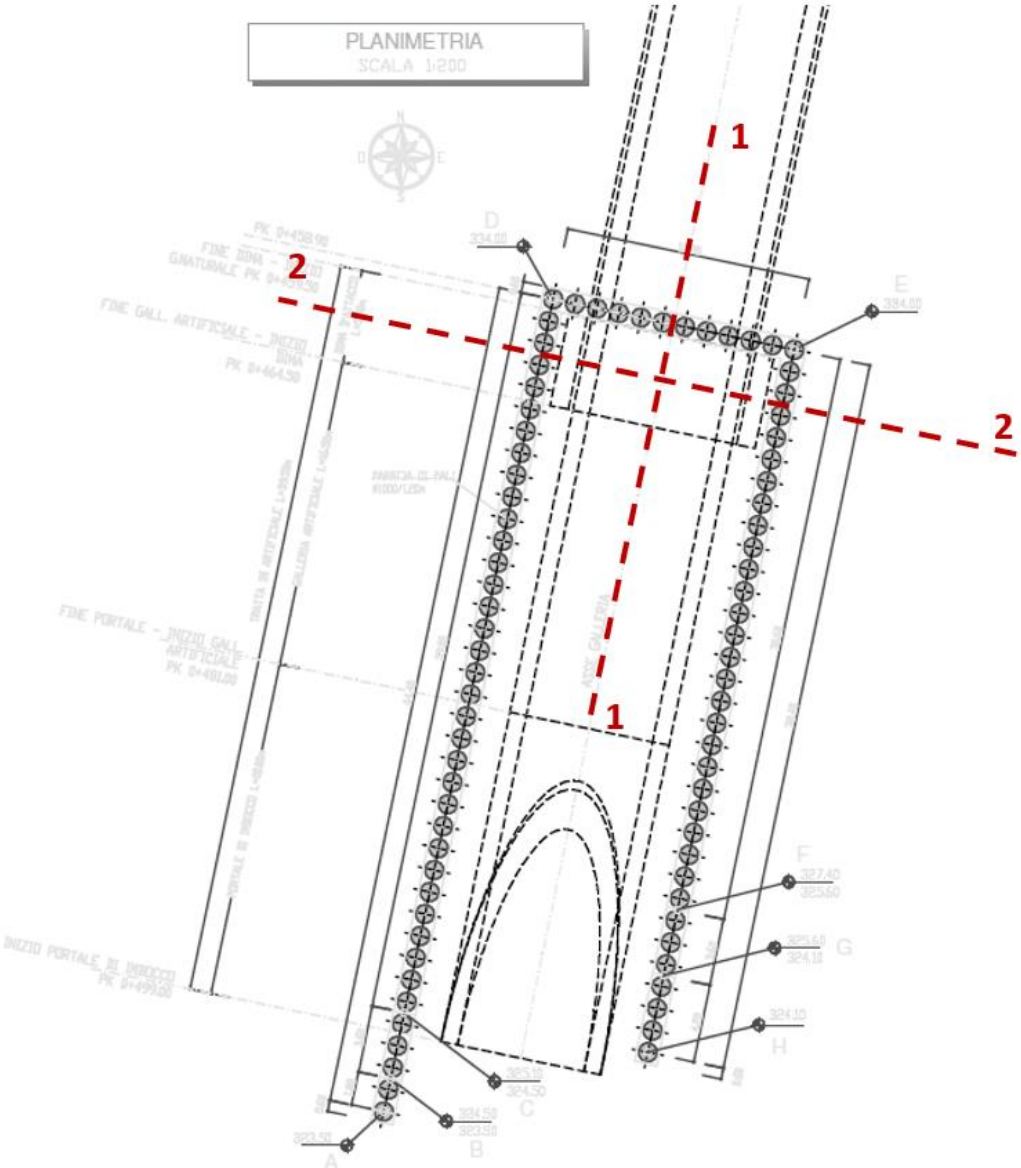


Fig. 18 – Planimetria opere di sostegno. Sezioni di riferimento riferimento

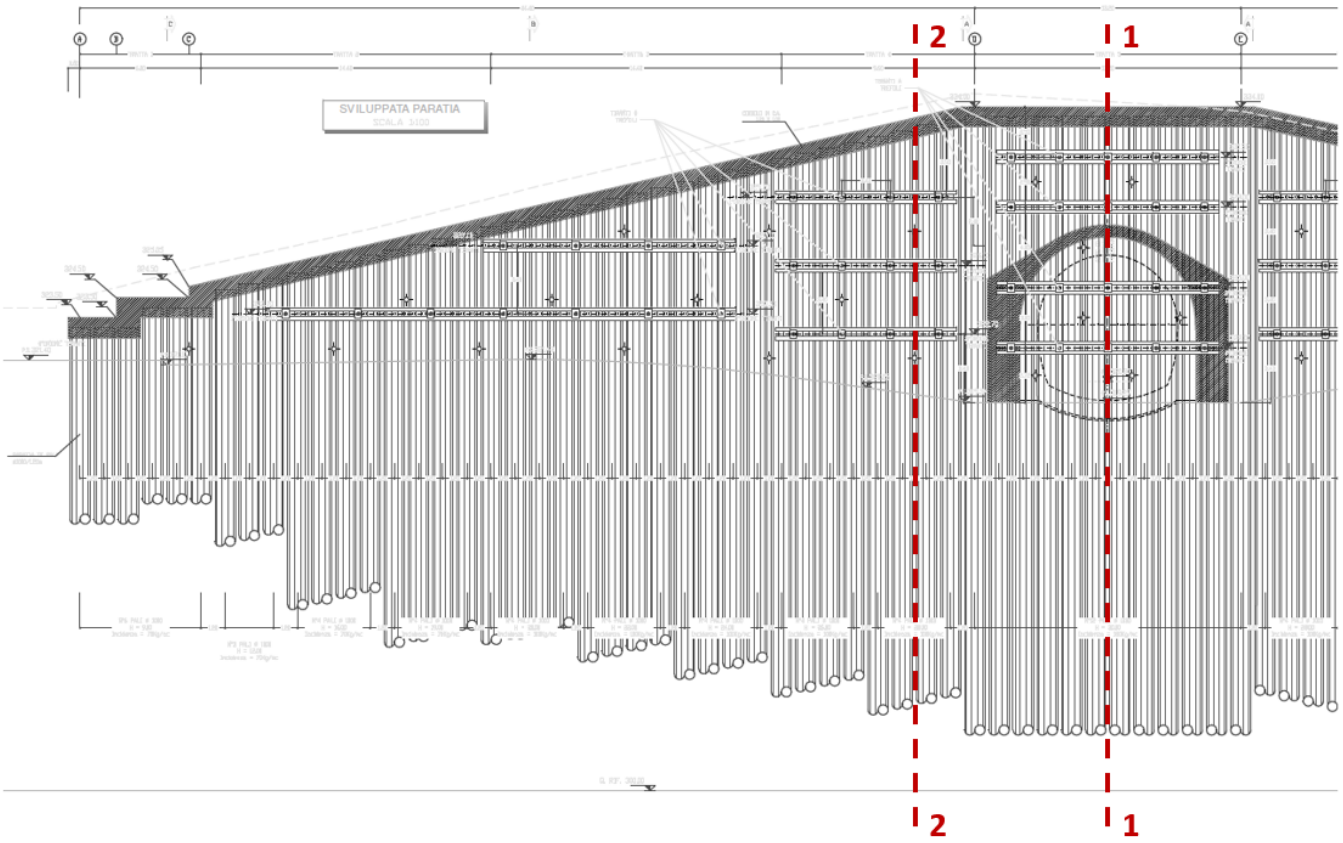


Fig. 19 – Sviluppata opere di sostegno. Sezioni di riferimento riferimento

Sono state verificate le sezioni con le condizioni di altezza libera di scavo e carico a monte più sfavorevole. In particolare in relazione all'imbocco della finestra F3 sono state verificate le seguenti sezioni:

- sez 1: paratia frontale: sezione longitudinale alla pk 0+460.379, rappresentativa della tratta T5.
- sez 2: paratia laterale: sezione trasversale alla pk 0+463.379, rappresentativa della tratta T4 e T6.

10.1.1 Sezione 1 – pk 0+460.379

La sezione fa riferimento alla zona di imbocco della galleria ed è sostenuto da quattro ordini di tirantature.
Sono di seguito descritte le principali caratteristiche della struttura e del modello geotecnico per le analisi di verifica. La geometria della struttura di sostegno e la stratigrafia sono illustrate nel modello di figura seguente.

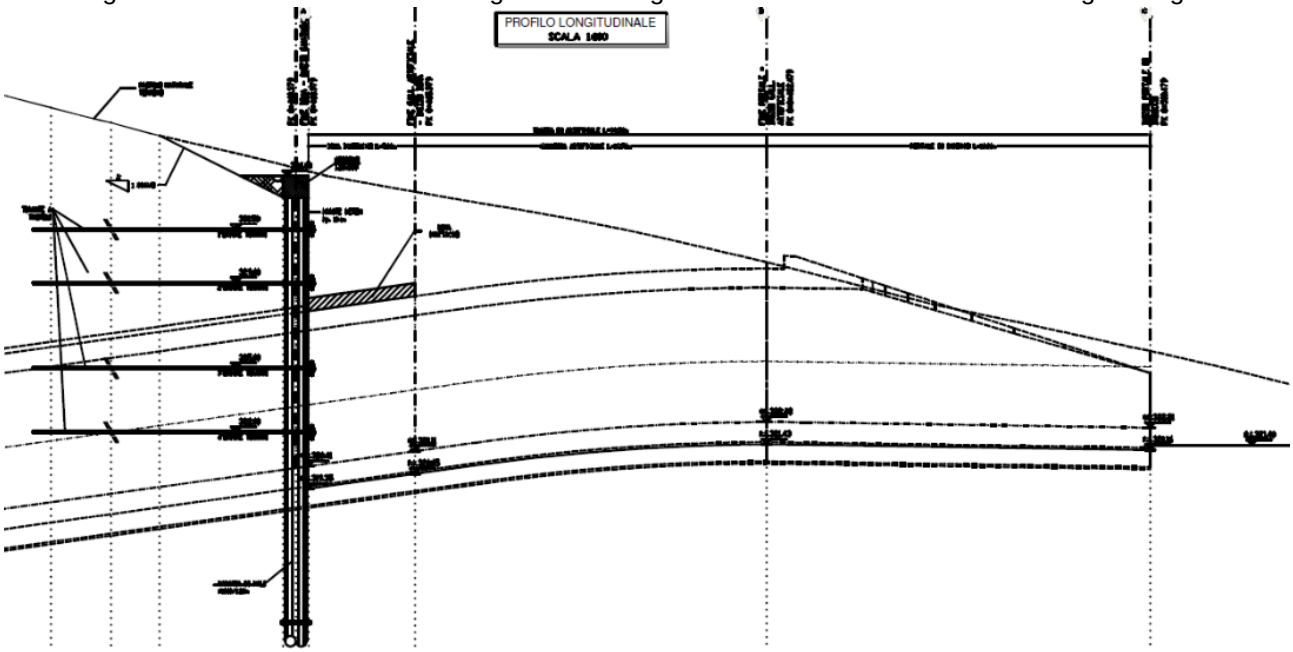


Fig. 20 – Sezione 1. Geometria di riferimento

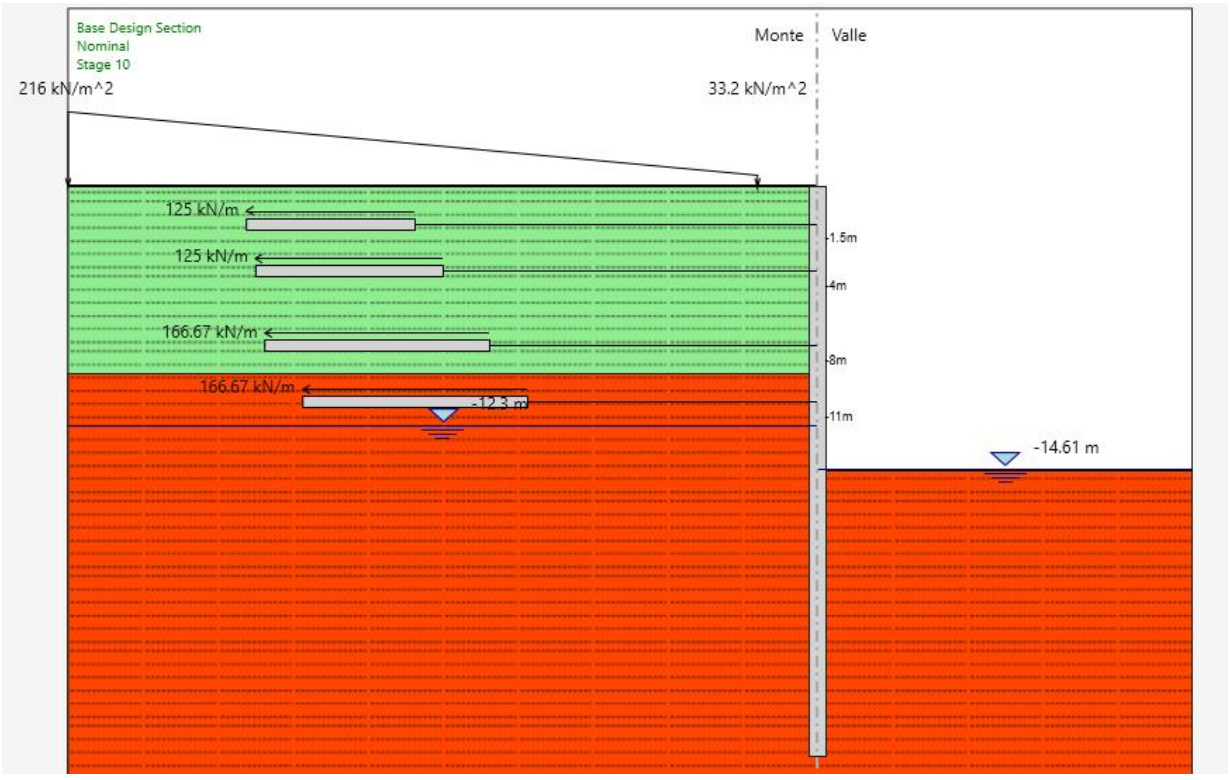


Fig. 21 – Sezione 1. Modello di calcolo - step finale di calcolo (fase 10)

La stratigrafia di riferimento presenta la seguente sequenza:

- BNA1b_1 da p.c. a 10.0m di profondità;
- BNA2_2 da 10.0m a 40.0m di profondità:

Tipologia struttura di sostegno	Paratia in pali ϕ 1000mm passo 1.2m
Altezza totale paratia	H_{tot} =30.5m (1/2cordolo 0.5m+pali L=30m)
Altezza libera paratia	H = 15.1m
Ordini di puntoni	-
Ordini di tiranti (n°)	4 ordini
Passo orizzontale tiranti	2.4m
Passo verticale dei tiranti	Variabile (2.5m – 4m – 3m)
Inclinazione iniziale del piano campagna a monte	13.9^0(schematizzato con sovraccarichi dal piano campagna)
Inclinazione iniziale del piano campagna a valle	0°
Sovraccarichi variabili a monte	-
Sovraccarichi variabili a valle	-

Tabella 4 – Sezione 1. Caratteristiche geometriche della sezione di calcolo

Terreno	Gruppo coeff. Parziali	Condizione	γ	c_d	φ'_d	δ	E'	E'$_{ur}$	k_o	K_a	K_p
			(kN/m^3)	(kPa)	(°)	(°)	(Mpa)	(Mpa)	(-)	(-)	(-)
BNA1b_1	M1	SLU	20	5	26.0	17.33	45	72	0.562	0.331	3.619
						-			-	-	-
	M2	SLU		4	21.3	14.21			0.637	0.403	2.773
						-			-	-	-
BNA2_2	M1	SLU	24	15	26.0	17.33	80	128	0.562	0.331	3.619
						-			-	-	-
	M2	SLU		12	21.3	14.21			0.637	0.403	2.773
						-			-	-	-

γ = peso dell'unità di volume
c'_d = coesione efficace (valore di calcolo)
φ'_d = angolo di resistenza al taglio (valore di calcolo)
δ = angolo d'attrito struttura/terreno
E'= modulo di Young
E'$_{ur}$ = modulo di Young (scarico/ricarico)
k_o= coefficiente di spinta a riposo
K_a= coefficiente di spinta attiva
K_p= coefficiente di resistenza passiva

Tabella 5 – Sezione 1. Parametri geotecnici di calcolo.

Il livello iniziale di falda è atteso a circa 5 m da p.c..

In ogni caso sono previsti drenaggi sistematici a tergo delle paratie, in modo da abbassare il livello idraulico con lo scavo, presentando un dislivello idraulico finale di circa 2.3 m.

L'analisi si è articolata nelle seguenti fasi:

- fase 1: geostatica;
- fase 2: scavo sino a – 2.5m dalla base del cordolo;
- fase 3: attivazione del primo ordine di tiranti;
- fase 4: scavo sino a – 5m dalla base del cordolo;
- fase 5: attivazione del secondo ordine di tiranti;
- fase 6: scavo sino a -9m dalla base del cordolo;
- fase 7: attivazione del terzo ordine di tiranti;
- fase 8: scavo sino a -12m dalla base del cordolo;
- fase 9: attivazione del quarto ordine di tiranti;
- fase 10: scavo fino a fondo scavo a -14.61m dalla base del cordolo.

10.1.1.1 Risultati delle analisi

I risultati delle analisi sono di seguito descritti in sintesi ed illustrati in maggior dettaglio nell'allegato pertinente.

	SLU GEO		SLU STR		SLE
	Statico	Sismico	Statico	Sismico	(=SLU STR statico)
Spostamento massimo (cm)	6.5		1.9		1.9
Momento massimo (kNm/m)	-	-	930 (-13m)		715 (-13m)
Taglio massimo (kN/m)	-	-	290 (-16.4m)		223 (-16.4m)
Spinta passiva mobilitata a valle (%)	82				59

Verifica del complesso opera-terreno

Per le verifiche di stabilità globale sono stati utilizzati i parametri abbattuti, in accordo a quanto riportato in precedenza per la condizione GEO.

Dato che le fasi di scavo riguardano un tempo limitato e inferiore ai 2 anni, si verifica la stabilità globale dell'opera solo in fase statica.

I coefficienti di sicurezza ottenuti relativamente alla stabilità globale sono riportati nella tabella seguente

Tipo di verifica	FS
Statica	1.134 > 1.10

Tabella 6 – Risultati verifica di stabilità globale. Fattore sicurezza minimo.

Il coefficiente di sicurezza minimo indicato è stato calcolato con il metodo di Morgenstern–Price.

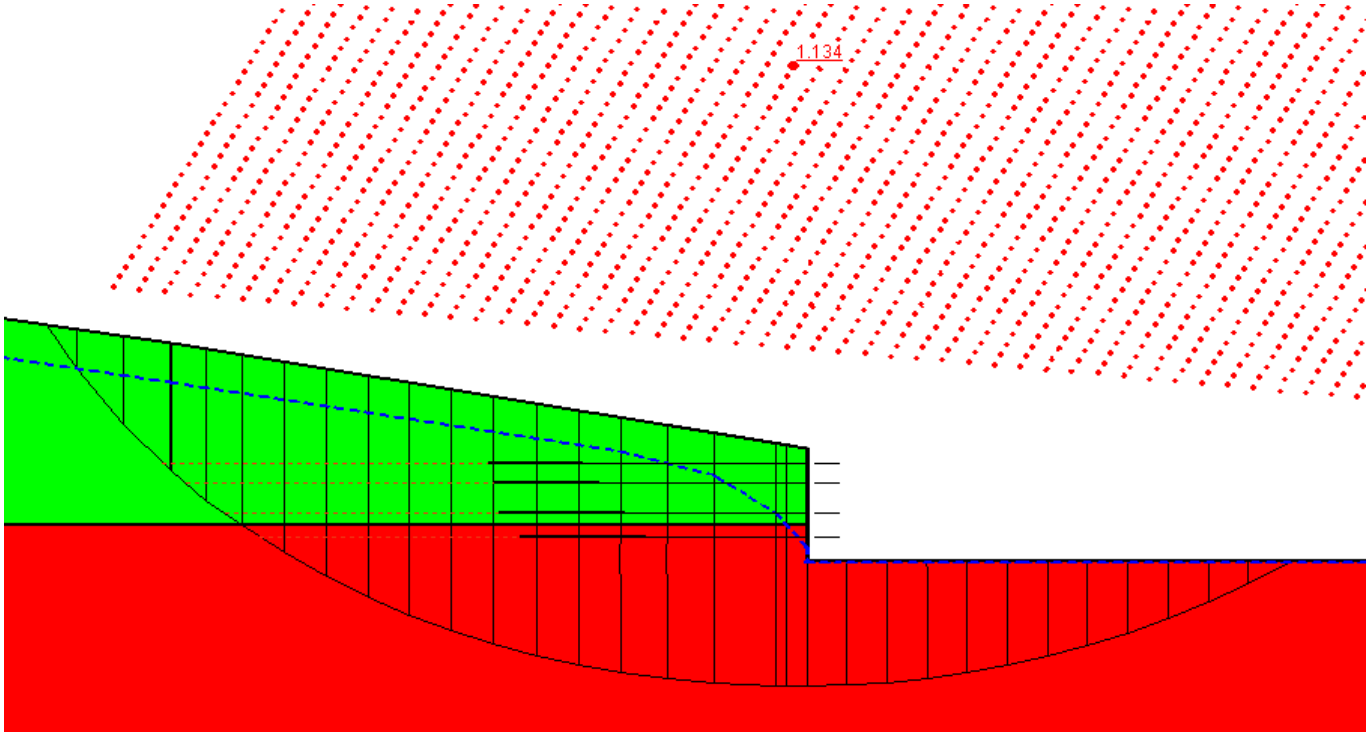


Fig. 22 – Sezione 1. Risultati verifica di stabilità globale. Superficie critica

Verifica della mobilizzazione della spinta passiva

Il grafico seguente riporta l'andamento della mobilizzazione della spinta passiva per la condizione GEO. Risulta visibile che la resistenza disponibile risulta superiore a quella mobilizzata, da cui la verifica della opera.

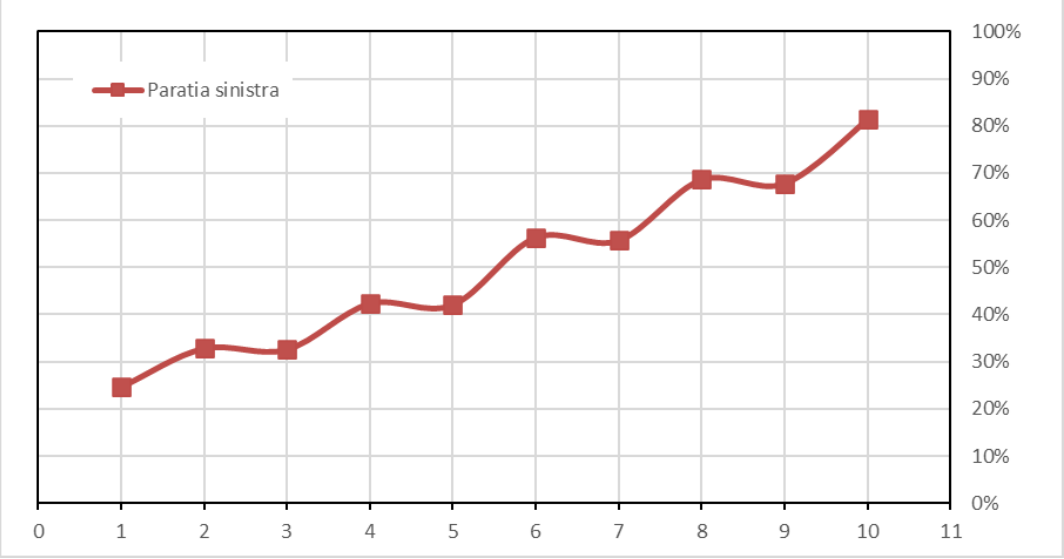


Fig. 23 – Sezione 1. Risultati mobilizzazione spinta passiva per la condizione A2+M2

Si evidenzia che la profondità di infissione dell'opera di sostegno garantisce uno spostamento limitato al piede.

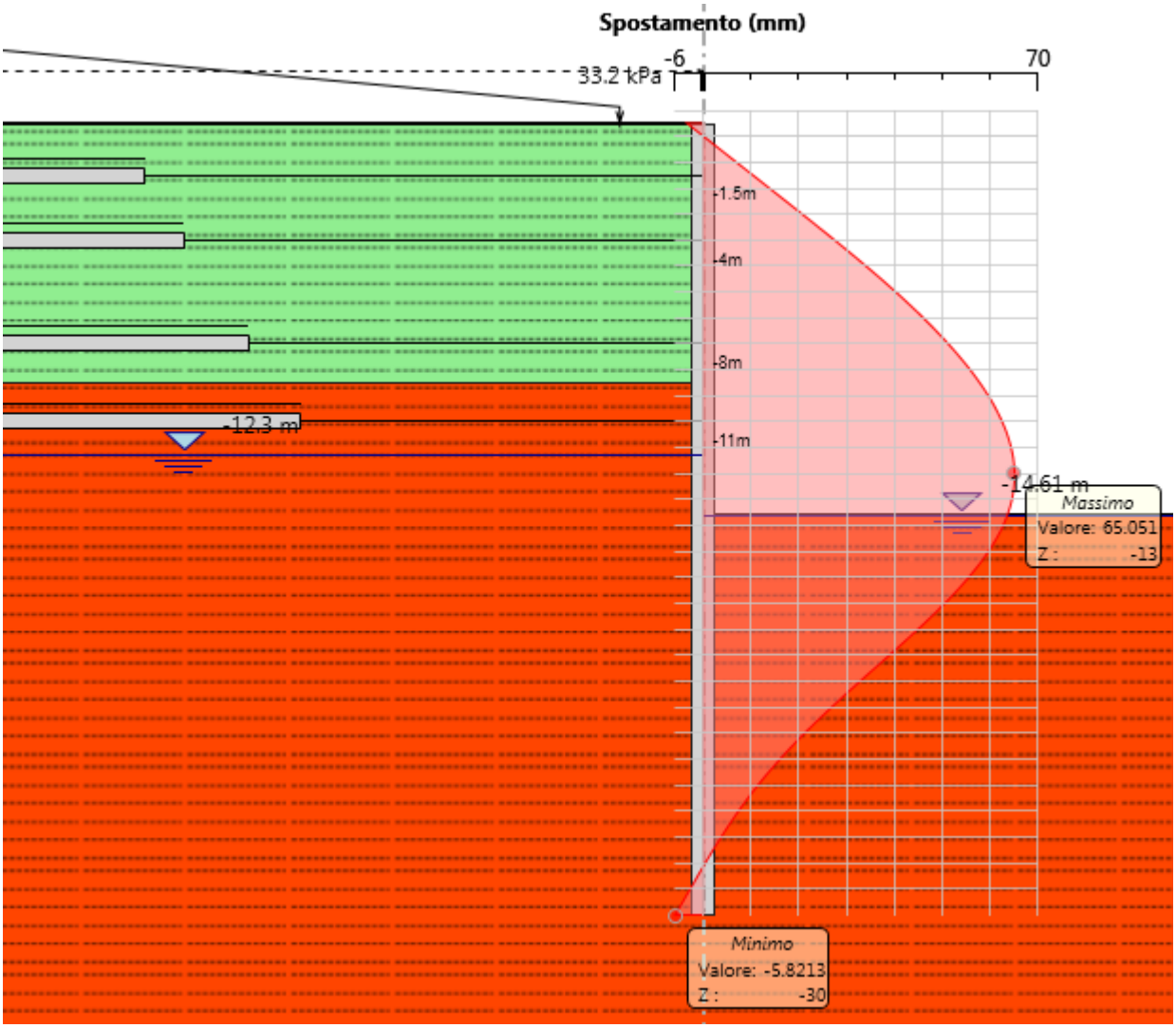


Fig. 24 – Inviluppo della deformata dell'opera (SLU) nei vari step di calcolo

Verifica collasso complesso opera- terreno

Per la verifica di collasso del complesso opera-terreno è stato definito un modello di calcolo all'interno del quale sono state imposte delle proprietà geomeccaniche dei terreni ridotte con i coefficienti parziali M2. Nel modello sono state imposte le stesse fasi esecutive riportate precedentemente. La convergenza di tale calcolo indica che la lunghezza assunta per l'opera di sostegno è sufficiente per non innescare un movimento di rotazione intorno al piede.

Strutture di supporto: tiranti

Riassunto caratteristiche

Ordine tiranti	Passo [m]	n. trefoli [kN/m]	Inclinazione [°]	Lunghezza libera [m]	Lunghezza ancoraggio [m]	Pretiro [kN]
1	2.4	5	0	21.5	9	300
2	2.4	5	0	20	10	300
3	2.4	6	0	17.5	12	400
4	2.4	6	0	15.5	12	400

Tabella 7 – Sezione 1. Caratteristiche tiranti

Verifica a sfilamento del bulbo di ancoraggio

Ordine tiranti	τ_{lim} [kPa]	α [-]	D [m]	l_b [m]	$\xi\alpha$ [-]	R_{ak} [kN]
1	200	1.2	0.16	9	1.8	603
2	200	1.2	0.16	10	1.8	670
3	200	1.2	0.19	12	1.8	955
4	200	1.2	0.19	12	1.8	955

Tabella 8 – Sezione 1. Resistenza a sfilamento tiranti

dove:

- τ_{lim} = tensione di aderenza laterale limite fondazione-terreno;
- α= coefficiente di incremento del diametro di perforazione D dei tiranti che tiene conto della metodologia di iniezione e della natura dei terreni interessati;
- D= diametro di perforazione;
- l_b = lunghezza bulbo di ancoraggio;
- ξ_a= coefficiente di indagine.

Combinazione	Ordine tiranti	Passo [m]	e_k [kN/m]	P_d [kN]	R_{ak} [kN]	R_{ad} [kN]	Verifica
STR Statico	1	2.4	142	397	603	503	$R_{ad}>P_d$
STR Statico	2	2.4	164	429	670	559	$R_{ad}>P_d$
STR Statico	3	2.4	239	608	955	796	$R_{ad}>P_d$
STR Statico	4	2.4	230	609	955	796	$R_{ad}>P_d$

Tabella 9 – Sezione 1. Verifica sfilamento tiranti - fase statica

dove:

- e_k =tiro per metro di profondità
- P_d = e_k moltiplicato per l'interasse orizzontale tra i tiranti e il coefficiente amplificativo per le azioni definito da normativa (1.3 statico)
- R_{ad}=resistenza di sfilamento di progetto
- $R_{a,d} = R_{ak} / \gamma_{Ra.p}$
- con $\gamma_{Ra.p} = 1.2$.
- R_{ak}=resistenza caratteristica scelta il minore tra i valori derivanti dall'applicazione dei coefficienti di correlazione al valor medio e al valor minimo delle resistenza $R_{a,c}$ ottenute dal calcolo come indicato di seguito:

$$R_{ak} = \min\left(\frac{(R_{a,c})_{medio}}{\xi_{a3}}; \frac{(R_{a,c})_{min}}{\xi_{a4}}\right)$$

Verifica della resistenza dell'armatura e della gerarchia delle resistenze

Verifica di resistenza dell'armatura	
f_{yk} (trefoli)	1670 Mpa
Coefficiente di sicurezza sul materiale	1.15
Area singolo trefolo (mm^2)	139 mm^2

Tabella 10 – Sezione 1. Verifica armatura tiranti. Caratteristiche trefoli

Ordine tiranti	**n.ro trefoli**	**R_{pk} [Kn]**	**P_d [Kn]**	**Verifica**	**R_{ak} [Kn]**	**Verifica**
1	5	1009	397	**$R_{pk}>P_d$**	603	**$R_{pk}>R_{ak}$**
2	5	1009	429	**$R_{pk}>P_d$**	670	**$R_{pk}>R_{ak}$**
3	6	1211	608	**$R_{pk}>P_d$**	955	**$R_{pk}>R_{ak}$**
4	6	1211	609	**$R_{pk}>P_d$**	955	**$R_{pk}>R_{ak}$**

Tabella 11 – Sezione 1. Verifica armatura tiranti. Condizione statica

La verifica di resistenza dell'armatura è soddisfatta poiché $P_d < R_{pk}$.

La verifica della gerarchia delle resistenze è soddisfatta poiché la resistenza caratteristica limite di snervamento del tratto libero è maggiore della resistenza a sfilamento della fondazione del tirante $R_{pk} > R_{ak}$.

Strutture di sostegno: pali

Nelle verifiche si considerano le sollecitazioni massime sulla struttura secondo le varie analisi.

Nella verifica a presso-flessione si è considerato il peso proprio del palo valutato alla corrispondente quota di verifica.

Verifica a presso-flessione

GABBIA SUPERIORE

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	M(kNm/m)	M_{sd} (kNm)	N_{sd} (kN)	Armatura	M_{RD} (kNm)
-8.4	393	393*1.2*1.3=613	175	20ϕ24	1330

Tabella 12 – Sezione 1 Verifica strutturale a pressoflessione. Condizione statica

GABBIA MEDIA

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	M(kNm/m)	M_{sd} (kNm)	N_{sd} (kN)	Armatura	M_{RD} (kNm)
-13	716	716*1.2*1.3=1117	265	20ϕ24	1369

Tabella 13 – Sezione 1 Verifica strutturale a pressoflessione. Condizione statica

GABBIA INFERIORE

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	M(kNm/m)	M_{sd} (kNm)	N_{sd} (kN)	Armatura	M_{RD} (kNm)
-22.4	330	330*1.2*1.3=516	450	20ϕ24	1431

Tabella 14 – Sezione 1 Verifica strutturale a pressoflessione. Condizione statica

La verifica è soddisfatta in quanto $M_{sd} < M_{rd}$.

Verifica al taglio

L'armatura al taglio sarà costituita una spirale ∅16 passo 300 mm.

GABBIA SUPERIORE

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	T(kN)	T_{SLU} (kN)	N_{SLU} (kN)	Armatura	V_{RD} (kN)
-4	148	148*1.2*1.3=231	88	ϕ16/30cm	524

Tabella 15 – Sezione 1 Verifica strutturale a taglio. Condizione statica

GABBIA MEDIA

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	T(kN)	T_{SLU} (kN)	N_{SLU} (kN)	Armatura	V_{RD} (kN)
-16.4	223	223*1.2*1.3=348	332	ϕ16/30cm	524

Tabella 16 – Sezione 1 Verifica strutturale a pressoflessione. Condizione statica

GABBIA INFERIORE

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	T(kN)	T_{SLU} (kN)	N_{SLU} (kN)	Armatura	V_{RD} (kN)
-18	191	191*1.2*1.3=297	363	ϕ16/30cm	524

Tabella 17 – Sezione 1 Verifica strutturale a pressoflessione. Condizione statica

La verifica è soddisfatta in quanto $V_{sd} < V_{rd}$.

Il valore medio dell'incidenza dell'armatura risulta essere 120 kg/m^3.

Strutture di supporto: travi di ripartizione

Le caratteristiche della sollecitazione sono determinate modellando gli elementi strutturali oggetto di verifica alla stregua di travi continue su più appoggi; la luce delle campate è data dall'interasse dei tiranti ed il carico, uniformemente distribuito, è determinato ripartendo le reazioni offerte dagli ancoraggi, ottenute dal modello di calcolo dell'opera di sostegno. Definito P_d il massimo tiro di calcolo corrispondente all'i-esimo ordine di tiranti, il suddetto carico è così calcolato: $q_{sd}=P_d/i$ (con i interasse tiranti). Secondo tale modello le massime azioni di calcolo sull'elemento strutturale saranno calcolate, considerando metà del carico su ciascuna trave accoppiata:

$$M_{sd} = \left(\frac{1}{10}\, q_{sd}\, l^2\right) / 2 \qquad \text{e} \qquad V_{sd} = (0.5\, q_{sd}\, l) / 2$$

Tutte le verifiche sono soddisfatte poiché il momento sollecitante è minore del momento resistente, $M_{sd} < M_{c,Rd}$.

Caratteristiche trave ripartizione		
f_{yk} trave (MPa)	275	S275
Coefficiente di sicurezza γ_{M0}	1.05	-
$W_{plastico}$ travi (cm^3)	481	profilati HEB180(x2)

Tabella 18 – Sezione 1. Verifica travi ripartizione. Caratteristiche profilati

Ordine tiranti	P_d [kN]	i [m]	α [°]	p [kN/m]	M_{sd} [kNm]	$M_{c,Rd}$ [kNm]	Verifica
1	397	2.4	0	127	47,6	126.0	$M_{c,Rd}>M_{sd}$
2	429	2.4	0	138	51,5	126.0	$M_{c,Rd}>M_{sd}$
3	608	2.4	0	195	73,0	126.0	$M_{c,Rd}>M_{sd}$
4	609	2.4	0	195	73,1	126.0	$M_{c,Rd}>M_{sd}$

Tabella 19 – Sezione 1. Verifica travi ripartizione. Condizione statica

Ordine tiranti	P_d [kN]	i [m]	α [°]	p [kN/m]	Vsd [kN]	Vrd [kN]	Verifica
1	397	2.4	0	127	99,2	306.8	$V_{Rd}>V_{sd}$
2	429	2.4	0	138	107,3	306.8	$V_{Rd}>V_{sd}$
3	608	2.4	0	195	152,1	306.8	$V_{Rd}>V_{sd}$
4	609	2.4	0	195	152,3	306.8	$V_{Rd}>V_{sd}$

Tabella 20 – Sezione 1. Verifica travi ripartizione. Condizione statica

Verifiche HYD

Dato che il piede paratia si innesta in un terreno coesivo, con permeabilità media inferiore a 10-6m/s, non si attiva un meccanismo di filtrazione tra monte e valle e non è quindi necessario eseguire la verifica a sifonamento. Cautelativamente, si riporta comunque la verifica.

La verifica idraulica viene condotta in accordo alla seguente formulazione:

$$u_{d,dstb} \leq \sigma_{d,stb}$$

$$\gamma_{G,dstb} * u_{k,dstb} \leq \gamma_{G,stb} * \sigma_{k,stb}$$

L'applicazione delle formulazioni al livello del fondo della paratia fornisce i seguenti risultati:

1.3*10*(30.5-12.8) ≤ 0.9*20*(30.5-15.11) 230.1 kPa < 277 kPa

La disuguaglianza è verificata e quindi la verifica risulta soddisfatta.

10.1.2 Sezione 2 –pk 0+463.379

La sezione fa riferimento alla paratia laterale ed è sostenuta attraverso tre ordini di tirantature.

Sono di seguito descritte le principali caratteristiche della struttura e del modello geotecnico per le analisi di verifica. La geometria della struttura di sostegno e la stratigrafia sono illustrate nel modello di figura seguente.

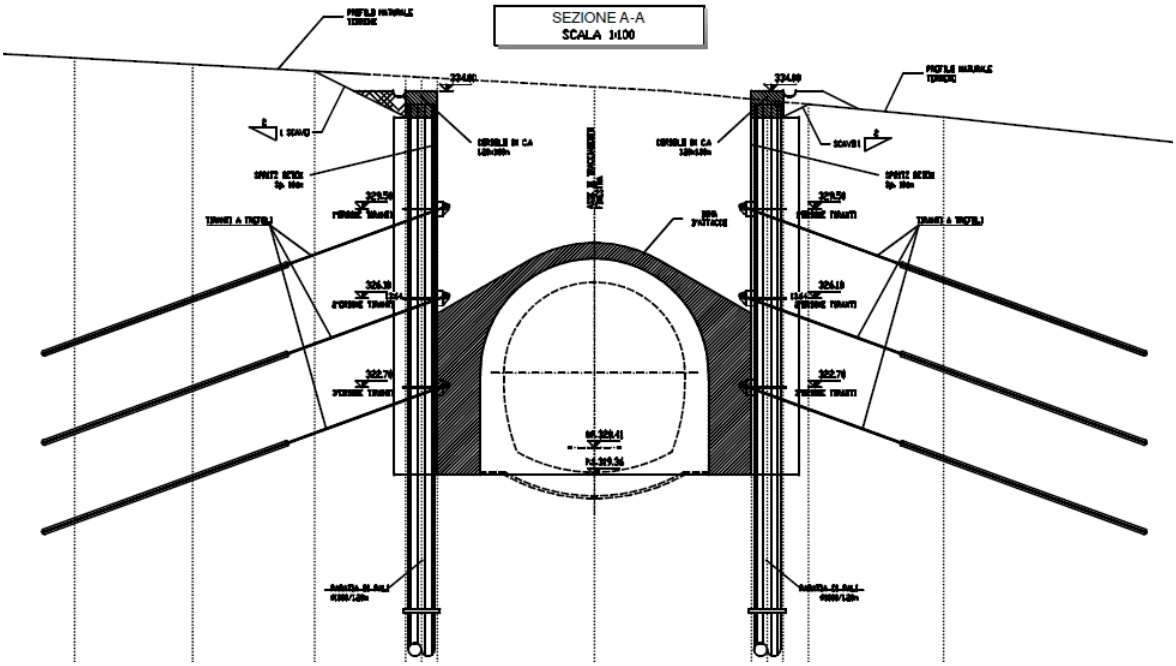


Fig. 25 – Sezione 2. Geometria di riferimento

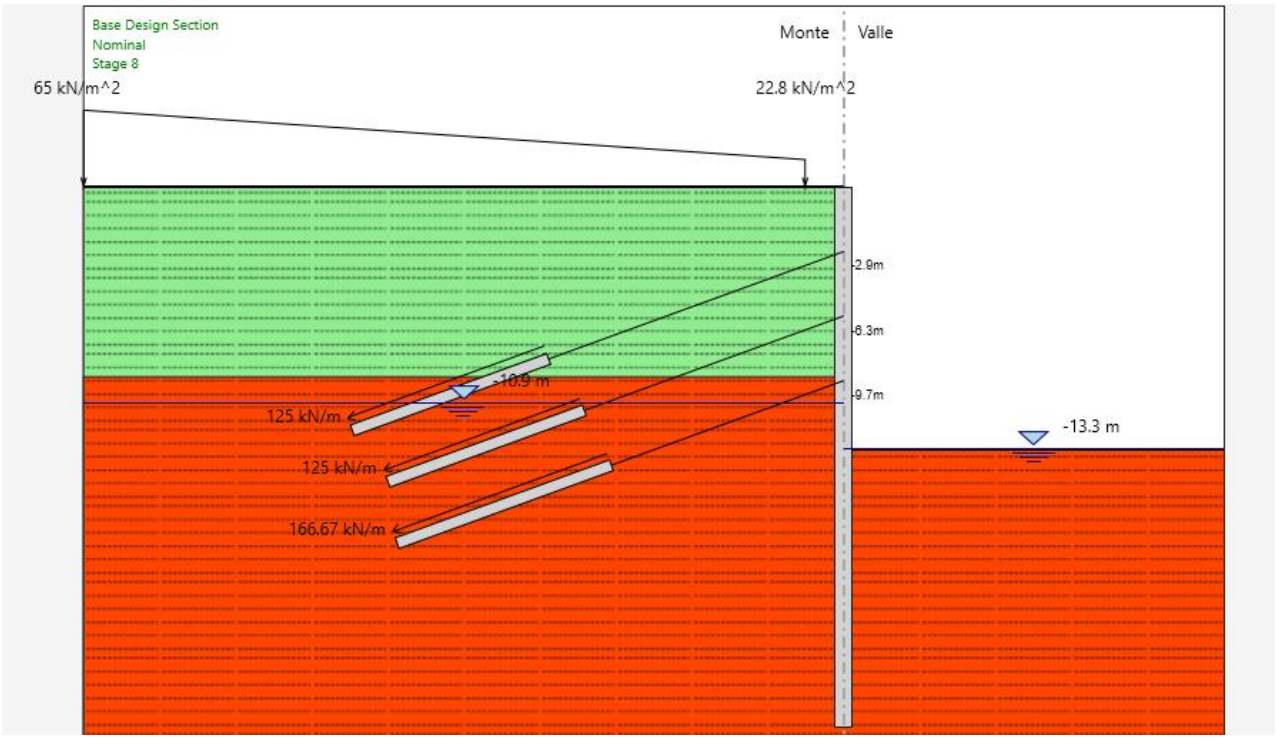


Fig. 26 – Sezione 2. Modello di calcolo - step finale di calcolo (fase 8)

La stratigrafia di riferimento presenta la seguente sequenza:

- BNA1b_1 da p.c. a 10.0m di profondità;
- BNA2_2 da 10.0m a 40.0m di profondità.

Tipologia struttura di sostegno	Paratia in pali ϕ 1000mm passo 1.2m
Altezza totale paratia	H_{tot} = 28.5m (1/2cordolo 0.5m + pali L=28m)
Altezza libera paratia	H = 13.8m
Ordini di puntoni	-
Ordini di tiranti (n°)	3 ordini
Passo orizzontale tiranti	2.4m
Passo verticale dei tiranti	3.4m
Inclinazione iniziale del piano campagna a monte	3.2^0 (schematizzato con sovraccarichi dal piano campagna)
Inclinazione iniziale del piano campagna a valle	0°
Sovraccarichi variabili a monte	-
Sovraccarichi variabili a valle	-

Tabella 21 – Sezione 2. Caratteristiche geometriche della sezione di calcolo

Terreno	***Gruppo coeff. Parziali***	***Condizione***	***γ***	***c_d***	***φ'_d***	***δ***	***E'***	**E'_{ur}**	**k_o**	**K_a**	**K_p**
			(kN/m³)	*(kPa)*	*(°)*	*(°)*	*(Mpa)*	(Mpa)	(-)	(-)	(-)
BNA1b_1	M1	SLU	20	5	26.0	17.33	45	72	0.562	0.331	3.619
		-				-			-	-	-
	M2	SLU		4	21.3	14.21			0.637	0.403	2.773
		-				-			-	-	-
BNA2_2	M1	SLU	24	15	26.0	17.33	80	128	0.562	0.331	3.619
		-				-			-	-	-
	M2	SLU		12	21.3	14.21			0.637	0.403	2.773
		-				-			-	-	-

γ = peso dell'unità di volume
c'_d = coesione efficace (valore di calcolo)

φ'_d = angolo di resistenza al taglio (valore di calcolo)
δ = angolo d'attrito struttura/terreno
E'= modulo di Young
E'_{ur} = modulo di Young (scarico/ricarico)
k_o= coefficiente di spinta a riposo
K_a= coefficiente di spinta attiva
K_p= coefficiente di resistenza passiva

Tabella 22 – Sezione 2. Parametri geotecnici di calcolo.

Il livello iniziale di falda è atteso a circa 5 m da p.c.

In ogni caso sono previsti drenaggi sistematici a tergo delle paratie, in modo da abbassare il livello idraulico con lo scavo, presentando un dislivello idraulico finale di circa 2.4m.

L'analisi si è articolata nelle seguenti fasi:

- fase 1: geostatica;
- fase 2: scavo sino a – 3.9m dalla base del cordolo;
- fase 3: attivazione del primo ordine di tiranti;
- fase 4: scavo sino a – 7.3m dalla base del cordolo;
- fase 5: attivazione del secondo ordine di tiranti;
- fase 6: scavo sino a – 10.7m dalla base del cordolo;
- fase 7: attivazione del terzo ordine di tiranti;
- fase 8: scavo a fondo scavo fino a -13.3m.

10.1.2.1 Risultati delle analisi

I risultati delle analisi sono di seguito descritti in sintesi ed illustrati in maggior dettaglio nell'allegato pertinente.

PARATIA SINISTRA	SLU GEO		SLU STR		SLE
	Statico	Sismico	Statico	Sismico	(=SLU STR statico)
Spostamento massimo (cm)	6.8		2.0		2.0
Momento massimo (kNm/m)	-	-	676 (-11.5)		520 (-11.5)
Taglio massimo (kN/m)	-	-	255 (-14.7)		196 (-14.7)
Spinta passiva mobilitata a valle (%)	78		56		56

Verifica del complesso opera-terreno

Per le verifiche di stabilità globale sono stati utilizzati i parametri abbattuti, in accordo a quanto riportato in precedenza per la condizione GEO.

Dato che le fasi di scavo riguardano un tempo limitato e inferiore ai 2 anni, si verifica la stabilità globale dell'opera solo in fase statica.

I coefficienti di sicurezza ottenuti relativamente alla stabilità globale sono riportati nella tabella seguente

Tipo di verifica	FS
Statica	1.387> 1.10

Tabella 23 – Risultati verifica di stabilità globale. Fattore sicurezza minimo.

Il coefficiente di sicurezza minimo indicato è stato calcolato con il metodo di Morgenstern–Price.

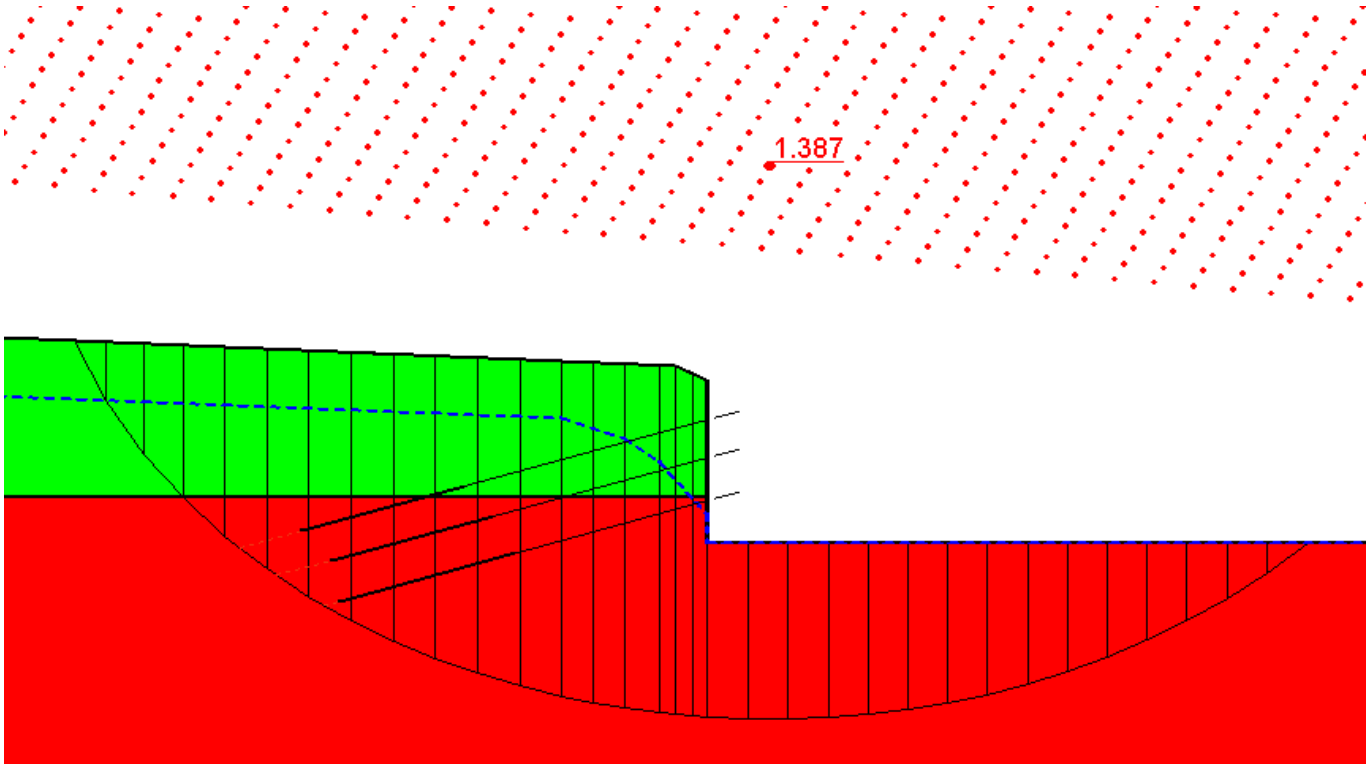


Fig. 27 – Sezione 2. Risultati verifica di stabilità globale. Superficie critica

Verifica della mobilizzazione della spinta passiva

Il grafico seguente riporta l'andamento della mobilizzazione della spinta passiva per la condizione GEO. Risulta visibile che la resistenza disponibile risulta superiore a quella mobilizzata, da cui la verifica della opera.

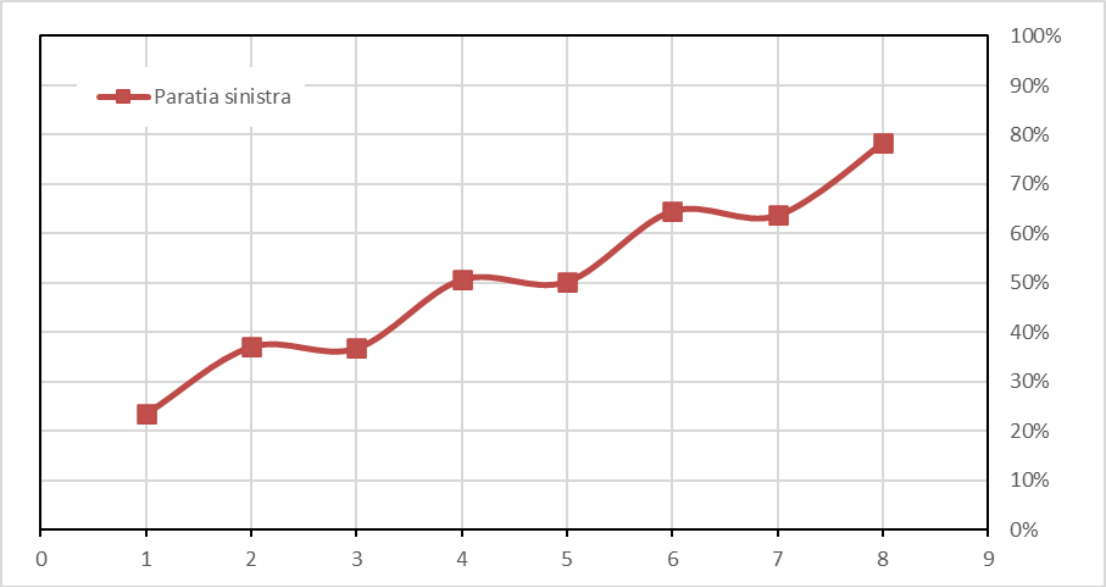


Fig. 28 – Sezione 2. Risultati mobilizzazione spinta passiva per la condizione A2+M2

Si evidenzia che la profondità di infissione dell'opera di sostegno garantisce uno spostamento limitato al piede.

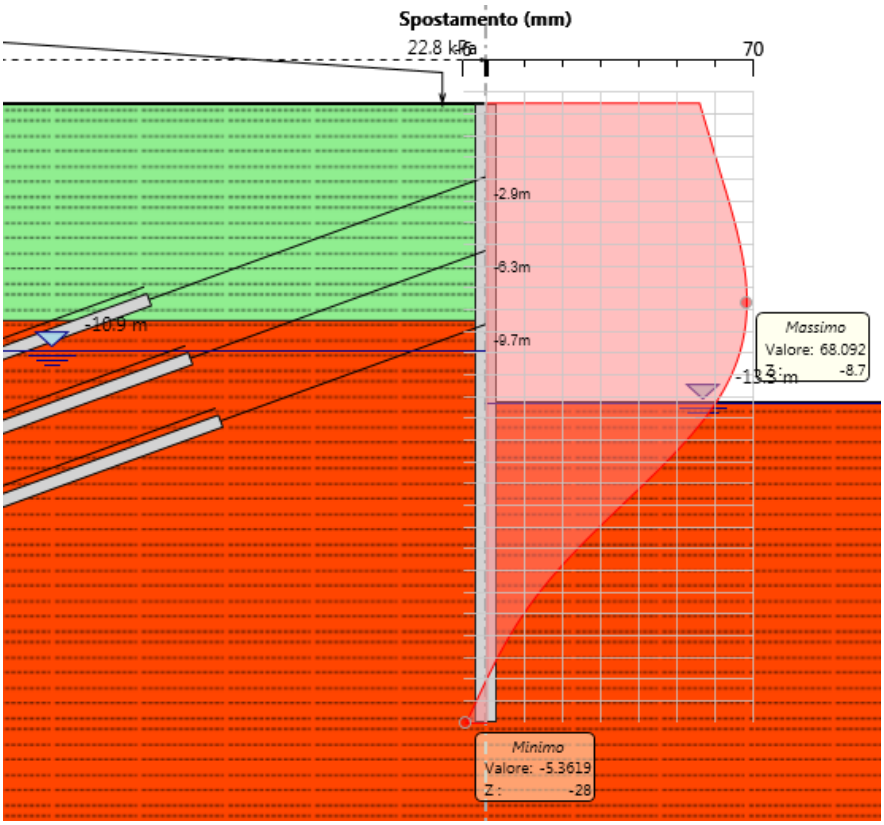


Fig. 29 – Inviluppo della deformata dell'opera (SLU) nei vari step di calcolo

Verifica collasso complesso opera- terreno

Per la verifica di collasso del complesso opera-terreno è stato definito un modello di calcolo all'interno del quale sono state imposte delle proprietà geomeccaniche dei terreni ridotte con i coefficienti parziali M2. Nel modello sono state imposte le stesse fasi esecutive riportate precedentemente. La convergenza di tale calcolo indica che la lunghezza assunta per l'opera di sosetgno è sufficiente per non innescare un movimento di rotazione intorno al piede.

Strutture di supporto: tiranti

Riassunto caratteristiche

Ordine tiranti	Passo [m]	n. trefoli [kN/m]	Inclinazione [°]	Lunghezza libera [m]	Lunghezza ancoraggio [m]	Pretiro [kN]
1	2.4	5	20	16.5	11	300
2	2.4	5	20	14.5	11	300
3	2.4	5	20	13	12	400

Tabella 24 – Sezione 2. Caratteristiche tiranti

Verifica a sfilamento del bulbo di ancoraggio

Ordine tiranti	τ_{lim} [kPa]	α [-]	D [m]	l_b [m]	$\xi\alpha$ [-]	R_{ak} [kN]
1	200	1.2	0.16	11	1.8	737
2	200	1.2	0.16	11	1.8	737
3	200	1.2	0.16	12	1.8	804

Tabella 25 – Sezione 2. Resistenza a sfilamento tiranti

dove:

- τ_{lim} = tensione di aderenza laterale limite fondazione-terreno;
- α= coefficiente di incremento del diametro di perforazione D dei tiranti che tiene conto della metodologia di iniezione e della natura dei terreni interessati;
- D= diametro di perforazione;
- l_b = lunghezza bulbo di ancoraggio;
- ξ_a= coefficiente di indagine.

Combinazione	Ordine tiranti	Passo [m]	e_k [kN/m]	P_d [kN]	R_{ak} [kN]	R_{ad} [kN]	Verifica
STR Statico sinistra	1	2.4	189	484	737	614	$R_{ad}>P_d$
	2	2.4	178	480	737	614	$R_{ad}>P_d$
	3	2.4	203	593	804	670	$R_{ad}>P_d$

Tabella 26 – Sezione 2. Verifica sfilamento tiranti - fase statica

dove:

- e_k =tiro per metro di profondità
- P_d = e_k moltiplicato per l'interasse orizzontale tra i tiranti e il coefficiente amplificativo per le azioni definito da normativa (1.3 statico)
- R_{ad}=resistenza di sfilamento di progetto
- $R_{a,d} = R_{ak} / \gamma_{Ra.p}$
- con $\gamma_{Ra.p} = 1.2$.
- R_{ak}=resistenza caratteristica scelta il minore tra i valori derivanti dall'applicazione dei coefficienti di correlazione al valor medio e al valor minimo delle resistenza $R_{a,c}$ ottenute dal calcolo come indicato di seguito:

$$R_{ak} = \min\left(\frac{(R_{a,c})_{medio}}{\xi_{a3}}; \frac{(R_{a,c})_{min}}{\xi_{a4}}\right)$$

Verifica della resistenza dell'armatura e della gerarchia delle resistenze

Verifica di resistenza dell'armatura	
$f_{p(1)k}$ (trafoli)	1670 Mpa
Coefficiente di sicurezza sul materiale	1.15
Diametro singolo trefolo (mm^2)	139 mm^2

Tabella 27 – Sezione 2. Verifica armatura tiranti. Caratteristiche trefoli

Ordine tiranti	n.ro trefoli	R_{pk} [Kn]	P_d [Kn]	Verifica	R_{ak} [Kn]	Verifica
1	5	1009	484	**$R_{pk}>P_d$**	737	**$R_{pk}>R_{ak}$**
2	5	1009	480	**$R_{pk}>P_d$**	737	**$R_{pk}>R_{ak}$**
3	5	1009	593	**$R_{pk}>P_d$**	804	**$R_{pk}>R_{ak}$**

Tabella 28 – Sezione 2. Verifica armatura tiranti. Condizione statica

La verifica di resistenza dell'armatura è soddisfatta poiché $P_d < R_{pk}$.

La verifica della gerarchia delle resistenze è soddisfatta poiché la resistenza caratteristica limite di snervamento del tratto libero è maggiore della resistenza a sfilamento della fondazione del tirante $R_{pk} > R_{ak}$.

Strutture di sostegno: pali

Nelle verifiche si considerano le sollecitazioni massime sulla struttura secondo le varie analisi.

Nella verifica a presso-flessione si è considerato il peso proprio del palo valutato alla corrispondente quota di verifica.

Verifica a presso-flessione

GABBIA SUPERIORE

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	M(kNm/m)	M_{sd} (kNm)	N_{sd} (kN)	Armatura	M_{RD} (kNm)
-6.4	214	214*1.2*1.3=334	135	20ϕ20	1025

Tabella 29 – Verifica strutturale a pressoflessione. Condizione statica

GABBIA MEDIA

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	M(kNm/m)	M_{sd} (kNm)	N_{sd} (kN)	Armatura	M_{RD} (kNm)
-11.5	520	520*1.2*1.3=811	236	20ϕ20	1005

Tabella 30 – Verifica strutturale a pressoflessione. Condizione statica

GABBIA INFERIORE

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	M(kNm/m)	M_{sd} (kNm)	N_{sd} (kN)	Armatura	M_{RD} (kNm)
-18.9	379	379*1.2*1.3=591	381	20ϕ20	1070

Tabella 31 – Verifica strutturale a pressoflessione. Condizione statica

La verifica è soddisfatta in quanto $M_{sd} < M_{rd}$.

Verifica al taglio

L'armatura al taglio sarà costituita una spirale ∅16 passo 300 mm.

GABBIA SUPERIORE

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	T(kN)	T_{SLU} (kN)	N_{SLU} (kN)	Armatura	V_{RD} (kN)
-6.3	145	145*1.2*1.3=226	134	ϕ16/30cm	524

Tabella 32 – Verifica strutturale a taglio. Condizione statica

GABBIA SUPERIORE

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	T(kN)	T_{SLU} (kN)	N_{SLU} (kN)	Armatura	V_{RD} (kN)
-14.7	196	196*1.2*1.3=306	298	ϕ16/30cm	524

Tabella 33 – Verifica strutturale a taglio. Condizione statica

GABBIA INFERIORE

STR STATICA - VERIFICA SLU-A1-M1					
Quota da base cordolo (m)	T(kN)	T_{SLU} (kN)	N_{SLU} (kN)	Armatura	V_{RD} (kN)
-16	180	180*1.2*1.3=281	324	ϕ16/30cm	524

Tabella 34 – Verifica strutturale a pressoflessione. Condizione statica

La verifica è soddisfatta in quanto $V_{sd} < V_{rd}$.

Il valore medio dell'incidenza dell'armatura risulta essere 80kg/m^3.

Strutture di supporto: travi di ripartizione

Le caratteristiche della sollecitazione sono determinate modellando gli elementi strutturali oggetto di verifica alla stregua di travi continue su più appoggi; la luce delle campate è data dall'interasse dei tiranti ed il carico, uniformemente distribuito, è determinato ripartendo le reazioni offerte dagli ancoraggi, ottenute dal modello di calcolo dell'opera di sostegno. Definito P_d il massimo tiro di calcolo corrispondente all'i-esimo ordine di tiranti, il suddetto carico è così calcolato: $q_{sd}=P_d/i$ (con i interasse tiranti). Secondo tale modello le massime azioni di calcolo sull'elemento strutturale saranno calcolate, considerando metà del carico su ciascuna trave accoppiata:

$$M_{sd} = \left(\frac{1}{10}\, q_{sd}\, l^2\right) / 2 \qquad \text{e} \qquad V_{sd} = (0.5\, q_{sd}\, l) / 2$$

Tutte le verifiche sono soddisfatte poiché il momento sollecitante è minore del momento resistente, $M_{sd}<M_{c,Rd}$.

Caratteristiche trave ripartizione		
f_{yk} trave (MPa)	275	S275
Coefficiente di sicurezza γ_{M0}	1.05	-
$W_{plastico}$ travi (cm^3)	481	profilati HEB180(x2)

Tabella 35 – Sezione 2. Verifica travi ripartizione. Caratteristiche profilati

Ordine tiranti	P_d [kN]	i [m]	α [°]	p [kN/m]	M_{sd} [kNm]	$M_{c,Rd}$ [kNm]	Verifica
1	484	2.4	20	155	58.0	126.0	$M_{c,Rd}>M_{sd}$
2	480	2.4	20	154	57.7	126.0	$M_{c,Rd}>M_{sd}$
3	593	2.4	20	190.2	71.2	126.0	$M_{c,Rd}>M_{sd}$

Tabella 36 – Sezione 2. Verifica travi ripartizione. Condizione statica

Ordine tiranti	P_d [kN]	i [m]	α [°]	p [kN/m]	Vsd [kN]	Vrd [kN]	Verifica
1	484	2.4	20	155	120.9	306.8	$V_{Rd}>V_{sd}$
2	480	2.4	20	154	120.1	306.8	$V_{Rd}>V_{sd}$
3	593	2.4	20	190.2	148.4	306.8	$V_{Rd}>V_{sd}$

Tabella 37 – Sezione 2. Verifica travi ripartizione. Condizione statica

Verifiche HYD

Dato che il piede paratia si innesta in un terreno coesivo, con permeabilità inferiore a 10-6m/s, non si attiva un meccanismo di filtrazione tra monte e valle e non è quindi necessario eseguire la verifica a sifonamento. Cautelativamente, si riporta comunque la verifica.

La verifica idraulica viene condotta in accordo alla seguente formulazione:

$$u_{d,dstb} \leq \sigma_{d,stb}$$

$$\gamma_{G,dstb} * u_{k,dstb} \leq \gamma_{G,stb} * \sigma_{k,stb}$$

L'applicazione delle formulazioni al livello del fondo della paratia fornisce i seguenti risultati:

1.3*10*(28.5-11.4) ≤ 0.9*20*(28.5-13.8) 222.3 kPa < 264.8 kPa

La disuguaglianza è verificata e quindi la verifica risulta soddisfatta.

