COMMITTENTE:

RFI RETE FERROVIARIA ITALIANA
GRUPPO FERROVIE DELLO STATO ITALIANE

PROGETTAZIONE:

ITALFERR
GRUPPO FERROVIE DELLO STATO ITALIANE

CUP: J64H17000140001

U.O. INFRASTRUTTURE NORD

PROGETTO DEFINITIVO

RADDOPPIO PONTE S.PIETRO - BERGAMO - MONTELLO

APPALTO 2: PRG PONTE SAN PIETRO E RADDOPPIO DELLA LINEA DA CURNO A BERGAMO

OPERE DI SOSTEGNO SEDE

Paratia lato sud da pk 3+478 a pk 3+590

Relazione di calcolo

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC.	OPERA/DISCIPLINA	PROGR.	REV.
NB1R	02	D	26	CL	RI0005	003	A

Rev	Descrizione	Redatto	Data	Verificato	Data	Approvato	Data	Autorizzato Data
A	EMISSIONE ESECUTIVA	F.Serrau	Marzo 2020	A. Maran	Marzo 2020	M. Berlingieri	Marzo 2020	A. Perego Marzo 2020

ORDINE DEGLI INGEGNERI DELLA PROVINCIA DI MILANO
DOTT. ING. PEREGO ANDREA
Sez. A Settori: a) civile ambientale b) industriale c) dell'informazione
n. A32428

File: NB1R02D26CLRI0005003.docx	n. Elab.:

INDICE

1.-..PREMESSA E SCOPO DEL DOCUMENTO

Nella presente relazione si presentano il dimensionamento e la verifica della paratia di pali accostati in prossimità di rotonda Locatelli, nell'ambito del "Progetto Definitivo raddoppio Ponte S.Pietro – Bergamo – Montello".

Nella figura che segue si riporta la planimetria della paratia di pali oggetto dello studio:

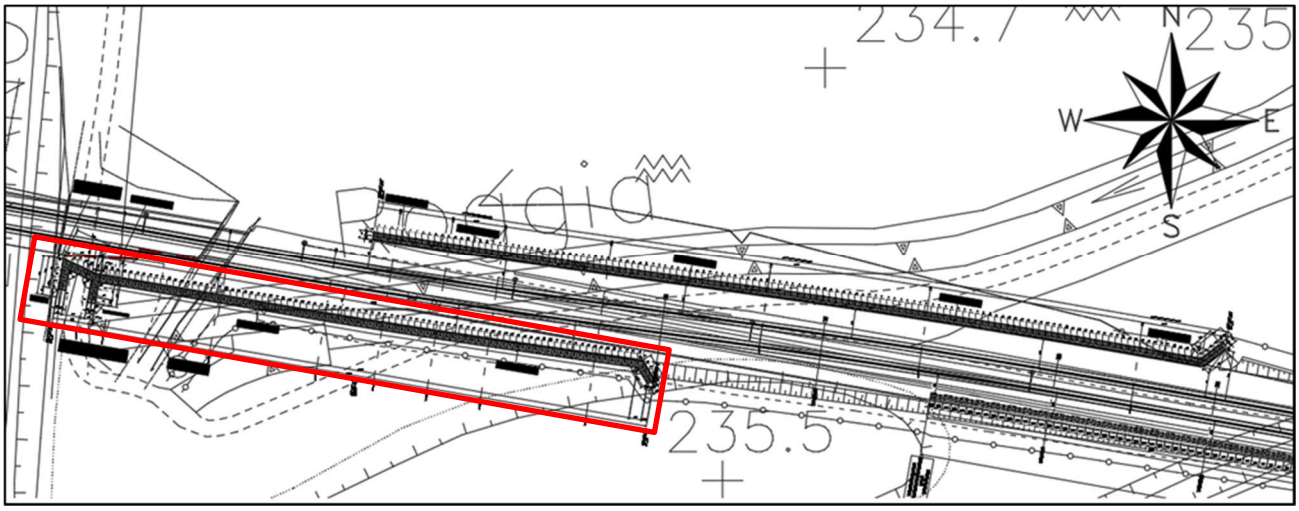


Figura 1-1 Inquadramento di area di intervento

Di seguito si illustrano le assunzioni strutturali di progetto prese a base di calcolo, la normativa di riferimento, i materiali utilizzati, il modello geotecnico definitivo, i carichi di progetto e le relative condizioni e combinazioni, lo schema strutturale adottato e le verifiche effettuate.

Il dimensionamento della struttura segue i criteri generali riportati nel D.M. 17/01/2018, "*Aggiornamento delle Norme Tecniche per le Costruzioni*" e le relative specifiche ferroviarie.

2.-..NORMATIVA E DOCUMENTAZIONE DI RIFERIMENTO

2.1.-..NORMATIVA DI RIFERIMENTO

La progettazione è conforme alle normative vigenti elencate di seguito.

[1] Decreto Ministeriale del 17 gennaio 2018: "Aggiornamento delle Norme Tecniche per le Costruzioni", Supplemento Ordinario alla G.U. n.42 del 20.2.2018.

[2] Circolare 21 gennaio 2019 n.7 " Istruzioni per l'applicazione dell'«Aggiornamento delle "Norme tecniche per le costruzioni"» di cui al decreto ministeriale 17 gennaio 2018″

[3] UNI EN 206-1/2006 – "Calcestruzzo. Specificazione, prestazione, produzione e conformità";

[4] UNI 11104/2004 – "Calcestruzzo. Specificazione, prestazione, produzione e conformità. Istruzioni complementari per l'applicazione della EN 206-1";

[5] EN 1992-1-1:2005 Eurocodice 2 – Progettazione delle strutture di calcestruzzo - Regole generali e regole per gli edifici

[6] Norme UNI ENV 1991 ; UNI ENV 1992; UNI EN 1993; UNI EN 1997; UNI EN 1998;

[7] Manuale di progettazione delle opere civili RFI parte II – sezione 2 - Ponti e strutture" - RFI DTC SI PS MA IFS 001 C

[8] Regolamento (UE) N. 1299/2014 della Commissione del 18 novembre 2014 relativo alle specifiche tecniche di interoperabilità per il sottosistema «infrastruttura» del sistema ferroviario dell'Unione europea, modificato dal Regolamento di esecuzione (UE) N° 2019/776 della Commissione del 16 maggio 2019;

[9] Regolamento (UE) N. 1300/2014/UE Specifiche Tecniche di Interoperabilità per l'accessibilità del sistema ferroviario dell'Unione europea per le persone con disabilità e le persone a mobilità ridotta del 18/11/2014, modificato con il Regolamento di esecuzione (UE) N° 2019/772 della Commissione del 16 maggio 2019;

[10] Regolamento (UE) N° 1303/2014 della Commissione del 18 novembre 2014 relativo alla specifica tecnica di interoperabilità concernente la "sicurezza nelle gallerie ferroviarie" del sistema ferroviario dell'Unione europea, rettificato dal Regolamento (UE) 2016/912 del 9 giugno 2016 e modificato dal Regolamento di esecuzione (UE) N° 2019/776 della Commissione del 16 maggio 2019

[11] Regolamento UE N. 1301/2014 della Commissione del 18 novembre 2014 relativo alle specifiche tecniche di interoperabilità per il sottosistema «Energia» del sistema ferroviario dell'Unione europea, modificato dal Regolamento di Esecuzione (UE) 2018/868 del 13 giugno 2018 e dal successivo Regolamento di esecuzione (UE) N° 2019/776 della Commissione del 16 maggio 2019

[12] Regolamento (UE) N. 2016/919 della Commissione del 27 maggio 2016 relativo alla specifica tecnica di interoperabilità per i sottosistemi "controllo-comando e segnalamento" del sistema ferroviario

nell'Unione europea modificata con la Rettifica del 15 giugno 2016 e dal Regolamento di esecuzione (UE) N° 2019/776 della Commissione del 16 maggio 2019;

[13] REGOLAMENTO DI ESECUZIONE (UE) 2019/772 DELLA COMMISISONE del 16 maggio 2019 che modifica il regolamento (UE) n. 1300/2014 per quanto riguarda l'inventario delle attività al fine di individuare le barriere all'accessibilità, fornire informazioni agli utenti e monitorare e valutare i progressi compiuti in materia di accessibilità.

[14] REGOLAMENTO DI ESECUZIONE (UE) 2019/776 DELLA COMMISISONE del 16 maggio 2019 che modifica i regolamenti (UE) n. 321/2013, (UE) n. 1299/2014, (UE) n. 1301/2014, (UE) n. 1302/2014, (UE) n. 1303/2014 e (UE) 2016/919 della Commissione e la decisione di esecuzione 2011/665/UE della Commissione per quanto riguarda l'allineamento alla direttiva (UE) 2016/797 del Parlamento europeo e del Consiglio e l'attuazione di obiettivi specifici stabili nella decisione delegata (UE) 2017/1471 della Commissione.

2.2.-..DOCUMENTI DI RIFERIMENTO

[15] NB1R01D26P7CS0000003A - Planimetria di progetto Tav. 3/7

[16] NB1R01D26P7CS0000006A - Planimetria di progetto Tav. 6/7

[17] NB1R01D26P7CS0000007A - Planimetria di progetto Tav. 7/7

[18] NB1R01D26W9CS000000(1-15) A - Sezioni trasversali Tav. 1-15

[19] NB1R00D26TTOC0001001A - Tabella dei materiali

[20] NB1R02D26CLRI0005002A – Relazione di Calcolo – Paratia km 3+378.6 a km 3+534.5

[21] Relazione Geotecnica

3.-..CARATTERISTICHE DEI MATERIALI

3.1.-..CALCESTRUZZO

Tabella 3-1 - Calcestruzzo classe C25/30 – Pali, trave di coronamento

Resistenza caratteristica a 28 gg.	Rck = 300 daN/cm^2
Classe di esposizione	XC2
Rapporto acqua/cemento max	0.60
Dose minima cemento	300 kg/m^3
Consistenza	S4-S5
Diametro massimo degli aggregati	32 mm

3.2.-..ACCIAIO

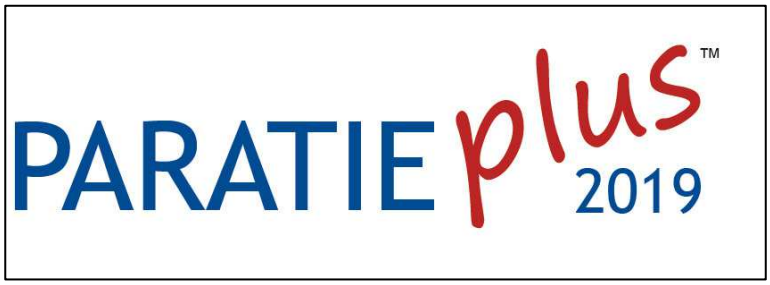
Tabella 3-2 - Acciaio per calcestruzzo armato

Acciaio ad aderenza migliorata B450C					
Descrizione	**Simbolo**	**Formula**	**Unità di misura**	**Valore**	**Note**
Resistenza caratteristica di rottura	$f_{t\ nom}$		N/mm^2	540	
Resistenza caratteristica a snervamento	$f_{y\ nom}$		N/mm^2	450	
Coefficiente parziale di sicurezza relativo all'acciaio	γ_s		-	1.15	
Resistenza di calcolo	f_{yd}	f_{yk} / γ_s	N/mm^2	391.3	
Modulo elastico	E_s		N/mm^2	206000	
Tensioni di progetto del cls allo S.L.E.					
Tensione massima di esercizio per l'acciaio	σ_s	0.75 * f_{yk}	N/mm^2	337.5	

4.-..SOFTWARE DI CALCOLO

Dala la caratteristica di opera in linea il muro è progettato per sezioni.

- ParatiePlus ver. 19.1.2



- RC-SEC 2018

5.-..DESCRIZIONE DELLE OPERE

La presente relazione di calcolo ha per oggetto l'analisi e le verifiche geotecniche e strutturali della paratia di pali accostati in calcestruzzo armato tra pk. 3+478.5 e 3+590.6. La paratia ha uno sviluppo longitudinale totale circa 112.5 m, con lunghezza dei pali pari a 19 m. Si evidenzia che per la prima tratta della paratia, da km 3+478.5 a km 3+582, essendo le condizioni geometriche e geotecniche molto simili alla paratia nel lato nord si riferisce alla "*Relazione di Calcolo di Paratia km 3+374.6 a km 3+534.5*" (Doc [20]). Per ulteriori indicazioni si rimanda agli elaborati progettuali.

Di seguito si riporta la sezione di verifica per eseguire le verifiche geotecniche e strutturali dell'ultima tratta della paratia, da km 3+582 a km 3+590.6.

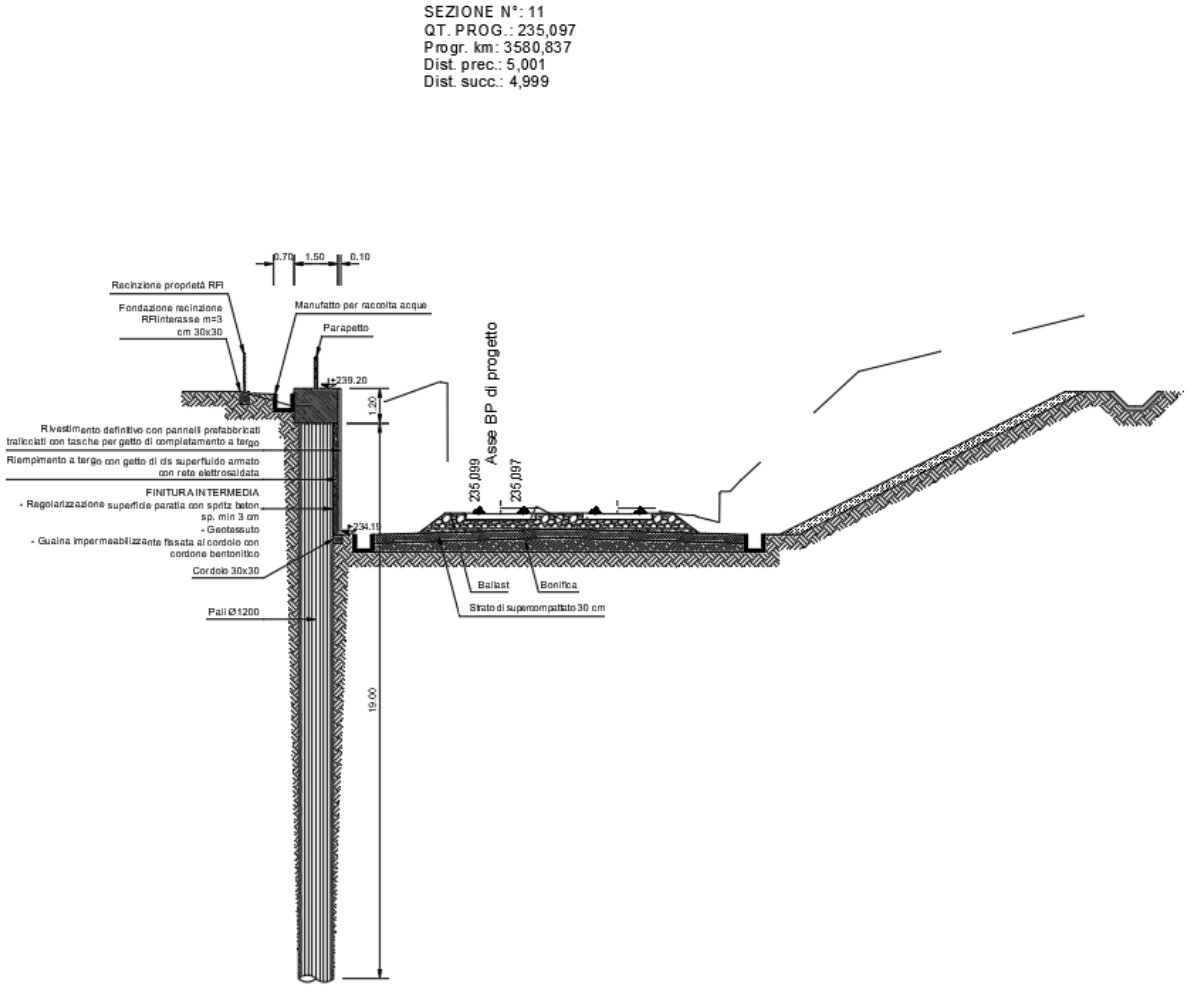


Figura 5-1 – sezione di verifica - tratta da pk. 3+478.5 a pk. 3+582

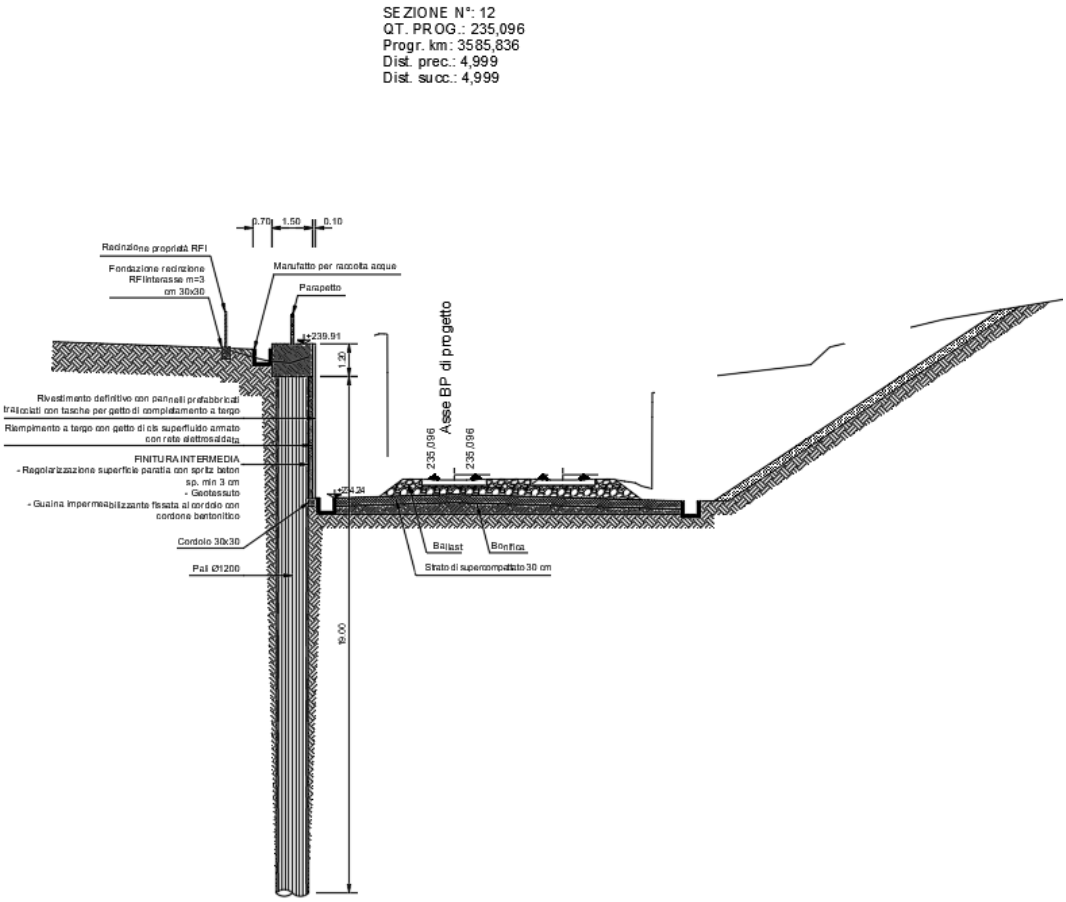


Figura 5-2 sezione di studio – tratta da pk. 3+582 a pk. 3+590.6

6.-.. CARATTERISTICHE DEL TERRENO

Le verifiche sono state condotte in riferimento alle caratteristiche geotecniche peggiori riscontrabili sulla linea oggetto di intervento e dichiarate nella relazione geotecnico (Doc. [21]).

Il terreno si considera quindi costituito dai seguenti parametri:

Strato 1: Ug2 – sabbia limosa e limo sabbioso

Profondità: da 0m a 2m (da p.c.)

$C_u = 30$ kPa
$c' = 0\ kPa$
$\varphi' = 26°$
$E_{OP1} = 4$ Mpa
$E_{OP2} = 6$ Mpa
$K_y = 1.00E\text{-}6$ m/s; permeabilità verticale
$\gamma = 19.5\ kN/m^3$

Strato 2: Ug3 – argilla sabbiosa e argilla con sabbia

Profondità: da 2m a -13m (da p.c.)

$C_u = 50\text{-}200$ kPa
$c' = 0\ kPa$
$\varphi' = 24°$
$E_{OP1} = 10$ Mpa
$E_{OP2} = 17$ Mpa
$K_y = 1.00E\text{-}10$ m/s; permeabilità verticale
$\gamma = 19\ kN/m^3$

Strato 3: A_M – Arenarie/Marne alternanze

Profondità: da -13m in poi (da p.c.)

$C_u = 250$ kPa
$c' = 0\ kPa$
$\varphi' = 40°$
$E_{OP1} = 100$ Mpa
$E_{OP2} = 200$ Mpa
$K_y = 1.00E\text{-}9$ m/s; permeabilità verticale
$\gamma = 20\ kN/m^3$

Si evidenzia che il livello di falda è variabile rispetto al profilo topografico. Facendo riferimento alla Relazione Geotecnica, la falda è stata posta ad una quota pari a -12.5 da p.c..

7.-..MODELLO DI CALCOLO

Al fine di rappresentare il comportamento delle paratie durante le varie fasi di lavoro (scavi e/o inserimento degli elementi di contrasto) è opportuno l'impiego di un metodo di calcolo iterativo atto a simulare l'interazione in fase elasto-plastica terreno-paratia.

Allo scopo si impiega il programma di calcolo “PARATIE PLUS” Versione 19.1.2 della HarpaCeas S.r.l. di Milano.

Lo studio del comportamento di un elemento di paratia inserito nel terreno viene effettuato tenendo conto della deformabilità dell'elemento stesso, considerato in regime elastico, e soggetto alle azioni derivanti dalla spinta dei terreni, dalle eventuali differenze di pressione idrostatiche, dalle spinte dovute ai sovraccarichi esterni e dalla presenza degli elementi di contrasto.

La paratia viene discretizzata con elementi finiti monodimensionali a due gradi di libertà per nodo (spostamento orizzontale e rotazione).

Il terreno viene schematizzato con delle molle secondo un modello elasto-plastico. Esso reagisce elasticamente sino a valori limite dello spostamento, raggiunti i quali la reazione corrisponde, a seconda del segno dello stesso spostamento, ai valori limite della pressione attiva o passiva.

Gli spostamenti vengono computati a partire dalla situazione di spinta "a riposo".

Con tale metodo, si può quindi seguire analiticamente la successione delle fasi di costruzione, di carico e di contrasto, consentendo di fornire informazioni attendibili sull'entità delle deformazioni e sugli effetti che esse inducono sul diagramma delle pressioni esercitate dal terreno sulla paratia.

I parametri che caratterizzano il modello dunque possono essere distinti in due classi: parametri di spinta e parametri di deformabilità del terreno che compaiono nella definizione della rigidezza delle molle.

7.1.-..PARAMETRI DI SPINTA DEL TERRENO

I parametri di spinta sono il coefficiente di spinta a riposo e i coefficienti di spinta attiva e passiva.

Il coefficiente di spinta a riposo fornisce lo stato tensionale presente in sito prima delle operazioni di scavo. Esso lega la tensione orizzontale efficace σ'_h a quella verticale σ'_v attraverso la relazione:

$$\sigma'_h = K_0 \sigma'_v$$

K_0 dipende dalla resistenza del terreno, attraverso il suo angolo di attrito efficace ϕ' e dalla sua storia geologica. Si può assumere che:

$$K_0 = K_0^{NC}(OCR)^m$$

dove:

$$K_0^{NC} = 1 - sin\phi'$$

è il coefficiente di spinta a riposo per un terreno normalconsolidato (OCR=1). OCR è il grado di sovraconsolidazione e m è un parametro empirico, di solito compreso tra 0.4 e 0.7. Ladd et al. (1977), Jamiolkowski et al. (1979) forniscono valori di m per argille italiane.

Il coefficiente di spinta attiva e passiva sono dati secondo Rankine per una parete liscia, da

$$K_A = \tan^2(45° - \phi'/2)$$

$$K_P = \tan^2(45° + \phi'/2)$$

Attraverso valori opportuni di K_A e K_P si può tener conto dell'angolo di attrito δ tra paratia e terreno e della pendenza del terreno a monte ed entro la luce di scavo; si possono usare a questo scopo i valori desunti da NAVFAC (1986)) o quelle elaborate da Caquot e Kerisel (1948)

Il valore limite della tensione orizzontale sarà dato da

$$\sigma'_A = K_A \sigma'_v - 2c'\sqrt{K_A} \text{ oppure}$$

$$\sigma'_P = K_P \sigma'_v + 2c'\sqrt{K_P}$$

a seconda che il collasso avvenga in spinta attiva o passiva rispettivamente. c' è la coesione drenata del terreno. Nel caso in cui si voglia tenere conto dell'adesione a tra parete e terreno, i limiti attivo e passivo si modificano come segue.

$$\sigma'_A = K_A \sigma'_v - c' K_{ac} \text{ con } K_{ac} = 2\sqrt{K_A(1 + a/c')} \leq 2.56\sqrt{K_A}$$

$$\sigma'_P = K_P \sigma'_v + c' K_{pc} \text{ con } K_{pc} = 2\sqrt{K_P(1 + a/c')} \leq 2.56\sqrt{K_P}$$

Per terreni a pendenza nulla, con angolo di attrito paratia-terreno "δ" diverso da zero, i coefficienti di spinta attiva e passiva sono calcolati con la relazione di Lancellotta (2002) e valgono:

$$k_{a,p} = \left[\frac{\cos\delta}{1 \pm \sin\varphi'}\left(\cos\delta \mp \sqrt{\sin^2\varphi' - \sin^2\delta}\right)\right] e^{\mp 2\theta tan\varphi'}$$

$$2\theta_{p,a} = arcsen\left(\frac{\sin\delta}{\sin\varphi'}\right) \mp \delta$$

7.2.-..PARAMETRI DI DEFORMABILITÀ DEL TERRENO

Per la definizione del modulo di Young si utilizza il modello elasto-plastico inserendo il valore di E manualmente. Il programma provvede automaticamente a calcolare le costanti di sottofondo per ogni fase di scavo come:

$$K_{monte} = \frac{E_m \cdot \Delta}{B_m} \quad e \quad K_{valle} = \frac{E_v \cdot \Delta}{B_v}$$

Nelle relazioni presentate, Δ è il valore fornito dalla schematizzazione agli elementi finiti e B_m e B_v sono rispettivamente le estensioni laterali del cuneo di spinta attiva e passiva del terreno alla quota del baricentro del cuneo stesso, per ogni fase di scavo:

$$B_m = \frac{2}{3} \cdot \lambda_A \cdot \tan\left(45° - \frac{\varphi'}{2}\right)$$

$$B_v = \frac{2}{3} \cdot \lambda_p \cdot \tan\left(45° + \frac{\varphi'}{2}\right)$$

$$\lambda_A = min(H_{paratia}; 2H_{scavo})$$

$$\lambda_p = min(H_{paratia} - H_{scavo}; H_{scavo})$$

Si assume in ogni caso un valore di altezza dello scavo H_{scavo} non minore di 1/10 dell'altezza totale della paratia $H_{paratia}$.

Il modulo elastico in fase incrudente si assume pari a 1.60 volte il modulo elastico di primo carico E_{vc} (ha un valore assunto pari al modulo elastico del terreno):

$$E_{ur} = 1.60 \cdot E_{vc}$$

7.3.-..CALCOLO RIGIDEZZA DELLA TRAVE DI CORONAMENTO

Al fine d'irrigidire la paratia nella tratta finale, tra le progressive 3+582 – 3+587, verranno realizzati dei pali di risvolto. Nel modello di calcolo, l'effetto dei contrafforti viene rappresentato tramite una molla elastica la cui rigidezza è stata calcolata facendo riferimento a una trave semplicemente appoggiata come segue:

q = 1 [kN/m]

$u = (5 \cdot q \cdot 1^4)/(384 \cdot E \cdot J)$; freccia [m]

E_{cls} = 31 [GPA];

$J = 1.5^3 \times 1.2/12 = 0.3375$ m^4; momento d'inerzia

B=1.5 [m] (larghezza di sezione); H=1.2 [m] (altezza di sezione)

l= 6 [m]; luce della trave

$u = 1.61 \times 10^{-6}$ [m]

→ k = q * (1 m) / u = 620000 [kN/m]; rigidezza

8.-..ANALISI DEI CARICHI

I carichi considerati nel modello di calcolo si riferiscono ai carichi permanenti strutturali associati alla spinta del terreno.

8.1.-..PESO PROPRIO

Il contributo del peso proprio del terreno viene valutato sulla base del peso di volume indicato per ciascuno strato nel 6.-.

8.2.-..SPINTE TERRENO

La spinta attiva e passiva del terreno a monte e a valle della paratia è valutata a partire dal modello geotecnico adottato secondo l'approccio di Rankine per cui:

$$K_A = tan^2(45 - \phi'/2)$$

$$K_P = tan^2(45 + \phi'/2)$$

Il valore limite della tensione orizzontale è quindi pari a:

$$\sigma'_h = K_A \sigma'_v - 2c'\sqrt{K_A}$$

$$\sigma'_h = K_P \sigma'_v + 2c'\sqrt{K_P}$$

Le forze dovute alle spinte attiva e passiva del terreno sono automaticamente valutate dal software di calcolo per le diverse fasi di realizzazione dell'opera.

8.3.-..CARICHI ACCIDENTALI

Durante le fasi di costruzione viene considerato un sovraccarico accidentale di 20 kPa su una larghezza di 10 m, dovuto alla presenza dei mezzi di cantiere.

8.4.-..AZIONE SISMICA

Con riferimento alla normativa vigente (NTC2018), le azioni sismiche di progetto si definiscono a partire dalla "pericolosità sismica di base" del sito di costruzione. Essa costituisce l'elemento di conoscenza primario per la determinazione delle azioni sismiche.

La pericolosità sismica è definita in termini di accelerazione orizzontale massima attesa ag in condizioni di campo libero su sito di riferimento rigido con superficie topografica orizzontale (di categoria A quale definita al § 3.2.2 del D.M. 2018), nonché di ordinate dello spettro di risposta elastico in accelerazione ad essa corrispondente Se(T), con riferimento a prefissate probabilità di eccedenza PVR, come definite nel § 3.2.1 del D.M. 2018, nel periodo di riferimento VR, come definito nel § 2.4 del D.M. 2018.

Le forme spettrali sono definite, per ciascuna delle probabilità di superamento nel periodo di riferimento PVR, a partire dai valori dei seguenti parametri su sito di riferimento rigido orizzontale:

ag accelerazione orizzontale massima al sito;

Fo valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;

Tc* periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale.