SEZIONE 1

ANALISI DI STABILITÀ GLOBALE – FASE STATICA

1 Project Settings

Length(L) Units: meters
Time(t) Units: Seconds
Force(F) Units: kN
Pressure(p) Units: kPa
Strength Units: kPa
Unit Weight of Water: 9.807 kN/m³
View: 2D

2 Analysis Settings

3 Slope Stability

Kind: SLOPE/W
Method: Morgenstern-Price
Settings
    Apply Phreatic Correction: No
    Side Function
        Interslice force function option: Half-Sine
    PWP Conditions Source: Piezometric Line
    Use Staged Rapid Drawdown: No
SlipSurface
    Direction of movement: Left to Right
    Allow Passive Mode: No
    Slip Surface Option: Grid and Radius
    Critical slip surfaces saved: 1
    Optimize Critical Slip Surface Location: No
    Tension Crack
        Tension Crack Option: (none)
FOS Distribution
    FOS Calculation Option: Constant
Advanced
    Number of Slices: 30
    Optimization Tolerance: 0.01
    Minimum Slip Surface Depth: 0.1 m
    Minimum Slice Width: 0.1 m
    Optimization Maximum Iterations: 2000
    Optimization Convergence Tolerance: 1e-007
    Starting Optimization Points: 8
    Ending Optimization Points: 16
    Complete Passes per Insertion: 1

4 Materials

5 FYR1 GEO

Model: Mohr-Coulomb
Unit Weight: 20 kN/m³
Cohesion: 4 kPa
Phi: 21.3 °
Phi-B: 0 °
Pore Water Pressure
    Piezometric Line: 1

6 FYR2 GEO

Model: Mohr-Coulomb
Unit Weight: 21 kN/m³
Cohesion: 12 kPa
Phi: 21.3 °
Phi-B: 0 °
Pore Water Pressure
    Piezometric Line: 1

7 Slip Surface Grid

Upper Left: (1751.3531, 506.80505) m
Lower Left: (1721.2902, 441.22503) m
Lower Right: (1846.2619, 426.64099) m
Grid Horizontal Increment: 50
Grid Vertical Increment: 50
Left Projection Angle: 0 °
Right Projection Angle: 0 °

8 Slip Surface Radius

Upper Left Coordinate: (1788.1264, 390.1882) m
Upper Right Coordinate: (1788.1264, 390.1882) m
Lower Left Coordinate: (1788.1264, 390.1882) m
Lower Right Coordinate: (1788.1264, 390.1882) m
Number of Increments: 0
Left Projection: No
Left Projection Angle: 135 °
Right Projection: No
Right Projection Angle: 45 °
UsePoints: 0

9 Slip Surface Limits

Left Coordinate: (1703.0208, 438.7839) m
Right Coordinate: (1864.9683, 406.1592) m

10 Piezometric Lines

11 Piezometric Line 1

12 Coordinates

	X (m)	Y (m)
	1703.0346	433.70096
	1726.6897	429.09181
	1770.1016	420.15944
	1779.1931	417.08539
	1785.1411	412.28392
	1788.1155	407.88626
	1788.1155	406.07626
	1864.9821	406.07626

13 Reinforcements

14 Reinforcement 1

Type: Anchor
Outside Point: (1788.1017, 418.7692) m
Inside Point: (1757.6017, 418.7692) m
Slip Surface Intersection: (1726, 418.77) m
Total Length: 30.5 m
Reinforcement Direction: 0 °
Applied Load Option: Variable
F of S Dependent: No
Bond Length: 9 m
Bond Diameter: 0.16 m
Bond Safety Factor: 2.16
Bond Skin Friction: 200 kPa
Bond Resistance: 19.392547 kN/m
Anchor Spacing: 2.4 m
Bar Capacity: 10000 kN
Bar Safety Factor: 1
Bar Load: 4166.6667 kN
Load Distribution: Conc. in 1 slice
Shear Capacity: 0 kN
Shear Safety Factor: 1
Shear Option: Parallel to Slip
Shear Load: 0 kN
Applied Load: 174.53293 kN
Anchor Load Used: 0 kN
Resisting Force Used: 19.393 kN/m
Available Bond Length: 0 m
Required Bond Length: 0 m
Governing Component: Bond

15 Reinforcement 2

Type: Anchor
Outside Point: (1788.1017, 416.2692) m
Inside Point: (1758.1017, 416.2692) m
Slip Surface Intersection: (1728.2, 416.27) m
Total Length: 30 m

Reinforcement Direction: 0 °
Applied Load Option: Variable
F of S Dependent: No
Bond Length: 10 m
Bond Diameter: 0.16 m
Bond Safety Factor: 2.16
Bond Skin Friction: 200 kPa
Bond Resistance: 19.392547 kN/m
Anchor Spacing: 2.4 m
Bar Capacity: 10000 kN
Bar Safety Factor: 1
Bar Load: 4166.6667 kN
Load Distribution: Conc. in 1 slice
Shear Capacity: 0 kN
Shear Safety Factor: 1
Shear Option: Parallel to Slip
Shear Load: 0 kN
Applied Load: 193.92547 kN
Anchor Load Used: 0 kN
Resisting Force Used: 19.393 kN/m
Available Bond Length: 0 m
Required Bond Length: 0 m
Governing Component: Bond

16 Reinforcement 3

Type: Anchor
Outside Point: (1788.1017, 412.2692) m
Inside Point: (1758.6017, 412.2692) m
Slip Surface Intersection: (1732, 412.27) m
Total Length: 29.5 m
Reinforcement Direction: 0 °
Applied Load Option: Variable
F of S Dependent: No
Bond Length: 12 m
Bond Diameter: 0.19 m
Bond Safety Factor: 2.16
Bond Skin Friction: 200 kPa
Bond Resistance: 23.02865 kN/m
Anchor Spacing: 2.4 m
Bar Capacity: 10000 kN
Bar Safety Factor: 1
Bar Load: 4166.6667 kN
Load Distribution: Conc. in 1 slice
Shear Capacity: 0 kN
Shear Safety Factor: 1
Shear Option: Parallel to Slip
Shear Load: 0 kN
Applied Load: 276.3438 kN
Anchor Load Used: 0 kN
Resisting Force Used: 23.029 kN/m
Available Bond Length: 0 m
Required Bond Length: 0 m
Governing Component: Bond

17 Reinforcement 4

Type: Anchor
Outside Point: (1788.1017, 409.2692) m
Inside Point: (1760.6017, 409.2692) m
Slip Surface Intersection: (1735.4, 409.27) m
Total Length: 27.5 m
Reinforcement Direction: 0 °
Applied Load Option: Variable
F of S Dependent: No
Bond Length: 12 m
Bond Diameter: 0.19 m
Bond Safety Factor: 2.16
Bond Skin Friction: 200 kPa
Bond Resistance: 23.02865 kN/m
Anchor Spacing: 2.4 m
Bar Capacity: 10000 kN
Bar Safety Factor: 1
Bar Load: 4166.6667 kN
Load Distribution: Conc. in 1 slice
Shear Capacity: 0 kN
Shear Safety Factor: 1
Shear Option: Parallel to Slip
Shear Load: 0 kN
Applied Load: 276.3438 kN
Anchor Load Used: 0 kN
Resisting Force Used: 23.029 kN/m
Available Bond Length: 0 m
Required Bond Length: 0 m
Governing Component: Bond

18 Regions

	Material	Points	Area (m²)
Region 1	FYR2 GEO	1,2,3,5,9,8	8094.3813
Region 2	FYR1 GEO	8,18,17,21,16,9	1632.714

19 Points

	X (m)	Y (m)
Point 1	1703.0208	358.5996
Point 2	1864.9683	358.5996
Point 3	1864.9683	406.1592
Point 4	1788.1017	390.2692
Point 5	1788.1017	406.1592
Point 6	1788.1017	409.2692
Point 7	1760.6017	409.2692
Point 8	1703.0208	410.7692
Point 9	1788.1017	410.7692
Point 10	1788.1017	412.2692

Point 11	1758.6017	412.2692
Point 12	1758.1017	416.2692
Point 13	1788.1017	416.2692
Point 14	1757.6017	418.7692
Point 15	1788.1017	418.7692
Point 16	1788.1017	420.7692
Point 17	1703.0208	438.7839
Point 18	1703.0208	438.14945
Point 19	1726.6238	429.21678
Point 20	1788.1017	407.9692
Point 21	1726.8253	434.10921

20 Critical Slip Surfaces

	Number	FOS	Center (m)	Radius (m)	Entry (m)	Exit (m)
1	1347	1.134	(1786.91, 469.493)	79.314	(1714.8, 436.471)	(1834.66, 406.159)

21 Slices of Slip Surface: 1347

	Slip Surface	X (m)	Y (m)	PWP (kPa)	Base Normal Stress (kPa)	Frictional Strength (kPa)	Cohesive Strength (kPa)
1	1347	1716.2225	433.6625	-24.823238	25.53624	9.9561638	4
2	1347	1719.907	427.2663	30.864889	108.20515	30.153706	4
3	1347	1724.429	420.77855	85.849025	199.01995	44.123501	4
4	1347	1726.7575	417.7996	110.60732	239.96727	50.435337	4
5	1347	1728.5185	415.87645	125.91245	264.94116	54.205027	4
6	1347	1731.9055	412.4007	153.1657	310.01844	61.154331	4
7	1347	1735.627	409.0486	178.5306	350.79691	67.163827	12
8	1347	1739.683	405.8237	201.96444	395.8693	75.600349	12
9	1347	1743.7385	403.00265	221.45039	436.42829	83.816379	12
10	1347	1747.794	400.5355	237.46597	473.53797	92.04063	12
11	1347	1751.85	398.3852	250.37085	507.90652	100.40896	12
12	1347	1755.906	396.5236	260.43759	539.98195	108.98979	12
13	1347	1759.962	394.92895	267.88702	569.97583	117.77951	12
14	1347	1764.018	393.5844	272.90292	597.85591	126.69388	12
15	1347	1768.074	392.47675	275.56503	623.36229	135.60049	12
16	1347	1772.3745	391.55675	272.95987	647.27949	145.94112	12
17	1347	1776.92	390.8441	264.89135	668.70991	157.44228	12
18	1347	1782.167	390.37705	238.38828	687.17248	174.97365	12
19	1347	1785.6535	390.19055	209.23875	697.52757	190.37585	12
20	1347	1787.134	390.1851	187.83363	702.91698	200.82261	12
21	1347	1788.109	390.1879	173.67096	393.39427	85.666539	12
22	1347	1790.0505	390.26465	155.06492	380.94141	88.065562	12
23	1347	1793.9195	390.51295	152.63045	387.03383	91.390058	12
24	1347	1797.7885	390.95255	148.3177	386.9547	93.040678	12

25	1347	1801.6575	391.58665	142.10054	380.02334	92.762223	12
26	1347	1805.527	392.42005	133.92629	365.63494	90.339425	12
27	1347	1809.3965	393.45945	123.73199	343.43284	85.657784	12
28	1347	1813.2655	394.71335	111.43555	313.15349	78.64654	12
29	1347	1817.1345	396.1928	96.927105	274.82512	69.359536	12
30	1347	1821.0035	397.9119	80.067294	228.62836	57.92154	12
31	1347	1824.873	399.8884	60.684114	175.01394	44.575335	12
32	1347	1828.7425	402.1451	38.552659	114.5317	29.622989	12
33	1347	1832.6115	404.7115	13.384317	47.802641	13.419144	12
34	1347	1834.601	406.11775	-0.40671476	11.943735	4.6566676	12

SEZIONE 2

ANALISI DI STABILITÀ GLOBALE – FASE STATICA

1 PROJECT SETTINGS

Length(L) Units: meters
Time(t) Units: Seconds
Force(F) Units: kN
Pressure(p) Units: kPa
Strength Units: kPa
Unit Weight of Water: 9.807 kN/m³
View: 2D

2 Analysis Settings

3 Slope Stability

Kind: SLOPE/W
Method: Morgenstern-Price
Settings
- Apply Phreatic Correction: No
- Side Function
  - Interslice force function option: Half-Sine
- PWP Conditions Source: Piezometric Line
- Use Staged Rapid Drawdown: No

SlipSurface
- Direction of movement: Left to Right
- Allow Passive Mode: No
- Slip Surface Option: Grid and Radius
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack
  - Tension Crack Option: (none)

FOS Distribution
- FOS Calculation Option: Constant

Advanced
- Number of Slices: 30
- Optimization Tolerance: 0.01
- Minimum Slip Surface Depth: 0.1 m
- Minimum Slice Width: 0.1 m
- Optimization Maximum Iterations: 2000
- Optimization Convergence Tolerance: 1e-007
- Starting Optimization Points: 8
- Ending Optimization Points: 16
- Complete Passes per Insertion: 1

4 Materials

5 FYR1 GEO

Model: Mohr-Coulomb
Unit Weight: 20 kN/m³
Cohesion: 4 kPa
Phi: 21.3 °
Phi-B: 0 °
Pore Water Pressure
    Piezometric Line: 1

6 FYR2 GEO

Model: Mohr-Coulomb
Unit Weight: 21 kN/m³
Cohesion: 12 kPa
Phi: 21.3 °
Phi-B: 0 °
Pore Water Pressure
    Piezometric Line: 1

7 Slip Surface Grid

Upper Left: (1853.7642, 495.88948) m
Lower Left: (1823.7012, 430.30946) m
Lower Right: (1948.673, 415.72542) m
Grid Horizontal Increment: 50
Grid Vertical Increment: 50
Left Projection Angle: 0 °
Right Projection Angle: 0 °

8 Slip Surface Radius

Upper Left Coordinate: (1885.2791, 383.08808) m
Upper Right Coordinate: (1885.2791, 383.08808) m
Lower Left Coordinate: (1885.2791, 383.08808) m
Lower Right Coordinate: (1885.2791, 383.08808) m
Number of Increments: 0
Left Projection: No
Left Projection Angle: 135 °
Right Projection: No
Right Projection Angle: 45 °
UsePoints: 0

9 Slip Surface Limits

Left Coordinate: (1816.4074, 416.4883) m
Right Coordinate: (1966.4428, 397.8438) m

10 Piezometric Lines

11 Piezometric Line 1

12 Coordinates

	X (m)	Y (m)
	1816.4074	411.4883
	1875.9454	408.35555
	1879.9509	406.65128
	1882.207	404.64542
	1885.2448	400.2438
	1885.2448	397.8438
	1966.4428	397.8438

13 Reinforcements

14 Reinforcement 1

Type: Anchor
Outside Point: (1885.2448, 408.2438) m
Inside Point: (1859.4032, 398.8382) m
Slip Surface Intersection: (1855.5, 397.4) m
Total Length: 27.500065 m
Reinforcement Direction: 20 °
Applied Load Option: Variable
F of S Dependent: No
Bond Length: 11 m
Bond Diameter: 0.16 m
Bond Safety Factor: 2.16
Bond Skin Friction: 200 kPa
Bond Resistance: 19.392547 kN/m
Anchor Spacing: 2.4 m
Bar Capacity: 10000 kN
Bar Safety Factor: 1
Bar Load: 4166.6667 kN
Load Distribution: Conc. in 1 slice
Shear Capacity: 0 kN
Shear Safety Factor: 1
Shear Option: Parallel to Slip
Shear Load: 0 kN
Applied Load: 213.31802 kN
Anchor Load Used: 0 kN
Resisting Force Used: 19.393 kN/m
Available Bond Length: 0 m
Required Bond Length: 0 m
Governing Component: Bond

15 Reinforcement 2

Type: Anchor
Outside Point: (1885.2448, 405.0438) m
Inside Point: (1861.2826, 396.3223) m
Slip Surface Intersection: (1857.8, 395.07) m
Total Length: 25.500031 m
Reinforcement Direction: 20 °

Applied Load Option: Variable
F of S Dependent: No
Bond Length: 11 m
Bond Diameter: 0.16 m
Bond Safety Factor: 2.16
Bond Skin Friction: 200 kPa
Bond Resistance: 19.392547 kN/m
Anchor Spacing: 2.4 m
Bar Capacity: 10000 kN
Bar Safety Factor: 1
Bar Load: 4166.6667 kN
Load Distribution: Conc. in 1 slice
Shear Capacity: 0 kN
Shear Safety Factor: 1
Shear Option: Parallel to Slip
Shear Load: 0 kN
Applied Load: 213.31802 kN
Anchor Load Used: 0 kN
Resisting Force Used: 19.393 kN/m
Available Bond Length: 0 m
Required Bond Length: 0 m
Governing Component: Bond

16 Reinforcement 3

Type: Anchor
Outside Point: (1885.2448, 401.4438) m
Inside Point: (1861.7525, 392.8933) m
Slip Surface Intersection: (1860.8, 392.56) m
Total Length: 24.999984 m
Reinforcement Direction: 20 °
Applied Load Option: Variable
F of S Dependent: No
Bond Length: 12 m
Bond Diameter: 0.16 m
Bond Safety Factor: 2.16
Bond Skin Friction: 200 kPa
Bond Resistance: 19.392547 kN/m
Anchor Spacing: 2.4 m
Bar Capacity: 10000 kN
Bar Safety Factor: 1
Bar Load: 4166.6667 kN
Load Distribution: Conc. in 1 slice
Shear Capacity: 0 kN
Shear Safety Factor: 1
Shear Option: Parallel to Slip
Shear Load: 0 kN
Applied Load: 232.71057 kN
Anchor Load Used: 0 kN
Resisting Force Used: 19.393 kN/m
Available Bond Length: 0 m
Required Bond Length: 0 m
Governing Component: Bond

17 Regions

	Material	Points	Area (m²)
Region 1	FYR2 GEO	19,1,2,4,13,12	6642.4226
Region 2	FYR1 GEO	12,16,15,14,13	889.39107

18 Points

	X (m)	Y (m)
Point 1	1966.4428	355.3149
Point 2	1966.4428	397.8438
Point 3	1885.2448	383.1438
Point 4	1885.2448	397.8438
Point 5	1885.2448	400.2438
Point 6	1885.2448	401.4438
Point 7	1861.7525	392.8933
Point 8	1861.2826	396.3223
Point 9	1885.2448	405.0438
Point 10	1885.2448	408.2438
Point 11	1859.4032	398.8382
Point 12	1816.4074	401.6438
Point 13	1885.2448	401.6438
Point 14	1885.2448	411.6438
Point 15	1883.1936	412.784
Point 16	1816.4074	416.4883
Point 17	1816.4074	411.4883
Point 18	1876.1465	409.06943
Point 19	1816.4074	355.3149
Point 20		

19 Critical Slip Surfaces

	Number	FOS	Center (m)	Radius (m)	Entry (m)	Exit (m)
1	281	1.387	(1889.19, 429.575)	46.652	(1844.91, 414.908)	(1923.39, 397.844)

20 Slices of Slip Surface: 281

	Slip Surface	X (m)	Y (m)	PWP (kPa)	Base Normal Stress (kPa)	Frictional Strength (kPa)	Cohesive Strength (kPa)
1	281	1845.904	412.39565	-24.118806	24.020747	9.3652979	4
2	281	1848.1325	407.5843	21.916533	93.569834	27.936455	4
3	281	1850.5955	403.4643	61.050347	161.27146	39.07458	4
4	281	1853.167	400.01105	93.589603	214.18017	47.016297	12
5	281	1855.847	397.00645	121.67303	266.70811	56.546815	12
6	281	1858.527	394.4643	145.21869	312.19672	65.102013	12

7	281	1861.207	392.2883	165.17676	352.70737	73.115129	12
8	281	1863.8865	390.4167	182.14818	389.66383	80.906974	12
9	281	1866.566	388.8071	196.55032	423.96661	88.665906	12
10	281	1869.246	387.42925	208.68047	456.19022	96.500022	12
11	281	1871.926	386.26095	218.75426	486.77918	104.49855	12
12	281	1874.6055	385.2855	226.94053	515.8432	112.63845	12
13	281	1876.9465	384.5717	229.06839	540.13792	121.28094	12
14	281	1878.9495	384.07375	225.59537	559.8479	130.31962	12
15	281	1881.079	383.649	215.7467	579.91637	141.98382	12
16	281	1882.7005	383.38035	201.53623	594.9429	153.38285	12
17	281	1883.7365	383.2471	188.12158	598.76337	160.10255	12
18	281	1884.762	383.1371	174.63315	597.30719	164.79372	12
19	281	1886.5165	383.01785	145.3968	319.92635	68.046229	12
20	281	1889.0595	382.94105	146.15147	332.67469	72.722365	12
21	281	1891.6025	383.0032	145.54071	342.27317	76.702782	12
22	281	1894.1455	383.2048	143.56619	348.24908	79.802524	12
23	281	1896.6885	383.54765	140.20398	350.09274	81.832207	12
24	281	1899.2315	384.035	135.42205	347.26812	82.595331	12
25	281	1901.775	384.67155	129.18007	339.27518	81.912659	12
26	281	1904.3185	385.4638	121.40883	325.63158	79.623123	12
27	281	1906.8615	386.4204	112.02787	305.93051	75.599481	12
28	281	1909.4045	387.55255	100.92695	279.84275	69.756354	12
29	281	1911.9475	388.87495	87.958171	247.11142	62.05126	12
30	281	1914.4905	390.40705	72.93076	207.56149	52.490329	12
31	281	1917.0335	392.1748	55.596894	161.03417	41.108275	12
32	281	1919.5765	394.21385	35.599012	107.32494	27.96477	12
33	281	1922.1195	396.5751	12.442153	46.03246	13.096313	12

Report di Calcolo

Allegato 1

Nome Progetto: New Project

Autore: Ingegnere

Jobname: R:\424.01 - HIRPINIA\Ing\03. LAVORO\07 - GALL\GA - FINESTRE - IMBOCCHI\GA09 Finestra F3\1-sez_LONG\2-paratie\SEZIONE 1 STR Finestra F3.pplus

Data: 25/06/2020 12:26:35

Design Section: Base Design Section

Sommario
Contenuto Sommario

Descrizione della Stratigrafia e degli Strati di Terreno

Tipo : HORIZONTAL
Quota : 0.5 m
OCR : 1

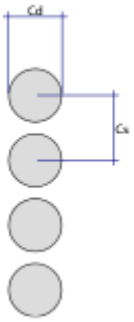
Tipo : HORIZONTAL
Quota : -9.5 m
OCR : 1

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	Livello 1	20	20	26			5		Constant	45000	72000							
2	Livello 2	21	21	26			15		Constant	80000	128000							

Descrizione Pareti

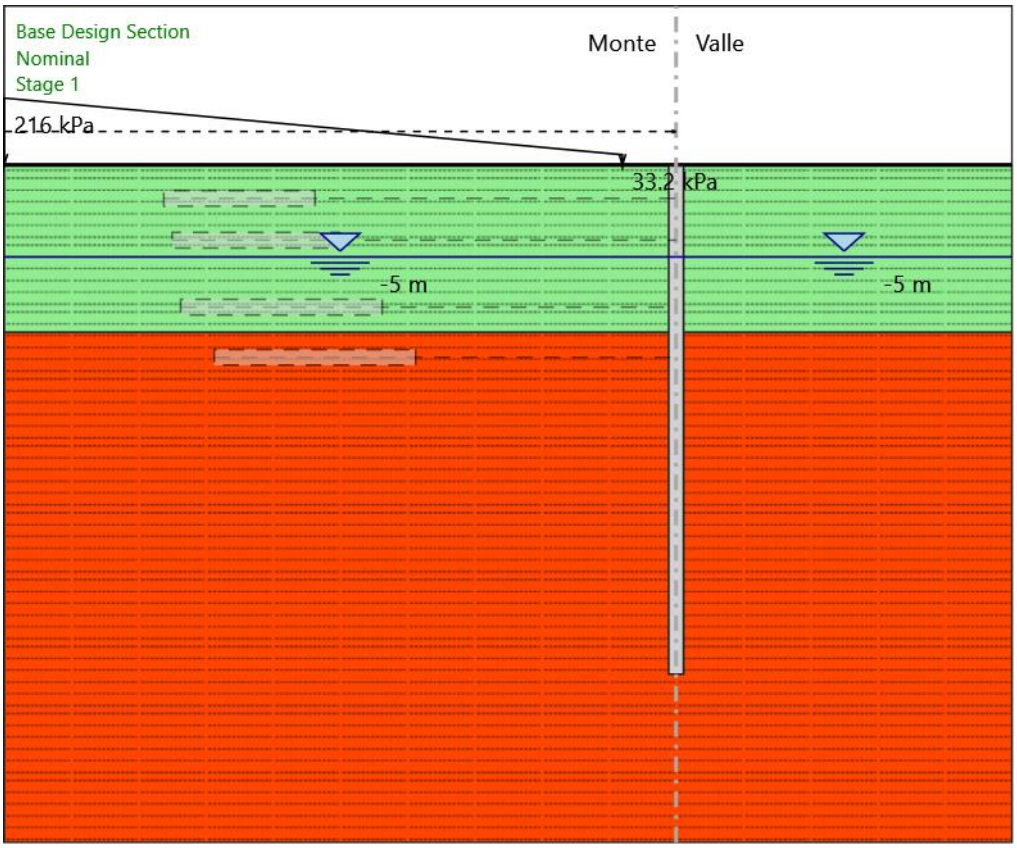
X : 0 m
Quota in alto : 0.5 m
Quota di fondo : -30 m
Muro di sinistra

Sezione : PALI1000/1200
Area equivalente : 0.654498469497874 m
Inerzia equivalente : 0.0409 m^4/m
Materiale calcestruzzo : C25/30
Tipo sezione : Tangent
Spaziatura : 1.2 m
Diametro : 1 m
Efficacia : 1



Fasi di Calcolo

Stage 1



Stage 1

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : 0.5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

0.5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

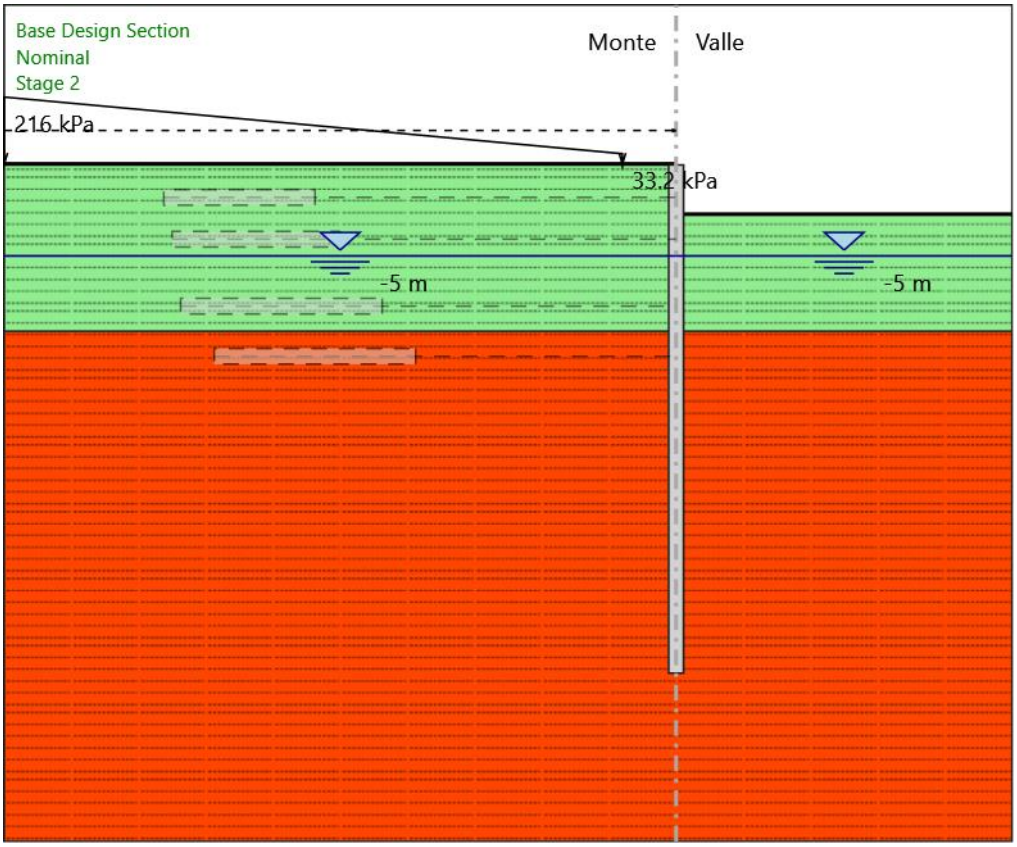
Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m
X finale : -40 m
Pressione iniziale : 33.2 kPa
Pressione finale : 216 kPa

Elementi strutturali
Paratia : WallElement
X : 0 m
Quota in alto : 0.5 m
Quota di fondo : -30 m
Sezione : PALI1000/1200

Stage 2



Stage 2

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -2.5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-2.5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

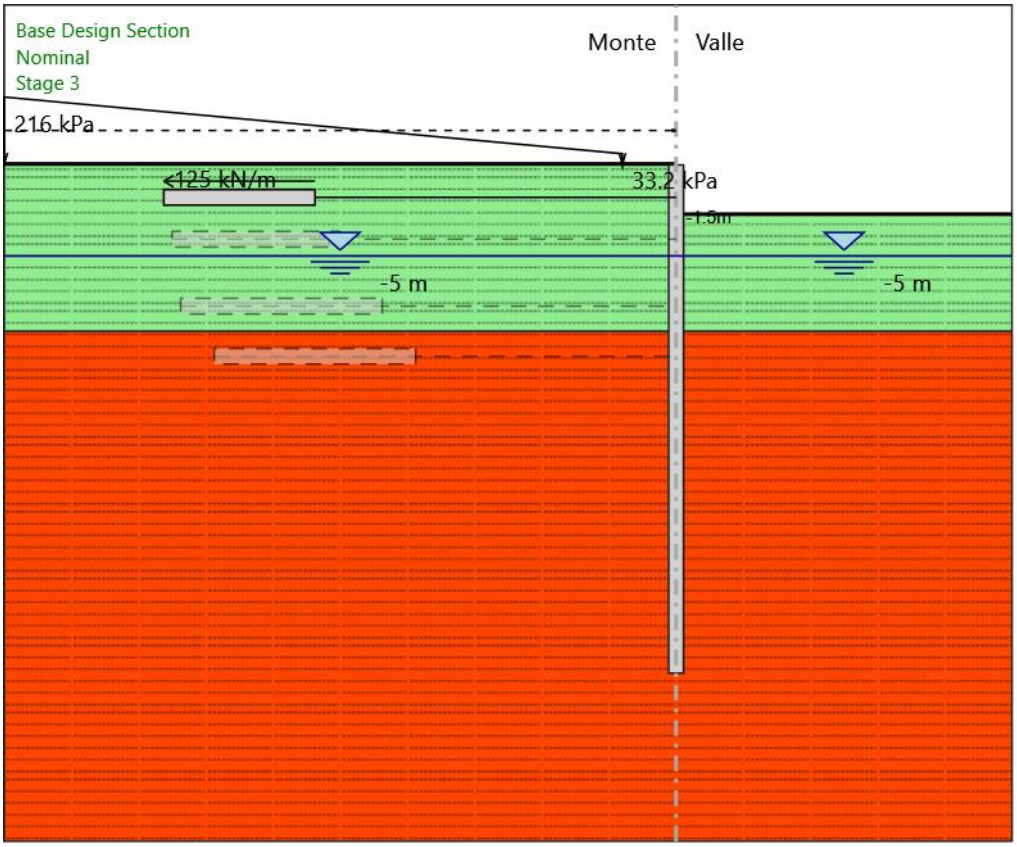
X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Stage 3



Stage 3

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -2.5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-2.5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

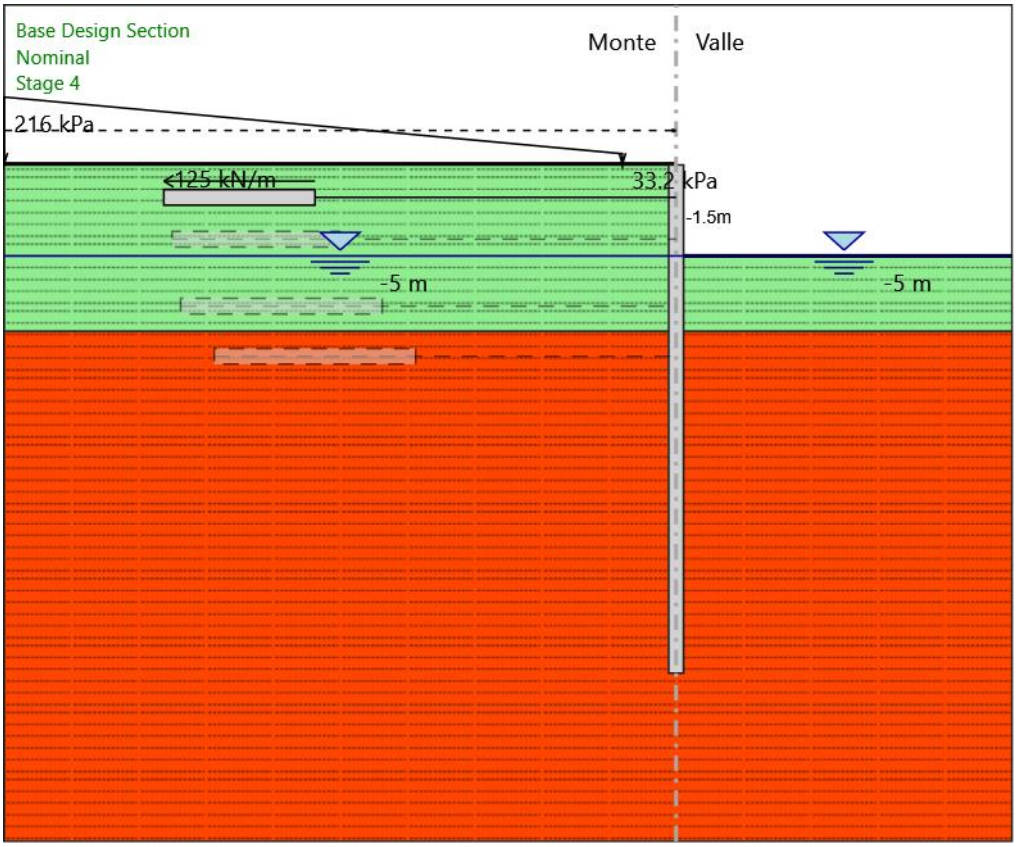
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 4



Stage 4

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

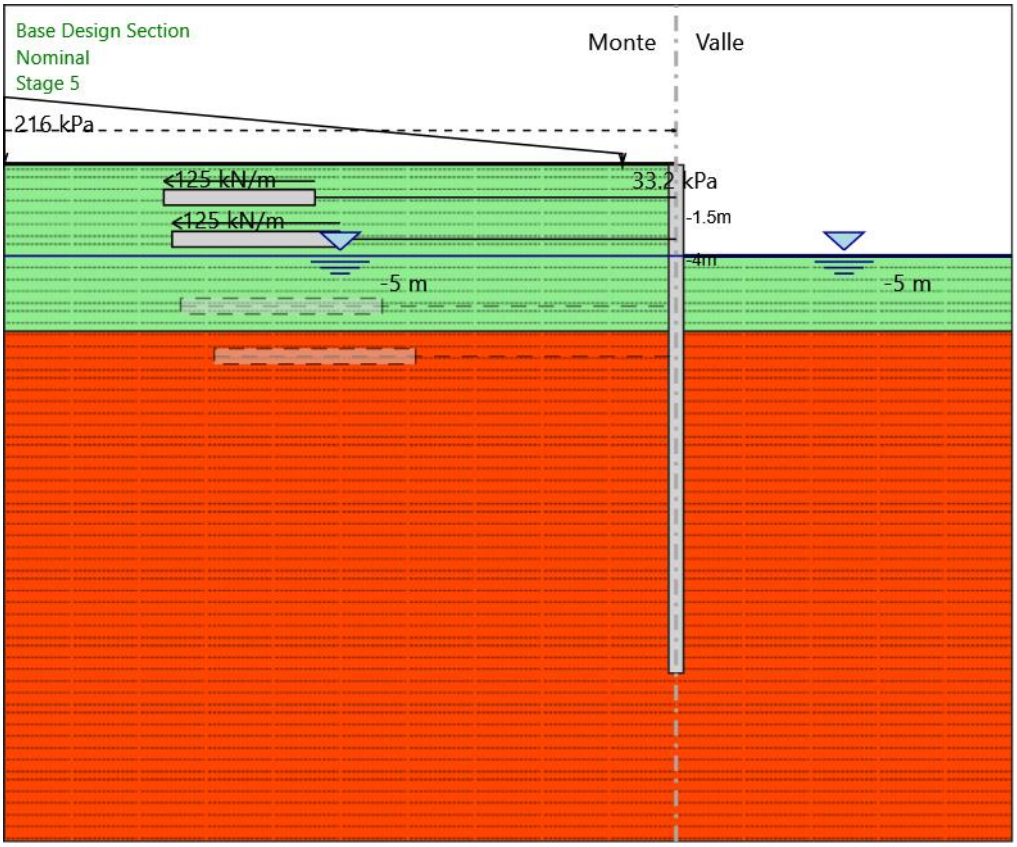
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 5



Stage 5

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

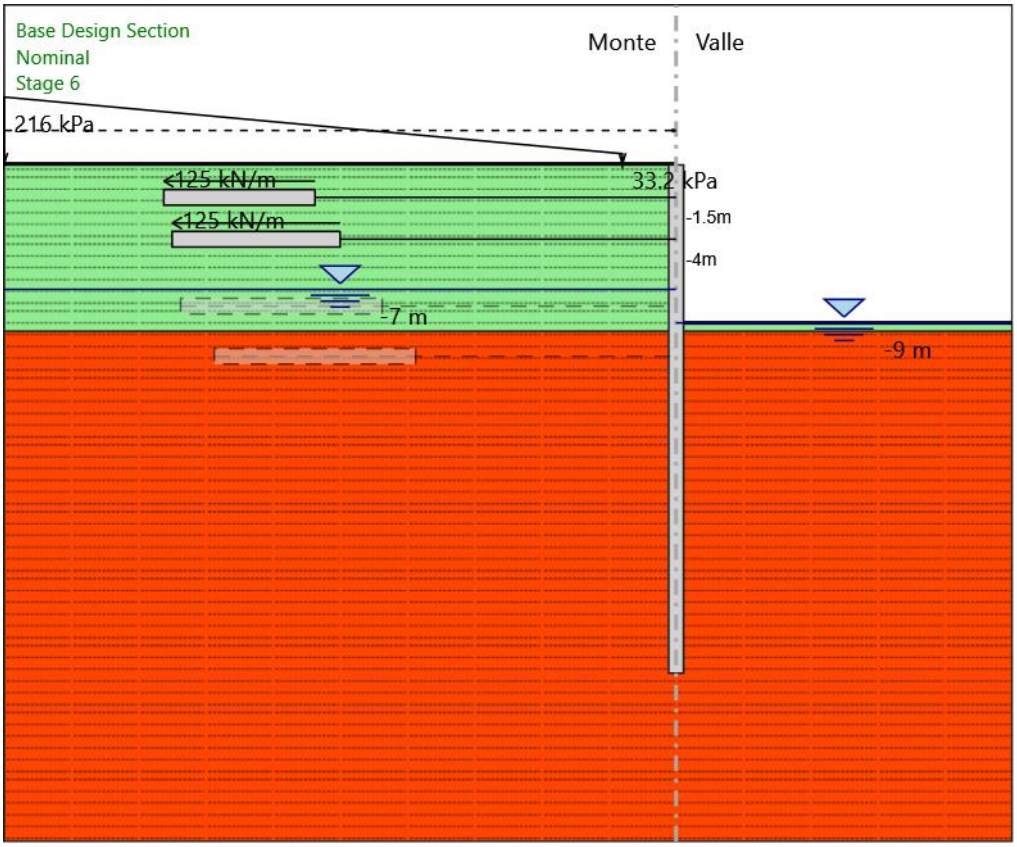
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 6



Stage 6

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -9 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-9 m

Falda acquifera

Falda di sinistra : -7 m

Falda di destra : -9 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

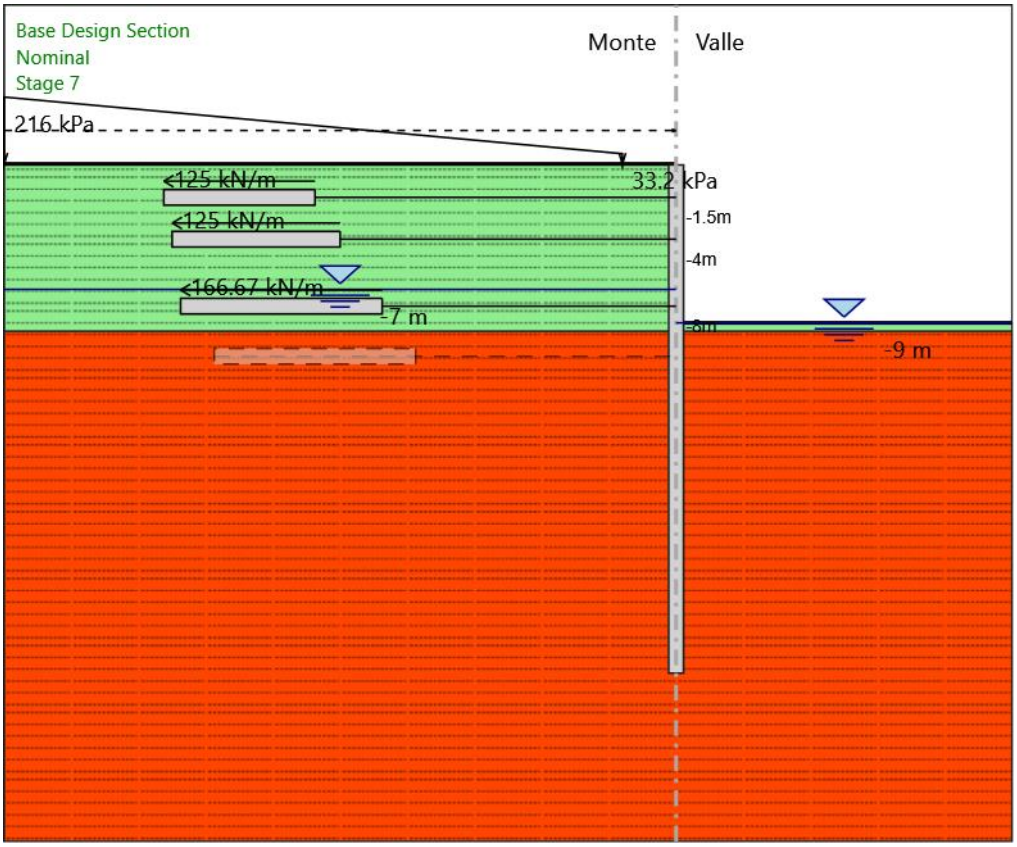
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 7



Stage 7

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -9 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-9 m

Falda acquifera

Falda di sinistra : -7 m

Falda di destra : -9 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -8 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m

Lunghezza libera : 17.5 m

Precarico : 400 kN

Angolo : 0 °

Sezione : Trefoli 6

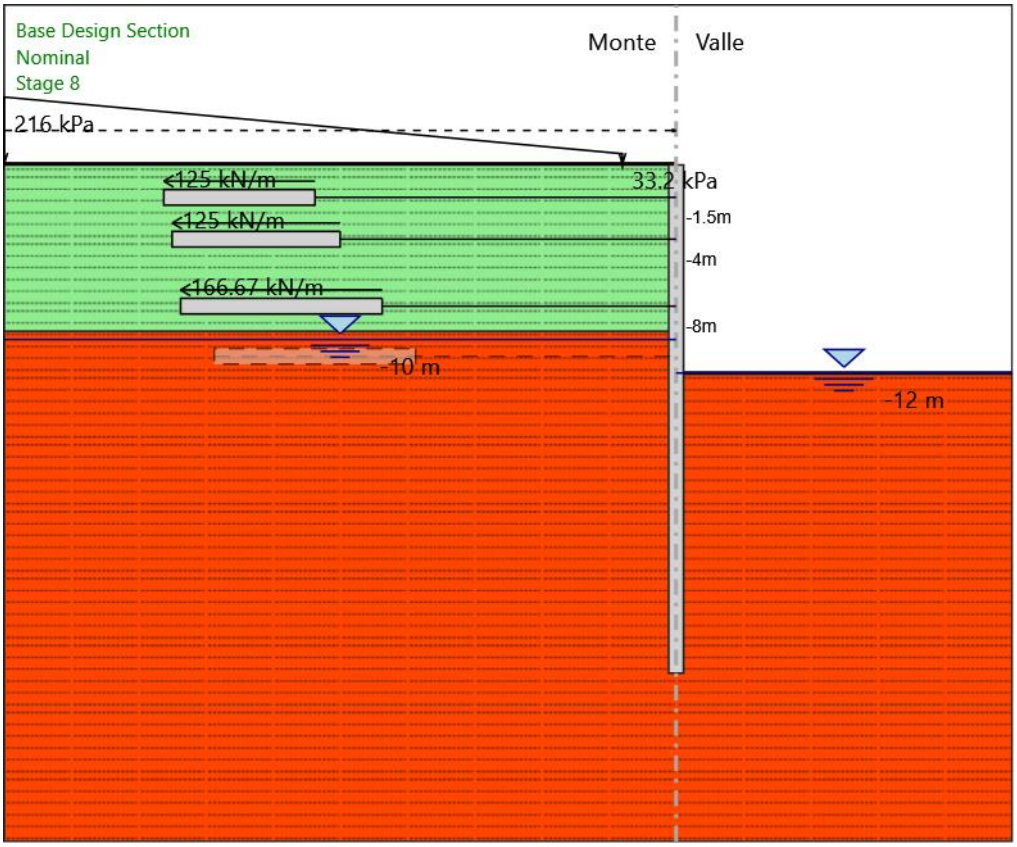
Tipo di barre : Barre trefoli

Numero di barre : 6

Diametro : 0.01331 m

Area : 0.000834 m^2

Stage 8



Stage 8

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -12 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-12 m

Falda acquifera

Falda di sinistra : -10 m

Falda di destra : -12 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -8 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m

Lunghezza libera : 17.5 m

Precarico : 400 kN

Angolo : 0 °

Sezione : Trefoli 6

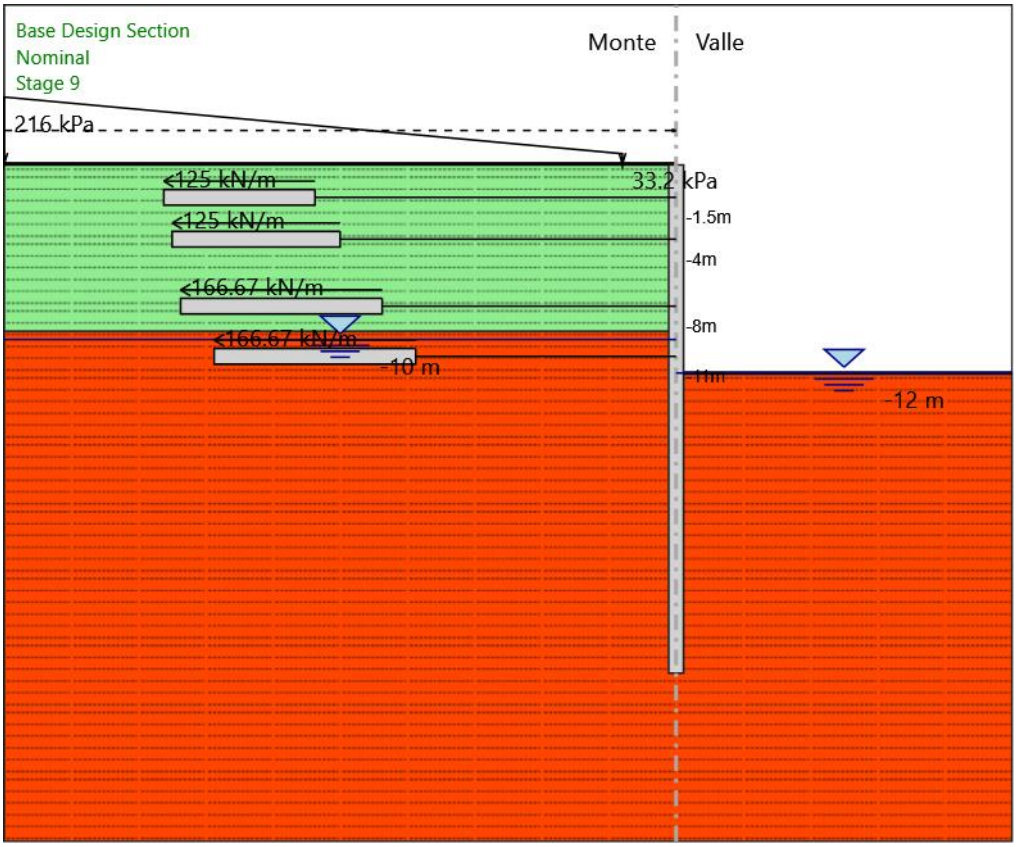
Tipo di barre : Barre trefoli

Numero di barre : 6

Diametro : 0.01331 m

Area : 0.000834 m^2

Stage 9



Stage 9

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -12 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-12 m

Falda acquifera

Falda di sinistra : -10 m

Falda di destra : -12 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -8 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m

Lunghezza libera : 17.5 m

Precarico : 400 kN

Angolo : 0 °

Sezione : Trefoli 6

Tipo di barre : Barre trefoli

Numero di barre : 6

Diametro : 0.01331 m

Area : 0.000834 m^2

Tirante : Tieback

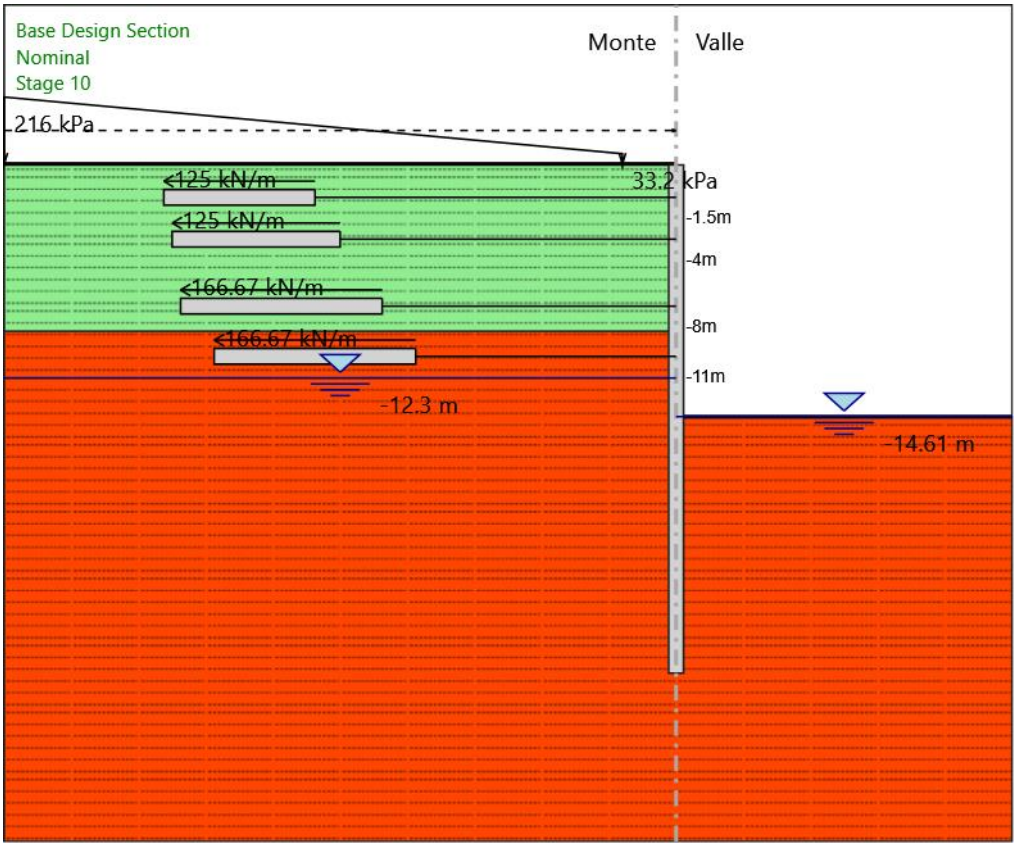
X : 0 m

Z : -11 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m
Lunghezza libera : 15.5 m
Precarico : 400 kN
Angolo : 0 °
Sezione : Trefoli 6
    Tipo di barre : Barre trefoli
    Numero di barre : 6
    Diametro : 0.01331 m
    Area : 0.000834 m^2

Stage 10



Stage 10

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -14.61 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-14.61 m

Falda acquifera

Falda di sinistra : -12.3 m

Falda di destra : -14.61 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -8 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m

Lunghezza libera : 17.5 m

Precarico : 400 kN

Angolo : 0 °

Sezione : Trefoli 6

Tipo di barre : Barre trefoli

Numero di barre : 6

Diametro : 0.01331 m

Area : 0.000834 m^2

Tirante : Tieback

X : 0 m

Z : -11 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m
Lunghezza libera : 15.5 m
Precarico : 400 kN
Angolo : 0 °
Sezione : Trefoli 6
    Tipo di barre : Barre trefoli
    Numero di barre : 6
    Diametro : 0.01331 m
    Area : 0.000834 m^2

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	0.5	0
Stage 1	0.3	0
Stage 1	0.1	0
Stage 1	-0.1	0
Stage 1	-0.3	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	0
Stage 1	-4.2	0
Stage 1	-4.4	0
Stage 1	-4.6	0
Stage 1	-4.8	0
Stage 1	-5	0
Stage 1	-5.2	0
Stage 1	-5.4	0
Stage 1	-5.6	0
Stage 1	-5.8	0
Stage 1	-6	0
Stage 1	-6.2	0
Stage 1	-6.4	0
Stage 1	-6.6	0
Stage 1	-6.8	0
Stage 1	-7	0
Stage 1	-7.2	0
Stage 1	-7.4	0
Stage 1	-7.6	0
Stage 1	-7.8	0
Stage 1	-8	0
Stage 1	-8.2	0
Stage 1	-8.4	0
Stage 1	-8.6	0
Stage 1	-8.8	0
Stage 1	-9	0
Stage 1	-9.2	0
Stage 1	-9.4	0
Stage 1	-9.6	0
Stage 1	-9.8	0
Stage 1	-10	0
Stage 1	-10.2	0
Stage 1	-10.4	0
Stage 1	-10.6	0
Stage 1	-10.8	0
Stage 1	-11	0
Stage 1	-11.2	0
Stage 1	-11.4	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	-11.6	0
Stage 1	-11.8	0
Stage 1	-12	0
Stage 1	-12.2	0
Stage 1	-12.4	0
Stage 1	-12.6	0
Stage 1	-12.8	0
Stage 1	-13	0
Stage 1	-13.2	0
Stage 1	-13.4	0
Stage 1	-13.6	0
Stage 1	-13.8	0
Stage 1	-14	0
Stage 1	-14.2	0
Stage 1	-14.4	0
Stage 1	-14.6	0
Stage 1	-14.8	0
Stage 1	-15	0
Stage 1	-15.2	0
Stage 1	-15.4	0
Stage 1	-15.6	0
Stage 1	-15.8	0
Stage 1	-16	0
Stage 1	-16.2	0
Stage 1	-16.4	0
Stage 1	-16.6	0
Stage 1	-16.8	0
Stage 1	-17	0
Stage 1	-17.2	0
Stage 1	-17.4	0
Stage 1	-17.6	0
Stage 1	-17.8	0
Stage 1	-18	0
Stage 1	-18.2	0
Stage 1	-18.4	0
Stage 1	-18.6	0
Stage 1	-18.8	0
Stage 1	-19	0
Stage 1	-19.2	0
Stage 1	-19.4	0
Stage 1	-19.6	0
Stage 1	-19.8	0
Stage 1	-20	0
Stage 1	-20.2	0
Stage 1	-20.4	0
Stage 1	-20.6	0
Stage 1	-20.8	0
Stage 1	-21	0
Stage 1	-21.2	0
Stage 1	-21.4	0
Stage 1	-21.6	0
Stage 1	-21.8	0
Stage 1	-22	0
Stage 1	-22.2	0
Stage 1	-22.4	0
Stage 1	-22.6	0
Stage 1	-22.8	0
Stage 1	-23	0
Stage 1	-23.2	0
Stage 1	-23.4	0
Stage 1	-23.6	0
Stage 1	-23.8	0
Stage 1	-24	0
Stage 1	-24.2	0
Stage 1	-24.4	0
Stage 1	-24.6	0
Stage 1	-24.8	0
Stage 1	-25	0
Stage 1	-25.2	0
Stage 1	-25.4	0
Stage 1	-25.6	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	-25.8	0
Stage 1	-26	0
Stage 1	-26.2	0
Stage 1	-26.4	0
Stage 1	-26.6	0
Stage 1	-26.8	0
Stage 1	-27	0
Stage 1	-27.2	0
Stage 1	-27.4	0
Stage 1	-27.6	0
Stage 1	-27.8	0
Stage 1	-28	0
Stage 1	-28.2	0
Stage 1	-28.4	0
Stage 1	-28.6	0
Stage 1	-28.8	0
Stage 1	-29	0
Stage 1	-29.2	0
Stage 1	-29.4	0
Stage 1	-29.6	0
Stage 1	-29.8	0
Stage 1	-30	0

Tabella Spostamento Nominal - LEFT Stage: Stage 2

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	0.5	0.87
Stage 2	0.3	0.84
Stage 2	0.1	0.81
Stage 2	-0.1	0.78
Stage 2	-0.3	0.75
Stage 2	-0.5	0.72
Stage 2	-0.7	0.69
Stage 2	-0.9	0.66
Stage 2	-1.1	0.63
Stage 2	-1.3	0.6
Stage 2	-1.5	0.57
Stage 2	-1.7	0.54
Stage 2	-1.9	0.51
Stage 2	-2.1	0.48
Stage 2	-2.3	0.45
Stage 2	-2.5	0.42
Stage 2	-2.7	0.39
Stage 2	-2.9	0.36
Stage 2	-3.1	0.34
Stage 2	-3.3	0.31
Stage 2	-3.5	0.28
Stage 2	-3.7	0.26
Stage 2	-3.9	0.24
Stage 2	-4	0.22
Stage 2	-4.2	0.2
Stage 2	-4.4	0.18
Stage 2	-4.6	0.16
Stage 2	-4.8	0.14
Stage 2	-5	0.13
Stage 2	-5.2	0.11
Stage 2	-5.4	0.1
Stage 2	-5.6	0.08
Stage 2	-5.8	0.07
Stage 2	-6	0.06
Stage 2	-6.2	0.05
Stage 2	-6.4	0.04
Stage 2	-6.6	0.03
Stage 2	-6.8	0.02
Stage 2	-7	0.01
Stage 2	-7.2	0.01
Stage 2	-7.4	0
Stage 2	-7.6	-0.01
Stage 2	-7.8	-0.01
Stage 2	-8	-0.01
Stage 2	-8.2	-0.02
Stage 2	-8.4	-0.02
Stage 2	-8.6	-0.02
Stage 2	-8.8	-0.02
Stage 2	-9	-0.02
Stage 2	-9.2	-0.03
Stage 2	-9.4	-0.03
Stage 2	-9.6	-0.03
Stage 2	-9.8	-0.03
Stage 2	-10	-0.03
Stage 2	-10.2	-0.03
Stage 2	-10.4	-0.02
Stage 2	-10.6	-0.02
Stage 2	-10.8	-0.02
Stage 2	-11	-0.02
Stage 2	-11.2	-0.02
Stage 2	-11.4	-0.02
Stage 2	-11.6	-0.02
Stage 2	-11.8	-0.02
Stage 2	-12	-0.02
Stage 2	-12.2	-0.02
Stage 2	-12.4	-0.01
Stage 2	-12.6	-0.01

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	-12.8	-0.01
Stage 2	-13	-0.01
Stage 2	-13.2	-0.01
Stage 2	-13.4	-0.01
Stage 2	-13.6	-0.01
Stage 2	-13.8	-0.01
Stage 2	-14	-0.01
Stage 2	-14.2	-0.01
Stage 2	-14.4	0
Stage 2	-14.6	0
Stage 2	-14.8	0
Stage 2	-15	0
Stage 2	-15.2	0
Stage 2	-15.4	0
Stage 2	-15.6	0
Stage 2	-15.8	0
Stage 2	-16	0
Stage 2	-16.2	0
Stage 2	-16.4	0
Stage 2	-16.6	0
Stage 2	-16.8	0
Stage 2	-17	0
Stage 2	-17.2	0
Stage 2	-17.4	0
Stage 2	-17.6	0
Stage 2	-17.8	0
Stage 2	-18	0
Stage 2	-18.2	0
Stage 2	-18.4	0
Stage 2	-18.6	0
Stage 2	-18.8	0
Stage 2	-19	0
Stage 2	-19.2	0
Stage 2	-19.4	0
Stage 2	-19.6	0
Stage 2	-19.8	0
Stage 2	-20	0
Stage 2	-20.2	0
Stage 2	-20.4	0
Stage 2	-20.6	0
Stage 2	-20.8	0
Stage 2	-21	0
Stage 2	-21.2	0
Stage 2	-21.4	0
Stage 2	-21.6	0
Stage 2	-21.8	0
Stage 2	-22	0
Stage 2	-22.2	0
Stage 2	-22.4	0
Stage 2	-22.6	0
Stage 2	-22.8	0
Stage 2	-23	0
Stage 2	-23.2	0
Stage 2	-23.4	0
Stage 2	-23.6	0
Stage 2	-23.8	0
Stage 2	-24	0
Stage 2	-24.2	0
Stage 2	-24.4	0
Stage 2	-24.6	0
Stage 2	-24.8	0
Stage 2	-25	0
Stage 2	-25.2	0
Stage 2	-25.4	0
Stage 2	-25.6	0
Stage 2	-25.8	0
Stage 2	-26	0
Stage 2	-26.2	0
Stage 2	-26.4	0
Stage 2	-26.6	0
Stage 2	-26.8	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 2	-27	0
Stage 2	-27.2	0
Stage 2	-27.4	0
Stage 2	-27.6	0
Stage 2	-27.8	0
Stage 2	-28	0
Stage 2	-28.2	0
Stage 2	-28.4	0
Stage 2	-28.6	0
Stage 2	-28.8	0
Stage 2	-29	0
Stage 2	-29.2	0
Stage 2	-29.4	0
Stage 2	-29.6	0
Stage 2	-29.8	0
Stage 2	-30	0

Tabella Spostamento Nominal - LEFT Stage: Stage 3

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	0.5	-0.58
Stage 3	0.3	-0.56
Stage 3	0.1	-0.55
Stage 3	-0.1	-0.54
Stage 3	-0.3	-0.53
Stage 3	-0.5	-0.51
Stage 3	-0.7	-0.5
Stage 3	-0.9	-0.49
Stage 3	-1.1	-0.47
Stage 3	-1.3	-0.46
Stage 3	-1.5	-0.44
Stage 3	-1.7	-0.42
Stage 3	-1.9	-0.4
Stage 3	-2.1	-0.38
Stage 3	-2.3	-0.36
Stage 3	-2.5	-0.34
Stage 3	-2.7	-0.32
Stage 3	-2.9	-0.3
Stage 3	-3.1	-0.28
Stage 3	-3.3	-0.26
Stage 3	-3.5	-0.24
Stage 3	-3.7	-0.22
Stage 3	-3.9	-0.2
Stage 3	-4	-0.19
Stage 3	-4.2	-0.17
Stage 3	-4.4	-0.16
Stage 3	-4.6	-0.14
Stage 3	-4.8	-0.13
Stage 3	-5	-0.11
Stage 3	-5.2	-0.1
Stage 3	-5.4	-0.09
Stage 3	-5.6	-0.07
Stage 3	-5.8	-0.06
Stage 3	-6	-0.05
Stage 3	-6.2	-0.05
Stage 3	-6.4	-0.04
Stage 3	-6.6	-0.03
Stage 3	-6.8	-0.02
Stage 3	-7	-0.02
Stage 3	-7.2	-0.01
Stage 3	-7.4	-0.01
Stage 3	-7.6	0
Stage 3	-7.8	0
Stage 3	-8	0
Stage 3	-8.2	0.01
Stage 3	-8.4	0.01
Stage 3	-8.6	0.01
Stage 3	-8.8	0.01
Stage 3	-9	0.01
Stage 3	-9.2	0.01
Stage 3	-9.4	0.01
Stage 3	-9.6	0.01
Stage 3	-9.8	0.01
Stage 3	-10	0.01
Stage 3	-10.2	0.01
Stage 3	-10.4	0.01
Stage 3	-10.6	0.01
Stage 3	-10.8	0.01
Stage 3	-11	0.01
Stage 3	-11.2	0.01
Stage 3	-11.4	0.01
Stage 3	-11.6	0.01
Stage 3	-11.8	0.01
Stage 3	-12	0.01
Stage 3	-12.2	0.01
Stage 3	-12.4	0.01
Stage 3	-12.6	0.01

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	-12.8	0.01
Stage 3	-13	0.01
Stage 3	-13.2	0
Stage 3	-13.4	0
Stage 3	-13.6	0
Stage 3	-13.8	0
Stage 3	-14	0
Stage 3	-14.2	0
Stage 3	-14.4	0
Stage 3	-14.6	0
Stage 3	-14.8	0
Stage 3	-15	0
Stage 3	-15.2	0
Stage 3	-15.4	0
Stage 3	-15.6	0
Stage 3	-15.8	0
Stage 3	-16	0
Stage 3	-16.2	0
Stage 3	-16.4	0
Stage 3	-16.6	0
Stage 3	-16.8	0
Stage 3	-17	0
Stage 3	-17.2	0
Stage 3	-17.4	0
Stage 3	-17.6	0
Stage 3	-17.8	0
Stage 3	-18	0
Stage 3	-18.2	0
Stage 3	-18.4	0
Stage 3	-18.6	0
Stage 3	-18.8	0
Stage 3	-19	0
Stage 3	-19.2	0
Stage 3	-19.4	0
Stage 3	-19.6	0
Stage 3	-19.8	0
Stage 3	-20	0
Stage 3	-20.2	0
Stage 3	-20.4	0
Stage 3	-20.6	0
Stage 3	-20.8	0
Stage 3	-21	0
Stage 3	-21.2	0
Stage 3	-21.4	0
Stage 3	-21.6	0
Stage 3	-21.8	0
Stage 3	-22	0
Stage 3	-22.2	0
Stage 3	-22.4	0
Stage 3	-22.6	0
Stage 3	-22.8	0
Stage 3	-23	0
Stage 3	-23.2	0
Stage 3	-23.4	0
Stage 3	-23.6	0
Stage 3	-23.8	0
Stage 3	-24	0
Stage 3	-24.2	0
Stage 3	-24.4	0
Stage 3	-24.6	0
Stage 3	-24.8	0
Stage 3	-25	0
Stage 3	-25.2	0
Stage 3	-25.4	0
Stage 3	-25.6	0
Stage 3	-25.8	0
Stage 3	-26	0
Stage 3	-26.2	0
Stage 3	-26.4	0
Stage 3	-26.6	0
Stage 3	-26.8	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	-27	0
Stage 3	-27.2	0
Stage 3	-27.4	0
Stage 3	-27.6	0
Stage 3	-27.8	0
Stage 3	-28	0
Stage 3	-28.2	0
Stage 3	-28.4	0
Stage 3	-28.6	0
Stage 3	-28.8	0
Stage 3	-29	0
Stage 3	-29.2	0
Stage 3	-29.4	0
Stage 3	-29.6	0
Stage 3	-29.8	0
Stage 3	-30	0

Tabella Spostamento Nominal - LEFT Stage: Stage 4

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	0.5	0.05
Stage 4	0.3	0.09
Stage 4	0.1	0.13
Stage 4	-0.1	0.17
Stage 4	-0.3	0.2
Stage 4	-0.5	0.24
Stage 4	-0.7	0.28
Stage 4	-0.9	0.32
Stage 4	-1.1	0.36
Stage 4	-1.3	0.4
Stage 4	-1.5	0.44
Stage 4	-1.7	0.48
Stage 4	-1.9	0.52
Stage 4	-2.1	0.57
Stage 4	-2.3	0.61
Stage 4	-2.5	0.65
Stage 4	-2.7	0.69
Stage 4	-2.9	0.72
Stage 4	-3.1	0.76
Stage 4	-3.3	0.79
Stage 4	-3.5	0.81
Stage 4	-3.7	0.84
Stage 4	-3.9	0.86
Stage 4	-4	0.87
Stage 4	-4.2	0.88
Stage 4	-4.4	0.89
Stage 4	-4.6	0.9
Stage 4	-4.8	0.9
Stage 4	-5	0.9
Stage 4	-5.2	0.89
Stage 4	-5.4	0.88
Stage 4	-5.6	0.87
Stage 4	-5.8	0.85
Stage 4	-6	0.83
Stage 4	-6.2	0.81
Stage 4	-6.4	0.79
Stage 4	-6.6	0.76
Stage 4	-6.8	0.73
Stage 4	-7	0.71
Stage 4	-7.2	0.68
Stage 4	-7.4	0.64
Stage 4	-7.6	0.61
Stage 4	-7.8	0.58
Stage 4	-8	0.55
Stage 4	-8.2	0.52
Stage 4	-8.4	0.48
Stage 4	-8.6	0.45
Stage 4	-8.8	0.42
Stage 4	-9	0.39
Stage 4	-9.2	0.36
Stage 4	-9.4	0.33
Stage 4	-9.6	0.3
Stage 4	-9.8	0.28
Stage 4	-10	0.25
Stage 4	-10.2	0.23
Stage 4	-10.4	0.2
Stage 4	-10.6	0.18
Stage 4	-10.8	0.16
Stage 4	-11	0.14
Stage 4	-11.2	0.12
Stage 4	-11.4	0.1
Stage 4	-11.6	0.09
Stage 4	-11.8	0.07
Stage 4	-12	0.06
Stage 4	-12.2	0.05
Stage 4	-12.4	0.03
Stage 4	-12.6	0.02

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	-12.8	0.02
Stage 4	-13	0.01
Stage 4	-13.2	0
Stage 4	-13.4	-0.01
Stage 4	-13.6	-0.01
Stage 4	-13.8	-0.02
Stage 4	-14	-0.02
Stage 4	-14.2	-0.03
Stage 4	-14.4	-0.03
Stage 4	-14.6	-0.03
Stage 4	-14.8	-0.03
Stage 4	-15	-0.04
Stage 4	-15.2	-0.04
Stage 4	-15.4	-0.04
Stage 4	-15.6	-0.04
Stage 4	-15.8	-0.04
Stage 4	-16	-0.04
Stage 4	-16.2	-0.04
Stage 4	-16.4	-0.04
Stage 4	-16.6	-0.04
Stage 4	-16.8	-0.04
Stage 4	-17	-0.04
Stage 4	-17.2	-0.03
Stage 4	-17.4	-0.03
Stage 4	-17.6	-0.03
Stage 4	-17.8	-0.03
Stage 4	-18	-0.03
Stage 4	-18.2	-0.03
Stage 4	-18.4	-0.03
Stage 4	-18.6	-0.02
Stage 4	-18.8	-0.02
Stage 4	-19	-0.02
Stage 4	-19.2	-0.02
Stage 4	-19.4	-0.02
Stage 4	-19.6	-0.02
Stage 4	-19.8	-0.02
Stage 4	-20	-0.01
Stage 4	-20.2	-0.01
Stage 4	-20.4	-0.01
Stage 4	-20.6	-0.01
Stage 4	-20.8	-0.01
Stage 4	-21	-0.01
Stage 4	-21.2	-0.01
Stage 4	-21.4	-0.01
Stage 4	-21.6	-0.01
Stage 4	-21.8	0
Stage 4	-22	0
Stage 4	-22.2	0
Stage 4	-22.4	0
Stage 4	-22.6	0
Stage 4	-22.8	0
Stage 4	-23	0
Stage 4	-23.2	0
Stage 4	-23.4	0
Stage 4	-23.6	0
Stage 4	-23.8	0
Stage 4	-24	0
Stage 4	-24.2	0
Stage 4	-24.4	0
Stage 4	-24.6	0
Stage 4	-24.8	0
Stage 4	-25	0
Stage 4	-25.2	0
Stage 4	-25.4	0
Stage 4	-25.6	0
Stage 4	-25.8	0
Stage 4	-26	0
Stage 4	-26.2	0
Stage 4	-26.4	0
Stage 4	-26.6	0
Stage 4	-26.8	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	-27	0
Stage 4	-27.2	0
Stage 4	-27.4	0
Stage 4	-27.6	0
Stage 4	-27.8	0
Stage 4	-28	0
Stage 4	-28.2	0
Stage 4	-28.4	0
Stage 4	-28.6	0
Stage 4	-28.8	0
Stage 4	-29	0
Stage 4	-29.2	0
Stage 4	-29.4	0
Stage 4	-29.6	0
Stage 4	-29.8	0
Stage 4	-30	0

Tabella Spostamento Nominal - LEFT Stage: Stage 5

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	0.5	-0.58
Stage 5	0.3	-0.56
Stage 5	0.1	-0.53
Stage 5	-0.1	-0.51
Stage 5	-0.3	-0.49
Stage 5	-0.5	-0.47
Stage 5	-0.7	-0.45
Stage 5	-0.9	-0.42
Stage 5	-1.1	-0.4
Stage 5	-1.3	-0.37
Stage 5	-1.5	-0.35
Stage 5	-1.7	-0.32
Stage 5	-1.9	-0.29
Stage 5	-2.1	-0.26
Stage 5	-2.3	-0.23
Stage 5	-2.5	-0.2
Stage 5	-2.7	-0.17
Stage 5	-2.9	-0.14
Stage 5	-3.1	-0.11
Stage 5	-3.3	-0.08
Stage 5	-3.5	-0.06
Stage 5	-3.7	-0.03
Stage 5	-3.9	0
Stage 5	-4	0.01
Stage 5	-4.2	0.04
Stage 5	-4.4	0.07
Stage 5	-4.6	0.09
Stage 5	-4.8	0.11
Stage 5	-5	0.14
Stage 5	-5.2	0.16
Stage 5	-5.4	0.17
Stage 5	-5.6	0.19
Stage 5	-5.8	0.2
Stage 5	-6	0.21
Stage 5	-6.2	0.22
Stage 5	-6.4	0.23
Stage 5	-6.6	0.23
Stage 5	-6.8	0.24
Stage 5	-7	0.24
Stage 5	-7.2	0.24
Stage 5	-7.4	0.24
Stage 5	-7.6	0.23
Stage 5	-7.8	0.23
Stage 5	-8	0.22
Stage 5	-8.2	0.22
Stage 5	-8.4	0.21
Stage 5	-8.6	0.2
Stage 5	-8.8	0.2
Stage 5	-9	0.19
Stage 5	-9.2	0.18
Stage 5	-9.4	0.17
Stage 5	-9.6	0.16
Stage 5	-9.8	0.15
Stage 5	-10	0.14
Stage 5	-10.2	0.13
Stage 5	-10.4	0.12
Stage 5	-10.6	0.11
Stage 5	-10.8	0.1
Stage 5	-11	0.1
Stage 5	-11.2	0.09
Stage 5	-11.4	0.08
Stage 5	-11.6	0.07
Stage 5	-11.8	0.06
Stage 5	-12	0.06
Stage 5	-12.2	0.05
Stage 5	-12.4	0.04
Stage 5	-12.6	0.04

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	-12.8	0.03
Stage 5	-13	0.03
Stage 5	-13.2	0.02
Stage 5	-13.4	0.02
Stage 5	-13.6	0.01
Stage 5	-13.8	0.01
Stage 5	-14	0.01
Stage 5	-14.2	0
Stage 5	-14.4	0
Stage 5	-14.6	0
Stage 5	-14.8	0
Stage 5	-15	-0.01
Stage 5	-15.2	-0.01
Stage 5	-15.4	-0.01
Stage 5	-15.6	-0.01
Stage 5	-15.8	-0.01
Stage 5	-16	-0.01
Stage 5	-16.2	-0.01
Stage 5	-16.4	-0.01
Stage 5	-16.6	-0.01
Stage 5	-16.8	-0.02
Stage 5	-17	-0.02
Stage 5	-17.2	-0.02
Stage 5	-17.4	-0.02
Stage 5	-17.6	-0.02
Stage 5	-17.8	-0.01
Stage 5	-18	-0.01
Stage 5	-18.2	-0.01
Stage 5	-18.4	-0.01
Stage 5	-18.6	-0.01
Stage 5	-18.8	-0.01
Stage 5	-19	-0.01
Stage 5	-19.2	-0.01
Stage 5	-19.4	-0.01
Stage 5	-19.6	-0.01
Stage 5	-19.8	-0.01
Stage 5	-20	-0.01
Stage 5	-20.2	-0.01
Stage 5	-20.4	-0.01
Stage 5	-20.6	-0.01
Stage 5	-20.8	-0.01
Stage 5	-21	-0.01
Stage 5	-21.2	-0.01
Stage 5	-21.4	-0.01
Stage 5	-21.6	-0.01
Stage 5	-21.8	0
Stage 5	-22	0
Stage 5	-22.2	0
Stage 5	-22.4	0
Stage 5	-22.6	0
Stage 5	-22.8	0
Stage 5	-23	0
Stage 5	-23.2	0
Stage 5	-23.4	0
Stage 5	-23.6	0
Stage 5	-23.8	0
Stage 5	-24	0
Stage 5	-24.2	0
Stage 5	-24.4	0
Stage 5	-24.6	0
Stage 5	-24.8	0
Stage 5	-25	0
Stage 5	-25.2	0
Stage 5	-25.4	0
Stage 5	-25.6	0
Stage 5	-25.8	0
Stage 5	-26	0
Stage 5	-26.2	0
Stage 5	-26.4	0
Stage 5	-26.6	0
Stage 5	-26.8	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 5	-27	0
Stage 5	-27.2	0
Stage 5	-27.4	0
Stage 5	-27.6	0
Stage 5	-27.8	0
Stage 5	-28	0
Stage 5	-28.2	0
Stage 5	-28.4	0
Stage 5	-28.6	0
Stage 5	-28.8	0
Stage 5	-29	0
Stage 5	-29.2	0
Stage 5	-29.4	0
Stage 5	-29.6	0
Stage 5	-29.8	0
Stage 5	-30	0

Tabella Spostamento Nominal - LEFT Stage: Stage 6

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	0.5	-0.91
Stage 6	0.3	-0.75
Stage 6	0.1	-0.59
Stage 6	-0.1	-0.43
Stage 6	-0.3	-0.27
Stage 6	-0.5	-0.11
Stage 6	-0.7	0.05
Stage 6	-0.9	0.21
Stage 6	-1.1	0.37
Stage 6	-1.3	0.53
Stage 6	-1.5	0.7
Stage 6	-1.7	0.86
Stage 6	-1.9	1.03
Stage 6	-2.1	1.19
Stage 6	-2.3	1.36
Stage 6	-2.5	1.53
Stage 6	-2.7	1.69
Stage 6	-2.9	1.86
Stage 6	-3.1	2.02
Stage 6	-3.3	2.18
Stage 6	-3.5	2.34
Stage 6	-3.7	2.5
Stage 6	-3.9	2.65
Stage 6	-4	2.73
Stage 6	-4.2	2.88
Stage 6	-4.4	3.03
Stage 6	-4.6	3.18
Stage 6	-4.8	3.32
Stage 6	-5	3.45
Stage 6	-5.2	3.58
Stage 6	-5.4	3.7
Stage 6	-5.6	3.81
Stage 6	-5.8	3.92
Stage 6	-6	4.01
Stage 6	-6.2	4.1
Stage 6	-6.4	4.18
Stage 6	-6.6	4.24
Stage 6	-6.8	4.3
Stage 6	-7	4.35
Stage 6	-7.2	4.38
Stage 6	-7.4	4.4
Stage 6	-7.6	4.42
Stage 6	-7.8	4.42
Stage 6	-8	4.41
Stage 6	-8.2	4.39
Stage 6	-8.4	4.36
Stage 6	-8.6	4.32
Stage 6	-8.8	4.27
Stage 6	-9	4.21
Stage 6	-9.2	4.14
Stage 6	-9.4	4.07
Stage 6	-9.6	3.99
Stage 6	-9.8	3.9
Stage 6	-10	3.8
Stage 6	-10.2	3.71
Stage 6	-10.4	3.6
Stage 6	-10.6	3.5
Stage 6	-10.8	3.39
Stage 6	-11	3.29
Stage 6	-11.2	3.18
Stage 6	-11.4	3.07
Stage 6	-11.6	2.96
Stage 6	-11.8	2.85
Stage 6	-12	2.75
Stage 6	-12.2	2.65
Stage 6	-12.4	2.54
Stage 6	-12.6	2.45

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	-12.8	2.35
Stage 6	-13	2.26
Stage 6	-13.2	2.17
Stage 6	-13.4	2.08
Stage 6	-13.6	1.99
Stage 6	-13.8	1.91
Stage 6	-14	1.84
Stage 6	-14.2	1.76
Stage 6	-14.4	1.69
Stage 6	-14.6	1.63
Stage 6	-14.8	1.56
Stage 6	-15	1.51
Stage 6	-15.2	1.45
Stage 6	-15.4	1.4
Stage 6	-15.6	1.35
Stage 6	-15.8	1.3
Stage 6	-16	1.26
Stage 6	-16.2	1.22
Stage 6	-16.4	1.18
Stage 6	-16.6	1.14
Stage 6	-16.8	1.11
Stage 6	-17	1.08
Stage 6	-17.2	1.05
Stage 6	-17.4	1.03
Stage 6	-17.6	1
Stage 6	-17.8	0.98
Stage 6	-18	0.96
Stage 6	-18.2	0.94
Stage 6	-18.4	0.93
Stage 6	-18.6	0.91
Stage 6	-18.8	0.9
Stage 6	-19	0.89
Stage 6	-19.2	0.88
Stage 6	-19.4	0.87
Stage 6	-19.6	0.86
Stage 6	-19.8	0.85
Stage 6	-20	0.85
Stage 6	-20.2	0.84
Stage 6	-20.4	0.84
Stage 6	-20.6	0.83
Stage 6	-20.8	0.83
Stage 6	-21	0.83
Stage 6	-21.2	0.82
Stage 6	-21.4	0.82
Stage 6	-21.6	0.82
Stage 6	-21.8	0.82
Stage 6	-22	0.81
Stage 6	-22.2	0.81
Stage 6	-22.4	0.81
Stage 6	-22.6	0.81
Stage 6	-22.8	0.81
Stage 6	-23	0.81
Stage 6	-23.2	0.81
Stage 6	-23.4	0.81
Stage 6	-23.6	0.81
Stage 6	-23.8	0.81
Stage 6	-24	0.8
Stage 6	-24.2	0.8
Stage 6	-24.4	0.8
Stage 6	-24.6	0.8
Stage 6	-24.8	0.8
Stage 6	-25	0.8
Stage 6	-25.2	0.8
Stage 6	-25.4	0.8
Stage 6	-25.6	0.79
Stage 6	-25.8	0.79
Stage 6	-26	0.79
Stage 6	-26.2	0.79
Stage 6	-26.4	0.79
Stage 6	-26.6	0.79
Stage 6	-26.8	0.78

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 6	-27	0.78
Stage 6	-27.2	0.78
Stage 6	-27.4	0.78
Stage 6	-27.6	0.77
Stage 6	-27.8	0.77
Stage 6	-28	0.77
Stage 6	-28.2	0.77
Stage 6	-28.4	0.76
Stage 6	-28.6	0.76
Stage 6	-28.8	0.76
Stage 6	-29	0.76
Stage 6	-29.2	0.75
Stage 6	-29.4	0.75
Stage 6	-29.6	0.75
Stage 6	-29.8	0.75
Stage 6	-30	0.74

Tabella Spostamento Nominal - LEFT Stage: Stage 7

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	0.5	-0.82
Stage 7	0.3	-0.71
Stage 7	0.1	-0.6
Stage 7	-0.1	-0.48
Stage 7	-0.3	-0.37
Stage 7	-0.5	-0.26
Stage 7	-0.7	-0.15
Stage 7	-0.9	-0.04
Stage 7	-1.1	0.08
Stage 7	-1.3	0.19
Stage 7	-1.5	0.31
Stage 7	-1.7	0.43
Stage 7	-1.9	0.55
Stage 7	-2.1	0.66
Stage 7	-2.3	0.78
Stage 7	-2.5	0.9
Stage 7	-2.7	1.02
Stage 7	-2.9	1.14
Stage 7	-3.1	1.26
Stage 7	-3.3	1.37
Stage 7	-3.5	1.49
Stage 7	-3.7	1.6
Stage 7	-3.9	1.71
Stage 7	-4	1.77
Stage 7	-4.2	1.88
Stage 7	-4.4	1.98
Stage 7	-4.6	2.09
Stage 7	-4.8	2.19
Stage 7	-5	2.28
Stage 7	-5.2	2.38
Stage 7	-5.4	2.46
Stage 7	-5.6	2.54
Stage 7	-5.8	2.62
Stage 7	-6	2.68
Stage 7	-6.2	2.74
Stage 7	-6.4	2.8
Stage 7	-6.6	2.85
Stage 7	-6.8	2.89
Stage 7	-7	2.92
Stage 7	-7.2	2.95
Stage 7	-7.4	2.97
Stage 7	-7.6	2.99
Stage 7	-7.8	2.99
Stage 7	-8	3
Stage 7	-8.2	3
Stage 7	-8.4	2.99
Stage 7	-8.6	2.98
Stage 7	-8.8	2.97
Stage 7	-9	2.94
Stage 7	-9.2	2.92
Stage 7	-9.4	2.89
Stage 7	-9.6	2.85
Stage 7	-9.8	2.81
Stage 7	-10	2.76
Stage 7	-10.2	2.72
Stage 7	-10.4	2.66
Stage 7	-10.6	2.61
Stage 7	-10.8	2.55
Stage 7	-11	2.5
Stage 7	-11.2	2.44
Stage 7	-11.4	2.38
Stage 7	-11.6	2.31
Stage 7	-11.8	2.25
Stage 7	-12	2.19
Stage 7	-12.2	2.13
Stage 7	-12.4	2.07
Stage 7	-12.6	2.01

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	-12.8	1.96
Stage 7	-13	1.9
Stage 7	-13.2	1.84
Stage 7	-13.4	1.79
Stage 7	-13.6	1.74
Stage 7	-13.8	1.69
Stage 7	-14	1.64
Stage 7	-14.2	1.59
Stage 7	-14.4	1.55
Stage 7	-14.6	1.5
Stage 7	-14.8	1.46
Stage 7	-15	1.42
Stage 7	-15.2	1.38
Stage 7	-15.4	1.35
Stage 7	-15.6	1.31
Stage 7	-15.8	1.28
Stage 7	-16	1.25
Stage 7	-16.2	1.22
Stage 7	-16.4	1.19
Stage 7	-16.6	1.17
Stage 7	-16.8	1.14
Stage 7	-17	1.12
Stage 7	-17.2	1.1
Stage 7	-17.4	1.08
Stage 7	-17.6	1.06
Stage 7	-17.8	1.04
Stage 7	-18	1.02
Stage 7	-18.2	1.01
Stage 7	-18.4	1
Stage 7	-18.6	0.98
Stage 7	-18.8	0.97
Stage 7	-19	0.96
Stage 7	-19.2	0.95
Stage 7	-19.4	0.94
Stage 7	-19.6	0.93
Stage 7	-19.8	0.92
Stage 7	-20	0.91
Stage 7	-20.2	0.91
Stage 7	-20.4	0.9
Stage 7	-20.6	0.89
Stage 7	-20.8	0.89
Stage 7	-21	0.88
Stage 7	-21.2	0.88
Stage 7	-21.4	0.87
Stage 7	-21.6	0.87
Stage 7	-21.8	0.87
Stage 7	-22	0.86
Stage 7	-22.2	0.86
Stage 7	-22.4	0.85
Stage 7	-22.6	0.85
Stage 7	-22.8	0.85
Stage 7	-23	0.84
Stage 7	-23.2	0.84
Stage 7	-23.4	0.84
Stage 7	-23.6	0.84
Stage 7	-23.8	0.83
Stage 7	-24	0.83
Stage 7	-24.2	0.83
Stage 7	-24.4	0.82
Stage 7	-24.6	0.82
Stage 7	-24.8	0.82
Stage 7	-25	0.81
Stage 7	-25.2	0.81
Stage 7	-25.4	0.81
Stage 7	-25.6	0.81
Stage 7	-25.8	0.8
Stage 7	-26	0.8
Stage 7	-26.2	0.8
Stage 7	-26.4	0.79
Stage 7	-26.6	0.79
Stage 7	-26.8	0.79

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	-27	0.78
Stage 7	-27.2	0.78
Stage 7	-27.4	0.78
Stage 7	-27.6	0.77
Stage 7	-27.8	0.77
Stage 7	-28	0.77
Stage 7	-28.2	0.76
Stage 7	-28.4	0.76
Stage 7	-28.6	0.76
Stage 7	-28.8	0.75
Stage 7	-29	0.75
Stage 7	-29.2	0.74
Stage 7	-29.4	0.74
Stage 7	-29.6	0.74
Stage 7	-29.8	0.73
Stage 7	-30	0.73

Tabella Spostamento Nominal - LEFT Stage: Stage 8

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 8	0.5	-2.23
Stage 8	0.3	-1.96
Stage 8	0.1	-1.7
Stage 8	-0.1	-1.43
Stage 8	-0.3	-1.16
Stage 8	-0.5	-0.89
Stage 8	-0.7	-0.63
Stage 8	-0.9	-0.36
Stage 8	-1.1	-0.09
Stage 8	-1.3	0.18
Stage 8	-1.5	0.45
Stage 8	-1.7	0.73
Stage 8	-1.9	1
Stage 8	-2.1	1.28
Stage 8	-2.3	1.55
Stage 8	-2.5	1.83
Stage 8	-2.7	2.11
Stage 8	-2.9	2.38
Stage 8	-3.1	2.66
Stage 8	-3.3	2.93
Stage 8	-3.5	3.21
Stage 8	-3.7	3.48
Stage 8	-3.9	3.75
Stage 8	-4	3.88
Stage 8	-4.2	4.15
Stage 8	-4.4	4.42
Stage 8	-4.6	4.68
Stage 8	-4.8	4.94
Stage 8	-5	5.2
Stage 8	-5.2	5.44
Stage 8	-5.4	5.69
Stage 8	-5.6	5.92
Stage 8	-5.8	6.15
Stage 8	-6	6.37
Stage 8	-6.2	6.59
Stage 8	-6.4	6.79
Stage 8	-6.6	6.99
Stage 8	-6.8	7.17
Stage 8	-7	7.35
Stage 8	-7.2	7.52
Stage 8	-7.4	7.68
Stage 8	-7.6	7.82
Stage 8	-7.8	7.96
Stage 8	-8	8.09
Stage 8	-8.2	8.21
Stage 8	-8.4	8.32
Stage 8	-8.6	8.42
Stage 8	-8.8	8.5
Stage 8	-9	8.57
Stage 8	-9.2	8.63
Stage 8	-9.4	8.68
Stage 8	-9.6	8.72
Stage 8	-9.8	8.74
Stage 8	-10	8.74
Stage 8	-10.2	8.73
Stage 8	-10.4	8.71
Stage 8	-10.6	8.67
Stage 8	-10.8	8.62
Stage 8	-11	8.55
Stage 8	-11.2	8.47
Stage 8	-11.4	8.38
Stage 8	-11.6	8.28
Stage 8	-11.8	8.16
Stage 8	-12	8.03
Stage 8	-12.2	7.89
Stage 8	-12.4	7.74
Stage 8	-12.6	7.58

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 8	-12.8	7.42
Stage 8	-13	7.24
Stage 8	-13.2	7.07
Stage 8	-13.4	6.88
Stage 8	-13.6	6.69
Stage 8	-13.8	6.5
Stage 8	-14	6.31
Stage 8	-14.2	6.11
Stage 8	-14.4	5.92
Stage 8	-14.6	5.72
Stage 8	-14.8	5.53
Stage 8	-15	5.34
Stage 8	-15.2	5.15
Stage 8	-15.4	4.96
Stage 8	-15.6	4.78
Stage 8	-15.8	4.61
Stage 8	-16	4.43
Stage 8	-16.2	4.26
Stage 8	-16.4	4.1
Stage 8	-16.6	3.94
Stage 8	-16.8	3.79
Stage 8	-17	3.65
Stage 8	-17.2	3.51
Stage 8	-17.4	3.37
Stage 8	-17.6	3.24
Stage 8	-17.8	3.12
Stage 8	-18	3
Stage 8	-18.2	2.89
Stage 8	-18.4	2.79
Stage 8	-18.6	2.69
Stage 8	-18.8	2.6
Stage 8	-19	2.51
Stage 8	-19.2	2.43
Stage 8	-19.4	2.35
Stage 8	-19.6	2.27
Stage 8	-19.8	2.21
Stage 8	-20	2.14
Stage 8	-20.2	2.09
Stage 8	-20.4	2.03
Stage 8	-20.6	1.98
Stage 8	-20.8	1.93
Stage 8	-21	1.89
Stage 8	-21.2	1.85
Stage 8	-21.4	1.82
Stage 8	-21.6	1.78
Stage 8	-21.8	1.76
Stage 8	-22	1.73
Stage 8	-22.2	1.7
Stage 8	-22.4	1.68
Stage 8	-22.6	1.66
Stage 8	-22.8	1.65
Stage 8	-23	1.63
Stage 8	-23.2	1.62
Stage 8	-23.4	1.61
Stage 8	-23.6	1.6
Stage 8	-23.8	1.59
Stage 8	-24	1.58
Stage 8	-24.2	1.57
Stage 8	-24.4	1.57
Stage 8	-24.6	1.57
Stage 8	-24.8	1.56
Stage 8	-25	1.56
Stage 8	-25.2	1.56
Stage 8	-25.4	1.56
Stage 8	-25.6	1.56
Stage 8	-25.8	1.56
Stage 8	-26	1.56
Stage 8	-26.2	1.56
Stage 8	-26.4	1.56
Stage 8	-26.6	1.56
Stage 8	-26.8	1.57

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 8	-27	1.57
Stage 8	-27.2	1.57
Stage 8	-27.4	1.57
Stage 8	-27.6	1.58
Stage 8	-27.8	1.58
Stage 8	-28	1.58
Stage 8	-28.2	1.58
Stage 8	-28.4	1.59
Stage 8	-28.6	1.59
Stage 8	-28.8	1.59
Stage 8	-29	1.6
Stage 8	-29.2	1.6
Stage 8	-29.4	1.6
Stage 8	-29.6	1.61
Stage 8	-29.8	1.61
Stage 8	-30	1.61

Tabella Spostamento Nominal - LEFT Stage: Stage 9

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 9	0.5	-1.87
Stage 9	0.3	-1.64
Stage 9	0.1	-1.41
Stage 9	-0.1	-1.18
Stage 9	-0.3	-0.94
Stage 9	-0.5	-0.71
Stage 9	-0.7	-0.48
Stage 9	-0.9	-0.25
Stage 9	-1.1	-0.02
Stage 9	-1.3	0.22
Stage 9	-1.5	0.45
Stage 9	-1.7	0.69
Stage 9	-1.9	0.93
Stage 9	-2.1	1.17
Stage 9	-2.3	1.4
Stage 9	-2.5	1.64
Stage 9	-2.7	1.88
Stage 9	-2.9	2.12
Stage 9	-3.1	2.36
Stage 9	-3.3	2.6
Stage 9	-3.5	2.83
Stage 9	-3.7	3.06
Stage 9	-3.9	3.3
Stage 9	-4	3.41
Stage 9	-4.2	3.64
Stage 9	-4.4	3.87
Stage 9	-4.6	4.09
Stage 9	-4.8	4.31
Stage 9	-5	4.53
Stage 9	-5.2	4.74
Stage 9	-5.4	4.94
Stage 9	-5.6	5.14
Stage 9	-5.8	5.33
Stage 9	-6	5.51
Stage 9	-6.2	5.68
Stage 9	-6.4	5.85
Stage 9	-6.6	6.01
Stage 9	-6.8	6.16
Stage 9	-7	6.3
Stage 9	-7.2	6.43
Stage 9	-7.4	6.55
Stage 9	-7.6	6.66
Stage 9	-7.8	6.76
Stage 9	-8	6.86
Stage 9	-8.2	6.95
Stage 9	-8.4	7.03
Stage 9	-8.6	7.1
Stage 9	-8.8	7.16
Stage 9	-9	7.21
Stage 9	-9.2	7.25
Stage 9	-9.4	7.27
Stage 9	-9.6	7.29
Stage 9	-9.8	7.3
Stage 9	-10	7.3
Stage 9	-10.2	7.28
Stage 9	-10.4	7.26
Stage 9	-10.6	7.22
Stage 9	-10.8	7.18
Stage 9	-11	7.13
Stage 9	-11.2	7.07
Stage 9	-11.4	7
Stage 9	-11.6	6.92
Stage 9	-11.8	6.84
Stage 9	-12	6.74
Stage 9	-12.2	6.64
Stage 9	-12.4	6.53
Stage 9	-12.6	6.42

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 9	-12.8	6.3
Stage 9	-13	6.17
Stage 9	-13.2	6.04
Stage 9	-13.4	5.9
Stage 9	-13.6	5.76
Stage 9	-13.8	5.62
Stage 9	-14	5.47
Stage 9	-14.2	5.32
Stage 9	-14.4	5.17
Stage 9	-14.6	5.02
Stage 9	-14.8	4.88
Stage 9	-15	4.73
Stage 9	-15.2	4.58
Stage 9	-15.4	4.44
Stage 9	-15.6	4.3
Stage 9	-15.8	4.16
Stage 9	-16	4.02
Stage 9	-16.2	3.89
Stage 9	-16.4	3.76
Stage 9	-16.6	3.63
Stage 9	-16.8	3.51
Stage 9	-17	3.39
Stage 9	-17.2	3.28
Stage 9	-17.4	3.17
Stage 9	-17.6	3.07
Stage 9	-17.8	2.97
Stage 9	-18	2.87
Stage 9	-18.2	2.78
Stage 9	-18.4	2.7
Stage 9	-18.6	2.62
Stage 9	-18.8	2.54
Stage 9	-19	2.47
Stage 9	-19.2	2.4
Stage 9	-19.4	2.33
Stage 9	-19.6	2.27
Stage 9	-19.8	2.21
Stage 9	-20	2.16
Stage 9	-20.2	2.11
Stage 9	-20.4	2.06
Stage 9	-20.6	2.02
Stage 9	-20.8	1.98
Stage 9	-21	1.94
Stage 9	-21.2	1.9
Stage 9	-21.4	1.87
Stage 9	-21.6	1.84
Stage 9	-21.8	1.82
Stage 9	-22	1.79
Stage 9	-22.2	1.77
Stage 9	-22.4	1.75
Stage 9	-22.6	1.73
Stage 9	-22.8	1.71
Stage 9	-23	1.7
Stage 9	-23.2	1.68
Stage 9	-23.4	1.67
Stage 9	-23.6	1.66
Stage 9	-23.8	1.65
Stage 9	-24	1.64
Stage 9	-24.2	1.63
Stage 9	-24.4	1.63
Stage 9	-24.6	1.62
Stage 9	-24.8	1.62
Stage 9	-25	1.61
Stage 9	-25.2	1.61
Stage 9	-25.4	1.61
Stage 9	-25.6	1.6
Stage 9	-25.8	1.6
Stage 9	-26	1.6
Stage 9	-26.2	1.6
Stage 9	-26.4	1.6
Stage 9	-26.6	1.6
Stage 9	-26.8	1.6

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 9	-27	1.6
Stage 9	-27.2	1.6
Stage 9	-27.4	1.6
Stage 9	-27.6	1.6
Stage 9	-27.8	1.6
Stage 9	-28	1.6
Stage 9	-28.2	1.6
Stage 9	-28.4	1.6
Stage 9	-28.6	1.6
Stage 9	-28.8	1.6
Stage 9	-29	1.6
Stage 9	-29.2	1.6
Stage 9	-29.4	1.6
Stage 9	-29.6	1.6
Stage 9	-29.8	1.6
Stage 9	-30	1.6

Tabella Spostamento Nominal - LEFT Stage: Stage 10

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 10	0.5	-4.35
Stage 10	0.3	-3.87
Stage 10	0.1	-3.39
Stage 10	-0.1	-2.91
Stage 10	-0.3	-2.43
Stage 10	-0.5	-1.95
Stage 10	-0.7	-1.47
Stage 10	-0.9	-0.99
Stage 10	-1.1	-0.51
Stage 10	-1.3	-0.02
Stage 10	-1.5	0.46
Stage 10	-1.7	0.95
Stage 10	-1.9	1.44
Stage 10	-2.1	1.92
Stage 10	-2.3	2.41
Stage 10	-2.5	2.9
Stage 10	-2.7	3.39
Stage 10	-2.9	3.88
Stage 10	-3.1	4.37
Stage 10	-3.3	4.86
Stage 10	-3.5	5.35
Stage 10	-3.7	5.84
Stage 10	-3.9	6.32
Stage 10	-4	6.56
Stage 10	-4.2	7.05
Stage 10	-4.4	7.53
Stage 10	-4.6	8.01
Stage 10	-4.8	8.48
Stage 10	-5	8.95
Stage 10	-5.2	9.41
Stage 10	-5.4	9.87
Stage 10	-5.6	10.32
Stage 10	-5.8	10.76
Stage 10	-6	11.2
Stage 10	-6.2	11.62
Stage 10	-6.4	12.04
Stage 10	-6.6	12.45
Stage 10	-6.8	12.85
Stage 10	-7	13.23
Stage 10	-7.2	13.61
Stage 10	-7.4	13.98
Stage 10	-7.6	14.34
Stage 10	-7.8	14.68
Stage 10	-8	15.02
Stage 10	-8.2	15.35
Stage 10	-8.4	15.66
Stage 10	-8.6	15.96
Stage 10	-8.8	16.25
Stage 10	-9	16.53
Stage 10	-9.2	16.79
Stage 10	-9.4	17.04
Stage 10	-9.6	17.27
Stage 10	-9.8	17.48
Stage 10	-10	17.68
Stage 10	-10.2	17.86
Stage 10	-10.4	18.02
Stage 10	-10.6	18.17
Stage 10	-10.8	18.3
Stage 10	-11	18.42
Stage 10	-11.2	18.51
Stage 10	-11.4	18.59
Stage 10	-11.6	18.65
Stage 10	-11.8	18.69
Stage 10	-12	18.72
Stage 10	-12.2	18.72
Stage 10	-12.4	18.69
Stage 10	-12.6	18.65

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 10	-12.8	18.59
Stage 10	-13	18.5
Stage 10	-13.2	18.39
Stage 10	-13.4	18.26
Stage 10	-13.6	18.11
Stage 10	-13.8	17.93
Stage 10	-14	17.74
Stage 10	-14.2	17.52
Stage 10	-14.4	17.28
Stage 10	-14.6	17.03
Stage 10	-14.8	16.75
Stage 10	-15	16.46
Stage 10	-15.2	16.15
Stage 10	-15.4	15.83
Stage 10	-15.6	15.49
Stage 10	-15.8	15.14
Stage 10	-16	14.78
Stage 10	-16.2	14.41
Stage 10	-16.4	14.03
Stage 10	-16.6	13.64
Stage 10	-16.8	13.25
Stage 10	-17	12.85
Stage 10	-17.2	12.45
Stage 10	-17.4	12.05
Stage 10	-17.6	11.65
Stage 10	-17.8	11.25
Stage 10	-18	10.86
Stage 10	-18.2	10.46
Stage 10	-18.4	10.07
Stage 10	-18.6	9.69
Stage 10	-18.8	9.31
Stage 10	-19	8.94
Stage 10	-19.2	8.58
Stage 10	-19.4	8.23
Stage 10	-19.6	7.88
Stage 10	-19.8	7.55
Stage 10	-20	7.23
Stage 10	-20.2	6.92
Stage 10	-20.4	6.61
Stage 10	-20.6	6.33
Stage 10	-20.8	6.05
Stage 10	-21	5.78
Stage 10	-21.2	5.53
Stage 10	-21.4	5.28
Stage 10	-21.6	5.05
Stage 10	-21.8	4.83
Stage 10	-22	4.62
Stage 10	-22.2	4.42
Stage 10	-22.4	4.23
Stage 10	-22.6	4.05
Stage 10	-22.8	3.89
Stage 10	-23	3.73
Stage 10	-23.2	3.58
Stage 10	-23.4	3.44
Stage 10	-23.6	3.31
Stage 10	-23.8	3.18
Stage 10	-24	3.07
Stage 10	-24.2	2.96
Stage 10	-24.4	2.86
Stage 10	-24.6	2.76
Stage 10	-24.8	2.67
Stage 10	-25	2.59
Stage 10	-25.2	2.52
Stage 10	-25.4	2.44
Stage 10	-25.6	2.38
Stage 10	-25.8	2.31
Stage 10	-26	2.26
Stage 10	-26.2	2.2
Stage 10	-26.4	2.15
Stage 10	-26.6	2.1
Stage 10	-26.8	2.06

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 10	-27	2.01
Stage 10	-27.2	1.97
Stage 10	-27.4	1.94
Stage 10	-27.6	1.9
Stage 10	-27.8	1.86
Stage 10	-28	1.83
Stage 10	-28.2	1.8
Stage 10	-28.4	1.76
Stage 10	-28.6	1.73
Stage 10	-28.8	1.7
Stage 10	-29	1.67
Stage 10	-29.2	1.64
Stage 10	-29.4	1.61
Stage 10	-29.6	1.58
Stage 10	-29.8	1.55
Stage 10	-30	1.52

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	0.5	0	0
Stage 1	0.3	0	0
Stage 1	0.1	0	0
Stage 1	-0.1	0	0
Stage 1	-0.3	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	0	0
Stage 1	-4.2	0	0
Stage 1	-4.4	0	0
Stage 1	-4.6	0	0
Stage 1	-4.8	0	0
Stage 1	-5	0	0
Stage 1	-5.2	0	0
Stage 1	-5.4	0	0
Stage 1	-5.6	0	0
Stage 1	-5.8	0	0
Stage 1	-6	0	0
Stage 1	-6.2	0	0
Stage 1	-6.4	0	0
Stage 1	-6.6	0	0
Stage 1	-6.8	0	0
Stage 1	-7	0	0
Stage 1	-7.2	0	0
Stage 1	-7.4	0	0
Stage 1	-7.6	0	0
Stage 1	-7.8	0	0
Stage 1	-8	0	0
Stage 1	-8.2	0	0
Stage 1	-8.4	0	0
Stage 1	-8.6	0	0
Stage 1	-8.8	0	0
Stage 1	-9	0	0
Stage 1	-9.2	0	0
Stage 1	-9.4	0	0
Stage 1	-9.6	0	0
Stage 1	-9.8	0	0
Stage 1	-10	0	0
Stage 1	-10.2	0	0
Stage 1	-10.4	0	0
Stage 1	-10.6	0	0
Stage 1	-10.8	0	0
Stage 1	-11	0	0
Stage 1	-11.2	0	0
Stage 1	-11.4	0	0
Stage 1	-11.6	0	0
Stage 1	-11.8	0	0
Stage 1	-12	0	0

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	-12.2	0	0
Stage 1	-12.4	0	0
Stage 1	-12.6	0	0
Stage 1	-12.8	0	0
Stage 1	-13	0	0
Stage 1	-13.2	0	0
Stage 1	-13.4	0	0
Stage 1	-13.6	0	0
Stage 1	-13.8	0	0
Stage 1	-14	0	0
Stage 1	-14.2	0	0
Stage 1	-14.4	0	0
Stage 1	-14.6	0	0
Stage 1	-14.8	0	0
Stage 1	-15	0	0
Stage 1	-15.2	0	0
Stage 1	-15.4	0	0
Stage 1	-15.6	0	0
Stage 1	-15.8	0	0
Stage 1	-16	0	0
Stage 1	-16.2	0	0
Stage 1	-16.4	0	0
Stage 1	-16.6	0	0
Stage 1	-16.8	0	0
Stage 1	-17	0	0
Stage 1	-17.2	0	0
Stage 1	-17.4	0	0
Stage 1	-17.6	0	0
Stage 1	-17.8	0	0
Stage 1	-18	0	0
Stage 1	-18.2	0	0
Stage 1	-18.4	0	0
Stage 1	-18.6	0	0
Stage 1	-18.8	0	0
Stage 1	-19	0	0
Stage 1	-19.2	0	0
Stage 1	-19.4	0	0
Stage 1	-19.6	0	0
Stage 1	-19.8	0	0
Stage 1	-20	0	0
Stage 1	-20.2	0	0
Stage 1	-20.4	0	0
Stage 1	-20.6	0	0
Stage 1	-20.8	0	0
Stage 1	-21	0	0
Stage 1	-21.2	0	0
Stage 1	-21.4	0	0
Stage 1	-21.6	0	0
Stage 1	-21.8	0	0
Stage 1	-22	0	0
Stage 1	-22.2	0	0
Stage 1	-22.4	0	0
Stage 1	-22.6	0	0
Stage 1	-22.8	0	0
Stage 1	-23	0	0
Stage 1	-23.2	0	0
Stage 1	-23.4	0	0
Stage 1	-23.6	0	0
Stage 1	-23.8	0	0
Stage 1	-24	0	0
Stage 1	-24.2	0	0
Stage 1	-24.4	0	0
Stage 1	-24.6	0	0
Stage 1	-24.8	0	0
Stage 1	-25	0	0
Stage 1	-25.2	0	0
Stage 1	-25.4	0	0
Stage 1	-25.6	0	0
Stage 1	-25.8	0	0
Stage 1	-26	0	0
Stage 1	-26.2	0	0

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 1	-26.4	0	0
Stage 1	-26.6	0	0
Stage 1	-26.8	0	0
Stage 1	-27	0	0
Stage 1	-27.2	0	0
Stage 1	-27.4	0	0
Stage 1	-27.6	0	0
Stage 1	-27.8	0	0
Stage 1	-28	0	0
Stage 1	-28.2	0	0
Stage 1	-28.4	0	0
Stage 1	-28.6	0	0
Stage 1	-28.8	0	0
Stage 1	-29	0	0
Stage 1	-29.2	0	0
Stage 1	-29.4	0	0
Stage 1	-29.6	0	0
Stage 1	-29.8	0	0
Stage 1	-30	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	0.5	0	0
Stage 2	0.3	0	0
Stage 2	0.3	0	0
Stage 2	0.1	0	0
Stage 2	0.1	0	0
Stage 2	-0.1	0	0
Stage 2	-0.1	0	0
Stage 2	-0.3	0	0
Stage 2	-0.3	0	0
Stage 2	-0.5	0	0
Stage 2	-0.5	0	0
Stage 2	-0.7	-0.06	-0.31
Stage 2	-0.9	-0.25	-0.93
Stage 2	-1.1	-0.62	-1.87
Stage 2	-1.3	-1.25	-3.12
Stage 2	-1.5	-2.18	-4.68
Stage 2	-1.7	-3.49	-6.55
Stage 2	-1.9	-5.26	-8.86
Stage 2	-2.1	-7.63	-11.83
Stage 2	-2.3	-10.72	-15.46
Stage 2	-2.5	-14.67	-19.73
Stage 2	-2.7	-18.86	-20.97
Stage 2	-2.9	-22.89	-20.14
Stage 2	-3.1	-26.33	-17.23
Stage 2	-3.3	-29.21	-14.39
Stage 2	-3.5	-31.57	-11.78
Stage 2	-3.7	-33.44	-9.38
Stage 2	-3.9	-34.88	-7.19
Stage 2	-4	-35.45	-5.7
Stage 2	-4.2	-36.31	-4.28
Stage 2	-4.4	-36.82	-2.56
Stage 2	-4.6	-37.02	-1.03
Stage 2	-4.8	-36.96	0.34
Stage 2	-5	-36.65	1.55
Stage 2	-5.2	-36.12	2.62
Stage 2	-5.4	-35.41	3.55
Stage 2	-5.6	-34.54	4.36
Stage 2	-5.8	-33.53	5.04
Stage 2	-6	-32.41	5.62
Stage 2	-6.2	-31.19	6.1
Stage 2	-6.4	-29.89	6.48
Stage 2	-6.6	-28.54	6.77
Stage 2	-6.8	-27.14	6.99
Stage 2	-7	-25.71	7.13
Stage 2	-7.2	-24.27	7.21
Stage 2	-7.4	-22.82	7.24
Stage 2	-7.6	-21.38	7.21
Stage 2	-7.8	-19.95	7.16
Stage 2	-8	-18.54	7.07
Stage 2	-8.2	-17.14	6.97
Stage 2	-8.4	-15.78	6.83
Stage 2	-8.6	-14.44	6.68
Stage 2	-8.8	-13.14	6.51
Stage 2	-9	-11.88	6.32
Stage 2	-9.2	-10.65	6.13
Stage 2	-9.4	-9.46	5.93
Stage 2	-9.6	-8.32	5.72
Stage 2	-9.8	-7.25	5.35
Stage 2	-10	-6.25	4.99
Stage 2	-10.2	-5.33	4.62
Stage 2	-10.4	-4.47	4.26
Stage 2	-10.6	-3.69	3.91
Stage 2	-10.8	-2.98	3.58
Stage 2	-11	-2.33	3.25
Stage 2	-11.2	-1.74	2.93
Stage 2	-11.4	-1.21	2.64
Stage 2	-11.6	-0.74	2.35

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-11.8	-0.33	2.08
Stage 2	-12	0.04	1.83
Stage 2	-12.2	0.36	1.59
Stage 2	-12.4	0.63	1.37
Stage 2	-12.6	0.87	1.17
Stage 2	-12.8	1.07	0.98
Stage 2	-13	1.23	0.81
Stage 2	-13.2	1.36	0.65
Stage 2	-13.4	1.46	0.51
Stage 2	-13.6	1.54	0.38
Stage 2	-13.8	1.59	0.26
Stage 2	-14	1.62	0.16
Stage 2	-14.2	1.64	0.07
Stage 2	-14.4	1.63	-0.01
Stage 2	-14.6	1.62	-0.08
Stage 2	-14.8	1.59	-0.14
Stage 2	-15	1.55	-0.2
Stage 2	-15.2	1.5	-0.24
Stage 2	-15.4	1.45	-0.28
Stage 2	-15.6	1.38	-0.3
Stage 2	-15.8	1.32	-0.33
Stage 2	-16	1.25	-0.34
Stage 2	-16.2	1.18	-0.35
Stage 2	-16.4	1.11	-0.36
Stage 2	-16.6	1.04	-0.36
Stage 2	-16.8	0.96	-0.36
Stage 2	-17	0.89	-0.36
Stage 2	-17.2	0.82	-0.35
Stage 2	-17.4	0.75	-0.34
Stage 2	-17.6	0.69	-0.33
Stage 2	-17.8	0.62	-0.32
Stage 2	-18	0.56	-0.31
Stage 2	-18.2	0.5	-0.29
Stage 2	-18.4	0.45	-0.28
Stage 2	-18.6	0.4	-0.26
Stage 2	-18.8	0.35	-0.24
Stage 2	-19	0.3	-0.23
Stage 2	-19.2	0.26	-0.21
Stage 2	-19.4	0.22	-0.2
Stage 2	-19.6	0.18	-0.18
Stage 2	-19.8	0.15	-0.17
Stage 2	-20	0.12	-0.15
Stage 2	-20.2	0.09	-0.14
Stage 2	-20.4	0.07	-0.12
Stage 2	-20.6	0.05	-0.11
Stage 2	-20.8	0.03	-0.1
Stage 2	-21	0.01	-0.09
Stage 2	-21.2	-0.01	-0.08
Stage 2	-21.4	-0.02	-0.07
Stage 2	-21.6	-0.03	-0.06
Stage 2	-21.8	-0.04	-0.05
Stage 2	-22	-0.05	-0.04
Stage 2	-22.2	-0.05	-0.03
Stage 2	-22.4	-0.06	-0.03
Stage 2	-22.6	-0.06	-0.02
Stage 2	-22.8	-0.07	-0.01
Stage 2	-23	-0.07	-0.01
Stage 2	-23.2	-0.07	0
Stage 2	-23.4	-0.07	0
Stage 2	-23.6	-0.07	0
Stage 2	-23.8	-0.07	0.01
Stage 2	-24	-0.07	0.01
Stage 2	-24.2	-0.06	0.01
Stage 2	-24.4	-0.06	0.01
Stage 2	-24.6	-0.06	0.01
Stage 2	-24.8	-0.06	0.01
Stage 2	-25	-0.05	0.02
Stage 2	-25.2	-0.05	0.02
Stage 2	-25.4	-0.05	0.02
Stage 2	-25.6	-0.04	0.02
Stage 2	-25.8	-0.04	0.02

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 2	-26	-0.04	0.02
Stage 2	-26.2	-0.03	0.02
Stage 2	-26.4	-0.03	0.02
Stage 2	-26.6	-0.03	0.01
Stage 2	-26.8	-0.02	0.01
Stage 2	-27	-0.02	0.01
Stage 2	-27.2	-0.02	0.01
Stage 2	-27.4	-0.02	0.01
Stage 2	-27.6	-0.01	0.01
Stage 2	-27.8	-0.01	0.01
Stage 2	-28	-0.01	0.01
Stage 2	-28.2	-0.01	0.01
Stage 2	-28.4	-0.01	0.01
Stage 2	-28.6	0	0.01
Stage 2	-28.8	0	0.01
Stage 2	-29	0	0.01
Stage 2	-29.2	0	0
Stage 2	-29.4	0	0
Stage 2	-29.6	0	0
Stage 2	-29.8	0	0
Stage 2	-30	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	0.5	0	-1.84
Stage 3	0.3	-0.37	-1.84
Stage 3	0.1	-1.77	-6.99
Stage 3	-0.1	-4.2	-12.18
Stage 3	-0.3	-7.68	-17.39
Stage 3	-0.5	-12.21	-22.64
Stage 3	-0.7	-17.83	-28.11
Stage 3	-0.9	-24.59	-33.81
Stage 3	-1.1	-32.54	-39.73
Stage 3	-1.3	-41.71	-45.87
Stage 3	-1.5	-52.15	-52.22
Stage 3	-1.7	-38.91	66.21
Stage 3	-1.9	-27.04	59.35
Stage 3	-2.1	-16.63	52.08
Stage 3	-2.3	-7.75	44.39
Stage 3	-2.5	-0.49	36.28
Stage 3	-2.7	5.13	28.09
Stage 3	-2.9	9.61	22.44
Stage 3	-3.1	13.48	19.31
Stage 3	-3.3	16.78	16.54
Stage 3	-3.5	19.58	13.98
Stage 3	-3.7	21.9	11.62
Stage 3	-3.9	23.79	9.45
Stage 3	-4	24.59	7.96
Stage 3	-4.2	25.9	6.55
Stage 3	-4.4	26.86	4.83
Stage 3	-4.6	27.52	3.28
Stage 3	-4.8	27.9	1.89
Stage 3	-5	28.03	0.65
Stage 3	-5.2	27.94	-0.45
Stage 3	-5.4	27.65	-1.42
Stage 3	-5.6	27.2	-2.27
Stage 3	-5.8	26.6	-3
Stage 3	-6	25.88	-3.62
Stage 3	-6.2	25.05	-4.15
Stage 3	-6.4	24.13	-4.6
Stage 3	-6.6	23.13	-4.96
Stage 3	-6.8	22.08	-5.25
Stage 3	-7	20.99	-5.48
Stage 3	-7.2	19.86	-5.66
Stage 3	-7.4	18.7	-5.78
Stage 3	-7.6	17.53	-5.85
Stage 3	-7.8	16.35	-5.88
Stage 3	-8	15.18	-5.85
Stage 3	-8.2	14.03	-5.79
Stage 3	-8.4	12.89	-5.7
Stage 3	-8.6	11.77	-5.59
Stage 3	-8.8	10.68	-5.45
Stage 3	-9	9.62	-5.3
Stage 3	-9.2	8.59	-5.14
Stage 3	-9.4	7.6	-4.97
Stage 3	-9.6	6.64	-4.79
Stage 3	-9.8	5.74	-4.47
Stage 3	-10	4.92	-4.15
Stage 3	-10.2	4.15	-3.83
Stage 3	-10.4	3.45	-3.51
Stage 3	-10.6	2.81	-3.2
Stage 3	-10.8	2.23	-2.9
Stage 3	-11	1.71	-2.61
Stage 3	-11.2	1.24	-2.34
Stage 3	-11.4	0.82	-2.08
Stage 3	-11.6	0.46	-1.83
Stage 3	-11.8	0.14	-1.6
Stage 3	-12	-0.14	-1.38
Stage 3	-12.2	-0.38	-1.18
Stage 3	-12.4	-0.58	-1
Stage 3	-12.6	-0.74	-0.83

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-12.8	-0.88	-0.67
Stage 3	-13	-0.99	-0.53
Stage 3	-13.2	-1.07	-0.41
Stage 3	-13.4	-1.13	-0.29
Stage 3	-13.6	-1.17	-0.19
Stage 3	-13.8	-1.19	-0.11
Stage 3	-14	-1.19	-0.03
Stage 3	-14.2	-1.18	0.04
Stage 3	-14.4	-1.17	0.09
Stage 3	-14.6	-1.14	0.14
Stage 3	-14.8	-1.1	0.18
Stage 3	-15	-1.06	0.22
Stage 3	-15.2	-1.01	0.25
Stage 3	-15.4	-0.96	0.27
Stage 3	-15.6	-0.9	0.28
Stage 3	-15.8	-0.84	0.29
Stage 3	-16	-0.78	0.29
Stage 3	-16.2	-0.72	0.3
Stage 3	-16.4	-0.66	0.29
Stage 3	-16.6	-0.61	0.29
Stage 3	-16.8	-0.55	0.28
Stage 3	-17	-0.5	0.27
Stage 3	-17.2	-0.45	0.26
Stage 3	-17.4	-0.4	0.25
Stage 3	-17.6	-0.35	0.23
Stage 3	-17.8	-0.31	0.22
Stage 3	-18	-0.26	0.21
Stage 3	-18.2	-0.23	0.19
Stage 3	-18.4	-0.19	0.18
Stage 3	-18.6	-0.16	0.16
Stage 3	-18.8	-0.13	0.15
Stage 3	-19	-0.1	0.14
Stage 3	-19.2	-0.08	0.12
Stage 3	-19.4	-0.05	0.11
Stage 3	-19.6	-0.03	0.1
Stage 3	-19.8	-0.02	0.09
Stage 3	-20	0	0.08
Stage 3	-20.2	0.01	0.07
Stage 3	-20.4	0.02	0.06
Stage 3	-20.6	0.03	0.05
Stage 3	-20.8	0.04	0.04
Stage 3	-21	0.05	0.03
Stage 3	-21.2	0.05	0.03
Stage 3	-21.4	0.06	0.02
Stage 3	-21.6	0.06	0.02
Stage 3	-21.8	0.06	0.01
Stage 3	-22	0.06	0.01
Stage 3	-22.2	0.06	0
Stage 3	-22.4	0.06	0
Stage 3	-22.6	0.06	-0.01
Stage 3	-22.8	0.06	-0.01
Stage 3	-23	0.06	-0.01
Stage 3	-23.2	0.06	-0.01
Stage 3	-23.4	0.05	-0.01
Stage 3	-23.6	0.05	-0.01
Stage 3	-23.8	0.05	-0.02
Stage 3	-24	0.05	-0.02
Stage 3	-24.2	0.04	-0.02
Stage 3	-24.4	0.04	-0.02
Stage 3	-24.6	0.04	-0.02
Stage 3	-24.8	0.03	-0.02
Stage 3	-25	0.03	-0.01
Stage 3	-25.2	0.03	-0.01
Stage 3	-25.4	0.02	-0.01
Stage 3	-25.6	0.02	-0.01
Stage 3	-25.8	0.02	-0.01
Stage 3	-26	0.02	-0.01
Stage 3	-26.2	0.01	-0.01
Stage 3	-26.4	0.01	-0.01
Stage 3	-26.6	0.01	-0.01
Stage 3	-26.8	0.01	-0.01

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-27	0.01	-0.01
Stage 3	-27.2	0.01	-0.01
Stage 3	-27.4	0.01	-0.01
Stage 3	-27.6	0	-0.01
Stage 3	-27.8	0	0
Stage 3	-28	0	0
Stage 3	-28.2	0	0
Stage 3	-28.4	0	0
Stage 3	-28.6	0	0
Stage 3	-28.8	0	0
Stage 3	-29	0	0
Stage 3	-29.2	0	0
Stage 3	-29.4	0	0
Stage 3	-29.6	0	0
Stage 3	-29.8	0	0
Stage 3	-30	0	0

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	0.5	0	-0.86
Stage 4	0.3	-0.17	-0.86
Stage 4	0.1	-0.96	-3.95
Stage 4	-0.1	-2.36	-7
Stage 4	-0.3	-4.36	-10
Stage 4	-0.5	-6.95	-12.95
Stage 4	-0.7	-10.16	-16.04
Stage 4	-0.9	-14.01	-19.28
Stage 4	-1.1	-18.55	-22.66
Stage 4	-1.3	-23.78	-26.18
Stage 4	-1.5	-29.75	-29.84
Stage 4	-1.7	-11.14	93.04
Stage 4	-1.9	6.66	89.02
Stage 4	-2.1	23.59	84.66
Stage 4	-2.3	39.59	79.96
Stage 4	-2.5	54.57	74.9
Stage 4	-2.7	68.46	69.49
Stage 4	-2.9	81.21	63.72
Stage 4	-3.1	92.72	57.58
Stage 4	-3.3	102.94	51.07
Stage 4	-3.5	111.77	44.18
Stage 4	-3.7	119.15	36.9
Stage 4	-3.9	125	29.22
Stage 4	-4	127.31	23.14
Stage 4	-4.2	130.69	16.91
Stage 4	-4.4	132.33	8.16
Stage 4	-4.6	132.12	-1.03
Stage 4	-4.8	129.99	-10.68
Stage 4	-5	125.83	-20.8
Stage 4	-5.2	119.54	-31.41
Stage 4	-5.4	112.09	-37.24
Stage 4	-5.6	103.69	-42
Stage 4	-5.8	94.56	-45.69
Stage 4	-6	84.89	-48.32
Stage 4	-6.2	74.91	-49.91
Stage 4	-6.4	64.82	-50.46
Stage 4	-6.6	54.83	-49.97
Stage 4	-6.8	45.13	-48.47
Stage 4	-7	35.94	-45.95
Stage 4	-7.2	27.41	-42.67
Stage 4	-7.4	19.5	-39.54
Stage 4	-7.6	12.19	-36.53
Stage 4	-7.8	5.46	-33.67
Stage 4	-8	-0.73	-30.93
Stage 4	-8.2	-6.39	-28.33
Stage 4	-8.4	-11.56	-25.85
Stage 4	-8.6	-16.27	-23.52
Stage 4	-8.8	-20.53	-21.32
Stage 4	-9	-24.38	-19.26
Stage 4	-9.2	-27.85	-17.33
Stage 4	-9.4	-30.96	-15.54
Stage 4	-9.6	-33.73	-13.88
Stage 4	-9.8	-35.97	-11.17
Stage 4	-10	-37.7	-8.67
Stage 4	-10.2	-38.98	-6.39
Stage 4	-10.4	-39.84	-4.32
Stage 4	-10.6	-40.33	-2.45
Stage 4	-10.8	-40.49	-0.77
Stage 4	-11	-40.34	0.73
Stage 4	-11.2	-39.93	2.05
Stage 4	-11.4	-39.29	3.22
Stage 4	-11.6	-38.44	4.23
Stage 4	-11.8	-37.42	5.1
Stage 4	-12	-36.26	5.84
Stage 4	-12.2	-34.96	6.45
Stage 4	-12.4	-33.57	6.95
Stage 4	-12.6	-32.1	7.35

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-12.8	-30.57	7.65
Stage 4	-13	-29	7.87
Stage 4	-13.2	-27.4	8
Stage 4	-13.4	-25.79	8.06
Stage 4	-13.6	-24.18	8.04
Stage 4	-13.8	-22.59	7.95
Stage 4	-14	-21.03	7.82
Stage 4	-14.2	-19.5	7.65
Stage 4	-14.4	-18.01	7.44
Stage 4	-14.6	-16.57	7.21
Stage 4	-14.8	-15.18	6.96
Stage 4	-15	-13.84	6.69
Stage 4	-15.2	-12.56	6.4
Stage 4	-15.4	-11.33	6.11
Stage 4	-15.6	-10.17	5.81
Stage 4	-15.8	-9.07	5.5
Stage 4	-16	-8.03	5.19
Stage 4	-16.2	-7.06	4.88
Stage 4	-16.4	-6.14	4.57
Stage 4	-16.6	-5.29	4.27
Stage 4	-16.8	-4.49	3.97
Stage 4	-17	-3.76	3.68
Stage 4	-17.2	-3.08	3.4
Stage 4	-17.4	-2.45	3.12
Stage 4	-17.6	-1.88	2.86
Stage 4	-17.8	-1.36	2.6
Stage 4	-18	-0.89	2.36
Stage 4	-18.2	-0.47	2.12
Stage 4	-18.4	-0.09	1.9
Stage 4	-18.6	0.25	1.69
Stage 4	-18.8	0.55	1.49
Stage 4	-19	0.81	1.31
Stage 4	-19.2	1.04	1.13
Stage 4	-19.4	1.23	0.97
Stage 4	-19.6	1.4	0.82
Stage 4	-19.8	1.53	0.68
Stage 4	-20	1.64	0.55
Stage 4	-20.2	1.73	0.44
Stage 4	-20.4	1.8	0.33
Stage 4	-20.6	1.84	0.23
Stage 4	-20.8	1.87	0.14
Stage 4	-21	1.88	0.06
Stage 4	-21.2	1.88	-0.01
Stage 4	-21.4	1.87	-0.07
Stage 4	-21.6	1.84	-0.13
Stage 4	-21.8	1.81	-0.18
Stage 4	-22	1.76	-0.22
Stage 4	-22.2	1.71	-0.25
Stage 4	-22.4	1.66	-0.28
Stage 4	-22.6	1.59	-0.31
Stage 4	-22.8	1.53	-0.33
Stage 4	-23	1.46	-0.34
Stage 4	-23.2	1.39	-0.35
Stage 4	-23.4	1.32	-0.36
Stage 4	-23.6	1.24	-0.37
Stage 4	-23.8	1.17	-0.37
Stage 4	-24	1.1	-0.37
Stage 4	-24.2	1.02	-0.36
Stage 4	-24.4	0.95	-0.36
Stage 4	-24.6	0.88	-0.35
Stage 4	-24.8	0.81	-0.34
Stage 4	-25	0.75	-0.33
Stage 4	-25.2	0.68	-0.32
Stage 4	-25.4	0.62	-0.3
Stage 4	-25.6	0.57	-0.29
Stage 4	-25.8	0.51	-0.28
Stage 4	-26	0.46	-0.26
Stage 4	-26.2	0.41	-0.25
Stage 4	-26.4	0.36	-0.23
Stage 4	-26.6	0.32	-0.22
Stage 4	-26.8	0.28	-0.2

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 4	-27	0.24	-0.19
Stage 4	-27.2	0.21	-0.17
Stage 4	-27.4	0.18	-0.16
Stage 4	-27.6	0.15	-0.14
Stage 4	-27.8	0.12	-0.13
Stage 4	-28	0.1	-0.11
Stage 4	-28.2	0.08	-0.1
Stage 4	-28.4	0.06	-0.09
Stage 4	-28.6	0.05	-0.08
Stage 4	-28.8	0.03	-0.06
Stage 4	-29	0.02	-0.05
Stage 4	-29.2	0.01	-0.04
Stage 4	-29.4	0.01	-0.03
Stage 4	-29.6	0	-0.02
Stage 4	-29.8	0	-0.01
Stage 4	-30	0	0

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	0.5	0	-1.85
Stage 5	0.3	-0.37	-1.85
Stage 5	0.1	-1.76	-6.97
Stage 5	-0.1	-4.18	-12.1
Stage 5	-0.3	-7.63	-17.22
Stage 5	-0.5	-12.1	-22.36
Stage 5	-0.7	-17.64	-27.69
Stage 5	-0.9	-24.28	-33.21
Stage 5	-1.1	-32.06	-38.93
Stage 5	-1.3	-41.03	-44.84
Stage 5	-1.5	-51.22	-50.93
Stage 5	-1.7	-37.62	67.96
Stage 5	-1.9	-25.34	61.42
Stage 5	-2.1	-14.44	54.5
Stage 5	-2.3	-5	47.18
Stage 5	-2.5	2.89	39.48
Stage 5	-2.7	9.17	31.4
Stage 5	-2.9	13.76	22.93
Stage 5	-3.1	16.57	14.08
Stage 5	-3.3	17.54	4.84
Stage 5	-3.5	16.59	-4.78
Stage 5	-3.7	13.63	-14.8
Stage 5	-3.9	8.59	-25.2
Stage 5	-4	5.26	-33.3
Stage 5	-4.2	21.95	83.45
Stage 5	-4.4	36.36	72.06
Stage 5	-4.6	48.41	60.28
Stage 5	-4.8	58.03	48.09
Stage 5	-5	65.13	35.5
Stage 5	-5.2	69.63	22.5
Stage 5	-5.4	72.14	12.55
Stage 5	-5.6	72.91	3.83
Stage 5	-5.8	72.18	-3.66
Stage 5	-6	70.19	-9.94
Stage 5	-6.2	67.19	-15
Stage 5	-6.4	63.42	-18.85
Stage 5	-6.6	59.12	-21.5
Stage 5	-6.8	54.53	-22.95
Stage 5	-7	49.89	-23.21
Stage 5	-7.2	45.37	-22.56
Stage 5	-7.4	41	-21.87
Stage 5	-7.6	36.77	-21.15
Stage 5	-7.8	32.69	-20.4
Stage 5	-8	28.76	-19.63
Stage 5	-8.2	25	-18.84
Stage 5	-8.4	21.39	-18.03
Stage 5	-8.6	17.95	-17.22
Stage 5	-8.8	14.66	-16.41
Stage 5	-9	11.54	-15.61
Stage 5	-9.2	8.58	-14.82
Stage 5	-9.4	5.77	-14.05
Stage 5	-9.6	3.11	-13.3
Stage 5	-9.8	0.71	-12.01
Stage 5	-10	-1.45	-10.76
Stage 5	-10.2	-3.36	-9.57
Stage 5	-10.4	-5.05	-8.44
Stage 5	-10.6	-6.52	-7.36
Stage 5	-10.8	-7.79	-6.35
Stage 5	-11	-8.87	-5.39
Stage 5	-11.2	-9.77	-4.5
Stage 5	-11.4	-10.51	-3.67
Stage 5	-11.6	-11.09	-2.9
Stage 5	-11.8	-11.53	-2.19
Stage 5	-12	-11.84	-1.54
Stage 5	-12.2	-12.03	-0.95
Stage 5	-12.4	-12.11	-0.42
Stage 5	-12.6	-12.1	0.05

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-12.8	-12.01	0.46
Stage 5	-13	-11.84	0.82
Stage 5	-13.2	-11.62	1.12
Stage 5	-13.4	-11.34	1.4
Stage 5	-13.6	-11.01	1.63
Stage 5	-13.8	-10.65	1.82
Stage 5	-14	-10.26	1.97
Stage 5	-14.2	-9.84	2.09
Stage 5	-14.4	-9.4	2.18
Stage 5	-14.6	-8.95	2.25
Stage 5	-14.8	-8.49	2.3
Stage 5	-15	-8.03	2.34
Stage 5	-15.2	-7.56	2.35
Stage 5	-15.4	-7.09	2.35
Stage 5	-15.6	-6.62	2.33
Stage 5	-15.8	-6.16	2.3
Stage 5	-16	-5.71	2.26
Stage 5	-16.2	-5.26	2.21
Stage 5	-16.4	-4.83	2.16
Stage 5	-16.6	-4.41	2.09
Stage 5	-16.8	-4.01	2.02
Stage 5	-17	-3.62	1.94
Stage 5	-17.2	-3.25	1.85
Stage 5	-17.4	-2.9	1.77
Stage 5	-17.6	-2.56	1.68
Stage 5	-17.8	-2.25	1.59
Stage 5	-18	-1.95	1.49
Stage 5	-18.2	-1.67	1.4
Stage 5	-18.4	-1.41	1.31
Stage 5	-18.6	-1.16	1.22
Stage 5	-18.8	-0.94	1.13
Stage 5	-19	-0.73	1.04
Stage 5	-19.2	-0.54	0.95
Stage 5	-19.4	-0.36	0.87
Stage 5	-19.6	-0.2	0.79
Stage 5	-19.8	-0.06	0.71
Stage 5	-20	0.07	0.64
Stage 5	-20.2	0.18	0.57
Stage 5	-20.4	0.28	0.5
Stage 5	-20.6	0.37	0.44
Stage 5	-20.8	0.45	0.38
Stage 5	-21	0.51	0.33
Stage 5	-21.2	0.57	0.27
Stage 5	-21.4	0.61	0.22
Stage 5	-21.6	0.65	0.18
Stage 5	-21.8	0.67	0.14
Stage 5	-22	0.69	0.1
Stage 5	-22.2	0.71	0.06
Stage 5	-22.4	0.71	0.03
Stage 5	-22.6	0.71	0
Stage 5	-22.8	0.71	-0.02
Stage 5	-23	0.7	-0.04
Stage 5	-23.2	0.69	-0.06
Stage 5	-23.4	0.67	-0.08
Stage 5	-23.6	0.65	-0.09
Stage 5	-23.8	0.63	-0.1
Stage 5	-24	0.61	-0.12
Stage 5	-24.2	0.59	-0.12
Stage 5	-24.4	0.56	-0.13
Stage 5	-24.6	0.53	-0.14
Stage 5	-24.8	0.5	-0.14
Stage 5	-25	0.47	-0.15
Stage 5	-25.2	0.44	-0.15
Stage 5	-25.4	0.41	-0.15
Stage 5	-25.6	0.38	-0.15
Stage 5	-25.8	0.35	-0.15
Stage 5	-26	0.33	-0.15
Stage 5	-26.2	0.3	-0.14
Stage 5	-26.4	0.27	-0.14
Stage 5	-26.6	0.24	-0.13
Stage 5	-26.8	0.22	-0.13

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 5	-27	0.19	-0.12
Stage 5	-27.2	0.17	-0.12
Stage 5	-27.4	0.15	-0.11
Stage 5	-27.6	0.13	-0.1
Stage 5	-27.8	0.11	-0.1
Stage 5	-28	0.09	-0.09
Stage 5	-28.2	0.07	-0.08
Stage 5	-28.4	0.06	-0.07
Stage 5	-28.6	0.04	-0.07
Stage 5	-28.8	0.03	-0.06
Stage 5	-29	0.02	-0.05
Stage 5	-29.2	0.01	-0.04
Stage 5	-29.4	0.01	-0.03
Stage 5	-29.6	0	-0.02
Stage 5	-29.8	0	-0.01
Stage 5	-30	0	0

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	0.5	0	-1.84
Stage 6	0.3	-0.37	-1.84
Stage 6	0.1	-1.81	-7.2
Stage 6	-0.1	-4.29	-12.41
Stage 6	-0.3	-7.77	-17.39
Stage 6	-0.5	-12.19	-22.12
Stage 6	-0.7	-17.55	-26.8
Stage 6	-0.9	-23.84	-31.43
Stage 6	-1.1	-31.04	-36
Stage 6	-1.3	-39.14	-40.51
Stage 6	-1.5	-48.13	-44.95
Stage 6	-1.7	-32.56	77.83
Stage 6	-1.9	-17.88	73.44
Stage 6	-2.1	-4.1	68.91
Stage 6	-2.3	8.75	64.24
Stage 6	-2.5	20.64	59.44
Stage 6	-2.7	31.54	54.5
Stage 6	-2.9	41.42	49.42
Stage 6	-3.1	50.26	44.2
Stage 6	-3.3	58.03	38.85
Stage 6	-3.5	64.7	33.34
Stage 6	-3.7	70.24	27.69
Stage 6	-3.9	74.61	21.88
Stage 6	-4	76.36	17.41
Stage 6	-4.2	104.98	143.12
Stage 6	-4.4	132.36	136.91
Stage 6	-4.6	158.46	130.52
Stage 6	-4.8	183.23	123.81
Stage 6	-5	206.58	116.79
Stage 6	-5.2	228.47	109.45
Stage 6	-5.4	248.83	101.8
Stage 6	-5.6	267.6	93.84
Stage 6	-5.8	284.72	85.57
Stage 6	-6	300.11	76.98
Stage 6	-6.2	313.73	68.08
Stage 6	-6.4	325.5	58.87
Stage 6	-6.6	335.37	49.35
Stage 6	-6.8	343.28	39.51
Stage 6	-7	349.15	29.36
Stage 6	-7.2	352.93	18.9
Stage 6	-7.4	354.51	7.89
Stage 6	-7.6	353.78	-3.66
Stage 6	-7.8	350.62	-15.76
Stage 6	-8	344.94	-28.41
Stage 6	-8.2	336.62	-41.6
Stage 6	-8.4	325.55	-55.39
Stage 6	-8.6	311.57	-69.89
Stage 6	-8.8	294.54	-85.11
Stage 6	-9	274.33	-101.08
Stage 6	-9.2	250.77	-117.8
Stage 6	-9.4	224.79	-129.9
Stage 6	-9.6	196.58	-141.07
Stage 6	-9.8	168.61	-139.85
Stage 6	-10	141.14	-137.34
Stage 6	-10.2	114.43	-133.53
Stage 6	-10.4	88.75	-128.43
Stage 6	-10.6	64.35	-121.97
Stage 6	-10.8	41.42	-114.69
Stage 6	-11	20.1	-106.59
Stage 6	-11.2	0.56	-97.67
Stage 6	-11.4	-17.03	-87.95
Stage 6	-11.6	-32.75	-78.61
Stage 6	-11.8	-46.71	-69.79
Stage 6	-12	-59	-61.49
Stage 6	-12.2	-69.75	-53.72
Stage 6	-12.4	-79.04	-46.44
Stage 6	-12.6	-86.97	-39.66

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-12.8	-93.64	-33.36
Stage 6	-13	-99.14	-27.52
Stage 6	-13.2	-103.57	-22.14
Stage 6	-13.4	-107.01	-17.19
Stage 6	-13.6	-109.54	-12.65
Stage 6	-13.8	-111.24	-8.51
Stage 6	-14	-112.19	-4.75
Stage 6	-14.2	-112.46	-1.33
Stage 6	-14.4	-112.11	1.75
Stage 6	-14.6	-111.21	4.51
Stage 6	-14.8	-109.81	6.98
Stage 6	-15	-107.98	9.17
Stage 6	-15.2	-105.76	11.09
Stage 6	-15.4	-103.21	12.76
Stage 6	-15.6	-100.37	14.19
Stage 6	-15.8	-97.28	15.41
Stage 6	-16	-94	16.43
Stage 6	-16.2	-90.55	17.26
Stage 6	-16.4	-86.96	17.91
Stage 6	-16.6	-83.28	18.41
Stage 6	-16.8	-79.53	18.76
Stage 6	-17	-75.73	18.97
Stage 6	-17.2	-71.92	19.07
Stage 6	-17.4	-68.11	19.05
Stage 6	-17.6	-64.32	18.94
Stage 6	-17.8	-60.58	18.73
Stage 6	-18	-56.89	18.45
Stage 6	-18.2	-53.27	18.09
Stage 6	-18.4	-49.73	17.68
Stage 6	-18.6	-46.29	17.21
Stage 6	-18.8	-42.95	16.7
Stage 6	-19	-39.72	16.15
Stage 6	-19.2	-36.61	15.56
Stage 6	-19.4	-33.62	14.96
Stage 6	-19.6	-30.75	14.33
Stage 6	-19.8	-28.01	13.69
Stage 6	-20	-25.41	13.03
Stage 6	-20.2	-22.93	12.38
Stage 6	-20.4	-20.59	11.72
Stage 6	-20.6	-18.38	11.06
Stage 6	-20.8	-16.3	10.4
Stage 6	-21	-14.35	9.76
Stage 6	-21.2	-12.52	9.12
Stage 6	-21.4	-10.82	8.5
Stage 6	-21.6	-9.24	7.89
Stage 6	-21.8	-7.78	7.3
Stage 6	-22	-6.44	6.72
Stage 6	-22.2	-5.21	6.17
Stage 6	-22.4	-4.08	5.63
Stage 6	-22.6	-3.06	5.11
Stage 6	-22.8	-2.13	4.62
Stage 6	-23	-1.3	4.15
Stage 6	-23.2	-0.57	3.7
Stage 6	-23.4	0.09	3.27
Stage 6	-23.6	0.66	2.86
Stage 6	-23.8	1.16	2.48
Stage 6	-24	1.58	2.12
Stage 6	-24.2	1.94	1.78
Stage 6	-24.4	2.23	1.47
Stage 6	-24.6	2.47	1.17
Stage 6	-24.8	2.64	0.9
Stage 6	-25	2.77	0.64
Stage 6	-25.2	2.85	0.41
Stage 6	-25.4	2.89	0.2
Stage 6	-25.6	2.89	0
Stage 6	-25.8	2.86	-0.17
Stage 6	-26	2.79	-0.33
Stage 6	-26.2	2.7	-0.47
Stage 6	-26.4	2.58	-0.59
Stage 6	-26.6	2.45	-0.69
Stage 6	-26.8	2.29	-0.77

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 6	-27	2.12	-0.84
Stage 6	-27.2	1.94	-0.9
Stage 6	-27.4	1.76	-0.93
Stage 6	-27.6	1.56	-0.96
Stage 6	-27.8	1.37	-0.96
Stage 6	-28	1.18	-0.95
Stage 6	-28.2	1	-0.93
Stage 6	-28.4	0.82	-0.89
Stage 6	-28.6	0.65	-0.84
Stage 6	-28.8	0.49	-0.77
Stage 6	-29	0.35	-0.69
Stage 6	-29.2	0.23	-0.6
Stage 6	-29.4	0.14	-0.49
Stage 6	-29.6	0.06	-0.37
Stage 6	-29.8	0.02	-0.23
Stage 6	-30	0	-0.08

Tabella Risultati Paratia Nominal - Stage: Stage 7

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	0.5	0	-1.76
Stage 7	0.3	-0.35	-1.76
Stage 7	0.1	-1.76	-7.04
Stage 7	-0.1	-4.21	-12.26
Stage 7	-0.3	-7.68	-17.33
Stage 7	-0.5	-12.13	-22.25
Stage 7	-0.7	-17.57	-27.2
Stage 7	-0.9	-24.01	-32.18
Stage 7	-1.1	-31.44	-37.2
Stage 7	-1.3	-39.89	-42.23
Stage 7	-1.5	-49.35	-47.3
Stage 7	-1.7	-34.54	74.04
Stage 7	-1.9	-20.77	68.87
Stage 7	-2.1	-8.08	63.46
Stage 7	-2.3	3.49	57.83
Stage 7	-2.5	13.89	51.98
Stage 7	-2.7	23.07	45.91
Stage 7	-2.9	30.99	39.62
Stage 7	-3.1	37.61	33.1
Stage 7	-3.3	42.88	26.36
Stage 7	-3.5	46.76	19.38
Stage 7	-3.7	49.19	12.18
Stage 7	-3.9	50.14	4.73
Stage 7	-4	50.04	-1.03
Stage 7	-4.2	74.34	121.51
Stage 7	-4.4	97.04	113.47
Stage 7	-4.6	118.07	105.16
Stage 7	-4.8	137.36	96.47
Stage 7	-5	154.84	87.39
Stage 7	-5.2	170.43	77.93
Stage 7	-5.4	184.04	68.09
Stage 7	-5.6	195.62	57.88
Stage 7	-5.8	205.08	47.29
Stage 7	-6	212.35	36.34
Stage 7	-6.2	217.35	25.02
Stage 7	-6.4	220.02	13.34
Stage 7	-6.6	220.28	1.31
Stage 7	-6.8	218.07	-11.06
Stage 7	-7	213.31	-23.78
Stage 7	-7.2	205.95	-36.84
Stage 7	-7.4	195.86	-50.45
Stage 7	-7.6	182.93	-64.61
Stage 7	-7.8	167.07	-79.32
Stage 7	-8	148.16	-94.55
Stage 7	-8.2	159.44	56.39
Stage 7	-8.4	167.45	40.06
Stage 7	-8.6	172.06	23.07
Stage 7	-8.8	173.15	5.42
Stage 7	-9	170.56	-12.92
Stage 7	-9.2	164.17	-31.95
Stage 7	-9.4	154.57	-48.01
Stage 7	-9.6	141.97	-63.02
Stage 7	-9.8	128.3	-68.34
Stage 7	-10	113.88	-72.1
Stage 7	-10.2	99.02	-74.29
Stage 7	-10.4	84.04	-74.9
Stage 7	-10.6	69.26	-73.92
Stage 7	-10.8	54.9	-71.77
Stage 7	-11	41.2	-68.51
Stage 7	-11.2	28.37	-64.15
Stage 7	-11.4	16.63	-58.7
Stage 7	-11.6	5.96	-53.35
Stage 7	-11.8	-3.69	-48.26
Stage 7	-12	-12.37	-43.42
Stage 7	-12.2	-20.14	-38.84
Stage 7	-12.4	-27.05	-34.53
Stage 7	-12.6	-33.14	-30.46

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	-12.8	-38.47	-26.64
Stage 7	-13	-43.08	-23.07
Stage 7	-13.2	-47.03	-19.74
Stage 7	-13.4	-50.36	-16.64
Stage 7	-13.6	-53.11	-13.77
Stage 7	-13.8	-55.33	-11.11
Stage 7	-14	-57.06	-8.66
Stage 7	-14.2	-58.34	-6.4
Stage 7	-14.4	-59.21	-4.31
Stage 7	-14.6	-59.69	-2.41
Stage 7	-14.8	-59.82	-0.67
Stage 7	-15	-59.64	0.91
Stage 7	-15.2	-59.17	2.33
Stage 7	-15.4	-58.45	3.62
Stage 7	-15.6	-57.5	4.76
Stage 7	-15.8	-56.34	5.78
Stage 7	-16	-55.01	6.67
Stage 7	-16.2	-53.52	7.45
Stage 7	-16.4	-51.9	8.12
Stage 7	-16.6	-50.16	8.67
Stage 7	-16.8	-48.34	9.13
Stage 7	-17	-46.44	9.49
Stage 7	-17.2	-44.48	9.77
Stage 7	-17.4	-42.49	9.96
Stage 7	-17.6	-40.47	10.09
Stage 7	-17.8	-38.45	10.14
Stage 7	-18	-36.42	10.14
Stage 7	-18.2	-34.4	10.08
Stage 7	-18.4	-32.41	9.98
Stage 7	-18.6	-30.44	9.83
Stage 7	-18.8	-28.51	9.64
Stage 7	-19	-26.63	9.42
Stage 7	-19.2	-24.79	9.17
Stage 7	-19.4	-23.02	8.9
Stage 7	-19.6	-21.3	8.6
Stage 7	-19.8	-19.64	8.29
Stage 7	-20	-18.04	7.96
Stage 7	-20.2	-16.52	7.63
Stage 7	-20.4	-15.06	7.28
Stage 7	-20.6	-13.68	6.93
Stage 7	-20.8	-12.36	6.58
Stage 7	-21	-11.12	6.22
Stage 7	-21.2	-9.94	5.87
Stage 7	-21.4	-8.84	5.52
Stage 7	-21.6	-7.81	5.17
Stage 7	-21.8	-6.84	4.83
Stage 7	-22	-5.94	4.49
Stage 7	-22.2	-5.11	4.16
Stage 7	-22.4	-4.34	3.84
Stage 7	-22.6	-3.64	3.53
Stage 7	-22.8	-2.99	3.23
Stage 7	-23	-2.4	2.95
Stage 7	-23.2	-1.87	2.67
Stage 7	-23.4	-1.38	2.41
Stage 7	-23.6	-0.95	2.15
Stage 7	-23.8	-0.57	1.91
Stage 7	-24	-0.23	1.68
Stage 7	-24.2	0.06	1.47
Stage 7	-24.4	0.31	1.26
Stage 7	-24.6	0.53	1.07
Stage 7	-24.8	0.7	0.89
Stage 7	-25	0.85	0.73
Stage 7	-25.2	0.96	0.57
Stage 7	-25.4	1.05	0.43
Stage 7	-25.6	1.11	0.3
Stage 7	-25.8	1.14	0.18
Stage 7	-26	1.16	0.07
Stage 7	-26.2	1.15	-0.03
Stage 7	-26.4	1.13	-0.12
Stage 7	-26.6	1.09	-0.19
Stage 7	-26.8	1.04	-0.26

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 7	-27	0.98	-0.31
Stage 7	-27.2	0.9	-0.35
Stage 7	-27.4	0.83	-0.39
Stage 7	-27.6	0.75	-0.41
Stage 7	-27.8	0.66	-0.43
Stage 7	-28	0.57	-0.43
Stage 7	-28.2	0.49	-0.43
Stage 7	-28.4	0.4	-0.42
Stage 7	-28.6	0.32	-0.4
Stage 7	-28.8	0.25	-0.38
Stage 7	-29	0.18	-0.34
Stage 7	-29.2	0.12	-0.3
Stage 7	-29.4	0.07	-0.25
Stage 7	-29.6	0.03	-0.19
Stage 7	-29.8	0.01	-0.12
Stage 7	-30	0	-0.04