Gli spettri di risposta di progetto sono stati definiti per tutti gli stati limite considerati, e, note la latitudine e la longitudine del sito, si sono ricavati i valori dei parametri necessari alla definizione dell'azione sismica e quindi del relativo spettro di risposta. Più avanti sono indicati i valori di ag, Fo e Tc* necessari per la determinazione delle azioni sismiche.

8.4.1.-..*Vita nominale*

La vita nominale di un'opera strutturale VN è intesa come il numero di anni nel quale la struttura, purché soggetta alla manutenzione ordinaria, deve potere essere usata per lo scopo al quale è destinata. Per la definizione della Vita Nominale da assegnare ad ogni singolo manufatto facente parte di una infrastruttura ferroviaria si rimanda al "MANUALE DI PROGETTAZIONE DELLE OPERE CIVILI" - RFI DTC SICS MA IFS 001 A del 29.12.2105;

L'oggetto della presente relazione risulta essere un'opera nuova su infrastrutture ferroviarie esistenti a velocità convenzionale (v<250 km/h).

Tabella 8-1 - Vita Nominale in funzione del tipo di costruzione

Tipo di costruzione (1)	**Vita Nominale [V_N]** (1)
Opere nuove su infrastrutture ferroviarie esistenti opere nuove su infrastrutture ferroviarie progettate con le norme vigenti prima del dm 14/01/2018 a velocità convenzionale (V<250 Km/h)	50
Altre opere nuove a velocità (v<250 km/h)	75
Altre opere nuove a velocità (v≥250 km/h)	100
Opere di grandi dimensioni: ponti e viadotti con campate di luce maggiore di 150 m	≥ 100 (2)

(1) - La medesima V_N si applica anche ad apparecchi di appoggio, coprigiunti e impermeabilizzazione delle stesse opere.

(2) - Da definirsi per il singolo progetto a cura di RFI.

Tenendo conto delle indicazioni precedenti le strutture di progetto avranno vita nominale V_N =50 anni.

8.4.2.-..***Classe d'uso***

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

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

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

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

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

Per la definizione della Classe di uso da assegnare ad ogni singolo manufatto facente parte di una infrastruttura ferroviaria esistente si rimanda al punto 1.1.1 dell'Istruzione RFI " Specifica per la progettazione e l'esecuzione dei ponti ferroviari e di altre opere minori sotto binario" - RFI DTC-INC-PO SP IFS 001 A del 21.12.2011".

Tabella 8-2 - Tabella Classe d'uso Coeff. d'uso in funzione del tipo di costruzione per l'infrastruttura ferroviaria

Tipo di costruzione	Classe d'uso	Coefficiente d'uso [C_U]
Grandi stazioni	C IV	2,0
Opere d'arte del sistema di grande viabilità ferroviaria	C III	1,5
Altre opere d'arte	C II	1,0

Facendo riferimento al, "MANUALE DI PROGETTAZIONE DELLE OPERE CIVILI" pag.151 di 431 – Ponti e strutture - RFI DTC SICS MA IFS 001 A del 29.12.2105, le strutture di progetto non ricadono in una linea del sistema di grande viabilità strategica pertanto nel progetto si considera una classe d'uso tipo II con coefficiente d'uso C_U=1,0.

8.4.3.-.*Periodo di riferimento*

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

$V_R = V_N \cdot C_U = 50 \cdot 1.00 = 50$ anni (periodo di riferimento).

Valutazione dei parametri di pericolosità sismica

Fissata la vita di riferimento VR, i due parametri TR e PVR sono immediatamente esprimibili, l'uno in funzione dell'altro, mediante l'espressione:

Tabella 8-3 - Probabilità di superamento P_{VR} al variare dello stato limite considerato

Stato limite		P_{VR}: probabilità di superamento nel periodo di riferimento
SLE	SLO - Stato Limite di Operatività	81%
	SLD - Stato Limite di Danno	63%
SLU	SLV - Stato Limite di salvaguardia della Vita	10%
	SLC - Stato Limite di prevenzione del Collasso	5%

$T_R = -\frac{V_R}{ln(1 - P_{V_R})} = -\frac{Cu \cdot V_N}{ln(1 - P_{V_R})}$ da cui si ottiene la seguente tabella:

Tabella 8-4 - Probabilità di superamento P_{VR} al variare dello stato limite considerato

Stati limite		Valori in anni del periodo di ritorno T_R al variare del periodo di riferimento V_R (anni)
SLE	SLO	30
	SLD	50
SLU	SLV	475
	SLC	975

Per il sito in esame, in base ai parametri precedentemente adottati, il periodo TR in corrispondenza dello stato limite ultimo SLV è pari a TR = 475 anni.

Le strutture di progetto avranno quindi i seguenti parametri sismici:

vita nominale $V_N = 50$ anni;

periodo di riferimento pari a $V_R = 50$ anni;

il periodo TR in corrispondenza dello SLV sarà pari a TR = 475 anni.

8.4.4.-..***Caratterizzazione sismica del terreno***

Categorie di Sottosuolo

Ai fini della definizione dell'azione sismica di progetto, si rende necessario valutare l'effetto della risposta sismica locale. Per la definizione dell'azione sismica si può fare riferimento a un approccio semplificato, che si basa sull'individuazione delle categorie di sottosuolo di riferimento in accordo a quanto indicato nel § 3.2.2 delle NTC2018.

I terreni di progetto possono essere caratterizzati come appartenenti a terreni di Categoria B facendo riferimento ai risultati delle prove MASW (10÷11). Per ulteriori dettagli si rimanda alla Relazione Geotecnica.

Condizioni topografiche

In condizioni topografiche superficiali semplici si può adottare la seguente classificazione:

Tabella 8-5 - Classificazione topografie superfici

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

Le categorie topografiche appena definite si riferiscono a configurazioni geometriche prevalentemente bidimensionali, creste o dorsali allungate, e devono essere considerate nella definizione dell'azione sismica se di altezza maggiore di 30 m. L'area interessata risulta classificabile come T1.

Amplificazione Stratigrafica e Topografica

In riferimento a quanto indicato nel §3.2.3.2.1 delle NTC2018 per la definizione dello spettro elastico in accelerazione è necessario valutare il valore del coefficiente $S = S_S \cdot S_T$ e di C_C in base alla categoria di sottosuolo e alle condizioni topografiche; si fa riferimento nella valutazione dei coefficienti alle tabelle che sono riportate di seguito:

Tabella 8-6 - Tabella delle espressioni per S_S e C_C

Categoria sottosuolo	S_S	C_C
A	1,00	1,00

B	$1{,}00 \le 1{,}40 - 0{,}40 \cdot F_0 \cdot \frac{a_g}{g} \le 1{,}20$	$1{,}10 \cdot (T_C^*)^{-0{,}20}$
C	$1{,}00 \le 1{,}70 - 0{,}60 \cdot F_0 \cdot \frac{a_g}{g} \le 1{,}50$	$1{,}05 \cdot (T_C^*)^{-0{,}33}$
D	$0{,}90 \le 2{,}40 - 1{,}50 \cdot F_0 \cdot \frac{a_g}{g} \le 1{,}80$	$1{,}25 \cdot (T_C^*)^{-0{,}50}$
E	$1{,}00 \le 2{,}00 - 1{,}10 \cdot F_0 \cdot \frac{a_g}{g} \le 1{,}60$	$1{,}15 \cdot (T_C^*)^{-0{,}40}$

Tabella 8-7 - Tabella valori massimi del coeff. di amplificazione topografica ST

Categoria Topografica	Ubicazione dell'opera dell'intervento	S_T
T1	-	1,0
T2	In corrispondenza della sommità del pendio	1,2
T3	In corrispondenza della cresta del rilievo	1,2
T4	In corrispondenza della cresta del rilievo	1,4

Il valore del coefficiente di amplificazione topografica è posto pari a $S_T = 1$

I valori dei coefficienti di amplificazione stratigrafica sono pari a $S_S = 1{,}20$ e $C_C = 1{,}428$

Parametri sismici di calcolo

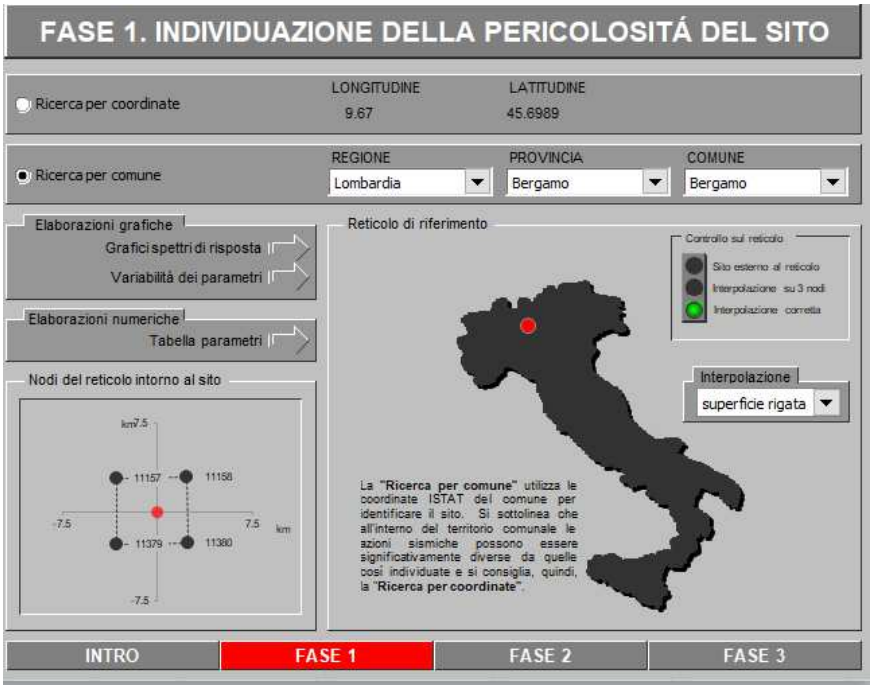


Figura 8-1 - Individuazione della pericolosità del sito (Fase 1)

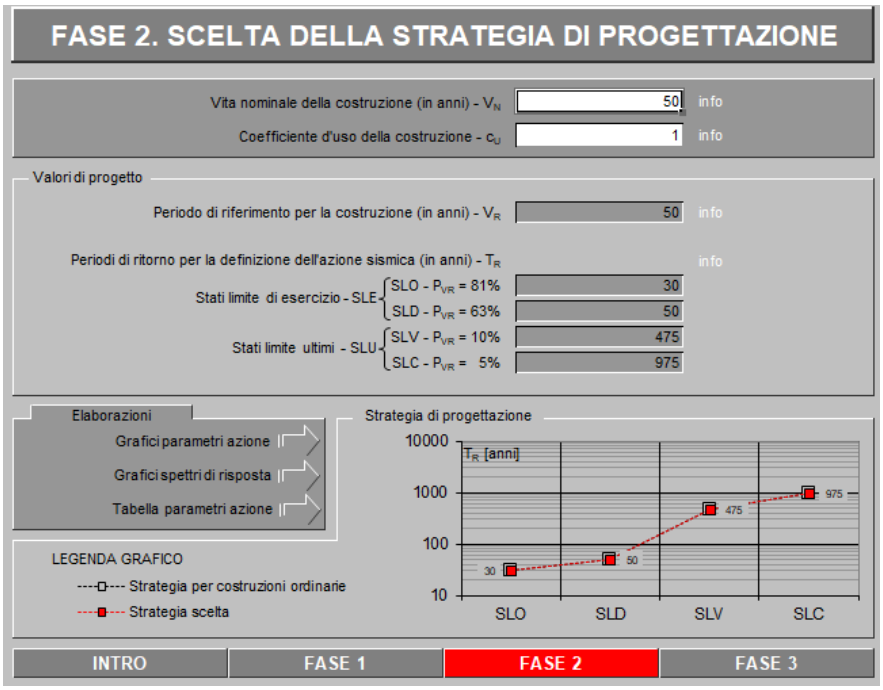


Figura 8-2 - Scelta della strategia di progettazione (Fase 2)

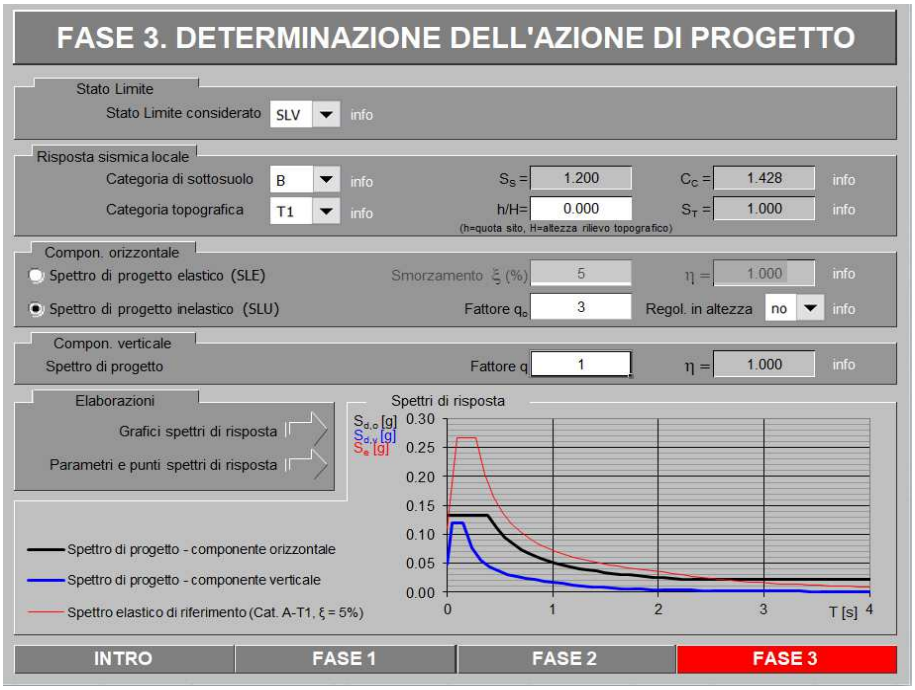


Figura 8-3 - Determinazione dell'azione di progetto (Fase 3)

Parametri indipendenti

STATO LIMITE	SLV
a_g	0.110 g
F_o	2.418
T_C^*	0.271 s
S_S	1.200
C_C	1.428
S_T	1.000
q	2.400

Parametri dipendenti

S	1.200
η	0.417
T_B	0.129 s
T_C	0.387 s
T_D	2.041 s

Espressioni dei parametri dipendenti

$$S = S_S \cdot S_T \qquad \text{(NTC-08 Eq. 3.2.5)}$$

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

$$T_B = T_C / 3 \qquad \text{(NTC-07 Eq. 3.2.8)}$$

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

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

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

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

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

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

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

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

Punti dello spettro di risposta

	T [s]	Se [g]
	0.000	0.132
T_B	0.129	0.133
T_C	0.387	0.133
	0.466	0.111
	0.545	0.095
	0.623	0.083
	0.702	0.073
	0.781	0.066
	0.860	0.060
	0.938	0.055
	1.017	0.051
	1.096	0.047
	1.175	0.044
	1.253	0.041
	1.332	0.039
	1.411	0.037
	1.490	0.035
	1.568	0.033
	1.647	0.031
	1.726	0.030
	1.805	0.029
	1.884	0.027
	1.962	0.026
T_D	2.041	0.025
	2.134	0.023
	2.228	0.022
	2.321	0.022
	2.414	0.022
	2.507	0.022
	2.601	0.022
	2.694	0.022
	2.787	0.022
	2.881	0.022
	2.974	0.022
	3.067	0.022
	3.160	0.022
	3.254	0.022
	3.347	0.022
	3.440	0.022
	3.534	0.022
	3.627	0.022
	3.720	0.022
	3.813	0.022
	3.907	0.022
	4.000	0.022

Figura 8-4 – parametri sismici di calcolo

8.4.5.-..***Forza d'inerzia***

Le forze di inerzia della paratia sono state valutate come:

$$F_p = k_h W_i$$

$$F_v = \pm k_v W_i$$

in cui k_h e k_v sono, rispettivamente, il coefficiente di accelerazione sismica orizzontale ed il coefficiente di accelerazione sismica verticale e W_i è il peso della struttura considerata. Tali azioni sono applicate nel baricentro della struttura. I coefficienti di accelerazione sismica k_h e k_v valgono rispettivamente:

$$k_h = \beta_m a_{max}/g$$

$$k_v = \pm 0.5\, k_h$$

8.4.6.-..***Spinta del terreno in condizioni sismiche***

Per analisi dell'opera nelle condizioni sismiche è stato fatto riferimento al metodo classico di calcolo delle spinte sismiche pseudo-statiche, in base ai quali vengono definiti i valori dei coefficienti di spinta.

9.-..CRITERI DI VERIFICA

Le analisi di verifica della paratia sono state effettuate secondo le NTC 2018 tenendo conto di possibili SLU di tipo geotecnico e di tipo strutturale. Nello specifico sono state effettuate le verifiche dei seguenti stati limite:

- SLU di tipo geotecnico (GEO)
  - collasso per raggiungimento della resistenza del terreno con rotazione attorno ad un punto della paratia;
- SLU di tipo strutturale (STR)
  - raggiungimento della resistenza strutturale della paratia;

9.1.-..VERIFICHE GEOTECNICHE DELLA PARATIA

Le verifiche per il dimensionamento strutturale e geotecnico sono state effettuate con la Combinazione 1 dell'Approccio 1 (A1+M1+R1) e Combinazione 2 dell'Approccio 1 (A2+M2+R1). I coefficienti numerici per A, M ed R sono riportati nelle Tabelle 6.2.I e 6.2.II, 6.5.I e 6.8.I delle NTC 2018. In condizioni di esercizio sono stati valutati gli spostamenti dell'opera per valutare la compatibilità con la funzionalità della stessa e con la sicurezza e funzionalità di eventuali preesistenze.

Nelle immagini a seguire si riportano le tabelle con i coefficienti di calcolo per le verifiche strutturali e geotecniche dell'opera di sostegno oggetto dello studio.

Tabella 9-1 Coefficienti parziali per le azioni o per l'effetto delle azioni nelle verifiche SLU (6.2.I)

Tab. 6.2.I – *Coefficienti parziali per le azioni o per l'effetto delle azioni*

	Effetto	Coefficiente Parziale γ_F (o γ_E)	EQU	(A1)	(A2)
Carichi permanenti G_1	Favorevole	γ_{G1}	0,9	1,0	1,0
	Sfavorevole		1,1	1,3	1,0
Carichi permanenti G_2 (1)	Favorevole	γ_{G2}	0,8	0,8	0,8
	Sfavorevole		1,5	1,5	1,3
Azioni variabili Q	Favorevole	γ_{Qi}	0,0	0,0	0,0
	Sfavorevole		1,5	1,5	1,3

(1) Per i carichi permanenti G_2 si applica quanto indicato alla Tabella 2.6.I. Per la spinta delle terre si fa riferimento ai coefficienti γ_{G1}

Tabella 9-2 Coefficienti parziali per i parametri geotecnici del terreno (6.2.II)

Tab. 6.2.II – *Coefficienti parziali per i parametri geotecnici del terreno*

Parametro	Grandezza alla quale applicare il coefficiente parziale	Coefficiente parziale γ_M	(M1)	(M2)
Tangente dell'angolo di resistenza al taglio	$\tan \varphi'_k$	$\gamma_{\varphi'}$	1,0	1,25
Coesione efficace	c'_k	$\gamma_{c'}$	1,0	1,25
Resistenza non drenata	c_{uk}	γ_{cu}	1,0	1,4
Peso dell'unità di volume	γ_γ	γ_γ	1,0	1,0

10.-..ANALISI

Le analisi eseguite si riferiscono alle condizioni statiche e sismiche, trattandosi di opere definitive. Al fine di valutare gli spostamenti orizzontali in condizioni SLE e le sollecitazioni sugli elementi strutturali in condizioni SLU sono state eseguite le analisi numeriche. Di seguito si riportano le fasi costruttive dell'opera e i risultati ottenuti.

10.1.-..FASI COSTRUTTIVE OPERA

1. Stato tensionale geostatico iniziale.
2. Attivazione il carico di cantiere pari a 20 kPa e il vincolo elastico; getto dei pali in c.a. di diametro 1200.00 mm.
3. Scavo a quota -3.00 m da p.c..
4. Scavo massimo a -7.70 m da p.c.
5. Simulazione il comportamento del terreno a lungo termine (condizione drenata).
6. Attivazione l'azione sismica e l'applicazione 20 % del carico di cantiere pari a 4kPa.

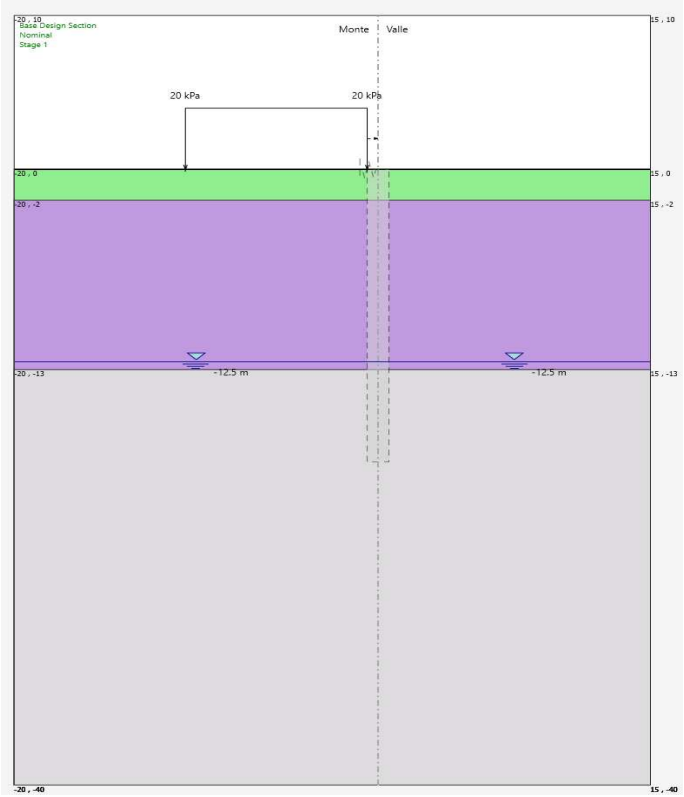


Figura 10-1 - Fase 1

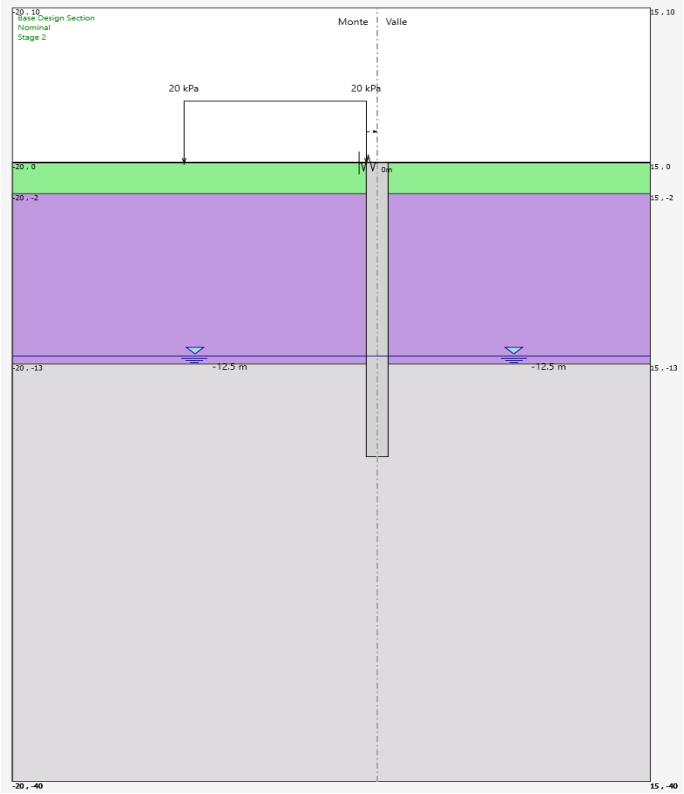


Figura 10-2 – Fase 2

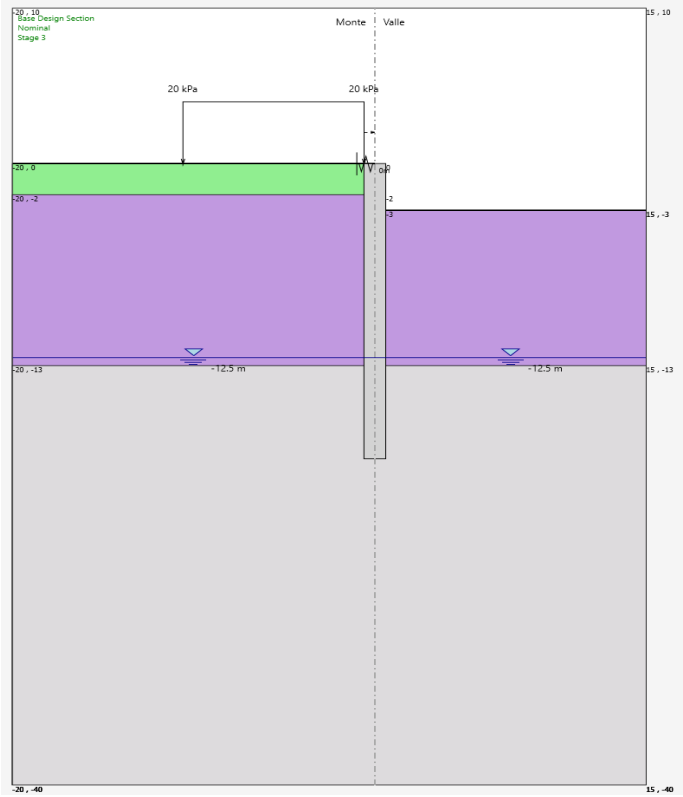


Figura 10-3 – Fase 3

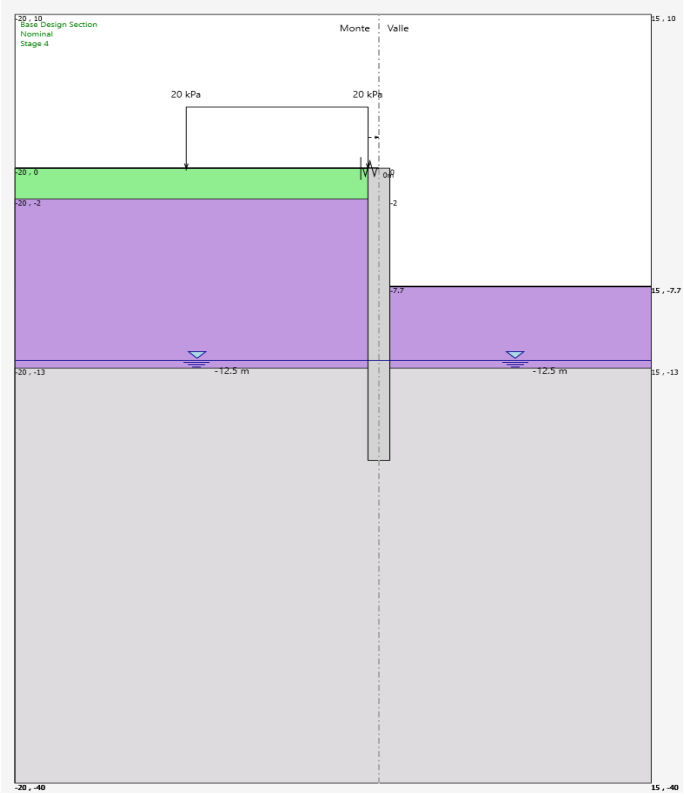


Figura 10-4 – Fase 4

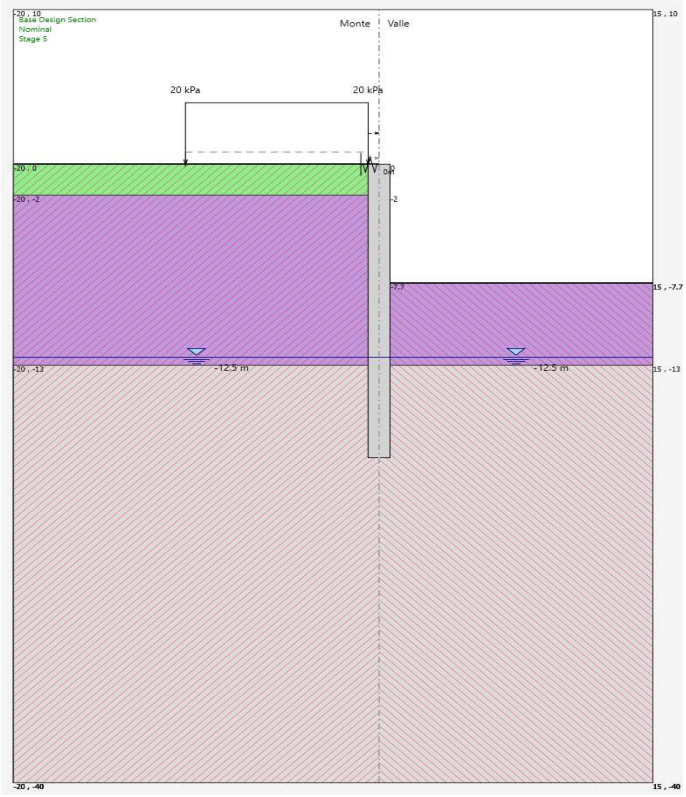


Figura 10-5 – Fase 5

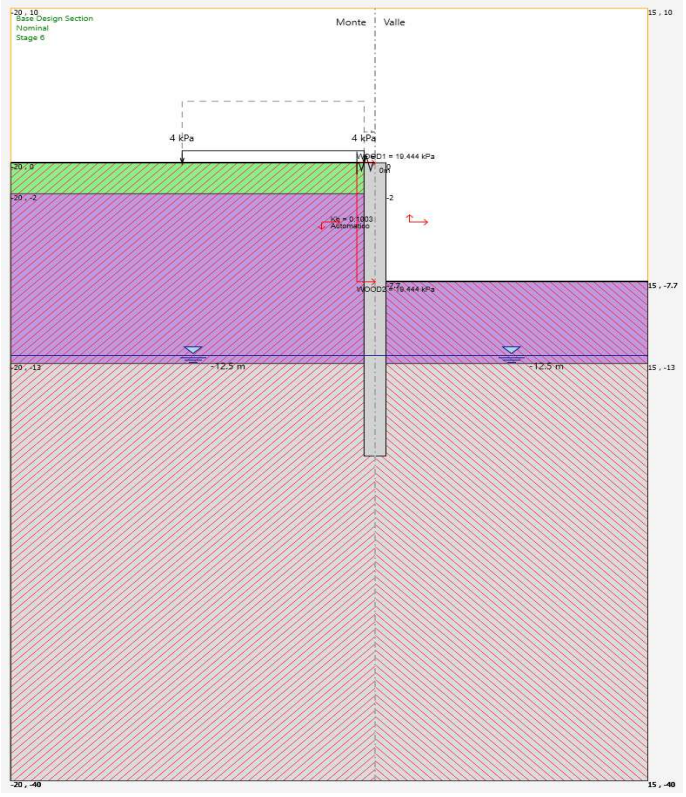


Figura 10-6 – Fase 6

10.2.-..RISULTATI

Di seguito vengono rappresentati i diagrammi di inviluppo delle sollecitazioni e gli spostamenti nello Stato Limite Ultimo/Esercizio:
Diagramma degli spostamenti (SLE):
u_{max} = 13.1 mm; spostamento massimo

Si osserva che tale spostamento è da ritenersi una stima cautelativa in ragione delle assunzioni fatte in fase di simulazione. In particolare, nella modellazione bidimensionale sono stati trascurati la variabilità del profilo di scavo che, soprattutto nel tratto più ad est, risulta di molto inferiore all'altezza di scavo assunta nei calcoli. Per questi motivi e considerando che tale spostamento risulta minore di $H_{scavo}/200$, si ritiene che i risultati ottenuti soddisfino i requisiti prestazionali dell'opera agli stati limite di esercizio.

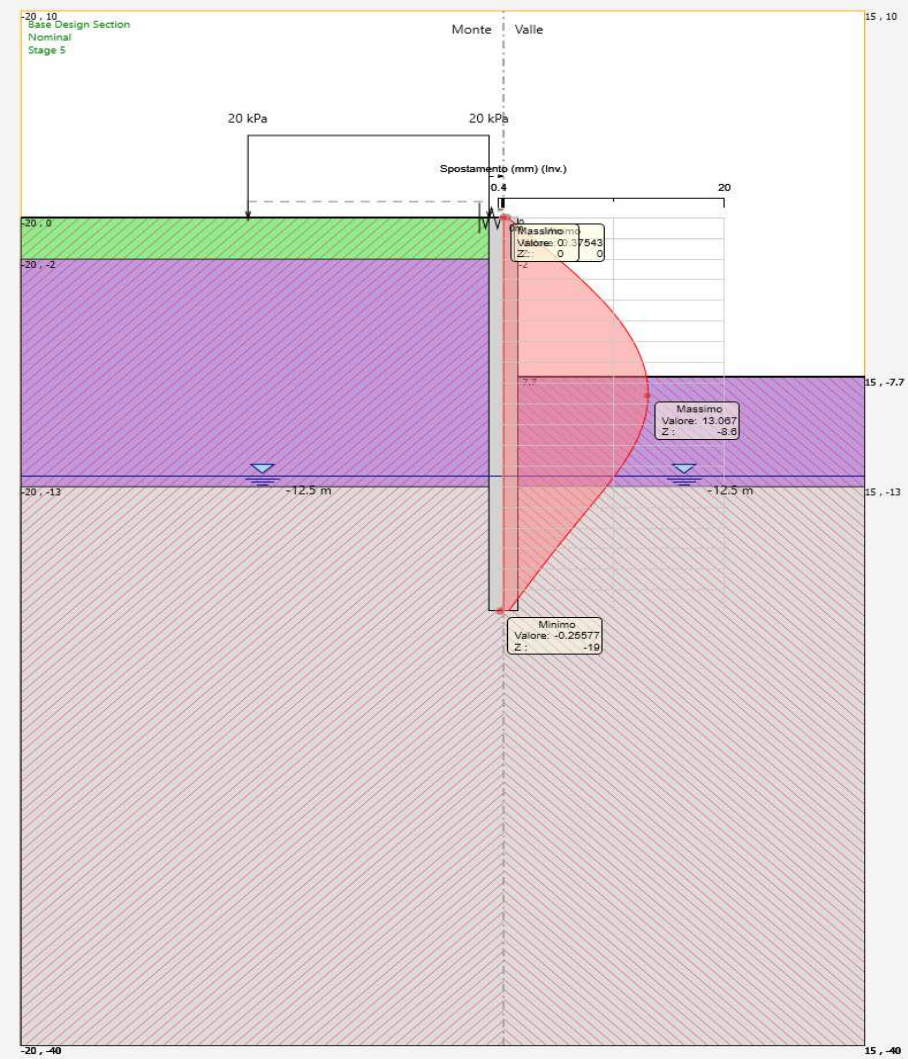


Figura 10-7 – diagramma spostamenti (SLE)

Diagramma inviluppo del momento flettente (SLU):
Mmax = 1511.7 kNm/m;

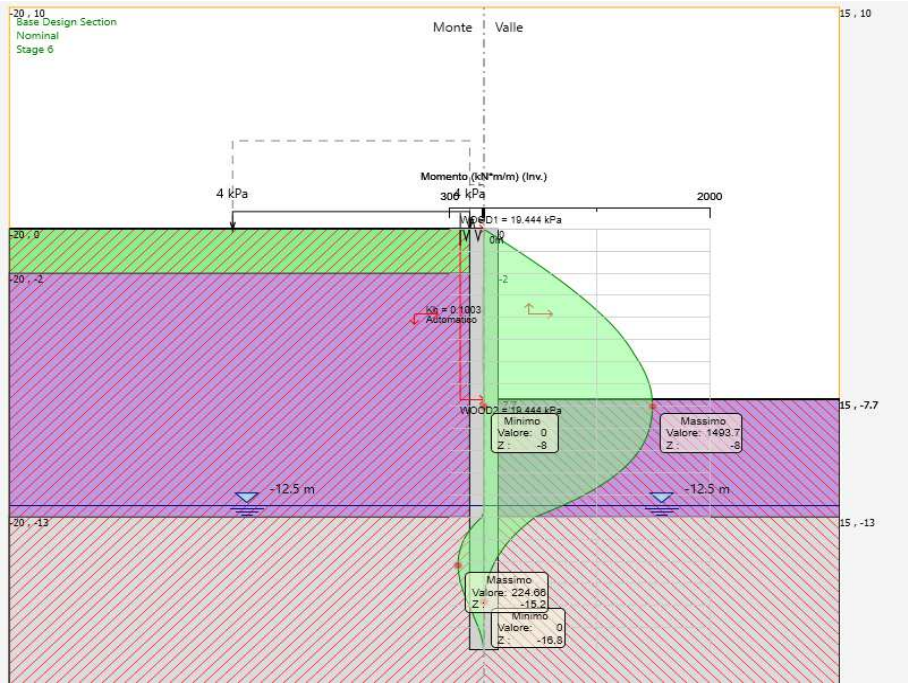


Figura 10-8 – inviluppo del momento flettente (SLU) – A1 M1 R1

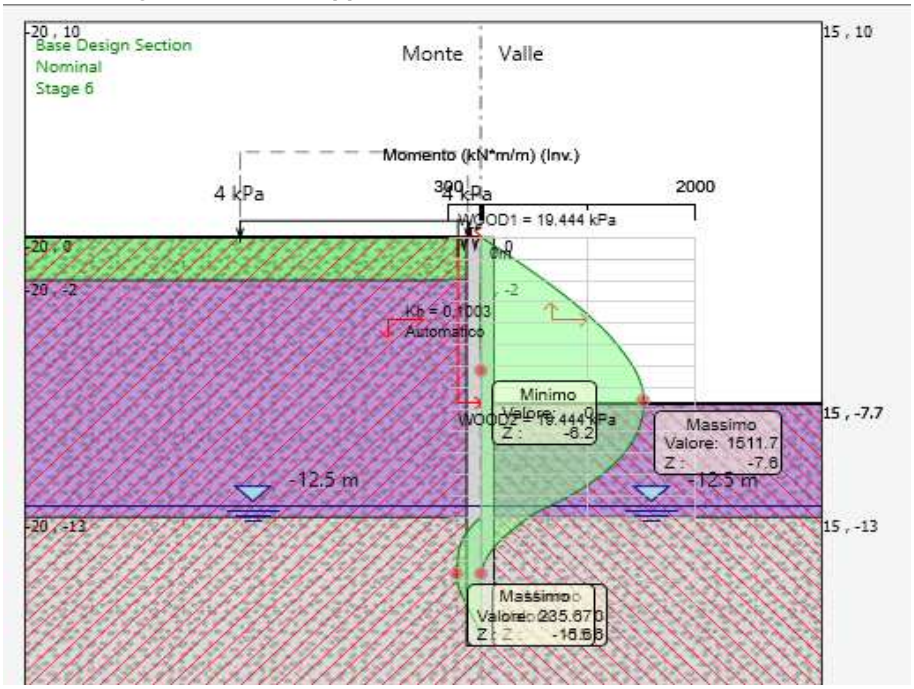


Figura 10-9 - inviluppo del momento flettente (SLU) – A2 M2 R1

Diagramma inviluppo del taglio (SLU):
Tmax = 524.8 kN/m

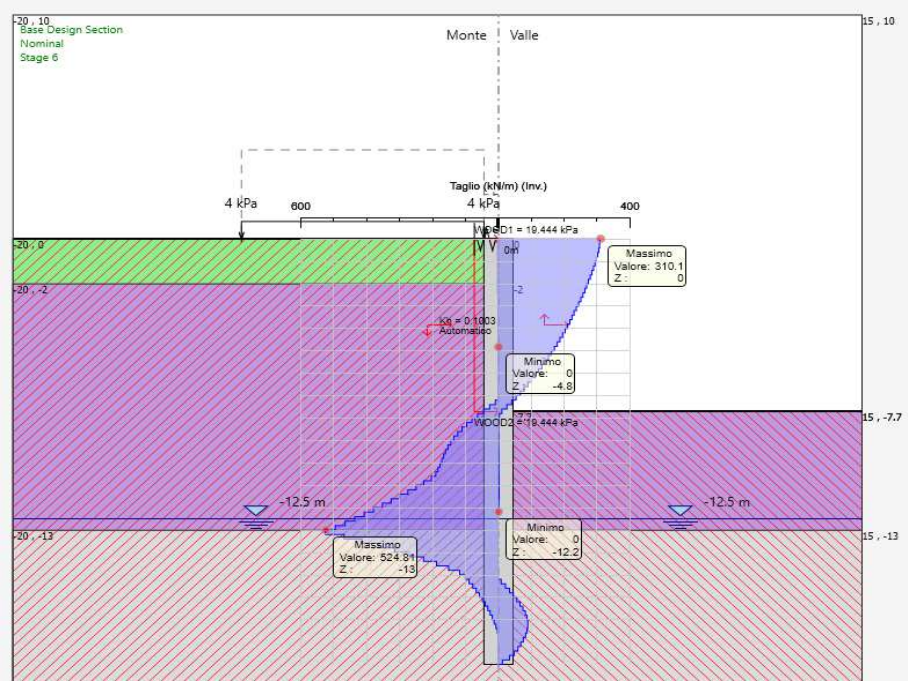


Figura 10-10 - inviluppo del taglio (SLU) – A1 M1 R1

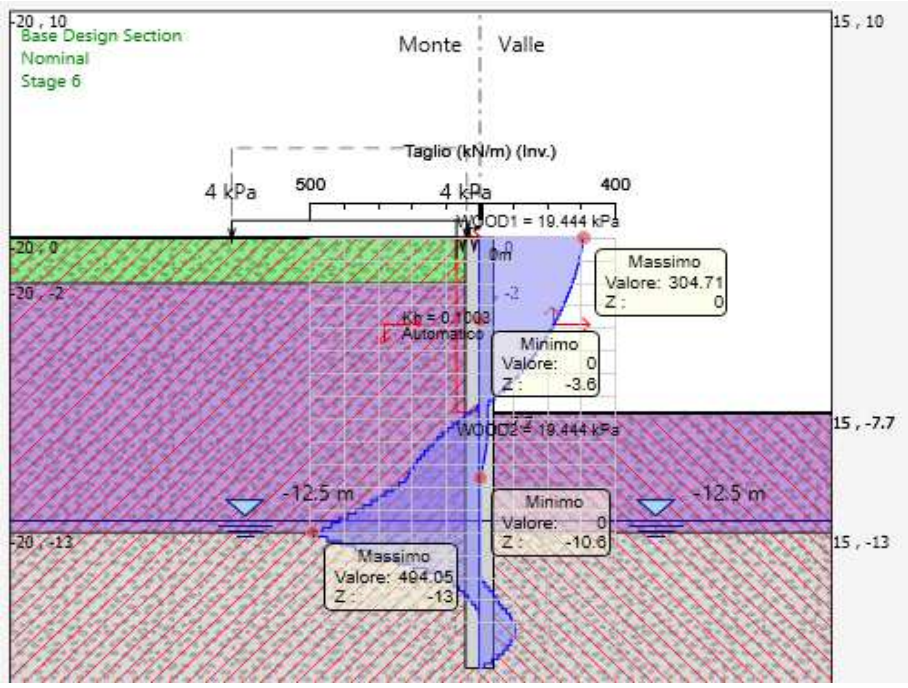


Figura 10-11 - - inviluppo del taglio (SLU) – A2 M2 R1

Diagramma inviluppo del momento flettente (SLE):

Mmax = 1128 kNm/m

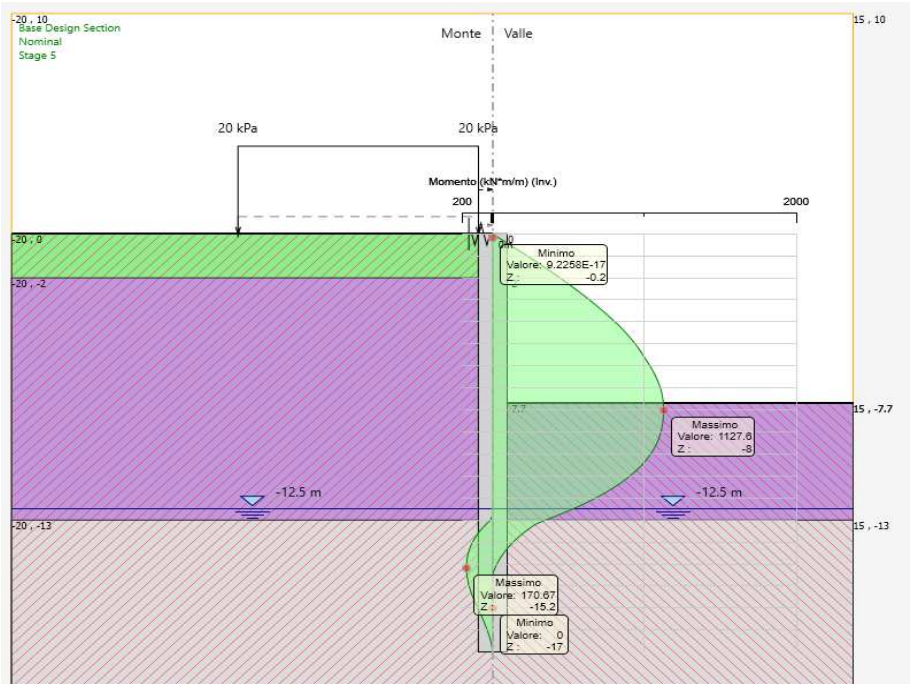


Figura 10-12 – inviluppo del momento flettente (SLE)

10.3.-..VERIFICHE STRUTTURALI

Di seguito vengono riportate le verifiche agli stati limiti SLU e SLE per due gabbie di armatura. La gabbia 1, di lunghezza 12m, è stata progettata per la parta superiore e più sollecitata dei pali, mentre la gabbia 2 riguarda alla parte inferiore dei pali avendo una lunghezza pari a 7m.

Le azioni ottenute dalle analisi vengono moltiplicate per l'interasse dei pali (i=1.2 m).

10.3.1.-..*Pali*

- **Gabbia 1 (da -0.0m a -12.0 m)**

Verifica a SLU:

M (kNm)	T (kN)	D (cm)	Armature	δ [cm]	staffe	$M_{resistente}/M_{agente}$	$T_{resistente}/T_{agente}$
1814	443.5	120	64 ϕ 26	8.8	ϕ14 / 20cm	2.8	>1

δ = copriferro

Verifica a SLE:

M	σs	σs lim	σc	σc lim	wk	wlim
(kNm)	[MPa]	[MPa]	[MPa]	[MPa]	[mm]	[mm]
1354	142.08	360	6.54	11.25	0.198	0.2

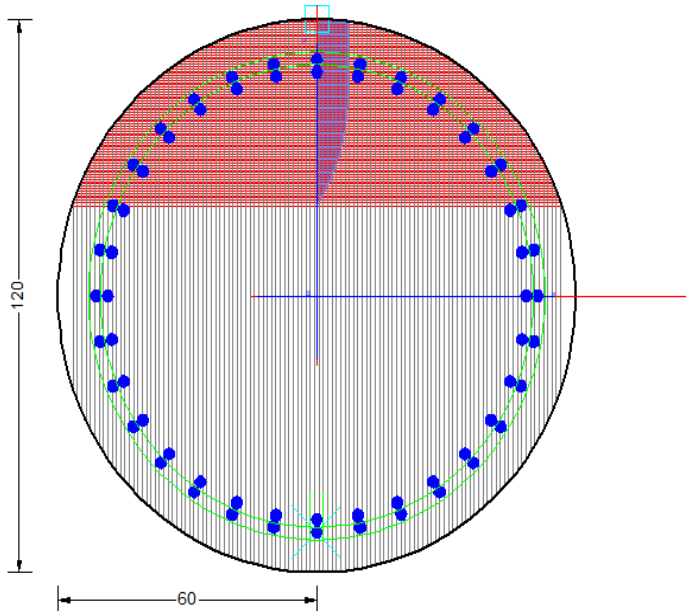


Figura 10-13 – Sezione di calcolo I

- **Gabbia 2 (da -12.0m a -19.0 m)**

Verifica a SLU:

M	T	D	Armature	δ	staffe	$M_{resistente}/M_{agente}$	$T_{resistente}/T_{agente}$
(kNm)	(kN)	(cm)		[cm]			
1078	630	120	32 ϕ 26	8.8	ϕ 14 / 15 cm	2.7	>1

δ = copriferro

Verifica a SLE:

M	σs	σs lim	σc	σc lim	wk	wlim
(kNm)	[MPa]	[MPa]	[MPa]	[MPa]	[mm]	[mm]
820	135.13	360	5.81	11.25	0.190	0.2

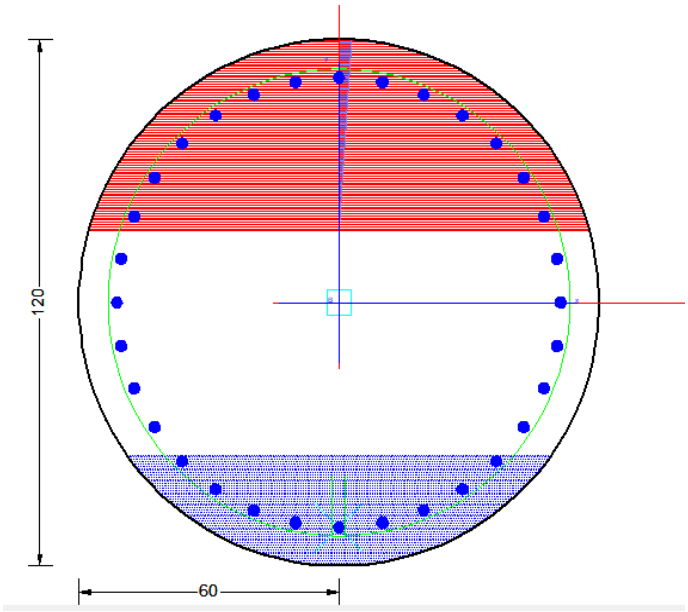


Figura 10-14 – Sezione di calcolo II

10.3.2.-..*Trave di coronamento*

Le sollecitazioni agenti sono state determinate facendo riferimento alla trave semplicemente appoggiata come viene descritto in seguito:

Dim. sezione = 1.5 (m) x 1.2 (m)

q_{SLU} = reazione della molla (SLU) = 310.1 kN/m (Vedasi Figura 10-15)

$M = ql^2/8$; momento flettente in mezzeria

$M_{SLU} = 310.1 * 6^2 / 8 = 1395.5$ kNm

$T_{SLU} = 310.1 * 6 / 2 = 930.3$ kN; taglio massimo

q_{SLE} = reazione della molla (SLE) = 233 kN/m (VedasiFigura 10-16)

$M_{SLE} = 233 * 6^2 / 8 = 1049$ kNm

Verifica a SLU:

M (kNm)	T (kN)	BxH (cm)	Armature	δ [cm]	staffe	$M_{resistente}/M_{agente}$	$T_{resistente}/T_{agente}$
1395.5	930.3	150x120	28 ϕ 26	8.6	ϕ12 / 10 cm	2.8	>1

δ = copriferro

Verifica a SLE:

M (kNm)	σs [MPa]	σs lim [MPa]	σc [MPa]	σc lim [MPa]	wk [mm]	wlim [mm]
1049	108.55	360	2.6	11.25	0.175	0.2

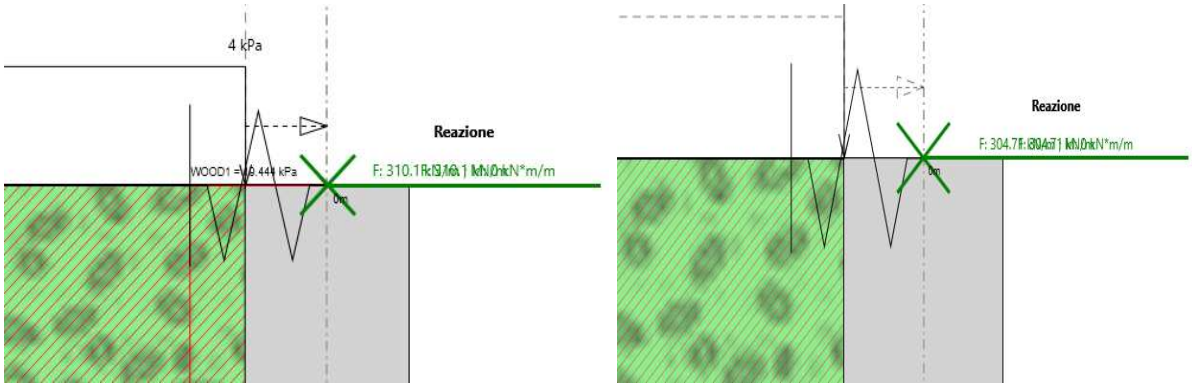


Figura 10-15 – Reazione molla elastica: sinistra (SLU – A1 M1 R1) – destra (SLU - A2 M2 R1)

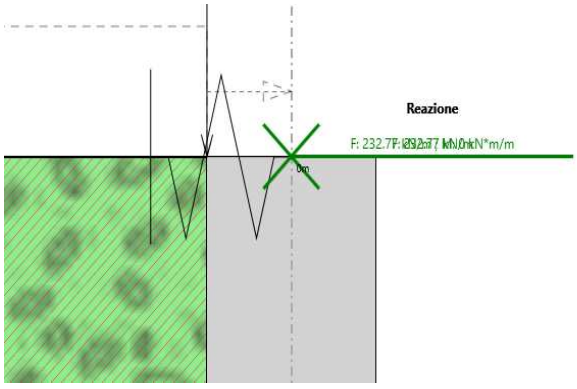


Figura 10-16 - Reazione molla elastica (SLE)

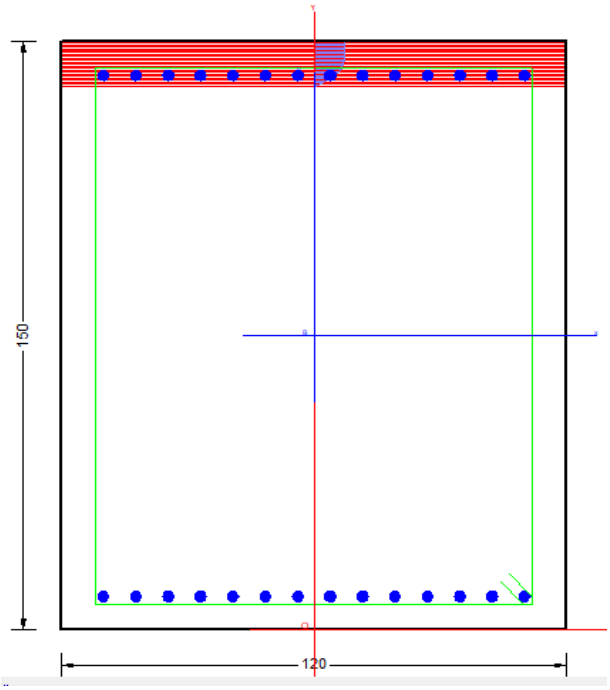


Figura 10-17 – Sezione di calcolo - cordolo

11.-..CONCLUSIONE

Dalle verifiche effettuate si può concludere che la struttura risulta rispondere a tutti i requisiti di resistenza e funzionalità previsti allo SLU e SLE, con opportuno margine di sicurezza. La struttura oggetto della presente relazione è conforme ai criteri di progettazione e di resistenza indicati della normativa vigente, prendendo in considerazione anche le azioni sismiche.

L'analisi critica dei risultati e dei parametri di controllo associata al confronto con verifiche di massima eseguite manualmente porta a confermare la validità dei risultati.

Dovrà essere posta attenzione alle effettive misure dello stato di fatto in modo da posizionare la struttura in oggetto in maniera conforme alle indicazioni di progetto.

La struttura a collaudo dovrà essere conforme alle tolleranze dimensionali prescritte nella presente relazione, inoltre relativamente alle prestazioni attese esse dovranno essere quelle di cui al § 9 del D.M. 17.01.2018.

Per la paratia si riporta un riepilogo delle armature, riportando inoltre il valore dell'incidenza associato.

Pali
Gabbia 1 (lunghezza = 12 m):
Armature principali: 64 φ 26
Staffe: φ14/20 cm
Gabbia 2 (lunghezza = 7 m):
Armature principali: 32 φ 26
Staffe: φ14/15 cm

incidenza totale pali = 250 kg/m^3

Trave di coronamento

Armature principali: 28 φ 26

Staffe: φ 12 / 10 cm

incidenza totale cordolo = 105 kg/m^3

12.-..ALLEGATI

Di seguito si riportano dei tabulati del calcolo e delle verifiche.

12.1.-..VERIFICHE STRUTTURALI – PALO

12.1.1.-..*Gabbia 1*

Descrizione Sezione:

Metodo di calcolo resistenza:	Resistenze agli Stati Limite Ultimi
Tipologia sezione:	Sezione generica di Pilastro
Normativa di riferimento:	N.T.C.
Percorso sollecitazione:	A Sforzo Norm. costante
Condizioni Ambientali:	Moderat. aggressive
Riferimento Sforzi assegnati:	Assi x,y principali d'inerzia
Riferimento alla sismicità:	Zona non sismica

CARATTERISTICHE DI RESISTENZA DEI MATERIALI IMPIEGATI

CALCESTRUZZO -	Classe:	C25/30	
	Resis. compr. di progetto fcd:	14.160	MPa
	Resis. compr. ridotta fcd':	7.080	MPa
	Def.unit. max resistenza ec2:	0.0020	
	Def.unit. ultima ecu:	0.0035	
	Diagramma tensione-deformaz.:	Parabola-Rettangolo	
	Modulo Elastico Normale Ec:	31475.0	MPa
	Resis. media a trazione fctm:	2.560	MPa
	Coeff. Omogen. S.L.E.:	15.00	
	Coeff. Omogen. S.L.E.:	15.00	
	Sc limite S.L.E. comb. Frequenti:	150.00	daN/cm²
	Ap.Fessure limite S.L.E. comb. Frequenti:	0.300	mm
	Sc limite S.L.E. comb. Q.Permanenti:	0.00	Mpa
	Ap.Fess.limite S.L.E. comb. Q.Perm.:	0.200	mm
ACCIAIO -	Tipo:	B450C	
	Resist. caratt. snervam. fyk:	450.00	MPa
	Resist. caratt. rottura ftk:	450.00	MPa
	Resist. snerv. di progetto fyd:	391.30	MPa
	Resist. ultima di progetto ftd:	391.30	MPa
	Deform. ultima di progetto Epu:	0.068	
	Modulo Elastico Ef	2000000	daN/cm²
	Diagramma tensione-deformaz.:	Bilineare finito	
	Coeff. Aderenza istantaneo ß1*ß2 :	1.00	
	Coeff. Aderenza differito ß1*ß2 :	0.50	
	Sf limite S.L.E. Comb. Rare:	360.00	MPa

CARATTERISTICHE DOMINIO CONGLOMERATO

Forma del Dominio:	Circolare
Classe Conglomerato:	C25/30

Raggio circ.:	60.0 cm
X centro circ.:	0.0 cm
Y centro circ.:	0.0 cm

DATI GENERAZIONI CIRCOLARI DI BARRE

N°Gen.	Numero assegnato alla singola generazione circolare di barre
Xcentro	Ascissa [cm] del centro della circonf. lungo cui sono disposte le barre generate
Ycentro	Ordinata [cm] del centro della circonf. lungo cui sono disposte le barre genrate

Raggio	Raggio [cm] della circonferenza lungo cui sono disposte le barre generate
N°Barre	Numero di barre generate equidist. disposte lungo la circonferenza
Ø	Diametro [mm] della singola barra generata

N°Gen.	Xcentro	Ycentro	Raggio	N°Barre	Ø
1	0.0	0.0	51.2	32	26
2	0.0	0.0	48.6	32	26

ARMATURE A TAGLIO

Diametro staffe:	14	mm
Passo staffe:	20.0	cm
Staffe:		Una sola staffa chiusa perimetrale

CALCOLO DI RESISTENZA - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N	Sforzo normale [kN] applicato nel Baric. (+ se di compressione)
Mx	Momento flettente [kNm] intorno all'asse x princ. d'inerzia con verso positivo se tale da comprimere il lembo sup. della sez.
My	Momento flettente [kNm] intorno all'asse y princ. d'inerzia con verso positivo se tale da comprimere il lembo destro della sez.
Vy	Componente del Taglio [kN] parallela all'asse princ.d'inerzia y
Vx	Componente del Taglio [kN] parallela all'asse princ.d'inerzia x

N°Comb.	N	Mx	My	Vy	Vx
1	0.00	1814.00	0.00	443.50	0.00

COMB. RARE (S.L.E.) - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N	Sforzo normale [kN] applicato nel Baricentro (+ se di compressione)
Mx	Momento flettente [kNm] intorno all'asse x princ. d'inerzia (tra parentesi Mom.Fessurazione) con verso positivo se tale da comprimere il lembo superiore della sezione
My	Momento flettente [kNm] intorno all'asse y princ. d'inerzia (tra parentesi Mom.Fessurazione) con verso positivo se tale da comprimere il lembo destro della sezione

N°Comb.	N	Mx	My
1	0.00	1354.00	0.00

COMB. FREQUENTI (S.L.E.) - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N	Sforzo normale [kN] applicato nel Baricentro (+ se di compressione)
Mx	Momento flettente [kNm] intorno all'asse x princ. d'inerzia (tra parentesi Mom.Fessurazione) con verso positivo se tale da comprimere il lembo superiore della sezione
My	Momento flettente [kNm] intorno all'asse y princ. d'inerzia (tra parentesi Mom.Fessurazione) con verso positivo se tale da comprimere il lembo destro della sezione

N°Comb.	N	Mx	My
1	0.00	1354.00 (705.23)	0.00 (0.00)

COMB. QUASI PERMANENTI (S.L.E.) - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N	Sforzo normale [kN] applicato nel Baricentro (+ se di compressione)
Mx	Momento flettente [kNm] intorno all'asse x princ. d'inerzia (tra parentesi Mom.Fessurazione) con verso positivo se tale da comprimere il lembo superiore della sezione
My	Momento flettente [kNm] intorno all'asse y princ. d'inerzia (tra parentesi Mom.Fessurazione) con verso positivo se tale da comprimere il lembo destro della sezione

N°Comb.	N	Mx	My

1	0.00	1354.00 (705.23)	0.00 (0.00)

RISULTATI DEL CALCOLO

Sezione verificata per tutte le combinazioni assegnate

Copriferro netto minimo barre longitudinali:	7.5	cm
Interferro netto minimo barre longitudinali:	6.9	cm
Copriferro netto minimo staffe:	6.1	cm

VERIFICHE DI RESISTENZA IN PRESSO-TENSO FLESSIONE ALLO STATO LIMITE ULTIMO

Ver	S = combinazione verificata / N = combin. non verificata
N	Sforzo normale assegnato [kN] nel baricentro B sezione cls.(positivo se di compressione)
Mx	Componente del momento assegnato [kNm] riferito all'asse x princ. d'inerzia
My	Componente del momento assegnato [kNm] riferito all'asse y princ. d'inerzia
N Res	Sforzo normale resistente [kN] nel baricentro B sezione cls.(positivo se di compress.)
Mx Res	Momento flettente resistente [kNm] riferito all'asse x princ. d'inerzia
My Res	Momento flettente resistente [kNm] riferito all'asse y princ. d'inerzia
Mis.Sic.	Misura sicurezza = rapporto vettoriale tra (N r,Mx Res,My Res) e (N,Mx,My) Verifica positiva se tale rapporto risulta >=1.000
As Tesa	Area armature trave [cm²] in zona tesa. [Tra parentesi l'area minima ex (4.1.15)NTC]

N°Comb	Ver	N	Mx	My	N Res	Mx Res	My Res	Mis.Sic.	As Tesa
1	S	0.00	1814.00	0.00	0.00	5111.98	0.00	2.82	201.8(16.5)

METODO AGLI STATI LIMITE ULTIMI - DEFORMAZIONI UNITARIE ALLO STATO ULTIMO

ec max	Deform. unit. massima del conglomerato a compressione
x/d	Rapporto di duttilità [§ 4.1.2.1.2.1 NTC] deve essere < 0.45
Xc max	Ascissa in cm della fibra corrisp. a ec max (sistema rif. X,Y,O sez.)
Yc max	Ordinata in cm della fibra corrisp. a ec max (sistema rif. X,Y,O sez.)
es min	Deform. unit. minima nell'acciaio (negativa se di trazione)
Xs min	Ascissa in cm della barra corrisp. a es min (sistema rif. X,Y,O sez.)
Ys min	Ordinata in cm della barra corrisp. a es min (sistema rif. X,Y,O sez.)
es max	Deform. unit. massima nell'acciaio (positiva se di compress.)
Xs max	Ascissa in cm della barra corrisp. a es max (sistema rif. X,Y,O sez.)
Ys max	Ordinata in cm della barra corrisp. a es max (sistema rif. X,Y,O sez.)