Tabella Risultati Paratia Nominal - Stage: Stage 8

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	0.5	0	-1.8
Stage 8	0.3	-0.36	-1.8
Stage 8	0.1	-1.98	-8.09
Stage 8	-0.1	-4.82	-14.2
Stage 8	-0.3	-8.83	-20.08
Stage 8	-0.5	-13.98	-25.73
Stage 8	-0.7	-20.25	-31.35
Stage 8	-0.9	-27.63	-36.92
Stage 8	-1.1	-36.11	-42.38
Stage 8	-1.3	-45.64	-47.65
Stage 8	-1.5	-56.19	-52.73
Stage 8	-1.7	-42.37	69.08
Stage 8	-1.9	-29.5	64.32
Stage 8	-2.1	-17.6	59.55
Stage 8	-2.3	-6.64	54.77
Stage 8	-2.5	3.35	49.98
Stage 8	-2.7	12.39	45.19
Stage 8	-2.9	20.47	40.4
Stage 8	-3.1	27.59	35.6
Stage 8	-3.3	33.75	30.79
Stage 8	-3.5	38.95	25.98
Stage 8	-3.7	43.14	20.98
Stage 8	-3.9	46.28	15.68
Stage 8	-4	47.43	11.46
Stage 8	-4.2	75.35	139.61
Stage 8	-4.4	102.05	133.53
Stage 8	-4.6	127.48	127.13
Stage 8	-4.8	151.56	120.42
Stage 8	-5	174.24	113.39
Stage 8	-5.2	195.45	106.06
Stage 8	-5.4	215.14	98.41
Stage 8	-5.6	233.23	90.45
Stage 8	-5.8	249.66	82.18
Stage 8	-6	264.38	73.59
Stage 8	-6.2	277.32	64.69
Stage 8	-6.4	288.41	55.48
Stage 8	-6.6	297.61	45.96
Stage 8	-6.8	304.83	36.12
Stage 8	-7	310.03	25.97
Stage 8	-7.2	313.13	15.51
Stage 8	-7.4	314.08	4.74
Stage 8	-7.6	312.8	-6.35
Stage 8	-7.8	309.25	-17.75
Stage 8	-8	303.36	-29.47
Stage 8	-8.2	330.8	137.21
Stage 8	-8.4	355.78	124.87
Stage 8	-8.6	378.22	112.21
Stage 8	-8.8	398.07	99.25
Stage 8	-9	415.26	85.97
Stage 8	-9.2	429.74	72.37
Stage 8	-9.4	441.43	58.47
Stage 8	-9.6	450.28	44.25
Stage 8	-9.8	456.72	32.2
Stage 8	-10	460.69	19.83
Stage 8	-10.2	462.11	7.13
Stage 8	-10.4	460.89	-6.13
Stage 8	-10.6	456.9	-19.95
Stage 8	-10.8	450.03	-34.33
Stage 8	-11	440.17	-49.28
Stage 8	-11.2	427.22	-64.78
Stage 8	-11.4	411.05	-80.85
Stage 8	-11.6	391.55	-97.47
Stage 8	-11.8	368.62	-114.66
Stage 8	-12	342.14	-132.4
Stage 8	-12.2	314.21	-139.64
Stage 8	-12.4	285.1	-145.59
Stage 8	-12.6	255.04	-150.26

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	-12.8	224.32	-153.63
Stage 8	-13	193.17	-155.73
Stage 8	-13.2	161.87	-156.53
Stage 8	-13.4	130.65	-156.05
Stage 8	-13.6	99.8	-154.29
Stage 8	-13.8	69.55	-151.24
Stage 8	-14	40.17	-146.9
Stage 8	-14.2	11.91	-141.28
Stage 8	-14.4	-14.96	-134.37
Stage 8	-14.6	-40.19	-126.17
Stage 8	-14.8	-63.53	-116.69
Stage 8	-15	-84.82	-106.41
Stage 8	-15.2	-103.9	-95.44
Stage 8	-15.4	-120.7	-83.99
Stage 8	-15.6	-135.35	-73.24
Stage 8	-15.8	-147.99	-63.17
Stage 8	-16	-158.74	-53.76
Stage 8	-16.2	-167.74	-45
Stage 8	-16.4	-175.11	-36.85
Stage 8	-16.6	-180.97	-29.31
Stage 8	-16.8	-185.44	-22.34
Stage 8	-17	-188.62	-15.93
Stage 8	-17.2	-190.64	-10.06
Stage 8	-17.4	-191.57	-4.69
Stage 8	-17.6	-191.54	0.18
Stage 8	-17.8	-190.62	4.6
Stage 8	-18	-188.9	8.57
Stage 8	-18.2	-186.48	12.13
Stage 8	-18.4	-183.42	15.3
Stage 8	-18.6	-179.8	18.09
Stage 8	-18.8	-175.69	20.53
Stage 8	-19	-171.16	22.65
Stage 8	-19.2	-166.27	24.46
Stage 8	-19.4	-161.07	25.99
Stage 8	-19.6	-155.62	27.25
Stage 8	-19.8	-149.97	28.26
Stage 8	-20	-144.16	29.05
Stage 8	-20.2	-138.24	29.62
Stage 8	-20.4	-132.24	30
Stage 8	-20.6	-126.19	30.21
Stage 8	-20.8	-120.14	30.26
Stage 8	-21	-114.11	30.16
Stage 8	-21.2	-108.13	29.92
Stage 8	-21.4	-102.21	29.57
Stage 8	-21.6	-96.39	29.11
Stage 8	-21.8	-90.68	28.54
Stage 8	-22	-85.11	27.88
Stage 8	-22.2	-79.68	27.15
Stage 8	-22.4	-74.41	26.35
Stage 8	-22.6	-69.31	25.49
Stage 8	-22.8	-64.39	24.59
Stage 8	-23	-59.66	23.65
Stage 8	-23.2	-55.12	22.68
Stage 8	-23.4	-50.79	21.68
Stage 8	-23.6	-46.65	20.67
Stage 8	-23.8	-42.72	19.65
Stage 8	-24	-39	18.62
Stage 8	-24.2	-35.48	17.6
Stage 8	-24.4	-32.16	16.59
Stage 8	-24.6	-29.05	15.58
Stage 8	-24.8	-26.13	14.59
Stage 8	-25	-23.4	13.62
Stage 8	-25.2	-20.87	12.67
Stage 8	-25.4	-18.52	11.74
Stage 8	-25.6	-16.35	10.84
Stage 8	-25.8	-14.36	9.98
Stage 8	-26	-12.53	9.14
Stage 8	-26.2	-10.86	8.34
Stage 8	-26.4	-9.35	7.57
Stage 8	-26.6	-7.98	6.84
Stage 8	-26.8	-6.75	6.15

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 8	-27	-5.65	5.49
Stage 8	-27.2	-4.68	4.87
Stage 8	-27.4	-3.82	4.28
Stage 8	-27.6	-3.07	3.73
Stage 8	-27.8	-2.43	3.22
Stage 8	-28	-1.88	2.74
Stage 8	-28.2	-1.42	2.3
Stage 8	-28.4	-1.04	1.9
Stage 8	-28.6	-0.74	1.53
Stage 8	-28.8	-0.49	1.21
Stage 8	-29	-0.31	0.92
Stage 8	-29.2	-0.18	0.66
Stage 8	-29.4	-0.09	0.45
Stage 8	-29.6	-0.03	0.27
Stage 8	-29.8	-0.01	0.13
Stage 8	-30	0	0.03

Tabella Risultati Paratia Nominal - Stage: Stage 9

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	0.5	0	-1.55
Stage 9	0.3	-0.31	-1.55
Stage 9	0.1	-1.79	-7.39
Stage 9	-0.1	-4.41	-13.1
Stage 9	-0.3	-8.13	-18.63
Stage 9	-0.5	-12.93	-23.98
Stage 9	-0.7	-18.8	-29.35
Stage 9	-0.9	-25.74	-34.72
Stage 9	-1.1	-33.75	-40.03
Stage 9	-1.3	-42.79	-45.21
Stage 9	-1.5	-52.84	-50.24
Stage 9	-1.7	-38.52	71.57
Stage 9	-1.9	-25.17	66.76
Stage 9	-2.1	-12.8	61.88
Stage 9	-2.3	-1.41	56.95
Stage 9	-2.5	8.98	51.95
Stage 9	-2.7	18.37	46.91
Stage 9	-2.9	26.73	41.81
Stage 9	-3.1	34.06	36.64
Stage 9	-3.3	40.34	31.42
Stage 9	-3.5	45.57	26.14
Stage 9	-3.7	49.69	20.63
Stage 9	-3.9	52.65	14.75
Stage 9	-4	53.65	10.07
Stage 9	-4.2	81.02	136.82
Stage 9	-4.4	107.02	130.03
Stage 9	-4.6	131.6	122.87
Stage 9	-4.8	154.67	115.35
Stage 9	-5	176.16	107.46
Stage 9	-5.2	196	99.2
Stage 9	-5.4	214.11	90.57
Stage 9	-5.6	230.43	81.58
Stage 9	-5.8	244.87	72.22
Stage 9	-6	257.37	62.49
Stage 9	-6.2	267.85	52.4
Stage 9	-6.4	276.24	41.94
Stage 9	-6.6	282.46	31.11
Stage 9	-6.8	286.45	19.92
Stage 9	-7	288.12	8.36
Stage 9	-7.2	287.41	-3.56
Stage 9	-7.4	284.24	-15.84
Stage 9	-7.6	278.54	-28.49
Stage 9	-7.8	270.24	-41.5
Stage 9	-8	259.27	-54.87
Stage 9	-8.2	280.71	107.21
Stage 9	-8.4	299.33	93.12
Stage 9	-8.6	315.07	78.69
Stage 9	-8.8	327.85	63.9
Stage 9	-9	337.6	48.76
Stage 9	-9.2	344.26	33.28
Stage 9	-9.4	347.75	17.45
Stage 9	-9.6	348	1.28
Stage 9	-9.8	345.15	-14.26
Stage 9	-10	339.12	-30.16
Stage 9	-10.2	329.84	-46.42
Stage 9	-10.4	317.19	-63.25
Stage 9	-10.6	301.06	-80.64
Stage 9	-10.8	281.34	-98.58
Stage 9	-11	257.93	-117.07
Stage 9	-11.2	264.05	30.62
Stage 9	-11.4	266.27	11.1
Stage 9	-11.6	264.49	-8.93
Stage 9	-11.8	258.6	-29.45
Stage 9	-12	248.51	-50.45
Stage 9	-12.2	235.84	-63.33
Stage 9	-12.4	220.89	-74.75
Stage 9	-12.6	203.95	-84.71

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	-12.8	185.31	-93.19
Stage 9	-13	165.27	-100.18
Stage 9	-13.2	144.13	-105.7
Stage 9	-13.4	122.19	-109.72
Stage 9	-13.6	99.74	-112.24
Stage 9	-13.8	77.09	-113.28
Stage 9	-14	54.52	-112.82
Stage 9	-14.2	32.35	-110.86
Stage 9	-14.4	10.87	-107.41
Stage 9	-14.6	-9.63	-102.48
Stage 9	-14.8	-28.84	-96.06
Stage 9	-15	-46.57	-88.64
Stage 9	-15.2	-62.64	-80.35
Stage 9	-15.4	-76.92	-71.39
Stage 9	-15.6	-89.51	-62.95
Stage 9	-15.8	-100.51	-55.02
Stage 9	-16	-110.02	-47.58
Stage 9	-16.2	-118.15	-40.62
Stage 9	-16.4	-124.97	-34.12
Stage 9	-16.6	-130.59	-28.09
Stage 9	-16.8	-135.09	-22.49
Stage 9	-17	-138.55	-17.31
Stage 9	-17.2	-141.06	-12.54
Stage 9	-17.4	-142.69	-8.16
Stage 9	-17.6	-143.52	-4.15
Stage 9	-17.8	-143.62	-0.5
Stage 9	-18	-143.05	2.81
Stage 9	-18.2	-141.89	5.8
Stage 9	-18.4	-140.2	8.49
Stage 9	-18.6	-138.02	10.88
Stage 9	-18.8	-135.42	13
Stage 9	-19	-132.44	14.87
Stage 9	-19.2	-129.15	16.49
Stage 9	-19.4	-125.57	17.89
Stage 9	-19.6	-121.75	19.07
Stage 9	-19.8	-117.74	20.06
Stage 9	-20	-113.57	20.87
Stage 9	-20.2	-109.27	21.49
Stage 9	-20.4	-104.88	21.96
Stage 9	-20.6	-100.42	22.27
Stage 9	-20.8	-95.93	22.45
Stage 9	-21	-91.43	22.5
Stage 9	-21.2	-86.94	22.44
Stage 9	-21.4	-82.48	22.32
Stage 9	-21.6	-78.06	22.09
Stage 9	-21.8	-73.71	21.78
Stage 9	-22	-69.43	21.39
Stage 9	-22.2	-65.24	20.93
Stage 9	-22.4	-61.16	20.41
Stage 9	-22.6	-57.19	19.84
Stage 9	-22.8	-53.35	19.22
Stage 9	-23	-49.64	18.56
Stage 9	-23.2	-46.06	17.88
Stage 9	-23.4	-42.63	17.17
Stage 9	-23.6	-39.34	16.44
Stage 9	-23.8	-36.2	15.7
Stage 9	-24	-33.21	14.95
Stage 9	-24.2	-30.37	14.19
Stage 9	-24.4	-27.68	13.44
Stage 9	-24.6	-25.15	12.68
Stage 9	-24.8	-22.76	11.94
Stage 9	-25	-20.52	11.2
Stage 9	-25.2	-18.42	10.48
Stage 9	-25.4	-16.47	9.77
Stage 9	-25.6	-14.65	9.08
Stage 9	-25.8	-12.97	8.41
Stage 9	-26	-11.42	7.76
Stage 9	-26.2	-10	7.13
Stage 9	-26.4	-8.69	6.53
Stage 9	-26.6	-7.5	5.95
Stage 9	-26.8	-6.42	5.4

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 9	-27	-5.45	4.87
Stage 9	-27.2	-4.57	4.37
Stage 9	-27.4	-3.79	3.9
Stage 9	-27.6	-3.1	3.44
Stage 9	-27.8	-2.5	3.02
Stage 9	-28	-1.98	2.62
Stage 9	-28.2	-1.53	2.24
Stage 9	-28.4	-1.15	1.89
Stage 9	-28.6	-0.84	1.57
Stage 9	-28.8	-0.58	1.27
Stage 9	-29	-0.38	1
Stage 9	-29.2	-0.23	0.76
Stage 9	-29.4	-0.12	0.54
Stage 9	-29.6	-0.05	0.35
Stage 9	-29.8	-0.01	0.19
Stage 9	-30	0	0.05

Tabella Risultati Paratia Nominal - Stage: Stage 10

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	0.5	0	-1.65
Stage 10	0.3	-0.33	-1.65
Stage 10	0.1	-1.85	-7.58
Stage 10	-0.1	-4.79	-14.7
Stage 10	-0.3	-9.07	-21.43
Stage 10	-0.5	-14.62	-27.75
Stage 10	-0.7	-21.4	-33.87
Stage 10	-0.9	-29.35	-39.78
Stage 10	-1.1	-38.45	-45.48
Stage 10	-1.3	-48.64	-50.97
Stage 10	-1.5	-59.89	-56.25
Stage 10	-1.7	-46.78	65.59
Stage 10	-1.9	-34.56	61.07
Stage 10	-2.1	-23.21	56.77
Stage 10	-2.3	-12.67	52.71
Stage 10	-2.5	-2.89	48.87
Stage 10	-2.7	6.16	45.26
Stage 10	-2.9	14.46	41.52
Stage 10	-3.1	21.96	37.46
Stage 10	-3.3	28.58	33.09
Stage 10	-3.5	34.26	28.41
Stage 10	-3.7	38.94	23.42
Stage 10	-3.9	42.57	18.12
Stage 10	-4	43.96	13.9
Stage 10	-4.2	73.4	147.23
Stage 10	-4.4	101.63	141.14
Stage 10	-4.6	128.58	134.74
Stage 10	-4.8	154.18	128.03
Stage 10	-5	178.39	121.01
Stage 10	-5.2	201.12	113.67
Stage 10	-5.4	222.33	106.02
Stage 10	-5.6	241.94	98.06
Stage 10	-5.8	259.9	89.79
Stage 10	-6	276.14	81.2
Stage 10	-6.2	290.6	72.31
Stage 10	-6.4	303.22	63.1
Stage 10	-6.6	313.93	53.57
Stage 10	-6.8	322.68	43.74
Stage 10	-7	329.4	33.59
Stage 10	-7.2	334.02	23.12
Stage 10	-7.4	336.49	12.35
Stage 10	-7.6	336.74	1.26
Stage 10	-7.8	334.71	-10.14
Stage 10	-8	330.34	-21.85
Stage 10	-8.2	362.58	161.16
Stage 10	-8.4	392.34	148.82
Stage 10	-8.6	419.57	136.16
Stage 10	-8.8	444.21	123.2
Stage 10	-9	466.19	109.92
Stage 10	-9.2	485.46	96.32
Stage 10	-9.4	501.94	82.42
Stage 10	-9.6	515.58	68.2
Stage 10	-9.8	526.81	56.15
Stage 10	-10	535.57	43.78
Stage 10	-10.2	541.78	31.08
Stage 10	-10.4	545.39	18.05
Stage 10	-10.6	546.33	4.69
Stage 10	-10.8	544.53	-9
Stage 10	-11	539.93	-23.02
Stage 10	-11.2	571.51	157.89
Stage 10	-11.4	600.15	143.21
Stage 10	-11.6	625.79	128.21
Stage 10	-11.8	648.36	112.87
Stage 10	-12	667.8	97.2
Stage 10	-12.2	684.05	81.21
Stage 10	-12.4	697.02	64.88
Stage 10	-12.6	706.65	48.11

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	-12.8	712.8	30.79
Stage 10	-13	715.39	12.91
Stage 10	-13.2	714.28	-5.53
Stage 10	-13.4	709.37	-24.53
Stage 10	-13.6	700.56	-44.08
Stage 10	-13.8	687.72	-64.19
Stage 10	-14	670.75	-84.86
Stage 10	-14.2	649.53	-106.08
Stage 10	-14.4	623.96	-127.87
Stage 10	-14.6	593.92	-150.2
Stage 10	-14.8	559.3	-173.1
Stage 10	-15	522.55	-183.75
Stage 10	-15.2	483.92	-193.12
Stage 10	-15.4	443.68	-201.22
Stage 10	-15.6	402.07	-208.04
Stage 10	-15.8	359.35	-213.59
Stage 10	-16	315.78	-217.87
Stage 10	-16.2	271.6	-220.88
Stage 10	-16.4	227.08	-222.61
Stage 10	-16.6	182.46	-223.07
Stage 10	-16.8	138.01	-222.26
Stage 10	-17	93.98	-220.18
Stage 10	-17.2	50.61	-216.82
Stage 10	-17.4	8.17	-212.19
Stage 10	-17.6	-33.08	-206.29
Stage 10	-17.8	-72.91	-199.11
Stage 10	-18	-111.04	-190.66
Stage 10	-18.2	-147.23	-180.94
Stage 10	-18.4	-181.22	-169.95
Stage 10	-18.6	-212.76	-157.69
Stage 10	-18.8	-241.59	-144.15
Stage 10	-19	-267.45	-129.34
Stage 10	-19.2	-290.13	-113.36
Stage 10	-19.4	-309.65	-97.63
Stage 10	-19.6	-326.08	-82.13
Stage 10	-19.8	-339.57	-67.45
Stage 10	-20	-350.33	-53.8
Stage 10	-20.2	-358.55	-41.12
Stage 10	-20.4	-364.43	-29.38
Stage 10	-20.6	-368.14	-18.55
Stage 10	-20.8	-369.85	-8.59
Stage 10	-21	-369.75	0.54
Stage 10	-21.2	-367.97	8.87
Stage 10	-21.4	-364.68	16.45
Stage 10	-21.6	-360.02	23.3
Stage 10	-21.8	-354.13	29.46
Stage 10	-22	-347.14	34.98
Stage 10	-22.2	-339.16	39.88
Stage 10	-22.4	-330.32	44.2
Stage 10	-22.6	-320.72	47.98
Stage 10	-22.8	-310.47	51.24
Stage 10	-23	-299.67	54.02
Stage 10	-23.2	-288.4	56.34
Stage 10	-23.4	-276.75	58.24
Stage 10	-23.6	-264.8	59.75
Stage 10	-23.8	-252.62	60.89
Stage 10	-24	-240.29	61.68
Stage 10	-24.2	-227.86	62.16
Stage 10	-24.4	-215.39	62.34
Stage 10	-24.6	-202.94	62.24
Stage 10	-24.8	-190.56	61.9
Stage 10	-25	-178.3	61.32
Stage 10	-25.2	-166.19	60.53
Stage 10	-25.4	-154.28	59.54
Stage 10	-25.6	-142.61	58.34
Stage 10	-25.8	-131.22	56.96
Stage 10	-26	-120.14	55.4
Stage 10	-26.2	-109.4	53.69
Stage 10	-26.4	-99.04	51.82
Stage 10	-26.6	-89.08	49.82
Stage 10	-26.8	-79.54	47.69

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 10	-27	-70.45	45.45
Stage 10	-27.2	-61.83	43.1
Stage 10	-27.4	-53.7	40.65
Stage 10	-27.6	-46.08	38.1
Stage 10	-27.8	-38.98	35.47
Stage 10	-28	-32.43	32.75
Stage 10	-28.2	-26.44	29.96
Stage 10	-28.4	-21.02	27.09
Stage 10	-28.6	-16.19	24.15
Stage 10	-28.8	-11.97	21.13
Stage 10	-29	-8.36	18.05
Stage 10	-29.2	-5.38	14.9
Stage 10	-29.4	-3.04	11.69
Stage 10	-29.6	-1.36	8.41
Stage 10	-29.8	-0.34	5.08
Stage 10	-30	0	1.71

Risultati Elementi strutturali

Design Assumption: Nominal	Sollecitazione Tieback
Stage	**Forza (kN/m)**
Stage 3	125
Stage 4	126.6752
Stage 5	125.1749
Stage 6	127.1583
Stage 7	126.4247
Stage 8	126.6986
Stage 9	126.6957
Stage 10	126.7133

Design Assumption: Nominal	Sollecitazione Tieback
Stage	**Forza (kN/m)**
Stage 5	125
Stage 6	130.2522
Stage 7	128.3906
Stage 8	132.4781
Stage 9	131.5676
Stage 10	137.6522

Design Assumption: Nominal	Sollecitazione Tieback
Stage	**Forza (kN/m)**
Stage 7	166.7
Stage 8	178.7002
Stage 9	175.8024
Stage 10	195.0365

Design Assumption: Nominal	Sollecitazione Tieback
Stage	**Forza (kN/m)**
Stage 9	166.7
Stage 10	195.2558

Riepilogo spinte

Design Assumption: Nominal	Tipo Risultato: Riepilogo spinte	Muro:	LEFT	Lato	LEFT		
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	3920.6	3125	7045.6	2066.6	23232	16.88%	1.9
Stage 2	3869.1	3125	6994.1	2066.6	23232	16.65%	1.87
Stage 3	3965.8	3125	7090.8	2066.6	23232	17.07%	1.92
Stage 4	3831.1	3125	6956.1	2066.6	23232	16.49%	1.85
Stage 5	3930.9	3125	7055.9	2066.6	23232	16.92%	1.9
Stage 6	3592.4	2524.8	6117.2	2300.6	25275.2	14.21%	1.56
Stage 7	3717.7	2524.8	6242.5	2300.6	25275.2	14.71%	1.62
Stage 8	3545.1	1894.7	5439.9	2546.4	27419.8	12.93%	1.39
Stage 9	3672	1894.7	5566.8	2546.4	27419.8	13.39%	1.44
Stage 10	3421.2	1457.1	4878.3	2717	28909.4	11.83%	1.26

Design Assumption: Nominal	Tipo Risultato: Riepilogo spinte	Muro:	LEFT	Lato	RIGHT		
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	3920.6	3125	7045.6	2047.2	23062.7	17%	1.92
Stage 2	3869.1	3125	6994.1	1387.3	17086.2	22.64%	2.79
Stage 3	3840.8	3125	6965.8	1387.3	17086.2	22.48%	2.77
Stage 4	3704.5	3125	6829.5	893.7	12568.6	29.47%	4.15
Stage 5	3680.7	3125	6805.7	893.7	12568.6	29.28%	4.12
Stage 6	3554.4	2305.2	5859.7	552.9	9022	39.4%	6.43
Stage 7	3515.7	2305.2	5821	552.9	9022	38.97%	6.36
Stage 8	3296.7	1705.3	5002	367.5	6777.5	48.64%	8.97
Stage 9	3260.5	1705.3	4965.7	367.5	6777.5	48.11%	8.87
Stage 10	2956.6	1266.9	4223.6	231.2	4999.8	59.13%	12.79

Allegati

Design Assumption : Nominal - File di Paratie - File di input (.d)

```
* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: Nominal
 * Time:giovedì 25 giugno 2020 12:25:47
 * 1: Defining general settings
 UNIT  m kN
 TITLE New Project
 DELTA 0.2
 option param itemax 40

 * 2: Defining wall(s)
 WALL LeftWall_29 0 -30 0.5 1

 * 3: Defining surfaces for wall(s)
 SOIL 0_L LeftWall_29 -30 0.5 1 0
 SOIL 0_R LeftWall_29 -30 0.5 2 180

 * 4: Defining soil layers
 *
 * Soil Profile (Livello1_334_8_L_0)
 *
 LDATA Livello1_334_8_L_0 0.5 LeftWall_29
 ATREST 0.562 1 1
 WEIGHT 20 10 10
 PERMEABILITY 1E-05
 RESISTANCE 5 26
 YOUNG 4.5E+04 7.2E+04
 ENDL
 *
 * Soil Profile (Livello2_2752_337_L_0)
 *
 LDATA Livello2_2752_337_L_0 -9.5 LeftWall_29
 ATREST 0.562 1 1
 WEIGHT 21 11 10
 PERMEABILITY 1E-05
 RESISTANCE 15 26
 YOUNG 8E+04 1.28E+05
 ENDL

 * 5: Defining structural materials
 * Steel material: 13206 Name=Fe360 E=206000200 kPa
 MATERIAL Fe360_13206 2.06E+08
 * Concrete material: 101 Name=C25/30 E=31475800 kPa
 MATERIAL C2530_101 3.148E+07
 * Rebar material: 110 Name=acciaio armonico E=200100000 kPa
 MATERIAL acciaioarmonico_110 2.001E+08

 * 6: Defining structural elements
 * 6.1: Beams
 BEAM WallElement_30 LeftWall_29 -30 0.5 C2530_101 0.7888 00 00

 * 6.2: Supports
 WIRE Tieback_341 LeftWall_29 -1.5 acciaioarmonico_110 9.495E-06 125 0 0 0
 WIRE Tieback_342 LeftWall_29 -4 acciaioarmonico_110 9.653E-06 125 0 0 0
 WIRE Tieback_2841 LeftWall_29 -8 acciaioarmonico_110 1.178E-05 166.7 0 0 0
 WIRE Tieback_2842 LeftWall_29 -11 acciaioarmonico_110 1.264E-05 166.7 0 0 0




 * 6.3: Strips
 STRIP LeftWall_29 1 10 40 36.8 0.5 124.6 45

 * 7: Defining Steps
 STEP Stage1_28
 CHANGE Livello1_334_8_L_0 U-FRICT=26 LeftWall_29
 CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
 CHANGE Livello1_334_8_L_0 U-KA=0.39 LeftWall_29
 CHANGE Livello1_334_8_L_0 U-KP=3.404 LeftWall_29
 CHANGE Livello1_334_8_L_0 D-KA=0.39 LeftWall_29
 CHANGE Livello1_334_8_L_0 D-KP=3.404 LeftWall_29
 CHANGE Livello2_2752_337_L_0 U-FRICT=26 LeftWall_29
 CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
 CHANGE Livello2_2752_337_L_0 U-KA=0.39 LeftWall_29
 CHANGE Livello2_2752_337_L_0 U-KP=3.404 LeftWall_29
 CHANGE Livello2_2752_337_L_0 D-KA=0.39 LeftWall_29
 CHANGE Livello2_2752_337_L_0 D-KP=3.404 LeftWall_29
 CHANGE Livello1_334_8_L_0 U-COHE=5 LeftWall_29
 CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
 CHANGE Livello2_2752_337_L_0 U-COHE=15 LeftWall_29
 CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
 SETWALL LeftWall_29
 GEOM 0.5 0.5
```

```
WATER -5 0 -30 0 0
ADD WallElement_30
ENDSTEP

STEP Stage2_344
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -2.5
WATER -5 0 -30 0 0
ENDSTEP

STEP Stage3_1139
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -2.5
WATER -5 0 -30 0 0
ADD Tieback_341
ENDSTEP

STEP Stage4_1238
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -5
WATER -5 0 -30 0 0
ENDSTEP

STEP Stage5_1685
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -5
WATER -5 0 -30 0 0
ADD Tieback_342
ENDSTEP

STEP Stage6_2741
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-KP=3.403 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -9
WATER -7 2 -30 0 0
ENDSTEP

STEP Stage7_8944
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -9
WATER -7 2 -30 0 0
ADD Tieback_2841
ENDSTEP

STEP Stage8_9390
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-KP=3.404 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -12
WATER -10 2 -30 0 0
ENDSTEP

STEP Stage9_12011
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -12
WATER -10 2 -30 0 0
ADD Tieback_2842
ENDSTEP

STEP Stage10_12718
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
```

```
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -14.61
WATER -12.3 2.31 -30 0 0
ENDSTEP
```

Report di Calcolo

Allegato 2

Nome Progetto: New Project

Autore: Ingegnere

Jobname: R:\424.01 - HIRPINIA\Ing\03. LAVORO\07 - GALL\GA - FINESTRE - IMBOCCHI\GA09 Finestra F3\1-sez_LONG\2-paratie\SEZIONE 1 GEO Finestra F3.pplus

Data: 25/06/2020 12:57:41

Design Section: Base Design Section

Sommario
Contenuto Sommario

Descrizione della Stratigrafia e degli Strati di Terreno

Tipo : HORIZONTAL
Quota : 0.5 m
OCR : 1

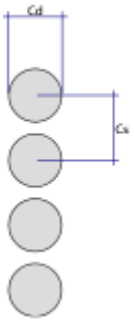
Tipo : HORIZONTAL
Quota : -9.5 m
OCR : 1

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	Livello 1 GEO	20	20	21.3			4		Constant		45000	72000									
2	Livello 2 GEO	21	21	21.3			12		Constant		80000	128000									

Descrizione Pareti

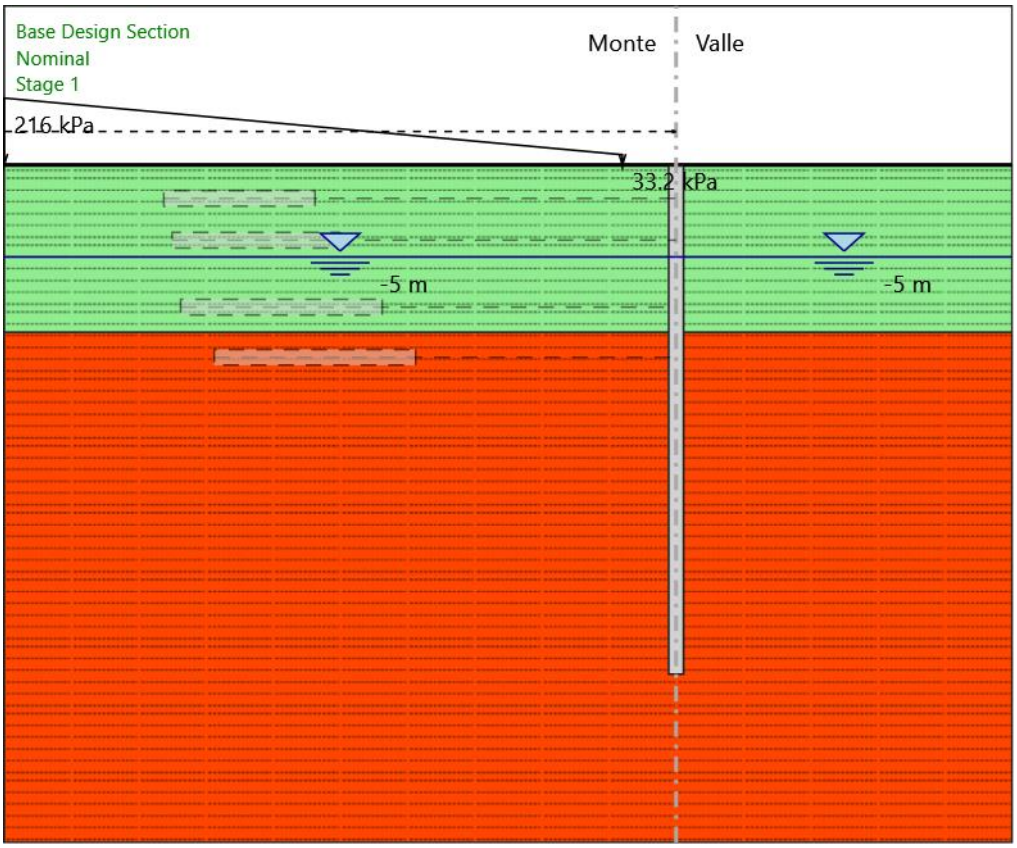
X : 0 m
Quota in alto : 0.5 m
Quota di fondo : -30 m
Muro di sinistra

Sezione : PALI1000/1200
Area equivalente : 0.654498469497874 m
Inerzia equivalente : 0.0409 m^4/m
Materiale calcestruzzo : C25/30
Tipo sezione : Tangent
Spaziatura : 1.2 m
Diametro : 1 m
Efficacia : 1



Fasi di Calcolo

Stage 1



Stage 1

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : 0.5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

0.5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

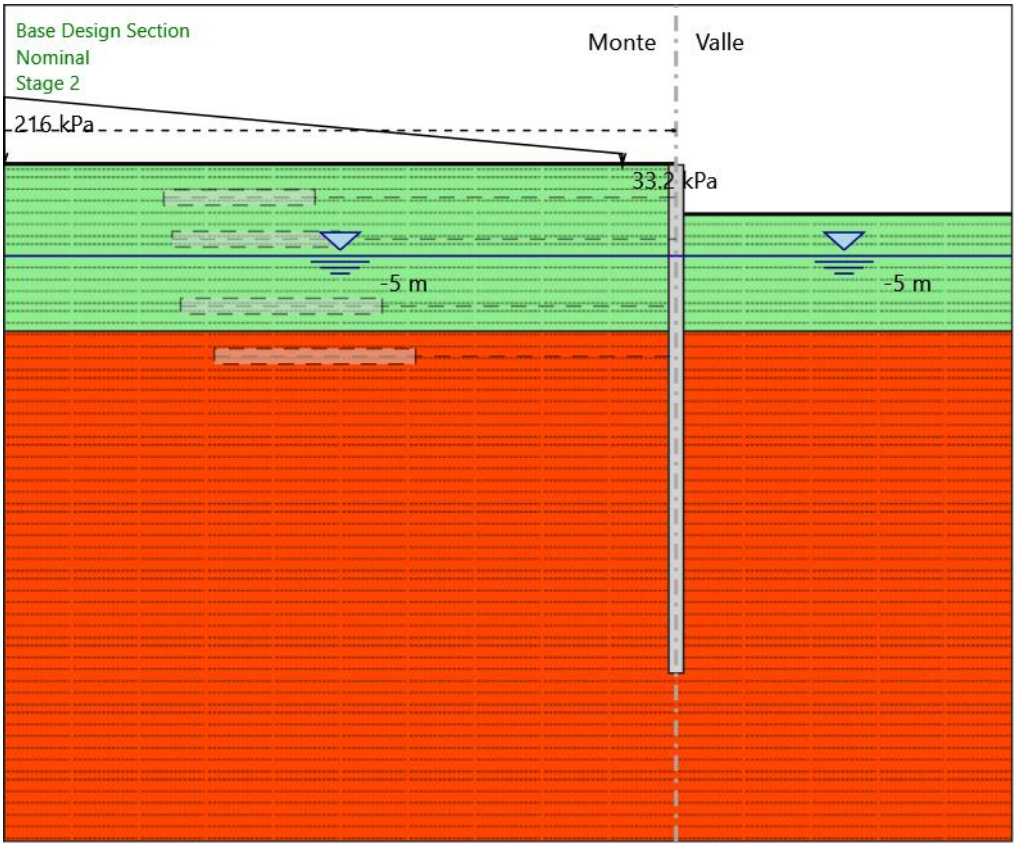
X iniziale : -3.2 m
X finale : -40 m
Pressione iniziale : 33.2 kPa
Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m
Quota in alto : 0.5 m
Quota di fondo : -30 m
Sezione : PALI1000/1200

Stage 2



Stage 2

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -2.5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-2.5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

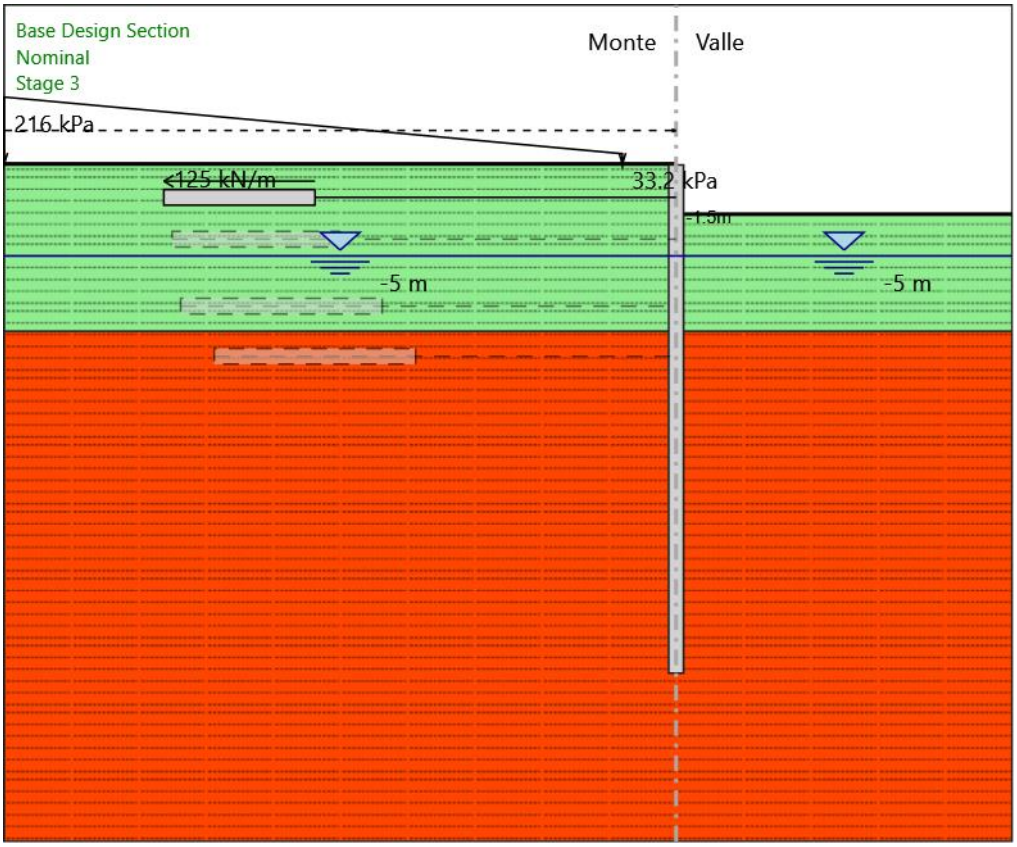
X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Stage 3



Stage 3

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -2.5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-2.5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

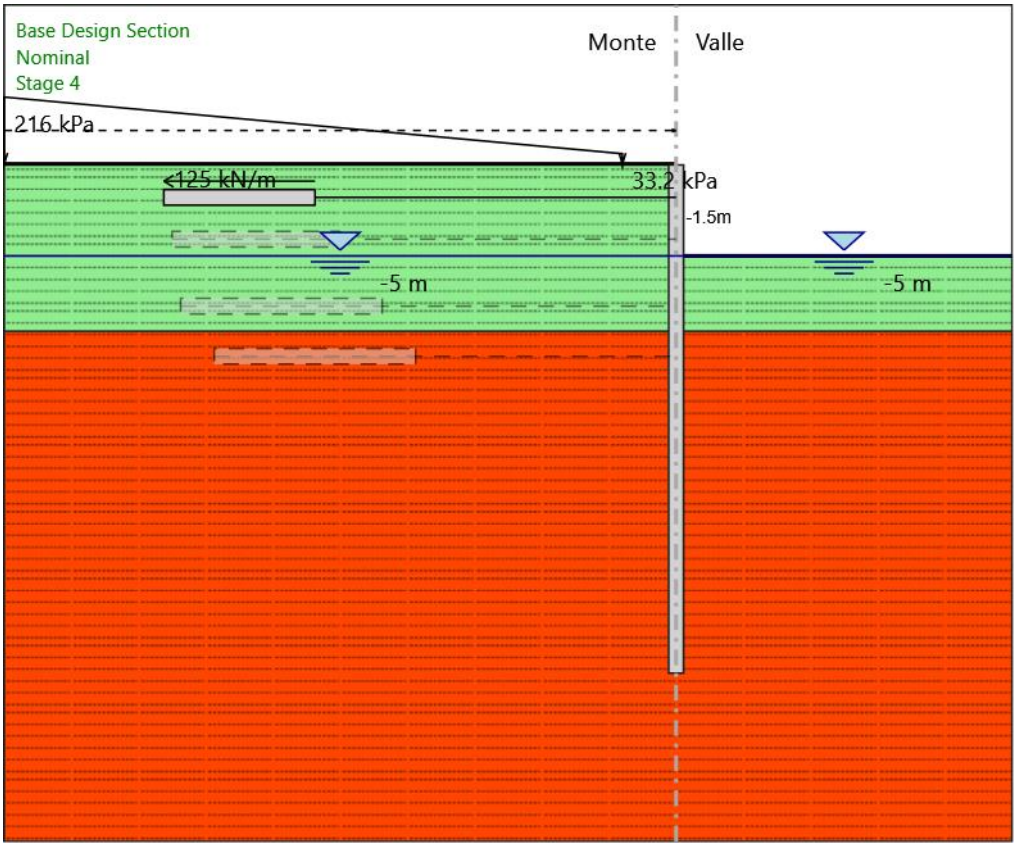
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 4



Stage 4

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

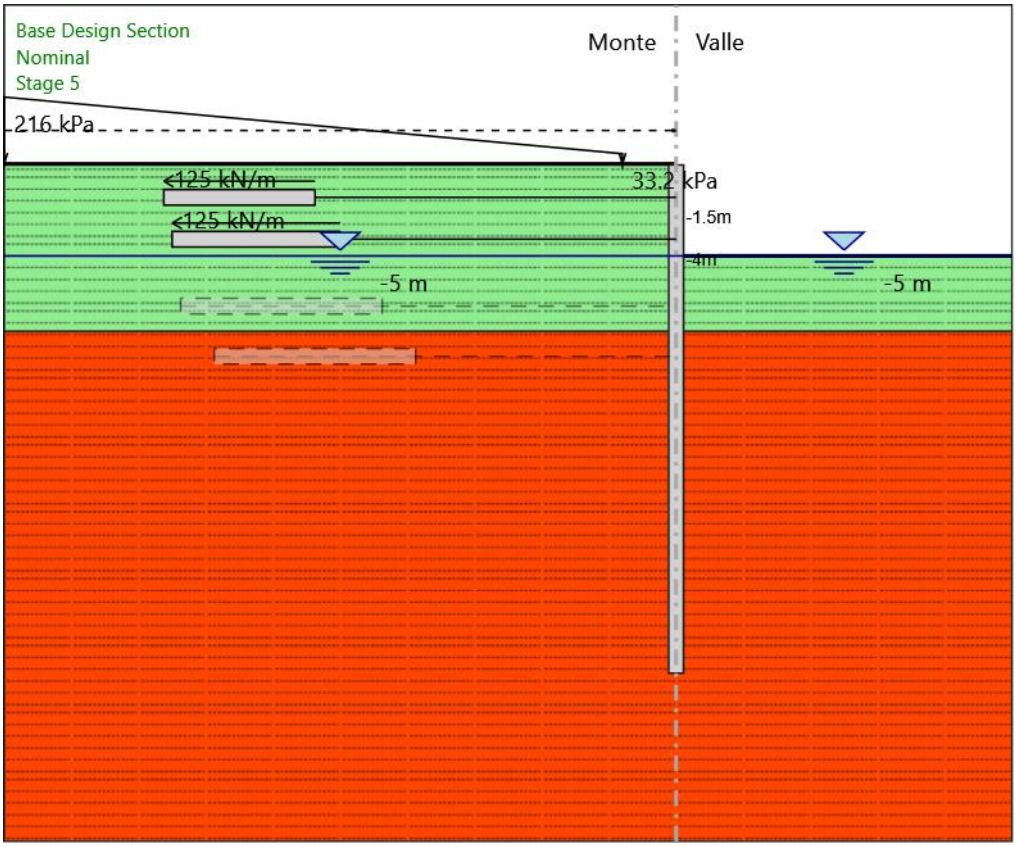
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 5



Stage 5

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

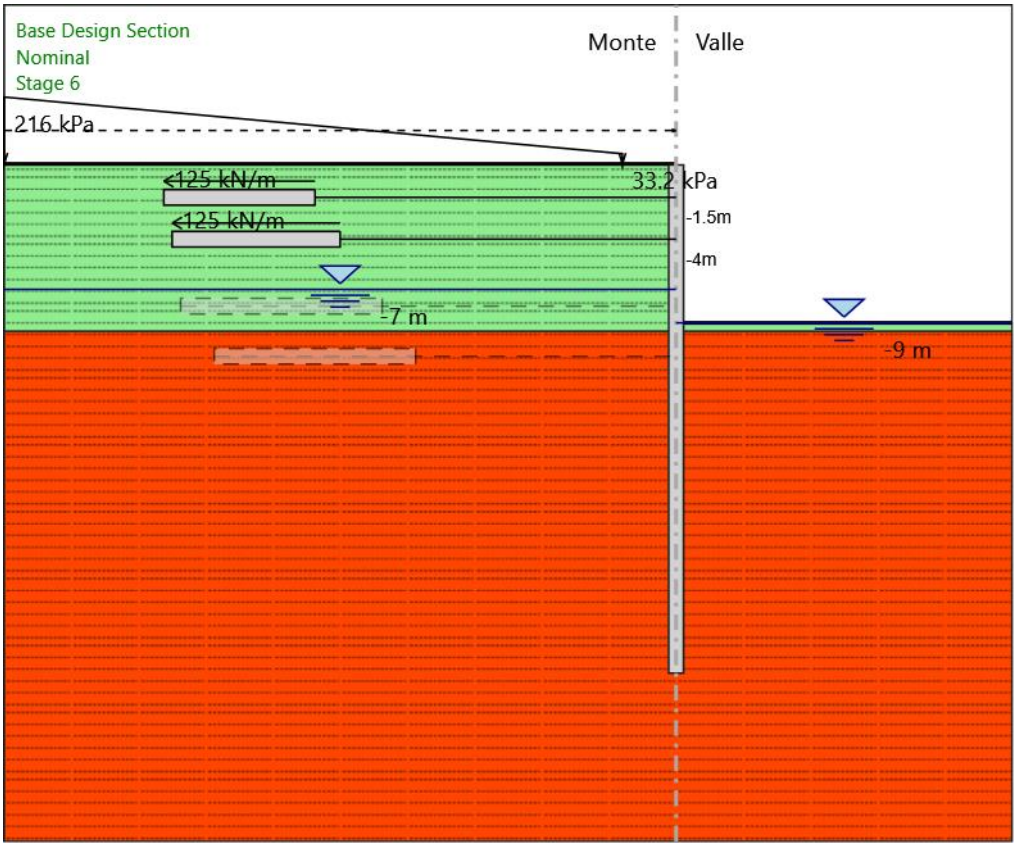
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 6



Stage 6

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -9 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-9 m

Falda acquifera

Falda di sinistra : -7 m

Falda di destra : -9 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

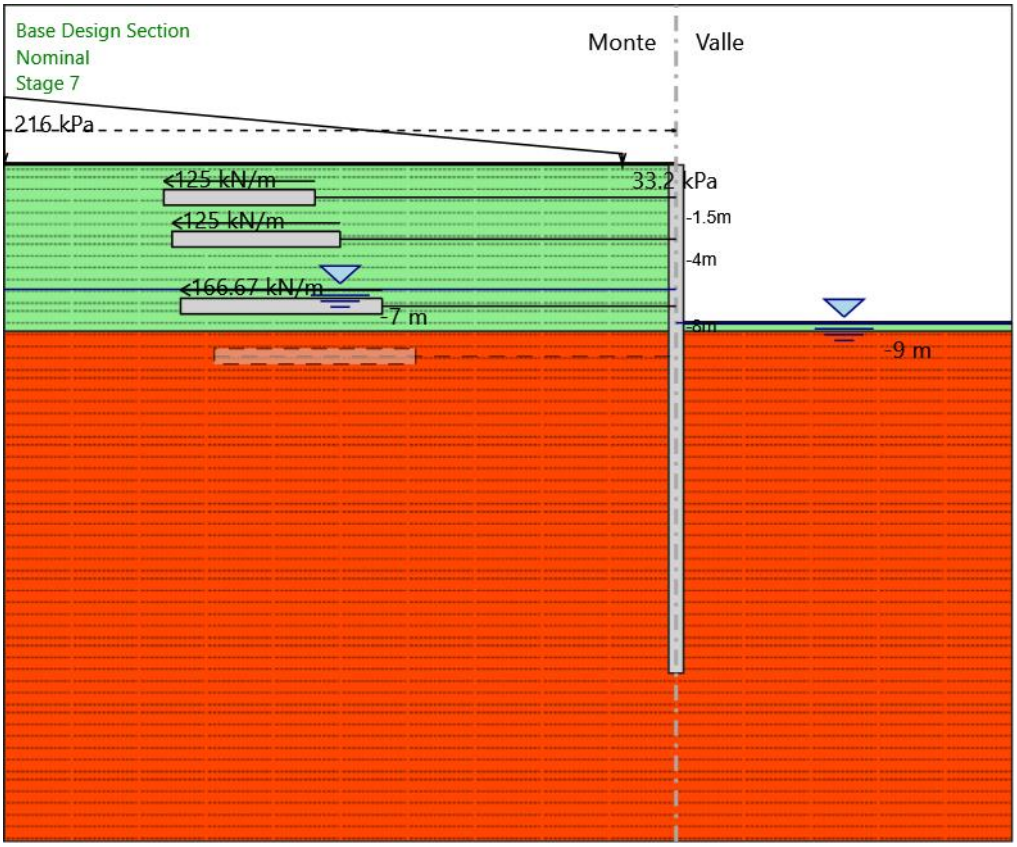
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 7



Stage 7

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -9 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-9 m

Falda acquifera

Falda di sinistra : -7 m

Falda di destra : -9 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -8 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m

Lunghezza libera : 17.5 m

Precarico : 400 kN

Angolo : 0 °

Sezione : Trefoli 6

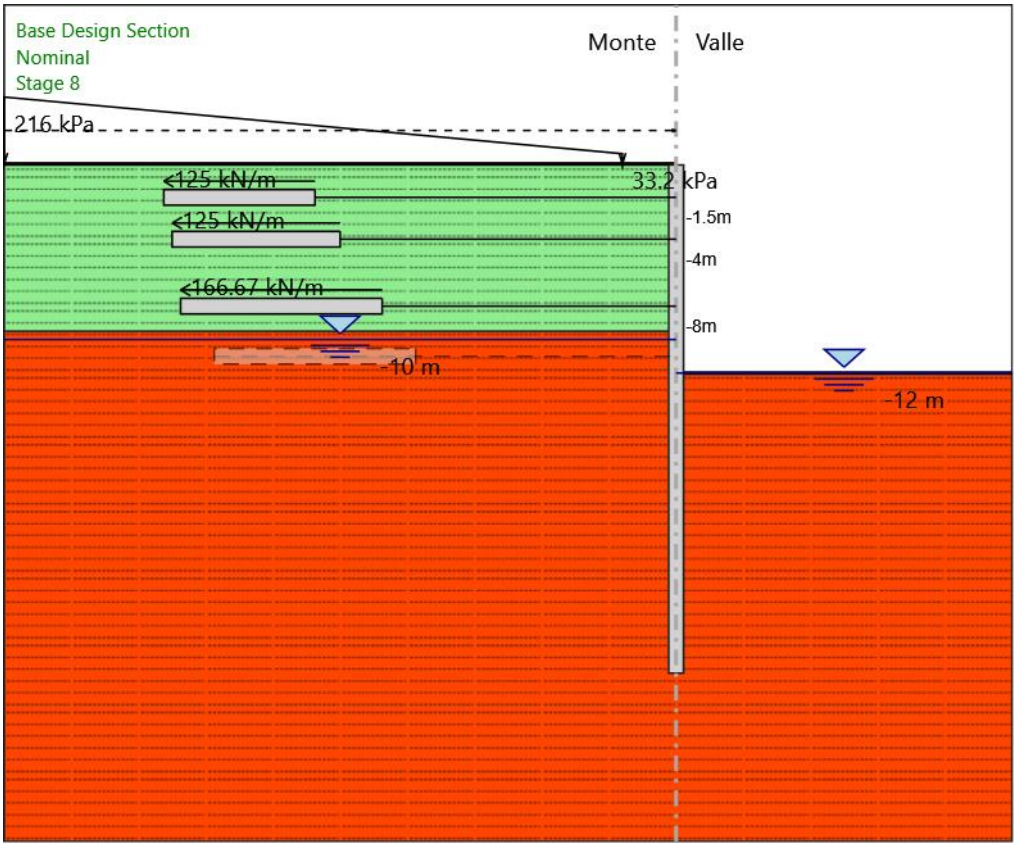
Tipo di barre : Barre trefoli

Numero di barre : 6

Diametro : 0.01331 m

Area : 0.000834 m^2

Stage 8



Stage 8

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -12 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-12 m

Falda acquifera

Falda di sinistra : -10 m

Falda di destra : -12 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -8 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m

Lunghezza libera : 17.5 m

Precarico : 400 kN

Angolo : 0 °

Sezione : Trefoli 6

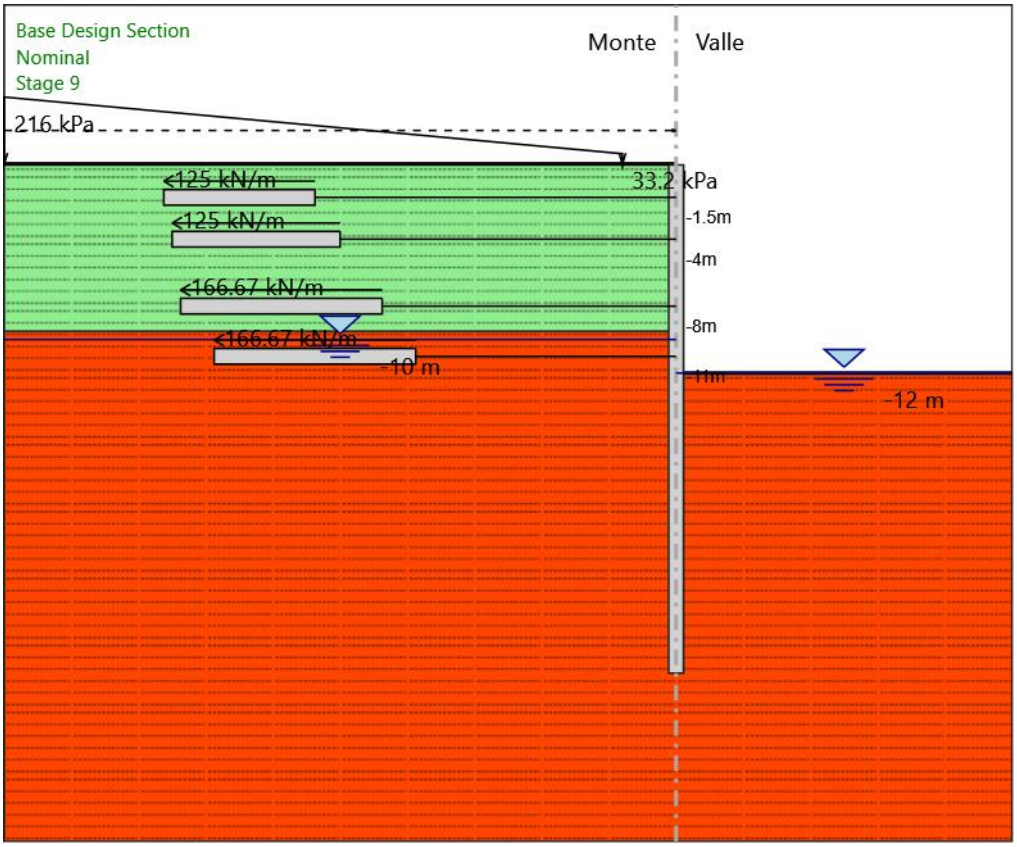
Tipo di barre : Barre trefoli

Numero di barre : 6

Diametro : 0.01331 m

Area : 0.000834 m^2

Stage 9



Stage 9

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -12 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-12 m

Falda acquifera

Falda di sinistra : -10 m

Falda di destra : -12 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -8 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m

Lunghezza libera : 17.5 m

Precarico : 400 kN

Angolo : 0 °

Sezione : Trefoli 6

Tipo di barre : Barre trefoli

Numero di barre : 6

Diametro : 0.01331 m

Area : 0.000834 m^2

Tirante : Tieback

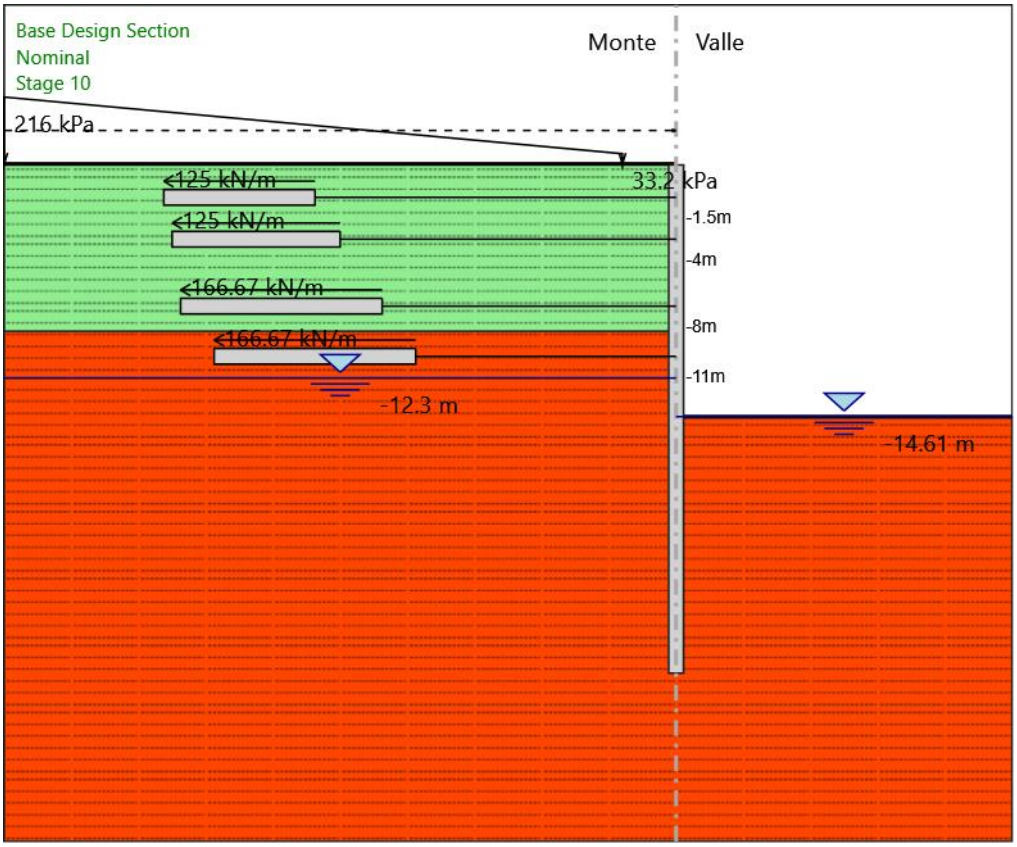
X : 0 m

Z : -11 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m
Lunghezza libera : 15.5 m
Precarico : 400 kN
Angolo : 0 °
Sezione : Trefoli 6
    Tipo di barre : Barre trefoli
    Numero di barre : 6
    Diametro : 0.01331 m
    Area : 0.000834 m^2

Stage 10



Stage 10

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -14.61 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-14.61 m

Falda acquifera

Falda di sinistra : -12.3 m

Falda di destra : -14.61 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -3.2 m

X finale : -40 m

Pressione iniziale : 33.2 kPa

Pressione finale : 216 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -30 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -1.5 m

Lunghezza bulbo : 9 m

Diametro bulbo : 0.16 m

Lunghezza libera : 21.5 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -4 m

Lunghezza bulbo : 10 m

Diametro bulbo : 0.16 m

Lunghezza libera : 20 m

Precarico : 300 kN

Angolo : 0 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -8 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m

Lunghezza libera : 17.5 m

Precarico : 400 kN

Angolo : 0 °

Sezione : Trefoli 6

Tipo di barre : Barre trefoli

Numero di barre : 6

Diametro : 0.01331 m

Area : 0.000834 m^2

Tirante : Tieback

X : 0 m

Z : -11 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.19 m
Lunghezza libera : 15.5 m
Precarico : 400 kN
Angolo : 0 °
Sezione : Trefoli 6
    Tipo di barre : Barre trefoli
    Numero di barre : 6
    Diametro : 0.01331 m
    Area : 0.000834 m^2

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	0.5	0
Stage 1	0.3	0
Stage 1	0.1	0
Stage 1	-0.1	0
Stage 1	-0.3	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	0
Stage 1	-4.2	0
Stage 1	-4.4	0
Stage 1	-4.6	0
Stage 1	-4.8	0
Stage 1	-5	0
Stage 1	-5.2	0
Stage 1	-5.4	0
Stage 1	-5.6	0
Stage 1	-5.8	0
Stage 1	-6	0
Stage 1	-6.2	0
Stage 1	-6.4	0
Stage 1	-6.6	0
Stage 1	-6.8	0
Stage 1	-7	0
Stage 1	-7.2	0
Stage 1	-7.4	0
Stage 1	-7.6	0
Stage 1	-7.8	0
Stage 1	-8	0
Stage 1	-8.2	0
Stage 1	-8.4	0
Stage 1	-8.6	0
Stage 1	-8.8	0
Stage 1	-9	0
Stage 1	-9.2	0
Stage 1	-9.4	0
Stage 1	-9.6	0
Stage 1	-9.8	0
Stage 1	-10	0
Stage 1	-10.2	0
Stage 1	-10.4	0
Stage 1	-10.6	0
Stage 1	-10.8	0
Stage 1	-11	0
Stage 1	-11.2	0
Stage 1	-11.4	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	-11.6	0
Stage 1	-11.8	0
Stage 1	-12	0
Stage 1	-12.2	0
Stage 1	-12.4	0
Stage 1	-12.6	0
Stage 1	-12.8	0
Stage 1	-13	0
Stage 1	-13.2	0
Stage 1	-13.4	0
Stage 1	-13.6	0
Stage 1	-13.8	0
Stage 1	-14	0
Stage 1	-14.2	0
Stage 1	-14.4	0
Stage 1	-14.6	0
Stage 1	-14.8	0
Stage 1	-15	0
Stage 1	-15.2	0
Stage 1	-15.4	0
Stage 1	-15.6	0
Stage 1	-15.8	0
Stage 1	-16	0
Stage 1	-16.2	0
Stage 1	-16.4	0
Stage 1	-16.6	0
Stage 1	-16.8	0
Stage 1	-17	0
Stage 1	-17.2	0
Stage 1	-17.4	0
Stage 1	-17.6	0
Stage 1	-17.8	0
Stage 1	-18	0
Stage 1	-18.2	0
Stage 1	-18.4	0
Stage 1	-18.6	0
Stage 1	-18.8	0
Stage 1	-19	0
Stage 1	-19.2	0
Stage 1	-19.4	0
Stage 1	-19.6	0
Stage 1	-19.8	0
Stage 1	-20	0
Stage 1	-20.2	0
Stage 1	-20.4	0
Stage 1	-20.6	0
Stage 1	-20.8	0
Stage 1	-21	0
Stage 1	-21.2	0
Stage 1	-21.4	0
Stage 1	-21.6	0
Stage 1	-21.8	0
Stage 1	-22	0
Stage 1	-22.2	0
Stage 1	-22.4	0
Stage 1	-22.6	0
Stage 1	-22.8	0
Stage 1	-23	0
Stage 1	-23.2	0
Stage 1	-23.4	0
Stage 1	-23.6	0
Stage 1	-23.8	0
Stage 1	-24	0
Stage 1	-24.2	0
Stage 1	-24.4	0
Stage 1	-24.6	0
Stage 1	-24.8	0
Stage 1	-25	0
Stage 1	-25.2	0
Stage 1	-25.4	0
Stage 1	-25.6	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	-25.8	0
Stage 1	-26	0
Stage 1	-26.2	0
Stage 1	-26.4	0
Stage 1	-26.6	0
Stage 1	-26.8	0
Stage 1	-27	0
Stage 1	-27.2	0
Stage 1	-27.4	0
Stage 1	-27.6	0
Stage 1	-27.8	0
Stage 1	-28	0
Stage 1	-28.2	0
Stage 1	-28.4	0
Stage 1	-28.6	0
Stage 1	-28.8	0
Stage 1	-29	0
Stage 1	-29.2	0
Stage 1	-29.4	0
Stage 1	-29.6	0
Stage 1	-29.8	0
Stage 1	-30	0

Tabella Spostamento Nominal - LEFT Stage: Stage 2

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	0.5	1.43
Stage 2	0.3	1.38
Stage 2	0.1	1.33
Stage 2	-0.1	1.28
Stage 2	-0.3	1.23
Stage 2	-0.5	1.18
Stage 2	-0.7	1.14
Stage 2	-0.9	1.09
Stage 2	-1.1	1.04
Stage 2	-1.3	0.99
Stage 2	-1.5	0.94
Stage 2	-1.7	0.89
Stage 2	-1.9	0.85
Stage 2	-2.1	0.8
Stage 2	-2.3	0.75
Stage 2	-2.5	0.7
Stage 2	-2.7	0.66
Stage 2	-2.9	0.61
Stage 2	-3.1	0.57
Stage 2	-3.3	0.53
Stage 2	-3.5	0.48
Stage 2	-3.7	0.44
Stage 2	-3.9	0.41
Stage 2	-4	0.39
Stage 2	-4.2	0.35
Stage 2	-4.4	0.32
Stage 2	-4.6	0.28
Stage 2	-4.8	0.25
Stage 2	-5	0.22
Stage 2	-5.2	0.2
Stage 2	-5.4	0.17
Stage 2	-5.6	0.15
Stage 2	-5.8	0.13
Stage 2	-6	0.11
Stage 2	-6.2	0.09
Stage 2	-6.4	0.07
Stage 2	-6.6	0.06
Stage 2	-6.8	0.04
Stage 2	-7	0.03
Stage 2	-7.2	0.02
Stage 2	-7.4	0.01
Stage 2	-7.6	0
Stage 2	-7.8	-0.01
Stage 2	-8	-0.02
Stage 2	-8.2	-0.02
Stage 2	-8.4	-0.03
Stage 2	-8.6	-0.03
Stage 2	-8.8	-0.03
Stage 2	-9	-0.04
Stage 2	-9.2	-0.04
Stage 2	-9.4	-0.04
Stage 2	-9.6	-0.04
Stage 2	-9.8	-0.04
Stage 2	-10	-0.04
Stage 2	-10.2	-0.04
Stage 2	-10.4	-0.04
Stage 2	-10.6	-0.04
Stage 2	-10.8	-0.04
Stage 2	-11	-0.04
Stage 2	-11.2	-0.03
Stage 2	-11.4	-0.03
Stage 2	-11.6	-0.03
Stage 2	-11.8	-0.03
Stage 2	-12	-0.03
Stage 2	-12.2	-0.03
Stage 2	-12.4	-0.02
Stage 2	-12.6	-0.02

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	-12.8	-0.02
Stage 2	-13	-0.02
Stage 2	-13.2	-0.02
Stage 2	-13.4	-0.02
Stage 2	-13.6	-0.01
Stage 2	-13.8	-0.01
Stage 2	-14	-0.01
Stage 2	-14.2	-0.01
Stage 2	-14.4	-0.01
Stage 2	-14.6	-0.01
Stage 2	-14.8	-0.01
Stage 2	-15	-0.01
Stage 2	-15.2	0
Stage 2	-15.4	0
Stage 2	-15.6	0
Stage 2	-15.8	0
Stage 2	-16	0
Stage 2	-16.2	0
Stage 2	-16.4	0
Stage 2	-16.6	0
Stage 2	-16.8	0
Stage 2	-17	0
Stage 2	-17.2	0
Stage 2	-17.4	0
Stage 2	-17.6	0
Stage 2	-17.8	0
Stage 2	-18	0
Stage 2	-18.2	0
Stage 2	-18.4	0
Stage 2	-18.6	0
Stage 2	-18.8	0
Stage 2	-19	0
Stage 2	-19.2	0
Stage 2	-19.4	0
Stage 2	-19.6	0
Stage 2	-19.8	0
Stage 2	-20	0
Stage 2	-20.2	0
Stage 2	-20.4	0
Stage 2	-20.6	0
Stage 2	-20.8	0
Stage 2	-21	0
Stage 2	-21.2	0
Stage 2	-21.4	0
Stage 2	-21.6	0
Stage 2	-21.8	0
Stage 2	-22	0
Stage 2	-22.2	0
Stage 2	-22.4	0
Stage 2	-22.6	0
Stage 2	-22.8	0
Stage 2	-23	0
Stage 2	-23.2	0
Stage 2	-23.4	0
Stage 2	-23.6	0
Stage 2	-23.8	0
Stage 2	-24	0
Stage 2	-24.2	0
Stage 2	-24.4	0
Stage 2	-24.6	0
Stage 2	-24.8	0
Stage 2	-25	0
Stage 2	-25.2	0
Stage 2	-25.4	0
Stage 2	-25.6	0
Stage 2	-25.8	0
Stage 2	-26	0
Stage 2	-26.2	0
Stage 2	-26.4	0
Stage 2	-26.6	0
Stage 2	-26.8	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	-27	0
Stage 2	-27.2	0
Stage 2	-27.4	0
Stage 2	-27.6	0
Stage 2	-27.8	0
Stage 2	-28	0
Stage 2	-28.2	0
Stage 2	-28.4	0
Stage 2	-28.6	0
Stage 2	-28.8	0
Stage 2	-29	0
Stage 2	-29.2	0
Stage 2	-29.4	0
Stage 2	-29.6	0
Stage 2	-29.8	0
Stage 2	-30	0