N°Comb	ec max	x/d	Xc max	Yc max	es min	Xs min	Ys min	es max	Xs max	Ys max
1	0.00350	0.364	0.0	60.0	0.00274	0.0	51.2	-0.00611	0.0	-51.2

POSIZIONE ASSE NEUTRO PER OGNI COMB. DI RESISTENZA

a, b, c	Coeff. a, b, c nell'eq. dell'asse neutro aX+bY+c=0 nel rif. X,Y,O gen.
x/d	Rapp. di duttilità (travi e solette)[§ 4.1.2.1.2.1 NTC]: deve essere < 0.45
C.Rid.	Coeff. di riduz. momenti per sola flessione in travi continue

N°Comb	a	b	c	x/d	C.Rid.
1	0.000000000	0.000086465	-0.001687899	0.364	0.895

VERIFICHE A TAGLIO

Diam. Staffe:	14	mm
Passo staffe:	20.0	cm [Passo massimo di normativa = 33.0 cm]

Ver	S = comb. verificata a taglio / N = comb. non verificata
Ved	Taglio di progetto [kN] = proiez. di Vx e Vy sulla normale all'asse neutro
Vcd	Taglio resistente ultimo [kN] lato conglomerato compresso [(4.1.28) NTC]
Vwd	Taglio resistente [kN] assorbito dalle staffe [(4.1.18) NTC]
Dmed	Altezza utile media pesata [cm] valutata lungo strisce ortog. all'asse neutro.

Vengono prese nella media le strisce con almeno un estremo compresso.
I pesi della media sono costituiti dalle stesse lunghezze delle strisce.

bw — Larghezza media resistente a taglio [cm] misurate parallel. all'asse neutro
E' data dal rapporto tra l'area delle sopradette strisce resistenti e Dmed.

Ctg — Cotangente dell'angolo di inclinazione dei puntoni di conglomerato

Acw — Coefficiente maggiorativo della resistenza a taglio per compressione

Ast — Area staffe+legature strettam. necessarie a taglio per metro di pil.[cm²/m]

A.Eff — Area staffe+legature efficaci nella direzione del taglio di combinaz.[cm²/m]
Tra parentesi è indicata la quota dell'area relativa alle sole legature.
L'area della legatura è ridotta col fattore L/d_max con L=lungh.legat.proietta-
ta sulla direz. del taglio e d_max= massima altezza utile nella direz.del taglio.

N°Comb	Ver	Ved	Vcd	Vwd	Dmed	bw	Ctg	Acw	Ast	A.Eff
1	S	443.50	2242.24	2484.67	94.1	108.5	2.500	1.000	5.4	30.0(0.0)

COMBINAZIONI RARE IN ESERCIZIO - MASSIME TENSIONI NORMALI ED APERTURA FESSURE (NTC/EC2)

Ver — S = comb. verificata/ N = comb. non verificata
Sc max — Massima tensione (positiva se di compressione) nel conglomerato [Mpa]
Xc max, Yc max — Ascissa, Ordinata [cm] del punto corrisp. a Sc max (sistema rif. X,Y,O)
Sf min — Minima tensione (negativa se di trazione) nell'acciaio [Mpa]
Xs min, Ys min — Ascissa, Ordinata [cm] della barra corrisp. a Sf min (sistema rif. X,Y,O)
Ac eff. — Area di calcestruzzo [cm²] in zona tesa considerata aderente alle barre
As eff. — Area barre [cm²] in zona tesa considerate efficaci per l'apertura delle fessure

N°Comb	Ver	Sc max	Xc max	Yc max	Sf min	Xs min	Ys min	Ac eff.	As eff.
1	S	6.54	0.0	0.0	-142.1	0.0	-51.2	1707	84.9

COMBINAZIONI FREQUENTI IN ESERCIZIO - MASSIME TENSIONI NORMALI ED APERTURA FESSURE (NTC/EC2)

N°Comb	Ver	Sc max	Xc max	Yc max	Sf min	Xs min	Ys min	Ac eff.	As eff.
1	S	6.54	0.0	0.0	-142.1	0.0	-51.2	1707	84.9

COMBINAZIONI FREQUENTI IN ESERCIZIO - APERTURA FESSURE [§ 7.3.4 EC2]

La sezione viene assunta sempre fessurata anche nel caso in cui la trazione minima del calcestruzzo sia inferiore a fctm

Ver. — Esito della verifica
e1 — Massima deformazione unitaria di trazione nel calcestruzzo (trazione -) valutata in sezione fessurata
e2 — Minima deformazione unitaria di trazione nel calcestruzzo (trazione -) valutata in sezione fessurata
k1 — = 0.8 per barre ad aderenza migliorata [eq.(7.11)EC2]
kt — = 0.4 per comb. quasi permanenti / = 0.6 per comb.frequenti [cfr. eq.(7.9)EC2]
k2 — = 0.5 per flessione; =(e1 + e2)/(2*e1) per trazione eccentrica [eq.(7.13)EC2]
k3 — = 3.400 Coeff. in eq.(7.11) come da annessi nazionali
k4 — = 0.425 Coeff. in eq.(7.11) come da annessi nazionali
Ø — Diametro [mm] equivalente delle barre tese comprese nell'area efficace Ac eff [eq.(7.11)EC2]
Cf — Copriferro [mm] netto calcolato con riferimento alla barra più tesa
e sm - e cm — Differenza tra le deformazioni medie di acciaio e calcestruzzo [(7.8)EC2 e (C4.1.7)NTC]
Tra parentesi: valore minimo = 0.6 Smax / Es [(7.9)EC2 e (C4.1.8)NTC]
sr max — Massima distanza tra le fessure [mm]
wk — Apertura fessure in mm calcolata = sr max*(e_sm - e_cm) [(7.8)EC2 e (C4.1.7)NTC]. Valore limite tra parentesi
Mx fess. — Componente momento di prima fessurazione intorno all'asse X [kNm]
My fess. — Componente momento di prima fessurazione intorno all'asse Y [kNm]

Comb.	Ver	e1	e2	k2	Ø	Cf	e sm - e cm	sr max	wk	Mx fess	My fess
1	S	-0.00081	0	0.500	26.0	75	0.00051 (0.00043)	344	0.174 (0.30)	705.23	0.00

COMBINAZIONI QUASI PERMANENTI IN ESERCIZIO - MASSIME TENSIONI NORMALI ED APERTURA FESSURE (NTC/EC2)

N°Comb	Ver	Sc max	Xc max	Yc max	Sf min	Xs min	Ys min	Ac eff.	As eff.
1	S	6.54	0.0	0.0	-142.1	0.0	-51.2	1707	84.9

COMBINAZIONI QUASI PERMANENTI IN ESERCIZIO - APERTURA FESSURE [§ 7.3.4 EC2]

Comb.	Ver	e1	e2	k2	Ø	Cf	e sm - e cm	sr max	wk	Mx fess	My fess
1	S	-0.00081	0	0.500	26.0	75	0.00057 (0.00043)	344	0.198 (0.20)	705.23	0.00

12.1.2.-..*Gabbia 2*

Descrizione Sezione:

Metodo di calcolo resistenza:	Resistenze agli Stati Limite Ultimi
Tipologia sezione:	Sezione generica di Pilastro
Normativa di riferimento:	N.T.C.
Percorso sollecitazione:	A Sforzo Norm. costante
Condizioni Ambientali:	Moderat. aggressive
Riferimento Sforzi assegnati:	Assi x,y principali d'inerzia
Riferimento alla sismicità:	Zona non sismica

CARATTERISTICHE DI RESISTENZA DEI MATERIALI IMPIEGATI

CALCESTRUZZO -	Classe:	C25/30	
	Resis. compr. di progetto fcd:	14.160	MPa
	Resis. compr. ridotta fcd':	7.080	MPa
	Def.unit. max resistenza ec2:	0.0020	
	Def.unit. ultima ecu:	0.0035	
	Diagramma tensione-deformaz.:	Parabola-Rettangolo	
	Modulo Elastico Normale Ec:	31475.0	MPa
	Resis. media a trazione fctm:	2.560	MPa
	Coeff. Omogen. S.L.E.:	15.00	
	Coeff. Omogen. S.L.E.:	15.00	
	Sc limite S.L.E. comb. Frequenti:	150.00	daN/cm²
	Ap.Fessure limite S.L.E. comb. Frequenti:	0.300	mm
	Sc limite S.L.E. comb. Q.Permanenti:	0.00	Mpa
	Ap.Fess.limite S.L.E. comb. Q.Perm.:	0.200	mm
ACCIAIO -	Tipo:	B450C	
	Resist. caratt. snervam. fyk:	450.00	MPa
	Resist. caratt. rottura ftk:	450.00	MPa
	Resist. snerv. di progetto fyd:	391.30	MPa
	Resist. ultima di progetto ftd:	391.30	MPa
	Deform. ultima di progetto Epu:	0.068	
	Modulo Elastico Ef	2000000	daN/cm²
	Diagramma tensione-deformaz.:	Bilineare finito	
	Coeff. Aderenza istantaneo ß1*ß2 :	1.00	
	Coeff. Aderenza differito ß1*ß2 :	0.50	
	Sf limite S.L.E. Comb. Rare:	360.00	MPa

CARATTERISTICHE DOMINIO CONGLOMERATO

Forma del Dominio:	Circolare
Classe Conglomerato:	C25/30

Raggio circ.:	60.0 cm
X centro circ.:	0.0 cm
Y centro circ.:	0.0 cm

DATI GENERAZIONI CIRCOLARI DI BARRE

N°Gen. Numero assegnato alla singola generazione circolare di barre
Xcentro Ascissa [cm] del centro della circonf. lungo cui sono disposte le barre generate
Ycentro Ordinata [cm] del centro della circonf. lungo cui sono disposte le barre genrate
Raggio Raggio [cm] della circonferenza lungo cui sono disposte le barre generate
N°Barre Numero di barre generate equidist. disposte lungo la circonferenza
Ø Diametro [mm] della singola barra generata

N°Gen.	Xcentro	Ycentro	Raggio	N°Barre	Ø
1	0.0	0.0	51.2	32	26

ARMATURE A TAGLIO

Diametro staffe: 14 mm
Passo staffe: 15.0 cm
Staffe: Una sola staffa chiusa perimetrale

CALCOLO DI RESISTENZA - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N Sforzo normale [kN] applicato nel Baric. (+ se di compressione)
Mx Momento flettente [kNm] intorno all'asse x princ. d'inerzia
con verso positivo se tale da comprimere il lembo sup. della sez.
My Momento flettente [kNm] intorno all'asse y princ. d'inerzia
con verso positivo se tale da comprimere il lembo destro della sez.
Vy Componente del Taglio [kN] parallela all'asse princ.d'inerzia y
Vx Componente del Taglio [kN] parallela all'asse princ.d'inerzia x

N°Comb.	N	Mx	My	Vy	Vx
1	0.00	1078.00	0.00	630.00	0.00

COMB. RARE (S.L.E.) - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N Sforzo normale [kN] applicato nel Baricentro (+ se di compressione)
Mx Momento flettente [kNm] intorno all'asse x princ. d'inerzia (tra parentesi Mom.Fessurazione)
con verso positivo se tale da comprimere il lembo superiore della sezione
My Momento flettente [kNm] intorno all'asse y princ. d'inerzia (tra parentesi Mom.Fessurazione)
con verso positivo se tale da comprimere il lembo destro della sezione

N°Comb.	N	Mx	My
1	339.00	820.00	0.00

COMB. FREQUENTI (S.L.E.) - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N Sforzo normale [kN] applicato nel Baricentro (+ se di compressione)
Mx Momento flettente [kNm] intorno all'asse x princ. d'inerzia (tra parentesi Mom.Fessurazione)
con verso positivo se tale da comprimere il lembo superiore della sezione
My Momento flettente [kNm] intorno all'asse y princ. d'inerzia (tra parentesi Mom.Fessurazione)
con verso positivo se tale da comprimere il lembo destro della sezione

N°Comb.	N	Mx	My
1	339.00	820.00 (618.38)	0.00 (0.00)

COMB. QUASI PERMANENTI (S.L.E.) - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N Sforzo normale [kN] applicato nel Baricentro (+ se di compressione)

Mx	Momento flettente [kNm] intorno all'asse x princ. d'inerzia (tra parentesi Mom.Fessurazione) con verso positivo se tale da comprimere il lembo superiore della sezione
My	Momento flettente [kNm] intorno all'asse y princ. d'inerzia (tra parentesi Mom.Fessurazione) con verso positivo se tale da comprimere il lembo destro della sezione

N°Comb.	N	Mx	My
1	339.00	820.00 (618.38)	0.00 (0.00)

RISULTATI DEL CALCOLO

Copriferro netto minimo barre longitudinali:	7.5	cm
Interferro netto minimo barre longitudinali:	7.4	cm
Copriferro netto minimo staffe:	6.1	cm

VERIFICHE DI RESISTENZA IN PRESSO-TENSO FLESSIONE ALLO STATO LIMITE ULTIMO

Ver	S = combinazione verificata / N = combin. non verificata
N	Sforzo normale assegnato [kN] nel baricentro B sezione cls.(positivo se di compressione)
Mx	Componente del momento assegnato [kNm] riferito all'asse x princ. d'inerzia
My	Componente del momento assegnato [kNm] riferito all'asse y princ. d'inerzia
N Res	Sforzo normale resistente [kN] nel baricentro B sezione cls.(positivo se di compress.)
Mx Res	Momento flettente resistente [kNm] riferito all'asse x princ. d'inerzia
My Res	Momento flettente resistente [kNm] riferito all'asse y princ. d'inerzia
Mis.Sic.	Misura sicurezza = rapporto vettoriale tra (N r,Mx Res,My Res) e (N,Mx,My) Verifica positiva se tale rapporto risulta >=1.000
As Tesa	Area armature trave [cm²] in zona tesa. [Tra parentesi l'area minima ex (4.1.15)NTC]

N°Comb	Ver	N	Mx	My	N Res	Mx Res	My Res	Mis.Sic.	As Tesa
1	N	0.00	1078.00	0.00	0.00	2858.80	0.00	2.65	111.5(16.6)

METODO AGLI STATI LIMITE ULTIMI - DEFORMAZIONI UNITARIE ALLO STATO ULTIMO

ec max	Deform. unit. massima del conglomerato a compressione
x/d	Rapporto di duttilità [§ 4.1.2.1.2.1 NTC] deve essere < 0.45
Xc max	Ascissa in cm della fibra corrisp. a ec max (sistema rif. X,Y,O sez.)
Yc max	Ordinata in cm della fibra corrisp. a ec max (sistema rif. X,Y,O sez.)
es min	Deform. unit. minima nell'acciaio (negativa se di trazione)
Xs min	Ascissa in cm della barra corrisp. a es min (sistema rif. X,Y,O sez.)
Ys min	Ordinata in cm della barra corrisp. a es min (sistema rif. X,Y,O sez.)
es max	Deform. unit. massima nell'acciaio (positiva se di compress.)
Xs max	Ascissa in cm della barra corrisp. a es max (sistema rif. X,Y,O sez.)
Ys max	Ordinata in cm della barra corrisp. a es max (sistema rif. X,Y,O sez.)

N°Comb	ec max	x/d	Xc max	Yc max	es min	Xs min	Ys min	es max	Xs max	Ys max
1	0.00350	0.288	0.0	60.0	0.00254	0.0	51.2	-0.00866	0.0	-51.2

POSIZIONE ASSE NEUTRO PER OGNI COMB. DI RESISTENZA

a, b, c	Coeff. a, b, c nell'eq. dell'asse neutro aX+bY+c=0 nel rif. X,Y,O gen.
x/d	Rapp. di duttilità (travi e solette)[§ 4.1.2.1.2.1 NTC]: deve essere < 0.45
C.Rid.	Coeff. di riduz. momenti per sola flessione in travi continue

N°Comb	a	b	c	x/d	C.Rid.
1	0.000000000	0.000109339	-0.003060353	0.288	0.800

VERIFICHE A TAGLIO

Diam. Staffe:	14 mm	
Passo staffe:	15.0 cm	[Passo massimo di normativa = 33.0 cm]

Ver	S = comb. verificata a taglio / N = comb. non verificata
Ved	Taglio di progetto [kN] = proiez. di Vx e Vy sulla normale all'asse neutro
Vcd	Taglio resistente ultimo [kN] lato conglomerato compresso [(4.1.28) NTC]
Vwd	Taglio resistente [kN] assorbito dalle staffe [(4.1.18) NTC]
Dmed	Altezza utile media pesata [cm] valutata lungo strisce ortog. all'asse neutro. Vengono prese nella media le strisce con almeno un estremo compresso. I pesi della media sono costituiti dalle stesse lunghezze delle strisce.
bw	Larghezza media resistente a taglio [cm] misurate parallel. all'asse neutro E' data dal rapporto tra l'area delle sopradette strisce resistenti e Dmed.
Ctg	Cotangente dell'angolo di inclinazione dei puntoni di conglomerato
Acw	Coefficiente maggiorativo della resistenza a taglio per compressione
Ast	Area staffe+legature strettam. necessarie a taglio per metro di pil.[cm²/m]
A.Eff	Area staffe+legature efficaci nella direzione del taglio di combinaz.[cm²/m] Tra parentesi è indicata la quota dell'area relativa alle sole legature. L'area della legatura è ridotta col fattore L/d_max con L=lungh.legat.proietta- ta sulla direz. del taglio e d_max= massima altezza utile nella direz.del taglio.

N°Comb	Ver	Ved	Vcd	Vwd	Dmed	bw	Ctg	Acw	Ast	A.Eff
1	S	630.00	2169.42	1734.51	96.0	102.9	2.500	1.000	7.5	20.5(0.0)

COMBINAZIONI RARE IN ESERCIZIO - MASSIME TENSIONI NORMALI ED APERTURA FESSURE (NTC/EC2)

Ver	S = comb. verificata/ N = comb. non verificata
Sc max	Massima tensione (positiva se di compressione) nel conglomerato [Mpa]
Xc max, Yc max	Ascissa, Ordinata [cm] del punto corrisp. a Sc max (sistema rif. X,Y,O)
Sf min	Minima tensione (negativa se di trazione) nell'acciaio [Mpa]
Xs min, Ys min	Ascissa, Ordinata [cm] della barra corrisp. a Sf min (sistema rif. X,Y,O)
Ac eff.	Area di calcestruzzo [cm²] in zona tesa considerata aderente alle barre
As eff.	Area barre [cm²] in zona tesa considerate efficaci per l'apertura delle fessure

N°Comb	Ver	Sc max	Xc max	Yc max	Sf min	Xs min	Ys min	Ac eff.	As eff.
1	S	5.81	0.0	0.0	-135.1	0.0	-51.2	1756	47.8

COMBINAZIONI FREQUENTI IN ESERCIZIO - MASSIME TENSIONI NORMALI ED APERTURA FESSURE (NTC/EC2)

N°Comb	Ver	Sc max	Xc max	Yc max	Sf min	Xs min	Ys min	Ac eff.	As eff.
1	S	5.81	0.0	0.0	-135.1	0.0	-51.2	1756	47.8

COMBINAZIONI FREQUENTI IN ESERCIZIO - APERTURA FESSURE [§ 7.3.4 EC2]

	La sezione viene assunta sempre fessurata anche nel caso in cui la trazione minima del calcestruzzo sia inferiore a fctm
Ver.	Esito della verifica
e1	Massima deformazione unitaria di trazione nel calcestruzzo (trazione -) valutata in sezione fessurata
e2	Minima deformazione unitaria di trazione nel calcestruzzo (trazione -) valutata in sezione fessurata
k1	= 0.8 per barre ad aderenza migliorata [eq.(7.11)EC2]
kt	= 0.4 per comb. quasi permanenti / = 0.6 per comb.frequenti [cfr. eq.(7.9)EC2]
k2	= 0.5 per flessione; =(e1 + e2)/(2*e1) per trazione eccentrica [eq.(7.13)EC2]
k3	= 3.400 Coeff. in eq.(7.11) come da annessi nazionali
k4	= 0.425 Coeff. in eq.(7.11) come da annessi nazionali
Ø	Diametro [mm] equivalente delle barre tese comprese nell'area efficace Ac eff [eq.(7.11)EC2]
Cf	Copriferro [mm] netto calcolato con riferimento alla barra più tesa
e sm - e cm	Differenza tra le deformazioni medie di acciaio e calcestruzzo [(7.8)EC2 e (C4.1.7)NTC] Tra parentesi: valore minimo = 0.6 Smax / Es [(7.9)EC2 e (C4.1.8)NTC]
sr max	Massima distanza tra le fessure [mm]
wk	Apertura fessure in mm calcolata = sr max*(e_sm - e_cm) [(7.8)EC2 e (C4.1.7)NTC]. Valore limite tra parentesi
Mx fess.	Componente momento di prima fessurazione intorno all'asse X [kNm]
My fess.	Componente momento di prima fessurazione intorno all'asse Y [kNm]

Comb.	Ver	e1	e2	k2	Ø	Cf	e sm - e cm	sr max	wk	Mx fess	My fess
1	S	-0.00076	0	0.500	26.0	75	0.00041 (0.00041)	417	0.169 (0.30)	618.38	

0.00

COMBINAZIONI QUASI PERMANENTI IN ESERCIZIO - MASSIME TENSIONI NORMALI ED APERTURA FESSURE (NTC/EC2)

N°Comb	Ver	Sc max	Xc max	Yc max	Sf min	Xs min	Ys min	Ac eff.	As eff.
1	S	5.81	0.0	0.0	-135.1	0.0	-51.2	1756	47.8

COMBINAZIONI QUASI PERMANENTI IN ESERCIZIO - APERTURA FESSURE [§ 7.3.4 EC2]

Comb.	Ver	e1	e2	k2	Ø	Cf	e sm - e cm	sr max	wk	Mx fess	My fess
1	S	-0.00076	0	0.500	26.0	75	0.00045 (0.00041)	417	0.190 (0.20)	618.38	0.00

12.1.-..VERIFICHE STRUTTURALI – TRAVE DI CORONAMENTO

Descrizione Sezione:

Metodo di calcolo resistenza:	Stati Limite Ultimi
Normativa di riferimento:	N.T.C.
Tipologia sezione:	Sezione predefinita di Trave
Forma della sezione:	Rettangolare
Percorso sollecitazione:	A Sforzo Norm. costante
Condizioni Ambientali:	Moderat. aggressive
Riferimento Sforzi assegnati:	Assi x,y principali d'inerzia
Riferimento alla sismicità:	Zona non sismica

CARATTERISTICHE DI RESISTENZA DEI MATERIALI IMPIEGATI

CALCESTRUZZO -	Classe:	C25/30	
	Resistenza compress. di progetto fcd:	14.16	MPa
	Resistenza compress. ridotta fcd':	7.080	MPa
	Deform. unitaria max resistenza ec2:	0.0020	
	Deformazione unitaria ultima ecu:	0.0035	
	Diagramma tensioni-deformaz.:	Parabola-Rettangolo	
	Modulo Elastico Normale Ec:	31475.0	MPa
	Resis. media a trazione fctm:	2.560	MPa
	Coeff.Omogen. S.L.E.:	15.00	
	Sc limite S.L.E. comb. Rare:	15.000	MPa
	Sc limite S.L.E. comb. Frequenti:	15.000	MPa
	Ap.Fessure limite S.L.E. comb. Frequenti:	0.300	mm
	Sc limite S.L.E. comb. Q.Permanenti:	11.250	MPa
	Ap.Fess.limite S.L.E. comb. Q.Perm.:	0.200	mm
ACCIAIO -	Tipo:	B450C	
	Resist. caratt. a snervamento fyk:	450.00	MPa
	Resist. caratt. a rottura ftk:	450.00	MPa
	Resist. a snerv. di progetto fyd:	391.30	MPa
	Resist. ultima di progetto ftd:	391.30	MPa
	Deform. ultima di progetto Epu:	0.068	
	Modulo Elastico Ef:	200000.0	MPa
	Diagramma tensioni-deformaz.:	Bilineare finito	
	Coeff. Aderenza istant. ß1*ß2:	1.00	
	Coeff. Aderenza differito ß1*ß2:	0.50	
	Comb.Rare - Sf Limite:	360.00	MPa

CARATTERISTICHE GEOMETRICHE ED ARMATURE SEZIONE

Base:	120.0	cm
Altezza:	150.0	cm
Barre inferiori:	14Ø26	(74.3 cm²)
Barre superiori:	14Ø26	(74.3 cm²)

Coprif.Inf.(dal baric. barre):	8.6	cm
Coprif.Sup.(dal baric. barre):	8.6	cm
Coprif.Lat. (dal baric.barre):	10.0	cm

CALCOLO DI RESISTENZA - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N	Sforzo normale [kN] applicato nel baricentro (posit. se di compress.)
Mx	Momento flettente [kNm] intorno all'asse x baric. della sezione con verso positivo se tale da comprimere il lembo sup. della sezione
VY	Taglio [kN] in direzione parallela all'asse Y del riferim. generale
MT	Momento torcente [kN m]

N°Comb.	N	Mx	Vy	MT
1	0.00	1395.50	930.30	0.00

COMB. RARE (S.L.E.) - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N	Sforzo normale [kN] applicato nel baricentro (positivo se di compress.)
Mx	Coppia [kNm] applicata all'asse x baricentrico (tra parentesi il Momento di fessurazione) con verso positivo se tale da comprimere il lembo superiore della sezione

N°Comb.	N	Mx
1	0.00	1049.00

COMB. FREQUENTI (S.L.E.) - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N	Sforzo normale [kN] applicato nel baricentro (positivo se di compress.)
Mx	Coppia [kNm] applicata all'asse x baricentrico (tra parentesi il Momento di fessurazione) con verso positivo se tale da comprimere il lembo superiore della sezione

N°Comb.	N	Mx
1	0.00	1049.00 (1487.58)

COMB. QUASI PERMANENTI (S.L.E.) - SFORZI PER OGNI COMBINAZIONE ASSEGNATA

N	Sforzo normale [kN] applicato nel baricentro (positivo se di compress.)
Mx	Coppia [kNm] applicata all'asse x baricentrico (tra parentesi il Momento di fessurazione) con verso positivo se tale da comprimere il lembo superiore della sezione

N°Comb.	N	Mx
1	0.00	1049.00 (1487.58)

RISULTATI DEL CALCOLO

Sezione verificata per tutte le combinazioni assegnate

Copriferro netto minimo barre longitudinali:	7.3	cm
Interferro netto minimo barre longitudinali:	5.1	cm
Copriferro netto minimo staffe:	6.1	cm

VERIFICHE DI RESISTENZA IN PRESSO-TENSO FLESSIONE ALLO STATO LIMITE ULTIMO

Ver	S = combinazione verificata / N = combin. non verificata
N	Sforzo normale baricentrico assegnato [kN] (positivo se di compressione)
Mx	Momento flettente assegnato [kNm] riferito all'asse x baricentrico
N Ult	Sforzo normale alla massima resistenza [kN] nella sezione (positivo se di compress.)
Mx rd	Momento resistente ultimo [kNm] riferito all'asse x baricentrico
Mis.Sic.	Misura sicurezza = rapporto vettoriale tra (N rd,Mx rd) e (N,Mx) Verifica positiva se tale rapporto risulta >=1.000
Yn	Ordinata [cm] dell'asse neutro alla massima resistenza nel sistema di rif. X,Y,O sez.
x/d	Rapp. di duttilità (travi e solette)[§ 4.1.2.1.2.1 NTC]: deve essere < 0.45

C.Rid. Coeff. di riduz. momenti in travi continue [formula (4.1.1)NTC]

N°Comb	Ver	N	Mx	N rd	Mx rd	Mis.Sic.	Yn	x/d	C.Rid.	
1	S	0.00	1395.50	-0.27	3922.66	2.811	138.5	0.08	0.70	74.3 (25.1)

DEFORMAZIONI UNITARIE ALLO STATO LIMITE ULTIMO

ec max Deform. unit. massima del conglomerato a compressione
Yc max Ordinata in cm della fibra corrisp. a ec max (sistema rif. X,Y,O sez.)
es min Deform. unit. minima nell'acciaio (negativa se di trazione)
Ys min Ordinata in cm della barra corrisp. a es min (sistema rif. X,Y,O sez.)
es max Deform. unit. massima nell'acciaio (positiva se di compressione)
Ys max Ordinata in cm della barra corrisp. a es max (sistema rif. X,Y,O sez.)