Tabella Spostamento Nominal - LEFT Stage: Stage 3

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	0.5	-0.11
Stage 3	0.3	-0.11
Stage 3	0.1	-0.11
Stage 3	-0.1	-0.12
Stage 3	-0.3	-0.12
Stage 3	-0.5	-0.12
Stage 3	-0.7	-0.12
Stage 3	-0.9	-0.12
Stage 3	-1.1	-0.12
Stage 3	-1.3	-0.11
Stage 3	-1.5	-0.11
Stage 3	-1.7	-0.11
Stage 3	-1.9	-0.1
Stage 3	-2.1	-0.09
Stage 3	-2.3	-0.09
Stage 3	-2.5	-0.08
Stage 3	-2.7	-0.07
Stage 3	-2.9	-0.06
Stage 3	-3.1	-0.06
Stage 3	-3.3	-0.05
Stage 3	-3.5	-0.04
Stage 3	-3.7	-0.04
Stage 3	-3.9	-0.03
Stage 3	-4	-0.03
Stage 3	-4.2	-0.02
Stage 3	-4.4	-0.02
Stage 3	-4.6	-0.01
Stage 3	-4.8	-0.01
Stage 3	-5	-0.01
Stage 3	-5.2	0
Stage 3	-5.4	0
Stage 3	-5.6	0
Stage 3	-5.8	0
Stage 3	-6	0.01
Stage 3	-6.2	0.01
Stage 3	-6.4	0.01
Stage 3	-6.6	0.01
Stage 3	-6.8	0.01
Stage 3	-7	0.01
Stage 3	-7.2	0.01
Stage 3	-7.4	0.01
Stage 3	-7.6	0.01
Stage 3	-7.8	0.01
Stage 3	-8	0.01
Stage 3	-8.2	0.01
Stage 3	-8.4	0.01
Stage 3	-8.6	0.01
Stage 3	-8.8	0.01
Stage 3	-9	0.01
Stage 3	-9.2	0.01
Stage 3	-9.4	0.01
Stage 3	-9.6	0.01
Stage 3	-9.8	0.01
Stage 3	-10	0
Stage 3	-10.2	0
Stage 3	-10.4	0
Stage 3	-10.6	0
Stage 3	-10.8	0
Stage 3	-11	0
Stage 3	-11.2	0
Stage 3	-11.4	0
Stage 3	-11.6	0
Stage 3	-11.8	0
Stage 3	-12	0
Stage 3	-12.2	0
Stage 3	-12.4	0
Stage 3	-12.6	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	-12.8	0
Stage 3	-13	0
Stage 3	-13.2	0
Stage 3	-13.4	0
Stage 3	-13.6	0
Stage 3	-13.8	0
Stage 3	-14	0
Stage 3	-14.2	0
Stage 3	-14.4	0
Stage 3	-14.6	0
Stage 3	-14.8	0
Stage 3	-15	0
Stage 3	-15.2	0
Stage 3	-15.4	0
Stage 3	-15.6	0
Stage 3	-15.8	0
Stage 3	-16	0
Stage 3	-16.2	0
Stage 3	-16.4	0
Stage 3	-16.6	0
Stage 3	-16.8	0
Stage 3	-17	0
Stage 3	-17.2	0
Stage 3	-17.4	0
Stage 3	-17.6	0
Stage 3	-17.8	0
Stage 3	-18	0
Stage 3	-18.2	0
Stage 3	-18.4	0
Stage 3	-18.6	0
Stage 3	-18.8	0
Stage 3	-19	0
Stage 3	-19.2	0
Stage 3	-19.4	0
Stage 3	-19.6	0
Stage 3	-19.8	0
Stage 3	-20	0
Stage 3	-20.2	0
Stage 3	-20.4	0
Stage 3	-20.6	0
Stage 3	-20.8	0
Stage 3	-21	0
Stage 3	-21.2	0
Stage 3	-21.4	0
Stage 3	-21.6	0
Stage 3	-21.8	0
Stage 3	-22	0
Stage 3	-22.2	0
Stage 3	-22.4	0
Stage 3	-22.6	0
Stage 3	-22.8	0
Stage 3	-23	0
Stage 3	-23.2	0
Stage 3	-23.4	0
Stage 3	-23.6	0
Stage 3	-23.8	0
Stage 3	-24	0
Stage 3	-24.2	0
Stage 3	-24.4	0
Stage 3	-24.6	0
Stage 3	-24.8	0
Stage 3	-25	0
Stage 3	-25.2	0
Stage 3	-25.4	0
Stage 3	-25.6	0
Stage 3	-25.8	0
Stage 3	-26	0
Stage 3	-26.2	0
Stage 3	-26.4	0
Stage 3	-26.6	0
Stage 3	-26.8	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	-27	0
Stage 3	-27.2	0
Stage 3	-27.4	0
Stage 3	-27.6	0
Stage 3	-27.8	0
Stage 3	-28	0
Stage 3	-28.2	0
Stage 3	-28.4	0
Stage 3	-28.6	0
Stage 3	-28.8	0
Stage 3	-29	0
Stage 3	-29.2	0
Stage 3	-29.4	0
Stage 3	-29.6	0
Stage 3	-29.8	0
Stage 3	-30	0

Tabella Spostamento Nominal - LEFT Stage: Stage 4

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	0.5	0.64
Stage 4	0.3	0.68
Stage 4	0.1	0.73
Stage 4	-0.1	0.77
Stage 4	-0.3	0.82
Stage 4	-0.5	0.86
Stage 4	-0.7	0.91
Stage 4	-0.9	0.95
Stage 4	-1.1	0.99
Stage 4	-1.3	1.04
Stage 4	-1.5	1.09
Stage 4	-1.7	1.13
Stage 4	-1.9	1.18
Stage 4	-2.1	1.23
Stage 4	-2.3	1.27
Stage 4	-2.5	1.32
Stage 4	-2.7	1.36
Stage 4	-2.9	1.4
Stage 4	-3.1	1.44
Stage 4	-3.3	1.47
Stage 4	-3.5	1.5
Stage 4	-3.7	1.52
Stage 4	-3.9	1.55
Stage 4	-4	1.56
Stage 4	-4.2	1.57
Stage 4	-4.4	1.58
Stage 4	-4.6	1.59
Stage 4	-4.8	1.59
Stage 4	-5	1.58
Stage 4	-5.2	1.57
Stage 4	-5.4	1.55
Stage 4	-5.6	1.54
Stage 4	-5.8	1.51
Stage 4	-6	1.48
Stage 4	-6.2	1.45
Stage 4	-6.4	1.41
Stage 4	-6.6	1.37
Stage 4	-6.8	1.33
Stage 4	-7	1.29
Stage 4	-7.2	1.24
Stage 4	-7.4	1.19
Stage 4	-7.6	1.14
Stage 4	-7.8	1.08
Stage 4	-8	1.03
Stage 4	-8.2	0.98
Stage 4	-8.4	0.92
Stage 4	-8.6	0.87
Stage 4	-8.8	0.81
Stage 4	-9	0.76
Stage 4	-9.2	0.71
Stage 4	-9.4	0.66
Stage 4	-9.6	0.61
Stage 4	-9.8	0.56
Stage 4	-10	0.51
Stage 4	-10.2	0.47
Stage 4	-10.4	0.42
Stage 4	-10.6	0.38
Stage 4	-10.8	0.34
Stage 4	-11	0.31
Stage 4	-11.2	0.27
Stage 4	-11.4	0.24
Stage 4	-11.6	0.21
Stage 4	-11.8	0.18
Stage 4	-12	0.15
Stage 4	-12.2	0.13
Stage 4	-12.4	0.1
Stage 4	-12.6	0.08

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	-12.8	0.06
Stage 4	-13	0.05
Stage 4	-13.2	0.03
Stage 4	-13.4	0.02
Stage 4	-13.6	0
Stage 4	-13.8	-0.01
Stage 4	-14	-0.02
Stage 4	-14.2	-0.03
Stage 4	-14.4	-0.03
Stage 4	-14.6	-0.04
Stage 4	-14.8	-0.05
Stage 4	-15	-0.05
Stage 4	-15.2	-0.05
Stage 4	-15.4	-0.06
Stage 4	-15.6	-0.06
Stage 4	-15.8	-0.06
Stage 4	-16	-0.06
Stage 4	-16.2	-0.06
Stage 4	-16.4	-0.06
Stage 4	-16.6	-0.06
Stage 4	-16.8	-0.06
Stage 4	-17	-0.06
Stage 4	-17.2	-0.06
Stage 4	-17.4	-0.06
Stage 4	-17.6	-0.06
Stage 4	-17.8	-0.05
Stage 4	-18	-0.05
Stage 4	-18.2	-0.05
Stage 4	-18.4	-0.05
Stage 4	-18.6	-0.04
Stage 4	-18.8	-0.04
Stage 4	-19	-0.04
Stage 4	-19.2	-0.04
Stage 4	-19.4	-0.03
Stage 4	-19.6	-0.03
Stage 4	-19.8	-0.03
Stage 4	-20	-0.03
Stage 4	-20.2	-0.03
Stage 4	-20.4	-0.02
Stage 4	-20.6	-0.02
Stage 4	-20.8	-0.02
Stage 4	-21	-0.02
Stage 4	-21.2	-0.02
Stage 4	-21.4	-0.01
Stage 4	-21.6	-0.01
Stage 4	-21.8	-0.01
Stage 4	-22	-0.01
Stage 4	-22.2	-0.01
Stage 4	-22.4	-0.01
Stage 4	-22.6	-0.01
Stage 4	-22.8	-0.01
Stage 4	-23	0
Stage 4	-23.2	0
Stage 4	-23.4	0
Stage 4	-23.6	0
Stage 4	-23.8	0
Stage 4	-24	0
Stage 4	-24.2	0
Stage 4	-24.4	0
Stage 4	-24.6	0
Stage 4	-24.8	0
Stage 4	-25	0
Stage 4	-25.2	0
Stage 4	-25.4	0
Stage 4	-25.6	0
Stage 4	-25.8	0
Stage 4	-26	0
Stage 4	-26.2	0
Stage 4	-26.4	0
Stage 4	-26.6	0
Stage 4	-26.8	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	-27	0
Stage 4	-27.2	0
Stage 4	-27.4	0
Stage 4	-27.6	0
Stage 4	-27.8	0
Stage 4	-28	0
Stage 4	-28.2	0
Stage 4	-28.4	0
Stage 4	-28.6	0
Stage 4	-28.8	0
Stage 4	-29	0
Stage 4	-29.2	0
Stage 4	-29.4	0
Stage 4	-29.6	0
Stage 4	-29.8	0
Stage 4	-30	0

Tabella Spostamento Nominal - LEFT Stage: Stage 5

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	0.5	-0.07
Stage 5	0.3	-0.04
Stage 5	0.1	-0.01
Stage 5	-0.1	0.02
Stage 5	-0.3	0.05
Stage 5	-0.5	0.08
Stage 5	-0.7	0.11
Stage 5	-0.9	0.14
Stage 5	-1.1	0.17
Stage 5	-1.3	0.2
Stage 5	-1.5	0.23
Stage 5	-1.7	0.27
Stage 5	-1.9	0.3
Stage 5	-2.1	0.34
Stage 5	-2.3	0.37
Stage 5	-2.5	0.41
Stage 5	-2.7	0.45
Stage 5	-2.9	0.48
Stage 5	-3.1	0.52
Stage 5	-3.3	0.55
Stage 5	-3.5	0.58
Stage 5	-3.7	0.61
Stage 5	-3.9	0.64
Stage 5	-4	0.66
Stage 5	-4.2	0.69
Stage 5	-4.4	0.72
Stage 5	-4.6	0.74
Stage 5	-4.8	0.77
Stage 5	-5	0.79
Stage 5	-5.2	0.8
Stage 5	-5.4	0.82
Stage 5	-5.6	0.83
Stage 5	-5.8	0.83
Stage 5	-6	0.84
Stage 5	-6.2	0.84
Stage 5	-6.4	0.83
Stage 5	-6.6	0.83
Stage 5	-6.8	0.82
Stage 5	-7	0.8
Stage 5	-7.2	0.79
Stage 5	-7.4	0.77
Stage 5	-7.6	0.75
Stage 5	-7.8	0.72
Stage 5	-8	0.7
Stage 5	-8.2	0.67
Stage 5	-8.4	0.64
Stage 5	-8.6	0.61
Stage 5	-8.8	0.58
Stage 5	-9	0.55
Stage 5	-9.2	0.52
Stage 5	-9.4	0.49
Stage 5	-9.6	0.46
Stage 5	-9.8	0.43
Stage 5	-10	0.4
Stage 5	-10.2	0.37
Stage 5	-10.4	0.34
Stage 5	-10.6	0.31
Stage 5	-10.8	0.29
Stage 5	-11	0.26
Stage 5	-11.2	0.24
Stage 5	-11.4	0.21
Stage 5	-11.6	0.19
Stage 5	-11.8	0.17
Stage 5	-12	0.15
Stage 5	-12.2	0.13
Stage 5	-12.4	0.11
Stage 5	-12.6	0.1

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	-12.8	0.08
Stage 5	-13	0.07
Stage 5	-13.2	0.06
Stage 5	-13.4	0.04
Stage 5	-13.6	0.03
Stage 5	-13.8	0.02
Stage 5	-14	0.01
Stage 5	-14.2	0.01
Stage 5	-14.4	0
Stage 5	-14.6	-0.01
Stage 5	-14.8	-0.01
Stage 5	-15	-0.02
Stage 5	-15.2	-0.02
Stage 5	-15.4	-0.03
Stage 5	-15.6	-0.03
Stage 5	-15.8	-0.03
Stage 5	-16	-0.03
Stage 5	-16.2	-0.04
Stage 5	-16.4	-0.04
Stage 5	-16.6	-0.04
Stage 5	-16.8	-0.04
Stage 5	-17	-0.04
Stage 5	-17.2	-0.04
Stage 5	-17.4	-0.04
Stage 5	-17.6	-0.04
Stage 5	-17.8	-0.04
Stage 5	-18	-0.04
Stage 5	-18.2	-0.04
Stage 5	-18.4	-0.03
Stage 5	-18.6	-0.03
Stage 5	-18.8	-0.03
Stage 5	-19	-0.03
Stage 5	-19.2	-0.03
Stage 5	-19.4	-0.03
Stage 5	-19.6	-0.03
Stage 5	-19.8	-0.02
Stage 5	-20	-0.02
Stage 5	-20.2	-0.02
Stage 5	-20.4	-0.02
Stage 5	-20.6	-0.02
Stage 5	-20.8	-0.02
Stage 5	-21	-0.02
Stage 5	-21.2	-0.01
Stage 5	-21.4	-0.01
Stage 5	-21.6	-0.01
Stage 5	-21.8	-0.01
Stage 5	-22	-0.01
Stage 5	-22.2	-0.01
Stage 5	-22.4	-0.01
Stage 5	-22.6	-0.01
Stage 5	-22.8	-0.01
Stage 5	-23	-0.01
Stage 5	-23.2	0
Stage 5	-23.4	0
Stage 5	-23.6	0
Stage 5	-23.8	0
Stage 5	-24	0
Stage 5	-24.2	0
Stage 5	-24.4	0
Stage 5	-24.6	0
Stage 5	-24.8	0
Stage 5	-25	0
Stage 5	-25.2	0
Stage 5	-25.4	0
Stage 5	-25.6	0
Stage 5	-25.8	0
Stage 5	-26	0
Stage 5	-26.2	0
Stage 5	-26.4	0
Stage 5	-26.6	0
Stage 5	-26.8	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	-27	0
Stage 5	-27.2	0
Stage 5	-27.4	0
Stage 5	-27.6	0
Stage 5	-27.8	0
Stage 5	-28	0
Stage 5	-28.2	0
Stage 5	-28.4	0
Stage 5	-28.6	0
Stage 5	-28.8	0
Stage 5	-29	0
Stage 5	-29.2	0
Stage 5	-29.4	0
Stage 5	-29.6	0
Stage 5	-29.8	0
Stage 5	-30	0

Tabella Spostamento Nominal - LEFT Stage: Stage 6

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	0.5	1.04
Stage 6	0.3	1.34
Stage 6	0.1	1.64
Stage 6	-0.1	1.94
Stage 6	-0.3	2.24
Stage 6	-0.5	2.53
Stage 6	-0.7	2.83
Stage 6	-0.9	3.13
Stage 6	-1.1	3.43
Stage 6	-1.3	3.73
Stage 6	-1.5	4.03
Stage 6	-1.7	4.33
Stage 6	-1.9	4.63
Stage 6	-2.1	4.92
Stage 6	-2.3	5.22
Stage 6	-2.5	5.51
Stage 6	-2.7	5.81
Stage 6	-2.9	6.09
Stage 6	-3.1	6.38
Stage 6	-3.3	6.66
Stage 6	-3.5	6.93
Stage 6	-3.7	7.2
Stage 6	-3.9	7.46
Stage 6	-4	7.59
Stage 6	-4.2	7.84
Stage 6	-4.4	8.08
Stage 6	-4.6	8.32
Stage 6	-4.8	8.55
Stage 6	-5	8.76
Stage 6	-5.2	8.96
Stage 6	-5.4	9.15
Stage 6	-5.6	9.33
Stage 6	-5.8	9.49
Stage 6	-6	9.64
Stage 6	-6.2	9.77
Stage 6	-6.4	9.88
Stage 6	-6.6	9.98
Stage 6	-6.8	10.05
Stage 6	-7	10.12
Stage 6	-7.2	10.16
Stage 6	-7.4	10.18
Stage 6	-7.6	10.19
Stage 6	-7.8	10.18
Stage 6	-8	10.15
Stage 6	-8.2	10.1
Stage 6	-8.4	10.03
Stage 6	-8.6	9.94
Stage 6	-8.8	9.84
Stage 6	-9	9.72
Stage 6	-9.2	9.58
Stage 6	-9.4	9.43
Stage 6	-9.6	9.27
Stage 6	-9.8	9.09
Stage 6	-10	8.9
Stage 6	-10.2	8.69
Stage 6	-10.4	8.48
Stage 6	-10.6	8.26
Stage 6	-10.8	8.03
Stage 6	-11	7.79
Stage 6	-11.2	7.54
Stage 6	-11.4	7.29
Stage 6	-11.6	7.04
Stage 6	-11.8	6.79
Stage 6	-12	6.53
Stage 6	-12.2	6.27
Stage 6	-12.4	6.01
Stage 6	-12.6	5.76

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	-12.8	5.5
Stage 6	-13	5.25
Stage 6	-13.2	5.01
Stage 6	-13.4	4.76
Stage 6	-13.6	4.53
Stage 6	-13.8	4.3
Stage 6	-14	4.07
Stage 6	-14.2	3.86
Stage 6	-14.4	3.65
Stage 6	-14.6	3.45
Stage 6	-14.8	3.25
Stage 6	-15	3.07
Stage 6	-15.2	2.89
Stage 6	-15.4	2.72
Stage 6	-15.6	2.56
Stage 6	-15.8	2.41
Stage 6	-16	2.27
Stage 6	-16.2	2.13
Stage 6	-16.4	2.01
Stage 6	-16.6	1.89
Stage 6	-16.8	1.77
Stage 6	-17	1.67
Stage 6	-17.2	1.57
Stage 6	-17.4	1.48
Stage 6	-17.6	1.4
Stage 6	-17.8	1.32
Stage 6	-18	1.25
Stage 6	-18.2	1.19
Stage 6	-18.4	1.13
Stage 6	-18.6	1.07
Stage 6	-18.8	1.02
Stage 6	-19	0.98
Stage 6	-19.2	0.94
Stage 6	-19.4	0.91
Stage 6	-19.6	0.87
Stage 6	-19.8	0.85
Stage 6	-20	0.82
Stage 6	-20.2	0.8
Stage 6	-20.4	0.78
Stage 6	-20.6	0.77
Stage 6	-20.8	0.75
Stage 6	-21	0.74
Stage 6	-21.2	0.74
Stage 6	-21.4	0.73
Stage 6	-21.6	0.72
Stage 6	-21.8	0.72
Stage 6	-22	0.72
Stage 6	-22.2	0.72
Stage 6	-22.4	0.72
Stage 6	-22.6	0.72
Stage 6	-22.8	0.72
Stage 6	-23	0.73
Stage 6	-23.2	0.73
Stage 6	-23.4	0.74
Stage 6	-23.6	0.74
Stage 6	-23.8	0.75
Stage 6	-24	0.75
Stage 6	-24.2	0.76
Stage 6	-24.4	0.76
Stage 6	-24.6	0.77
Stage 6	-24.8	0.78
Stage 6	-25	0.78
Stage 6	-25.2	0.79
Stage 6	-25.4	0.79
Stage 6	-25.6	0.8
Stage 6	-25.8	0.81
Stage 6	-26	0.81
Stage 6	-26.2	0.82
Stage 6	-26.4	0.82
Stage 6	-26.6	0.83
Stage 6	-26.8	0.84

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 6	-27	0.84
Stage 6	-27.2	0.85
Stage 6	-27.4	0.85
Stage 6	-27.6	0.86
Stage 6	-27.8	0.86
Stage 6	-28	0.87
Stage 6	-28.2	0.87
Stage 6	-28.4	0.88
Stage 6	-28.6	0.88
Stage 6	-28.8	0.88
Stage 6	-29	0.89
Stage 6	-29.2	0.89
Stage 6	-29.4	0.9
Stage 6	-29.6	0.9
Stage 6	-29.8	0.91
Stage 6	-30	0.91

Tabella Spostamento Nominal - LEFT Stage: Stage 7

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	0.5	1.09
Stage 7	0.3	1.34
Stage 7	0.1	1.59
Stage 7	-0.1	1.84
Stage 7	-0.3	2.09
Stage 7	-0.5	2.34
Stage 7	-0.7	2.59
Stage 7	-0.9	2.84
Stage 7	-1.1	3.09
Stage 7	-1.3	3.34
Stage 7	-1.5	3.59
Stage 7	-1.7	3.84
Stage 7	-1.9	4.09
Stage 7	-2.1	4.34
Stage 7	-2.3	4.59
Stage 7	-2.5	4.83
Stage 7	-2.7	5.08
Stage 7	-2.9	5.32
Stage 7	-3.1	5.55
Stage 7	-3.3	5.79
Stage 7	-3.5	6.01
Stage 7	-3.7	6.24
Stage 7	-3.9	6.45
Stage 7	-4	6.56
Stage 7	-4.2	6.77
Stage 7	-4.4	6.97
Stage 7	-4.6	7.17
Stage 7	-4.8	7.35
Stage 7	-5	7.53
Stage 7	-5.2	7.69
Stage 7	-5.4	7.85
Stage 7	-5.6	7.99
Stage 7	-5.8	8.12
Stage 7	-6	8.24
Stage 7	-6.2	8.35
Stage 7	-6.4	8.44
Stage 7	-6.6	8.52
Stage 7	-6.8	8.58
Stage 7	-7	8.63
Stage 7	-7.2	8.67
Stage 7	-7.4	8.69
Stage 7	-7.6	8.7
Stage 7	-7.8	8.7
Stage 7	-8	8.68
Stage 7	-8.2	8.65
Stage 7	-8.4	8.61
Stage 7	-8.6	8.56
Stage 7	-8.8	8.49
Stage 7	-9	8.41
Stage 7	-9.2	8.32
Stage 7	-9.4	8.21
Stage 7	-9.6	8.09
Stage 7	-9.8	7.96
Stage 7	-10	7.82
Stage 7	-10.2	7.67
Stage 7	-10.4	7.51
Stage 7	-10.6	7.34
Stage 7	-10.8	7.16
Stage 7	-11	6.97
Stage 7	-11.2	6.78
Stage 7	-11.4	6.58
Stage 7	-11.6	6.38
Stage 7	-11.8	6.17
Stage 7	-12	5.96
Stage 7	-12.2	5.74
Stage 7	-12.4	5.53
Stage 7	-12.6	5.31

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	-12.8	5.1
Stage 7	-13	4.89
Stage 7	-13.2	4.67
Stage 7	-13.4	4.47
Stage 7	-13.6	4.26
Stage 7	-13.8	4.06
Stage 7	-14	3.87
Stage 7	-14.2	3.68
Stage 7	-14.4	3.49
Stage 7	-14.6	3.32
Stage 7	-14.8	3.15
Stage 7	-15	2.98
Stage 7	-15.2	2.82
Stage 7	-15.4	2.67
Stage 7	-15.6	2.53
Stage 7	-15.8	2.39
Stage 7	-16	2.26
Stage 7	-16.2	2.14
Stage 7	-16.4	2.02
Stage 7	-16.6	1.91
Stage 7	-16.8	1.81
Stage 7	-17	1.71
Stage 7	-17.2	1.62
Stage 7	-17.4	1.53
Stage 7	-17.6	1.45
Stage 7	-17.8	1.38
Stage 7	-18	1.31
Stage 7	-18.2	1.25
Stage 7	-18.4	1.19
Stage 7	-18.6	1.14
Stage 7	-18.8	1.09
Stage 7	-19	1.05
Stage 7	-19.2	1.01
Stage 7	-19.4	0.97
Stage 7	-19.6	0.94
Stage 7	-19.8	0.91
Stage 7	-20	0.89
Stage 7	-20.2	0.86
Stage 7	-20.4	0.84
Stage 7	-20.6	0.83
Stage 7	-20.8	0.81
Stage 7	-21	0.8
Stage 7	-21.2	0.79
Stage 7	-21.4	0.78
Stage 7	-21.6	0.77
Stage 7	-21.8	0.77
Stage 7	-22	0.76
Stage 7	-22.2	0.76
Stage 7	-22.4	0.76
Stage 7	-22.6	0.76
Stage 7	-22.8	0.76
Stage 7	-23	0.76
Stage 7	-23.2	0.76
Stage 7	-23.4	0.76
Stage 7	-23.6	0.77
Stage 7	-23.8	0.77
Stage 7	-24	0.77
Stage 7	-24.2	0.78
Stage 7	-24.4	0.78
Stage 7	-24.6	0.79
Stage 7	-24.8	0.79
Stage 7	-25	0.8
Stage 7	-25.2	0.8
Stage 7	-25.4	0.81
Stage 7	-25.6	0.81
Stage 7	-25.8	0.81
Stage 7	-26	0.82
Stage 7	-26.2	0.82
Stage 7	-26.4	0.83
Stage 7	-26.6	0.83
Stage 7	-26.8	0.84

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	-27	0.84
Stage 7	-27.2	0.85
Stage 7	-27.4	0.85
Stage 7	-27.6	0.85
Stage 7	-27.8	0.86
Stage 7	-28	0.86
Stage 7	-28.2	0.86
Stage 7	-28.4	0.87
Stage 7	-28.6	0.87
Stage 7	-28.8	0.88
Stage 7	-29	0.88
Stage 7	-29.2	0.88
Stage 7	-29.4	0.89
Stage 7	-29.6	0.89
Stage 7	-29.8	0.89
Stage 7	-30	0.9

Tabella Spostamento Nominal - LEFT Stage: Stage 8

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 8	0.5	0.87
Stage 8	0.3	1.57
Stage 8	0.1	2.27
Stage 8	-0.1	2.97
Stage 8	-0.3	3.67
Stage 8	-0.5	4.37
Stage 8	-0.7	5.07
Stage 8	-0.9	5.76
Stage 8	-1.1	6.46
Stage 8	-1.3	7.16
Stage 8	-1.5	7.86
Stage 8	-1.7	8.56
Stage 8	-1.9	9.26
Stage 8	-2.1	9.96
Stage 8	-2.3	10.65
Stage 8	-2.5	11.35
Stage 8	-2.7	12.04
Stage 8	-2.9	12.72
Stage 8	-3.1	13.4
Stage 8	-3.3	14.08
Stage 8	-3.5	14.75
Stage 8	-3.7	15.41
Stage 8	-3.9	16.06
Stage 8	-4	16.39
Stage 8	-4.2	17.03
Stage 8	-4.4	17.67
Stage 8	-4.6	18.29
Stage 8	-4.8	18.9
Stage 8	-5	19.5
Stage 8	-5.2	20.09
Stage 8	-5.4	20.66
Stage 8	-5.6	21.21
Stage 8	-5.8	21.75
Stage 8	-6	22.27
Stage 8	-6.2	22.77
Stage 8	-6.4	23.25
Stage 8	-6.6	23.71
Stage 8	-6.8	24.15
Stage 8	-7	24.57
Stage 8	-7.2	24.96
Stage 8	-7.4	25.34
Stage 8	-7.6	25.69
Stage 8	-7.8	26.02
Stage 8	-8	26.32
Stage 8	-8.2	26.6
Stage 8	-8.4	26.86
Stage 8	-8.6	27.09
Stage 8	-8.8	27.3
Stage 8	-9	27.47
Stage 8	-9.2	27.62
Stage 8	-9.4	27.74
Stage 8	-9.6	27.83
Stage 8	-9.8	27.89
Stage 8	-10	27.92
Stage 8	-10.2	27.92
Stage 8	-10.4	27.89
Stage 8	-10.6	27.82
Stage 8	-10.8	27.73
Stage 8	-11	27.6
Stage 8	-11.2	27.44
Stage 8	-11.4	27.25
Stage 8	-11.6	27.03
Stage 8	-11.8	26.78
Stage 8	-12	26.5
Stage 8	-12.2	26.19
Stage 8	-12.4	25.85
Stage 8	-12.6	25.49

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 8	-12.8	25.1
Stage 8	-13	24.69
Stage 8	-13.2	24.25
Stage 8	-13.4	23.8
Stage 8	-13.6	23.32
Stage 8	-13.8	22.82
Stage 8	-14	22.31
Stage 8	-14.2	21.78
Stage 8	-14.4	21.24
Stage 8	-14.6	20.68
Stage 8	-14.8	20.11
Stage 8	-15	19.53
Stage 8	-15.2	18.95
Stage 8	-15.4	18.35
Stage 8	-15.6	17.76
Stage 8	-15.8	17.16
Stage 8	-16	16.55
Stage 8	-16.2	15.95
Stage 8	-16.4	15.35
Stage 8	-16.6	14.75
Stage 8	-16.8	14.15
Stage 8	-17	13.56
Stage 8	-17.2	12.98
Stage 8	-17.4	12.4
Stage 8	-17.6	11.84
Stage 8	-17.8	11.28
Stage 8	-18	10.74
Stage 8	-18.2	10.21
Stage 8	-18.4	9.69
Stage 8	-18.6	9.19
Stage 8	-18.8	8.7
Stage 8	-19	8.23
Stage 8	-19.2	7.78
Stage 8	-19.4	7.34
Stage 8	-19.6	6.92
Stage 8	-19.8	6.52
Stage 8	-20	6.14
Stage 8	-20.2	5.77
Stage 8	-20.4	5.42
Stage 8	-20.6	5.09
Stage 8	-20.8	4.78
Stage 8	-21	4.48
Stage 8	-21.2	4.2
Stage 8	-21.4	3.94
Stage 8	-21.6	3.69
Stage 8	-21.8	3.46
Stage 8	-22	3.24
Stage 8	-22.2	3.04
Stage 8	-22.4	2.85
Stage 8	-22.6	2.68
Stage 8	-22.8	2.52
Stage 8	-23	2.37
Stage 8	-23.2	2.23
Stage 8	-23.4	2.11
Stage 8	-23.6	1.99
Stage 8	-23.8	1.89
Stage 8	-24	1.79
Stage 8	-24.2	1.71
Stage 8	-24.4	1.63
Stage 8	-24.6	1.56
Stage 8	-24.8	1.5
Stage 8	-25	1.44
Stage 8	-25.2	1.39
Stage 8	-25.4	1.35
Stage 8	-25.6	1.31
Stage 8	-25.8	1.28
Stage 8	-26	1.25
Stage 8	-26.2	1.22
Stage 8	-26.4	1.2
Stage 8	-26.6	1.19
Stage 8	-26.8	1.17

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 8	-27	1.16
Stage 8	-27.2	1.15
Stage 8	-27.4	1.14
Stage 8	-27.6	1.13
Stage 8	-27.8	1.13
Stage 8	-28	1.13
Stage 8	-28.2	1.12
Stage 8	-28.4	1.12
Stage 8	-28.6	1.12
Stage 8	-28.8	1.12
Stage 8	-29	1.12
Stage 8	-29.2	1.12
Stage 8	-29.4	1.12
Stage 8	-29.6	1.12
Stage 8	-29.8	1.12
Stage 8	-30	1.12

Tabella Spostamento Nominal - LEFT Stage: Stage 9

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 9	0.5	1.31
Stage 9	0.3	1.96
Stage 9	0.1	2.62
Stage 9	-0.1	3.28
Stage 9	-0.3	3.94
Stage 9	-0.5	4.6
Stage 9	-0.7	5.26
Stage 9	-0.9	5.91
Stage 9	-1.1	6.57
Stage 9	-1.3	7.23
Stage 9	-1.5	7.89
Stage 9	-1.7	8.55
Stage 9	-1.9	9.2
Stage 9	-2.1	9.86
Stage 9	-2.3	10.52
Stage 9	-2.5	11.17
Stage 9	-2.7	11.81
Stage 9	-2.9	12.46
Stage 9	-3.1	13.1
Stage 9	-3.3	13.73
Stage 9	-3.5	14.36
Stage 9	-3.7	14.98
Stage 9	-3.9	15.59
Stage 9	-4	15.89
Stage 9	-4.2	16.49
Stage 9	-4.4	17.09
Stage 9	-4.6	17.67
Stage 9	-4.8	18.24
Stage 9	-5	18.79
Stage 9	-5.2	19.34
Stage 9	-5.4	19.87
Stage 9	-5.6	20.38
Stage 9	-5.8	20.87
Stage 9	-6	21.35
Stage 9	-6.2	21.81
Stage 9	-6.4	22.25
Stage 9	-6.6	22.67
Stage 9	-6.8	23.07
Stage 9	-7	23.45
Stage 9	-7.2	23.81
Stage 9	-7.4	24.14
Stage 9	-7.6	24.46
Stage 9	-7.8	24.75
Stage 9	-8	25.02
Stage 9	-8.2	25.27
Stage 9	-8.4	25.5
Stage 9	-8.6	25.71
Stage 9	-8.8	25.88
Stage 9	-9	26.04
Stage 9	-9.2	26.17
Stage 9	-9.4	26.27
Stage 9	-9.6	26.34
Stage 9	-9.8	26.39
Stage 9	-10	26.41
Stage 9	-10.2	26.4
Stage 9	-10.4	26.37
Stage 9	-10.6	26.31
Stage 9	-10.8	26.22
Stage 9	-11	26.11
Stage 9	-11.2	25.97
Stage 9	-11.4	25.81
Stage 9	-11.6	25.62
Stage 9	-11.8	25.4
Stage 9	-12	25.16
Stage 9	-12.2	24.89
Stage 9	-12.4	24.6
Stage 9	-12.6	24.28

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 9	-12.8	23.94
Stage 9	-13	23.57
Stage 9	-13.2	23.19
Stage 9	-13.4	22.78
Stage 9	-13.6	22.35
Stage 9	-13.8	21.91
Stage 9	-14	21.44
Stage 9	-14.2	20.96
Stage 9	-14.4	20.47
Stage 9	-14.6	19.96
Stage 9	-14.8	19.43
Stage 9	-15	18.9
Stage 9	-15.2	18.36
Stage 9	-15.4	17.81
Stage 9	-15.6	17.25
Stage 9	-15.8	16.69
Stage 9	-16	16.13
Stage 9	-16.2	15.56
Stage 9	-16.4	14.99
Stage 9	-16.6	14.43
Stage 9	-16.8	13.86
Stage 9	-17	13.3
Stage 9	-17.2	12.75
Stage 9	-17.4	12.2
Stage 9	-17.6	11.66
Stage 9	-17.8	11.13
Stage 9	-18	10.61
Stage 9	-18.2	10.1
Stage 9	-18.4	9.6
Stage 9	-18.6	9.12
Stage 9	-18.8	8.65
Stage 9	-19	8.19
Stage 9	-19.2	7.75
Stage 9	-19.4	7.33
Stage 9	-19.6	6.92
Stage 9	-19.8	6.53
Stage 9	-20	6.16
Stage 9	-20.2	5.8
Stage 9	-20.4	5.46
Stage 9	-20.6	5.13
Stage 9	-20.8	4.83
Stage 9	-21	4.54
Stage 9	-21.2	4.26
Stage 9	-21.4	4
Stage 9	-21.6	3.76
Stage 9	-21.8	3.53
Stage 9	-22	3.31
Stage 9	-22.2	3.11
Stage 9	-22.4	2.93
Stage 9	-22.6	2.75
Stage 9	-22.8	2.59
Stage 9	-23	2.44
Stage 9	-23.2	2.31
Stage 9	-23.4	2.18
Stage 9	-23.6	2.06
Stage 9	-23.8	1.96
Stage 9	-24	1.86
Stage 9	-24.2	1.77
Stage 9	-24.4	1.69
Stage 9	-24.6	1.62
Stage 9	-24.8	1.56
Stage 9	-25	1.5
Stage 9	-25.2	1.45
Stage 9	-25.4	1.4
Stage 9	-25.6	1.36
Stage 9	-25.8	1.33
Stage 9	-26	1.29
Stage 9	-26.2	1.27
Stage 9	-26.4	1.24
Stage 9	-26.6	1.22
Stage 9	-26.8	1.2

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 9	-27	1.19
Stage 9	-27.2	1.18
Stage 9	-27.4	1.17
Stage 9	-27.6	1.16
Stage 9	-27.8	1.15
Stage 9	-28	1.14
Stage 9	-28.2	1.14
Stage 9	-28.4	1.13
Stage 9	-28.6	1.13
Stage 9	-28.8	1.12
Stage 9	-29	1.12
Stage 9	-29.2	1.12
Stage 9	-29.4	1.11
Stage 9	-29.6	1.11
Stage 9	-29.8	1.11
Stage 9	-30	1.11

Tabella Spostamento Nominal - LEFT Stage: Stage 10

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 10	0.5	-3.37
Stage 10	0.3	-2
Stage 10	0.1	-0.62
Stage 10	-0.1	0.75
Stage 10	-0.3	2.13
Stage 10	-0.5	3.5
Stage 10	-0.7	4.88
Stage 10	-0.9	6.26
Stage 10	-1.1	7.63
Stage 10	-1.3	9.01
Stage 10	-1.5	10.39
Stage 10	-1.7	11.77
Stage 10	-1.9	13.15
Stage 10	-2.1	14.52
Stage 10	-2.3	15.9
Stage 10	-2.5	17.27
Stage 10	-2.7	18.65
Stage 10	-2.9	20.01
Stage 10	-3.1	21.38
Stage 10	-3.3	22.74
Stage 10	-3.5	24.09
Stage 10	-3.7	25.44
Stage 10	-3.9	26.78
Stage 10	-4	27.45
Stage 10	-4.2	28.78
Stage 10	-4.4	30.11
Stage 10	-4.6	31.42
Stage 10	-4.8	32.72
Stage 10	-5	34.01
Stage 10	-5.2	35.29
Stage 10	-5.4	36.55
Stage 10	-5.6	37.8
Stage 10	-5.8	39.03
Stage 10	-6	40.24
Stage 10	-6.2	41.44
Stage 10	-6.4	42.61
Stage 10	-6.6	43.77
Stage 10	-6.8	44.9
Stage 10	-7	46.01
Stage 10	-7.2	47.1
Stage 10	-7.4	48.16
Stage 10	-7.6	49.2
Stage 10	-7.8	50.22
Stage 10	-8	51.21
Stage 10	-8.2	52.18
Stage 10	-8.4	53.13
Stage 10	-8.6	54.05
Stage 10	-8.8	54.93
Stage 10	-9	55.79
Stage 10	-9.2	56.62
Stage 10	-9.4	57.41
Stage 10	-9.6	58.17
Stage 10	-9.8	58.89
Stage 10	-10	59.58
Stage 10	-10.2	60.23
Stage 10	-10.4	60.85
Stage 10	-10.6	61.42
Stage 10	-10.8	61.96
Stage 10	-11	62.46
Stage 10	-11.2	62.92
Stage 10	-11.4	63.34
Stage 10	-11.6	63.72
Stage 10	-11.8	64.05
Stage 10	-12	64.34
Stage 10	-12.2	64.58
Stage 10	-12.4	64.77
Stage 10	-12.6	64.91

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 10	-12.8	65.01
Stage 10	-13	65.05
Stage 10	-13.2	65.04
Stage 10	-13.4	64.98
Stage 10	-13.6	64.87
Stage 10	-13.8	64.71
Stage 10	-14	64.49
Stage 10	-14.2	64.22
Stage 10	-14.4	63.9
Stage 10	-14.6	63.53
Stage 10	-14.8	63.11
Stage 10	-15	62.64
Stage 10	-15.2	62.12
Stage 10	-15.4	61.55
Stage 10	-15.6	60.93
Stage 10	-15.8	60.27
Stage 10	-16	59.57
Stage 10	-16.2	58.82
Stage 10	-16.4	58.03
Stage 10	-16.6	57.2
Stage 10	-16.8	56.34
Stage 10	-17	55.43
Stage 10	-17.2	54.49
Stage 10	-17.4	53.52
Stage 10	-17.6	52.52
Stage 10	-17.8	51.49
Stage 10	-18	50.44
Stage 10	-18.2	49.35
Stage 10	-18.4	48.25
Stage 10	-18.6	47.12
Stage 10	-18.8	45.98
Stage 10	-19	44.82
Stage 10	-19.2	43.64
Stage 10	-19.4	42.46
Stage 10	-19.6	41.26
Stage 10	-19.8	40.05
Stage 10	-20	38.84
Stage 10	-20.2	37.62
Stage 10	-20.4	36.41
Stage 10	-20.6	35.19
Stage 10	-20.8	33.97
Stage 10	-21	32.76
Stage 10	-21.2	31.55
Stage 10	-21.4	30.35
Stage 10	-21.6	29.15
Stage 10	-21.8	27.97
Stage 10	-22	26.8
Stage 10	-22.2	25.65
Stage 10	-22.4	24.5
Stage 10	-22.6	23.38
Stage 10	-22.8	22.27
Stage 10	-23	21.18
Stage 10	-23.2	20.11
Stage 10	-23.4	19.06
Stage 10	-23.6	18.03
Stage 10	-23.8	17.02
Stage 10	-24	16.03
Stage 10	-24.2	15.07
Stage 10	-24.4	14.13
Stage 10	-24.6	13.21
Stage 10	-24.8	12.31
Stage 10	-25	11.43
Stage 10	-25.2	10.58
Stage 10	-25.4	9.75
Stage 10	-25.6	8.93
Stage 10	-25.8	8.14
Stage 10	-26	7.37
Stage 10	-26.2	6.61
Stage 10	-26.4	5.87
Stage 10	-26.6	5.15
Stage 10	-26.8	4.44

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 10	-27	3.75
Stage 10	-27.2	3.07
Stage 10	-27.4	2.39
Stage 10	-27.6	1.73
Stage 10	-27.8	1.08
Stage 10	-28	0.43
Stage 10	-28.2	-0.21
Stage 10	-28.4	-0.84
Stage 10	-28.6	-1.47
Stage 10	-28.8	-2.1
Stage 10	-29	-2.72
Stage 10	-29.2	-3.34
Stage 10	-29.4	-3.96
Stage 10	-29.6	-4.58
Stage 10	-29.8	-5.2
Stage 10	-30	-5.82

Riepilogo spinte

Design Assumption: Nominal	Tipo Risultato: Riepilogo spinte	Muro:	LEFT	Lato	LEFT		
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	4399.7	3125	7524.7	2617	17970.3	24.48%	1.68
Stage 2	4334.9	3125	7459.9	2617	17970.3	24.12%	1.66
Stage 3	4431.6	3125	7556.6	2617	17970.3	24.66%	1.69
Stage 4	4232.5	3125	7357.5	2617	17970.3	23.55%	1.62
Stage 5	4329.1	3125	7454.1	2617	17970.3	24.09%	1.65
Stage 6	3961.4	2524.8	6486.2	2897.3	19559.2	20.25%	1.37
Stage 7	4082.4	2524.8	6607.2	2897.3	19559.2	20.87%	1.41
Stage 8	3883.1	1894.7	5777.9	3191.5	21226.9	18.29%	1.22
Stage 9	4004.8	1894.7	5899.5	3191.5	21226.9	18.87%	1.25
Stage 10	3772.4	1457.1	5229.6	3395.9	22385.2	16.85%	1.11

Design Assumption: Nominal	Tipo Risultato: Riepilogo spinte	Muro:	LEFT	Lato	RIGHT		
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	4399.7	3125	7524.7	2593.7	17838.7	24.66%	1.7
Stage 2	4334.9	3125	7459.9	1797.6	13195.2	32.85%	2.41
Stage 3	4306.6	3125	7431.6	1797.6	13195.2	32.64%	2.4
Stage 4	4105.2	3125	7230.2	1199.9	9685.8	42.38%	3.42
Stage 5	4078.3	3125	7203.3	1199.9	9685.8	42.11%	3.4
Stage 6	3909.7	2305.2	6214.9	764.7	6933.2	56.39%	5.11
Stage 7	3866.4	2305.2	6171.6	764.7	6933.2	55.77%	5.06
Stage 8	3568.8	1705.3	5274.1	524.7	5198	68.66%	6.8
Stage 9	3527.5	1705.3	5232.8	524.7	5198	67.86%	6.72
Stage 10	3115.3	1266.9	4382.3	345.3	3826.8	81.41%	9.02

Allegati

Design Assumption : Nominal - File di Paratie - File di input (.d)

```
* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: Nominal
 * Time:giovedì 25 giugno 2020 12:57:18
 * 1: Defining general settings
 UNIT  m kN
 TITLE New Project
 DELTA 0.2
 option param itemax 40

 * 2: Defining wall(s)
 WALL LeftWall_29 0 -30 0.5 1

 * 3: Defining surfaces for wall(s)
 SOIL 0_L LeftWall_29 -30 0.5 1 0
 SOIL 0_R LeftWall_29 -30 0.5 2 180

 * 4: Defining soil layers
 *
 * Soil Profile (Livello1GEO_334_8_L_0)
 *
 LDATA Livello1GEO_334_8_L_0 0.5 LeftWall_29
 ATREST 0.637 1 1
 WEIGHT 20 10 10
 PERMEABILITY 1E-05
 RESISTANCE 4 21.3
 YOUNG 4.5E+04 7.2E+04
 ENDL
 *
 * Soil Profile (Livello2GEO_2752_337_L_0)
 *
 LDATA Livello2GEO_2752_337_L_0 -9.5 LeftWall_29
 ATREST 0.637 1 1
 WEIGHT 21 11 10
 PERMEABILITY 1E-05
 RESISTANCE 12 21.3
 YOUNG 8E+04 1.28E+05
 ENDL

 * 5: Defining structural materials
 * Steel material: 13365 Name=Fe360 E=206000200 kPa
 MATERIAL Fe360_13365 2.06E+08
 * Concrete material: 101 Name=C25/30 E=31475800 kPa
 MATERIAL C2530_101 3.148E+07
 * Rebar material: 110 Name=acciaio armonico E=200100000 kPa
 MATERIAL acciaioarmonico_110 2.001E+08

 * 6: Defining structural elements
 * 6.1: Beams
 BEAM WallElement_30 LeftWall_29 -30 0.5 C2530_101 0.7888 00 00

 * 6.2: Supports
 WIRE Tieback_341 LeftWall_29 -1.5 acciaioarmonico_110 9.495E-06 125 0 0 0
 WIRE Tieback_342 LeftWall_29 -4 acciaioarmonico_110 9.653E-06 125 0 0 0
 WIRE Tieback_2841 LeftWall_29 -8 acciaioarmonico_110 1.178E-05 166.7 0 0 0
 WIRE Tieback_2842 LeftWall_29 -11 acciaioarmonico_110 1.264E-05 166.7 0 0 0




 * 6.3: Strips
 STRIP LeftWall_29 1 10 40 36.8 0.5 124.6 45

 * 7: Defining Steps
 STEP Stage1_28
 CHANGE Livello1GEO_334_8_L_0 U-FRICT=21.3 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 U-KA=0.467 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 U-KP=2.647 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 D-KA=0.467 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 D-KP=2.647 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 U-FRICT=21.3 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 U-KA=0.467 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 U-KP=2.647 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 D-KA=0.467 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 D-KP=2.647 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 U-COHE=4 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 U-COHE=12 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
 SETWALL LeftWall_29
 GEOM 0.5 0.5
```

```
WATER -5 0 -30 0 0
ADD WallElement_30
ENDSTEP

STEP Stage2_344
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -2.5
WATER -5 0 -30 0 0
ENDSTEP

STEP Stage3_1139
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -2.5
WATER -5 0 -30 0 0
ADD Tieback_341
ENDSTEP

STEP Stage4_1238
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -5
WATER -5 0 -30 0 0
ENDSTEP

STEP Stage5_1685
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -5
WATER -5 0 -30 0 0
ADD Tieback_342
ENDSTEP

STEP Stage6_2741
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-KA=0.466 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -9
WATER -7 2 -30 0 0
ENDSTEP

STEP Stage7_8944
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -9
WATER -7 2 -30 0 0
ADD Tieback_2841
ENDSTEP

STEP Stage8_9390
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-KA=0.467 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -12
WATER -10 2 -30 0 0
ENDSTEP

STEP Stage9_12011
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -12
WATER -10 2 -30 0 0
ADD Tieback_2842
ENDSTEP

STEP Stage10_12718
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
```

```
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -14.61
WATER -12.3 2.31 -30 0 0
ENDSTEP
```

Report di Calcolo

Allegato 3

Nome Progetto: New Project

Autore: Ingegnere

Jobname: R:\424.01 - HIRPINIA\Ing\03. LAVORO\07 - GALL\GA - FINESTRE - IMBOCCHI\GA09 Finestra F3\2-sez_TRASV\2-paratie\SEZIONE 2 STR Finestra F3.pplus

Data: 25/06/2020 12:58:52

Design Section: Base Design Section

Sommario
Contenuto Sommario

Descrizione della Stratigrafia e degli Strati di Terreno

Tipo : HORIZONTAL
Quota : 0.5 m
OCR : 1

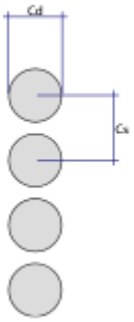
Tipo : HORIZONTAL
Quota : -9.5 m
OCR : 1

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	Livello 1	20	20	26			5		Constant	45000	72000							
2	Livello 2	21	21	26			15		Constant	80000	128000							

Descrizione Pareti

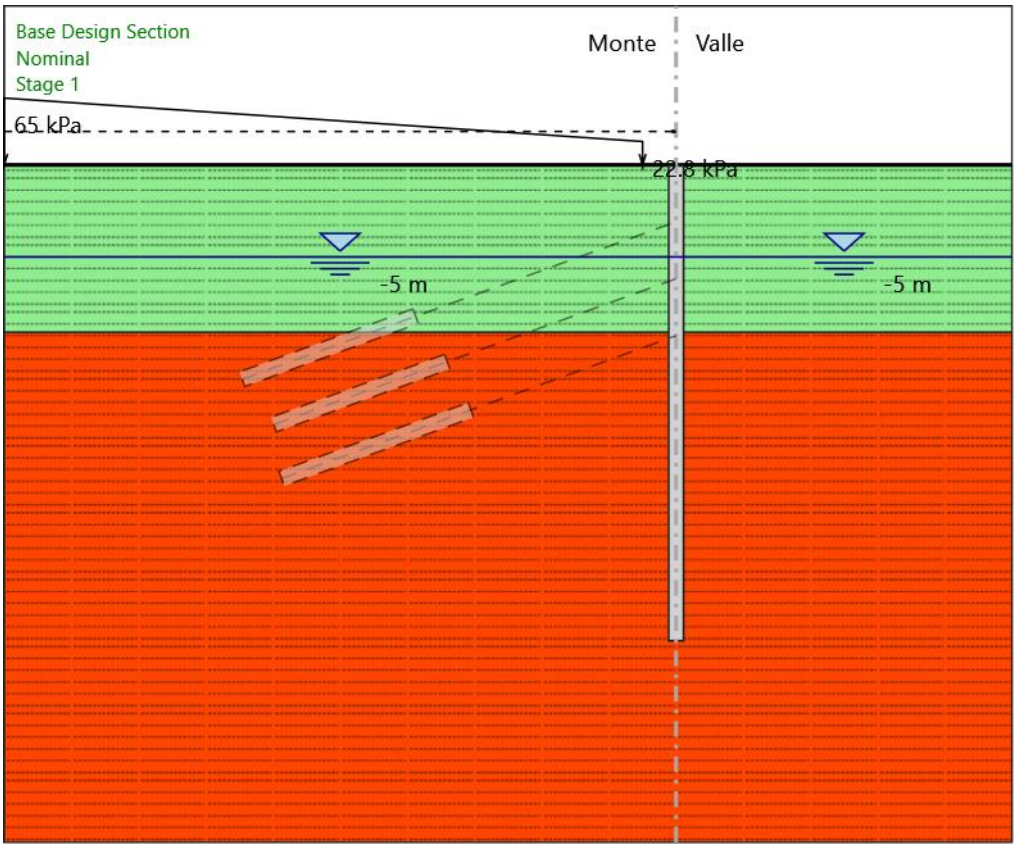
X : 0 m
Quota in alto : 0.5 m
Quota di fondo : -28 m
Muro di sinistra

Sezione : PALI1000/1200
Area equivalente : 0.654498469497874 m
Inerzia equivalente : 0.0409 m^4/m
Materiale calcestruzzo : C25/30
Tipo sezione : Tangent
Spaziatura : 1.2 m
Diametro : 1 m
Efficacia : 1



Fasi di Calcolo

Stage 1



Stage 1

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : 0.5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

0.5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

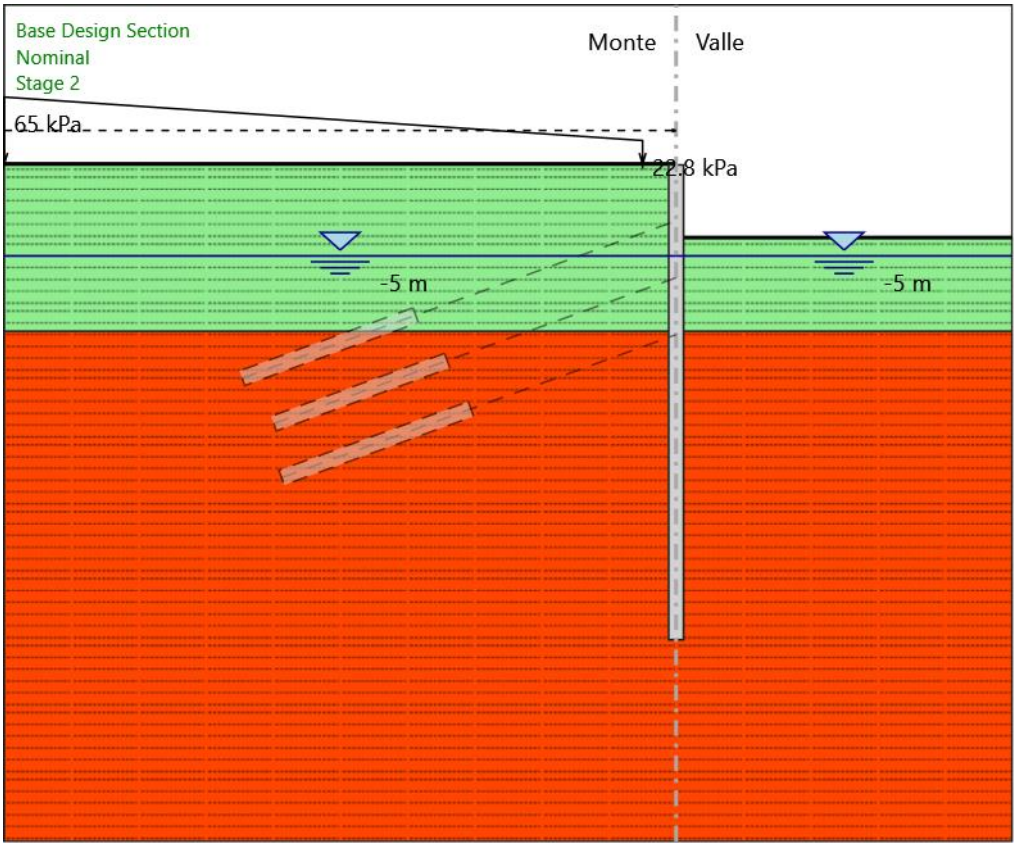
Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m
X finale : -40 m
Pressione iniziale : 22.8 kPa
Pressione finale : 65 kPa

Elementi strutturali
Paratia : WallElement
X : 0 m
Quota in alto : 0.5 m
Quota di fondo : -28 m
Sezione : PALI1000/1200

Stage 2



Stage 2

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -3.9 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-3.9 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

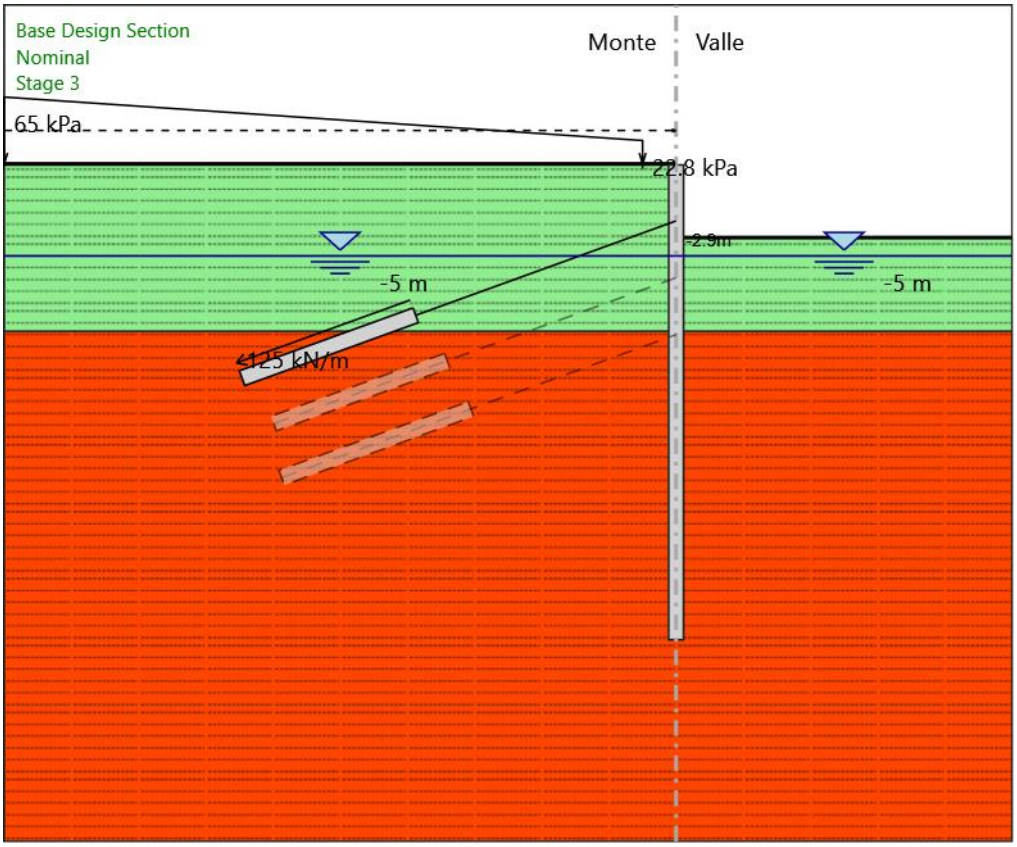
X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Stage 3



Stage 3

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -3.9 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-3.9 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

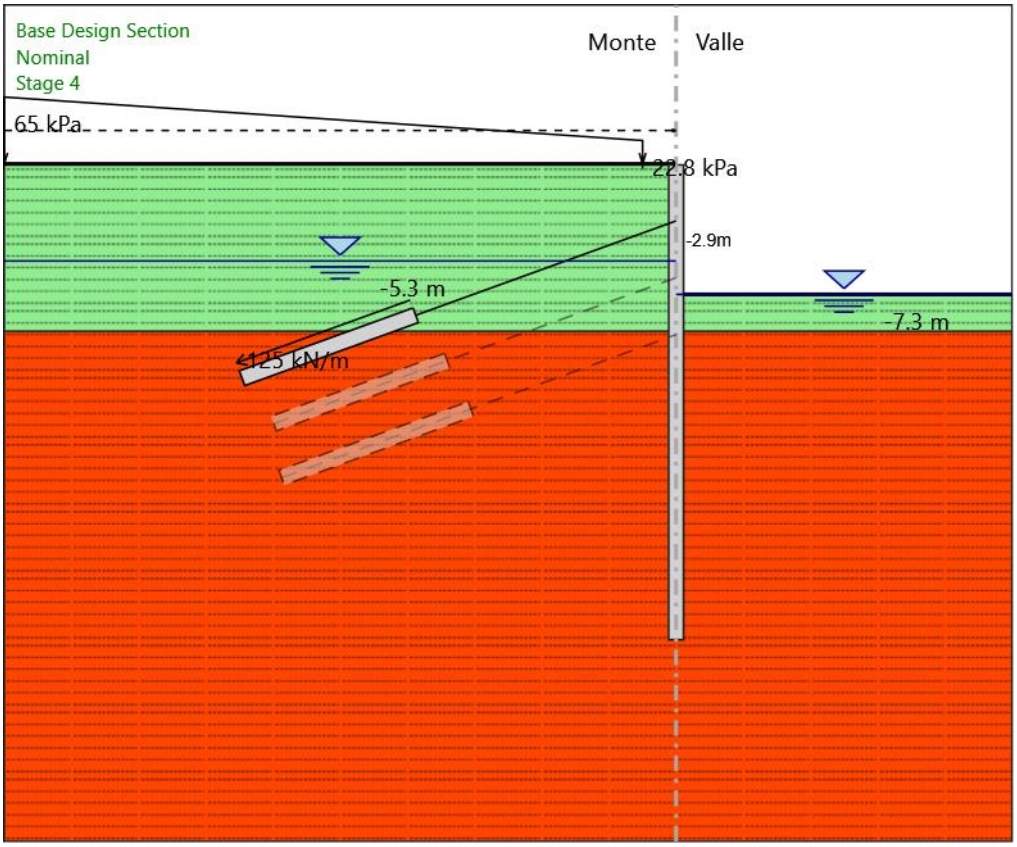
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 4



Stage 4

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -7.3 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-7.3 m

Falda acquifera

Falda di sinistra : -5.3 m

Falda di destra : -7.3 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

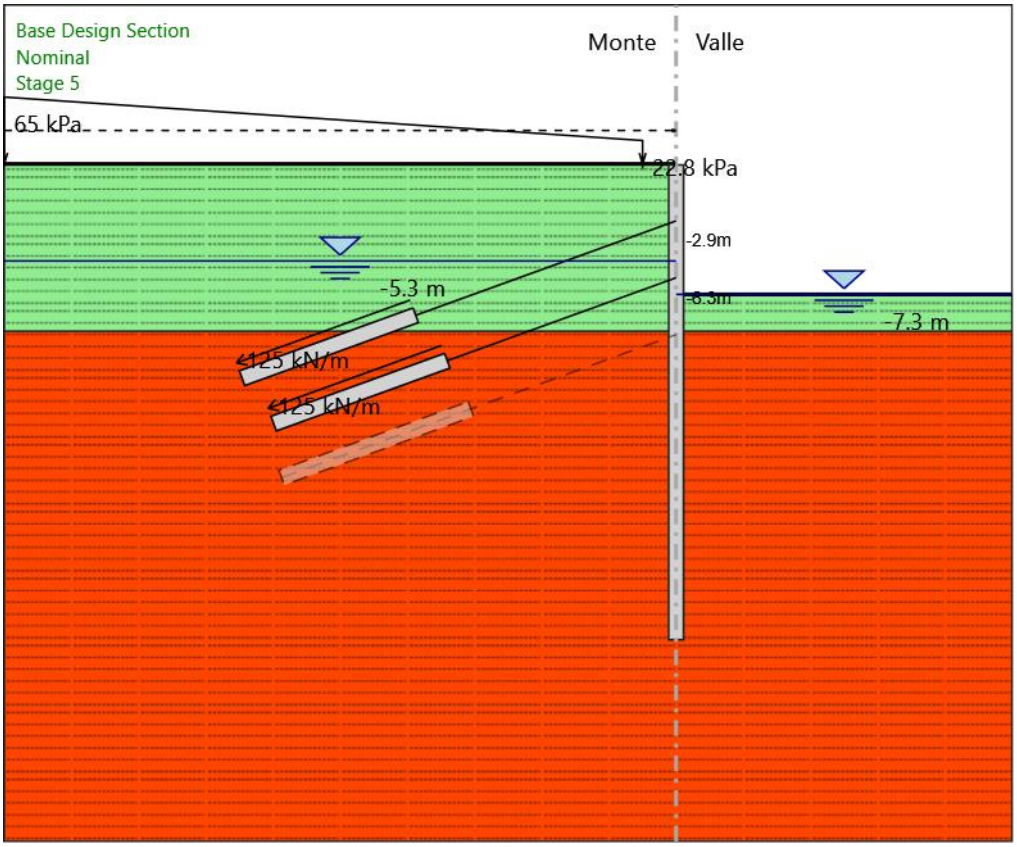
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 5



Stage 5

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -7.3 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-7.3 m

Falda acquifera

Falda di sinistra : -5.3 m

Falda di destra : -7.3 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -6.3 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 14.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

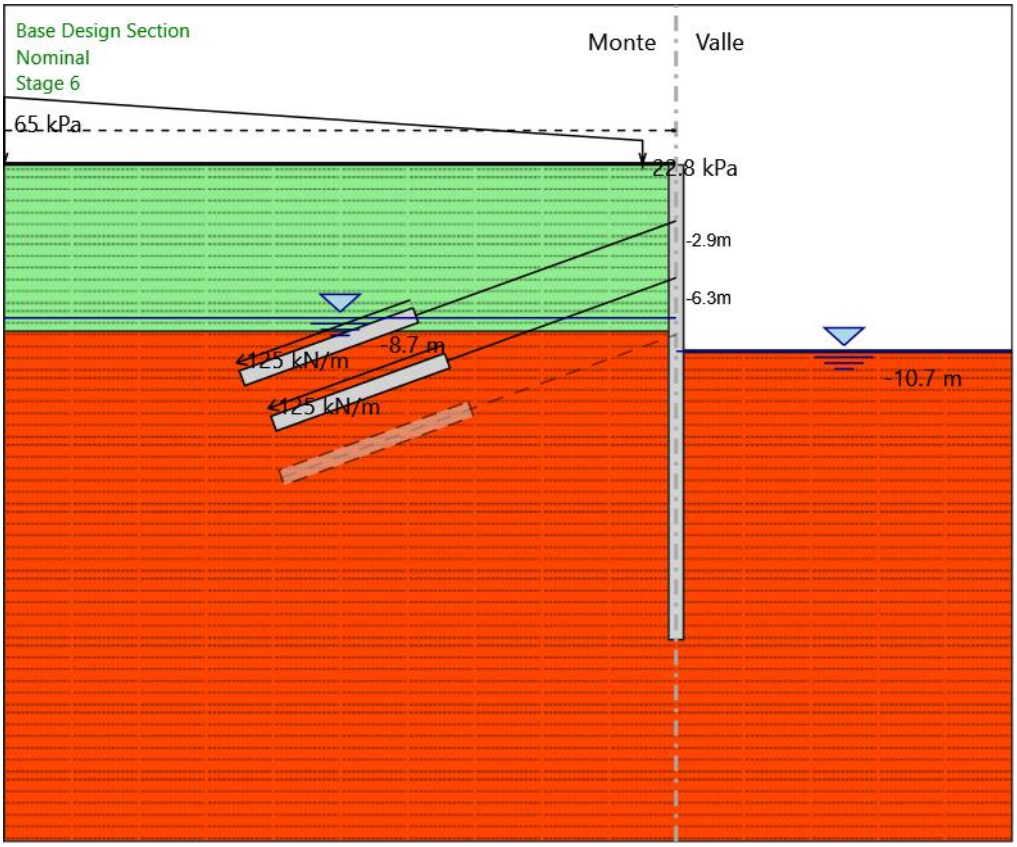
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 6



Stage 6

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -10.7 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-10.7 m

Falda acquifera

Falda di sinistra : -8.7 m

Falda di destra : -10.7 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -6.3 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 14.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

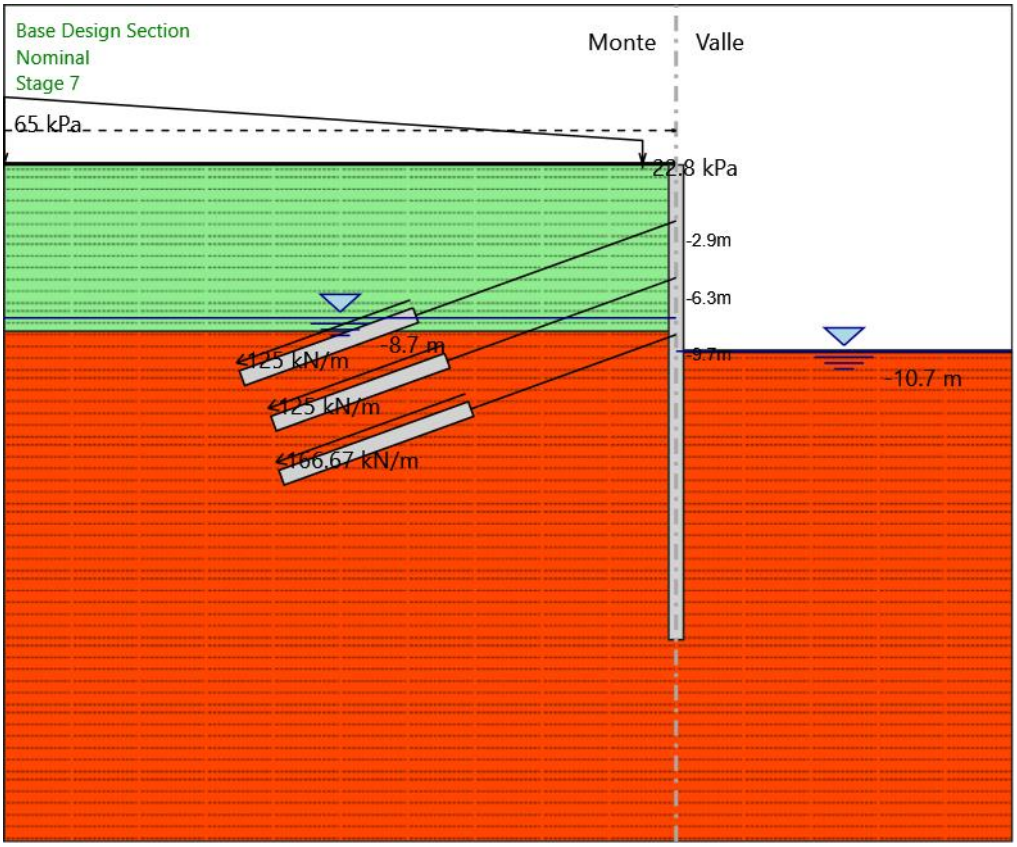
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 7



Stage 7

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -10.7 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-10.7 m

Falda acquifera

Falda di sinistra : -8.7 m

Falda di destra : -10.7 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -6.3 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 14.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -9.7 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Precarico : 400 kN

Angolo : 20 °

Sezione : Trefoli 5

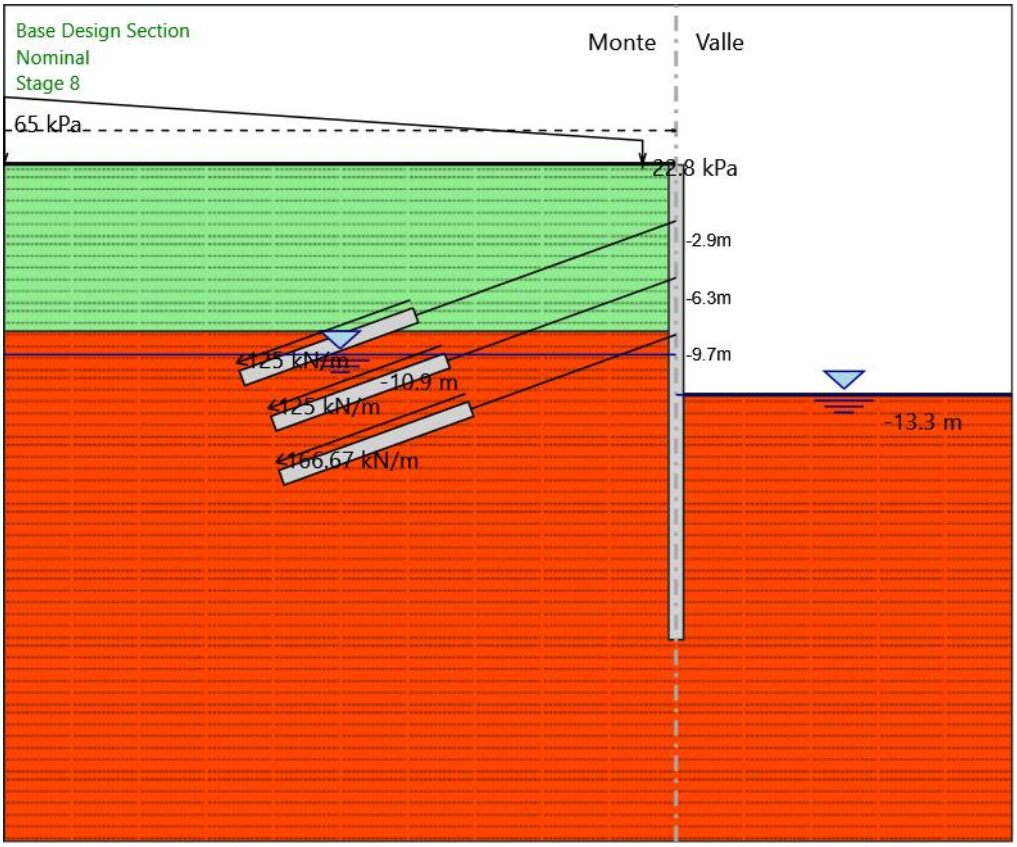
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 8



Stage 8

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -13.3 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-13.3 m

Falda acquifera

Falda di sinistra : -10.9 m

Falda di destra : -13.3 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -6.3 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 14.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -9.7 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Precarico : 400 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

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	0.5	0
Stage 1	0.3	0
Stage 1	0.1	0
Stage 1	-0.1	0
Stage 1	-0.3	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

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	-11.7	0
Stage 1	-11.9	0
Stage 1	-12.1	0
Stage 1	-12.3	0
Stage 1	-12.5	0
Stage 1	-12.7	0
Stage 1	-12.9	0
Stage 1	-13.1	0
Stage 1	-13.3	0
Stage 1	-13.5	0
Stage 1	-13.7	0
Stage 1	-13.9	0
Stage 1	-14.1	0
Stage 1	-14.3	0
Stage 1	-14.5	0
Stage 1	-14.7	0
Stage 1	-14.9	0
Stage 1	-15.1	0
Stage 1	-15.3	0
Stage 1	-15.5	0
Stage 1	-15.7	0
Stage 1	-15.9	0
Stage 1	-16.1	0
Stage 1	-16.3	0
Stage 1	-16.5	0
Stage 1	-16.7	0
Stage 1	-16.9	0
Stage 1	-17.1	0
Stage 1	-17.3	0
Stage 1	-17.5	0
Stage 1	-17.7	0
Stage 1	-17.9	0
Stage 1	-18.1	0
Stage 1	-18.3	0
Stage 1	-18.5	0
Stage 1	-18.7	0
Stage 1	-18.9	0
Stage 1	-19.1	0
Stage 1	-19.3	0
Stage 1	-19.5	0
Stage 1	-19.7	0
Stage 1	-19.9	0
Stage 1	-20.1	0
Stage 1	-20.3	0
Stage 1	-20.5	0
Stage 1	-20.7	0
Stage 1	-20.9	0
Stage 1	-21.1	0
Stage 1	-21.3	0
Stage 1	-21.5	0
Stage 1	-21.7	0
Stage 1	-21.9	0
Stage 1	-22.1	0
Stage 1	-22.3	0
Stage 1	-22.5	0
Stage 1	-22.7	0
Stage 1	-22.9	0
Stage 1	-23.1	0
Stage 1	-23.3	0
Stage 1	-23.5	0
Stage 1	-23.7	0
Stage 1	-23.9	0
Stage 1	-24.1	0
Stage 1	-24.3	0
Stage 1	-24.5	0
Stage 1	-24.7	0
Stage 1	-24.9	0
Stage 1	-25.1	0
Stage 1	-25.3	0
Stage 1	-25.5	0
Stage 1	-25.7	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	-25.9	0
Stage 1	-26.1	0
Stage 1	-26.3	0
Stage 1	-26.5	0
Stage 1	-26.7	0
Stage 1	-26.9	0
Stage 1	-27.1	0
Stage 1	-27.3	0
Stage 1	-27.5	0
Stage 1	-27.7	0
Stage 1	-27.9	0
Stage 1	-28	0