N°Comb	ec max	Yc max	es min	Ys min	es max	Ys max
1	0.00350	150.0	0.00089	141.4	-0.03943	8.6

ARMATURE A TAGLIO E/O TORSIONE DI INVILUPPO PER LE COMBINAZIONI ASSEGNATE

Diametro staffe:	12	mm	
Passo staffe:	10.0	cm	[Passo massimo di normativa = 12.6 cm]
N.Bracci staffe:	2		
Area staffe/m :	22.6	cm²/m	[Area Staffe Minima NTC = 18.0 cm²/m]

VERIFICHE A TAGLIO

Ver S = comb.verificata a taglio-tors./ N = comb. non verificata
Ved Taglio agente [kN] uguale al taglio Vy di comb. (sollecit. retta)
Vrd Taglio resistente [kN] in assenza di staffe [formula (4.1.23)NTC]
Vcd Taglio compressione resistente [kN] lato conglomerato [formula (4.1.28)NTC]
Vwd Taglio trazione resistente [kN] assorbito dalle staffe [formula (4.1.27)NTC]
bw|d Larghezza minima [cm] sezione misurata parallelam. all'asse neutro | Altezza utile sezione
Ctg Cotangente dell'angolo di inclinazione dei puntoni di conglomerato
Acw Coefficiente maggiorativo della resistenza a taglio per compressione
Ast Area staffe/metro strettamente necessaria per taglio e torsione [cm²/m]

N°Comb	Ver	Ved	Vrd	Vcd	Vwd	bw| d	Ctg	Acw	ASt
1	S	930.30	622.23	3728.29	2815.94	120.0| 141.4	2.500	1.000	7.5

COMBINAZIONI RARE IN ESERCIZIO - VERIFICA MASSIME TENSIONI NORMALI

Ver S = combinazione verificata / N = combin. non verificata
Sc max Massima tensione di compress.(+) nel conglom. in fase fessurata ([Mpa]
Yc max Ordinata in cm della fibra corrisp. a Sc max (sistema rif. X,Y,O)
Sc min Minima tensione di compress.(+) nel conglom. in fase fessurata ([Mpa]
Yc min Ordinata in cm della fibra corrisp. a Sc min (sistema rif. X,Y,O)
Sf min Minima tensione di trazione (-) nell'acciaio [Mpa]
Ys min Ordinata in cm della barra corrisp. a Sf min (sistema rif. X,Y,O)
Dw Eff. Spessore di conglomerato [cm] in zona tesa considerata aderente alle barre
Ac eff. Area di congl. [cm²] in zona tesa aderente alle barre (verifica fess.)
As eff. Area Barre tese di acciaio [cm²] ricadente nell'area efficace(verifica fess.)
D barre Distanza in cm tra le barre tese efficaci.
(D barre = 0 indica spaziatura superiore a 5(c+Ø/2) e nel calcolo di fess. si usa la (C4.1.11)NTC/(7.14)EC2)

N°Comb	Ver	Sc max	Yc max	Sc min	Yc min	Sf min	Ys min	Dw Eff.	Ac Eff.	As Eff.	D barre
1	S	2.60	150.0	0.00	112.6	-108.6	141.4	21.5	2580	74.3	7.9

COMBINAZIONI RARE IN ESERCIZIO - VERIFICA APERTURA FESSURE (NTC/EC2)

Ver	Esito verifica
e1	Minima deformazione unitaria (trazione: segno -) nel calcestruzzo in sez. fessurata
e2	Massima deformazione unitaria (compress.: segno +) nel calcestruzzo in sez. fessurata
e3	Deformazione unitaria al limite dell'area tesa efficace di calcestruzzo
K2	= (e1 + e3)/(2*e3) secondo la (7.13) dell'EC2 e la (C4.1.19)NTC
Kt	fattore di durata del carico di cui alla (7.9) dell'EC2
e sm	Deformazione media acciaio tra le fessure al netto di quella del cls. Tra parentesi il valore minimo = 0.6 Ss/Es
srm	Distanza massima in mm tra le fessure
wk	Apertura delle fessure in mm fornito dalla (7.8)EC2 e dalla (C4.1.7)NTC. Tra parentesi è indicato il valore limite.
M fess.	Momento di prima fessurazione [kNm]

N°Comb	Ver	e1	e2	e3	K2	Kt	e sm	srm	wk	M Fess.
1	S	-0.00059	0.00020	-0.00048	0.90	0.60	0.000326 (0.000326)	526	0.171 (990.00)	1487.58

COMBINAZIONI FREQUENTI IN ESERCIZIO - VERIFICA MASSIME TENSIONI NORMALI

N°Comb	Ver	Sc max	Yc max	Sc min	Yc min	Sf min	Ys min	Dw Eff.	Ac Eff.	As Eff.	D barre
1	S	2.60	150.0	0.00	112.6	-108.6	141.4	21.5	2580	74.3	7.9

COMBINAZIONI FREQUENTI IN ESERCIZIO - VERIFICA APERTURA FESSURE (NTC/EC2)

N°Comb	Ver	e1	e2	e3	K2	Kt	e sm	srm	wk	M Fess.
1	S	-0.00059	0.00020	-0.00048	0.90	0.60	0.000326 (0.000326)	526	0.171 (0.30)	1487.58

COMBINAZIONI QUASI PERMANENTI IN ESERCIZIO - VERIFICA MASSIME TENSIONI NORMALI

N°Comb	Ver	Sc max	Yc max	Sc min	Yc min	Sf min	Ys min	Dw Eff.	Ac Eff.	As Eff.	D barre
1	S	2.60	150.0	0.00	112.6	-108.6	141.4	21.5	2580	74.3	7.9

COMBINAZIONI QUASI PERMANENTI IN ESERCIZIO - VERIFICA APERTURA FESSURE (NTC/EC2)

N°Comb	Ver	e1	e2	e3	K2	Kt	e sm	srm	wk	M Fess.
1	S	-0.00059	0.00020	-0.00048	0.90	0.40	0.000333 (0.000326)	526	0.175 (0.20)	1487.58

12.2.-..TABULATI PARATIE

Tipo : HORIZONTAL
Quota : 0 m
OCR : 1

Tipo : HORIZONTAL
Quota : -2 m
OCR : 1

Tipo : HORIZONTAL
Quota : -13 m
OCR : 1

Strato di Terreno	Terreno	γ dry	γ sat	øcv	øp	c'	Su	Modulo Elastico	Evc	Eur
		kN/m³	kN/m³	°	°	kPa	kPa		kPa	kPa
1	UG2	19.5	19.5	26	26	0	30	Constant	4000	6000
2	UG3	19	19	24	24	0	50	Constant	10000	17000
3	A_M	20	20	40	40	0	250	Constant	100000	200000

Design Assumption : Nominal

Tabella Spostamento Nominal - LEFT Stage: Stage 1

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 1	0	0
Stage 1	-0.2	0
Stage 1	-0.4	0
Stage 1	-0.6	0
Stage 1	-0.8	0
Stage 1	-1	0
Stage 1	-1.2	0
Stage 1	-1.4	0
Stage 1	-1.6	0
Stage 1	-1.8	0
Stage 1	-2	0
Stage 1	-2.2	0
Stage 1	-2.4	0
Stage 1	-2.6	0
Stage 1	-2.8	0

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 1	-3	0
Stage 1	-3.2	0
Stage 1	-3.4	0
Stage 1	-3.6	0
Stage 1	-3.8	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
Stage 1	-11.6	0

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
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

Tabella Spostamento Nominal - LEFT Stage: Stage 2

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 2	0	0
Stage 2	-0.2	0
Stage 2	-0.4	0

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 2	-0.6	0
Stage 2	-0.8	0
Stage 2	-1	0
Stage 2	-1.2	0
Stage 2	-1.4	0
Stage 2	-1.6	0
Stage 2	-1.8	0
Stage 2	-2	0
Stage 2	-2.2	0
Stage 2	-2.4	0
Stage 2	-2.6	0
Stage 2	-2.8	0
Stage 2	-3	0
Stage 2	-3.2	0
Stage 2	-3.4	0
Stage 2	-3.6	0
Stage 2	-3.8	0
Stage 2	-4	0
Stage 2	-4.2	0
Stage 2	-4.4	0
Stage 2	-4.6	0
Stage 2	-4.8	0
Stage 2	-5	0
Stage 2	-5.2	0
Stage 2	-5.4	0
Stage 2	-5.6	0
Stage 2	-5.8	0
Stage 2	-6	0
Stage 2	-6.2	0
Stage 2	-6.4	0
Stage 2	-6.6	0
Stage 2	-6.8	0
Stage 2	-7	0
Stage 2	-7.2	0
Stage 2	-7.4	0
Stage 2	-7.6	0
Stage 2	-7.8	0
Stage 2	-8	0
Stage 2	-8.2	0
Stage 2	-8.4	0
Stage 2	-8.6	0
Stage 2	-8.8	0
Stage 2	-9	0
Stage 2	-9.2	0

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 2	-9.4	0
Stage 2	-9.6	0
Stage 2	-9.8	0
Stage 2	-10	0
Stage 2	-10.2	0
Stage 2	-10.4	0
Stage 2	-10.6	0
Stage 2	-10.8	0
Stage 2	-11	0
Stage 2	-11.2	0
Stage 2	-11.4	0
Stage 2	-11.6	0
Stage 2	-11.8	0
Stage 2	-12	0
Stage 2	-12.2	0
Stage 2	-12.4	0
Stage 2	-12.6	0
Stage 2	-12.8	0
Stage 2	-13	0
Stage 2	-13.2	0
Stage 2	-13.4	0
Stage 2	-13.6	0
Stage 2	-13.8	0
Stage 2	-14	0
Stage 2	-14.2	0
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

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 2	-18.2	0
Stage 2	-18.4	0
Stage 2	-18.6	0
Stage 2	-18.8	0
Stage 2	-19	0

Tabella Spostamento Nominal - LEFT Stage: Stage 3

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 3	0	0.14
Stage 3	-0.2	0.25
Stage 3	-0.4	0.37
Stage 3	-0.6	0.48
Stage 3	-0.8	0.59
Stage 3	-1	0.7
Stage 3	-1.2	0.81
Stage 3	-1.4	0.92
Stage 3	-1.6	1.03
Stage 3	-1.8	1.13
Stage 3	-2	1.23
Stage 3	-2.2	1.33
Stage 3	-2.4	1.43
Stage 3	-2.6	1.53
Stage 3	-2.8	1.62
Stage 3	-3	1.71
Stage 3	-3.2	1.8
Stage 3	-3.4	1.88
Stage 3	-3.6	1.96
Stage 3	-3.8	2.04
Stage 3	-4	2.11
Stage 3	-4.2	2.18
Stage 3	-4.4	2.25
Stage 3	-4.6	2.31
Stage 3	-4.8	2.37
Stage 3	-5	2.43
Stage 3	-5.2	2.48
Stage 3	-5.4	2.53
Stage 3	-5.6	2.57
Stage 3	-5.8	2.61
Stage 3	-6	2.64
Stage 3	-6.2	2.68
Stage 3	-6.4	2.7
Stage 3	-6.6	2.73
Stage 3	-6.8	2.75

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 3	-7	2.76
Stage 3	-7.2	2.78
Stage 3	-7.4	2.78
Stage 3	-7.6	2.79
Stage 3	-7.8	2.79
Stage 3	-8	2.78
Stage 3	-8.2	2.77
Stage 3	-8.4	2.76
Stage 3	-8.6	2.74
Stage 3	-8.8	2.72
Stage 3	-9	2.7
Stage 3	-9.2	2.67
Stage 3	-9.4	2.63
Stage 3	-9.6	2.6
Stage 3	-9.8	2.56
Stage 3	-10	2.51
Stage 3	-10.2	2.47
Stage 3	-10.4	2.41
Stage 3	-10.6	2.36
Stage 3	-10.8	2.3
Stage 3	-11	2.24
Stage 3	-11.2	2.18
Stage 3	-11.4	2.11
Stage 3	-11.6	2.04
Stage 3	-11.8	1.97
Stage 3	-12	1.89
Stage 3	-12.2	1.82
Stage 3	-12.4	1.74
Stage 3	-12.6	1.66
Stage 3	-12.8	1.59
Stage 3	-13	1.51
Stage 3	-13.2	1.43
Stage 3	-13.4	1.35
Stage 3	-13.6	1.27
Stage 3	-13.8	1.2
Stage 3	-14	1.12
Stage 3	-14.2	1.05
Stage 3	-14.4	0.98
Stage 3	-14.6	0.91
Stage 3	-14.8	0.85
Stage 3	-15	0.79
Stage 3	-15.2	0.73
Stage 3	-15.4	0.67
Stage 3	-15.6	0.61

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 3	-15.8	0.56
Stage 3	-16	0.51
Stage 3	-16.2	0.46
Stage 3	-16.4	0.42
Stage 3	-16.6	0.37
Stage 3	-16.8	0.33
Stage 3	-17	0.29
Stage 3	-17.2	0.25
Stage 3	-17.4	0.21
Stage 3	-17.6	0.18
Stage 3	-17.8	0.14
Stage 3	-18	0.11
Stage 3	-18.2	0.07
Stage 3	-18.4	0.04
Stage 3	-18.6	0
Stage 3	-18.8	-0.03
Stage 3	-19	-0.06

Tabella Spostamento Nominal - LEFT Stage: Stage 4

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 4	0	0.36
Stage 4	-0.2	0.83
Stage 4	-0.4	1.3
Stage 4	-0.6	1.77
Stage 4	-0.8	2.24
Stage 4	-1	2.7
Stage 4	-1.2	3.16
Stage 4	-1.4	3.62
Stage 4	-1.6	4.07
Stage 4	-1.8	4.52
Stage 4	-2	4.96
Stage 4	-2.2	5.4
Stage 4	-2.4	5.82
Stage 4	-2.6	6.24
Stage 4	-2.8	6.66
Stage 4	-3	7.06
Stage 4	-3.2	7.46
Stage 4	-3.4	7.84
Stage 4	-3.6	8.22
Stage 4	-3.8	8.58
Stage 4	-4	8.93
Stage 4	-4.2	9.27
Stage 4	-4.4	9.6

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 4	-4.6	9.92
Stage 4	-4.8	10.22
Stage 4	-5	10.51
Stage 4	-5.2	10.78
Stage 4	-5.4	11.05
Stage 4	-5.6	11.29
Stage 4	-5.8	11.52
Stage 4	-6	11.74
Stage 4	-6.2	11.94
Stage 4	-6.4	12.12
Stage 4	-6.6	12.29
Stage 4	-6.8	12.45
Stage 4	-7	12.58
Stage 4	-7.2	12.7
Stage 4	-7.4	12.8
Stage 4	-7.6	12.89
Stage 4	-7.8	12.96
Stage 4	-8	13.01
Stage 4	-8.2	13.05
Stage 4	-8.4	13.07
Stage 4	-8.6	13.07
Stage 4	-8.8	13.05
Stage 4	-9	13.02
Stage 4	-9.2	12.97
Stage 4	-9.4	12.91
Stage 4	-9.6	12.83
Stage 4	-9.8	12.73
Stage 4	-10	12.62
Stage 4	-10.2	12.49
Stage 4	-10.4	12.34
Stage 4	-10.6	12.18
Stage 4	-10.8	12.01
Stage 4	-11	11.82
Stage 4	-11.2	11.62
Stage 4	-11.4	11.41
Stage 4	-11.6	11.18
Stage 4	-11.8	10.94
Stage 4	-12	10.69
Stage 4	-12.2	10.43
Stage 4	-12.4	10.16
Stage 4	-12.6	9.88
Stage 4	-12.8	9.6
Stage 4	-13	9.31
Stage 4	-13.2	9.01

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 4	-13.4	8.71
Stage 4	-13.6	8.4
Stage 4	-13.8	8.1
Stage 4	-14	7.79
Stage 4	-14.2	7.48
Stage 4	-14.4	7.17
Stage 4	-14.6	6.87
Stage 4	-14.8	6.56
Stage 4	-15	6.26
Stage 4	-15.2	5.95
Stage 4	-15.4	5.65
Stage 4	-15.6	5.35
Stage 4	-15.8	5.05
Stage 4	-16	4.76
Stage 4	-16.2	4.46
Stage 4	-16.4	4.17
Stage 4	-16.6	3.88
Stage 4	-16.8	3.59
Stage 4	-17	3.3
Stage 4	-17.2	3.02
Stage 4	-17.4	2.73
Stage 4	-17.6	2.45
Stage 4	-17.8	2.17
Stage 4	-18	1.89
Stage 4	-18.2	1.61
Stage 4	-18.4	1.32
Stage 4	-18.6	1.04
Stage 4	-18.8	0.76
Stage 4	-19	0.48

Tabella Spostamento Nominal - LEFT Stage: Stage 5

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 5	0	0.38
Stage 5	-0.2	0.82
Stage 5	-0.4	1.27
Stage 5	-0.6	1.71
Stage 5	-0.8	2.15
Stage 5	-1	2.59
Stage 5	-1.2	3.02
Stage 5	-1.4	3.46
Stage 5	-1.6	3.88
Stage 5	-1.8	4.3
Stage 5	-2	4.72

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 5	-2.2	5.13
Stage 5	-2.4	5.53
Stage 5	-2.6	5.92
Stage 5	-2.8	6.3
Stage 5	-3	6.68
Stage 5	-3.2	7.05
Stage 5	-3.4	7.4
Stage 5	-3.6	7.75
Stage 5	-3.8	8.08
Stage 5	-4	8.4
Stage 5	-4.2	8.71
Stage 5	-4.4	9.01
Stage 5	-4.6	9.3
Stage 5	-4.8	9.57
Stage 5	-5	9.83
Stage 5	-5.2	10.07
Stage 5	-5.4	10.3
Stage 5	-5.6	10.52
Stage 5	-5.8	10.72
Stage 5	-6	10.9
Stage 5	-6.2	11.07
Stage 5	-6.4	11.22
Stage 5	-6.6	11.36
Stage 5	-6.8	11.48
Stage 5	-7	11.59
Stage 5	-7.2	11.68
Stage 5	-7.4	11.75
Stage 5	-7.6	11.81
Stage 5	-7.8	11.85
Stage 5	-8	11.88
Stage 5	-8.2	11.89
Stage 5	-8.4	11.88
Stage 5	-8.6	11.86
Stage 5	-8.8	11.83
Stage 5	-9	11.78
Stage 5	-9.2	11.71
Stage 5	-9.4	11.63
Stage 5	-9.6	11.54
Stage 5	-9.8	11.43
Stage 5	-10	11.31
Stage 5	-10.2	11.18
Stage 5	-10.4	11.04
Stage 5	-10.6	10.88
Stage 5	-10.8	10.71

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 5	-11	10.53
Stage 5	-11.2	10.34
Stage 5	-11.4	10.14
Stage 5	-11.6	9.93
Stage 5	-11.8	9.71
Stage 5	-12	9.49
Stage 5	-12.2	9.25
Stage 5	-12.4	9.01
Stage 5	-12.6	8.76
Stage 5	-12.8	8.5
Stage 5	-13	8.24
Stage 5	-13.2	7.98
Stage 5	-13.4	7.71
Stage 5	-13.6	7.43
Stage 5	-13.8	7.16
Stage 5	-14	6.88
Stage 5	-14.2	6.59
Stage 5	-14.4	6.31
Stage 5	-14.6	6.02
Stage 5	-14.8	5.74
Stage 5	-15	5.45
Stage 5	-15.2	5.17
Stage 5	-15.4	4.88
Stage 5	-15.6	4.59
Stage 5	-15.8	4.3
Stage 5	-16	4.02
Stage 5	-16.2	3.73
Stage 5	-16.4	3.44
Stage 5	-16.6	3.16
Stage 5	-16.8	2.87
Stage 5	-17	2.58
Stage 5	-17.2	2.3
Stage 5	-17.4	2.02
Stage 5	-17.6	1.73
Stage 5	-17.8	1.45
Stage 5	-18	1.16
Stage 5	-18.2	0.88
Stage 5	-18.4	0.59
Stage 5	-18.6	0.31
Stage 5	-18.8	0.03
Stage 5	-19	-0.26

Tabella Spostamento Nominal - LEFT Stage: Stage 6

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 6	0	0.33
Stage 6	-0.2	0.74
Stage 6	-0.4	1.15
Stage 6	-0.6	1.56
Stage 6	-0.8	1.97
Stage 6	-1	2.37
Stage 6	-1.2	2.77
Stage 6	-1.4	3.17
Stage 6	-1.6	3.56
Stage 6	-1.8	3.95
Stage 6	-2	4.34
Stage 6	-2.2	4.71
Stage 6	-2.4	5.09
Stage 6	-2.6	5.45
Stage 6	-2.8	5.81
Stage 6	-3	6.15
Stage 6	-3.2	6.49
Stage 6	-3.4	6.83
Stage 6	-3.6	7.15
Stage 6	-3.8	7.46
Stage 6	-4	7.76
Stage 6	-4.2	8.05
Stage 6	-4.4	8.33
Stage 6	-4.6	8.6
Stage 6	-4.8	8.85
Stage 6	-5	9.09
Stage 6	-5.2	9.33
Stage 6	-5.4	9.54
Stage 6	-5.6	9.75
Stage 6	-5.8	9.94
Stage 6	-6	10.11
Stage 6	-6.2	10.28
Stage 6	-6.4	10.42
Stage 6	-6.6	10.56
Stage 6	-6.8	10.68
Stage 6	-7	10.78
Stage 6	-7.2	10.87
Stage 6	-7.4	10.95
Stage 6	-7.6	11.01
Stage 6	-7.8	11.06
Stage 6	-8	11.09
Stage 6	-8.2	11.1
Stage 6	-8.4	11.11
Stage 6	-8.6	11.1

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 6	-8.8	11.07
Stage 6	-9	11.03
Stage 6	-9.2	10.98
Stage 6	-9.4	10.91
Stage 6	-9.6	10.83
Stage 6	-9.8	10.74
Stage 6	-10	10.64
Stage 6	-10.2	10.52
Stage 6	-10.4	10.4
Stage 6	-10.6	10.26
Stage 6	-10.8	10.11
Stage 6	-11	9.95
Stage 6	-11.2	9.78
Stage 6	-11.4	9.6
Stage 6	-11.6	9.41
Stage 6	-11.8	9.22
Stage 6	-12	9.01
Stage 6	-12.2	8.8
Stage 6	-12.4	8.58
Stage 6	-12.6	8.35
Stage 6	-12.8	8.12
Stage 6	-13	7.88
Stage 6	-13.2	7.63
Stage 6	-13.4	7.38
Stage 6	-13.6	7.13
Stage 6	-13.8	6.87
Stage 6	-14	6.61
Stage 6	-14.2	6.35
Stage 6	-14.4	6.08
Stage 6	-14.6	5.82
Stage 6	-14.8	5.55
Stage 6	-15	5.28
Stage 6	-15.2	5
Stage 6	-15.4	4.73
Stage 6	-15.6	4.46
Stage 6	-15.8	4.19
Stage 6	-16	3.91
Stage 6	-16.2	3.64
Stage 6	-16.4	3.36
Stage 6	-16.6	3.09
Stage 6	-16.8	2.81
Stage 6	-17	2.54
Stage 6	-17.2	2.27
Stage 6	-17.4	1.99

Design Assumption: Nominal Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 6	-17.6	1.72
Stage 6	-17.8	1.44
Stage 6	-18	1.17
Stage 6	-18.2	0.9
Stage 6	-18.4	0.62
Stage 6	-18.6	0.35
Stage 6	-18.8	0.07
Stage 6	-19	-0.2

Inviluppi Spostamento Nominal

Tabella Inviluppi Spostamento Nominal Left Wall

Design Assumption: Nominal Inviluppi: Spostamento Muro: LEFT

Z (m)	Lato sinistro (mm)	Lato destro (mm)
0	0	0.375
-0.2	0	0.83
-0.4	0	1.3
-0.6	0	1.769
-0.8	0	2.236
-1	0	2.7
-1.2	0	3.162
-1.4	0	3.619
-1.6	0	4.071
-1.8	0	4.519
-2	0	4.96
-2.2	0	5.396
-2.4	0	5.824
-2.6	0	6.245
-2.8	0	6.657
-3	0	7.061
-3.2	0	7.456
-3.4	0	7.841
-3.6	0	8.216
-3.8	0	8.579
-4	0	8.932
-4.2	0	9.273
-4.4	0	9.601
-4.6	0	9.917
-4.8	0	10.22
-5	0	10.509
-5.2	0	10.784
-5.4	0	11.045
-5.6	0	11.291
-5.8	0	11.523
-6	0	11.739

Design Assumption: Nominal Inviluppi: Spostamento Muro: LEFT

Z (m)	Lato sinistro (mm)	Lato destro (mm)
-6.2	0	11.939
-6.4	0	12.124
-6.6	0	12.293
-6.8	0	12.445
-7	0	12.582
-7.2	0	12.701
-7.4	0	12.804
-7.6	0	12.89
-7.8	0	12.959
-8	0	13.012
-8.2	0	13.047
-8.4	0	13.066
-8.6	0	13.067
-8.8	0	13.052
-9	0	13.02
-9.2	0	12.972
-9.4	0	12.907
-9.6	0	12.826
-9.8	0	12.728
-10	0	12.615
-10.2	0	12.486
-10.4	0	12.342
-10.6	0	12.183
-10.8	0	12.009
-11	0	11.821
-11.2	0	11.62
-11.4	0	11.405
-11.6	0	11.178
-11.8	0	10.94
-12	0	10.69
-12.2	0	10.43
-12.4	0	10.161
-12.6	0	9.883
-12.8	0	9.598
-13	0	9.307
-13.2	0	9.01
-13.4	0	8.709
-13.6	0	8.405
-13.8	0	8.099
-14	0	7.791
-14.2	0	7.483
-14.4	0	7.175
-14.6	0	6.867
-14.8	0	6.561

Design Assumption: Nominal Inviluppi: Spostamento Muro: LEFT

Z (m)	Lato sinistro (mm)	Lato destro (mm)
-15	0	6.256
-15.2	0	5.952
-15.4	0	5.65
-15.6	0	5.35
-15.8	0	5.052
-16	0	4.756
-16.2	0	4.462
-16.4	0	4.17
-16.6	0	3.88
-16.8	0	3.591
-17	0	3.304
-17.2	0	3.018
-17.4	0	2.734
-17.6	0	2.451
-17.8	0	2.168
-18	0	1.887
-18.2	0	1.605
-18.4	0	1.324
-18.6	0	1.044
-18.8	-0.029	0.763
-19	-0.256	0.483

Risultati Paratia

Tabella Risultati Paratia Nominal - Stage: Stage 1

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.6	0	0
Stage 1	-0.8	0	0
Stage 1	-1	0	0
Stage 1	-1.2	0	0
Stage 1	-1.4	0	0
Stage 1	-1.6	0	0
Stage 1	-1.8	0	0
Stage 1	-2	0	0
Stage 1	-2.2	0	0
Stage 1	-2.4	0	0
Stage 1	-2.6	0	0
Stage 1	-2.8	0	0
Stage 1	-3	0	0
Stage 1	-3.2	0	0
Stage 1	-3.4	0	0

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	-3.6	0	0
Stage 1	-3.8	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
Stage 1	-12.2	0	0

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
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

Tabella Risultati Paratia Nominal - Stage: Stage 2

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	0
Stage 2	-0.2	0	0
Stage 2	-0.4	0	0
Stage 2	-0.6	0	0
Stage 2	-0.8	0	0
Stage 2	-1	0	0

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-1.2	0	0
Stage 2	-1.4	0	0
Stage 2	-1.6	0	0
Stage 2	-1.8	0	0
Stage 2	-2	0	0
Stage 2	-2.2	0	0
Stage 2	-2.4	0	0
Stage 2	-2.6	0	0
Stage 2	-2.8	0	0
Stage 2	-3	0	0
Stage 2	-3.2	0	0
Stage 2	-3.4	0	0
Stage 2	-3.6	0	0
Stage 2	-3.8	0	0
Stage 2	-4	0	0
Stage 2	-4.2	0	0
Stage 2	-4.4	0	0
Stage 2	-4.6	0	0
Stage 2	-4.8	0	0
Stage 2	-5	0	0
Stage 2	-5.2	0	0
Stage 2	-5.4	0	0
Stage 2	-5.6	0	0
Stage 2	-5.8	0	0
Stage 2	-6	0	0
Stage 2	-6.2	0	0
Stage 2	-6.4	0	0
Stage 2	-6.6	0	0
Stage 2	-6.8	0	0
Stage 2	-7	0	0
Stage 2	-7.2	0	0
Stage 2	-7.4	0	0
Stage 2	-7.6	0	0
Stage 2	-7.8	0	0
Stage 2	-8	0	0
Stage 2	-8.2	0	0
Stage 2	-8.4	0	0
Stage 2	-8.6	0	0
Stage 2	-8.8	0	0
Stage 2	-9	0	0
Stage 2	-9.2	0	0
Stage 2	-9.4	0	0
Stage 2	-9.6	0	0
Stage 2	-9.8	0	0

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-10	0	0
Stage 2	-10.2	0	0
Stage 2	-10.4	0	0
Stage 2	-10.6	0	0
Stage 2	-10.8	0	0
Stage 2	-11	0	0
Stage 2	-11.2	0	0
Stage 2	-11.4	0	0
Stage 2	-11.6	0	0
Stage 2	-11.8	0	0
Stage 2	-12	0	0
Stage 2	-12.2	0	0
Stage 2	-12.4	0	0
Stage 2	-12.6	0	0
Stage 2	-12.8	0	0
Stage 2	-13	0	0
Stage 2	-13.2	0	0
Stage 2	-13.4	0	0
Stage 2	-13.6	0	0
Stage 2	-13.8	0	0
Stage 2	-14	0	0
Stage 2	-14.2	0	0
Stage 2	-14.4	0	0
Stage 2	-14.6	0	0
Stage 2	-14.8	0	0
Stage 2	-15	0	0
Stage 2	-15.2	0	0
Stage 2	-15.4	0	0
Stage 2	-15.6	0	0
Stage 2	-15.8	0	0
Stage 2	-16	0	0
Stage 2	-16.2	0	0
Stage 2	-16.4	0	0
Stage 2	-16.6	0	0
Stage 2	-16.8	0	0
Stage 2	-17	0	0
Stage 2	-17.2	0	0
Stage 2	-17.4	0	0
Stage 2	-17.6	0	0
Stage 2	-17.8	0	0
Stage 2	-18	0	0
Stage 2	-18.2	0	0
Stage 2	-18.4	0	0
Stage 2	-18.6	0	0

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-18.8	0	0
Stage 2	-19	0	0

Tabella Risultati Paratia Nominal - Stage: Stage 3

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	86.98
Stage 3	-0.2	17.4	86.98
Stage 3	-0.4	34.59	86
Stage 3	-0.6	51.43	84.17
Stage 3	-0.8	67.78	81.75
Stage 3	-1	83.55	78.87
Stage 3	-1.2	98.67	75.6
Stage 3	-1.4	113.07	71.99
Stage 3	-1.6	126.68	68.05
Stage 3	-1.8	139.44	63.78
Stage 3	-2	151.27	59.19
Stage 3	-2.2	162.4	55.62
Stage 3	-2.4	172.77	51.85
Stage 3	-2.6	182.34	47.87
Stage 3	-2.8	191.08	43.68
Stage 3	-3	198.93	39.27
Stage 3	-3.2	206.46	37.63
Stage 3	-3.4	213.64	35.92
Stage 3	-3.6	220.46	34.11
Stage 3	-3.8	226.9	32.2
Stage 3	-4	232.94	30.18
Stage 3	-4.2	238.54	28.02
Stage 3	-4.4	243.69	25.71
Stage 3	-4.6	248.34	23.25
Stage 3	-4.8	252.46	20.61
Stage 3	-5	256.08	18.09
Stage 3	-5.2	259.24	15.79
Stage 3	-5.4	261.97	13.68
Stage 3	-5.6	264.32	11.76
Stage 3	-5.8	266.33	10.01
Stage 3	-6	268.01	8.41
Stage 3	-6.2	269.39	6.94
Stage 3	-6.4	270.51	5.6
Stage 3	-6.6	271.39	4.36
Stage 3	-6.8	272.03	3.22
Stage 3	-7	272.46	2.15
Stage 3	-7.2	272.69	1.14
Stage 3	-7.4	272.73	0.18

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-7.6	272.57	-0.76
Stage 3	-7.8	272.24	-1.68
Stage 3	-8	271.72	-2.61
Stage 3	-8.2	270.98	-3.69
Stage 3	-8.4	269.95	-5.13
Stage 3	-8.6	268.57	-6.92
Stage 3	-8.8	266.75	-9.08
Stage 3	-9	264.43	-11.61
Stage 3	-9.2	261.53	-14.51
Stage 3	-9.4	257.97	-17.8
Stage 3	-9.6	253.67	-21.47
Stage 3	-9.8	248.57	-25.53
Stage 3	-10	242.57	-30
Stage 3	-10.2	235.59	-34.87
Stage 3	-10.4	227.56	-40.15
Stage 3	-10.6	218.39	-45.85
Stage 3	-10.8	208	-51.97
Stage 3	-11	196.31	-58.48
Stage 3	-11.2	183.23	-65.38
Stage 3	-11.4	168.69	-72.69
Stage 3	-11.6	152.61	-80.4
Stage 3	-11.8	134.91	-88.52
Stage 3	-12	115.49	-97.06
Stage 3	-12.2	94.29	-106.02
Stage 3	-12.4	71.21	-115.41
Stage 3	-12.6	46.17	-125.21
Stage 3	-12.8	19.09	-135.37
Stage 3	-13	-10.07	-145.79
Stage 3	-13.2	-41.36	-156.48
Stage 3	-13.4	-68.74	-136.9
Stage 3	-13.6	-92.41	-118.32
Stage 3	-13.8	-112.55	-100.73
Stage 3	-14	-129.38	-84.11
Stage 3	-14.2	-143.06	-68.43
Stage 3	-14.4	-153.8	-53.68
Stage 3	-14.6	-161.76	-39.8
Stage 3	-14.8	-167.12	-26.79
Stage 3	-15	-170.03	-14.59
Stage 3	-15.2	-170.67	-3.18
Stage 3	-15.4	-169.18	7.48
Stage 3	-15.6	-165.69	17.42
Stage 3	-15.8	-160.35	26.69
Stage 3	-16	-153.29	35.31
Stage 3	-16.2	-144.63	43.32

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-16.4	-134.48	50.75
Stage 3	-16.6	-122.95	57.63
Stage 3	-16.8	-110.3	63.26
Stage 3	-17	-96.91	66.95
Stage 3	-17.2	-83.15	68.79
Stage 3	-17.4	-69.39	68.83
Stage 3	-17.6	-55.96	67.14
Stage 3	-17.8	-43.21	63.77
Stage 3	-18	-31.46	58.75
Stage 3	-18.2	-21.03	52.11
Stage 3	-18.4	-12.32	43.57
Stage 3	-18.6	-5.69	33.16
Stage 3	-18.8	-1.49	20.99
Stage 3	-19	0	7.45

Tabella Risultati Paratia Nominal - Stage: Stage 4

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	222.32
Stage 4	-0.2	44.46	222.32
Stage 4	-0.4	88.77	221.52
Stage 4	-0.6	132.76	219.98
Stage 4	-0.8	176.36	217.96
Stage 4	-1	219.47	215.59
Stage 4	-1.2	262.06	212.95
Stage 4	-1.4	304.08	210.07
Stage 4	-1.6	345.47	206.97
Stage 4	-1.8	386.2	203.65
Stage 4	-2	426.22	200.12
Stage 4	-2.2	465.69	197.34
Stage 4	-2.4	504.55	194.27
Stage 4	-2.6	542.73	190.92
Stage 4	-2.8	580.19	187.3
Stage 4	-3	616.87	183.4
Stage 4	-3.2	652.72	179.23
Stage 4	-3.4	687.67	174.77
Stage 4	-3.6	721.68	170.04
Stage 4	-3.8	754.69	165.05
Stage 4	-4	786.65	159.8
Stage 4	-4.2	817.51	154.32
Stage 4	-4.4	847.23	148.58
Stage 4	-4.6	875.74	142.58
Stage 4	-4.8	903.01	136.33
Stage 4	-5	928.97	129.82

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-5.2	953.59	123.06
Stage 4	-5.4	976.8	116.05
Stage 4	-5.6	998.55	108.79
Stage 4	-5.8	1018.81	101.28
Stage 4	-6	1037.51	93.51
Stage 4	-6.2	1054.61	85.5
Stage 4	-6.4	1070.06	77.24
Stage 4	-6.6	1083.81	68.74
Stage 4	-6.8	1095.81	59.98
Stage 4	-7	1106	50.98
Stage 4	-7.2	1114.35	41.74
Stage 4	-7.4	1120.7	31.72
Stage 4	-7.6	1124.88	20.94
Stage 4	-7.8	1126.76	9.39
Stage 4	-8	1127.57	4.02
Stage 4	-8.2	1127.15	-2.08
Stage 4	-8.4	1125.37	-8.91
Stage 4	-8.6	1122.07	-16.49
Stage 4	-8.8	1117.11	-24.82
Stage 4	-9	1110.32	-33.92
Stage 4	-9.2	1101.57	-43.78
Stage 4	-9.4	1090.68	-54.42
Stage 4	-9.6	1077.51	-65.85
Stage 4	-9.8	1061.9	-78.08
Stage 4	-10	1043.67	-91.11
Stage 4	-10.2	1022.68	-104.95
Stage 4	-10.4	998.77	-119.6
Stage 4	-10.6	971.75	-135.09
Stage 4	-10.8	941.47	-151.41
Stage 4	-11	907.76	-168.53
Stage 4	-11.2	870.47	-186.47
Stage 4	-11.4	829.43	-205.19
Stage 4	-11.6	784.54	-224.41
Stage 4	-11.8	735.71	-244.15
Stage 4	-12	682.83	-264.42
Stage 4	-12.2	625.78	-285.23
Stage 4	-12.4	564.47	-306.59
Stage 4	-12.6	498.76	-328.51
Stage 4	-12.8	428.58	-350.91
Stage 4	-13	353.84	-373.71
Stage 4	-13.2	274.45	-396.93
Stage 4	-13.4	203.68	-353.89
Stage 4	-13.6	141.06	-313.07
Stage 4	-13.8	86.17	-274.47

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-14	38.55	-238.1
Stage 4	-14.2	-2.24	-203.94
Stage 4	-14.4	-36.64	-171.99
Stage 4	-14.6	-65.08	-142.22
Stage 4	-14.8	-88.01	-114.62
Stage 4	-15	-105.84	-89.15
Stage 4	-15.2	-119	-65.79
Stage 4	-15.4	-127.9	-44.51
Stage 4	-15.6	-132.95	-25.28
Stage 4	-15.8	-134.56	-8.05
Stage 4	-16	-133.13	7.18
Stage 4	-16.2	-129.03	20.47
Stage 4	-16.4	-122.66	31.84
Stage 4	-16.6	-114.4	41.32
Stage 4	-16.8	-104.61	48.94
Stage 4	-17	-93.67	54.71
Stage 4	-17.2	-81.93	58.68
Stage 4	-17.4	-69.77	60.84
Stage 4	-17.6	-57.52	61.23
Stage 4	-17.8	-45.55	59.85
Stage 4	-18	-34.2	56.73
Stage 4	-18.2	-23.83	51.86
Stage 4	-18.4	-14.78	45.25
Stage 4	-18.6	-7.4	36.92
Stage 4	-18.8	-2.1	26.47
Stage 4	-19	0	10.52

Tabella Risultati Paratia Nominal - Stage: Stage 5

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	232.77
Stage 5	-0.2	46.55	232.77
Stage 5	-0.4	92.92	231.86
Stage 5	-0.6	138.95	230.15
Stage 5	-0.8	184.53	227.89
Stage 5	-1	229.58	225.23
Stage 5	-1.2	274.03	222.23
Stage 5	-1.4	317.81	218.93
Stage 5	-1.6	360.88	215.35
Stage 5	-1.8	403.18	211.49
Stage 5	-2	444.65	207.35
Stage 5	-2.2	485.37	203.59
Stage 5	-2.4	525.27	199.49
Stage 5	-2.6	564.28	195.06

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-2.8	602.34	190.31
Stage 5	-3	639.39	185.23
Stage 5	-3.2	675.36	179.84
Stage 5	-3.4	710.18	174.1
Stage 5	-3.6	743.78	168.04
Stage 5	-3.8	776.12	161.67
Stage 5	-4	807.12	154.99
Stage 5	-4.2	836.72	148.01
Stage 5	-4.4	864.86	140.71
Stage 5	-4.6	891.48	133.11
Stage 5	-4.8	916.52	125.19
Stage 5	-5	939.91	116.95
Stage 5	-5.2	961.59	108.41
Stage 5	-5.4	981.5	99.56
Stage 5	-5.6	999.58	90.39
Stage 5	-5.8	1015.76	80.91
Stage 5	-6	1029.99	71.13
Stage 5	-6.2	1042.19	61.03
Stage 5	-6.4	1052.32	50.63
Stage 5	-6.6	1060.3	39.91
Stage 5	-6.8	1066.08	28.89
Stage 5	-7	1069.59	17.55
Stage 5	-7.2	1070.77	5.91
Stage 5	-7.4	1069.49	-6.42
Stage 5	-7.6	1065.6	-19.46
Stage 5	-7.8	1058.96	-33.18
Stage 5	-8	1049.52	-47.18
Stage 5	-8.2	1037.51	-60.09
Stage 5	-8.4	1023.13	-71.89
Stage 5	-8.6	1006.61	-82.6
Stage 5	-8.8	988.17	-92.21
Stage 5	-9	968.02	-100.71
Stage 5	-9.2	946.4	-108.11
Stage 5	-9.4	923.52	-114.4
Stage 5	-9.6	899.6	-119.59
Stage 5	-9.8	874.87	-123.66
Stage 5	-10	849.35	-127.6
Stage 5	-10.2	822.98	-131.85
Stage 5	-10.4	795.7	-136.43
Stage 5	-10.6	767.42	-141.35
Stage 5	-10.8	738.1	-146.62
Stage 5	-11	707.66	-152.21
Stage 5	-11.2	676.04	-158.11
Stage 5	-11.4	643.19	-164.25

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-11.6	609.07	-170.56
Stage 5	-11.8	573.66	-177.07
Stage 5	-12	536.88	-183.88
Stage 5	-12.2	498.69	-190.98
Stage 5	-12.4	459.01	-198.38
Stage 5	-12.6	417.79	-206.09
Stage 5	-12.8	374.98	-214.06
Stage 5	-13	330.53	-222.25
Stage 5	-13.2	284.4	-230.66
Stage 5	-13.4	242.37	-210.15
Stage 5	-13.6	204.23	-190.68
Stage 5	-13.8	169.79	-172.2
Stage 5	-14	138.87	-154.62
Stage 5	-14.2	111.27	-137.97
Stage 5	-14.4	86.82	-122.25
Stage 5	-14.6	65.33	-107.47
Stage 5	-14.8	46.6	-93.64
Stage 5	-15	30.46	-80.7
Stage 5	-15.2	16.74	-68.59
Stage 5	-15.4	5.28	-57.29
Stage 5	-15.6	-4.08	-46.81
Stage 5	-15.8	-11.51	-37.15
Stage 5	-16	-17.17	-28.29
Stage 5	-16.2	-21.22	-20.25
Stage 5	-16.4	-23.82	-13.01
Stage 5	-16.6	-25.14	-6.59
Stage 5	-16.8	-25.33	-0.97
Stage 5	-17	-24.56	3.84
Stage 5	-17.2	-22.99	7.84
Stage 5	-17.4	-20.79	11.04
Stage 5	-17.6	-18.1	13.44
Stage 5	-17.8	-15.09	15.04
Stage 5	-18	-11.92	15.83
Stage 5	-18.2	-8.76	15.83
Stage 5	-18.4	-5.75	15.02
Stage 5	-18.6	-3.07	13.43
Stage 5	-18.8	-0.91	10.76
Stage 5	-19	0	4.57

Tabella Risultati Paratia Nominal - Stage: Stage 6

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	205.56
Stage 6	-0.2	41.11	205.56

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-0.4	82.04	204.64
Stage 6	-0.6	122.64	203.02
Stage 6	-0.8	162.84	201
Stage 6	-1	202.59	198.72
Stage 6	-1.2	241.85	196.33
Stage 6	-1.4	280.62	193.84
Stage 6	-1.6	318.86	191.2
Stage 6	-1.8	356.54	188.4
Stage 6	-2	393.63	185.41
Stage 6	-2.2	430.15	182.62
Stage 6	-2.4	466.05	179.53
Stage 6	-2.6	501.28	176.13
Stage 6	-2.8	535.77	172.43
Stage 6	-3	569.45	168.42
Stage 6	-3.2	602.27	164.11
Stage 6	-3.4	634.17	159.51
Stage 6	-3.6	665.09	154.59
Stage 6	-3.8	694.96	149.36
Stage 6	-4	723.73	143.81
Stage 6	-4.2	751.31	137.93
Stage 6	-4.4	777.66	131.74
Stage 6	-4.6	802.71	125.23
Stage 6	-4.8	826.39	118.4
Stage 6	-5	848.64	111.27
Stage 6	-5.2	869.41	103.82
Stage 6	-5.4	888.62	96.06
Stage 6	-5.6	906.22	87.99
Stage 6	-5.8	922.14	79.61
Stage 6	-6	936.32	70.93
Stage 6	-6.2	948.71	61.93
Stage 6	-6.4	959.24	52.63
Stage 6	-6.6	967.84	43.02
Stage 6	-6.8	974.46	33.11
Stage 6	-7	979.04	22.89
Stage 6	-7.2	981.52	12.38
Stage 6	-7.4	981.75	1.17
Stage 6	-7.6	979.61	-10.72
Stage 6	-7.8	974.95	-23.3
Stage 6	-8	967.63	-36.56
Stage 6	-8.2	957.84	-48.97
Stage 6	-8.4	945.79	-60.27
Stage 6	-8.6	931.7	-70.44
Stage 6	-8.8	915.8	-79.49
Stage 6	-9	898.32	-87.42

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-9.2	879.47	-94.22
Stage 6	-9.4	859.5	-99.88
Stage 6	-9.6	838.62	-104.4
Stage 6	-9.8	817.06	-107.78
Stage 6	-10	794.86	-110.99
Stage 6	-10.2	771.96	-114.49
Stage 6	-10.4	748.31	-118.27
Stage 6	-10.6	723.84	-122.36
Stage 6	-10.8	698.49	-126.76
Stage 6	-11	672.21	-131.4
Stage 6	-11.2	644.95	-136.28
Stage 6	-11.4	616.67	-141.4
Stage 6	-11.6	587.34	-146.68
Stage 6	-11.8	556.91	-152.15
Stage 6	-12	525.33	-157.9
Stage 6	-12.2	492.54	-163.93
Stage 6	-12.4	458.49	-170.25
Stage 6	-12.6	423.12	-176.86
Stage 6	-12.8	386.38	-183.72
Stage 6	-13	348.22	-190.78
Stage 6	-13.2	308.61	-198.04
Stage 6	-13.4	272.09	-182.64
Stage 6	-13.6	238.51	-167.88
Stage 6	-13.8	207.75	-153.79
Stage 6	-14	179.68	-140.38
Stage 6	-14.2	154.14	-127.68
Stage 6	-14.4	131	-115.7
Stage 6	-14.6	110.11	-104.44
Stage 6	-14.8	91.32	-93.94
Stage 6	-15	74.52	-84.02
Stage 6	-15.2	59.61	-74.56
Stage 6	-15.4	46.5	-65.56
Stage 6	-15.6	35.09	-57.03
Stage 6	-15.8	25.29	-48.99
Stage 6	-16	17	-41.44
Stage 6	-16.2	10.12	-34.4
Stage 6	-16.4	4.55	-27.89
Stage 6	-16.6	0.17	-21.9
Stage 6	-16.8	-3.12	-16.45
Stage 6	-17	-5.43	-11.55
Stage 6	-17.2	-6.87	-7.2
Stage 6	-17.4	-7.55	-3.4
Stage 6	-17.6	-7.59	-0.17
Stage 6	-17.8	-7.09	2.49

Design Assumption: Nominal Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-18	-6.17	4.58
Stage 6	-18.2	-4.95	6.11
Stage 6	-18.4	-3.54	7.06
Stage 6	-18.6	-2.05	7.45
Stage 6	-18.8	-0.65	7
Stage 6	-19	0	3.24

Inviluppi Risultati Paratia Nominal

Tabella Inviluppi Momento Nominal WallElement

Design Assumption: Nominal Inviluppi: Momento Muro: WallElement

Z (m)	Lato sinistro (kN*m/m)	Lato destro (kN*m/m)
0	0	0
-0.2	0	46.553
-0.4	0	92.925
-0.6	0	138.955
-0.8	0	184.534
-1	0	229.58
-1.2	0	274.026
-1.4	0	317.812
-1.6	0	360.881
-1.8	0	403.178
-2	0	444.649
-2.2	0	485.367
-2.4	0	525.266
-2.6	0	564.279
-2.8	0	602.341
-3	0	639.388
-3.2	0	675.356
-3.4	0	710.175
-3.6	0	743.783
-3.8	0	776.118
-4	0	807.115
-4.2	0	836.716
-4.4	0	864.859
-4.6	0	891.48
-4.8	0	916.517
-5	0	939.908
-5.2	0	961.59
-5.4	0	981.501
-5.6	0	999.579
-5.8	0	1018.809
-6	0	1037.512
-6.2	0	1054.613
-6.4	0	1070.062

Design Assumption: Nominal Inviluppi: Momento Muro: WallElement

Z (m)	Lato sinistro (kN*m/m)	Lato destro (kN*m/m)
-6.6	0	1083.809
-6.8	0	1095.806
-7	0	1106.002
-7.2	0	1114.35
-7.4	0	1120.695
-7.6	0	1124.883
-7.8	0	1126.762
-8	0	1127.566
-8.2	0	1127.151
-8.4	0	1125.369
-8.6	0	1122.071
-8.8	0	1117.107
-9	0	1110.323
-9.2	0	1101.567
-9.4	0	1090.682
-9.6	0	1077.511
-9.8	0	1061.896
-10	0	1043.674
-10.2	0	1022.685
-10.4	0	998.765
-10.6	0	971.748
-10.8	0	941.466
-11	0	907.759
-11.2	0	870.465
-11.4	0	829.428
-11.6	0	784.545
-11.8	0	735.714
-12	0	682.83
-12.2	0	625.783
-12.4	0	564.466
-12.6	0	498.764
-12.8	0	428.583
-13	10.067	353.841
-13.2	41.363	308.612
-13.4	68.742	272.086
-13.6	92.407	238.51
-13.8	112.553	207.752
-14	129.375	179.675
-14.2	143.062	154.139
-14.4	153.797	131
-14.6	161.758	110.111
-14.8	167.116	91.324
-15	170.034	74.52
-15.2	170.67	59.608

Design Assumption: Nominal	Inviluppi: Momento	Muro: WallElement
Z (m)	Lato sinistro (kN*m/m)	Lato destro (kN*m/m)
-15.4	169.175	46.496
-15.6	165.691	35.09
-15.8	160.354	25.293
-16	153.293	17.005
-16.2	144.63	10.124
-16.4	134.48	4.546
-16.6	122.953	0.167
-16.8	110.301	0
-17	96.911	0
-17.2	83.154	0
-17.4	69.766	0
-17.6	57.521	0
-17.8	45.549	0
-18	34.204	0
-18.2	23.832	0
-18.4	14.782	0
-18.6	7.398	0
-18.8	2.104	0
-19	0	0

Tabella Inviluppi Taglio Nominal WallElement

Design Assumption: Nominal	Inviluppi: Taglio	Muro: WallElement
Z (m)	Lato sinistro (kN/m)	Lato destro (kN/m)
0	0	232.766
-0.2	0	232.766
-0.4	0	231.857
-0.6	0	230.152
-0.8	0	227.895
-1	0	225.23
-1.2	0	222.23
-1.4	0	218.93
-1.6	0	215.346
-1.8	0	211.486
-2	0	207.355
-2.2	0	203.59
-2.4	0	199.492
-2.6	0	195.065
-2.8	0	190.311
-3	0	185.234
-3.2	0	179.837
-3.4	0	174.767
-3.6	0	170.039
-3.8	0	165.049
-4	0	159.8
-4.2	0	154.317

Design Assumption: Nominal Inviluppi: Taglio Muro: WallElement

Z (m)	Lato sinistro (kN/m)	Lato destro (kN/m)
-4.4	0	148.576
-4.6	0	142.58
-4.8	0	136.328
-5	0	129.821
-5.2	0	123.062
-5.4	0	116.052
-5.6	0	108.789
-5.8	0	101.277
-6	0	93.515
-6.2	0	85.503
-6.4	0	77.244
-6.6	0	68.737
-6.8	0	59.984
-7	0	50.984
-7.2	6.422	41.738
-7.4	19.455	31.724
-7.6	33.184	20.942
-7.8	47.184	9.392
-8	60.088	4.022
-8.2	71.894	0
-8.4	82.601	0
-8.6	92.207	0
-8.8	100.711	0
-9	108.11	0
-9.2	114.403	0
-9.4	119.587	0
-9.6	123.66	0
-9.8	127.599	0
-10	131.852	0
-10.2	136.432	0
-10.4	141.351	0
-10.6	151.408	0
-10.8	168.533	0
-11	186.471	0
-11.2	205.188	0
-11.4	224.412	0
-11.6	244.154	0
-11.8	264.424	0
-12	285.232	0
-12.2	306.588	0
-12.4	328.505	0
-12.6	350.905	0
-12.8	373.713	0
-13	396.934	0

Design Assumption: Nominal Inviluppi: Taglio Muro: WallElement

Z (m)	Lato sinistro (kN/m)	Lato destro (kN/m)
-13.2	396.934	0
-13.4	353.893	0
-13.6	313.07	0
-13.8	274.471	0
-14	238.098	0
-14.2	203.942	0
-14.4	171.989	0
-14.6	142.223	0
-14.8	114.619	0
-15	89.152	0
-15.2	74.559	7.476
-15.4	65.558	17.42
-15.6	57.03	26.685
-15.8	48.987	35.306
-16	41.441	43.317
-16.2	34.404	50.749
-16.4	27.887	57.633
-16.6	21.899	63.259
-16.8	16.449	66.951
-17	11.546	68.786
-17.2	7.195	68.83
-17.4	3.403	68.83
-17.6	0.173	67.142
-17.8	0	63.768
-18	0	58.748
-18.2	0	52.108
-18.4	0	45.253
-18.6	0	36.919
-18.8	0	26.47
-19	0	10.52

Risultati Elementi strutturali

Design Assumption: Nominal Sollecitazione Spring

Stage	Forza (kN/m)
Stage 2	-4.6129075E-16
Stage 3	86.975
Stage 4	222.3155
Stage 5	232.7658
Stage 6	205.5567

Risultati Terreno

Tabella Risultati Terreno Left Wall - Nominal - Stage 1

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 1	0	0	0	UL-RL	0	0	0	0	0	0	0
Stage 1	-0.2	4.038	5.91	UL-RL	0	0	0	0	0	0	5.91
Stage 1	-0.4	8.605	10.585	UL-RL	0	0	0	0	0	0	10.585
Stage 1	-0.6	13.516	14.039	UL-RL	0	0	0	0	0	0	14.039
Stage 1	-0.8	18.446	16.769	UL-RL	0	0	0	0	0	0	16.769
Stage 1	-1	23.84	19.133	UL-RL	0	0	0	0	0	0	19.133
Stage 1	-1.2	29.017	21.316	UL-RL	0	0	0	0	0	0	21.316
Stage 1	-1.4	33.889	23.408	UL-RL	0	0	0	0	0	0	23.408
Stage 1	-1.6	38.554	25.45	UL-RL	0	0	0	0	0	0	25.45
Stage 1	-1.8	43.072	27.466	UL-RL	0	0	0	0	0	0	27.466
Stage 1	-2	47.482	30.677	UL-RL	0	0	0	0	0	0	30.677
Stage 1	-2.2	51.711	32.732	UL-RL	0	0	0	0	0	0	32.732
Stage 1	-2.4	55.876	34.784	UL-RL	0	0	0	0	0	0	34.784
Stage 1	-2.6	59.991	36.834	UL-RL	0	0	0	0	0	0	36.834
Stage 1	-2.8	64.065	38.885	UL-RL	0	0	0	0	0	0	38.885
Stage 1	-3	68.106	40.938	UL-RL	0	0	0	0	0	0	40.938
Stage 1	-3.2	72.427	42.993	UL-RL	0	0	0	0	0	0	42.993
Stage 1	-3.4	76.4	45.051	UL-RL	0	0	0	0	0	0	45.051
Stage 1	-3.6	80.355	47.112	UL-RL	0	0	0	0	0	0	47.112
Stage 1	-3.8	84.296	49.178	UL-RL	0	0	0	0	0	0	49.178
Stage 1	-4	87.976	51.247	UL-RL	0	0	0	0	0	0	51.247
Stage 1	-4.2	91.904	53.32	UL-RL	0	0	0	0	0	0	53.32
Stage 1	-4.4	95.82	55.398	UL-RL	0	0	0	0	0	0	55.398
Stage 1	-4.6	99.728	57.481	UL-RL	0	0	0	0	0	0	57.481
Stage 1	-4.8	103.627	59.567	UL-RL	0	0	0	0	0	0	59.567
Stage 1	-5	107.518	61.658	UL-RL	0	0	0	0	0	0	61.658
Stage 1	-5.2	111.403	63.754	UL-RL	0	0	0	0	0	0	63.754
Stage 1	-5.4	115.282	65.855	UL-RL	0	0	0	0	0	0	65.855
Stage 1	-5.6	119.156	67.959	UL-RL	0	0	0	0	0	0	67.959
Stage 1	-5.8	123.024	70.069	UL-RL	0	0	0	0	0	0	70.069
Stage 1	-6	126.889	72.183	UL-RL	0	0	0	0	0	0	72.183
Stage 1	-6.2	130.749	74.301	UL-RL	0	0	0	0	0	0	74.301
Stage 1	-6.4	134.606	76.423	UL-RL	0	0	0	0	0	0	76.423
Stage 1	-6.6	138.46	78.55	UL-RL	0	0	0	0	0	0	78.55
Stage 1	-6.8	142.31	80.681	UL-RL	0	0	0	0	0	0	80.681
Stage 1	-7	146.158	82.816	UL-RL	0	0	0	0	0	0	82.816
Stage 1	-7.2	150.004	84.955	UL-RL	0	0	0	0	0	0	84.955
Stage 1	-7.4	153.846	87.099	UL-RL	0	0	0	0	0	0	87.099
Stage 1	-7.6	157.687	89.245	UL-RL	0	0	0	0	0	0	89.245
Stage 1	-7.8	161.526	91.396	UL-RL	0	0	0	0	0	0	91.396
Stage 1	-8	165.363	93.55	UL-RL	0	0	0	0	0	0	93.55
Stage 1	-8.2	169.198	95.708	UL-RL	0	0	0	0	0	0	95.708
Stage 1	-8.4	173.032	97.869	UL-RL	0	0	0	0	0	0	97.869
Stage 1	-8.6	176.864	100.034	UL-RL	0	0	0	0	0	0	100.034