Tabella Spostamento Nominal - LEFT Stage: Stage 2

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	0.5	3.99
Stage 2	0.3	3.88
Stage 2	0.1	3.77
Stage 2	-0.1	3.66
Stage 2	-0.3	3.55
Stage 2	-0.5	3.44
Stage 2	-0.7	3.33
Stage 2	-0.9	3.22
Stage 2	-1.1	3.11
Stage 2	-1.3	3
Stage 2	-1.5	2.88
Stage 2	-1.7	2.77
Stage 2	-1.9	2.66
Stage 2	-2.1	2.55
Stage 2	-2.3	2.44
Stage 2	-2.5	2.33
Stage 2	-2.7	2.22
Stage 2	-2.9	2.12
Stage 2	-3.1	2.01
Stage 2	-3.3	1.9
Stage 2	-3.5	1.8
Stage 2	-3.7	1.69
Stage 2	-3.9	1.59
Stage 2	-4.1	1.49
Stage 2	-4.3	1.39
Stage 2	-4.5	1.29
Stage 2	-4.7	1.2
Stage 2	-4.9	1.11
Stage 2	-5.1	1.02
Stage 2	-5.3	0.93
Stage 2	-5.5	0.85
Stage 2	-5.7	0.78
Stage 2	-5.9	0.7
Stage 2	-6.1	0.63
Stage 2	-6.3	0.57
Stage 2	-6.5	0.51
Stage 2	-6.7	0.45
Stage 2	-6.9	0.39
Stage 2	-7.1	0.34
Stage 2	-7.3	0.3
Stage 2	-7.5	0.25
Stage 2	-7.7	0.21
Stage 2	-7.9	0.18
Stage 2	-8.1	0.14
Stage 2	-8.3	0.11
Stage 2	-8.5	0.08
Stage 2	-8.7	0.06
Stage 2	-8.9	0.03
Stage 2	-9.1	0.01
Stage 2	-9.3	-0.01
Stage 2	-9.5	-0.02
Stage 2	-9.7	-0.04
Stage 2	-9.9	-0.05
Stage 2	-10.1	-0.06
Stage 2	-10.3	-0.07
Stage 2	-10.5	-0.07
Stage 2	-10.7	-0.08
Stage 2	-10.9	-0.08
Stage 2	-11.1	-0.09
Stage 2	-11.3	-0.09
Stage 2	-11.5	-0.09
Stage 2	-11.7	-0.09
Stage 2	-11.9	-0.09
Stage 2	-12.1	-0.09
Stage 2	-12.3	-0.09
Stage 2	-12.5	-0.09
Stage 2	-12.7	-0.09

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	-12.9	-0.08
Stage 2	-13.1	-0.08
Stage 2	-13.3	-0.08
Stage 2	-13.5	-0.07
Stage 2	-13.7	-0.07
Stage 2	-13.9	-0.07
Stage 2	-14.1	-0.06
Stage 2	-14.3	-0.06
Stage 2	-14.5	-0.05
Stage 2	-14.7	-0.05
Stage 2	-14.9	-0.05
Stage 2	-15.1	-0.04
Stage 2	-15.3	-0.04
Stage 2	-15.5	-0.04
Stage 2	-15.7	-0.03
Stage 2	-15.9	-0.03
Stage 2	-16.1	-0.03
Stage 2	-16.3	-0.03
Stage 2	-16.5	-0.02
Stage 2	-16.7	-0.02
Stage 2	-16.9	-0.02
Stage 2	-17.1	-0.02
Stage 2	-17.3	-0.01
Stage 2	-17.5	-0.01
Stage 2	-17.7	-0.01
Stage 2	-17.9	-0.01
Stage 2	-18.1	-0.01
Stage 2	-18.3	-0.01
Stage 2	-18.5	0
Stage 2	-18.7	0
Stage 2	-18.9	0
Stage 2	-19.1	0
Stage 2	-19.3	0
Stage 2	-19.5	0
Stage 2	-19.7	0
Stage 2	-19.9	0
Stage 2	-20.1	0
Stage 2	-20.3	0
Stage 2	-20.5	0
Stage 2	-20.7	0
Stage 2	-20.9	0
Stage 2	-21.1	0
Stage 2	-21.3	0
Stage 2	-21.5	0
Stage 2	-21.7	0
Stage 2	-21.9	0
Stage 2	-22.1	0
Stage 2	-22.3	0
Stage 2	-22.5	0
Stage 2	-22.7	0
Stage 2	-22.9	0
Stage 2	-23.1	0
Stage 2	-23.3	0
Stage 2	-23.5	0
Stage 2	-23.7	0
Stage 2	-23.9	0
Stage 2	-24.1	0
Stage 2	-24.3	0
Stage 2	-24.5	0
Stage 2	-24.7	0
Stage 2	-24.9	0
Stage 2	-25.1	0
Stage 2	-25.3	0
Stage 2	-25.5	0
Stage 2	-25.7	0
Stage 2	-25.9	0
Stage 2	-26.1	0
Stage 2	-26.3	0
Stage 2	-26.5	0
Stage 2	-26.7	0
Stage 2	-26.9	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 2	-27.1	0
Stage 2	-27.3	0
Stage 2	-27.5	0
Stage 2	-27.7	0
Stage 2	-27.9	0
Stage 2	-28	0

Tabella Spostamento Nominal - LEFT Stage: Stage 3

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	0.5	3.01
Stage 3	0.3	2.91
Stage 3	0.1	2.81
Stage 3	-0.1	2.7
Stage 3	-0.3	2.6
Stage 3	-0.5	2.49
Stage 3	-0.7	2.39
Stage 3	-0.9	2.29
Stage 3	-1.1	2.19
Stage 3	-1.3	2.08
Stage 3	-1.5	1.98
Stage 3	-1.7	1.88
Stage 3	-1.9	1.78
Stage 3	-2.1	1.69
Stage 3	-2.3	1.59
Stage 3	-2.5	1.5
Stage 3	-2.7	1.4
Stage 3	-2.9	1.32
Stage 3	-3.1	1.23
Stage 3	-3.3	1.15
Stage 3	-3.5	1.07
Stage 3	-3.7	0.99
Stage 3	-3.9	0.92
Stage 3	-4.1	0.85
Stage 3	-4.3	0.78
Stage 3	-4.5	0.72
Stage 3	-4.7	0.66
Stage 3	-4.9	0.6
Stage 3	-5.1	0.54
Stage 3	-5.3	0.49
Stage 3	-5.5	0.44
Stage 3	-5.7	0.39
Stage 3	-5.9	0.35
Stage 3	-6.1	0.3
Stage 3	-6.3	0.27
Stage 3	-6.5	0.23
Stage 3	-6.7	0.2
Stage 3	-6.9	0.16
Stage 3	-7.1	0.14
Stage 3	-7.3	0.11
Stage 3	-7.5	0.09
Stage 3	-7.7	0.06
Stage 3	-7.9	0.04
Stage 3	-8.1	0.03
Stage 3	-8.3	0.01
Stage 3	-8.5	0
Stage 3	-8.7	-0.02
Stage 3	-8.9	-0.03
Stage 3	-9.1	-0.04
Stage 3	-9.3	-0.04
Stage 3	-9.5	-0.05
Stage 3	-9.7	-0.06
Stage 3	-9.9	-0.06
Stage 3	-10.1	-0.06
Stage 3	-10.3	-0.07
Stage 3	-10.5	-0.07
Stage 3	-10.7	-0.07
Stage 3	-10.9	-0.07
Stage 3	-11.1	-0.07
Stage 3	-11.3	-0.07
Stage 3	-11.5	-0.07
Stage 3	-11.7	-0.07
Stage 3	-11.9	-0.07
Stage 3	-12.1	-0.07
Stage 3	-12.3	-0.06
Stage 3	-12.5	-0.06
Stage 3	-12.7	-0.06

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	-12.9	-0.06
Stage 3	-13.1	-0.05
Stage 3	-13.3	-0.05
Stage 3	-13.5	-0.05
Stage 3	-13.7	-0.05
Stage 3	-13.9	-0.04
Stage 3	-14.1	-0.04
Stage 3	-14.3	-0.04
Stage 3	-14.5	-0.04
Stage 3	-14.7	-0.03
Stage 3	-14.9	-0.03
Stage 3	-15.1	-0.03
Stage 3	-15.3	-0.03
Stage 3	-15.5	-0.02
Stage 3	-15.7	-0.02
Stage 3	-15.9	-0.02
Stage 3	-16.1	-0.02
Stage 3	-16.3	-0.02
Stage 3	-16.5	-0.01
Stage 3	-16.7	-0.01
Stage 3	-16.9	-0.01
Stage 3	-17.1	-0.01
Stage 3	-17.3	-0.01
Stage 3	-17.5	-0.01
Stage 3	-17.7	-0.01
Stage 3	-17.9	0
Stage 3	-18.1	0
Stage 3	-18.3	0
Stage 3	-18.5	0
Stage 3	-18.7	0
Stage 3	-18.9	0
Stage 3	-19.1	0
Stage 3	-19.3	0
Stage 3	-19.5	0
Stage 3	-19.7	0
Stage 3	-19.9	0
Stage 3	-20.1	0
Stage 3	-20.3	0
Stage 3	-20.5	0
Stage 3	-20.7	0
Stage 3	-20.9	0
Stage 3	-21.1	0
Stage 3	-21.3	0
Stage 3	-21.5	0
Stage 3	-21.7	0
Stage 3	-21.9	0
Stage 3	-22.1	0
Stage 3	-22.3	0
Stage 3	-22.5	0
Stage 3	-22.7	0
Stage 3	-22.9	0
Stage 3	-23.1	0
Stage 3	-23.3	0
Stage 3	-23.5	0
Stage 3	-23.7	0
Stage 3	-23.9	0
Stage 3	-24.1	0
Stage 3	-24.3	0
Stage 3	-24.5	0
Stage 3	-24.7	0
Stage 3	-24.9	0
Stage 3	-25.1	0
Stage 3	-25.3	0
Stage 3	-25.5	0
Stage 3	-25.7	0
Stage 3	-25.9	0
Stage 3	-26.1	0
Stage 3	-26.3	0
Stage 3	-26.5	0
Stage 3	-26.7	0
Stage 3	-26.9	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	-27.1	0
Stage 3	-27.3	0
Stage 3	-27.5	0
Stage 3	-27.7	0
Stage 3	-27.9	0
Stage 3	-28	0

Tabella Spostamento Nominal - LEFT Stage: Stage 4

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	0.5	10.34
Stage 4	0.3	10.23
Stage 4	0.1	10.13
Stage 4	-0.1	10.02
Stage 4	-0.3	9.91
Stage 4	-0.5	9.81
Stage 4	-0.7	9.7
Stage 4	-0.9	9.6
Stage 4	-1.1	9.49
Stage 4	-1.3	9.38
Stage 4	-1.5	9.28
Stage 4	-1.7	9.17
Stage 4	-1.9	9.06
Stage 4	-2.1	8.96
Stage 4	-2.3	8.85
Stage 4	-2.5	8.75
Stage 4	-2.7	8.64
Stage 4	-2.9	8.54
Stage 4	-3.1	8.43
Stage 4	-3.3	8.33
Stage 4	-3.5	8.22
Stage 4	-3.7	8.12
Stage 4	-3.9	8.01
Stage 4	-4.1	7.9
Stage 4	-4.3	7.79
Stage 4	-4.5	7.68
Stage 4	-4.7	7.56
Stage 4	-4.9	7.43
Stage 4	-5.1	7.31
Stage 4	-5.3	7.18
Stage 4	-5.5	7.04
Stage 4	-5.7	6.9
Stage 4	-5.9	6.75
Stage 4	-6.1	6.6
Stage 4	-6.3	6.45
Stage 4	-6.5	6.29
Stage 4	-6.7	6.12
Stage 4	-6.9	5.95
Stage 4	-7.1	5.77
Stage 4	-7.3	5.59
Stage 4	-7.5	5.41
Stage 4	-7.7	5.22
Stage 4	-7.9	5.03
Stage 4	-8.1	4.84
Stage 4	-8.3	4.65
Stage 4	-8.5	4.45
Stage 4	-8.7	4.26
Stage 4	-8.9	4.07
Stage 4	-9.1	3.87
Stage 4	-9.3	3.68
Stage 4	-9.5	3.49
Stage 4	-9.7	3.31
Stage 4	-9.9	3.13
Stage 4	-10.1	2.95
Stage 4	-10.3	2.78
Stage 4	-10.5	2.61
Stage 4	-10.7	2.45
Stage 4	-10.9	2.3
Stage 4	-11.1	2.15
Stage 4	-11.3	2
Stage 4	-11.5	1.87
Stage 4	-11.7	1.74
Stage 4	-11.9	1.62
Stage 4	-12.1	1.5
Stage 4	-12.3	1.39
Stage 4	-12.5	1.29
Stage 4	-12.7	1.19

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	-12.9	1.1
Stage 4	-13.1	1.02
Stage 4	-13.3	0.94
Stage 4	-13.5	0.87
Stage 4	-13.7	0.8
Stage 4	-13.9	0.74
Stage 4	-14.1	0.69
Stage 4	-14.3	0.63
Stage 4	-14.5	0.59
Stage 4	-14.7	0.54
Stage 4	-14.9	0.51
Stage 4	-15.1	0.47
Stage 4	-15.3	0.44
Stage 4	-15.5	0.41
Stage 4	-15.7	0.39
Stage 4	-15.9	0.37
Stage 4	-16.1	0.35
Stage 4	-16.3	0.33
Stage 4	-16.5	0.32
Stage 4	-16.7	0.3
Stage 4	-16.9	0.29
Stage 4	-17.1	0.29
Stage 4	-17.3	0.28
Stage 4	-17.5	0.27
Stage 4	-17.7	0.27
Stage 4	-17.9	0.27
Stage 4	-18.1	0.27
Stage 4	-18.3	0.27
Stage 4	-18.5	0.27
Stage 4	-18.7	0.27
Stage 4	-18.9	0.27
Stage 4	-19.1	0.27
Stage 4	-19.3	0.27
Stage 4	-19.5	0.28
Stage 4	-19.7	0.28
Stage 4	-19.9	0.28
Stage 4	-20.1	0.28
Stage 4	-20.3	0.29
Stage 4	-20.5	0.29
Stage 4	-20.7	0.29
Stage 4	-20.9	0.3
Stage 4	-21.1	0.3
Stage 4	-21.3	0.3
Stage 4	-21.5	0.31
Stage 4	-21.7	0.31
Stage 4	-21.9	0.31
Stage 4	-22.1	0.31
Stage 4	-22.3	0.31
Stage 4	-22.5	0.32
Stage 4	-22.7	0.32
Stage 4	-22.9	0.32
Stage 4	-23.1	0.32
Stage 4	-23.3	0.32
Stage 4	-23.5	0.32
Stage 4	-23.7	0.32
Stage 4	-23.9	0.32
Stage 4	-24.1	0.32
Stage 4	-24.3	0.32
Stage 4	-24.5	0.32
Stage 4	-24.7	0.32
Stage 4	-24.9	0.32
Stage 4	-25.1	0.32
Stage 4	-25.3	0.32
Stage 4	-25.5	0.32
Stage 4	-25.7	0.32
Stage 4	-25.9	0.32
Stage 4	-26.1	0.32
Stage 4	-26.3	0.32
Stage 4	-26.5	0.31
Stage 4	-26.7	0.31
Stage 4	-26.9	0.31

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	-27.1	0.31
Stage 4	-27.3	0.31
Stage 4	-27.5	0.31
Stage 4	-27.7	0.31
Stage 4	-27.9	0.3
Stage 4	-28	0.3

Tabella Spostamento Nominal - LEFT Stage: Stage 5

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	0.5	10.17
Stage 5	0.3	10.03
Stage 5	0.1	9.89
Stage 5	-0.1	9.75
Stage 5	-0.3	9.62
Stage 5	-0.5	9.48
Stage 5	-0.7	9.34
Stage 5	-0.9	9.2
Stage 5	-1.1	9.06
Stage 5	-1.3	8.92
Stage 5	-1.5	8.79
Stage 5	-1.7	8.65
Stage 5	-1.9	8.51
Stage 5	-2.1	8.38
Stage 5	-2.3	8.24
Stage 5	-2.5	8.1
Stage 5	-2.7	7.97
Stage 5	-2.9	7.84
Stage 5	-3.1	7.7
Stage 5	-3.3	7.57
Stage 5	-3.5	7.44
Stage 5	-3.7	7.31
Stage 5	-3.9	7.18
Stage 5	-4.1	7.05
Stage 5	-4.3	6.92
Stage 5	-4.5	6.78
Stage 5	-4.7	6.65
Stage 5	-4.9	6.51
Stage 5	-5.1	6.37
Stage 5	-5.3	6.23
Stage 5	-5.5	6.08
Stage 5	-5.7	5.94
Stage 5	-5.9	5.79
Stage 5	-6.1	5.64
Stage 5	-6.3	5.49
Stage 5	-6.5	5.34
Stage 5	-6.7	5.19
Stage 5	-6.9	5.04
Stage 5	-7.1	4.88
Stage 5	-7.3	4.73
Stage 5	-7.5	4.57
Stage 5	-7.7	4.41
Stage 5	-7.9	4.25
Stage 5	-8.1	4.09
Stage 5	-8.3	3.93
Stage 5	-8.5	3.77
Stage 5	-8.7	3.61
Stage 5	-8.9	3.45
Stage 5	-9.1	3.29
Stage 5	-9.3	3.13
Stage 5	-9.5	2.98
Stage 5	-9.7	2.82
Stage 5	-9.9	2.68
Stage 5	-10.1	2.53
Stage 5	-10.3	2.39
Stage 5	-10.5	2.25
Stage 5	-10.7	2.12
Stage 5	-10.9	1.99
Stage 5	-11.1	1.87
Stage 5	-11.3	1.76
Stage 5	-11.5	1.65
Stage 5	-11.7	1.54
Stage 5	-11.9	1.44
Stage 5	-12.1	1.34
Stage 5	-12.3	1.25
Stage 5	-12.5	1.17
Stage 5	-12.7	1.09

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	-12.9	1.02
Stage 5	-13.1	0.95
Stage 5	-13.3	0.88
Stage 5	-13.5	0.82
Stage 5	-13.7	0.77
Stage 5	-13.9	0.72
Stage 5	-14.1	0.67
Stage 5	-14.3	0.63
Stage 5	-14.5	0.59
Stage 5	-14.7	0.55
Stage 5	-14.9	0.52
Stage 5	-15.1	0.49
Stage 5	-15.3	0.46
Stage 5	-15.5	0.44
Stage 5	-15.7	0.42
Stage 5	-15.9	0.4
Stage 5	-16.1	0.38
Stage 5	-16.3	0.37
Stage 5	-16.5	0.35
Stage 5	-16.7	0.34
Stage 5	-16.9	0.33
Stage 5	-17.1	0.33
Stage 5	-17.3	0.32
Stage 5	-17.5	0.31
Stage 5	-17.7	0.31
Stage 5	-17.9	0.31
Stage 5	-18.1	0.31
Stage 5	-18.3	0.3
Stage 5	-18.5	0.3
Stage 5	-18.7	0.3
Stage 5	-18.9	0.3
Stage 5	-19.1	0.3
Stage 5	-19.3	0.3
Stage 5	-19.5	0.31
Stage 5	-19.7	0.31
Stage 5	-19.9	0.31
Stage 5	-20.1	0.31
Stage 5	-20.3	0.31
Stage 5	-20.5	0.31
Stage 5	-20.7	0.32
Stage 5	-20.9	0.32
Stage 5	-21.1	0.32
Stage 5	-21.3	0.32
Stage 5	-21.5	0.32
Stage 5	-21.7	0.32
Stage 5	-21.9	0.32
Stage 5	-22.1	0.32
Stage 5	-22.3	0.33
Stage 5	-22.5	0.33
Stage 5	-22.7	0.33
Stage 5	-22.9	0.33
Stage 5	-23.1	0.33
Stage 5	-23.3	0.33
Stage 5	-23.5	0.33
Stage 5	-23.7	0.33
Stage 5	-23.9	0.33
Stage 5	-24.1	0.33
Stage 5	-24.3	0.33
Stage 5	-24.5	0.32
Stage 5	-24.7	0.32
Stage 5	-24.9	0.32
Stage 5	-25.1	0.32
Stage 5	-25.3	0.32
Stage 5	-25.5	0.32
Stage 5	-25.7	0.32
Stage 5	-25.9	0.32
Stage 5	-26.1	0.31
Stage 5	-26.3	0.31
Stage 5	-26.5	0.31
Stage 5	-26.7	0.31
Stage 5	-26.9	0.31

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 5	-27.1	0.31
Stage 5	-27.3	0.3
Stage 5	-27.5	0.3
Stage 5	-27.7	0.3
Stage 5	-27.9	0.3
Stage 5	-28	0.3

Tabella Spostamento Nominal - LEFT Stage: Stage 6

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	0.5	12.24
Stage 6	0.3	12.25
Stage 6	0.1	12.25
Stage 6	-0.1	12.26
Stage 6	-0.3	12.27
Stage 6	-0.5	12.27
Stage 6	-0.7	12.28
Stage 6	-0.9	12.29
Stage 6	-1.1	12.29
Stage 6	-1.3	12.3
Stage 6	-1.5	12.31
Stage 6	-1.7	12.32
Stage 6	-1.9	12.32
Stage 6	-2.1	12.33
Stage 6	-2.3	12.34
Stage 6	-2.5	12.35
Stage 6	-2.7	12.35
Stage 6	-2.9	12.36
Stage 6	-3.1	12.37
Stage 6	-3.3	12.38
Stage 6	-3.5	12.39
Stage 6	-3.7	12.4
Stage 6	-3.9	12.41
Stage 6	-4.1	12.41
Stage 6	-4.3	12.41
Stage 6	-4.5	12.41
Stage 6	-4.7	12.4
Stage 6	-4.9	12.39
Stage 6	-5.1	12.37
Stage 6	-5.3	12.35
Stage 6	-5.5	12.33
Stage 6	-5.7	12.29
Stage 6	-5.9	12.26
Stage 6	-6.1	12.21
Stage 6	-6.3	12.17
Stage 6	-6.5	12.11
Stage 6	-6.7	12.05
Stage 6	-6.9	11.98
Stage 6	-7.1	11.9
Stage 6	-7.3	11.82
Stage 6	-7.5	11.73
Stage 6	-7.7	11.62
Stage 6	-7.9	11.51
Stage 6	-8.1	11.38
Stage 6	-8.3	11.25
Stage 6	-8.5	11.1
Stage 6	-8.7	10.95
Stage 6	-8.9	10.78
Stage 6	-9.1	10.61
Stage 6	-9.3	10.42
Stage 6	-9.5	10.22
Stage 6	-9.7	10.01
Stage 6	-9.9	9.8
Stage 6	-10.1	9.57
Stage 6	-10.3	9.34
Stage 6	-10.5	9.1
Stage 6	-10.7	8.85
Stage 6	-10.9	8.59
Stage 6	-11.1	8.33
Stage 6	-11.3	8.07
Stage 6	-11.5	7.8
Stage 6	-11.7	7.54
Stage 6	-11.9	7.27
Stage 6	-12.1	7
Stage 6	-12.3	6.73
Stage 6	-12.5	6.46
Stage 6	-12.7	6.2

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	-12.9	5.93
Stage 6	-13.1	5.68
Stage 6	-13.3	5.42
Stage 6	-13.5	5.18
Stage 6	-13.7	4.94
Stage 6	-13.9	4.7
Stage 6	-14.1	4.48
Stage 6	-14.3	4.26
Stage 6	-14.5	4.05
Stage 6	-14.7	3.84
Stage 6	-14.9	3.65
Stage 6	-15.1	3.46
Stage 6	-15.3	3.28
Stage 6	-15.5	3.11
Stage 6	-15.7	2.95
Stage 6	-15.9	2.8
Stage 6	-16.1	2.65
Stage 6	-16.3	2.52
Stage 6	-16.5	2.39
Stage 6	-16.7	2.27
Stage 6	-16.9	2.16
Stage 6	-17.1	2.05
Stage 6	-17.3	1.95
Stage 6	-17.5	1.86
Stage 6	-17.7	1.77
Stage 6	-17.9	1.69
Stage 6	-18.1	1.62
Stage 6	-18.3	1.55
Stage 6	-18.5	1.49
Stage 6	-18.7	1.44
Stage 6	-18.9	1.39
Stage 6	-19.1	1.34
Stage 6	-19.3	1.3
Stage 6	-19.5	1.26
Stage 6	-19.7	1.22
Stage 6	-19.9	1.19
Stage 6	-20.1	1.17
Stage 6	-20.3	1.14
Stage 6	-20.5	1.12
Stage 6	-20.7	1.11
Stage 6	-20.9	1.09
Stage 6	-21.1	1.08
Stage 6	-21.3	1.07
Stage 6	-21.5	1.06
Stage 6	-21.7	1.05
Stage 6	-21.9	1.05
Stage 6	-22.1	1.04
Stage 6	-22.3	1.04
Stage 6	-22.5	1.04
Stage 6	-22.7	1.04
Stage 6	-22.9	1.04
Stage 6	-23.1	1.04
Stage 6	-23.3	1.05
Stage 6	-23.5	1.05
Stage 6	-23.7	1.05
Stage 6	-23.9	1.06
Stage 6	-24.1	1.06
Stage 6	-24.3	1.07
Stage 6	-24.5	1.08
Stage 6	-24.7	1.08
Stage 6	-24.9	1.09
Stage 6	-25.1	1.09
Stage 6	-25.3	1.1
Stage 6	-25.5	1.11
Stage 6	-25.7	1.11
Stage 6	-25.9	1.12
Stage 6	-26.1	1.13
Stage 6	-26.3	1.13
Stage 6	-26.5	1.14
Stage 6	-26.7	1.15
Stage 6	-26.9	1.16

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	-27.1	1.16
Stage 6	-27.3	1.17
Stage 6	-27.5	1.18
Stage 6	-27.7	1.18
Stage 6	-27.9	1.19
Stage 6	-28	1.19

Tabella Spostamento Nominal - LEFT Stage: Stage 7

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	0.5	12.6
Stage 7	0.3	12.57
Stage 7	0.1	12.53
Stage 7	-0.1	12.49
Stage 7	-0.3	12.46
Stage 7	-0.5	12.42
Stage 7	-0.7	12.38
Stage 7	-0.9	12.35
Stage 7	-1.1	12.31
Stage 7	-1.3	12.28
Stage 7	-1.5	12.24
Stage 7	-1.7	12.2
Stage 7	-1.9	12.17
Stage 7	-2.1	12.13
Stage 7	-2.3	12.09
Stage 7	-2.5	12.06
Stage 7	-2.7	12.02
Stage 7	-2.9	11.99
Stage 7	-3.1	11.96
Stage 7	-3.3	11.92
Stage 7	-3.5	11.89
Stage 7	-3.7	11.85
Stage 7	-3.9	11.82
Stage 7	-4.1	11.78
Stage 7	-4.3	11.73
Stage 7	-4.5	11.69
Stage 7	-4.7	11.64
Stage 7	-4.9	11.59
Stage 7	-5.1	11.53
Stage 7	-5.3	11.47
Stage 7	-5.5	11.4
Stage 7	-5.7	11.33
Stage 7	-5.9	11.26
Stage 7	-6.1	11.18
Stage 7	-6.3	11.09
Stage 7	-6.5	11
Stage 7	-6.7	10.91
Stage 7	-6.9	10.81
Stage 7	-7.1	10.7
Stage 7	-7.3	10.59
Stage 7	-7.5	10.47
Stage 7	-7.7	10.34
Stage 7	-7.9	10.2
Stage 7	-8.1	10.06
Stage 7	-8.3	9.91
Stage 7	-8.5	9.75
Stage 7	-8.7	9.59
Stage 7	-8.9	9.42
Stage 7	-9.1	9.24
Stage 7	-9.3	9.06
Stage 7	-9.5	8.87
Stage 7	-9.7	8.67
Stage 7	-9.9	8.48
Stage 7	-10.1	8.28
Stage 7	-10.3	8.07
Stage 7	-10.5	7.86
Stage 7	-10.7	7.65
Stage 7	-10.9	7.43
Stage 7	-11.1	7.21
Stage 7	-11.3	6.99
Stage 7	-11.5	6.77
Stage 7	-11.7	6.54
Stage 7	-11.9	6.32
Stage 7	-12.1	6.1
Stage 7	-12.3	5.87
Stage 7	-12.5	5.65
Stage 7	-12.7	5.43

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	-12.9	5.22
Stage 7	-13.1	5
Stage 7	-13.3	4.79
Stage 7	-13.5	4.59
Stage 7	-13.7	4.39
Stage 7	-13.9	4.2
Stage 7	-14.1	4.01
Stage 7	-14.3	3.83
Stage 7	-14.5	3.65
Stage 7	-14.7	3.48
Stage 7	-14.9	3.32
Stage 7	-15.1	3.17
Stage 7	-15.3	3.02
Stage 7	-15.5	2.88
Stage 7	-15.7	2.74
Stage 7	-15.9	2.61
Stage 7	-16.1	2.49
Stage 7	-16.3	2.38
Stage 7	-16.5	2.27
Stage 7	-16.7	2.17
Stage 7	-16.9	2.07
Stage 7	-17.1	1.98
Stage 7	-17.3	1.9
Stage 7	-17.5	1.82
Stage 7	-17.7	1.75
Stage 7	-17.9	1.68
Stage 7	-18.1	1.62
Stage 7	-18.3	1.56
Stage 7	-18.5	1.51
Stage 7	-18.7	1.46
Stage 7	-18.9	1.42
Stage 7	-19.1	1.37
Stage 7	-19.3	1.34
Stage 7	-19.5	1.3
Stage 7	-19.7	1.27
Stage 7	-19.9	1.25
Stage 7	-20.1	1.22
Stage 7	-20.3	1.2
Stage 7	-20.5	1.18
Stage 7	-20.7	1.17
Stage 7	-20.9	1.15
Stage 7	-21.1	1.14
Stage 7	-21.3	1.13
Stage 7	-21.5	1.12
Stage 7	-21.7	1.11
Stage 7	-21.9	1.11
Stage 7	-22.1	1.1
Stage 7	-22.3	1.1
Stage 7	-22.5	1.1
Stage 7	-22.7	1.09
Stage 7	-22.9	1.09
Stage 7	-23.1	1.09
Stage 7	-23.3	1.1
Stage 7	-23.5	1.1
Stage 7	-23.7	1.1
Stage 7	-23.9	1.1
Stage 7	-24.1	1.1
Stage 7	-24.3	1.11
Stage 7	-24.5	1.11
Stage 7	-24.7	1.11
Stage 7	-24.9	1.12
Stage 7	-25.1	1.12
Stage 7	-25.3	1.13
Stage 7	-25.5	1.13
Stage 7	-25.7	1.13
Stage 7	-25.9	1.14
Stage 7	-26.1	1.14
Stage 7	-26.3	1.15
Stage 7	-26.5	1.15
Stage 7	-26.7	1.16
Stage 7	-26.9	1.16

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	-27.1	1.17
Stage 7	-27.3	1.17
Stage 7	-27.5	1.17
Stage 7	-27.7	1.18
Stage 7	-27.9	1.18
Stage 7	-28	1.19

Tabella Spostamento Nominal - LEFT Stage: Stage 8

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 8	0.5	13.26
Stage 8	0.3	13.44
Stage 8	0.1	13.62
Stage 8	-0.1	13.8
Stage 8	-0.3	13.97
Stage 8	-0.5	14.15
Stage 8	-0.7	14.33
Stage 8	-0.9	14.51
Stage 8	-1.1	14.69
Stage 8	-1.3	14.87
Stage 8	-1.5	15.05
Stage 8	-1.7	15.23
Stage 8	-1.9	15.41
Stage 8	-2.1	15.59
Stage 8	-2.3	15.77
Stage 8	-2.5	15.95
Stage 8	-2.7	16.13
Stage 8	-2.9	16.31
Stage 8	-3.1	16.5
Stage 8	-3.3	16.68
Stage 8	-3.5	16.86
Stage 8	-3.7	17.04
Stage 8	-3.9	17.22
Stage 8	-4.1	17.39
Stage 8	-4.3	17.56
Stage 8	-4.5	17.73
Stage 8	-4.7	17.9
Stage 8	-4.9	18.06
Stage 8	-5.1	18.21
Stage 8	-5.3	18.36
Stage 8	-5.5	18.5
Stage 8	-5.7	18.64
Stage 8	-5.9	18.77
Stage 8	-6.1	18.89
Stage 8	-6.3	19.01
Stage 8	-6.5	19.12
Stage 8	-6.7	19.22
Stage 8	-6.9	19.32
Stage 8	-7.1	19.41
Stage 8	-7.3	19.48
Stage 8	-7.5	19.55
Stage 8	-7.7	19.6
Stage 8	-7.9	19.64
Stage 8	-8.1	19.67
Stage 8	-8.3	19.69
Stage 8	-8.5	19.7
Stage 8	-8.7	19.69
Stage 8	-8.9	19.67
Stage 8	-9.1	19.64
Stage 8	-9.3	19.59
Stage 8	-9.5	19.53
Stage 8	-9.7	19.46
Stage 8	-9.9	19.37
Stage 8	-10.1	19.28
Stage 8	-10.3	19.16
Stage 8	-10.5	19.04
Stage 8	-10.7	18.9
Stage 8	-10.9	18.74
Stage 8	-11.1	18.57
Stage 8	-11.3	18.38
Stage 8	-11.5	18.18
Stage 8	-11.7	17.96
Stage 8	-11.9	17.72
Stage 8	-12.1	17.47
Stage 8	-12.3	17.2
Stage 8	-12.5	16.92
Stage 8	-12.7	16.62

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 8	-12.9	16.3
Stage 8	-13.1	15.98
Stage 8	-13.3	15.64
Stage 8	-13.5	15.29
Stage 8	-13.7	14.93
Stage 8	-13.9	14.56
Stage 8	-14.1	14.18
Stage 8	-14.3	13.79
Stage 8	-14.5	13.4
Stage 8	-14.7	13
Stage 8	-14.9	12.6
Stage 8	-15.1	12.19
Stage 8	-15.3	11.78
Stage 8	-15.5	11.38
Stage 8	-15.7	10.97
Stage 8	-15.9	10.57
Stage 8	-16.1	10.17
Stage 8	-16.3	9.77
Stage 8	-16.5	9.38
Stage 8	-16.7	8.99
Stage 8	-16.9	8.62
Stage 8	-17.1	8.25
Stage 8	-17.3	7.89
Stage 8	-17.5	7.53
Stage 8	-17.7	7.19
Stage 8	-17.9	6.86
Stage 8	-18.1	6.54
Stage 8	-18.3	6.23
Stage 8	-18.5	5.93
Stage 8	-18.7	5.65
Stage 8	-18.9	5.37
Stage 8	-19.1	5.11
Stage 8	-19.3	4.86
Stage 8	-19.5	4.62
Stage 8	-19.7	4.39
Stage 8	-19.9	4.18
Stage 8	-20.1	3.97
Stage 8	-20.3	3.78
Stage 8	-20.5	3.6
Stage 8	-20.7	3.42
Stage 8	-20.9	3.26
Stage 8	-21.1	3.11
Stage 8	-21.3	2.96
Stage 8	-21.5	2.83
Stage 8	-21.7	2.7
Stage 8	-21.9	2.58
Stage 8	-22.1	2.47
Stage 8	-22.3	2.37
Stage 8	-22.5	2.28
Stage 8	-22.7	2.19
Stage 8	-22.9	2.1
Stage 8	-23.1	2.03
Stage 8	-23.3	1.96
Stage 8	-23.5	1.89
Stage 8	-23.7	1.83
Stage 8	-23.9	1.77
Stage 8	-24.1	1.72
Stage 8	-24.3	1.67
Stage 8	-24.5	1.62
Stage 8	-24.7	1.58
Stage 8	-24.9	1.53
Stage 8	-25.1	1.5
Stage 8	-25.3	1.46
Stage 8	-25.5	1.42
Stage 8	-25.7	1.39
Stage 8	-25.9	1.36
Stage 8	-26.1	1.33
Stage 8	-26.3	1.3
Stage 8	-26.5	1.27
Stage 8	-26.7	1.24
Stage 8	-26.9	1.21

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 8	-27.1	1.18
Stage 8	-27.3	1.16
Stage 8	-27.5	1.13
Stage 8	-27.7	1.1
Stage 8	-27.9	1.07
Stage 8	-28	1.06

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	0.5	0	0
Stage 1	0.3	0	0
Stage 1	0.1	0	0
Stage 1	-0.1	0	0
Stage 1	-0.3	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	-12.1	0	0

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	-12.3	0	0
Stage 1	-12.5	0	0
Stage 1	-12.7	0	0
Stage 1	-12.9	0	0
Stage 1	-13.1	0	0
Stage 1	-13.3	0	0
Stage 1	-13.5	0	0
Stage 1	-13.7	0	0
Stage 1	-13.9	0	0
Stage 1	-14.1	0	0
Stage 1	-14.3	0	0
Stage 1	-14.5	0	0
Stage 1	-14.7	0	0
Stage 1	-14.9	0	0
Stage 1	-15.1	0	0
Stage 1	-15.3	0	0
Stage 1	-15.5	0	0
Stage 1	-15.7	0	0
Stage 1	-15.9	0	0
Stage 1	-16.1	0	0
Stage 1	-16.3	0	0
Stage 1	-16.5	0	0
Stage 1	-16.7	0	0
Stage 1	-16.9	0	0
Stage 1	-17.1	0	0
Stage 1	-17.3	0	0
Stage 1	-17.5	0	0
Stage 1	-17.7	0	0
Stage 1	-17.9	0	0
Stage 1	-18.1	0	0
Stage 1	-18.3	0	0
Stage 1	-18.5	0	0
Stage 1	-18.7	0	0
Stage 1	-18.9	0	0
Stage 1	-19.1	0	0
Stage 1	-19.3	0	0
Stage 1	-19.5	0	0
Stage 1	-19.7	0	0
Stage 1	-19.9	0	0
Stage 1	-20.1	0	0
Stage 1	-20.3	0	0
Stage 1	-20.5	0	0
Stage 1	-20.7	0	0
Stage 1	-20.9	0	0
Stage 1	-21.1	0	0
Stage 1	-21.3	0	0
Stage 1	-21.5	0	0
Stage 1	-21.7	0	0
Stage 1	-21.9	0	0
Stage 1	-22.1	0	0
Stage 1	-22.3	0	0
Stage 1	-22.5	0	0
Stage 1	-22.7	0	0
Stage 1	-22.9	0	0
Stage 1	-23.1	0	0
Stage 1	-23.3	0	0
Stage 1	-23.5	0	0
Stage 1	-23.7	0	0
Stage 1	-23.9	0	0
Stage 1	-24.1	0	0
Stage 1	-24.3	0	0
Stage 1	-24.5	0	0
Stage 1	-24.7	0	0
Stage 1	-24.9	0	0
Stage 1	-25.1	0	0
Stage 1	-25.3	0	0
Stage 1	-25.5	0	0
Stage 1	-25.7	0	0
Stage 1	-25.9	0	0
Stage 1	-26.1	0	0
Stage 1	-26.3	0	0

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 1	-26.5	0	0
Stage 1	-26.7	0	0
Stage 1	-26.9	0	0
Stage 1	-27.1	0	0
Stage 1	-27.3	0	0
Stage 1	-27.5	0	0
Stage 1	-27.7	0	0
Stage 1	-27.9	0	0
Stage 1	-28	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	0.5	0	0
Stage 2	0.3	0	0
Stage 2	0.3	0	0
Stage 2	0.1	0	0
Stage 2	0.1	0	0
Stage 2	-0.1	0	0
Stage 2	-0.1	0	0
Stage 2	-0.3	0	0
Stage 2	-0.3	0	0
Stage 2	-0.5	0	0
Stage 2	-0.5	0	0
Stage 2	-0.7	-0.06	-0.31
Stage 2	-0.9	-0.25	-0.93
Stage 2	-1.1	-0.62	-1.87
Stage 2	-1.3	-1.25	-3.12
Stage 2	-1.5	-2.18	-4.68
Stage 2	-1.7	-3.49	-6.55
Stage 2	-1.9	-5.24	-8.73
Stage 2	-2.1	-7.48	-11.22
Stage 2	-2.3	-10.29	-14.03
Stage 2	-2.5	-13.72	-17.15
Stage 2	-2.7	-17.83	-20.58
Stage 2	-2.9	-22.7	-24.33
Stage 2	-3.1	-28.38	-28.38
Stage 2	-3.3	-34.92	-32.75
Stage 2	-3.5	-42.41	-37.43
Stage 2	-3.7	-50.89	-42.42
Stage 2	-3.9	-60.44	-47.72
Stage 2	-4.1	-70.37	-49.65
Stage 2	-4.3	-80.2	-49.16
Stage 2	-4.5	-89.45	-46.26
Stage 2	-4.7	-97.63	-40.9
Stage 2	-4.9	-104.41	-33.9
Stage 2	-5.1	-109.9	-27.43
Stage 2	-5.3	-114.19	-21.48
Stage 2	-5.5	-117.4	-16.01
Stage 2	-5.7	-119.6	-11.02
Stage 2	-5.9	-120.89	-6.47
Stage 2	-6.1	-121.36	-2.35
Stage 2	-6.3	-121.09	1.36
Stage 2	-6.5	-120.16	4.68
Stage 2	-6.7	-118.63	7.65
Stage 2	-6.9	-116.57	10.28
Stage 2	-7.1	-114.05	12.59
Stage 2	-7.3	-111.13	14.6
Stage 2	-7.5	-107.87	16.33
Stage 2	-7.7	-104.31	17.81
Stage 2	-7.9	-100.5	19.05
Stage 2	-8.1	-96.48	20.07
Stage 2	-8.3	-92.3	20.89
Stage 2	-8.5	-88	21.54
Stage 2	-8.7	-83.6	22
Stage 2	-8.9	-79.14	22.3
Stage 2	-9.1	-74.65	22.45
Stage 2	-9.3	-70.15	22.47
Stage 2	-9.5	-65.68	22.39
Stage 2	-9.7	-61.23	22.22
Stage 2	-9.9	-56.87	21.82
Stage 2	-10.1	-52.61	21.31
Stage 2	-10.3	-48.46	20.72
Stage 2	-10.5	-44.45	20.06
Stage 2	-10.7	-40.58	19.33
Stage 2	-10.9	-36.88	18.55
Stage 2	-11.1	-33.33	17.72
Stage 2	-11.3	-29.96	16.86
Stage 2	-11.5	-26.76	15.98
Stage 2	-11.7	-23.75	15.09

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-11.9	-20.91	14.18
Stage 2	-12.1	-18.25	13.29
Stage 2	-12.3	-15.77	12.39
Stage 2	-12.5	-13.47	11.52
Stage 2	-12.7	-11.34	10.66
Stage 2	-12.9	-9.37	9.82
Stage 2	-13.1	-7.57	9.01
Stage 2	-13.3	-5.92	8.23
Stage 2	-13.5	-4.43	7.48
Stage 2	-13.7	-3.08	6.77
Stage 2	-13.9	-1.86	6.08
Stage 2	-14.1	-0.77	5.44
Stage 2	-14.3	0.19	4.83
Stage 2	-14.5	1.04	4.25
Stage 2	-14.7	1.79	3.71
Stage 2	-14.9	2.43	3.21
Stage 2	-15.1	2.98	2.75
Stage 2	-15.3	3.44	2.31
Stage 2	-15.5	3.82	1.91
Stage 2	-15.7	4.13	1.55
Stage 2	-15.9	4.38	1.21
Stage 2	-16.1	4.56	0.91
Stage 2	-16.3	4.69	0.64
Stage 2	-16.5	4.76	0.39
Stage 2	-16.7	4.8	0.17
Stage 2	-16.9	4.79	-0.03
Stage 2	-17.1	4.75	-0.2
Stage 2	-17.3	4.68	-0.36
Stage 2	-17.5	4.58	-0.49
Stage 2	-17.7	4.46	-0.6
Stage 2	-17.9	4.32	-0.69
Stage 2	-18.1	4.17	-0.77
Stage 2	-18.3	4	-0.84
Stage 2	-18.5	3.82	-0.89
Stage 2	-18.7	3.64	-0.93
Stage 2	-18.9	3.45	-0.95
Stage 2	-19.1	3.25	-0.97
Stage 2	-19.3	3.06	-0.97
Stage 2	-19.5	2.87	-0.97
Stage 2	-19.7	2.68	-0.95
Stage 2	-19.9	2.49	-0.94
Stage 2	-20.1	2.31	-0.92
Stage 2	-20.3	2.13	-0.89
Stage 2	-20.5	1.96	-0.86
Stage 2	-20.7	1.79	-0.83
Stage 2	-20.9	1.63	-0.8
Stage 2	-21.1	1.48	-0.76
Stage 2	-21.3	1.33	-0.72
Stage 2	-21.5	1.2	-0.68
Stage 2	-21.7	1.07	-0.64
Stage 2	-21.9	0.95	-0.6
Stage 2	-22.1	0.84	-0.56
Stage 2	-22.3	0.73	-0.52
Stage 2	-22.5	0.64	-0.48
Stage 2	-22.7	0.55	-0.44
Stage 2	-22.9	0.47	-0.4
Stage 2	-23.1	0.4	-0.36
Stage 2	-23.3	0.33	-0.33
Stage 2	-23.5	0.27	-0.29
Stage 2	-23.7	0.22	-0.26
Stage 2	-23.9	0.17	-0.23
Stage 2	-24.1	0.13	-0.2
Stage 2	-24.3	0.1	-0.17
Stage 2	-24.5	0.07	-0.15
Stage 2	-24.7	0.05	-0.12
Stage 2	-24.9	0.03	-0.1
Stage 2	-25.1	0.01	-0.08
Stage 2	-25.3	0	-0.06
Stage 2	-25.5	-0.01	-0.05
Stage 2	-25.7	-0.02	-0.03
Stage 2	-25.9	-0.02	-0.02

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 2	-26.1	-0.02	-0.01
Stage 2	-26.3	-0.02	0
Stage 2	-26.5	-0.02	0.01
Stage 2	-26.7	-0.02	0.01
Stage 2	-26.9	-0.02	0.02
Stage 2	-27.1	-0.01	0.02
Stage 2	-27.3	-0.01	0.02
Stage 2	-27.5	0	0.02
Stage 2	-27.7	0	0.01
Stage 2	-27.9	0	0.01
Stage 2	-28	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	0.5	0	-1.2
Stage 3	0.3	-0.24	-1.2
Stage 3	0.1	-0.99	-3.76
Stage 3	-0.1	-2.28	-6.47
Stage 3	-0.3	-4.15	-9.34
Stage 3	-0.5	-6.63	-12.37
Stage 3	-0.7	-9.77	-15.74
Stage 3	-0.9	-13.67	-19.47
Stage 3	-1.1	-18.38	-23.55
Stage 3	-1.3	-23.97	-27.98
Stage 3	-1.5	-30.53	-32.75
Stage 3	-1.7	-38.1	-37.87
Stage 3	-1.9	-46.77	-43.34
Stage 3	-2.1	-56.6	-49.14
Stage 3	-2.3	-67.67	-55.36
Stage 3	-2.5	-80.04	-61.84
Stage 3	-2.7	-93.75	-68.56
Stage 3	-2.9	-108.85	-75.53
Stage 3	-3.1	-101.91	34.74
Stage 3	-3.3	-96.44	27.32
Stage 3	-3.5	-92.51	19.68
Stage 3	-3.7	-90.14	11.84
Stage 3	-3.9	-89.38	3.8
Stage 3	-4.1	-89.94	-2.79
Stage 3	-4.3	-91.29	-6.75
Stage 3	-4.5	-92.91	-8.09
Stage 3	-4.7	-94.26	-6.79
Stage 3	-4.9	-94.98	-3.58
Stage 3	-5.1	-95.12	-0.68
Stage 3	-5.3	-94.73	1.93
Stage 3	-5.5	-93.88	4.27
Stage 3	-5.7	-92.61	6.35
Stage 3	-5.9	-90.97	8.18
Stage 3	-6.1	-89.01	9.79
Stage 3	-6.3	-86.77	11.19
Stage 3	-6.5	-84.3	12.39
Stage 3	-6.7	-81.61	13.41
Stage 3	-6.9	-78.76	14.26
Stage 3	-7.1	-75.77	14.96
Stage 3	-7.3	-72.66	15.52
Stage 3	-7.5	-69.47	15.95
Stage 3	-7.7	-66.22	16.26
Stage 3	-7.9	-62.93	16.47
Stage 3	-8.1	-59.61	16.58
Stage 3	-8.3	-56.29	16.61
Stage 3	-8.5	-52.97	16.57
Stage 3	-8.7	-49.69	16.44
Stage 3	-8.9	-46.43	16.26
Stage 3	-9.1	-43.22	16.04
Stage 3	-9.3	-40.07	15.78
Stage 3	-9.5	-36.97	15.49
Stage 3	-9.7	-33.94	15.16
Stage 3	-9.9	-31.03	14.55
Stage 3	-10.1	-28.24	13.92
Stage 3	-10.3	-25.59	13.25
Stage 3	-10.5	-23.08	12.58
Stage 3	-10.7	-20.7	11.9
Stage 3	-10.9	-18.45	11.22
Stage 3	-11.1	-16.34	10.55
Stage 3	-11.3	-14.37	9.88
Stage 3	-11.5	-12.52	9.23
Stage 3	-11.7	-10.8	8.58
Stage 3	-11.9	-9.21	7.96
Stage 3	-12.1	-7.74	7.35
Stage 3	-12.3	-6.39	6.76
Stage 3	-12.5	-5.15	6.2
Stage 3	-12.7	-4.02	5.66

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-12.9	-2.99	5.14
Stage 3	-13.1	-2.06	4.65
Stage 3	-13.3	-1.22	4.19
Stage 3	-13.5	-0.47	3.75
Stage 3	-13.7	0.19	3.33
Stage 3	-13.9	0.78	2.94
Stage 3	-14.1	1.3	2.58
Stage 3	-14.3	1.74	2.24
Stage 3	-14.5	2.13	1.92
Stage 3	-14.7	2.45	1.63
Stage 3	-14.9	2.72	1.36
Stage 3	-15.1	2.95	1.11
Stage 3	-15.3	3.12	0.88
Stage 3	-15.5	3.26	0.67
Stage 3	-15.7	3.35	0.49
Stage 3	-15.9	3.42	0.32
Stage 3	-16.1	3.45	0.16
Stage 3	-16.3	3.45	0.03
Stage 3	-16.5	3.44	-0.09
Stage 3	-16.7	3.4	-0.2
Stage 3	-16.9	3.34	-0.29
Stage 3	-17.1	3.26	-0.38
Stage 3	-17.3	3.17	-0.44
Stage 3	-17.5	3.07	-0.5
Stage 3	-17.7	2.96	-0.55
Stage 3	-17.9	2.84	-0.59
Stage 3	-18.1	2.72	-0.62
Stage 3	-18.3	2.59	-0.64
Stage 3	-18.5	2.46	-0.66
Stage 3	-18.7	2.32	-0.67
Stage 3	-18.9	2.19	-0.67
Stage 3	-19.1	2.06	-0.67
Stage 3	-19.3	1.92	-0.66
Stage 3	-19.5	1.79	-0.65
Stage 3	-19.7	1.67	-0.64
Stage 3	-19.9	1.54	-0.62
Stage 3	-20.1	1.42	-0.6
Stage 3	-20.3	1.31	-0.58
Stage 3	-20.5	1.2	-0.55
Stage 3	-20.7	1.09	-0.53
Stage 3	-20.9	0.99	-0.5
Stage 3	-21.1	0.9	-0.48
Stage 3	-21.3	0.8	-0.45
Stage 3	-21.5	0.72	-0.43
Stage 3	-21.7	0.64	-0.4
Stage 3	-21.9	0.57	-0.37
Stage 3	-22.1	0.5	-0.35
Stage 3	-22.3	0.43	-0.32
Stage 3	-22.5	0.37	-0.29
Stage 3	-22.7	0.32	-0.27
Stage 3	-22.9	0.27	-0.24
Stage 3	-23.1	0.23	-0.22
Stage 3	-23.3	0.19	-0.2
Stage 3	-23.5	0.15	-0.18
Stage 3	-23.7	0.12	-0.16
Stage 3	-23.9	0.09	-0.14
Stage 3	-24.1	0.07	-0.12
Stage 3	-24.3	0.05	-0.1
Stage 3	-24.5	0.03	-0.09
Stage 3	-24.7	0.02	-0.07
Stage 3	-24.9	0.01	-0.06
Stage 3	-25.1	0	-0.04
Stage 3	-25.3	-0.01	-0.03
Stage 3	-25.5	-0.01	-0.02
Stage 3	-25.7	-0.02	-0.01
Stage 3	-25.9	-0.02	-0.01
Stage 3	-26.1	-0.02	0
Stage 3	-26.3	-0.02	0
Stage 3	-26.5	-0.02	0.01
Stage 3	-26.7	-0.01	0.01
Stage 3	-26.9	-0.01	0.01

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 3	-27.1	-0.01	0.01
Stage 3	-27.3	0	0.01
Stage 3	-27.5	0	0.01
Stage 3	-27.7	0	0.01
Stage 3	-27.9	0	0
Stage 3	-28	0	0

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	0.5	0	0
Stage 4	0.3	0	0
Stage 4	0.3	0	0
Stage 4	0.1	0	0
Stage 4	0.1	0	0
Stage 4	-0.1	0	0
Stage 4	-0.1	0	0
Stage 4	-0.3	0	0
Stage 4	-0.3	0	0
Stage 4	-0.5	0	0
Stage 4	-0.5	0	0
Stage 4	-0.7	-0.06	-0.31
Stage 4	-0.9	-0.25	-0.93
Stage 4	-1.1	-0.62	-1.87
Stage 4	-1.3	-1.25	-3.12
Stage 4	-1.5	-2.18	-4.68
Stage 4	-1.7	-3.49	-6.55
Stage 4	-1.9	-5.24	-8.73
Stage 4	-2.1	-7.48	-11.22
Stage 4	-2.3	-10.29	-14.03
Stage 4	-2.5	-13.72	-17.15
Stage 4	-2.7	-17.83	-20.58
Stage 4	-2.9	-22.7	-24.33
Stage 4	-3.1	-2.2	102.52
Stage 4	-3.3	17.43	98.15
Stage 4	-3.5	36.13	93.47
Stage 4	-3.7	53.82	88.48
Stage 4	-3.9	70.46	83.17
Stage 4	-4.1	85.97	77.56
Stage 4	-4.3	100.3	71.63
Stage 4	-4.5	113.37	65.39
Stage 4	-4.7	125.14	58.84
Stage 4	-4.9	135.54	51.97
Stage 4	-5.1	144.49	44.8
Stage 4	-5.3	151.96	37.31
Stage 4	-5.5	157.86	29.51
Stage 4	-5.7	162.09	21.16
Stage 4	-5.9	164.54	12.27
Stage 4	-6.1	165.11	2.83
Stage 4	-6.3	163.68	-7.15
Stage 4	-6.5	160.15	-17.67
Stage 4	-6.7	154.4	-28.74
Stage 4	-6.9	146.33	-40.36
Stage 4	-7.1	135.82	-52.52
Stage 4	-7.3	122.78	-65.23
Stage 4	-7.5	107.08	-78.48
Stage 4	-7.7	89.71	-86.86
Stage 4	-7.9	70.89	-94.08
Stage 4	-8.1	50.87	-100.13
Stage 4	-8.3	29.87	-105
Stage 4	-8.5	8.13	-108.7
Stage 4	-8.7	-14.12	-111.23
Stage 4	-8.9	-36.63	-112.58
Stage 4	-9.1	-59.19	-112.77
Stage 4	-9.3	-81.54	-111.78
Stage 4	-9.5	-103.47	-109.62
Stage 4	-9.7	-124.72	-106.29
Stage 4	-9.9	-143.52	-93.99
Stage 4	-10.1	-159.91	-81.92
Stage 4	-10.3	-173.92	-70.09
Stage 4	-10.5	-185.62	-58.48
Stage 4	-10.7	-195.05	-47.13
Stage 4	-10.9	-202.38	-36.69
Stage 4	-11.1	-207.81	-27.11
Stage 4	-11.3	-211.48	-18.38
Stage 4	-11.5	-213.57	-10.44
Stage 4	-11.7	-214.22	-3.27

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-11.9	-213.59	3.19
Stage 4	-12.1	-211.79	8.96
Stage 4	-12.3	-208.98	14.08
Stage 4	-12.5	-205.26	18.6
Stage 4	-12.7	-200.75	22.55
Stage 4	-12.9	-195.56	25.96
Stage 4	-13.1	-189.78	28.88
Stage 4	-13.3	-183.5	31.38
Stage 4	-13.5	-176.82	33.43
Stage 4	-13.7	-169.8	35.07
Stage 4	-13.9	-162.54	36.33
Stage 4	-14.1	-155.09	37.24
Stage 4	-14.3	-147.52	37.84
Stage 4	-14.5	-139.89	38.16
Stage 4	-14.7	-132.24	38.21
Stage 4	-14.9	-124.64	38.04
Stage 4	-15.1	-117.1	37.66
Stage 4	-15.3	-109.68	37.1
Stage 4	-15.5	-102.41	36.38
Stage 4	-15.7	-95.3	35.53
Stage 4	-15.9	-88.39	34.55
Stage 4	-16.1	-81.7	33.48
Stage 4	-16.3	-75.23	32.32
Stage 4	-16.5	-69.02	31.09
Stage 4	-16.7	-63.05	29.8
Stage 4	-16.9	-57.36	28.48
Stage 4	-17.1	-51.93	27.13
Stage 4	-17.3	-46.78	25.76
Stage 4	-17.5	-41.91	24.38
Stage 4	-17.7	-37.31	23
Stage 4	-17.9	-32.98	21.63
Stage 4	-18.1	-28.93	20.27
Stage 4	-18.3	-25.14	18.93
Stage 4	-18.5	-21.62	17.62
Stage 4	-18.7	-18.35	16.35
Stage 4	-18.9	-15.33	15.11
Stage 4	-19.1	-12.54	13.9
Stage 4	-19.3	-10	12.75
Stage 4	-19.5	-7.67	11.63
Stage 4	-19.7	-5.56	10.56
Stage 4	-19.9	-3.65	9.54
Stage 4	-20.1	-1.94	8.57
Stage 4	-20.3	-0.41	7.64
Stage 4	-20.5	0.95	6.77
Stage 4	-20.7	2.13	5.94
Stage 4	-20.9	3.16	5.16
Stage 4	-21.1	4.05	4.43
Stage 4	-21.3	4.8	3.74
Stage 4	-21.5	5.42	3.11
Stage 4	-21.7	5.92	2.51
Stage 4	-21.9	6.32	1.96
Stage 4	-22.1	6.61	1.46
Stage 4	-22.3	6.81	0.99
Stage 4	-22.5	6.92	0.57
Stage 4	-22.7	6.96	0.18
Stage 4	-22.9	6.92	-0.17
Stage 4	-23.1	6.83	-0.48
Stage 4	-23.3	6.68	-0.76
Stage 4	-23.5	6.48	-1
Stage 4	-23.7	6.23	-1.22
Stage 4	-23.9	5.95	-1.4
Stage 4	-24.1	5.64	-1.56
Stage 4	-24.3	5.3	-1.68
Stage 4	-24.5	4.95	-1.79
Stage 4	-24.7	4.57	-1.86
Stage 4	-24.9	4.19	-1.92
Stage 4	-25.1	3.8	-1.95
Stage 4	-25.3	3.41	-1.95
Stage 4	-25.5	3.02	-1.94
Stage 4	-25.7	2.64	-1.91
Stage 4	-25.9	2.27	-1.85

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 4	-26.1	1.91	-1.78
Stage 4	-26.3	1.58	-1.68
Stage 4	-26.5	1.26	-1.57
Stage 4	-26.7	0.98	-1.44
Stage 4	-26.9	0.72	-1.29
Stage 4	-27.1	0.49	-1.12
Stage 4	-27.3	0.31	-0.93
Stage 4	-27.5	0.16	-0.73
Stage 4	-27.7	0.06	-0.51
Stage 4	-27.9	0.01	-0.26
Stage 4	-28	0	-0.07

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	0.5	0	-0.19
Stage 5	0.3	-0.04	-0.19
Stage 5	0.1	-0.17	-0.64
Stage 5	-0.1	-0.4	-1.16
Stage 5	-0.3	-0.75	-1.76
Stage 5	-0.5	-1.23	-2.42
Stage 5	-0.7	-1.93	-3.46
Stage 5	-0.9	-2.91	-4.89
Stage 5	-1.1	-4.25	-6.7
Stage 5	-1.3	-6.02	-8.89
Stage 5	-1.5	-8.32	-11.47
Stage 5	-1.7	-11.2	-14.42
Stage 5	-1.9	-14.75	-17.76
Stage 5	-2.1	-19.05	-21.48
Stage 5	-2.3	-24.16	-25.57
Stage 5	-2.5	-30.17	-30.05
Stage 5	-2.7	-37.15	-34.9
Stage 5	-2.9	-45.18	-40.13
Stage 5	-3.1	-28.41	83.85
Stage 5	-3.3	-12.84	77.87
Stage 5	-3.5	1.47	71.52
Stage 5	-3.7	14.42	64.79
Stage 5	-3.9	25.96	57.7
Stage 5	-4.1	36.01	50.24
Stage 5	-4.3	44.5	42.42
Stage 5	-4.5	51.35	34.24
Stage 5	-4.7	56.49	25.71
Stage 5	-4.9	59.85	16.82
Stage 5	-5.1	61.37	7.59
Stage 5	-5.3	60.98	-1.98
Stage 5	-5.5	58.6	-11.88
Stage 5	-5.7	54.13	-22.35
Stage 5	-5.9	47.46	-33.37
Stage 5	-6.1	38.47	-44.94
Stage 5	-6.3	27.06	-57.05
Stage 5	-6.5	36.61	47.77
Stage 5	-6.7	43.53	34.61
Stage 5	-6.9	47.72	20.94
Stage 5	-7.1	49.07	6.76
Stage 5	-7.3	47.49	-7.92
Stage 5	-7.5	42.87	-23.09
Stage 5	-7.7	35.91	-34.79
Stage 5	-7.9	26.87	-45.21
Stage 5	-8.1	16	-54.35
Stage 5	-8.3	3.56	-62.18
Stage 5	-8.5	-10.18	-68.72
Stage 5	-8.7	-24.97	-73.95
Stage 5	-8.9	-40.55	-77.89
Stage 5	-9.1	-56.65	-80.51
Stage 5	-9.3	-73.02	-81.83
Stage 5	-9.5	-89.38	-81.84
Stage 5	-9.7	-105.49	-80.55
Stage 5	-9.9	-119.82	-71.64
Stage 5	-10.1	-132.37	-62.74
Stage 5	-10.3	-143.14	-53.85
Stage 5	-10.5	-152.13	-44.96
Stage 5	-10.7	-159.36	-36.12
Stage 5	-10.9	-164.95	-27.98
Stage 5	-11.1	-169.06	-20.52
Stage 5	-11.3	-171.8	-13.7
Stage 5	-11.5	-173.3	-7.51
Stage 5	-11.7	-173.68	-1.9
Stage 5	-11.9	-173.05	3.14
Stage 5	-12.1	-171.52	7.66
Stage 5	-12.3	-169.19	11.67
Stage 5	-12.5	-166.14	15.21
Stage 5	-12.7	-162.48	18.31

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-12.9	-158.28	21
Stage 5	-13.1	-153.62	23.3
Stage 5	-13.3	-148.57	25.25
Stage 5	-13.5	-143.2	26.85
Stage 5	-13.7	-137.57	28.16
Stage 5	-13.9	-131.74	29.16
Stage 5	-14.1	-125.76	29.89
Stage 5	-14.3	-119.68	30.38
Stage 5	-14.5	-113.56	30.63
Stage 5	-14.7	-107.42	30.68
Stage 5	-14.9	-101.31	30.55
Stage 5	-15.1	-95.26	30.26
Stage 5	-15.3	-89.29	29.82
Stage 5	-15.5	-83.44	29.26
Stage 5	-15.7	-77.72	28.58
Stage 5	-15.9	-72.16	27.81
Stage 5	-16.1	-66.77	26.96
Stage 5	-16.3	-61.56	26.05
Stage 5	-16.5	-56.54	25.07
Stage 5	-16.7	-51.73	24.06
Stage 5	-16.9	-47.13	23
Stage 5	-17.1	-42.75	21.93
Stage 5	-17.3	-38.58	20.84
Stage 5	-17.5	-34.63	19.74
Stage 5	-17.7	-30.9	18.64
Stage 5	-17.9	-27.39	17.54
Stage 5	-18.1	-24.1	16.46
Stage 5	-18.3	-21.02	15.39
Stage 5	-18.5	-18.15	14.34
Stage 5	-18.7	-15.49	13.32
Stage 5	-18.9	-13.03	12.32
Stage 5	-19.1	-10.75	11.36
Stage 5	-19.3	-8.67	10.43
Stage 5	-19.5	-6.76	9.53
Stage 5	-19.7	-5.03	8.67
Stage 5	-19.9	-3.46	7.85
Stage 5	-20.1	-2.05	7.06
Stage 5	-20.3	-0.78	6.31
Stage 5	-20.5	0.34	5.61
Stage 5	-20.7	1.33	4.94
Stage 5	-20.9	2.19	4.3
Stage 5	-21.1	2.93	3.71
Stage 5	-21.3	3.56	3.15
Stage 5	-21.5	4.09	2.63
Stage 5	-21.7	4.52	2.15
Stage 5	-21.9	4.86	1.7
Stage 5	-22.1	5.12	1.29
Stage 5	-22.3	5.3	0.91
Stage 5	-22.5	5.41	0.56
Stage 5	-22.7	5.46	0.24
Stage 5	-22.9	5.45	-0.04
Stage 5	-23.1	5.39	-0.3
Stage 5	-23.3	5.28	-0.53
Stage 5	-23.5	5.14	-0.74
Stage 5	-23.7	4.95	-0.92
Stage 5	-23.9	4.74	-1.07
Stage 5	-24.1	4.5	-1.2
Stage 5	-24.3	4.24	-1.31
Stage 5	-24.5	3.96	-1.4
Stage 5	-24.7	3.66	-1.47
Stage 5	-24.9	3.36	-1.52
Stage 5	-25.1	3.05	-1.54
Stage 5	-25.3	2.74	-1.55
Stage 5	-25.5	2.43	-1.55
Stage 5	-25.7	2.13	-1.52
Stage 5	-25.9	1.83	-1.48
Stage 5	-26.1	1.54	-1.43
Stage 5	-26.3	1.27	-1.35
Stage 5	-26.5	1.02	-1.26
Stage 5	-26.7	0.79	-1.16
Stage 5	-26.9	0.58	-1.04

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 5	-27.1	0.4	-0.91
Stage 5	-27.3	0.25	-0.76
Stage 5	-27.5	0.13	-0.59
Stage 5	-27.7	0.05	-0.41
Stage 5	-27.9	0.01	-0.21
Stage 5	-28	0	-0.05

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	0.5	0	0
Stage 6	0.3	0	0
Stage 6	0.3	0	0
Stage 6	0.1	0	0
Stage 6	0.1	0	0
Stage 6	-0.1	0	0
Stage 6	-0.1	0	0
Stage 6	-0.3	0	0
Stage 6	-0.3	0	0
Stage 6	-0.5	0	0
Stage 6	-0.5	0	0
Stage 6	-0.7	-0.06	-0.31
Stage 6	-0.9	-0.25	-0.93
Stage 6	-1.1	-0.62	-1.87
Stage 6	-1.3	-1.25	-3.12
Stage 6	-1.5	-2.18	-4.68
Stage 6	-1.7	-3.49	-6.55
Stage 6	-1.9	-5.24	-8.73
Stage 6	-2.1	-7.48	-11.22
Stage 6	-2.3	-10.29	-14.03
Stage 6	-2.5	-13.72	-17.15
Stage 6	-2.7	-17.83	-20.58
Stage 6	-2.9	-22.7	-24.33
Stage 6	-3.1	-0.77	109.64
Stage 6	-3.3	20.28	105.27
Stage 6	-3.5	40.4	100.59
Stage 6	-3.7	59.52	95.6
Stage 6	-3.9	77.58	90.29
Stage 6	-4.1	94.51	84.68
Stage 6	-4.3	110.26	78.75
Stage 6	-4.5	124.76	72.51
Stage 6	-4.7	137.96	65.96
Stage 6	-4.9	149.77	59.09
Stage 6	-5.1	160.16	51.92
Stage 6	-5.3	169.04	44.43
Stage 6	-5.5	176.37	36.63
Stage 6	-5.7	182.07	28.51
Stage 6	-5.9	186.09	20.09
Stage 6	-6.1	188.36	11.35
Stage 6	-6.3	188.82	2.3
Stage 6	-6.5	213.58	123.79
Stage 6	-6.7	236.4	114.12
Stage 6	-6.9	257.23	104.13
Stage 6	-7.1	276	93.84
Stage 6	-7.3	292.64	83.22
Stage 6	-7.5	307.1	72.3
Stage 6	-7.7	319.31	61.06
Stage 6	-7.9	329.22	49.52
Stage 6	-8.1	336.75	37.66
Stage 6	-8.3	341.85	25.48
Stage 6	-8.5	344.45	13
Stage 6	-8.7	344.49	0.2
Stage 6	-8.9	341.9	-12.91
Stage 6	-9.1	336.59	-26.56
Stage 6	-9.3	328.44	-40.76
Stage 6	-9.5	317.34	-55.5
Stage 6	-9.7	303.18	-70.78
Stage 6	-9.9	286.36	-84.13
Stage 6	-10.1	266.75	-98.03
Stage 6	-10.3	244.25	-112.49
Stage 6	-10.5	218.75	-127.51
Stage 6	-10.7	190.14	-143.09
Stage 6	-10.9	160.5	-148.16
Stage 6	-11.1	130.12	-151.94
Stage 6	-11.3	99.23	-154.43
Stage 6	-11.5	68.1	-155.64
Stage 6	-11.7	36.99	-155.56

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-11.9	6.15	-154.2
Stage 6	-12.1	-24.16	-151.55
Stage 6	-12.3	-53.68	-147.61
Stage 6	-12.5	-82.16	-142.39
Stage 6	-12.7	-109.34	-135.88
Stage 6	-12.9	-134.96	-128.09
Stage 6	-13.1	-158.76	-119.01
Stage 6	-13.3	-180.49	-108.64
Stage 6	-13.5	-199.88	-96.99
Stage 6	-13.7	-216.78	-84.51
Stage 6	-13.9	-231.24	-72.26
Stage 6	-14.1	-243.28	-60.23
Stage 6	-14.3	-252.97	-48.41
Stage 6	-14.5	-260.45	-37.44
Stage 6	-14.7	-265.93	-27.36
Stage 6	-14.9	-269.55	-18.14
Stage 6	-15.1	-271.5	-9.74
Stage 6	-15.3	-271.93	-2.12
Stage 6	-15.5	-270.98	4.75
Stage 6	-15.7	-268.79	10.92
Stage 6	-15.9	-265.5	16.43
Stage 6	-16.1	-261.24	21.32
Stage 6	-16.3	-256.12	25.62
Stage 6	-16.5	-250.24	29.36
Stage 6	-16.7	-243.73	32.59
Stage 6	-16.9	-236.66	35.35
Stage 6	-17.1	-229.13	37.65
Stage 6	-17.3	-221.22	39.54
Stage 6	-17.5	-213.01	41.04
Stage 6	-17.7	-204.57	42.2
Stage 6	-17.9	-195.97	43.02
Stage 6	-18.1	-187.26	43.55
Stage 6	-18.3	-178.49	43.81
Stage 6	-18.5	-169.73	43.82
Stage 6	-18.7	-161.01	43.61
Stage 6	-18.9	-152.37	43.2
Stage 6	-19.1	-143.85	42.61
Stage 6	-19.3	-135.47	41.87
Stage 6	-19.5	-127.27	40.99
Stage 6	-19.7	-119.28	39.99
Stage 6	-19.9	-111.5	38.88
Stage 6	-20.1	-103.97	37.68
Stage 6	-20.3	-96.68	36.41
Stage 6	-20.5	-89.67	35.07
Stage 6	-20.7	-82.93	33.68
Stage 6	-20.9	-76.48	32.25
Stage 6	-21.1	-70.32	30.79
Stage 6	-21.3	-64.46	29.32
Stage 6	-21.5	-58.89	27.83
Stage 6	-21.7	-53.63	26.34
Stage 6	-21.9	-48.65	24.85
Stage 6	-22.1	-43.98	23.38
Stage 6	-22.3	-39.59	21.93
Stage 6	-22.5	-35.49	20.5
Stage 6	-22.7	-31.67	19.1
Stage 6	-22.9	-28.13	17.73
Stage 6	-23.1	-24.85	16.4
Stage 6	-23.3	-21.83	15.11
Stage 6	-23.5	-19.05	13.86
Stage 6	-23.7	-16.52	12.66
Stage 6	-23.9	-14.22	11.5
Stage 6	-24.1	-12.14	10.4
Stage 6	-24.3	-10.28	9.34
Stage 6	-24.5	-8.61	8.34
Stage 6	-24.7	-7.13	7.4
Stage 6	-24.9	-5.83	6.5
Stage 6	-25.1	-4.69	5.67
Stage 6	-25.3	-3.72	4.89
Stage 6	-25.5	-2.88	4.16
Stage 6	-25.7	-2.18	3.5
Stage 6	-25.9	-1.61	2.89