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 1	-8.8	180.694	102.201	UL-RL	0	0	0	0	0	0	102.201
Stage 1	-9	184.524	104.372	UL-RL	0	0	0	0	0	0	104.372
Stage 1	-9.2	188.352	106.546	UL-RL	0	0	0	0	0	0	106.546
Stage 1	-9.4	192.179	108.723	UL-RL	0	0	0	0	0	0	108.723
Stage 1	-9.6	196.004	110.902	UL-RL	0	0	0	0	0	0	110.902
Stage 1	-9.8	199.829	113.085	UL-RL	0	0	0	0	0	0	113.085
Stage 1	-10	203.653	115.27	UL-RL	0	0	0	0	0	0	115.27
Stage 1	-10.2	207.476	117.457	UL-RL	0	0	0	0	0	0	117.457
Stage 1	-10.4	211.298	119.647	UL-RL	0	0	0	0	0	0	119.647
Stage 1	-10.6	215.12	121.839	UL-RL	0	0	0	0	0	0	121.839
Stage 1	-10.8	218.754	124.034	UL-RL	0	0	0	0	0	0	124.034
Stage 1	-11	222.394	126.23	UL-RL	0	0	0	0	0	0	126.23
Stage 1	-11.2	226.037	128.429	UL-RL	0	0	0	0	0	0	128.429
Stage 1	-11.4	229.685	130.63	UL-RL	0	0	0	0	0	0	130.63
Stage 1	-11.6	233.336	132.833	UL-RL	0	0	0	0	0	0	132.833
Stage 1	-11.8	236.991	135.037	UL-RL	0	0	0	0	0	0	135.037
Stage 1	-12	240.65	137.244	UL-RL	0	0	0	0	0	0	137.244
Stage 1	-12.2	244.312	139.452	UL-RL	0	0	0	0	0	0	139.452
Stage 1	-12.4	247.977	141.662	UL-RL	0	0	0	0	0	0	141.662
Stage 1	-12.6	251.646	144.28	UL-RL	0	0	0	0	0	1	144.28
Stage 1	-12.8	255.318	147.307	UL-RL	0	0	0	0	0	3	147.307
Stage 1	-13	258.992	150.335	UL-RL	0	0	0	0	0	5	150.335
Stage 1	-13.2	262.87	95.664	UL-RL	0	0	0	0	0	7	95.664
Stage 1	-13.4	266.75	98.341	UL-RL	0	0	0	0	0	9	98.341
Stage 1	-13.6	270.633	101.021	UL-RL	0	0	0	0	0	11	101.021
Stage 1	-13.8	274.518	103.701	UL-RL	0	0	0	0	0	13	103.701
Stage 1	-14	278.406	106.382	UL-RL	0	0	0	0	0	15	106.382
Stage 1	-14.2	282.297	109.065	UL-RL	0	0	0	0	0	17	109.065
Stage 1	-14.4	286.19	111.749	UL-RL	0	0	0	0	0	19	111.749
Stage 1	-14.6	290.085	114.434	UL-RL	0	0	0	0	0	21	114.434
Stage 1	-14.8	293.982	117.12	UL-RL	0	0	0	0	0	23	117.12
Stage 1	-15	297.881	119.807	UL-RL	0	0	0	0	0	25	119.807
Stage 1	-15.2	301.783	122.494	UL-RL	0	0	0	0	0	27	122.494
Stage 1	-15.4	305.686	125.183	UL-RL	0	0	0	0	0	29	125.183
Stage 1	-15.6	309.591	127.873	UL-RL	0	0	0	0	0	31	127.873
Stage 1	-15.8	313.498	130.563	UL-RL	0	0	0	0	0	33	130.563
Stage 1	-16	317.407	133.254	UL-RL	0	0	0	0	0	35	133.254
Stage 1	-16.2	321.318	135.946	UL-RL	0	0	0	0	0	37	135.946
Stage 1	-16.4	325.23	138.639	UL-RL	0	0	0	0	0	39	138.639
Stage 1	-16.6	329.145	141.333	UL-RL	0	0	0	0	0	41	141.333
Stage 1	-16.8	333.06	144.027	UL-RL	0	0	0	0	0	43	144.027
Stage 1	-17	336.978	146.722	UL-RL	0	0	0	0	0	45	146.722
Stage 1	-17.2	340.896	149.417	UL-RL	0	0	0	0	0	47	149.417
Stage 1	-17.4	344.817	152.113	UL-RL	0	0	0	0	0	49	152.113

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 1	-17.6	348.738	154.81	UL-RL	0	0	0	0	0	51	154.81
Stage 1	-17.8	352.662	157.508	UL-RL	0	0	0	0	0	53	157.508
Stage 1	-18	356.586	160.205	UL-RL	0	0	0	0	0	55	160.205
Stage 1	-18.2	360.512	162.904	UL-RL	0	0	0	0	0	57	162.904
Stage 1	-18.4	364.439	165.602	UL-RL	0	0	0	0	0	59	165.602
Stage 1	-18.6	368.367	168.302	UL-RL	0	0	0	0	0	61	168.302
Stage 1	-18.8	372.297	171.002	UL-RL	0	0	0	0	0	63	171.002
Stage 1	-19	376.228	173.702	UL-RL	0	0	0	0	0	65	173.702

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 1	0	0	0	UL-RL	0	0	0	0	0	0	0
Stage 1	-0.2	3.9	5.91	UL-RL	0	0	0	0	0	0	5.91
Stage 1	-0.4	7.8	10.585	UL-RL	0	0	0	0	0	0	10.585
Stage 1	-0.6	11.7	14.039	UL-RL	0	0	0	0	0	0	14.039
Stage 1	-0.8	15.6	16.769	UL-RL	0	0	0	0	0	0	16.769
Stage 1	-1	19.5	19.133	UL-RL	0	0	0	0	0	0	19.133
Stage 1	-1.2	23.4	21.316	UL-RL	0	0	0	0	0	0	21.316
Stage 1	-1.4	27.3	23.408	UL-RL	0	0	0	0	0	0	23.408
Stage 1	-1.6	31.2	25.45	UL-RL	0	0	0	0	0	0	25.45
Stage 1	-1.8	35.1	27.466	UL-RL	0	0	0	0	0	0	27.466
Stage 1	-2	39	30.677	UL-RL	0	0	0	0	0	0	30.677
Stage 1	-2.2	42.8	32.732	UL-RL	0	0	0	0	0	0	32.732
Stage 1	-2.4	46.6	34.784	UL-RL	0	0	0	0	0	0	34.784
Stage 1	-2.6	50.4	36.834	UL-RL	0	0	0	0	0	0	36.834
Stage 1	-2.8	54.2	38.885	UL-RL	0	0	0	0	0	0	38.885
Stage 1	-3	58	40.938	UL-RL	0	0	0	0	0	0	40.938
Stage 1	-3.2	61.8	42.993	UL-RL	0	0	0	0	0	0	42.993
Stage 1	-3.4	65.6	45.051	UL-RL	0	0	0	0	0	0	45.051
Stage 1	-3.6	69.4	47.112	UL-RL	0	0	0	0	0	0	47.112
Stage 1	-3.8	73.2	49.178	UL-RL	0	0	0	0	0	0	49.178
Stage 1	-4	77	51.247	UL-RL	0	0	0	0	0	0	51.247
Stage 1	-4.2	80.8	53.32	UL-RL	0	0	0	0	0	0	53.32
Stage 1	-4.4	84.6	55.398	UL-RL	0	0	0	0	0	0	55.398
Stage 1	-4.6	88.4	57.481	UL-RL	0	0	0	0	0	0	57.481
Stage 1	-4.8	92.2	59.567	UL-RL	0	0	0	0	0	0	59.567
Stage 1	-5	96	61.658	UL-RL	0	0	0	0	0	0	61.658
Stage 1	-5.2	99.8	63.754	UL-RL	0	0	0	0	0	0	63.754
Stage 1	-5.4	103.6	65.855	UL-RL	0	0	0	0	0	0	65.855
Stage 1	-5.6	107.4	67.959	UL-RL	0	0	0	0	0	0	67.959
Stage 1	-5.8	111.2	70.069	UL-RL	0	0	0	0	0	0	70.069
Stage 1	-6	115	72.183	UL-RL	0	0	0	0	0	0	72.183
Stage 1	-6.2	118.8	74.301	UL-RL	0	0	0	0	0	0	74.301
Stage 1	-6.4	122.6	76.423	UL-RL	0	0	0	0	0	0	76.423
Stage 1	-6.6	126.4	78.55	UL-RL	0	0	0	0	0	0	78.55

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 1	-6.8	130.2	80.681	UL-RL	0	0	0	0	0	0	80.681
Stage 1	-7	134	82.816	UL-RL	0	0	0	0	0	0	82.816
Stage 1	-7.2	137.8	84.955	UL-RL	0	0	0	0	0	0	84.955
Stage 1	-7.4	141.6	87.099	UL-RL	0	0	0	0	0	0	87.099
Stage 1	-7.6	145.4	89.245	UL-RL	0	0	0	0	0	0	89.245
Stage 1	-7.8	149.2	91.396	UL-RL	0	0	0	0	0	0	91.396
Stage 1	-8	153	93.55	UL-RL	0	0	0	0	0	0	93.55
Stage 1	-8.2	156.8	95.708	UL-RL	0	0	0	0	0	0	95.708
Stage 1	-8.4	160.6	97.869	UL-RL	0	0	0	0	0	0	97.869
Stage 1	-8.6	164.4	100.034	UL-RL	0	0	0	0	0	0	100.034
Stage 1	-8.8	168.2	102.201	UL-RL	0	0	0	0	0	0	102.201
Stage 1	-9	172	104.372	UL-RL	0	0	0	0	0	0	104.372
Stage 1	-9.2	175.8	106.546	UL-RL	0	0	0	0	0	0	106.546
Stage 1	-9.4	179.6	108.723	UL-RL	0	0	0	0	0	0	108.723
Stage 1	-9.6	183.4	110.902	UL-RL	0	0	0	0	0	0	110.902
Stage 1	-9.8	187.2	113.085	UL-RL	0	0	0	0	0	0	113.085
Stage 1	-10	191	115.27	UL-RL	0	0	0	0	0	0	115.27
Stage 1	-10.2	194.8	117.457	UL-RL	0	0	0	0	0	0	117.457
Stage 1	-10.4	198.6	119.647	UL-RL	0	0	0	0	0	0	119.647
Stage 1	-10.6	202.4	121.839	UL-RL	0	0	0	0	0	0	121.839
Stage 1	-10.8	206.2	124.034	UL-RL	0	0	0	0	0	0	124.034
Stage 1	-11	210	126.23	UL-RL	0	0	0	0	0	0	126.23
Stage 1	-11.2	213.8	128.429	UL-RL	0	0	0	0	0	0	128.429
Stage 1	-11.4	217.6	130.63	UL-RL	0	0	0	0	0	0	130.63
Stage 1	-11.6	221.4	132.833	UL-RL	0	0	0	0	0	0	132.833
Stage 1	-11.8	225.2	135.037	UL-RL	0	0	0	0	0	0	135.037
Stage 1	-12	229	137.244	UL-RL	0	0	0	0	0	0	137.244
Stage 1	-12.2	232.8	139.452	UL-RL	0	0	0	0	0	0	139.452
Stage 1	-12.4	236.6	141.662	UL-RL	0	0	0	0	0	0	141.662
Stage 1	-12.6	240.4	144.28	UL-RL	0	0	0	0	0	1	144.28
Stage 1	-12.8	244.2	147.307	UL-RL	0	0	0	0	0	3	147.307
Stage 1	-13	248	150.335	UL-RL	0	0	0	0	0	5	150.335
Stage 1	-13.2	252	95.664	UL-RL	0	0	0	0	0	7	95.664
Stage 1	-13.4	256	98.341	UL-RL	0	0	0	0	0	9	98.341
Stage 1	-13.6	260	101.021	UL-RL	0	0	0	0	0	11	101.021
Stage 1	-13.8	264	103.701	UL-RL	0	0	0	0	0	13	103.701
Stage 1	-14	268	106.382	UL-RL	0	0	0	0	0	15	106.382
Stage 1	-14.2	272	109.065	UL-RL	0	0	0	0	0	17	109.065
Stage 1	-14.4	276	111.749	UL-RL	0	0	0	0	0	19	111.749
Stage 1	-14.6	280	114.434	UL-RL	0	0	0	0	0	21	114.434
Stage 1	-14.8	284	117.12	UL-RL	0	0	0	0	0	23	117.12
Stage 1	-15	288	119.807	UL-RL	0	0	0	0	0	25	119.807
Stage 1	-15.2	292	122.494	UL-RL	0	0	0	0	0	27	122.494
Stage 1	-15.4	296	125.183	UL-RL	0	0	0	0	0	29	125.183

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 1	-15.6	300	127.873	UL-RL	0	0	0	0	0	31	127.873
Stage 1	-15.8	304	130.563	UL-RL	0	0	0	0	0	33	130.563
Stage 1	-16	308	133.254	UL-RL	0	0	0	0	0	35	133.254
Stage 1	-16.2	312	135.946	UL-RL	0	0	0	0	0	37	135.946
Stage 1	-16.4	316	138.639	UL-RL	0	0	0	0	0	39	138.639
Stage 1	-16.6	320	141.333	UL-RL	0	0	0	0	0	41	141.333
Stage 1	-16.8	324	144.027	UL-RL	0	0	0	0	0	43	144.027
Stage 1	-17	328	146.722	UL-RL	0	0	0	0	0	45	146.722
Stage 1	-17.2	332	149.417	UL-RL	0	0	0	0	0	47	149.417
Stage 1	-17.4	336	152.113	UL-RL	0	0	0	0	0	49	152.113
Stage 1	-17.6	340	154.81	UL-RL	0	0	0	0	0	51	154.81
Stage 1	-17.8	344	157.508	UL-RL	0	0	0	0	0	53	157.508
Stage 1	-18	348	160.205	UL-RL	0	0	0	0	0	55	160.205
Stage 1	-18.2	352	162.904	UL-RL	0	0	0	0	0	57	162.904
Stage 1	-18.4	356	165.602	UL-RL	0	0	0	0	0	59	165.602
Stage 1	-18.6	360	168.302	UL-RL	0	0	0	0	0	61	168.302
Stage 1	-18.8	364	171.002	UL-RL	0	0	0	0	0	63	171.002
Stage 1	-19	368	173.702	UL-RL	0	0	0	0	0	65	173.702

Tabella Risultati Terreno Left Wall - Nominal - Stage 2

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 2	0	0	0	PASSIVE	0	0	0	0	0	0	0
Stage 2	-0.2	4.038	5.91	V-C	0	0	0	0	0	0	5.91
Stage 2	-0.4	8.605	10.585	UL-RL	0	0	0	0	0	0	10.585
Stage 2	-0.6	13.516	14.039	V-C	0	0	0	0	0	0	14.039
Stage 2	-0.8	18.446	16.769	V-C	0	0	0	0	0	0	16.769
Stage 2	-1	23.84	19.133	UL-RL	0	0	0	0	0	0	19.133
Stage 2	-1.2	29.017	21.316	UL-RL	0	0	0	0	0	0	21.316
Stage 2	-1.4	33.889	23.408	V-C	0	0	0	0	0	0	23.408
Stage 2	-1.6	38.554	25.45	V-C	0	0	0	0	0	0	25.45
Stage 2	-1.8	43.072	27.466	UL-RL	0	0	0	0	0	0	27.466
Stage 2	-2	47.482	30.677	UL-RL	0	0	0	0	0	0	30.677
Stage 2	-2.2	51.711	32.732	V-C	0	0	0	0	0	0	32.732
Stage 2	-2.4	55.876	34.784	V-C	0	0	0	0	0	0	34.784
Stage 2	-2.6	59.991	36.834	V-C	0	0	0	0	0	0	36.834
Stage 2	-2.8	64.065	38.885	V-C	0	0	0	0	0	0	38.885
Stage 2	-3	68.106	40.938	V-C	0	0	0	0	0	0	40.938
Stage 2	-3.2	72.427	42.993	V-C	0	0	0	0	0	0	42.993
Stage 2	-3.4	76.4	45.051	UL-RL	0	0	0	0	0	0	45.051
Stage 2	-3.6	80.355	47.112	V-C	0	0	0	0	0	0	47.112
Stage 2	-3.8	84.296	49.178	UL-RL	0	0	0	0	0	0	49.178
Stage 2	-4	87.976	51.247	V-C	0	0	0	0	0	0	51.247
Stage 2	-4.2	91.904	53.32	V-C	0	0	0	0	0	0	53.32

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 2	-4.4	95.82	55.398	UL-RL	0	0	0	0	0	0	55.398
Stage 2	-4.6	99.728	57.481	V-C	0	0	0	0	0	0	57.481
Stage 2	-4.8	103.627	59.567	UL-RL	0	0	0	0	0	0	59.567
Stage 2	-5	107.518	61.658	V-C	0	0	0	0	0	0	61.658
Stage 2	-5.2	111.403	63.754	UL-RL	0	0	0	0	0	0	63.754
Stage 2	-5.4	115.282	65.855	V-C	0	0	0	0	0	0	65.855
Stage 2	-5.6	119.156	67.959	V-C	0	0	0	0	0	0	67.959
Stage 2	-5.8	123.024	70.069	UL-RL	0	0	0	0	0	0	70.069
Stage 2	-6	126.889	72.183	V-C	0	0	0	0	0	0	72.183
Stage 2	-6.2	130.749	74.301	UL-RL	0	0	0	0	0	0	74.301
Stage 2	-6.4	134.606	76.423	UL-RL	0	0	0	0	0	0	76.423
Stage 2	-6.6	138.46	78.55	UL-RL	0	0	0	0	0	0	78.55
Stage 2	-6.8	142.31	80.681	V-C	0	0	0	0	0	0	80.681
Stage 2	-7	146.158	82.816	V-C	0	0	0	0	0	0	82.816
Stage 2	-7.2	150.004	84.955	V-C	0	0	0	0	0	0	84.955
Stage 2	-7.4	153.846	87.099	V-C	0	0	0	0	0	0	87.099
Stage 2	-7.6	157.687	89.245	UL-RL	0	0	0	0	0	0	89.245
Stage 2	-7.8	161.526	91.396	V-C	0	0	0	0	0	0	91.396
Stage 2	-8	165.363	93.55	UL-RL	0	0	0	0	0	0	93.55
Stage 2	-8.2	169.198	95.708	V-C	0	0	0	0	0	0	95.708
Stage 2	-8.4	173.032	97.869	V-C	0	0	0	0	0	0	97.869
Stage 2	-8.6	176.864	100.034	V-C	0	0	0	0	0	0	100.034
Stage 2	-8.8	180.694	102.201	V-C	0	0	0	0	0	0	102.201
Stage 2	-9	184.524	104.372	UL-RL	0	0	0	0	0	0	104.372
Stage 2	-9.2	188.352	106.546	V-C	0	0	0	0	0	0	106.546
Stage 2	-9.4	192.179	108.723	V-C	0	0	0	0	0	0	108.723
Stage 2	-9.6	196.004	110.902	V-C	0	0	0	0	0	0	110.902
Stage 2	-9.8	199.829	113.085	UL-RL	0	0	0	0	0	0	113.085
Stage 2	-10	203.653	115.27	V-C	0	0	0	0	0	0	115.27
Stage 2	-10.2	207.476	117.457	UL-RL	0	0	0	0	0	0	117.457
Stage 2	-10.4	211.298	119.647	V-C	0	0	0	0	0	0	119.647
Stage 2	-10.6	215.12	121.839	V-C	0	0	0	0	0	0	121.839
Stage 2	-10.8	218.754	124.034	V-C	0	0	0	0	0	0	124.034
Stage 2	-11	222.394	126.23	V-C	0	0	0	0	0	0	126.23
Stage 2	-11.2	226.037	128.429	V-C	0	0	0	0	0	0	128.429
Stage 2	-11.4	229.685	130.63	UL-RL	0	0	0	0	0	0	130.63
Stage 2	-11.6	233.336	132.833	V-C	0	0	0	0	0	0	132.833
Stage 2	-11.8	236.991	135.037	V-C	0	0	0	0	0	0	135.037
Stage 2	-12	240.65	137.244	UL-RL	0	0	0	0	0	0	137.244
Stage 2	-12.2	244.312	139.452	V-C	0	0	0	0	0	0	139.452
Stage 2	-12.4	247.977	141.662	UL-RL	0	0	0	0	0	0	141.662
Stage 2	-12.6	251.646	144.28	V-C	0	0	0	0	0	1	144.28
Stage 2	-12.8	255.318	147.307	V-C	0	0	0	0	0	3	147.307
Stage 2	-13	258.992	150.335	V-C	0	0	0	0	0	5	150.335

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 2	-13.2	262.87	95.664	UL-RL	0	0	0	0	0	7	95.664
Stage 2	-13.4	266.75	98.341	V-C	0	0	0	0	0	9	98.341
Stage 2	-13.6	270.633	101.021	V-C	0	0	0	0	0	11	101.021
Stage 2	-13.8	274.518	103.701	V-C	0	0	0	0	0	13	103.701
Stage 2	-14	278.406	106.382	V-C	0	0	0	0	0	15	106.382
Stage 2	-14.2	282.297	109.065	V-C	0	0	0	0	0	17	109.065
Stage 2	-14.4	286.19	111.749	V-C	0	0	0	0	0	19	111.749
Stage 2	-14.6	290.085	114.434	V-C	0	0	0	0	0	21	114.434
Stage 2	-14.8	293.982	117.12	V-C	0	0	0	0	0	23	117.12
Stage 2	-15	297.881	119.807	V-C	0	0	0	0	0	25	119.807
Stage 2	-15.2	301.783	122.494	V-C	0	0	0	0	0	27	122.494
Stage 2	-15.4	305.686	125.183	V-C	0	0	0	0	0	29	125.183
Stage 2	-15.6	309.591	127.873	V-C	0	0	0	0	0	31	127.873
Stage 2	-15.8	313.498	130.563	V-C	0	0	0	0	0	33	130.563
Stage 2	-16	317.407	133.254	V-C	0	0	0	0	0	35	133.254
Stage 2	-16.2	321.318	135.946	V-C	0	0	0	0	0	37	135.946
Stage 2	-16.4	325.23	138.639	UL-RL	0	0	0	0	0	39	138.639
Stage 2	-16.6	329.145	141.333	UL-RL	0	0	0	0	0	41	141.333
Stage 2	-16.8	333.06	144.027	V-C	0	0	0	0	0	43	144.027
Stage 2	-17	336.978	146.722	UL-RL	0	0	0	0	0	45	146.722
Stage 2	-17.2	340.896	149.417	UL-RL	0	0	0	0	0	47	149.417
Stage 2	-17.4	344.817	152.113	UL-RL	0	0	0	0	0	49	152.113
Stage 2	-17.6	348.738	154.81	V-C	0	0	0	0	0	51	154.81
Stage 2	-17.8	352.662	157.508	V-C	0	0	0	0	0	53	157.508
Stage 2	-18	356.586	160.205	V-C	0	0	0	0	0	55	160.205
Stage 2	-18.2	360.512	162.904	V-C	0	0	0	0	0	57	162.904
Stage 2	-18.4	364.439	165.602	V-C	0	0	0	0	0	59	165.602
Stage 2	-18.6	368.367	168.302	V-C	0	0	0	0	0	61	168.302
Stage 2	-18.8	372.297	171.002	V-C	0	0	0	0	0	63	171.002
Stage 2	-19	376.228	173.702	V-C	0	0	0	0	0	65	173.702

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 2	0	0	0	ACTIVE	0	0	0	0	0	0	0
Stage 2	-0.2	3.9	5.91	V-C	0	0	0	0	0	0	5.91
Stage 2	-0.4	7.8	10.585	V-C	0	0	0	0	0	0	10.585
Stage 2	-0.6	11.7	14.039	V-C	0	0	0	0	0	0	14.039
Stage 2	-0.8	15.6	16.769	V-C	0	0	0	0	0	0	16.769
Stage 2	-1	19.5	19.133	V-C	0	0	0	0	0	0	19.133
Stage 2	-1.2	23.4	21.316	V-C	0	0	0	0	0	0	21.316
Stage 2	-1.4	27.3	23.408	V-C	0	0	0	0	0	0	23.408
Stage 2	-1.6	31.2	25.45	V-C	0	0	0	0	0	0	25.45
Stage 2	-1.8	35.1	27.466	V-C	0	0	0	0	0	0	27.466
Stage 2	-2	39	30.677	V-C	0	0	0	0	0	0	30.677
Stage 2	-2.2	42.8	32.732	UL-RL	0	0	0	0	0	0	32.732

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 2	-2.4	46.6	34.784	V-C	0	0	0	0	0	0	34.784
Stage 2	-2.6	50.4	36.834	V-C	0	0	0	0	0	0	36.834
Stage 2	-2.8	54.2	38.885	V-C	0	0	0	0	0	0	38.885
Stage 2	-3	58	40.938	V-C	0	0	0	0	0	0	40.938
Stage 2	-3.2	61.8	42.993	UL-RL	0	0	0	0	0	0	42.993
Stage 2	-3.4	65.6	45.051	V-C	0	0	0	0	0	0	45.051
Stage 2	-3.6	69.4	47.112	V-C	0	0	0	0	0	0	47.112
Stage 2	-3.8	73.2	49.178	V-C	0	0	0	0	0	0	49.178
Stage 2	-4	77	51.247	V-C	0	0	0	0	0	0	51.247
Stage 2	-4.2	80.8	53.32	V-C	0	0	0	0	0	0	53.32
Stage 2	-4.4	84.6	55.398	V-C	0	0	0	0	0	0	55.398
Stage 2	-4.6	88.4	57.481	UL-RL	0	0	0	0	0	0	57.481
Stage 2	-4.8	92.2	59.567	V-C	0	0	0	0	0	0	59.567
Stage 2	-5	96	61.658	V-C	0	0	0	0	0	0	61.658
Stage 2	-5.2	99.8	63.754	V-C	0	0	0	0	0	0	63.754
Stage 2	-5.4	103.6	65.855	V-C	0	0	0	0	0	0	65.855
Stage 2	-5.6	107.4	67.959	V-C	0	0	0	0	0	0	67.959
Stage 2	-5.8	111.2	70.069	V-C	0	0	0	0	0	0	70.069
Stage 2	-6	115	72.183	V-C	0	0	0	0	0	0	72.183
Stage 2	-6.2	118.8	74.301	V-C	0	0	0	0	0	0	74.301
Stage 2	-6.4	122.6	76.423	V-C	0	0	0	0	0	0	76.423
Stage 2	-6.6	126.4	78.55	V-C	0	0	0	0	0	0	78.55
Stage 2	-6.8	130.2	80.681	V-C	0	0	0	0	0	0	80.681
Stage 2	-7	134	82.816	V-C	0	0	0	0	0	0	82.816
Stage 2	-7.2	137.8	84.955	V-C	0	0	0	0	0	0	84.955
Stage 2	-7.4	141.6	87.099	V-C	0	0	0	0	0	0	87.099
Stage 2	-7.6	145.4	89.245	V-C	0	0	0	0	0	0	89.245
Stage 2	-7.8	149.2	91.396	V-C	0	0	0	0	0	0	91.396
Stage 2	-8	153	93.55	V-C	0	0	0	0	0	0	93.55
Stage 2	-8.2	156.8	95.708	V-C	0	0	0	0	0	0	95.708
Stage 2	-8.4	160.6	97.869	V-C	0	0	0	0	0	0	97.869
Stage 2	-8.6	164.4	100.034	V-C	0	0	0	0	0	0	100.034
Stage 2	-8.8	168.2	102.201	V-C	0	0	0	0	0	0	102.201
Stage 2	-9	172	104.372	V-C	0	0	0	0	0	0	104.372
Stage 2	-9.2	175.8	106.546	UL-RL	0	0	0	0	0	0	106.546
Stage 2	-9.4	179.6	108.723	V-C	0	0	0	0	0	0	108.723
Stage 2	-9.6	183.4	110.902	UL-RL	0	0	0	0	0	0	110.902
Stage 2	-9.8	187.2	113.085	V-C	0	0	0	0	0	0	113.085
Stage 2	-10	191	115.27	V-C	0	0	0	0	0	0	115.27
Stage 2	-10.2	194.8	117.457	V-C	0	0	0	0	0	0	117.457
Stage 2	-10.4	198.6	119.647	V-C	0	0	0	0	0	0	119.647
Stage 2	-10.6	202.4	121.839	V-C	0	0	0	0	0	0	121.839
Stage 2	-10.8	206.2	124.034	UL-RL	0	0	0	0	0	0	124.034
Stage 2	-11	210	126.23	V-C	0	0	0	0	0	0	126.23

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 2	-11.2	213.8	128.429	V-C	0	0	0	0	0	0	128.429
Stage 2	-11.4	217.6	130.63	V-C	0	0	0	0	0	0	130.63
Stage 2	-11.6	221.4	132.833	V-C	0	0	0	0	0	0	132.833
Stage 2	-11.8	225.2	135.037	V-C	0	0	0	0	0	0	135.037
Stage 2	-12	229	137.244	UL-RL	0	0	0	0	0	0	137.244
Stage 2	-12.2	232.8	139.452	V-C	0	0	0	0	0	0	139.452
Stage 2	-12.4	236.6	141.662	UL-RL	0	0	0	0	0	0	141.662
Stage 2	-12.6	240.4	144.28	V-C	0	0	0	0	0	1	144.28
Stage 2	-12.8	244.2	147.307	V-C	0	0	0	0	0	3	147.307
Stage 2	-13	248	150.335	V-C	0	0	0	0	0	5	150.335
Stage 2	-13.2	252	95.664	V-C	0	0	0	0	0	7	95.664
Stage 2	-13.4	256	98.341	V-C	0	0	0	0	0	9	98.341
Stage 2	-13.6	260	101.021	V-C	0	0	0	0	0	11	101.021
Stage 2	-13.8	264	103.701	V-C	0	0	0	0	0	13	103.701
Stage 2	-14	268	106.382	V-C	0	0	0	0	0	15	106.382
Stage 2	-14.2	272	109.065	V-C	0	0	0	0	0	17	109.065
Stage 2	-14.4	276	111.749	UL-RL	0	0	0	0	0	19	111.749
Stage 2	-14.6	280	114.434	UL-RL	0	0	0	0	0	21	114.434
Stage 2	-14.8	284	117.12	UL-RL	0	0	0	0	0	23	117.12
Stage 2	-15	288	119.807	UL-RL	0	0	0	0	0	25	119.807
Stage 2	-15.2	292	122.494	UL-RL	0	0	0	0	0	27	122.494
Stage 2	-15.4	296	125.183	UL-RL	0	0	0	0	0	29	125.183
Stage 2	-15.6	300	127.873	UL-RL	0	0	0	0	0	31	127.873
Stage 2	-15.8	304	130.563	UL-RL	0	0	0	0	0	33	130.563
Stage 2	-16	308	133.254	UL-RL	0	0	0	0	0	35	133.254
Stage 2	-16.2	312	135.946	UL-RL	0	0	0	0	0	37	135.946
Stage 2	-16.4	316	138.639	UL-RL	0	0	0	0	0	39	138.639
Stage 2	-16.6	320	141.333	V-C	0	0	0	0	0	41	141.333
Stage 2	-16.8	324	144.027	V-C	0	0	0	0	0	43	144.027
Stage 2	-17	328	146.722	V-C	0	0	0	0	0	45	146.722
Stage 2	-17.2	332	149.417	UL-RL	0	0	0	0	0	47	149.417
Stage 2	-17.4	336	152.113	UL-RL	0	0	0	0	0	49	152.113
Stage 2	-17.6	340	154.81	UL-RL	0	0	0	0	0	51	154.81
Stage 2	-17.8	344	157.508	V-C	0	0	0	0	0	53	157.508
Stage 2	-18	348	160.205	V-C	0	0	0	0	0	55	160.205
Stage 2	-18.2	352	162.904	UL-RL	0	0	0	0	0	57	162.904
Stage 2	-18.4	356	165.602	V-C	0	0	0	0	0	59	165.602
Stage 2	-18.6	360	168.302	UL-RL	0	0	0	0	0	61	168.302
Stage 2	-18.8	364	171.002	V-C	0	0	0	0	0	63	171.002
Stage 2	-19	368	173.702	V-C	0	0	0	0	0	65	173.702