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 6	-26.1	-1.14	2.34
Stage 6	-26.3	-0.77	1.84
Stage 6	-26.5	-0.49	1.4
Stage 6	-26.7	-0.29	1.03
Stage 6	-26.9	-0.14	0.7
Stage 6	-27.1	-0.06	0.44
Stage 6	-27.3	-0.01	0.24
Stage 6	-27.5	0.01	0.09
Stage 6	-27.7	0.01	0
Stage 6	-27.9	0	-0.03
Stage 6	-28	0	-0.01

Tabella Risultati Paratia Nominal - Stage: Stage 7

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	0.5	0	0
Stage 7	0.3	0	0
Stage 7	0.3	0	0
Stage 7	0.1	0	0
Stage 7	0.1	0	0
Stage 7	-0.1	0	0
Stage 7	-0.1	0	0
Stage 7	-0.3	0	0
Stage 7	-0.3	0	0
Stage 7	-0.5	0	0
Stage 7	-0.5	0	0
Stage 7	-0.7	-0.06	-0.31
Stage 7	-0.9	-0.25	-0.93
Stage 7	-1.1	-0.6	-1.78
Stage 7	-1.3	-1.2	-3
Stage 7	-1.5	-2.12	-4.6
Stage 7	-1.7	-3.44	-6.58
Stage 7	-1.9	-5.23	-8.94
Stage 7	-2.1	-7.56	-11.67
Stage 7	-2.3	-10.52	-14.79
Stage 7	-2.5	-14.18	-18.29
Stage 7	-2.7	-18.61	-22.16
Stage 7	-2.9	-23.89	-26.41
Stage 7	-3.1	-2.64	106.27
Stage 7	-3.3	17.62	101.26
Stage 7	-3.5	36.79	95.87
Stage 7	-3.7	54.81	90.1
Stage 7	-3.9	71.6	83.95
Stage 7	-4.1	87.09	77.43
Stage 7	-4.3	101.19	70.52
Stage 7	-4.5	113.84	63.24
Stage 7	-4.7	124.96	55.58
Stage 7	-4.9	134.46	47.54
Stage 7	-5.1	142.29	39.13
Stage 7	-5.3	148.36	30.34
Stage 7	-5.5	152.6	21.18
Stage 7	-5.7	154.93	11.65
Stage 7	-5.9	155.27	1.74
Stage 7	-6.1	153.56	-8.54
Stage 7	-6.3	149.73	-19.19
Stage 7	-6.5	169.42	98.49
Stage 7	-6.7	186.84	87.11
Stage 7	-6.9	201.92	75.36
Stage 7	-7.1	214.57	63.25
Stage 7	-7.3	224.72	50.78
Stage 7	-7.5	232.31	37.95
Stage 7	-7.7	237.27	24.78
Stage 7	-7.9	239.52	11.25
Stage 7	-8.1	238.99	-2.63
Stage 7	-8.3	235.62	-16.84
Stage 7	-8.5	229.35	-31.39
Stage 7	-8.7	220.09	-46.27
Stage 7	-8.9	207.8	-61.48
Stage 7	-9.1	192.35	-77.24
Stage 7	-9.3	173.64	-93.54
Stage 7	-9.5	151.56	-110.38
Stage 7	-9.7	126.01	-127.75
Stage 7	-9.9	128.39	11.88
Stage 7	-10.1	127.26	-5.65
Stage 7	-10.3	122.53	-23.66
Stage 7	-10.5	114.09	-42.16
Stage 7	-10.7	101.87	-61.13
Stage 7	-10.9	87.46	-72.06
Stage 7	-11.1	71.15	-81.52
Stage 7	-11.3	53.26	-89.49
Stage 7	-11.5	34.06	-95.97
Stage 7	-11.7	13.87	-100.95

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	-11.9	-7.02	-104.43
Stage 7	-12.1	-28.29	-106.4
Stage 7	-12.3	-49.67	-106.86
Stage 7	-12.5	-70.83	-105.8
Stage 7	-12.7	-91.48	-103.24
Stage 7	-12.9	-111.31	-99.17
Stage 7	-13.1	-130.03	-93.59
Stage 7	-13.3	-147.33	-86.51
Stage 7	-13.5	-162.92	-77.93
Stage 7	-13.7	-176.58	-68.32
Stage 7	-13.9	-188.33	-58.74
Stage 7	-14.1	-198.17	-49.19
Stage 7	-14.3	-206.1	-39.65
Stage 7	-14.5	-212.25	-30.77
Stage 7	-14.7	-216.78	-22.62
Stage 7	-14.9	-219.81	-15.16
Stage 7	-15.1	-221.48	-8.36
Stage 7	-15.3	-221.92	-2.19
Stage 7	-15.5	-221.24	3.39
Stage 7	-15.7	-219.56	8.4
Stage 7	-15.9	-216.99	12.87
Stage 7	-16.1	-213.62	16.84
Stage 7	-16.3	-209.55	20.34
Stage 7	-16.5	-204.87	23.4
Stage 7	-16.7	-199.66	26.04
Stage 7	-16.9	-194	28.3
Stage 7	-17.1	-187.96	30.2
Stage 7	-17.3	-181.61	31.76
Stage 7	-17.5	-175.01	33.01
Stage 7	-17.7	-168.21	33.98
Stage 7	-17.9	-161.27	34.68
Stage 7	-18.1	-154.24	35.15
Stage 7	-18.3	-147.17	35.39
Stage 7	-18.5	-140.08	35.44
Stage 7	-18.7	-133.02	35.3
Stage 7	-18.9	-126.02	35
Stage 7	-19.1	-119.1	34.56
Stage 7	-19.3	-112.31	34
Stage 7	-19.5	-105.64	33.32
Stage 7	-19.7	-99.13	32.54
Stage 7	-19.9	-92.8	31.67
Stage 7	-20.1	-86.65	30.74
Stage 7	-20.3	-80.71	29.73
Stage 7	-20.5	-74.97	28.68
Stage 7	-20.7	-69.46	27.57
Stage 7	-20.9	-64.17	26.44
Stage 7	-21.1	-59.11	25.28
Stage 7	-21.3	-54.29	24.1
Stage 7	-21.5	-49.71	22.91
Stage 7	-21.7	-45.37	21.72
Stage 7	-21.9	-41.26	20.53
Stage 7	-22.1	-37.39	19.35
Stage 7	-22.3	-33.76	18.18
Stage 7	-22.5	-30.35	17.02
Stage 7	-22.7	-27.17	15.89
Stage 7	-22.9	-24.22	14.79
Stage 7	-23.1	-21.47	13.71
Stage 7	-23.3	-18.94	12.66
Stage 7	-23.5	-16.61	11.65
Stage 7	-23.7	-14.48	10.67
Stage 7	-23.9	-12.53	9.73
Stage 7	-24.1	-10.76	8.83
Stage 7	-24.3	-9.17	7.97
Stage 7	-24.5	-7.74	7.15
Stage 7	-24.7	-6.47	6.37
Stage 7	-24.9	-5.34	5.63
Stage 7	-25.1	-4.35	4.94
Stage 7	-25.3	-3.5	4.29
Stage 7	-25.5	-2.76	3.69
Stage 7	-25.7	-2.13	3.13
Stage 7	-25.9	-1.61	2.62

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 7	-26.1	-1.18	2.15
Stage 7	-26.3	-0.83	1.73
Stage 7	-26.5	-0.56	1.36
Stage 7	-26.7	-0.35	1.02
Stage 7	-26.9	-0.21	0.74
Stage 7	-27.1	-0.11	0.5
Stage 7	-27.3	-0.04	0.31
Stage 7	-27.5	-0.01	0.16
Stage 7	-27.7	0	0.06
Stage 7	-27.9	0	0
Stage 7	-27.9	0	0
Stage 7	-28	0	0

Tabella Risultati Paratia Nominal - Stage: Stage 8

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	0.5	0	0
Stage 8	0.3	0	0
Stage 8	0.3	0	0
Stage 8	0.1	0	0
Stage 8	0.1	0	0
Stage 8	-0.1	0	0
Stage 8	-0.1	0	0
Stage 8	-0.3	0	0
Stage 8	-0.3	0	0
Stage 8	-0.5	0	0
Stage 8	-0.5	0	0
Stage 8	-0.7	-0.06	-0.31
Stage 8	-0.9	-0.25	-0.93
Stage 8	-1.1	-0.62	-1.87
Stage 8	-1.3	-1.25	-3.12
Stage 8	-1.5	-2.18	-4.68
Stage 8	-1.7	-3.49	-6.55
Stage 8	-1.9	-5.24	-8.73
Stage 8	-2.1	-7.48	-11.22
Stage 8	-2.3	-10.29	-14.03
Stage 8	-2.5	-13.72	-17.15
Stage 8	-2.7	-17.83	-20.58
Stage 8	-2.9	-22.7	-24.33
Stage 8	-3.1	0.7	116.98
Stage 8	-3.3	23.22	112.62
Stage 8	-3.5	44.81	107.94
Stage 8	-3.7	65.4	102.95
Stage 8	-3.9	84.93	97.64
Stage 8	-4.1	103.33	92.03
Stage 8	-4.3	120.55	86.1
Stage 8	-4.5	136.52	79.86
Stage 8	-4.7	151.18	73.31
Stage 8	-4.9	164.47	66.44
Stage 8	-5.1	176.33	59.27
Stage 8	-5.3	186.68	51.78
Stage 8	-5.5	195.48	43.98
Stage 8	-5.7	202.65	35.86
Stage 8	-5.9	208.14	27.44
Stage 8	-6.1	211.88	18.7
Stage 8	-6.3	213.81	9.65
Stage 8	-6.5	242.78	144.88
Stage 8	-6.7	269.83	135.21
Stage 8	-6.9	294.87	125.22
Stage 8	-7.1	317.85	114.92
Stage 8	-7.3	338.72	104.31
Stage 8	-7.5	357.4	93.39
Stage 8	-7.7	373.83	82.15
Stage 8	-7.9	387.95	70.61
Stage 8	-8.1	399.7	58.74
Stage 8	-8.3	409.01	46.57
Stage 8	-8.5	415.83	34.09
Stage 8	-8.7	420.09	21.29
Stage 8	-8.9	421.72	8.18
Stage 8	-9.1	420.67	-5.24
Stage 8	-9.3	416.88	-18.98
Stage 8	-9.5	410.27	-33.03
Stage 8	-9.7	400.79	-47.39
Stage 8	-9.9	424.62	119.14
Stage 8	-10.1	445.94	106.62
Stage 8	-10.3	464.7	93.77
Stage 8	-10.5	480.82	80.6
Stage 8	-10.7	494.24	67.09
Stage 8	-10.9	504.89	53.26
Stage 8	-11.1	512.71	39.1
Stage 8	-11.3	517.59	24.39
Stage 8	-11.5	519.41	9.12
Stage 8	-11.7	518.07	-6.7

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	-11.9	513.46	-23.07
Stage 8	-12.1	505.46	-40
Stage 8	-12.3	493.96	-57.48
Stage 8	-12.5	478.86	-75.52
Stage 8	-12.7	460.03	-94.11
Stage 8	-12.9	437.38	-113.26
Stage 8	-13.1	410.79	-132.95
Stage 8	-13.3	380.15	-153.21
Stage 8	-13.5	347.56	-162.94
Stage 8	-13.7	313.28	-171.41
Stage 8	-13.9	277.56	-178.6
Stage 8	-14.1	240.65	-184.53
Stage 8	-14.3	202.82	-189.18
Stage 8	-14.5	164.31	-192.56
Stage 8	-14.7	125.37	-194.67
Stage 8	-14.9	86.27	-195.51
Stage 8	-15.1	47.26	-195.08
Stage 8	-15.3	8.58	-193.38
Stage 8	-15.5	-29.5	-190.4
Stage 8	-15.7	-66.73	-186.16
Stage 8	-15.9	-102.86	-180.64
Stage 8	-16.1	-137.63	-173.86
Stage 8	-16.3	-170.79	-165.8
Stage 8	-16.5	-202.08	-156.47
Stage 8	-16.7	-231.26	-145.87
Stage 8	-16.9	-258.06	-134
Stage 8	-17.1	-282.23	-120.86
Stage 8	-17.3	-303.55	-106.6
Stage 8	-17.5	-322.07	-92.62
Stage 8	-17.7	-337.86	-78.92
Stage 8	-17.9	-350.95	-65.47
Stage 8	-18.1	-361.41	-52.28
Stage 8	-18.3	-369.27	-39.32
Stage 8	-18.5	-374.7	-27.12
Stage 8	-18.7	-377.87	-15.89
Stage 8	-18.9	-379	-5.61
Stage 8	-19.1	-378.24	3.77
Stage 8	-19.3	-375.78	12.3
Stage 8	-19.5	-371.78	20.01
Stage 8	-19.7	-366.39	26.96
Stage 8	-19.9	-359.76	33.17
Stage 8	-20.1	-352.02	38.69
Stage 8	-20.3	-343.31	43.57
Stage 8	-20.5	-333.74	47.82
Stage 8	-20.7	-323.44	51.51
Stage 8	-20.9	-312.51	54.65
Stage 8	-21.1	-301.05	57.29
Stage 8	-21.3	-289.16	59.47
Stage 8	-21.5	-276.92	61.2
Stage 8	-21.7	-264.41	62.52
Stage 8	-21.9	-251.72	63.47
Stage 8	-22.1	-238.91	64.06
Stage 8	-22.3	-226.04	64.34
Stage 8	-22.5	-213.18	64.31
Stage 8	-22.7	-200.38	64.01
Stage 8	-22.9	-187.68	63.45
Stage 8	-23.1	-175.15	62.67
Stage 8	-23.3	-162.82	61.67
Stage 8	-23.5	-150.72	60.48
Stage 8	-23.7	-138.9	59.1
Stage 8	-23.9	-127.39	57.54
Stage 8	-24.1	-116.23	55.8
Stage 8	-24.3	-105.45	53.91
Stage 8	-24.5	-95.08	51.87
Stage 8	-24.7	-85.14	49.71
Stage 8	-24.9	-75.65	47.42
Stage 8	-25.1	-66.65	45.03
Stage 8	-25.3	-58.14	42.53
Stage 8	-25.5	-50.15	39.94
Stage 8	-25.7	-42.7	37.27
Stage 8	-25.9	-35.8	34.51

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 8	-26.1	-29.46	31.68
Stage 8	-26.3	-23.71	28.78
Stage 8	-26.5	-18.54	25.8
Stage 8	-26.7	-13.99	22.77
Stage 8	-26.9	-10.06	19.67
Stage 8	-27.1	-6.76	16.5
Stage 8	-27.3	-4.1	13.28
Stage 8	-27.5	-2.1	10.01
Stage 8	-27.7	-0.76	6.71
Stage 8	-27.9	-0.08	3.37
Stage 8	-28	0	0.85

Risultati Elementi strutturali

Design Assumption: Nominal	Sollecitazione Tieback
Stage	Forza (kN/m)
Stage 3	125
Stage 4	139.2972
Stage 5	137.9104
Stage 6	146.8739
Stage 7	146.1331
Stage 8	154.6949

Design Assumption: Nominal	Sollecitazione Tieback
Stage	**Forza (kN/m)**
Stage 5	125
Stage 6	139.2536
Stage 7	136.9615
Stage 8	153.8744

Design Assumption: Nominal	Sollecitazione Tieback
Stage	**Forza (kN/m)**
Stage 7	166.7
Stage 8	190.1817

Riepilogo spinte

Design Assumption: Nominal	Tipo Risultato: Riepilogo spinte	Muro:	LEFT	Lato	LEFT		
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	3281.5	2645.1	5926.6	1803.2	20480.7	16.02%	1.82
Stage 2	3170.1	2645.1	5815.1	1803.2	20480.7	15.48%	1.76
Stage 3	3264.6	2645.1	5909.7	1803.2	20480.7	15.94%	1.81
Stage 4	2907.5	2457.7	5365.3	1876.2	21118.4	13.77%	1.55
Stage 5	2999.4	2457.7	5457.1	1876.2	21118.4	14.2%	1.6
Stage 6	2917.4	1760.7	4678.1	2148.1	23491.1	12.42%	1.36
Stage 7	3035.4	1760.7	4796	2148.1	23491.1	12.92%	1.41
Stage 8	2838.7	1351.7	4190.4	2307.6	24883.2	11.41%	1.23

Design Assumption: Nominal	Tipo Risultato: Riepilogo spinte	Muro:	LEFT	Lato	RIGHT		
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	3281.5	2645.1	5926.6	1797.6	20432.5	16.06%	1.83
Stage 2	3170	2645.1	5815.1	922.7	12475.4	25.41%	3.44
Stage 3	3147.3	2645.1	5792.3	922.5	12475	25.23%	3.41
Stage 4	2993.1	2241.2	5234.3	522.5	8598.4	34.81%	5.73
Stage 5	2968.9	2241.2	5210	522.5	8598.4	34.53%	5.68
Stage 6	2831	1578.2	4409.2	329	6288	45.02%	8.6
Stage 7	2794.6	1578.2	4372.9	329	6288	44.44%	8.49
Stage 8	2559.7	1162	3721.7	200.2	4587.2	55.8%	12.79

Allegati

Design Assumption : Nominal - File di Paratie - File di input (.d)

```
* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: Nominal
 * Time:giovedì 25 giugno 2020 12:58:34
 * 1: Defining general settings
 UNIT  m kN
 TITLE New Project
 DELTA 0.2
 option param itemax 40

 * 2: Defining wall(s)
 WALL LeftWall_29 0 -28 0.5 1

 * 3: Defining surfaces for wall(s)
 SOIL 0_L LeftWall_29 -28 0.5 1 0
 SOIL 0_R LeftWall_29 -28 0.5 2 180

 * 4: Defining soil layers
 *
 * Soil Profile (Livello1_334_8_L_0)
 *
 LDATA Livello1_334_8_L_0 0.5 LeftWall_29
 ATREST 0.562 1 1
 WEIGHT 20 10 10
 PERMEABILITY 1E-05
 RESISTANCE 5 26
 YOUNG 4.5E+04 7.2E+04
 ENDL
 *
 * Soil Profile (Livello2_2752_337_L_0)
 *
 LDATA Livello2_2752_337_L_0 -9.5 LeftWall_29
 ATREST 0.562 1 1
 WEIGHT 21 11 10
 PERMEABILITY 1E-05
 RESISTANCE 15 26
 YOUNG 8E+04 1.28E+05
 ENDL

 * 5: Defining structural materials
 * Steel material: 13524 Name=Fe360 E=206000200 kPa
 MATERIAL Fe360_13524 2.06E+08
 * Concrete material: 101 Name=C25/30 E=31475800 kPa
 MATERIAL C2530_101 3.148E+07
 * Rebar material: 110 Name=acciaio armonico E=200100000 kPa
 MATERIAL acciaioarmonico_110 2.001E+08

 * 6: Defining structural elements
 * 6.1: Beams
 BEAM WallElement_30 LeftWall_29 -28 0.5 C2530_101 0.7888 00 00

 * 6.2: Supports
 WIRE Tieback_341 LeftWall_29 -2.9 acciaioarmonico_110 1.053E-05 125 20 0 0
 WIRE Tieback_342 LeftWall_29 -6.3 acciaioarmonico_110 1.136E-05 125 20 0 0
 WIRE Tieback_2841 LeftWall_29 -9.7 acciaioarmonico_110 1.158E-05 166.7 20 0 0




 * 6.3: Strips
 STRIP LeftWall_29 1 8 40 38 0.5 43.9 45

 * 7: Defining Steps
 STEP Stage1_28
 CHANGE Livello1_334_8_L_0 U-FRICT=26 LeftWall_29
 CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
 CHANGE Livello1_334_8_L_0 U-KA=0.39 LeftWall_29
 CHANGE Livello1_334_8_L_0 U-KP=3.404 LeftWall_29
 CHANGE Livello1_334_8_L_0 D-KA=0.39 LeftWall_29
 CHANGE Livello1_334_8_L_0 D-KP=3.404 LeftWall_29
 CHANGE Livello2_2752_337_L_0 U-FRICT=26 LeftWall_29
 CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
 CHANGE Livello2_2752_337_L_0 U-KA=0.39 LeftWall_29
 CHANGE Livello2_2752_337_L_0 U-KP=3.404 LeftWall_29
 CHANGE Livello2_2752_337_L_0 D-KA=0.39 LeftWall_29
 CHANGE Livello2_2752_337_L_0 D-KP=3.404 LeftWall_29
 CHANGE Livello1_334_8_L_0 U-COHE=5 LeftWall_29
 CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
 CHANGE Livello2_2752_337_L_0 U-COHE=15 LeftWall_29
 CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
 SETWALL LeftWall_29
 GEOM 0.5 0.5
 WATER -5 0 -28 0 0
```

```
ADD WallElement_30
ENDSTEP

STEP Stage2_344
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-KA=0.391 LeftWall_29
CHANGE Livello1_334_8_L_0 D-KP=3.406 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -3.9
WATER -5 0 -28 0 0
ENDSTEP

STEP Stage3_1139
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-KA=0.39 LeftWall_29
CHANGE Livello1_334_8_L_0 D-KP=3.404 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -3.9
WATER -5 0 -28 0 0
ADD Tieback_341
ENDSTEP

STEP Stage4_1238
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-KA=0.391 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -7.3
WATER -5.3 2 -28 0 0
ENDSTEP

STEP Stage5_1685
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -7.3
WATER -5.3 2 -28 0 0
ADD Tieback_342
ENDSTEP

STEP Stage6_2741
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-KA=0.39 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -10.7
WATER -8.7 2 -28 0 0
ENDSTEP

STEP Stage7_8944
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -10.7
WATER -8.7 2 -28 0 0
ADD Tieback_2841
ENDSTEP

STEP Stage8_9390
CHANGE Livello1_334_8_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-FRICT=26 LeftWall_29
CHANGE Livello1_334_8_L_0 D-COHE=5 LeftWall_29
CHANGE Livello2_2752_337_L_0 D-COHE=15 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -13.3
WATER -10.9 2.4 -28 0 0
ENDSTEP
```

Report di Calcolo

Allegato 4

Nome Progetto: New Project

Autore: Ingegnere

Jobname: R:\424.01 - HIRPINIA\Ing\03. LAVORO\07 - GALL\GA - FINESTRE - IMBOCCHI\GA09 Finestra F3\2-sez_TRASV\2-paratie\SEZIONE 2 GEO Finestra F3.pplus

Data: 25/06/2020 13:00:08

Design Section: Base Design Section

Sommario
Contenuto Sommario

Descrizione della Stratigrafia e degli Strati di Terreno

Tipo : HORIZONTAL
Quota : 0.5 m
OCR : 1

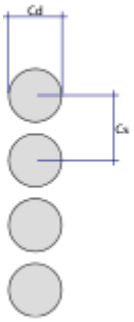
Tipo : HORIZONTAL
Quota : -9.5 m
OCR : 1

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	Livello 1 GEO	20	20	21.3			4		Constant		45000	72000									
2	Livello 2 GEO	21	21	21.3			12		Constant		80000	128000									

Descrizione Pareti

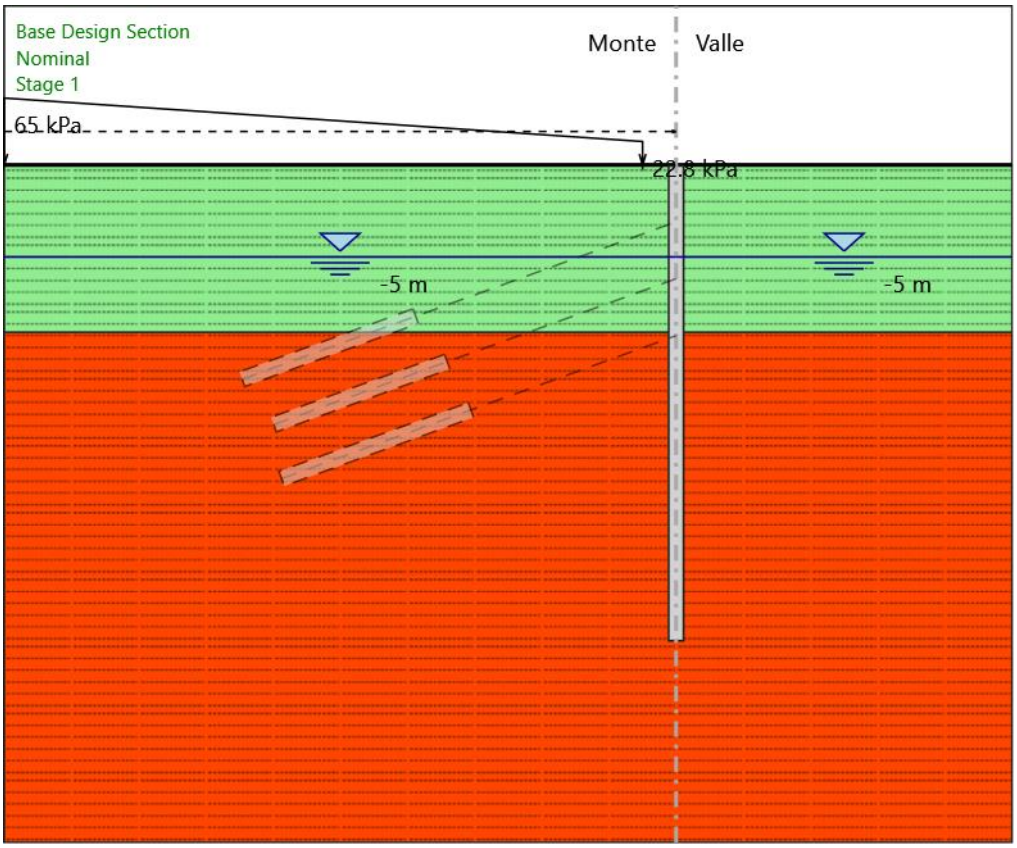
X : 0 m
Quota in alto : 0.5 m
Quota di fondo : -28 m
Muro di sinistra

Sezione : PALI1000/1200
Area equivalente : 0.654498469497874 m
Inerzia equivalente : 0.0409 m^4/m
Materiale calcestruzzo : C25/30
Tipo sezione : Tangent
Spaziatura : 1.2 m
Diametro : 1 m
Efficacia : 1



Fasi di Calcolo

Stage 1



Stage 1

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : 0.5 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

0.5 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

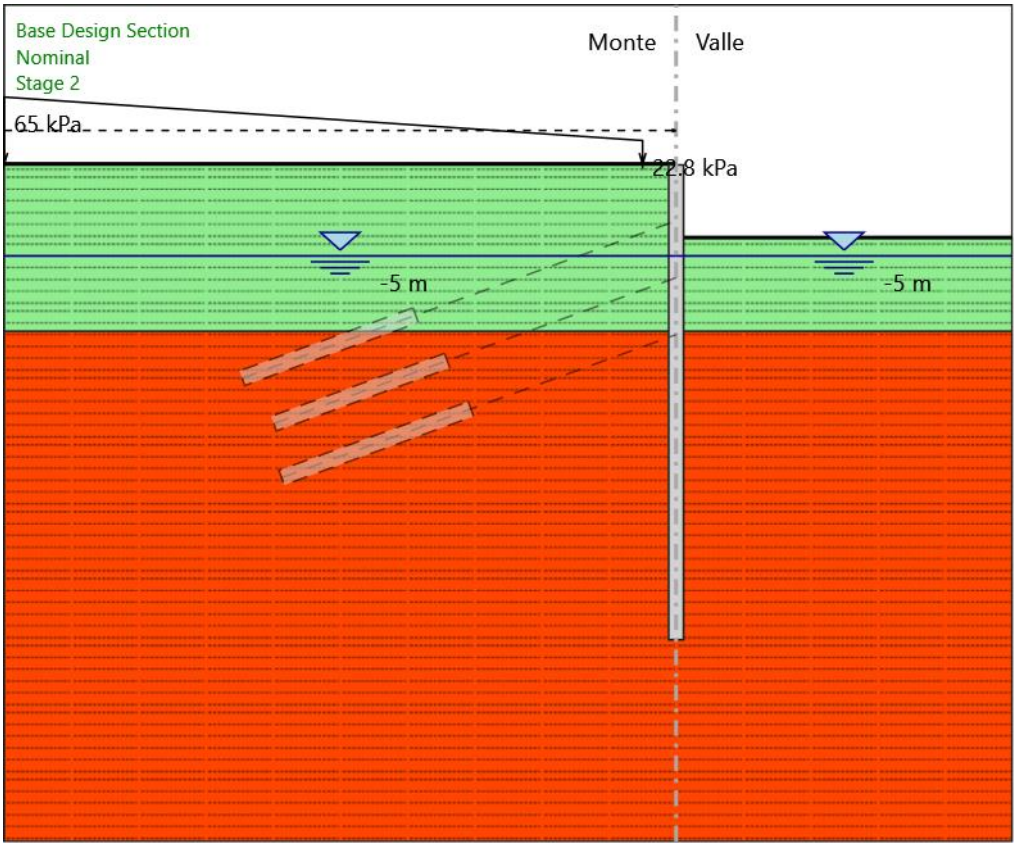
X iniziale : -2 m
X finale : -40 m
Pressione iniziale : 22.8 kPa
Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m
Quota in alto : 0.5 m
Quota di fondo : -28 m
Sezione : PALI1000/1200

Stage 2



Stage 2

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -3.9 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-3.9 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

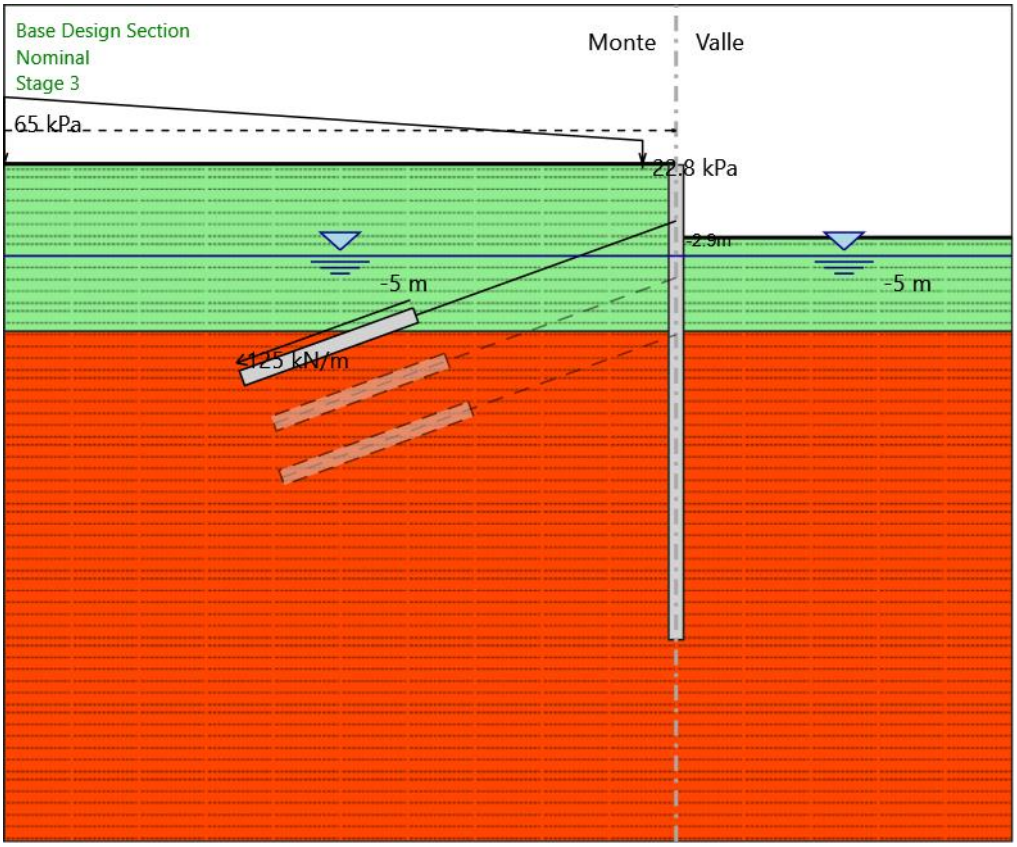
X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Stage 3



Stage 3

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -3.9 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-3.9 m

Falda acquifera

Falda di sinistra : -5 m

Falda di destra : -5 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

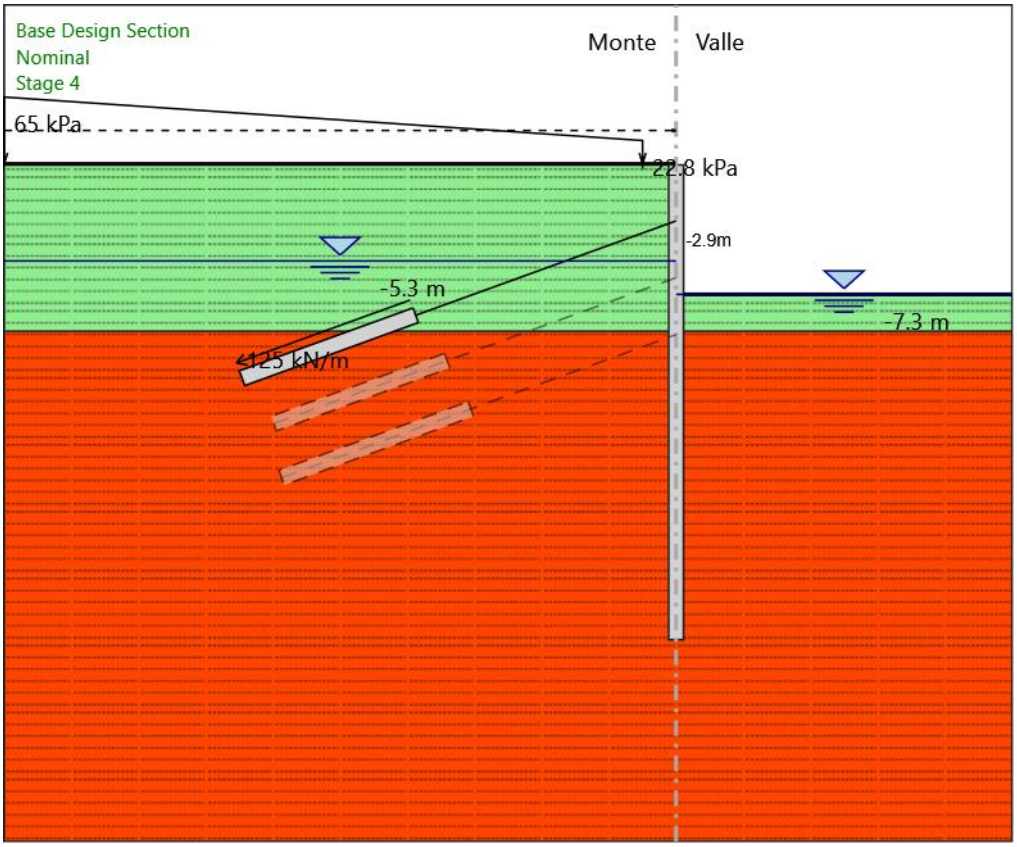
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 4



Stage 4

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -7.3 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-7.3 m

Falda acquifera

Falda di sinistra : -5.3 m

Falda di destra : -7.3 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

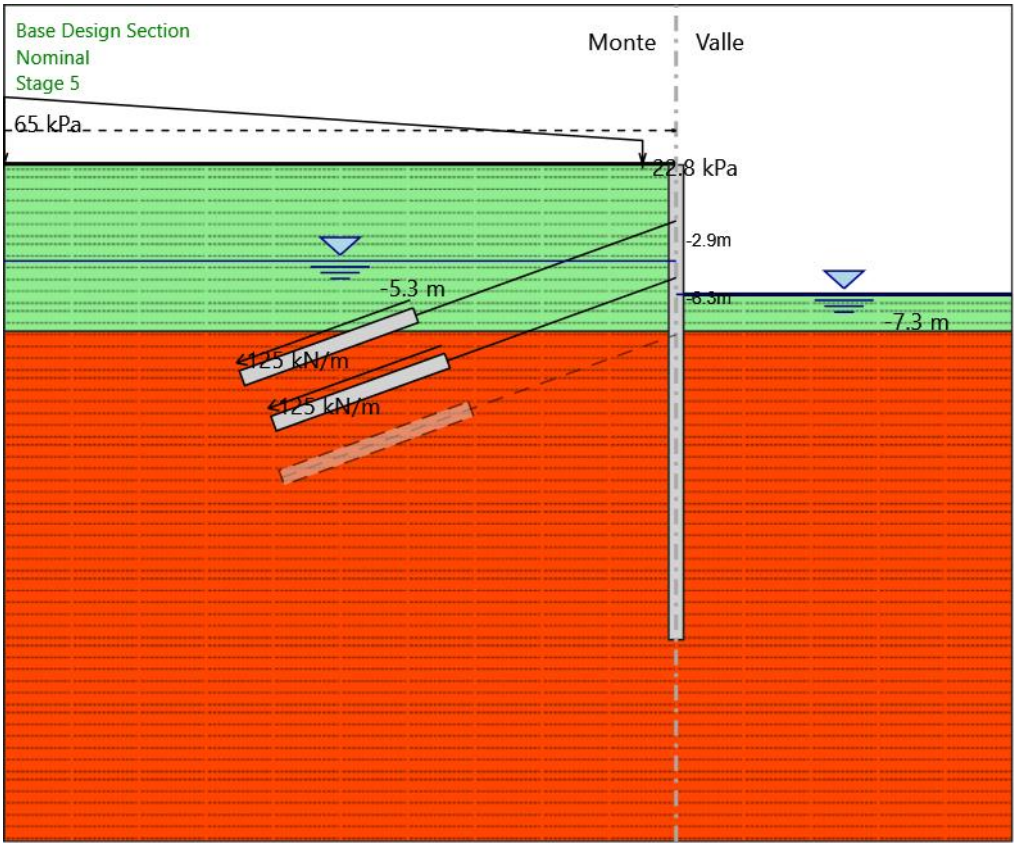
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 5



Stage 5

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -7.3 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-7.3 m

Falda acquifera

Falda di sinistra : -5.3 m

Falda di destra : -7.3 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -6.3 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 14.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

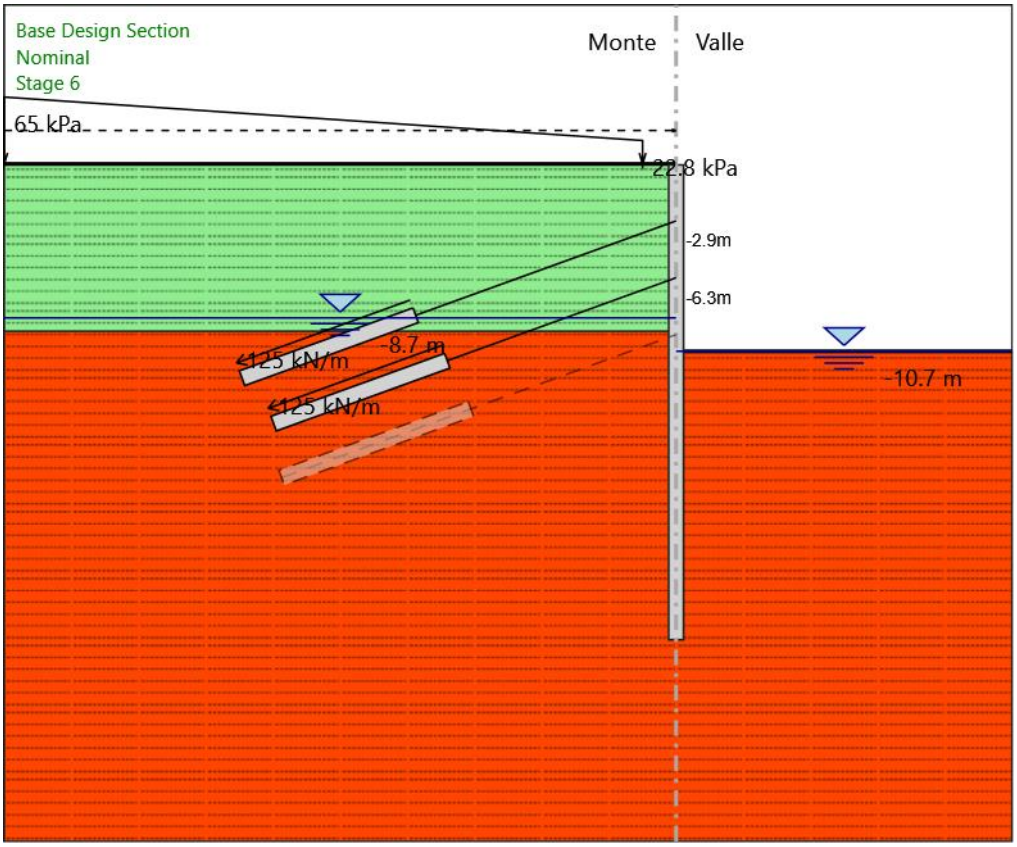
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 6



Stage 6

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -10.7 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-10.7 m

Falda acquifera

Falda di sinistra : -8.7 m

Falda di destra : -10.7 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -6.3 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 14.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

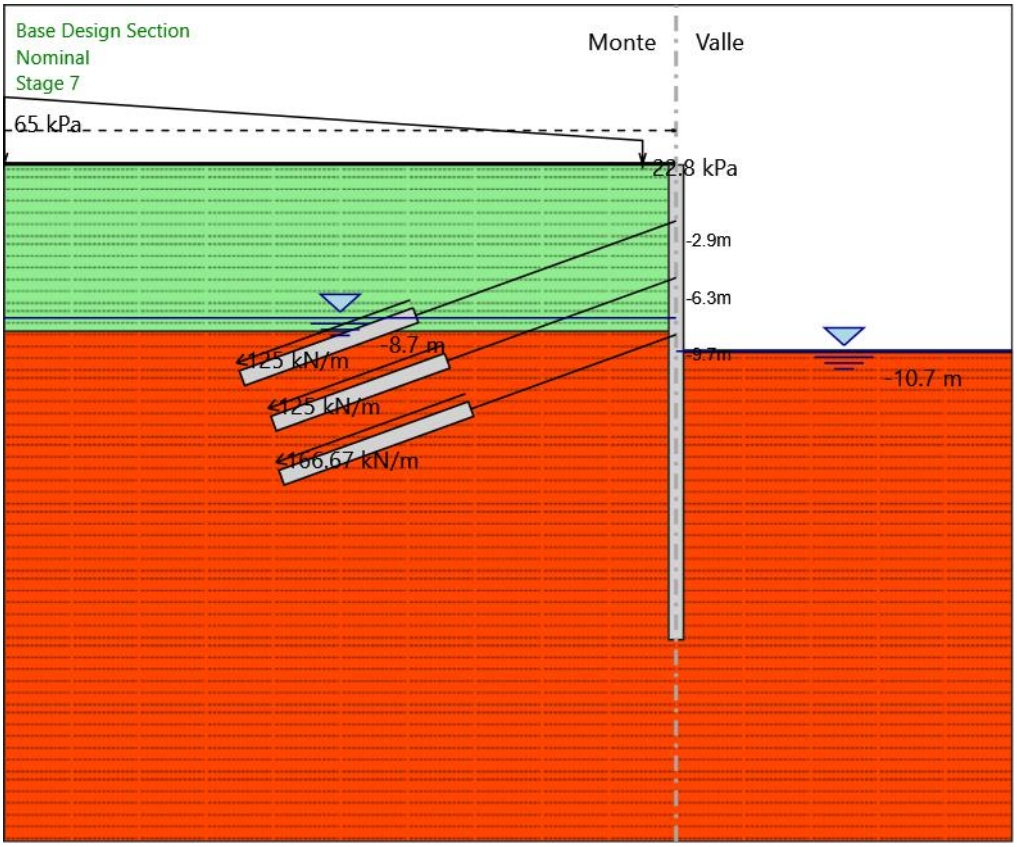
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 7



Stage 7

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -10.7 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-10.7 m

Falda acquifera

Falda di sinistra : -8.7 m

Falda di destra : -10.7 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -6.3 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 14.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -9.7 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Precarico : 400 kN

Angolo : 20 °

Sezione : Trefoli 5

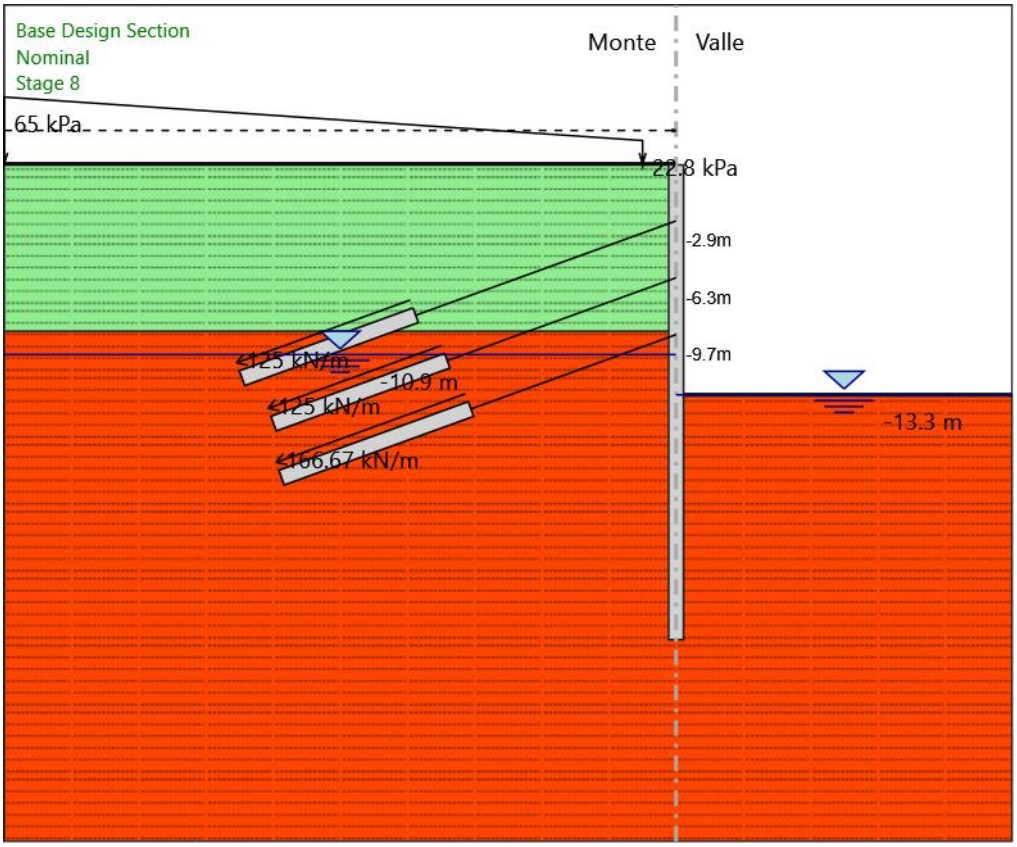
Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Stage 8



Stage 8

Scavo

Muro di sinistra

Lato monte : 0.5 m

Lato valle : -13.3 m

Linea di scavo di sinistra (Orizzontale)

0.5 m

Linea di scavo di destra (Orizzontale)

-13.3 m

Falda acquifera

Falda di sinistra : -10.9 m

Falda di destra : -13.3 m

Carichi

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -2 m

X finale : -40 m

Pressione iniziale : 22.8 kPa

Pressione finale : 65 kPa

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0.5 m

Quota di fondo : -28 m

Sezione : PALI1000/1200

Tirante : Tieback

X : 0 m

Z : -2.9 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -6.3 m

Lunghezza bulbo : 11 m

Diametro bulbo : 0.16 m

Lunghezza libera : 14.5 m

Precarico : 300 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

Tirante : Tieback

X : 0 m

Z : -9.7 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Precarico : 400 kN

Angolo : 20 °

Sezione : Trefoli 5

Tipo di barre : Barre trefoli

Numero di barre : 5

Diametro : 0.01331 m

Area : 0.000695 m^2

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	0.5	0
Stage 1	0.3	0
Stage 1	0.1	0
Stage 1	-0.1	0
Stage 1	-0.3	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

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	-11.7	0
Stage 1	-11.9	0
Stage 1	-12.1	0
Stage 1	-12.3	0
Stage 1	-12.5	0
Stage 1	-12.7	0
Stage 1	-12.9	0
Stage 1	-13.1	0
Stage 1	-13.3	0
Stage 1	-13.5	0
Stage 1	-13.7	0
Stage 1	-13.9	0
Stage 1	-14.1	0
Stage 1	-14.3	0
Stage 1	-14.5	0
Stage 1	-14.7	0
Stage 1	-14.9	0
Stage 1	-15.1	0
Stage 1	-15.3	0
Stage 1	-15.5	0
Stage 1	-15.7	0
Stage 1	-15.9	0
Stage 1	-16.1	0
Stage 1	-16.3	0
Stage 1	-16.5	0
Stage 1	-16.7	0
Stage 1	-16.9	0
Stage 1	-17.1	0
Stage 1	-17.3	0
Stage 1	-17.5	0
Stage 1	-17.7	0
Stage 1	-17.9	0
Stage 1	-18.1	0
Stage 1	-18.3	0
Stage 1	-18.5	0
Stage 1	-18.7	0
Stage 1	-18.9	0
Stage 1	-19.1	0
Stage 1	-19.3	0
Stage 1	-19.5	0
Stage 1	-19.7	0
Stage 1	-19.9	0
Stage 1	-20.1	0
Stage 1	-20.3	0
Stage 1	-20.5	0
Stage 1	-20.7	0
Stage 1	-20.9	0
Stage 1	-21.1	0
Stage 1	-21.3	0
Stage 1	-21.5	0
Stage 1	-21.7	0
Stage 1	-21.9	0
Stage 1	-22.1	0
Stage 1	-22.3	0
Stage 1	-22.5	0
Stage 1	-22.7	0
Stage 1	-22.9	0
Stage 1	-23.1	0
Stage 1	-23.3	0
Stage 1	-23.5	0
Stage 1	-23.7	0
Stage 1	-23.9	0
Stage 1	-24.1	0
Stage 1	-24.3	0
Stage 1	-24.5	0
Stage 1	-24.7	0
Stage 1	-24.9	0
Stage 1	-25.1	0
Stage 1	-25.3	0
Stage 1	-25.5	0
Stage 1	-25.7	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	-25.9	0
Stage 1	-26.1	0
Stage 1	-26.3	0
Stage 1	-26.5	0
Stage 1	-26.7	0
Stage 1	-26.9	0
Stage 1	-27.1	0
Stage 1	-27.3	0
Stage 1	-27.5	0
Stage 1	-27.7	0
Stage 1	-27.9	0
Stage 1	-28	0

Tabella Spostamento Nominal - LEFT Stage: Stage 2

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	0.5	8.16
Stage 2	0.3	7.95
Stage 2	0.1	7.73
Stage 2	-0.1	7.52
Stage 2	-0.3	7.31
Stage 2	-0.5	7.1
Stage 2	-0.7	6.88
Stage 2	-0.9	6.67
Stage 2	-1.1	6.46
Stage 2	-1.3	6.25
Stage 2	-1.5	6.03
Stage 2	-1.7	5.82
Stage 2	-1.9	5.61
Stage 2	-2.1	5.4
Stage 2	-2.3	5.19
Stage 2	-2.5	4.98
Stage 2	-2.7	4.77
Stage 2	-2.9	4.56
Stage 2	-3.1	4.35
Stage 2	-3.3	4.14
Stage 2	-3.5	3.94
Stage 2	-3.7	3.73
Stage 2	-3.9	3.53
Stage 2	-4.1	3.33
Stage 2	-4.3	3.14
Stage 2	-4.5	2.94
Stage 2	-4.7	2.76
Stage 2	-4.9	2.57
Stage 2	-5.1	2.4
Stage 2	-5.3	2.22
Stage 2	-5.5	2.05
Stage 2	-5.7	1.89
Stage 2	-5.9	1.74
Stage 2	-6.1	1.59
Stage 2	-6.3	1.45
Stage 2	-6.5	1.31
Stage 2	-6.7	1.18
Stage 2	-6.9	1.06
Stage 2	-7.1	0.95
Stage 2	-7.3	0.84
Stage 2	-7.5	0.74
Stage 2	-7.7	0.64
Stage 2	-7.9	0.56
Stage 2	-8.1	0.48
Stage 2	-8.3	0.4
Stage 2	-8.5	0.33
Stage 2	-8.7	0.27
Stage 2	-8.9	0.21
Stage 2	-9.1	0.16
Stage 2	-9.3	0.11
Stage 2	-9.5	0.07
Stage 2	-9.7	0.03
Stage 2	-9.9	-0.01
Stage 2	-10.1	-0.04
Stage 2	-10.3	-0.06
Stage 2	-10.5	-0.08
Stage 2	-10.7	-0.1
Stage 2	-10.9	-0.12
Stage 2	-11.1	-0.13
Stage 2	-11.3	-0.14
Stage 2	-11.5	-0.15
Stage 2	-11.7	-0.16
Stage 2	-11.9	-0.16
Stage 2	-12.1	-0.17
Stage 2	-12.3	-0.17
Stage 2	-12.5	-0.17
Stage 2	-12.7	-0.17

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	-12.9	-0.16
Stage 2	-13.1	-0.16
Stage 2	-13.3	-0.16
Stage 2	-13.5	-0.15
Stage 2	-13.7	-0.15
Stage 2	-13.9	-0.14
Stage 2	-14.1	-0.13
Stage 2	-14.3	-0.13
Stage 2	-14.5	-0.12
Stage 2	-14.7	-0.11
Stage 2	-14.9	-0.11
Stage 2	-15.1	-0.1
Stage 2	-15.3	-0.09
Stage 2	-15.5	-0.09
Stage 2	-15.7	-0.08
Stage 2	-15.9	-0.07
Stage 2	-16.1	-0.07
Stage 2	-16.3	-0.06
Stage 2	-16.5	-0.06
Stage 2	-16.7	-0.05
Stage 2	-16.9	-0.05
Stage 2	-17.1	-0.04
Stage 2	-17.3	-0.04
Stage 2	-17.5	-0.03
Stage 2	-17.7	-0.03
Stage 2	-17.9	-0.02
Stage 2	-18.1	-0.02
Stage 2	-18.3	-0.02
Stage 2	-18.5	-0.01
Stage 2	-18.7	-0.01
Stage 2	-18.9	-0.01
Stage 2	-19.1	-0.01
Stage 2	-19.3	0
Stage 2	-19.5	0
Stage 2	-19.7	0
Stage 2	-19.9	0
Stage 2	-20.1	0
Stage 2	-20.3	0
Stage 2	-20.5	0
Stage 2	-20.7	0
Stage 2	-20.9	0.01
Stage 2	-21.1	0.01
Stage 2	-21.3	0.01
Stage 2	-21.5	0.01
Stage 2	-21.7	0.01
Stage 2	-21.9	0.01
Stage 2	-22.1	0.01
Stage 2	-22.3	0.01
Stage 2	-22.5	0.01
Stage 2	-22.7	0.01
Stage 2	-22.9	0.01
Stage 2	-23.1	0.01
Stage 2	-23.3	0.01
Stage 2	-23.5	0.01
Stage 2	-23.7	0.01
Stage 2	-23.9	0.01
Stage 2	-24.1	0.01
Stage 2	-24.3	0.01
Stage 2	-24.5	0.01
Stage 2	-24.7	0
Stage 2	-24.9	0
Stage 2	-25.1	0
Stage 2	-25.3	0
Stage 2	-25.5	0
Stage 2	-25.7	0
Stage 2	-25.9	0
Stage 2	-26.1	0
Stage 2	-26.3	0
Stage 2	-26.5	0
Stage 2	-26.7	0
Stage 2	-26.9	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 2	-27.1	0
Stage 2	-27.3	0
Stage 2	-27.5	0
Stage 2	-27.7	0
Stage 2	-27.9	0
Stage 2	-28	0

Tabella Spostamento Nominal - LEFT Stage: Stage 3

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	0.5	7.08
Stage 3	0.3	6.88
Stage 3	0.1	6.68
Stage 3	-0.1	6.47
Stage 3	-0.3	6.27
Stage 3	-0.5	6.07
Stage 3	-0.7	5.87
Stage 3	-0.9	5.66
Stage 3	-1.1	5.46
Stage 3	-1.3	5.26
Stage 3	-1.5	5.06
Stage 3	-1.7	4.86
Stage 3	-1.9	4.66
Stage 3	-2.1	4.47
Stage 3	-2.3	4.27
Stage 3	-2.5	4.08
Stage 3	-2.7	3.89
Stage 3	-2.9	3.71
Stage 3	-3.1	3.52
Stage 3	-3.3	3.34
Stage 3	-3.5	3.17
Stage 3	-3.7	3
Stage 3	-3.9	2.83
Stage 3	-4.1	2.66
Stage 3	-4.3	2.5
Stage 3	-4.5	2.34
Stage 3	-4.7	2.19
Stage 3	-4.9	2.04
Stage 3	-5.1	1.89
Stage 3	-5.3	1.75
Stage 3	-5.5	1.62
Stage 3	-5.7	1.49
Stage 3	-5.9	1.36
Stage 3	-6.1	1.25
Stage 3	-6.3	1.13
Stage 3	-6.5	1.02
Stage 3	-6.7	0.92
Stage 3	-6.9	0.83
Stage 3	-7.1	0.73
Stage 3	-7.3	0.65
Stage 3	-7.5	0.57
Stage 3	-7.7	0.49
Stage 3	-7.9	0.42
Stage 3	-8.1	0.36
Stage 3	-8.3	0.3
Stage 3	-8.5	0.25
Stage 3	-8.7	0.2
Stage 3	-8.9	0.15
Stage 3	-9.1	0.11
Stage 3	-9.3	0.07
Stage 3	-9.5	0.04
Stage 3	-9.7	0.01
Stage 3	-9.9	-0.02
Stage 3	-10.1	-0.04
Stage 3	-10.3	-0.06
Stage 3	-10.5	-0.08
Stage 3	-10.7	-0.09
Stage 3	-10.9	-0.1
Stage 3	-11.1	-0.11
Stage 3	-11.3	-0.12
Stage 3	-11.5	-0.13
Stage 3	-11.7	-0.13
Stage 3	-11.9	-0.14
Stage 3	-12.1	-0.14
Stage 3	-12.3	-0.14
Stage 3	-12.5	-0.14
Stage 3	-12.7	-0.14

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	-12.9	-0.14
Stage 3	-13.1	-0.13
Stage 3	-13.3	-0.13
Stage 3	-13.5	-0.12
Stage 3	-13.7	-0.12
Stage 3	-13.9	-0.12
Stage 3	-14.1	-0.11
Stage 3	-14.3	-0.11
Stage 3	-14.5	-0.1
Stage 3	-14.7	-0.09
Stage 3	-14.9	-0.09
Stage 3	-15.1	-0.08
Stage 3	-15.3	-0.08
Stage 3	-15.5	-0.07
Stage 3	-15.7	-0.07
Stage 3	-15.9	-0.06
Stage 3	-16.1	-0.06
Stage 3	-16.3	-0.05
Stage 3	-16.5	-0.05
Stage 3	-16.7	-0.04
Stage 3	-16.9	-0.04
Stage 3	-17.1	-0.03
Stage 3	-17.3	-0.03
Stage 3	-17.5	-0.03
Stage 3	-17.7	-0.02
Stage 3	-17.9	-0.02
Stage 3	-18.1	-0.02
Stage 3	-18.3	-0.01
Stage 3	-18.5	-0.01
Stage 3	-18.7	-0.01
Stage 3	-18.9	-0.01
Stage 3	-19.1	-0.01
Stage 3	-19.3	0
Stage 3	-19.5	0
Stage 3	-19.7	0
Stage 3	-19.9	0
Stage 3	-20.1	0
Stage 3	-20.3	0
Stage 3	-20.5	0
Stage 3	-20.7	0
Stage 3	-20.9	0
Stage 3	-21.1	0
Stage 3	-21.3	0.01
Stage 3	-21.5	0.01
Stage 3	-21.7	0.01
Stage 3	-21.9	0.01
Stage 3	-22.1	0.01
Stage 3	-22.3	0.01
Stage 3	-22.5	0.01
Stage 3	-22.7	0.01
Stage 3	-22.9	0.01
Stage 3	-23.1	0.01
Stage 3	-23.3	0.01
Stage 3	-23.5	0.01
Stage 3	-23.7	0.01
Stage 3	-23.9	0.01
Stage 3	-24.1	0.01
Stage 3	-24.3	0
Stage 3	-24.5	0
Stage 3	-24.7	0
Stage 3	-24.9	0
Stage 3	-25.1	0
Stage 3	-25.3	0
Stage 3	-25.5	0
Stage 3	-25.7	0
Stage 3	-25.9	0
Stage 3	-26.1	0
Stage 3	-26.3	0
Stage 3	-26.5	0
Stage 3	-26.7	0
Stage 3	-26.9	0

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 3	-27.1	0
Stage 3	-27.3	0
Stage 3	-27.5	0
Stage 3	-27.7	0
Stage 3	-27.9	0
Stage 3	-28	0

Tabella Spostamento Nominal - LEFT Stage: Stage 4

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	0.5	36.35
Stage 4	0.3	35.88
Stage 4	0.1	35.4
Stage 4	-0.1	34.93
Stage 4	-0.3	34.46
Stage 4	-0.5	33.99
Stage 4	-0.7	33.52
Stage 4	-0.9	33.05
Stage 4	-1.1	32.57
Stage 4	-1.3	32.1
Stage 4	-1.5	31.63
Stage 4	-1.7	31.16
Stage 4	-1.9	30.69
Stage 4	-2.1	30.22
Stage 4	-2.3	29.75
Stage 4	-2.5	29.28
Stage 4	-2.7	28.81
Stage 4	-2.9	28.34
Stage 4	-3.1	27.87
Stage 4	-3.3	27.4
Stage 4	-3.5	26.93
Stage 4	-3.7	26.47
Stage 4	-3.9	25.99
Stage 4	-4.1	25.52
Stage 4	-4.3	25.05
Stage 4	-4.5	24.57
Stage 4	-4.7	24.08
Stage 4	-4.9	23.59
Stage 4	-5.1	23.1
Stage 4	-5.3	22.6
Stage 4	-5.5	22.1
Stage 4	-5.7	21.59
Stage 4	-5.9	21.08
Stage 4	-6.1	20.56
Stage 4	-6.3	20.03
Stage 4	-6.5	19.5
Stage 4	-6.7	18.97
Stage 4	-6.9	18.42
Stage 4	-7.1	17.88
Stage 4	-7.3	17.33
Stage 4	-7.5	16.77
Stage 4	-7.7	16.21
Stage 4	-7.9	15.65
Stage 4	-8.1	15.09
Stage 4	-8.3	14.53
Stage 4	-8.5	13.96
Stage 4	-8.7	13.4
Stage 4	-8.9	12.84
Stage 4	-9.1	12.28
Stage 4	-9.3	11.72
Stage 4	-9.5	11.17
Stage 4	-9.7	10.63
Stage 4	-9.9	10.09
Stage 4	-10.1	9.56
Stage 4	-10.3	9.04
Stage 4	-10.5	8.53
Stage 4	-10.7	8.03
Stage 4	-10.9	7.55
Stage 4	-11.1	7.07
Stage 4	-11.3	6.61
Stage 4	-11.5	6.17
Stage 4	-11.7	5.74
Stage 4	-11.9	5.33
Stage 4	-12.1	4.93
Stage 4	-12.3	4.55
Stage 4	-12.5	4.19
Stage 4	-12.7	3.84

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	-12.9	3.51
Stage 4	-13.1	3.2
Stage 4	-13.3	2.91
Stage 4	-13.5	2.63
Stage 4	-13.7	2.38
Stage 4	-13.9	2.13
Stage 4	-14.1	1.91
Stage 4	-14.3	1.7
Stage 4	-14.5	1.5
Stage 4	-14.7	1.32
Stage 4	-14.9	1.16
Stage 4	-15.1	1
Stage 4	-15.3	0.86
Stage 4	-15.5	0.74
Stage 4	-15.7	0.62
Stage 4	-15.9	0.52
Stage 4	-16.1	0.43
Stage 4	-16.3	0.34
Stage 4	-16.5	0.27
Stage 4	-16.7	0.21
Stage 4	-16.9	0.15
Stage 4	-17.1	0.1
Stage 4	-17.3	0.06
Stage 4	-17.5	0.03
Stage 4	-17.7	0
Stage 4	-17.9	-0.02
Stage 4	-18.1	-0.04
Stage 4	-18.3	-0.05
Stage 4	-18.5	-0.06
Stage 4	-18.7	-0.07
Stage 4	-18.9	-0.07
Stage 4	-19.1	-0.07
Stage 4	-19.3	-0.06
Stage 4	-19.5	-0.06
Stage 4	-19.7	-0.05
Stage 4	-19.9	-0.04
Stage 4	-20.1	-0.03
Stage 4	-20.3	-0.02
Stage 4	-20.5	0
Stage 4	-20.7	0.01
Stage 4	-20.9	0.03
Stage 4	-21.1	0.04
Stage 4	-21.3	0.06
Stage 4	-21.5	0.08
Stage 4	-21.7	0.09
Stage 4	-21.9	0.11
Stage 4	-22.1	0.12
Stage 4	-22.3	0.14
Stage 4	-22.5	0.15
Stage 4	-22.7	0.17
Stage 4	-22.9	0.19
Stage 4	-23.1	0.2
Stage 4	-23.3	0.21
Stage 4	-23.5	0.23
Stage 4	-23.7	0.24
Stage 4	-23.9	0.25
Stage 4	-24.1	0.27
Stage 4	-24.3	0.28
Stage 4	-24.5	0.29
Stage 4	-24.7	0.3
Stage 4	-24.9	0.31
Stage 4	-25.1	0.32
Stage 4	-25.3	0.33
Stage 4	-25.5	0.34
Stage 4	-25.7	0.35
Stage 4	-25.9	0.36
Stage 4	-26.1	0.37
Stage 4	-26.3	0.38
Stage 4	-26.5	0.39
Stage 4	-26.7	0.39
Stage 4	-26.9	0.4

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 4	-27.1	0.41
Stage 4	-27.3	0.42
Stage 4	-27.5	0.43
Stage 4	-27.7	0.44
Stage 4	-27.9	0.44
Stage 4	-28	0.45

Tabella Spostamento Nominal - LEFT Stage: Stage 5

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	0.5	36.12
Stage 5	0.3	35.62
Stage 5	0.1	35.11
Stage 5	-0.1	34.61
Stage 5	-0.3	34.11
Stage 5	-0.5	33.6
Stage 5	-0.7	33.1
Stage 5	-0.9	32.6
Stage 5	-1.1	32.09
Stage 5	-1.3	31.59
Stage 5	-1.5	31.09
Stage 5	-1.7	30.58
Stage 5	-1.9	30.08
Stage 5	-2.1	29.58
Stage 5	-2.3	29.08
Stage 5	-2.5	28.58
Stage 5	-2.7	28.08
Stage 5	-2.9	27.58
Stage 5	-3.1	27.09
Stage 5	-3.3	26.59
Stage 5	-3.5	26.1
Stage 5	-3.7	25.61
Stage 5	-3.9	25.11
Stage 5	-4.1	24.62
Stage 5	-4.3	24.12
Stage 5	-4.5	23.62
Stage 5	-4.7	23.12
Stage 5	-4.9	22.62
Stage 5	-5.1	22.12
Stage 5	-5.3	21.61
Stage 5	-5.5	21.1
Stage 5	-5.7	20.59
Stage 5	-5.9	20.07
Stage 5	-6.1	19.56
Stage 5	-6.3	19.04
Stage 5	-6.5	18.52
Stage 5	-6.7	18
Stage 5	-6.9	17.48
Stage 5	-7.1	16.95
Stage 5	-7.3	16.43
Stage 5	-7.5	15.9
Stage 5	-7.7	15.37
Stage 5	-7.9	14.84
Stage 5	-8.1	14.31
Stage 5	-8.3	13.78
Stage 5	-8.5	13.25
Stage 5	-8.7	12.72
Stage 5	-8.9	12.2
Stage 5	-9.1	11.67
Stage 5	-9.3	11.15
Stage 5	-9.5	10.64
Stage 5	-9.7	10.13
Stage 5	-9.9	9.62
Stage 5	-10.1	9.13
Stage 5	-10.3	8.64
Stage 5	-10.5	8.16
Stage 5	-10.7	7.69
Stage 5	-10.9	7.24
Stage 5	-11.1	6.79
Stage 5	-11.3	6.36
Stage 5	-11.5	5.94
Stage 5	-11.7	5.53
Stage 5	-11.9	5.14
Stage 5	-12.1	4.77
Stage 5	-12.3	4.41
Stage 5	-12.5	4.06
Stage 5	-12.7	3.74

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	-12.9	3.42
Stage 5	-13.1	3.13
Stage 5	-13.3	2.85
Stage 5	-13.5	2.59
Stage 5	-13.7	2.34
Stage 5	-13.9	2.11
Stage 5	-14.1	1.89
Stage 5	-14.3	1.69
Stage 5	-14.5	1.5
Stage 5	-14.7	1.33
Stage 5	-14.9	1.17
Stage 5	-15.1	1.02
Stage 5	-15.3	0.89
Stage 5	-15.5	0.77
Stage 5	-15.7	0.65
Stage 5	-15.9	0.55
Stage 5	-16.1	0.46
Stage 5	-16.3	0.38
Stage 5	-16.5	0.31
Stage 5	-16.7	0.25
Stage 5	-16.9	0.19
Stage 5	-17.1	0.15
Stage 5	-17.3	0.1
Stage 5	-17.5	0.07
Stage 5	-17.7	0.04
Stage 5	-17.9	0.02
Stage 5	-18.1	0
Stage 5	-18.3	-0.02
Stage 5	-18.5	-0.03
Stage 5	-18.7	-0.03
Stage 5	-18.9	-0.03
Stage 5	-19.1	-0.03
Stage 5	-19.3	-0.03
Stage 5	-19.5	-0.03
Stage 5	-19.7	-0.02
Stage 5	-19.9	-0.01
Stage 5	-20.1	0
Stage 5	-20.3	0.01
Stage 5	-20.5	0.02
Stage 5	-20.7	0.03
Stage 5	-20.9	0.05
Stage 5	-21.1	0.06
Stage 5	-21.3	0.08
Stage 5	-21.5	0.09
Stage 5	-21.7	0.11
Stage 5	-21.9	0.12
Stage 5	-22.1	0.14
Stage 5	-22.3	0.15
Stage 5	-22.5	0.17
Stage 5	-22.7	0.18
Stage 5	-22.9	0.19
Stage 5	-23.1	0.21
Stage 5	-23.3	0.22
Stage 5	-23.5	0.23
Stage 5	-23.7	0.24
Stage 5	-23.9	0.26
Stage 5	-24.1	0.27
Stage 5	-24.3	0.28
Stage 5	-24.5	0.29
Stage 5	-24.7	0.3
Stage 5	-24.9	0.31
Stage 5	-25.1	0.32
Stage 5	-25.3	0.33
Stage 5	-25.5	0.34
Stage 5	-25.7	0.35
Stage 5	-25.9	0.36
Stage 5	-26.1	0.36
Stage 5	-26.3	0.37
Stage 5	-26.5	0.38
Stage 5	-26.7	0.39
Stage 5	-26.9	0.4

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 5	-27.1	0.41
Stage 5	-27.3	0.41
Stage 5	-27.5	0.42
Stage 5	-27.7	0.43
Stage 5	-27.9	0.44
Stage 5	-28	0.44

Tabella Spostamento Nominal - LEFT Stage: Stage 6

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	0.5	54.26
Stage 6	0.3	53.97
Stage 6	0.1	53.69
Stage 6	-0.1	53.4
Stage 6	-0.3	53.11
Stage 6	-0.5	52.83
Stage 6	-0.7	52.54
Stage 6	-0.9	52.25
Stage 6	-1.1	51.97
Stage 6	-1.3	51.68
Stage 6	-1.5	51.4
Stage 6	-1.7	51.11
Stage 6	-1.9	50.82
Stage 6	-2.1	50.54
Stage 6	-2.3	50.25
Stage 6	-2.5	49.97
Stage 6	-2.7	49.68
Stage 6	-2.9	49.4
Stage 6	-3.1	49.12
Stage 6	-3.3	48.84
Stage 6	-3.5	48.55
Stage 6	-3.7	48.27
Stage 6	-3.9	47.98
Stage 6	-4.1	47.69
Stage 6	-4.3	47.4
Stage 6	-4.5	47.09
Stage 6	-4.7	46.79
Stage 6	-4.9	46.47
Stage 6	-5.1	46.15
Stage 6	-5.3	45.83
Stage 6	-5.5	45.49
Stage 6	-5.7	45.14
Stage 6	-5.9	44.79
Stage 6	-6.1	44.43
Stage 6	-6.3	44.05
Stage 6	-6.5	43.67
Stage 6	-6.7	43.28
Stage 6	-6.9	42.87
Stage 6	-7.1	42.45
Stage 6	-7.3	42.02
Stage 6	-7.5	41.57
Stage 6	-7.7	41.11
Stage 6	-7.9	40.63
Stage 6	-8.1	40.13
Stage 6	-8.3	39.62
Stage 6	-8.5	39.09
Stage 6	-8.7	38.54
Stage 6	-8.9	37.97
Stage 6	-9.1	37.39
Stage 6	-9.3	36.79
Stage 6	-9.5	36.17
Stage 6	-9.7	35.53
Stage 6	-9.9	34.87
Stage 6	-10.1	34.2
Stage 6	-10.3	33.51
Stage 6	-10.5	32.8
Stage 6	-10.7	32.08
Stage 6	-10.9	31.35
Stage 6	-11.1	30.6
Stage 6	-11.3	29.84
Stage 6	-11.5	29.07
Stage 6	-11.7	28.29
Stage 6	-11.9	27.5
Stage 6	-12.1	26.7
Stage 6	-12.3	25.9
Stage 6	-12.5	25.09
Stage 6	-12.7	24.28

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	-12.9	23.47
Stage 6	-13.1	22.65
Stage 6	-13.3	21.84
Stage 6	-13.5	21.03
Stage 6	-13.7	20.22
Stage 6	-13.9	19.42
Stage 6	-14.1	18.63
Stage 6	-14.3	17.84
Stage 6	-14.5	17.06
Stage 6	-14.7	16.29
Stage 6	-14.9	15.53
Stage 6	-15.1	14.79
Stage 6	-15.3	14.06
Stage 6	-15.5	13.35
Stage 6	-15.7	12.65
Stage 6	-15.9	11.97
Stage 6	-16.1	11.31
Stage 6	-16.3	10.67
Stage 6	-16.5	10.04
Stage 6	-16.7	9.44
Stage 6	-16.9	8.86
Stage 6	-17.1	8.3
Stage 6	-17.3	7.77
Stage 6	-17.5	7.25
Stage 6	-17.7	6.76
Stage 6	-17.9	6.29
Stage 6	-18.1	5.85
Stage 6	-18.3	5.43
Stage 6	-18.5	5.03
Stage 6	-18.7	4.65
Stage 6	-18.9	4.29
Stage 6	-19.1	3.96
Stage 6	-19.3	3.64
Stage 6	-19.5	3.35
Stage 6	-19.7	3.07
Stage 6	-19.9	2.82
Stage 6	-20.1	2.58
Stage 6	-20.3	2.36
Stage 6	-20.5	2.16
Stage 6	-20.7	1.97
Stage 6	-20.9	1.8
Stage 6	-21.1	1.64
Stage 6	-21.3	1.5
Stage 6	-21.5	1.37
Stage 6	-21.7	1.26
Stage 6	-21.9	1.15
Stage 6	-22.1	1.06
Stage 6	-22.3	0.97
Stage 6	-22.5	0.9
Stage 6	-22.7	0.83
Stage 6	-22.9	0.78
Stage 6	-23.1	0.73
Stage 6	-23.3	0.69
Stage 6	-23.5	0.65
Stage 6	-23.7	0.62
Stage 6	-23.9	0.6
Stage 6	-24.1	0.58
Stage 6	-24.3	0.56
Stage 6	-24.5	0.55
Stage 6	-24.7	0.54
Stage 6	-24.9	0.54
Stage 6	-25.1	0.54
Stage 6	-25.3	0.54
Stage 6	-25.5	0.54
Stage 6	-25.7	0.55
Stage 6	-25.9	0.55
Stage 6	-26.1	0.56
Stage 6	-26.3	0.57
Stage 6	-26.5	0.58
Stage 6	-26.7	0.59
Stage 6	-26.9	0.6

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	-27.1	0.61
Stage 6	-27.3	0.62
Stage 6	-27.5	0.63
Stage 6	-27.7	0.64
Stage 6	-27.9	0.65
Stage 6	-28	0.65

Tabella Spostamento Nominal - LEFT Stage: Stage 7

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	0.5	54.58
Stage 7	0.3	54.25
Stage 7	0.1	53.92
Stage 7	-0.1	53.59
Stage 7	-0.3	53.26
Stage 7	-0.5	52.93
Stage 7	-0.7	52.6
Stage 7	-0.9	52.27
Stage 7	-1.1	51.94
Stage 7	-1.3	51.61
Stage 7	-1.5	51.28
Stage 7	-1.7	50.95
Stage 7	-1.9	50.61
Stage 7	-2.1	50.29
Stage 7	-2.3	49.96
Stage 7	-2.5	49.63
Stage 7	-2.7	49.3
Stage 7	-2.9	48.97
Stage 7	-3.1	48.65
Stage 7	-3.3	48.32
Stage 7	-3.5	47.99
Stage 7	-3.7	47.66
Stage 7	-3.9	47.33
Stage 7	-4.1	47
Stage 7	-4.3	46.66
Stage 7	-4.5	46.32
Stage 7	-4.7	45.97
Stage 7	-4.9	45.61
Stage 7	-5.1	45.25
Stage 7	-5.3	44.88
Stage 7	-5.5	44.5
Stage 7	-5.7	44.12
Stage 7	-5.9	43.73
Stage 7	-6.1	43.33
Stage 7	-6.3	42.92
Stage 7	-6.5	42.5
Stage 7	-6.7	42.07
Stage 7	-6.9	41.63
Stage 7	-7.1	41.18
Stage 7	-7.3	40.72
Stage 7	-7.5	40.25
Stage 7	-7.7	39.76
Stage 7	-7.9	39.26
Stage 7	-8.1	38.75
Stage 7	-8.3	38.22
Stage 7	-8.5	37.68
Stage 7	-8.7	37.12
Stage 7	-8.9	36.55
Stage 7	-9.1	35.97
Stage 7	-9.3	35.37
Stage 7	-9.5	34.76
Stage 7	-9.7	34.14
Stage 7	-9.9	33.5
Stage 7	-10.1	32.85
Stage 7	-10.3	32.2
Stage 7	-10.5	31.52
Stage 7	-10.7	30.84
Stage 7	-10.9	30.15
Stage 7	-11.1	29.44
Stage 7	-11.3	28.72
Stage 7	-11.5	28
Stage 7	-11.7	27.26
Stage 7	-11.9	26.52
Stage 7	-12.1	25.77
Stage 7	-12.3	25.02
Stage 7	-12.5	24.26
Stage 7	-12.7	23.49

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	-12.9	22.73
Stage 7	-13.1	21.96
Stage 7	-13.3	21.19
Stage 7	-13.5	20.43
Stage 7	-13.7	19.66
Stage 7	-13.9	18.9
Stage 7	-14.1	18.15
Stage 7	-14.3	17.4
Stage 7	-14.5	16.65
Stage 7	-14.7	15.92
Stage 7	-14.9	15.2
Stage 7	-15.1	14.49
Stage 7	-15.3	13.79
Stage 7	-15.5	13.11
Stage 7	-15.7	12.44
Stage 7	-15.9	11.78
Stage 7	-16.1	11.14
Stage 7	-16.3	10.52
Stage 7	-16.5	9.92
Stage 7	-16.7	9.34
Stage 7	-16.9	8.78
Stage 7	-17.1	8.24
Stage 7	-17.3	7.72
Stage 7	-17.5	7.22
Stage 7	-17.7	6.74
Stage 7	-17.9	6.28
Stage 7	-18.1	5.85
Stage 7	-18.3	5.44
Stage 7	-18.5	5.05
Stage 7	-18.7	4.68
Stage 7	-18.9	4.33
Stage 7	-19.1	4
Stage 7	-19.3	3.69
Stage 7	-19.5	3.4
Stage 7	-19.7	3.13
Stage 7	-19.9	2.88
Stage 7	-20.1	2.64
Stage 7	-20.3	2.42
Stage 7	-20.5	2.22
Stage 7	-20.7	2.04
Stage 7	-20.9	1.87
Stage 7	-21.1	1.71
Stage 7	-21.3	1.57
Stage 7	-21.5	1.44
Stage 7	-21.7	1.32
Stage 7	-21.9	1.22
Stage 7	-22.1	1.12
Stage 7	-22.3	1.04
Stage 7	-22.5	0.96
Stage 7	-22.7	0.89
Stage 7	-22.9	0.84
Stage 7	-23.1	0.78
Stage 7	-23.3	0.74
Stage 7	-23.5	0.7
Stage 7	-23.7	0.67
Stage 7	-23.9	0.64
Stage 7	-24.1	0.62
Stage 7	-24.3	0.6
Stage 7	-24.5	0.59
Stage 7	-24.7	0.58
Stage 7	-24.9	0.57
Stage 7	-25.1	0.57
Stage 7	-25.3	0.57
Stage 7	-25.5	0.57
Stage 7	-25.7	0.57
Stage 7	-25.9	0.57
Stage 7	-26.1	0.58
Stage 7	-26.3	0.58
Stage 7	-26.5	0.59
Stage 7	-26.7	0.59
Stage 7	-26.9	0.6

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	-27.1	0.61
Stage 7	-27.3	0.62
Stage 7	-27.5	0.62
Stage 7	-27.7	0.63
Stage 7	-27.9	0.64
Stage 7	-28	0.64

Tabella Spostamento Nominal - LEFT Stage: Stage 8

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 8	0.5	55.73
Stage 8	0.3	56.06
Stage 8	0.1	56.4
Stage 8	-0.1	56.74
Stage 8	-0.3	57.08
Stage 8	-0.5	57.42
Stage 8	-0.7	57.75
Stage 8	-0.9	58.09
Stage 8	-1.1	58.43
Stage 8	-1.3	58.77
Stage 8	-1.5	59.11
Stage 8	-1.7	59.45
Stage 8	-1.9	59.79
Stage 8	-2.1	60.13
Stage 8	-2.3	60.46
Stage 8	-2.5	60.8
Stage 8	-2.7	61.15
Stage 8	-2.9	61.49
Stage 8	-3.1	61.83
Stage 8	-3.3	62.17
Stage 8	-3.5	62.51
Stage 8	-3.7	62.85
Stage 8	-3.9	63.19
Stage 8	-4.1	63.52
Stage 8	-4.3	63.85
Stage 8	-4.5	64.17
Stage 8	-4.7	64.48
Stage 8	-4.9	64.78
Stage 8	-5.1	65.08
Stage 8	-5.3	65.37
Stage 8	-5.5	65.64
Stage 8	-5.7	65.91
Stage 8	-5.9	66.17
Stage 8	-6.1	66.41
Stage 8	-6.3	66.64
Stage 8	-6.5	66.86
Stage 8	-6.7	67.07
Stage 8	-6.9	67.26
Stage 8	-7.1	67.44
Stage 8	-7.3	67.59
Stage 8	-7.5	67.73
Stage 8	-7.7	67.85
Stage 8	-7.9	67.94
Stage 8	-8.1	68.02
Stage 8	-8.3	68.07
Stage 8	-8.5	68.09
Stage 8	-8.7	68.09
Stage 8	-8.9	68.07
Stage 8	-9.1	68.02
Stage 8	-9.3	67.94
Stage 8	-9.5	67.84
Stage 8	-9.7	67.7
Stage 8	-9.9	67.55
Stage 8	-10.1	67.36
Stage 8	-10.3	67.14
Stage 8	-10.5	66.9
Stage 8	-10.7	66.62
Stage 8	-10.9	66.31
Stage 8	-11.1	65.96
Stage 8	-11.3	65.58
Stage 8	-11.5	65.16
Stage 8	-11.7	64.71
Stage 8	-11.9	64.22
Stage 8	-12.1	63.7
Stage 8	-12.3	63.14
Stage 8	-12.5	62.54
Stage 8	-12.7	61.91

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 8	-12.9	61.24
Stage 8	-13.1	60.53
Stage 8	-13.3	59.79
Stage 8	-13.5	59.02
Stage 8	-13.7	58.21
Stage 8	-13.9	57.37
Stage 8	-14.1	56.49
Stage 8	-14.3	55.59
Stage 8	-14.5	54.66
Stage 8	-14.7	53.7
Stage 8	-14.9	52.71
Stage 8	-15.1	51.7
Stage 8	-15.3	50.66
Stage 8	-15.5	49.6
Stage 8	-15.7	48.53
Stage 8	-15.9	47.43
Stage 8	-16.1	46.31
Stage 8	-16.3	45.18
Stage 8	-16.5	44.04
Stage 8	-16.7	42.88
Stage 8	-16.9	41.72
Stage 8	-17.1	40.54
Stage 8	-17.3	39.36
Stage 8	-17.5	38.18
Stage 8	-17.7	36.99
Stage 8	-17.9	35.8
Stage 8	-18.1	34.61
Stage 8	-18.3	33.42
Stage 8	-18.5	32.24
Stage 8	-18.7	31.06
Stage 8	-18.9	29.89
Stage 8	-19.1	28.73
Stage 8	-19.3	27.58
Stage 8	-19.5	26.44
Stage 8	-19.7	25.32
Stage 8	-19.9	24.2
Stage 8	-20.1	23.11
Stage 8	-20.3	22.03
Stage 8	-20.5	20.97
Stage 8	-20.7	19.93
Stage 8	-20.9	18.92
Stage 8	-21.1	17.92
Stage 8	-21.3	16.94
Stage 8	-21.5	15.99
Stage 8	-21.7	15.05
Stage 8	-21.9	14.15
Stage 8	-22.1	13.26
Stage 8	-22.3	12.4
Stage 8	-22.5	11.56
Stage 8	-22.7	10.74
Stage 8	-22.9	9.95
Stage 8	-23.1	9.18
Stage 8	-23.3	8.43
Stage 8	-23.5	7.7
Stage 8	-23.7	7
Stage 8	-23.9	6.31
Stage 8	-24.1	5.64
Stage 8	-24.3	4.98
Stage 8	-24.5	4.35
Stage 8	-24.7	3.73
Stage 8	-24.9	3.12
Stage 8	-25.1	2.52
Stage 8	-25.3	1.94
Stage 8	-25.5	1.37
Stage 8	-25.7	0.8
Stage 8	-25.9	0.24
Stage 8	-26.1	-0.3
Stage 8	-26.3	-0.85
Stage 8	-26.5	-1.39
Stage 8	-26.7	-1.92
Stage 8	-26.9	-2.46

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	**Z (m)**	**Spostamento (mm)**
Stage 8	-27.1	-2.99
Stage 8	-27.3	-3.52
Stage 8	-27.5	-4.04
Stage 8	-27.7	-4.57
Stage 8	-27.9	-5.1
Stage 8	-28	-5.36

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	0.5	0	0
Stage 1	0.3	0	0
Stage 1	0.1	0	0
Stage 1	-0.1	0	0
Stage 1	-0.3	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	-12.1	0	0

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	-12.3	0	0
Stage 1	-12.5	0	0
Stage 1	-12.7	0	0
Stage 1	-12.9	0	0
Stage 1	-13.1	0	0
Stage 1	-13.3	0	0
Stage 1	-13.5	0	0
Stage 1	-13.7	0	0
Stage 1	-13.9	0	0
Stage 1	-14.1	0	0
Stage 1	-14.3	0	0
Stage 1	-14.5	0	0
Stage 1	-14.7	0	0
Stage 1	-14.9	0	0
Stage 1	-15.1	0	0
Stage 1	-15.3	0	0
Stage 1	-15.5	0	0
Stage 1	-15.7	0	0
Stage 1	-15.9	0	0
Stage 1	-16.1	0	0
Stage 1	-16.3	0	0
Stage 1	-16.5	0	0
Stage 1	-16.7	0	0
Stage 1	-16.9	0	0
Stage 1	-17.1	0	0
Stage 1	-17.3	0	0
Stage 1	-17.5	0	0
Stage 1	-17.7	0	0
Stage 1	-17.9	0	0
Stage 1	-18.1	0	0
Stage 1	-18.3	0	0
Stage 1	-18.5	0	0
Stage 1	-18.7	0	0
Stage 1	-18.9	0	0
Stage 1	-19.1	0	0
Stage 1	-19.3	0	0
Stage 1	-19.5	0	0
Stage 1	-19.7	0	0
Stage 1	-19.9	0	0
Stage 1	-20.1	0	0
Stage 1	-20.3	0	0
Stage 1	-20.5	0	0
Stage 1	-20.7	0	0
Stage 1	-20.9	0	0
Stage 1	-21.1	0	0
Stage 1	-21.3	0	0
Stage 1	-21.5	0	0
Stage 1	-21.7	0	0
Stage 1	-21.9	0	0
Stage 1	-22.1	0	0
Stage 1	-22.3	0	0
Stage 1	-22.5	0	0
Stage 1	-22.7	0	0
Stage 1	-22.9	0	0
Stage 1	-23.1	0	0
Stage 1	-23.3	0	0
Stage 1	-23.5	0	0
Stage 1	-23.7	0	0
Stage 1	-23.9	0	0
Stage 1	-24.1	0	0
Stage 1	-24.3	0	0
Stage 1	-24.5	0	0
Stage 1	-24.7	0	0
Stage 1	-24.9	0	0
Stage 1	-25.1	0	0
Stage 1	-25.3	0	0
Stage 1	-25.5	0	0
Stage 1	-25.7	0	0
Stage 1	-25.9	0	0
Stage 1	-26.1	0	0
Stage 1	-26.3	0	0

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 1	-26.5	0	0
Stage 1	-26.7	0	0
Stage 1	-26.9	0	0
Stage 1	-27.1	0	0
Stage 1	-27.3	0	0
Stage 1	-27.5	0	0
Stage 1	-27.7	0	0
Stage 1	-27.9	0	0
Stage 1	-28	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	0.5	0	0
Stage 2	0.3	0	0
Stage 2	0.3	0	0
Stage 2	0.1	0	0
Stage 2	0.1	0	0
Stage 2	-0.1	0	0
Stage 2	-0.1	0	0
Stage 2	-0.3	-0.01	-0.03
Stage 2	-0.5	-0.09	-0.43
Stage 2	-0.7	-0.33	-1.2
Stage 2	-0.9	-0.8	-2.35
Stage 2	-1.1	-1.58	-3.87
Stage 2	-1.3	-2.73	-5.77
Stage 2	-1.5	-4.34	-8.04
Stage 2	-1.7	-6.47	-10.68
Stage 2	-1.9	-9.21	-13.7
Stage 2	-2.1	-12.63	-17.09
Stage 2	-2.3	-16.8	-20.85
Stage 2	-2.5	-21.8	-24.99
Stage 2	-2.7	-27.7	-29.5
Stage 2	-2.9	-34.57	-34.38
Stage 2	-3.1	-42.5	-39.64
Stage 2	-3.3	-51.56	-45.27
Stage 2	-3.5	-61.81	-51.28
Stage 2	-3.7	-73.34	-57.66
Stage 2	-3.9	-86.23	-64.41
Stage 2	-4.1	-100.01	-68.93
Stage 2	-4.3	-114.36	-71.71
Stage 2	-4.5	-128.91	-72.75
Stage 2	-4.7	-143.31	-72.04
Stage 2	-4.9	-157.23	-69.58
Stage 2	-5.1	-170.3	-65.38
Stage 2	-5.3	-182.28	-59.87
Stage 2	-5.5	-192.98	-53.49
Stage 2	-5.7	-202.23	-46.24
Stage 2	-5.9	-209.85	-38.11
Stage 2	-6.1	-215.67	-29.12
Stage 2	-6.3	-219.7	-20.15
Stage 2	-6.5	-222.08	-11.91
Stage 2	-6.7	-222.97	-4.45
Stage 2	-6.9	-222.52	2.28
Stage 2	-7.1	-220.85	8.32
Stage 2	-7.3	-218.11	13.71
Stage 2	-7.5	-214.42	18.48
Stage 2	-7.7	-209.88	22.69
Stage 2	-7.9	-204.61	26.35
Stage 2	-8.1	-198.7	29.52
Stage 2	-8.3	-192.26	32.23
Stage 2	-8.5	-185.36	34.5
Stage 2	-8.7	-178.08	36.39
Stage 2	-8.9	-170.5	37.91
Stage 2	-9.1	-162.68	39.1
Stage 2	-9.3	-154.68	39.99
Stage 2	-9.5	-146.56	40.61
Stage 2	-9.7	-138.36	40.99
Stage 2	-9.9	-130.1	41.28
Stage 2	-10.1	-121.86	41.21
Stage 2	-10.3	-113.69	40.84
Stage 2	-10.5	-105.65	40.21
Stage 2	-10.7	-97.78	39.36
Stage 2	-10.9	-90.11	38.34
Stage 2	-11.1	-82.68	37.15
Stage 2	-11.3	-75.51	35.83
Stage 2	-11.5	-68.64	34.4
Stage 2	-11.7	-62.06	32.88
Stage 2	-11.9	-55.8	31.29
Stage 2	-12.1	-49.87	29.66

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-12.3	-44.27	28.01
Stage 2	-12.5	-39	26.34
Stage 2	-12.7	-34.06	24.68
Stage 2	-12.9	-29.46	23.03
Stage 2	-13.1	-25.18	21.4
Stage 2	-13.3	-21.22	19.81
Stage 2	-13.5	-17.57	18.26
Stage 2	-13.7	-14.21	16.75
Stage 2	-13.9	-11.15	15.3
Stage 2	-14.1	-8.37	13.91
Stage 2	-14.3	-5.86	12.58
Stage 2	-14.5	-3.59	11.31
Stage 2	-14.7	-1.57	10.11
Stage 2	-14.9	0.22	8.98
Stage 2	-15.1	1.81	7.91
Stage 2	-15.3	3.19	6.91
Stage 2	-15.5	4.38	5.98
Stage 2	-15.7	5.4	5.11
Stage 2	-15.9	6.27	4.31
Stage 2	-16.1	6.98	3.57
Stage 2	-16.3	7.56	2.89
Stage 2	-16.5	8.01	2.27
Stage 2	-16.7	8.35	1.7
Stage 2	-16.9	8.59	1.2
Stage 2	-17.1	8.74	0.74
Stage 2	-17.3	8.8	0.33
Stage 2	-17.5	8.8	-0.04
Stage 2	-17.7	8.72	-0.36
Stage 2	-17.9	8.6	-0.64
Stage 2	-18.1	8.42	-0.88
Stage 2	-18.3	8.2	-1.09
Stage 2	-18.5	7.95	-1.26
Stage 2	-18.7	7.67	-1.41
Stage 2	-18.9	7.36	-1.52
Stage 2	-19.1	7.04	-1.62
Stage 2	-19.3	6.71	-1.68
Stage 2	-19.5	6.36	-1.73
Stage 2	-19.7	6.01	-1.76
Stage 2	-19.9	5.65	-1.77
Stage 2	-20.1	5.3	-1.77
Stage 2	-20.3	4.95	-1.75
Stage 2	-20.5	4.6	-1.72
Stage 2	-20.7	4.27	-1.69
Stage 2	-20.9	3.94	-1.64
Stage 2	-21.1	3.62	-1.59
Stage 2	-21.3	3.31	-1.53
Stage 2	-21.5	3.02	-1.46
Stage 2	-21.7	2.74	-1.39
Stage 2	-21.9	2.48	-1.32
Stage 2	-22.1	2.23	-1.25
Stage 2	-22.3	1.99	-1.17
Stage 2	-22.5	1.77	-1.1
Stage 2	-22.7	1.57	-1.02
Stage 2	-22.9	1.38	-0.95
Stage 2	-23.1	1.2	-0.88
Stage 2	-23.3	1.04	-0.8
Stage 2	-23.5	0.9	-0.73
Stage 2	-23.7	0.76	-0.66
Stage 2	-23.9	0.64	-0.6
Stage 2	-24.1	0.54	-0.54
Stage 2	-24.3	0.44	-0.48
Stage 2	-24.5	0.36	-0.42
Stage 2	-24.7	0.29	-0.37
Stage 2	-24.9	0.22	-0.31
Stage 2	-25.1	0.17	-0.27
Stage 2	-25.3	0.12	-0.22
Stage 2	-25.5	0.09	-0.18
Stage 2	-25.7	0.06	-0.15
Stage 2	-25.9	0.03	-0.12
Stage 2	-26.1	0.02	-0.09
Stage 2	-26.3	0	-0.06

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 2	-26.5	0	-0.04
Stage 2	-26.7	-0.01	-0.02
Stage 2	-26.9	-0.01	-0.01
Stage 2	-27.1	-0.01	0
Stage 2	-27.3	-0.01	0.01
Stage 2	-27.5	0	0.01
Stage 2	-27.7	0	0.01
Stage 2	-27.9	0	0.01
Stage 2	-28	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	0.5	0	-1.21
Stage 3	0.3	-0.24	-1.21
Stage 3	0.1	-1	-3.81
Stage 3	-0.1	-2.32	-6.58
Stage 3	-0.3	-4.23	-9.54
Stage 3	-0.5	-6.81	-12.91
Stage 3	-0.7	-10.14	-16.68
Stage 3	-0.9	-14.32	-20.86
Stage 3	-1.1	-19.41	-25.45
Stage 3	-1.3	-25.49	-30.44
Stage 3	-1.5	-32.66	-35.84
Stage 3	-1.7	-40.99	-41.64
Stage 3	-1.9	-50.56	-47.84
Stage 3	-2.1	-61.44	-54.43
Stage 3	-2.3	-73.73	-61.43
Stage 3	-2.5	-87.5	-68.84
Stage 3	-2.7	-102.81	-76.57
Stage 3	-2.9	-119.73	-84.59
Stage 3	-3.1	-114.82	24.56
Stage 3	-3.3	-111.63	15.96
Stage 3	-3.5	-110.21	7.09
Stage 3	-3.7	-110.62	-2.04
Stage 3	-3.9	-112.91	-11.44
Stage 3	-4.1	-117.08	-20.85
Stage 3	-4.3	-122.73	-28.28
Stage 3	-4.5	-129.48	-33.74
Stage 3	-4.7	-136.92	-37.21
Stage 3	-4.9	-144.66	-38.7
Stage 3	-5.1	-152.31	-38.22
Stage 3	-5.3	-159.55	-36.19
Stage 3	-5.5	-166.16	-33.06
Stage 3	-5.7	-171.92	-28.84
Stage 3	-5.9	-176.63	-23.52
Stage 3	-6.1	-180.05	-17.12
Stage 3	-6.3	-182.16	-10.53
Stage 3	-6.5	-183.06	-4.49
Stage 3	-6.7	-182.86	0.97
Stage 3	-6.9	-181.69	5.88
Stage 3	-7.1	-179.63	10.28
Stage 3	-7.3	-176.79	14.19
Stage 3	-7.5	-173.27	17.64
Stage 3	-7.7	-169.14	20.66
Stage 3	-7.9	-164.48	23.28
Stage 3	-8.1	-159.37	25.53
Stage 3	-8.3	-153.89	27.44
Stage 3	-8.5	-148.08	29.03
Stage 3	-8.7	-142.02	30.32
Stage 3	-8.9	-135.75	31.36
Stage 3	-9.1	-129.32	32.15
Stage 3	-9.3	-122.77	32.72
Stage 3	-9.5	-116.16	33.09
Stage 3	-9.7	-109.5	33.28
Stage 3	-9.9	-102.83	33.34
Stage 3	-10.1	-96.21	33.14
Stage 3	-10.3	-89.66	32.72
Stage 3	-10.5	-83.24	32.11
Stage 3	-10.7	-76.97	31.35
Stage 3	-10.9	-70.88	30.46
Stage 3	-11.1	-64.99	29.46
Stage 3	-11.3	-59.31	28.37
Stage 3	-11.5	-53.87	27.2
Stage 3	-11.7	-48.68	25.96
Stage 3	-11.9	-43.74	24.69
Stage 3	-12.1	-39.07	23.39
Stage 3	-12.3	-34.65	22.07
Stage 3	-12.5	-30.5	20.74
Stage 3	-12.7	-26.62	19.42

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-12.9	-23	18.12
Stage 3	-13.1	-19.63	16.84
Stage 3	-13.3	-16.51	15.58
Stage 3	-13.5	-13.64	14.36
Stage 3	-13.7	-11	13.18
Stage 3	-13.9	-8.6	12.04
Stage 3	-14.1	-6.41	10.95
Stage 3	-14.3	-4.43	9.9
Stage 3	-14.5	-2.64	8.91
Stage 3	-14.7	-1.05	7.97
Stage 3	-14.9	0.37	7.08
Stage 3	-15.1	1.61	6.24
Stage 3	-15.3	2.7	5.46
Stage 3	-15.5	3.65	4.72
Stage 3	-15.7	4.46	4.04
Stage 3	-15.9	5.14	3.41
Stage 3	-16.1	5.71	2.83
Stage 3	-16.3	6.16	2.29
Stage 3	-16.5	6.53	1.8
Stage 3	-16.7	6.8	1.36
Stage 3	-16.9	6.99	0.96
Stage 3	-17.1	7.11	0.59
Stage 3	-17.3	7.16	0.27
Stage 3	-17.5	7.16	-0.02
Stage 3	-17.7	7.1	-0.28
Stage 3	-17.9	7	-0.5
Stage 3	-18.1	6.86	-0.69
Stage 3	-18.3	6.69	-0.86
Stage 3	-18.5	6.49	-1
Stage 3	-18.7	6.27	-1.12
Stage 3	-18.9	6.02	-1.21
Stage 3	-19.1	5.77	-1.29
Stage 3	-19.3	5.5	-1.35
Stage 3	-19.5	5.22	-1.39
Stage 3	-19.7	4.94	-1.41
Stage 3	-19.9	4.65	-1.42
Stage 3	-20.1	4.37	-1.42
Stage 3	-20.3	4.08	-1.41
Stage 3	-20.5	3.81	-1.39
Stage 3	-20.7	3.53	-1.36
Stage 3	-20.9	3.27	-1.33
Stage 3	-21.1	3.01	-1.29
Stage 3	-21.3	2.76	-1.24
Stage 3	-21.5	2.52	-1.19
Stage 3	-21.7	2.3	-1.14
Stage 3	-21.9	2.08	-1.08
Stage 3	-22.1	1.88	-1.02
Stage 3	-22.3	1.68	-0.96
Stage 3	-22.5	1.5	-0.9
Stage 3	-22.7	1.33	-0.84
Stage 3	-22.9	1.18	-0.78
Stage 3	-23.1	1.03	-0.72
Stage 3	-23.3	0.9	-0.67
Stage 3	-23.5	0.78	-0.61
Stage 3	-23.7	0.67	-0.56
Stage 3	-23.9	0.57	-0.5
Stage 3	-24.1	0.48	-0.45
Stage 3	-24.3	0.39	-0.4
Stage 3	-24.5	0.32	-0.36
Stage 3	-24.7	0.26	-0.31
Stage 3	-24.9	0.21	-0.27
Stage 3	-25.1	0.16	-0.23
Stage 3	-25.3	0.12	-0.2
Stage 3	-25.5	0.09	-0.16
Stage 3	-25.7	0.06	-0.13
Stage 3	-25.9	0.04	-0.11
Stage 3	-26.1	0.02	-0.08
Stage 3	-26.3	0.01	-0.06
Stage 3	-26.5	0	-0.04
Stage 3	-26.7	0	-0.03
Stage 3	-26.9	0	-0.01

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 3	-27.1	0	0
Stage 3	-27.3	0	0
Stage 3	-27.5	0	0.01
Stage 3	-27.7	0	0.01
Stage 3	-27.9	0	0.01
Stage 3	-28	0	0

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	0.5	0	0
Stage 4	0.3	0	0
Stage 4	0.3	0	0
Stage 4	0.1	0	0
Stage 4	0.1	0	0
Stage 4	-0.1	0	0
Stage 4	-0.1	0	0
Stage 4	-0.3	-0.01	-0.03
Stage 4	-0.3	-0.01	-0.03
Stage 4	-0.5	-0.09	-0.43
Stage 4	-0.7	-0.33	-1.2
Stage 4	-0.9	-0.8	-2.35
Stage 4	-1.1	-1.58	-3.87
Stage 4	-1.3	-2.73	-5.77
Stage 4	-1.5	-4.34	-8.04
Stage 4	-1.7	-6.47	-10.68
Stage 4	-1.9	-9.21	-13.7
Stage 4	-2.1	-12.63	-17.09
Stage 4	-2.3	-16.8	-20.85
Stage 4	-2.5	-21.8	-24.99
Stage 4	-2.7	-27.7	-29.5
Stage 4	-2.9	-34.57	-34.38
Stage 4	-3.1	-9.84	123.65
Stage 4	-3.3	13.76	118.02
Stage 4	-3.5	36.16	112.01
Stage 4	-3.7	57.29	105.63
Stage 4	-3.9	77.06	98.88
Stage 4	-4.1	95.42	91.75
Stage 4	-4.3	112.27	84.25
Stage 4	-4.5	127.54	76.38
Stage 4	-4.7	141.17	68.13
Stage 4	-4.9	153.07	59.51
Stage 4	-5.1	163.17	50.51
Stage 4	-5.3	171.4	41.14
Stage 4	-5.5	177.68	31.4
Stage 4	-5.7	181.9	21.08
Stage 4	-5.9	183.93	10.18
Stage 4	-6.1	183.68	-1.29
Stage 4	-6.3	181.01	-13.34
Stage 4	-6.5	175.81	-25.97
Stage 4	-6.7	167.98	-39.18
Stage 4	-6.9	157.38	-52.96
Stage 4	-7.1	143.92	-67.33
Stage 4	-7.3	127.47	-82.26
Stage 4	-7.5	107.91	-97.78
Stage 4	-7.7	85.94	-109.84
Stage 4	-7.9	61.73	-121.05
Stage 4	-8.1	35.45	-131.41
Stage 4	-8.3	7.26	-140.92
Stage 4	-8.5	-22.65	-149.58
Stage 4	-8.7	-54.13	-157.39
Stage 4	-8.9	-87	-164.34
Stage 4	-9.1	-121.09	-170.45
Stage 4	-9.3	-156.23	-175.7
Stage 4	-9.5	-192.25	-180.1
Stage 4	-9.7	-228.98	-183.66
Stage 4	-9.9	-264.76	-178.88
Stage 4	-10.1	-299.39	-173.16
Stage 4	-10.3	-332.69	-166.51
Stage 4	-10.5	-364.47	-158.91
Stage 4	-10.7	-394.55	-150.38
Stage 4	-10.9	-422.73	-140.91
Stage 4	-11.1	-448.83	-130.51
Stage 4	-11.3	-472.67	-119.16
Stage 4	-11.5	-494.04	-106.88
Stage 4	-11.7	-512.78	-93.66
Stage 4	-11.9	-528.68	-79.5

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-12.1	-541.56	-64.41
Stage 4	-12.3	-551.23	-48.37
Stage 4	-12.5	-557.66	-32.16
Stage 4	-12.7	-560.98	-16.59
Stage 4	-12.9	-561.31	-1.63
Stage 4	-13.1	-558.76	12.75
Stage 4	-13.3	-553.44	26.59
Stage 4	-13.5	-545.55	39.44
Stage 4	-13.7	-535.4	50.74
Stage 4	-13.9	-523.28	60.6
Stage 4	-14.1	-509.46	69.11
Stage 4	-14.3	-494.19	76.36
Stage 4	-14.5	-477.7	82.44
Stage 4	-14.7	-460.21	87.45
Stage 4	-14.9	-441.92	91.45
Stage 4	-15.1	-423.01	94.55
Stage 4	-15.3	-403.65	96.81
Stage 4	-15.5	-383.99	98.31
Stage 4	-15.7	-364.16	99.12
Stage 4	-15.9	-344.3	99.31
Stage 4	-16.1	-324.51	98.95
Stage 4	-16.3	-304.9	98.09
Stage 4	-16.5	-285.55	96.74
Stage 4	-16.7	-266.55	94.96
Stage 4	-16.9	-248	92.79
Stage 4	-17.1	-229.94	90.29
Stage 4	-17.3	-212.44	87.5
Stage 4	-17.5	-195.55	84.46
Stage 4	-17.7	-179.3	81.21
Stage 4	-17.9	-163.74	77.82
Stage 4	-18.1	-148.88	74.32
Stage 4	-18.3	-134.72	70.75
Stage 4	-18.5	-121.3	67.13
Stage 4	-18.7	-108.6	63.49
Stage 4	-18.9	-96.63	59.85
Stage 4	-19.1	-85.38	56.23
Stage 4	-19.3	-74.85	52.65
Stage 4	-19.5	-65.03	49.11
Stage 4	-19.7	-55.9	45.65
Stage 4	-19.9	-47.45	42.25
Stage 4	-20.1	-39.66	38.95
Stage 4	-20.3	-32.52	35.73
Stage 4	-20.5	-25.99	32.62
Stage 4	-20.7	-20.07	29.61
Stage 4	-20.9	-14.73	26.72
Stage 4	-21.1	-9.94	23.96
Stage 4	-21.3	-5.67	21.33
Stage 4	-21.5	-1.9	18.84
Stage 4	-21.7	1.39	16.48
Stage 4	-21.9	4.25	14.27
Stage 4	-22.1	6.68	12.19
Stage 4	-22.3	8.73	10.24
Stage 4	-22.5	10.42	8.43
Stage 4	-22.7	11.77	6.75
Stage 4	-22.9	12.81	5.2
Stage 4	-23.1	13.56	3.77
Stage 4	-23.3	14.06	2.47
Stage 4	-23.5	14.31	1.28
Stage 4	-23.7	14.35	0.2
Stage 4	-23.9	14.2	-0.77
Stage 4	-24.1	13.87	-1.62
Stage 4	-24.3	13.4	-2.38
Stage 4	-24.5	12.79	-3.02
Stage 4	-24.7	12.08	-3.57
Stage 4	-24.9	11.27	-4.02
Stage 4	-25.1	10.4	-4.38
Stage 4	-25.3	9.47	-4.64
Stage 4	-25.5	8.51	-4.82
Stage 4	-25.7	7.53	-4.9
Stage 4	-25.9	6.54	-4.91
Stage 4	-26.1	5.58	-4.83

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 4	-26.3	4.64	-4.68
Stage 4	-26.5	3.75	-4.45
Stage 4	-26.7	2.92	-4.15
Stage 4	-26.9	2.17	-3.78
Stage 4	-27.1	1.5	-3.33
Stage 4	-27.3	0.94	-2.81
Stage 4	-27.5	0.49	-2.22
Stage 4	-27.7	0.18	-1.55
Stage 4	-27.9	0.02	-0.82
Stage 4	-28	0	-0.21

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	0.5	0	-0.23
Stage 5	0.3	-0.05	-0.23
Stage 5	0.3	-0.05	-0.23
Stage 5	0.1	-0.2	-0.75
Stage 5	-0.1	-0.47	-1.34
Stage 5	-0.3	-0.87	-2.03
Stage 5	-0.5	-1.5	-3.14
Stage 5	-0.7	-2.44	-4.7
Stage 5	-0.9	-3.78	-6.7
Stage 5	-1.1	-5.6	-9.13
Stage 5	-1.3	-8	-12
Stage 5	-1.5	-11.06	-15.3
Stage 5	-1.7	-14.87	-19.05
Stage 5	-1.9	-19.52	-23.23
Stage 5	-2.1	-25.09	-27.85
Stage 5	-2.3	-31.67	-32.9
Stage 5	-2.5	-39.35	-38.38
Stage 5	-2.7	-48.21	-44.3
Stage 5	-2.9	-58.34	-50.66
Stage 5	-3.1	-37.45	104.45
Stage 5	-3.3	-18	97.24
Stage 5	-3.5	-0.08	89.6
Stage 5	-3.7	16.22	81.53
Stage 5	-3.9	30.83	73.04
Stage 5	-4.1	43.66	64.12
Stage 5	-4.3	54.62	54.79
Stage 5	-4.5	63.63	45.05
Stage 5	-4.7	70.6	34.89
Stage 5	-4.9	75.47	24.33
Stage 5	-5.1	78.14	13.36
Stage 5	-5.3	78.54	1.99
Stage 5	-5.5	76.59	-9.76
Stage 5	-5.7	72.16	-22.11
Stage 5	-5.9	65.15	-35.05
Stage 5	-6.1	55.44	-48.56
Stage 5	-6.3	42.92	-62.63
Stage 5	-6.5	50.95	40.19
Stage 5	-6.7	55.95	24.99
Stage 5	-6.9	57.8	9.25
Stage 5	-7.1	56.4	-7.02
Stage 5	-7.3	51.63	-23.83
Stage 5	-7.5	43.4	-41.17
Stage 5	-7.7	32.07	-56.64
Stage 5	-7.9	17.84	-71.15
Stage 5	-8.1	0.9	-84.68
Stage 5	-8.3	-18.54	-97.24
Stage 5	-8.5	-40.3	-108.81
Stage 5	-8.7	-64.18	-119.39
Stage 5	-8.9	-89.98	-128.99
Stage 5	-9.1	-117.5	-137.6
Stage 5	-9.3	-146.55	-145.22
Stage 5	-9.5	-176.92	-151.85
Stage 5	-9.7	-208.41	-157.49
Stage 5	-9.9	-239.65	-156.19
Stage 5	-10.1	-270.4	-153.71
Stage 5	-10.3	-300.41	-150.07
Stage 5	-10.5	-329.46	-145.26
Stage 5	-10.7	-357.32	-139.3
Stage 5	-10.9	-383.76	-132.18
Stage 5	-11.1	-408.54	-123.93
Stage 5	-11.3	-431.45	-114.55
Stage 5	-11.5	-452.26	-104.05
Stage 5	-11.7	-470.75	-92.43
Stage 5	-11.9	-486.69	-79.71
Stage 5	-12.1	-499.87	-65.89
Stage 5	-12.3	-510.07	-50.99
Stage 5	-12.5	-517.22	-35.76

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-12.7	-521.43	-21.05
Stage 5	-12.9	-522.79	-6.83
Stage 5	-13.1	-521.41	6.92
Stage 5	-13.3	-517.36	20.25
Stage 5	-13.5	-510.83	32.67
Stage 5	-13.7	-502.1	43.64
Stage 5	-13.9	-491.45	53.25
Stage 5	-14.1	-479.13	61.58
Stage 5	-14.3	-465.39	68.72
Stage 5	-14.5	-450.44	74.75
Stage 5	-14.7	-434.49	79.76
Stage 5	-14.9	-417.73	83.81
Stage 5	-15.1	-400.33	86.99
Stage 5	-15.3	-382.46	89.36
Stage 5	-15.5	-364.26	90.99
Stage 5	-15.7	-345.87	91.97
Stage 5	-15.9	-327.4	92.34
Stage 5	-16.1	-308.97	92.17
Stage 5	-16.3	-290.66	91.52
Stage 5	-16.5	-272.57	90.45
Stage 5	-16.7	-254.78	88.94
Stage 5	-16.9	-237.37	87.06
Stage 5	-17.1	-220.4	84.86
Stage 5	-17.3	-203.93	82.36
Stage 5	-17.5	-188.01	79.61
Stage 5	-17.7	-172.67	76.66
Stage 5	-17.9	-157.96	73.56
Stage 5	-18.1	-143.89	70.35
Stage 5	-18.3	-130.48	67.06
Stage 5	-18.5	-117.74	63.71
Stage 5	-18.7	-105.67	60.34
Stage 5	-18.9	-94.28	56.95
Stage 5	-19.1	-83.56	53.58
Stage 5	-19.3	-73.52	50.24
Stage 5	-19.5	-64.13	46.93
Stage 5	-19.7	-55.39	43.68
Stage 5	-19.9	-47.29	40.5
Stage 5	-20.1	-39.82	37.39
Stage 5	-20.3	-32.95	34.36
Stage 5	-20.5	-26.66	31.42
Stage 5	-20.7	-20.95	28.57
Stage 5	-20.9	-15.78	25.83
Stage 5	-21.1	-11.14	23.22
Stage 5	-21.3	-6.99	20.72
Stage 5	-21.5	-3.32	18.35
Stage 5	-21.7	-0.1	16.11
Stage 5	-21.9	2.7	14
Stage 5	-22.1	5.11	12.02
Stage 5	-22.3	7.14	10.16
Stage 5	-22.5	8.82	8.43
Stage 5	-22.7	10.19	6.82
Stage 5	-22.9	11.25	5.33
Stage 5	-23.1	12.05	3.96
Stage 5	-23.3	12.59	2.7
Stage 5	-23.5	12.9	1.56
Stage 5	-23.7	13	0.52
Stage 5	-23.9	12.92	-0.42
Stage 5	-24.1	12.67	-1.25
Stage 5	-24.3	12.27	-1.98
Stage 5	-24.5	11.75	-2.61
Stage 5	-24.7	11.12	-3.15
Stage 5	-24.9	10.4	-3.6
Stage 5	-25.1	9.61	-3.95
Stage 5	-25.3	8.76	-4.22
Stage 5	-25.5	7.88	-4.4
Stage 5	-25.7	6.98	-4.5
Stage 5	-25.9	6.08	-4.52
Stage 5	-26.1	5.19	-4.46
Stage 5	-26.3	4.32	-4.33
Stage 5	-26.5	3.5	-4.13
Stage 5	-26.7	2.72	-3.86

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 5	-26.9	2.02	-3.51
Stage 5	-27.1	1.4	-3.1
Stage 5	-27.3	0.88	-2.62
Stage 5	-27.5	0.46	-2.07
Stage 5	-27.7	0.17	-1.45
Stage 5	-27.9	0.02	-0.76
Stage 5	-28	0	-0.2

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	0.5	0	0
Stage 6	0.3	0	0
Stage 6	0.3	0	0
Stage 6	0.1	0	0
Stage 6	0.1	0	0
Stage 6	-0.1	0	0
Stage 6	-0.1	0	0
Stage 6	-0.3	-0.01	-0.03
Stage 6	-0.3	-0.01	-0.03
Stage 6	-0.5	-0.09	-0.43
Stage 6	-0.7	-0.33	-1.2
Stage 6	-0.9	-0.8	-2.35
Stage 6	-1.1	-1.58	-3.87
Stage 6	-1.3	-2.73	-5.77
Stage 6	-1.5	-4.34	-8.04
Stage 6	-1.7	-6.47	-10.68
Stage 6	-1.9	-9.21	-13.7
Stage 6	-2.1	-12.63	-17.09
Stage 6	-2.3	-16.8	-20.85
Stage 6	-2.5	-21.8	-24.99
Stage 6	-2.7	-27.7	-29.5
Stage 6	-2.9	-34.57	-34.38
Stage 6	-3.1	-2.01	162.84
Stage 6	-3.3	29.44	157.21
Stage 6	-3.5	59.68	151.21
Stage 6	-3.7	88.64	144.83
Stage 6	-3.9	116.26	138.07
Stage 6	-4.1	142.45	130.95
Stage 6	-4.3	167.14	123.45
Stage 6	-4.5	190.25	115.57
Stage 6	-4.7	211.71	107.32
Stage 6	-4.9	231.45	98.7
Stage 6	-5.1	249.4	89.71
Stage 6	-5.3	265.46	80.34
Stage 6	-5.5	279.58	70.59
Stage 6	-5.7	291.68	60.48
Stage 6	-5.9	301.67	49.99
Stage 6	-6.1	309.5	39.12
Stage 6	-6.3	315.07	27.88
Stage 6	-6.5	351.86	183.94
Stage 6	-6.7	386.25	171.95
Stage 6	-6.9	418.17	159.59
Stage 6	-7.1	447.54	146.85
Stage 6	-7.3	474.29	133.75
Stage 6	-7.5	498.34	120.26
Stage 6	-7.7	519.62	106.41
Stage 6	-7.9	538.06	92.18
Stage 6	-8.1	553.57	77.57
Stage 6	-8.3	566.09	62.59
Stage 6	-8.5	575.54	47.24
Stage 6	-8.7	581.84	31.52
Stage 6	-8.9	584.93	15.41
Stage 6	-9.1	584.67	-1.26
Stage 6	-9.3	580.97	-18.51
Stage 6	-9.5	573.7	-36.34
Stage 6	-9.7	562.75	-54.75
Stage 6	-9.9	548.44	-71.56
Stage 6	-10.1	530.65	-88.96
Stage 6	-10.3	509.26	-106.96
Stage 6	-10.5	484.14	-125.56
Stage 6	-10.7	455.2	-144.75
Stage 6	-10.9	423.85	-156.72
Stage 6	-11.1	390.3	-167.76
Stage 6	-11.3	354.73	-177.87
Stage 6	-11.5	317.32	-187.04
Stage 6	-11.7	278.26	-195.28
Stage 6	-11.9	237.74	-202.58

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-12.1	195.95	-208.95
Stage 6	-12.3	153.08	-214.39
Stage 6	-12.5	109.3	-218.89
Stage 6	-12.7	64.81	-222.46
Stage 6	-12.9	19.79	-225.1
Stage 6	-13.1	-25.57	-226.8
Stage 6	-13.3	-71.09	-227.56
Stage 6	-13.5	-116.57	-227.4
Stage 6	-13.7	-161.82	-226.3
Stage 6	-13.9	-206.68	-224.26
Stage 6	-14.1	-250.94	-221.29
Stage 6	-14.3	-294.41	-217.39
Stage 6	-14.5	-336.92	-212.56
Stage 6	-14.7	-378.28	-206.79
Stage 6	-14.9	-418.3	-200.08
Stage 6	-15.1	-456.79	-192.45
Stage 6	-15.3	-493.56	-183.88
Stage 6	-15.5	-528.43	-174.37
Stage 6	-15.7	-561.22	-163.93
Stage 6	-15.9	-591.73	-152.56
Stage 6	-16.1	-619.79	-140.26
Stage 6	-16.3	-645.19	-127.02
Stage 6	-16.5	-667.76	-112.85
Stage 6	-16.7	-687.31	-97.75
Stage 6	-16.9	-703.65	-81.71
Stage 6	-17.1	-716.6	-64.73
Stage 6	-17.3	-725.97	-46.83
Stage 6	-17.5	-731.82	-29.28
Stage 6	-17.7	-734.3	-12.39
Stage 6	-17.9	-733.52	3.89
Stage 6	-18.1	-729.61	19.58
Stage 6	-18.3	-722.66	34.72
Stage 6	-18.5	-712.9	48.79
Stage 6	-18.7	-700.65	61.29
Stage 6	-18.9	-686.18	72.32
Stage 6	-19.1	-669.79	81.96
Stage 6	-19.3	-651.73	90.31
Stage 6	-19.5	-632.24	97.44
Stage 6	-19.7	-611.55	103.43
Stage 6	-19.9	-589.88	108.38
Stage 6	-20.1	-567.41	112.34
Stage 6	-20.3	-544.33	115.4
Stage 6	-20.5	-520.8	117.63
Stage 6	-20.7	-496.99	119.08
Stage 6	-20.9	-473.02	119.84
Stage 6	-21.1	-449.02	119.98
Stage 6	-21.3	-425.11	119.55
Stage 6	-21.5	-401.39	118.62
Stage 6	-21.7	-377.94	117.22
Stage 6	-21.9	-354.86	115.43
Stage 6	-22.1	-332.21	113.27
Stage 6	-22.3	-310.05	110.79
Stage 6	-22.5	-288.44	108.03
Stage 6	-22.7	-267.45	104.98
Stage 6	-22.9	-247.11	101.68
Stage 6	-23.1	-227.48	98.14
Stage 6	-23.3	-208.6	94.42
Stage 6	-23.5	-190.49	90.54
Stage 6	-23.7	-173.18	86.53
Stage 6	-23.9	-156.7	82.42
Stage 6	-24.1	-141.05	78.24
Stage 6	-24.3	-126.25	74
Stage 6	-24.5	-112.31	69.73
Stage 6	-24.7	-99.22	65.44
Stage 6	-24.9	-86.99	61.16
Stage 6	-25.1	-75.61	56.89
Stage 6	-25.3	-65.08	52.64
Stage 6	-25.5	-55.39	48.44
Stage 6	-25.7	-46.54	44.29
Stage 6	-25.9	-38.5	40.19
Stage 6	-26.1	-31.27	36.15

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 6	-26.3	-24.83	32.18
Stage 6	-26.5	-19.18	28.28
Stage 6	-26.7	-14.28	24.46
Stage 6	-26.9	-10.14	20.72
Stage 6	-27.1	-6.73	17.06
Stage 6	-27.3	-4.03	13.47
Stage 6	-27.5	-2.04	9.98
Stage 6	-27.7	-0.73	6.56
Stage 6	-27.9	-0.08	3.23
Stage 6	-28	0	0.8

Tabella Risultati Paratia Nominal - Stage: Stage 7

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	0.5	0	0
Stage 7	0.3	0	0
Stage 7	0.3	0	0
Stage 7	0.1	0	0
Stage 7	0.1	0	0
Stage 7	-0.1	0	0
Stage 7	-0.1	0	0
Stage 7	-0.3	-0.01	-0.03
Stage 7	-0.5	-0.09	-0.43
Stage 7	-0.7	-0.33	-1.2
Stage 7	-0.9	-0.79	-2.27
Stage 7	-1.1	-1.54	-3.78
Stage 7	-1.3	-2.68	-5.72
Stage 7	-1.5	-4.3	-8.09
Stage 7	-1.7	-6.49	-10.91
Stage 7	-1.9	-9.32	-14.16
Stage 7	-2.1	-12.88	-17.84
Stage 7	-2.3	-17.28	-21.96
Stage 7	-2.5	-22.58	-26.52
Stage 7	-2.7	-28.88	-31.51
Stage 7	-2.9	-36.27	-36.94
Stage 7	-3.1	-4.5	158.88
Stage 7	-3.3	26.02	152.57
Stage 7	-3.5	55.18	145.84
Stage 7	-3.7	82.92	138.66
Stage 7	-3.9	109.13	131.06
Stage 7	-4.1	133.73	123.01
Stage 7	-4.3	156.64	114.53
Stage 7	-4.5	177.76	105.62
Stage 7	-4.7	197.02	96.27
Stage 7	-4.9	214.31	86.49
Stage 7	-5.1	229.57	76.28
Stage 7	-5.3	242.7	65.63
Stage 7	-5.5	253.61	54.55
Stage 7	-5.7	262.22	43.05
Stage 7	-5.9	268.44	31.11
Stage 7	-6.1	272.19	18.74
Stage 7	-6.3	273.38	5.95
Stage 7	-6.5	305	158.12
Stage 7	-6.7	333.9	144.48
Stage 7	-6.9	359.98	130.42
Stage 7	-7.1	383.17	115.94
Stage 7	-7.3	403.38	101.04
Stage 7	-7.5	420.52	85.73
Stage 7	-7.7	434.52	70.01
Stage 7	-7.9	445.3	53.89
Stage 7	-8.1	452.77	37.36
Stage 7	-8.3	456.86	20.43
Stage 7	-8.5	457.48	3.1
Stage 7	-8.7	454.56	-14.61
Stage 7	-8.9	448.02	-32.71
Stage 7	-9.1	437.74	-51.39
Stage 7	-9.3	423.61	-70.64
Stage 7	-9.5	405.52	-90.47
Stage 7	-9.7	383.35	-110.85
Stage 7	-9.9	388.45	25.5
Stage 7	-10.1	389.38	4.66
Stage 7	-10.3	386.04	-16.7
Stage 7	-10.5	378.32	-38.59
Stage 7	-10.7	366.12	-60.98
Stage 7	-10.9	350.33	-78.98
Stage 7	-11.1	331.16	-95.85
Stage 7	-11.3	308.84	-111.58
Stage 7	-11.5	283.61	-126.16
Stage 7	-11.7	255.69	-139.59
Stage 7	-11.9	225.32	-151.85
Stage 7	-12.1	192.73	-162.95

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	-12.3	158.15	-172.89
Stage 7	-12.5	121.82	-181.66
Stage 7	-12.7	83.97	-189.27
Stage 7	-12.9	44.82	-195.72
Stage 7	-13.1	4.62	-201
Stage 7	-13.3	-36.4	-205.13
Stage 7	-13.5	-78.02	-208.1
Stage 7	-13.7	-120.01	-209.93
Stage 7	-13.9	-162.13	-210.62
Stage 7	-14.1	-204.17	-210.17
Stage 7	-14.3	-245.89	-208.6
Stage 7	-14.5	-287.07	-205.9
Stage 7	-14.7	-327.49	-202.1
Stage 7	-14.9	-366.92	-197.18
Stage 7	-15.1	-405.15	-191.17
Stage 7	-15.3	-441.97	-184.07
Stage 7	-15.5	-477.14	-175.88
Stage 7	-15.7	-510.47	-166.62
Stage 7	-15.9	-541.73	-156.29
Stage 7	-16.1	-570.71	-144.91
Stage 7	-16.3	-597.2	-132.47
Stage 7	-16.5	-621	-118.99
Stage 7	-16.7	-641.89	-104.47
Stage 7	-16.9	-659.68	-88.92
Stage 7	-17.1	-674.15	-72.34
Stage 7	-17.3	-685.1	-54.75
Stage 7	-17.5	-692.59	-37.44
Stage 7	-17.7	-696.73	-20.72
Stage 7	-17.9	-697.64	-4.55
Stage 7	-18.1	-695.42	11.1
Stage 7	-18.3	-690.17	26.26
Stage 7	-18.5	-682.09	40.37
Stage 7	-18.7	-671.5	52.95
Stage 7	-18.9	-658.68	64.1
Stage 7	-19.1	-643.91	73.88
Stage 7	-19.3	-627.43	82.4
Stage 7	-19.5	-609.48	89.72
Stage 7	-19.7	-590.3	95.93
Stage 7	-19.9	-570.08	101.09
Stage 7	-20.1	-549.02	105.3
Stage 7	-20.3	-527.3	108.6
Stage 7	-20.5	-505.08	111.09
Stage 7	-20.7	-482.52	112.8
Stage 7	-20.9	-459.75	113.84
Stage 7	-21.1	-436.9	114.24
Stage 7	-21.3	-414.09	114.09
Stage 7	-21.5	-391.4	113.43
Stage 7	-21.7	-368.94	112.31
Stage 7	-21.9	-346.78	110.77
Stage 7	-22.1	-325.01	108.88
Stage 7	-22.3	-303.68	106.66
Stage 7	-22.5	-282.84	104.2
Stage 7	-22.7	-262.54	101.46
Stage 7	-22.9	-242.85	98.45
Stage 7	-23.1	-223.82	95.19
Stage 7	-23.3	-205.47	91.74
Stage 7	-23.5	-187.84	88.12
Stage 7	-23.7	-170.97	84.36
Stage 7	-23.9	-154.88	80.48
Stage 7	-24.1	-139.57	76.52
Stage 7	-24.3	-125.07	72.5
Stage 7	-24.5	-111.39	68.42
Stage 7	-24.7	-98.52	64.32
Stage 7	-24.9	-86.48	60.21
Stage 7	-25.1	-75.26	56.1
Stage 7	-25.3	-64.86	52
Stage 7	-25.5	-55.27	47.93
Stage 7	-25.7	-46.49	43.9
Stage 7	-25.9	-38.51	39.9
Stage 7	-26.1	-31.32	35.96
Stage 7	-26.3	-24.91	32.07

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 7	-26.5	-19.26	28.24
Stage 7	-26.7	-14.37	24.47
Stage 7	-26.9	-10.21	20.76
Stage 7	-27.1	-6.79	17.13
Stage 7	-27.3	-4.08	13.56
Stage 7	-27.5	-2.06	10.06
Stage 7	-27.7	-0.74	6.63
Stage 7	-27.9	-0.08	3.28
Stage 7	-28	0	0.81

Tabella Risultati Paratia Nominal - Stage: Stage 8

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	0.5	0	0
Stage 8	0.3	0	0
Stage 8	0.3	0	0
Stage 8	0.1	0	0
Stage 8	0.1	0	0
Stage 8	-0.1	0	0
Stage 8	-0.1	0	0
Stage 8	-0.3	-0.01	-0.03
Stage 8	-0.3	-0.01	-0.03
Stage 8	-0.5	-0.09	-0.43
Stage 8	-0.7	-0.33	-1.2
Stage 8	-0.9	-0.8	-2.35
Stage 8	-1.1	-1.58	-3.87
Stage 8	-1.3	-2.73	-5.77
Stage 8	-1.5	-4.34	-8.04
Stage 8	-1.7	-6.47	-10.68
Stage 8	-1.9	-9.21	-13.7
Stage 8	-2.1	-12.63	-17.09
Stage 8	-2.3	-16.8	-20.85
Stage 8	-2.5	-21.8	-24.99
Stage 8	-2.7	-27.7	-29.5
Stage 8	-2.9	-34.57	-34.38
Stage 8	-3.1	2.49	185.33
Stage 8	-3.3	38.43	179.7
Stage 8	-3.5	73.17	173.69
Stage 8	-3.7	106.63	167.31
Stage 8	-3.9	138.74	160.56
Stage 8	-4.1	169.43	153.43
Stage 8	-4.3	198.62	145.93
Stage 8	-4.5	226.23	138.06
Stage 8	-4.7	252.19	129.81
Stage 8	-4.9	276.43	121.19
Stage 8	-5.1	298.86	112.19
Stage 8	-5.3	319.43	102.82
Stage 8	-5.5	338.04	93.08
Stage 8	-5.7	354.64	82.96
Stage 8	-5.9	369.13	72.47
Stage 8	-6.1	381.45	61.61
Stage 8	-6.3	391.53	50.37
Stage 8	-6.5	441.88	251.77
Stage 8	-6.7	489.83	239.78
Stage 8	-6.9	535.32	227.42
Stage 8	-7.1	578.25	214.68
Stage 8	-7.3	618.57	201.58
Stage 8	-7.5	656.19	188.09
Stage 8	-7.7	691.04	174.24
Stage 8	-7.9	723.04	160.01
Stage 8	-8.1	752.12	145.4
Stage 8	-8.3	778.2	130.42
Stage 8	-8.5	801.22	115.07
Stage 8	-8.7	821.09	99.34
Stage 8	-8.9	837.73	83.24
Stage 8	-9.1	851.09	66.77
Stage 8	-9.3	861.07	49.92
Stage 8	-9.5	867.61	32.7
Stage 8	-9.7	870.63	15.1
Stage 8	-9.9	915.56	224.62
Stage 8	-10.1	957.24	208.43
Stage 8	-10.3	995.61	191.84
Stage 8	-10.5	1030.58	174.86
Stage 8	-10.7	1062.08	157.48
Stage 8	-10.9	1090.02	139.71
Stage 8	-11.1	1114.33	121.55
Stage 8	-11.3	1134.89	102.8
Stage 8	-11.5	1151.58	83.46
Stage 8	-11.7	1164.29	63.52
Stage 8	-11.9	1172.89	43

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	-12.1	1177.26	21.89
Stage 8	-12.3	1177.3	0.19
Stage 8	-12.5	1172.88	-22.11
Stage 8	-12.7	1163.88	-44.99
Stage 8	-12.9	1150.19	-68.46
Stage 8	-13.1	1131.68	-92.53
Stage 8	-13.3	1108.25	-117.18
Stage 8	-13.5	1081.32	-134.62
Stage 8	-13.7	1051.1	-151.13
Stage 8	-13.9	1017.76	-166.72
Stage 8	-14.1	981.48	-181.38
Stage 8	-14.3	942.46	-195.12
Stage 8	-14.5	900.87	-207.93
Stage 8	-14.7	856.91	-219.82
Stage 8	-14.9	810.75	-230.78
Stage 8	-15.1	762.59	-240.82
Stage 8	-15.3	712.6	-249.94
Stage 8	-15.5	660.98	-258.13
Stage 8	-15.7	607.9	-265.4
Stage 8	-15.9	553.55	-271.74
Stage 8	-16.1	498.12	-277.16
Stage 8	-16.3	441.78	-281.65
Stage 8	-16.5	384.74	-285.22
Stage 8	-16.7	327.17	-287.87
Stage 8	-16.9	269.25	-289.59
Stage 8	-17.1	211.17	-290.39
Stage 8	-17.3	153.12	-290.26
Stage 8	-17.5	95.28	-289.21
Stage 8	-17.7	37.83	-287.24
Stage 8	-17.9	-19.04	-284.34
Stage 8	-18.1	-75.14	-280.52
Stage 8	-18.3	-130.3	-275.77
Stage 8	-18.5	-184.32	-270.1
Stage 8	-18.7	-237.02	-263.5
Stage 8	-18.9	-288.22	-255.99
Stage 8	-19.1	-337.73	-247.54
Stage 8	-19.3	-385.36	-238.18
Stage 8	-19.5	-430.94	-227.89
Stage 8	-19.7	-474.27	-216.67
Stage 8	-19.9	-515.18	-204.53
Stage 8	-20.1	-553.47	-191.47
Stage 8	-20.3	-588.97	-177.49
Stage 8	-20.5	-621.49	-162.58
Stage 8	-20.7	-650.84	-146.74
Stage 8	-20.9	-676.83	-129.99
Stage 8	-21.1	-699.29	-112.31
Stage 8	-21.3	-718.03	-93.7
Stage 8	-21.5	-732.87	-74.17
Stage 8	-21.7	-743.61	-53.72
Stage 8	-21.9	-750.08	-32.34
Stage 8	-22.1	-752.09	-10.05
Stage 8	-22.3	-749.63	12.31
Stage 8	-22.5	-742.88	33.75
Stage 8	-22.7	-732.02	54.3
Stage 8	-22.9	-717.22	74
Stage 8	-23.1	-698.65	92.87
Stage 8	-23.3	-676.46	110.94
Stage 8	-23.5	-650.81	128.23
Stage 8	-23.7	-622.03	143.94
Stage 8	-23.9	-590.55	157.4
Stage 8	-24.1	-556.81	168.68
Stage 8	-24.3	-521.24	177.84
Stage 8	-24.5	-484.25	184.95
Stage 8	-24.7	-446.24	190.05
Stage 8	-24.9	-407.6	193.19
Stage 8	-25.1	-368.72	194.43
Stage 8	-25.3	-329.96	193.8
Stage 8	-25.5	-291.69	191.35
Stage 8	-25.7	-254.27	187.1
Stage 8	-25.9	-218.09	180.89
Stage 8	-26.1	-183.52	172.85

Design Assumption: Nominal	Risultati Paratia	Muro: LEFT	
Stage	**Z (m)**	**Momento (kN*m/m)**	**Taglio (kN/m)**
Stage 8	-26.3	-150.9	163.08
Stage 8	-26.5	-120.58	151.6
Stage 8	-26.7	-92.9	138.42
Stage 8	-26.9	-68.19	123.56
Stage 8	-27.1	-46.77	107.06
Stage 8	-27.3	-28.99	88.92
Stage 8	-27.5	-15.16	69.17
Stage 8	-27.7	-5.6	47.8
Stage 8	-27.9	-0.64	24.81
Stage 8	-28	0	6.35

Risultati Elementi strutturali

Design Assumption: Nominal	Sollecitazione Tieback
Stage	Forza (kN/m)
Stage 3	125
Stage 4	173.7715
Stage 5	172.2806
Stage 6	215.479
Stage 7	214.627
Stage 8	239.4078

Design Assumption: Nominal	Sollecitazione Tieback
Stage	**Forza (kN/m)**
Stage 5	125
Stage 6	178.4269
Stage 7	175.9984
Stage 8	226.6809

Design Assumption: Nominal	Sollecitazione Tieback
Stage	**Forza (kN/m)**
Stage 7	166.7
Stage 8	239.789

Riepilogo spinte

Design Assumption: Nominal	Tipo Risultato: Riepilogo spinte	Muro:	LEFT	Lato	LEFT		
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	3705.2	2645.1	6350.2	2289.1	15839.1	23.39%	1.62
Stage 2	3564.6	2645.1	6209.7	2289.1	15839.1	22.51%	1.56
Stage 3	3656.4	2645.1	6301.5	2289.1	15839.1	23.08%	1.6
Stage 4	3296.6	2457.7	5754.4	2376.6	16335	20.18%	1.39
Stage 5	3385.2	2457.7	5843	2376.6	16335	20.72%	1.42
Stage 6	3298.7	1760.7	5059.4	2702.1	18180.1	18.14%	1.22
Stage 7	3411.4	1760.7	5172.1	2702.1	18180.1	18.76%	1.26
Stage 8	3220.1	1351.7	4571.9	2893.1	19262.6	16.72%	1.11

Design Assumption: Nominal	Tipo Risultato: Riepilogo spinte	Muro:	LEFT	Lato	RIGHT		
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	3705.2	2645.1	6350.2	2282.5	15801.7	23.45%	1.62
Stage 2	3564.6	2645.1	6209.7	1225.7	9619.8	37.05%	2.91
Stage 3	3539	2645.1	6184.1	1225.7	9619.5	36.79%	2.89
Stage 4	3349.9	2241.2	5591.1	727.1	6609.8	50.68%	4.61
Stage 5	3322.4	2241.2	5563.6	727.1	6609.8	50.26%	4.57
Stage 6	3111	1578.2	4689.2	474.4	4820.2	64.54%	6.56
Stage 7	3070	1578.2	4648.2	474.4	4820.2	63.69%	6.47
Stage 8	2746.6	1162	3908.5	304	3508	78.3%	9.03

Allegati

Design Assumption : Nominal - File di Paratie - File di input (.d)

```
* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: Nominal
 * Time:giovedì 25 giugno 2020 12:59:51
 * 1: Defining general settings
 UNIT  m kN
 TITLE New Project
 DELTA 0.2
 option param itemax 40

 * 2: Defining wall(s)
 WALL LeftWall_29 0 -28 0.5 1

 * 3: Defining surfaces for wall(s)
 SOIL 0_L LeftWall_29 -28 0.5 1 0
 SOIL 0_R LeftWall_29 -28 0.5 2 180

 * 4: Defining soil layers
 *
 * Soil Profile (Livello1GEO_334_8_L_0)
 *
 LDATA Livello1GEO_334_8_L_0 0.5 LeftWall_29
 ATREST 0.637 1 1
 WEIGHT 20 10 10
 PERMEABILITY 1E-05
 RESISTANCE 4 21.3
 YOUNG 4.5E+04 7.2E+04
 ENDL
 *
 * Soil Profile (Livello2GEO_2752_337_L_0)
 *
 LDATA Livello2GEO_2752_337_L_0 -9.5 LeftWall_29
 ATREST 0.637 1 1
 WEIGHT 21 11 10
 PERMEABILITY 1E-05
 RESISTANCE 12 21.3
 YOUNG 8E+04 1.28E+05
 ENDL

 * 5: Defining structural materials
 * Steel material: 13683 Name=Fe360 E=206000200 kPa
 MATERIAL Fe360_13683 2.06E+08
 * Concrete material: 101 Name=C25/30 E=31475800 kPa
 MATERIAL C2530_101 3.148E+07
 * Rebar material: 110 Name=acciaio armonico E=200100000 kPa
 MATERIAL acciaioarmonico_110 2.001E+08

 * 6: Defining structural elements
 * 6.1: Beams
 BEAM WallElement_30 LeftWall_29 -28 0.5 C2530_101 0.7888 00 00

 * 6.2: Supports
 WIRE Tieback_341 LeftWall_29 -2.9 acciaioarmonico_110 1.053E-05 125 20 0 0
 WIRE Tieback_342 LeftWall_29 -6.3 acciaioarmonico_110 1.136E-05 125 20 0 0
 WIRE Tieback_2841 LeftWall_29 -9.7 acciaioarmonico_110 1.158E-05 166.7 20 0 0




 * 6.3: Strips
 STRIP LeftWall_29 1 8 40 38 0.5 43.9 45

 * 7: Defining Steps
 STEP Stage1_28
 CHANGE Livello1GEO_334_8_L_0 U-FRICT=21.3 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 U-KA=0.467 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 U-KP=2.647 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 D-KA=0.467 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 D-KP=2.647 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 U-FRICT=21.3 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 U-KA=0.467 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 U-KP=2.647 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 D-KA=0.467 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 D-KP=2.647 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 U-COHE=4 LeftWall_29
 CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 U-COHE=12 LeftWall_29
 CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
 SETWALL LeftWall_29
 GEOM 0.5 0.5
 WATER -5 0 -28 0 0
```

```
ADD WallElement_30
ENDSTEP

STEP Stage2_344
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-KP=2.648 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -3.9
WATER -5 0 -28 0 0
ENDSTEP

STEP Stage3_1139
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-KP=2.647 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -3.9
WATER -5 0 -28 0 0
ADD Tieback_341
ENDSTEP

STEP Stage4_1238
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -7.3
WATER -5.3 2 -28 0 0
ENDSTEP

STEP Stage5_1685
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -7.3
WATER -5.3 2 -28 0 0
ADD Tieback_342
ENDSTEP

STEP Stage6_2741
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -10.7
WATER -8.7 2 -28 0 0
ENDSTEP

STEP Stage7_8944
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -10.7
WATER -8.7 2 -28 0 0
ADD Tieback_2841
ENDSTEP

STEP Stage8_9390
CHANGE Livello1GEO_334_8_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-FRICT=21.3 LeftWall_29
CHANGE Livello1GEO_334_8_L_0 D-COHE=4 LeftWall_29
CHANGE Livello2GEO_2752_337_L_0 D-COHE=12 LeftWall_29
SETWALL LeftWall_29
GEOM 0.5 -13.3
WATER -10.9 2.4 -28 0 0
ENDSTEP
```