Tabella Risultati Terreno Left Wall - Nominal - Stage 3

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 3	0	0	0	PASSIVE	0	0	0	0	0	0	0
Stage 3	-0.2	4.038	4.895	UL-RL	0	0	0	0	0	-0.405	4.895
Stage 3	-0.4	8.605	9.117	UL-RL	0	0	0	0	0	-0.587	9.117
Stage 3	-0.6	13.516	12.12	V-C	0	0	0	0	0	-0.768	12.12
Stage 3	-0.8	18.446	14.402	V-C	0	0	0	0	0	-0.947	14.402
Stage 3	-1	23.84	16.322	V-C	0	0	0	0	0	-1.124	16.322
Stage 3	-1.2	29.017	18.066	V-C	0	0	0	0	0	-1.3	18.066
Stage 3	-1.4	33.889	19.725	V-C	0	0	0	0	0	-1.473	19.725
Stage 3	-1.6	38.554	21.341	V-C	0	0	0	0	0	-1.644	21.341
Stage 3	-1.8	43.072	22.938	V-C	0	0	0	0	0	-1.811	22.938
Stage 3	-2	47.482	17.848	V-C	0	0	0	0	0	-4.751	17.848
Stage 3	-2.2	51.711	18.861	V-C	0	0	0	0	0	-5.137	18.861
Stage 3	-2.4	55.876	19.896	V-C	0	0	0	0	0	-5.514	19.896
Stage 3	-2.6	59.991	20.956	V-C	0	0	0	0	0	-5.881	20.956
Stage 3	-2.8	64.065	22.045	V-C	0	0	0	0	0	-6.237	22.045
Stage 3	-3	68.106	23.166	V-C	0	0	0	0	0	-6.582	23.166
Stage 3	-3.2	72.427	24.32	V-C	0	0	0	0	0	-6.916	24.32
Stage 3	-3.4	76.4	25.509	V-C	0	0	0	0	0	-7.238	25.509
Stage 3	-3.6	80.355	26.735	V-C	0	0	0	0	0	-7.547	26.735
Stage 3	-3.8	84.296	27.999	V-C	0	0	0	0	0	-7.844	27.999
Stage 3	-4	87.976	29.302	V-C	0	0	0	0	0	-8.128	29.302
Stage 3	-4.2	91.904	30.646	V-C	0	0	0	0	0	-8.398	30.646
Stage 3	-4.4	95.82	32.031	V-C	0	0	0	0	0	-8.654	32.031
Stage 3	-4.6	99.728	33.459	V-C	0	0	0	0	0	-8.897	33.459
Stage 3	-4.8	103.627	34.93	V-C	0	0	0	0	0	-9.125	34.93
Stage 3	-5	107.518	36.444	V-C	0	0	0	0	0	-9.339	36.444
Stage 3	-5.2	111.403	38.003	V-C	0	0	0	0	0	-9.537	38.003
Stage 3	-5.4	115.282	39.607	V-C	0	0	0	0	0	-9.721	39.607
Stage 3	-5.6	119.156	41.256	V-C	0	0	0	0	0	-9.89	41.256
Stage 3	-5.8	123.024	42.951	V-C	0	0	0	0	0	-10.044	42.951
Stage 3	-6	126.889	44.692	V-C	0	0	0	0	0	-10.182	44.692
Stage 3	-6.2	130.749	46.478	V-C	0	0	0	0	0	-10.305	46.478
Stage 3	-6.4	134.606	48.312	V-C	0	0	0	0	0	-10.412	48.312
Stage 3	-6.6	138.46	50.191	V-C	0	0	0	0	0	-10.503	50.191
Stage 3	-6.8	142.31	52.117	V-C	0	0	0	0	0	-10.579	52.117
Stage 3	-7	146.158	54.089	V-C	0	0	0	0	0	-10.64	54.089
Stage 3	-7.2	150.004	56.108	V-C	0	0	0	0	0	-10.684	56.108
Stage 3	-7.4	153.846	58.173	V-C	0	0	0	0	0	-10.713	58.173
Stage 3	-7.6	157.687	60.285	V-C	0	0	0	0	0	-10.726	60.285
Stage 3	-7.8	161.526	62.443	V-C	0	0	0	0	0	-10.723	62.443
Stage 3	-8	165.363	65.363	ACTIVE	0	0	0	0	0	-10.44	65.363
Stage 3	-8.2	169.198	69.198	ACTIVE	0	0	0	0	0	-9.819	69.198
Stage 3	-8.4	173.032	73.032	ACTIVE	0	0	0	0	0	-9.199	73.032
Stage 3	-8.6	176.864	76.864	ACTIVE	0	0	0	0	0	-8.582	76.864

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 3	-8.8	180.694	80.694	ACTIVE	0	0	0	0	0	-7.966	80.694
Stage 3	-9	184.524	84.524	ACTIVE	0	0	0	0	0	-7.351	84.524
Stage 3	-9.2	188.352	88.352	ACTIVE	0	0	0	0	0	-6.739	88.352
Stage 3	-9.4	192.179	92.179	ACTIVE	0	0	0	0	0	-6.127	92.179
Stage 3	-9.6	196.004	96.005	ACTIVE	0	0	0	0	0	-5.518	96.005
Stage 3	-9.8	199.829	99.829	ACTIVE	0	0	0	0	0	-4.909	99.829
Stage 3	-10	203.653	103.653	ACTIVE	0	0	0	0	0	-4.302	103.653
Stage 3	-10.2	207.476	107.476	ACTIVE	0	0	0	0	0	-3.697	107.476
Stage 3	-10.4	211.298	111.298	ACTIVE	0	0	0	0	0	-3.092	111.298
Stage 3	-10.6	215.12	115.12	ACTIVE	0	0	0	0	0	-2.489	115.12
Stage 3	-10.8	218.754	118.754	ACTIVE	0	0	0	0	0	-1.955	118.754
Stage 3	-11	222.394	122.394	ACTIVE	0	0	0	0	0	-1.421	122.394
Stage 3	-11.2	226.037	126.037	ACTIVE	0	0	0	0	0	-0.886	126.037
Stage 3	-11.4	229.685	129.685	ACTIVE	0	0	0	0	0	-0.35	129.685
Stage 3	-11.6	233.336	133.336	ACTIVE	0	0	0	0	0	0.252	133.336
Stage 3	-11.8	236.991	136.991	ACTIVE	0	0	0	0	0	0.977	136.991
Stage 3	-12	240.65	140.65	ACTIVE	0	0	0	0	0	1.703	140.65
Stage 3	-12.2	244.312	144.312	ACTIVE	0	0	0	0	0	2.43	144.312
Stage 3	-12.4	247.977	147.977	ACTIVE	0	0	0	0	0	3.158	147.977
Stage 3	-12.6	251.646	151.646	ACTIVE	0	0	0	0	0	4.683	151.646
Stage 3	-12.8	255.318	155.318	ACTIVE	0	0	0	0	0	7.005	155.318
Stage 3	-13	258.992	158.992	ACTIVE	0	0	0	0	0	9.328	158.992
Stage 3	-13.2	262.87	39.674	ACTIVE	0	0	0	0	0	-11.663	39.674
Stage 3	-13.4	266.75	41.905	ACTIVE	0	0	0	0	0	-9.812	41.905
Stage 3	-13.6	270.633	44.135	ACTIVE	0	0	0	0	0	-7.962	44.135
Stage 3	-13.8	274.518	46.366	ACTIVE	0	0	0	0	0	-6.112	46.366
Stage 3	-14	278.406	48.597	ACTIVE	0	0	0	0	0	-4.262	48.597
Stage 3	-14.2	282.297	50.828	ACTIVE	0	0	0	0	0	-2.412	50.828
Stage 3	-14.4	286.19	53.06	ACTIVE	0	0	0	0	0	-0.563	53.06
Stage 3	-14.6	290.085	55.291	ACTIVE	0	0	0	0	0	1.286	55.291
Stage 3	-14.8	293.982	57.523	ACTIVE	0	0	0	0	0	3.134	57.523
Stage 3	-15	297.881	59.755	ACTIVE	0	0	0	0	0	4.983	59.755
Stage 3	-15.2	301.783	61.987	ACTIVE	0	0	0	0	0	6.831	61.987
Stage 3	-15.4	305.686	64.219	ACTIVE	0	0	0	0	0	8.678	64.219
Stage 3	-15.6	309.591	66.451	ACTIVE	0	0	0	0	0	10.526	66.451
Stage 3	-15.8	313.498	68.684	ACTIVE	0	0	0	0	0	12.373	68.684
Stage 3	-16	317.407	70.917	ACTIVE	0	0	0	0	0	14.221	70.917
Stage 3	-16.2	321.318	73.149	ACTIVE	0	0	0	0	0	16.068	73.149
Stage 3	-16.4	325.23	75.382	ACTIVE	0	0	0	0	0	17.914	75.382
Stage 3	-16.6	329.145	81.307	V-C	0	0	0	0	0	20.991	81.307
Stage 3	-16.8	333.06	90.739	V-C	0	0	0	0	0	25.237	90.739
Stage 3	-17	336.978	99.907	V-C	0	0	0	0	0	29.395	99.907
Stage 3	-17.2	340.896	108.842	V-C	0	0	0	0	0	33.475	108.842
Stage 3	-17.4	344.817	117.577	V-C	0	0	0	0	0	37.488	117.577

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 3	-17.6	348.738	126.145	V-C	0	0	0	0	0	41.445	126.145
Stage 3	-17.8	352.662	134.58	V-C	0	0	0	0	0	45.357	134.58
Stage 3	-18	356.586	142.92	UL-RL	0	0	0	0	0	49.245	142.92
Stage 3	-18.2	360.512	152.222	UL-RL	0	0	0	0	0	54.145	152.222
Stage 3	-18.4	364.439	161.467	UL-RL	0	0	0	0	0	59.022	161.467
Stage 3	-18.6	368.367	170.301	UL-RL	0	0	0	0	0	63.886	170.301
Stage 3	-18.8	372.297	177.752	UL-RL	0	0	0	0	0	68.743	177.752
Stage 3	-19	376.228	185.199	UL-RL	0	0	0	0	0	73.599	185.199

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 3	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-2.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-2.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-2.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-3	0	14.99	V-C	0	0	0	0	0	-31.5	14.99
Stage 3	-3.2	3.8	15.75	V-C	0	0	0	0	0	-33.076	15.75
Stage 3	-3.4	7.6	16.483	V-C	0	0	0	0	0	-34.673	16.483
Stage 3	-3.6	11.4	17.187	V-C	0	0	0	0	0	-36.291	17.187
Stage 3	-3.8	15.2	17.863	V-C	0	0	0	0	0	-37.93	17.863
Stage 3	-4	19	18.509	V-C	0	0	0	0	0	-39.593	18.509
Stage 3	-4.2	22.8	19.125	V-C	0	0	0	0	0	-41.279	19.125
Stage 3	-4.4	26.6	19.709	V-C	0	0	0	0	0	-42.989	19.709
Stage 3	-4.6	30.4	20.261	V-C	0	0	0	0	0	-44.723	20.261
Stage 3	-4.8	34.2	22.348	V-C	0	0	0	0	0	-44.916	22.348
Stage 3	-5	38	24.926	V-C	0	0	0	0	0	-44.61	24.926
Stage 3	-5.2	41.8	27.474	V-C	0	0	0	0	0	-44.324	27.474
Stage 3	-5.4	45.6	29.993	V-C	0	0	0	0	0	-44.061	29.993
Stage 3	-5.6	49.4	32.483	V-C	0	0	0	0	0	-43.819	32.483
Stage 3	-5.8	53.2	34.942	V-C	0	0	0	0	0	-43.599	34.942
Stage 3	-6	57	37.37	V-C	0	0	0	0	0	-43.4	37.37
Stage 3	-6.2	60.8	39.768	V-C	0	0	0	0	0	-43.224	39.768
Stage 3	-6.4	64.6	42.135	V-C	0	0	0	0	0	-43.071	42.135
Stage 3	-6.6	68.4	44.47	V-C	0	0	0	0	0	-42.939	44.47

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 3	-6.8	72.2	46.774	V-C	0	0	0	0	0	-42.83	46.774
Stage 3	-7	76	49.046	V-C	0	0	0	0	0	-42.744	49.046
Stage 3	-7.2	79.8	51.287	V-C	0	0	0	0	0	-42.68	51.287
Stage 3	-7.4	83.6	53.496	V-C	0	0	0	0	0	-42.639	53.496
Stage 3	-7.6	87.4	55.672	V-C	0	0	0	0	0	-42.62	55.672
Stage 3	-7.8	91.2	57.817	V-C	0	0	0	0	0	-42.624	57.817
Stage 3	-8	95	59.93	V-C	0	0	0	0	0	-42.65	59.93
Stage 3	-8.2	98.8	62.01	V-C	0	0	0	0	0	-42.699	62.01
Stage 3	-8.4	102.6	64.058	V-C	0	0	0	0	0	-42.77	64.058
Stage 3	-8.6	106.4	66.074	V-C	0	0	0	0	0	-42.863	66.074
Stage 3	-8.8	110.2	68.058	V-C	0	0	0	0	0	-42.979	68.058
Stage 3	-9	114	70.01	V-C	0	0	0	0	0	-43.117	70.01
Stage 3	-9.2	117.8	71.931	V-C	0	0	0	0	0	-43.276	71.931
Stage 3	-9.4	121.6	73.82	V-C	0	0	0	0	0	-43.457	73.82
Stage 3	-9.6	125.4	75.678	V-C	0	0	0	0	0	-43.66	75.678
Stage 3	-9.8	129.2	77.505	V-C	0	0	0	0	0	-43.883	77.505
Stage 3	-10	133	79.303	V-C	0	0	0	0	0	-44.127	79.303
Stage 3	-10.2	136.8	81.071	V-C	0	0	0	0	0	-44.392	81.071
Stage 3	-10.4	140.6	82.81	V-C	0	0	0	0	0	-44.675	82.81
Stage 3	-10.6	144.4	84.522	V-C	0	0	0	0	0	-44.977	84.522
Stage 3	-10.8	148.2	86.208	V-C	0	0	0	0	0	-45.298	86.208
Stage 3	-11	152	87.868	V-C	0	0	0	0	0	-45.635	87.868
Stage 3	-11.2	155.8	89.505	V-C	0	0	0	0	0	-45.989	89.505
Stage 3	-11.4	159.6	91.12	V-C	0	0	0	0	0	-46.358	91.12
Stage 3	-11.6	163.4	92.715	V-C	0	0	0	0	0	-46.741	92.715
Stage 3	-11.8	167.2	94.292	V-C	0	0	0	0	0	-47.136	94.292
Stage 3	-12	171	95.852	V-C	0	0	0	0	0	-47.543	95.852
Stage 3	-12.2	174.8	97.399	V-C	0	0	0	0	0	-47.959	97.399
Stage 3	-12.4	178.6	98.936	V-C	0	0	0	0	0	-48.383	98.936
Stage 3	-12.6	182.4	100.872	V-C	0	0	0	0	0	-47.813	100.872
Stage 3	-12.8	186.2	103.21	V-C	0	0	0	0	0	-46.246	103.21
Stage 3	-13	190	105.548	V-C	0	0	0	0	0	-44.681	105.548
Stage 3	-13.2	194	137.575	V-C	0	0	0	0	0	15.607	137.575
Stage 3	-13.4	198	134.793	V-C	0	0	0	0	0	13.968	134.793
Stage 3	-13.6	202	132.085	V-C	0	0	0	0	0	12.376	132.085
Stage 3	-13.8	206	129.473	V-C	0	0	0	0	0	10.848	129.473
Stage 3	-14	210	126.98	V-C	0	0	0	0	0	9.399	126.98
Stage 3	-14.2	214	124.624	V-C	0	0	0	0	0	8.039	124.624
Stage 3	-14.4	218	122.418	V-C	0	0	0	0	0	6.779	122.418
Stage 3	-14.6	222	120.373	V-C	0	0	0	0	0	5.626	120.373
Stage 3	-14.8	226	118.499	V-C	0	0	0	0	0	4.586	118.499
Stage 3	-15	230	116.8	V-C	0	0	0	0	0	3.662	116.8
Stage 3	-15.2	234	115.28	V-C	0	0	0	0	0	2.857	115.28
Stage 3	-15.4	238	113.94	V-C	0	0	0	0	0	2.171	113.94

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 3	-15.6	242	112.777	V-C	0	0	0	0	0	1.603	112.777
Stage 3	-15.8	246	111.789	V-C	0	0	0	0	0	1.15	111.789
Stage 3	-16	250	110.968	V-C	0	0	0	0	0	0.809	110.968
Stage 3	-16.2	254	110.31	V-C	0	0	0	0	0	0.575	110.31
Stage 3	-16.4	258	109.803	V-C	0	0	0	0	0	0.442	109.803
Stage 3	-16.6	262	109.437	V-C	0	0	0	0	0	0.403	109.437
Stage 3	-16.8	266	109.201	V-C	0	0	0	0	0	0.449	109.201
Stage 3	-17	270	109.081	V-C	0	0	0	0	0	0.573	109.081
Stage 3	-17.2	274	109.063	V-C	0	0	0	0	0	0.764	109.063
Stage 3	-17.4	278	109.133	V-C	0	0	0	0	0	1.013	109.133
Stage 3	-17.6	282	109.276	V-C	0	0	0	0	0	1.311	109.276
Stage 3	-17.8	286	109.479	V-C	0	0	0	0	0	1.647	109.479
Stage 3	-18	290	109.723	UL-RL	0	0	0	0	0	2.015	109.723
Stage 3	-18.2	294	109.549	UL-RL	0	0	0	0	0	2.404	109.549
Stage 3	-18.4	298	109.401	UL-RL	0	0	0	0	0	2.808	109.401
Stage 3	-18.6	302	109.432	UL-RL	0	0	0	0	0	3.386	109.432
Stage 3	-18.8	306	110.066	UL-RL	0	0	0	0	0	4.562	110.066
Stage 3	-19	310	110.702	UL-RL	0	0	0	0	0	5.74	110.702

Tabella Risultati Terreno Left Wall - Nominal - Stage 4

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 4	0	0	0	ACTIVE	0	0	0	0	0	0	0
Stage 4	-0.2	4.038	3.997	UL-RL	0	0	0	0	0	-0.765	3.997
Stage 4	-0.4	8.605	7.663	UL-RL	0	0	0	0	0	-1.169	7.663
Stage 4	-0.6	13.516	10.111	UL-RL	0	0	0	0	0	-1.571	10.111
Stage 4	-0.8	18.446	11.839	UL-RL	0	0	0	0	0	-1.971	11.839
Stage 4	-1	23.84	13.209	UL-RL	0	0	0	0	0	-2.369	13.209
Stage 4	-1.2	29.017	14.406	UL-RL	0	0	0	0	0	-2.764	14.406
Stage 4	-1.4	33.889	15.52	UL-RL	0	0	0	0	0	-3.154	15.52
Stage 4	-1.6	38.554	16.597	UL-RL	0	0	0	0	0	-3.54	16.597
Stage 4	-1.8	43.072	17.66	UL-RL	0	0	0	0	0	-3.921	17.66
Stage 4	-2	47.482	13.886	UL-RL	0	0	0	0	0	-6.215	13.886
Stage 4	-2.2	51.711	15.327	UL-RL	0	0	0	0	0	-6.442	15.327
Stage 4	-2.4	55.876	16.738	UL-RL	0	0	0	0	0	-6.679	16.738
Stage 4	-2.6	59.991	18.125	UL-RL	0	0	0	0	0	-6.925	18.125
Stage 4	-2.8	64.065	19.492	UL-RL	0	0	0	0	0	-7.178	19.492
Stage 4	-3	68.106	20.842	UL-RL	0	0	0	0	0	-7.438	20.842
Stage 4	-3.2	72.427	22.328	UL-RL	0	0	0	0	0	-7.648	22.328
Stage 4	-3.4	76.4	23.643	UL-RL	0	0	0	0	0	-7.923	23.643
Stage 4	-3.6	80.355	24.948	UL-RL	0	0	0	0	0	-8.203	24.948
Stage 4	-3.8	84.296	26.245	UL-RL	0	0	0	0	0	-8.487	26.245
Stage 4	-4	87.976	27.415	UL-RL	0	0	0	0	0	-8.821	27.415
Stage 4	-4.2	91.904	28.703	UL-RL	0	0	0	0	0	-9.111	28.703

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 4	-4.4	95.82	29.984	UL-RL	0	0	0	0	0	-9.406	29.984
Stage 4	-4.6	99.728	31.26	UL-RL	0	0	0	0	0	-9.704	31.26
Stage 4	-4.8	103.627	32.53	UL-RL	0	0	0	0	0	-10.007	32.53
Stage 4	-5	107.518	33.795	UL-RL	0	0	0	0	0	-10.312	33.795
Stage 4	-5.2	111.403	35.055	UL-RL	0	0	0	0	0	-10.622	35.055
Stage 4	-5.4	115.282	36.311	UL-RL	0	0	0	0	0	-10.934	36.311
Stage 4	-5.6	119.156	37.563	UL-RL	0	0	0	0	0	-11.25	37.563
Stage 4	-5.8	123.024	38.811	UL-RL	0	0	0	0	0	-11.569	38.811
Stage 4	-6	126.889	40.055	UL-RL	0	0	0	0	0	-11.891	40.055
Stage 4	-6.2	130.749	41.296	UL-RL	0	0	0	0	0	-12.216	41.296
Stage 4	-6.4	134.606	42.534	UL-RL	0	0	0	0	0	-12.543	42.534
Stage 4	-6.6	138.46	43.769	UL-RL	0	0	0	0	0	-12.874	43.769
Stage 4	-6.8	142.31	45.001	UL-RL	0	0	0	0	0	-13.207	45.001
Stage 4	-7	146.158	46.23	UL-RL	0	0	0	0	0	-13.542	46.23
Stage 4	-7.2	150.004	50.067	UL-RL	0	0	0	0	0	-12.913	50.067
Stage 4	-7.4	153.846	53.91	UL-RL	0	0	0	0	0	-12.284	53.91
Stage 4	-7.6	157.687	57.75	UL-RL	0	0	0	0	0	-11.657	57.75
Stage 4	-7.8	161.526	61.589	UL-RL	0	0	0	0	0	-11.032	61.589
Stage 4	-8	165.363	65.425	UL-RL	0	0	0	0	0	-10.409	65.425
Stage 4	-8.2	169.198	69.259	UL-RL	0	0	0	0	0	-9.788	69.259
Stage 4	-8.4	173.032	73.091	UL-RL	0	0	0	0	0	-9.169	73.091
Stage 4	-8.6	176.864	76.922	UL-RL	0	0	0	0	0	-8.553	76.922
Stage 4	-8.8	180.694	80.75	UL-RL	0	0	0	0	0	-7.938	80.75
Stage 4	-9	184.524	84.578	UL-RL	0	0	0	0	0	-7.324	84.578
Stage 4	-9.2	188.352	88.404	UL-RL	0	0	0	0	0	-6.713	88.404
Stage 4	-9.4	192.179	92.228	UL-RL	0	0	0	0	0	-6.103	92.228
Stage 4	-9.6	196.004	96.051	UL-RL	0	0	0	0	0	-5.494	96.051
Stage 4	-9.8	199.829	99.873	UL-RL	0	0	0	0	0	-4.888	99.873
Stage 4	-10	203.653	103.693	UL-RL	0	0	0	0	0	-4.282	103.693
Stage 4	-10.2	207.476	107.513	UL-RL	0	0	0	0	0	-3.678	107.513
Stage 4	-10.4	211.298	111.331	UL-RL	0	0	0	0	0	-3.076	111.331
Stage 4	-10.6	215.12	115.148	UL-RL	0	0	0	0	0	-2.475	115.148
Stage 4	-10.8	218.754	118.778	UL-RL	0	0	0	0	0	-1.944	118.778
Stage 4	-11	222.394	122.412	UL-RL	0	0	0	0	0	-1.412	122.412
Stage 4	-11.2	226.037	126.05	UL-RL	0	0	0	0	0	-0.88	126.05
Stage 4	-11.4	229.685	129.692	UL-RL	0	0	0	0	0	-0.347	129.692
Stage 4	-11.6	233.336	133.336	ACTIVE	0	0	0	0	0	0.255	133.336
Stage 4	-11.8	236.991	136.991	ACTIVE	0	0	0	0	0	0.979	136.991
Stage 4	-12	240.65	140.65	ACTIVE	0	0	0	0	0	1.704	140.65
Stage 4	-12.2	244.312	144.312	ACTIVE	0	0	0	0	0	2.43	144.312
Stage 4	-12.4	247.977	147.977	ACTIVE	0	0	0	0	0	3.158	147.977
Stage 4	-12.6	251.646	151.646	ACTIVE	0	0	0	0	0	4.683	151.646
Stage 4	-12.8	255.318	155.318	ACTIVE	0	0	0	0	0	7.005	155.318
Stage 4	-13	258.992	158.992	ACTIVE	0	0	0	0	0	9.328	158.992

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 4	-13.2	262.87	39.674	ACTIVE	0	0	0	0	0	-11.663	39.674
Stage 4	-13.4	266.75	41.905	ACTIVE	0	0	0	0	0	-9.812	41.905
Stage 4	-13.6	270.633	44.135	ACTIVE	0	0	0	0	0	-7.962	44.135
Stage 4	-13.8	274.518	46.366	ACTIVE	0	0	0	0	0	-6.112	46.366
Stage 4	-14	278.406	48.597	ACTIVE	0	0	0	0	0	-4.262	48.597
Stage 4	-14.2	282.297	50.828	ACTIVE	0	0	0	0	0	-2.412	50.828
Stage 4	-14.4	286.19	53.06	ACTIVE	0	0	0	0	0	-0.563	53.06
Stage 4	-14.6	290.085	55.291	ACTIVE	0	0	0	0	0	1.286	55.291
Stage 4	-14.8	293.982	57.523	ACTIVE	0	0	0	0	0	3.134	57.523
Stage 4	-15	297.881	59.755	ACTIVE	0	0	0	0	0	4.983	59.755
Stage 4	-15.2	301.783	61.987	ACTIVE	0	0	0	0	0	6.831	61.987
Stage 4	-15.4	305.686	64.219	ACTIVE	0	0	0	0	0	8.678	64.219
Stage 4	-15.6	309.591	66.451	ACTIVE	0	0	0	0	0	10.526	66.451
Stage 4	-15.8	313.498	68.684	ACTIVE	0	0	0	0	0	12.373	68.684
Stage 4	-16	317.407	70.917	ACTIVE	0	0	0	0	0	14.221	70.917
Stage 4	-16.2	321.318	73.149	ACTIVE	0	0	0	0	0	16.068	73.149
Stage 4	-16.4	325.23	75.382	ACTIVE	0	0	0	0	0	17.914	75.382
Stage 4	-16.6	329.145	77.616	ACTIVE	0	0	0	0	0	19.761	77.616
Stage 4	-16.8	333.06	79.849	ACTIVE	0	0	0	0	0	21.607	79.849
Stage 4	-17	336.978	82.082	ACTIVE	0	0	0	0	0	23.453	82.082
Stage 4	-17.2	340.896	84.316	ACTIVE	0	0	0	0	0	25.299	84.316
Stage 4	-17.4	344.817	86.551	UL-RL	0	0	0	0	0	27.146	86.551
Stage 4	-17.6	348.738	88.798	UL-RL	0	0	0	0	0	28.998	88.798
Stage 4	-17.8	352.662	91.045	UL-RL	0	0	0	0	0	30.85	91.045
Stage 4	-18	356.586	93.293	UL-RL	0	0	0	0	0	32.702	93.293
Stage 4	-18.2	360.512	95.54	UL-RL	0	0	0	0	0	34.554	95.54
Stage 4	-18.4	364.439	97.788	UL-RL	0	0	0	0	0	36.406	97.788
Stage 4	-18.6	368.367	102.076	UL-RL	0	0	0	0	0	39.064	102.076
Stage 4	-18.8	372.297	123.946	UL-RL	0	0	0	0	0	48.038	123.946
Stage 4	-19	376.228	144.391	UL-RL	0	0	0	0	0	57.011	144.391

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 4	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2.2	0	0	REMOVED	0	0	0	0	0	0	0

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 4	-2.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-3.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-3.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-3.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-3.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-4.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-4.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-4.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-4.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-5.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-5.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-5.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-5.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-6.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-6.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-6.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-6.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-7.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-7.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-7.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-7.8	1.9	34.74	UL-RL	0	0	0	0	0	-78.561	34.74
Stage 4	-8	5.7	34.935	UL-RL	0	0	0	0	0	-80.577	34.935
Stage 4	-8.2	9.5	35.086	UL-RL	0	0	0	0	0	-82.611	35.086
Stage 4	-8.4	13.3	35.194	UL-RL	0	0	0	0	0	-84.662	35.194
Stage 4	-8.6	17.1	35.258	UL-RL	0	0	0	0	0	-86.732	35.258
Stage 4	-8.8	20.9	35.278	UL-RL	0	0	0	0	0	-88.819	35.278
Stage 4	-9	24.7	35.255	UL-RL	0	0	0	0	0	-90.924	35.255
Stage 4	-9.2	28.5	35.189	UL-RL	0	0	0	0	0	-93.046	35.189
Stage 4	-9.4	32.3	35.08	UL-RL	0	0	0	0	0	-95.185	35.08
Stage 4	-9.6	36.1	34.928	UL-RL	0	0	0	0	0	-97.341	34.928
Stage 4	-9.8	39.9	34.734	UL-RL	0	0	0	0	0	-99.514	34.734
Stage 4	-10	43.7	34.498	UL-RL	0	0	0	0	0	-101.704	34.498
Stage 4	-10.2	47.5	34.222	UL-RL	0	0	0	0	0	-103.911	34.222
Stage 4	-10.4	51.3	33.905	UL-RL	0	0	0	0	0	-106.134	33.905
Stage 4	-10.6	55.1	33.549	UL-RL	0	0	0	0	0	-108.373	33.549
Stage 4	-10.8	58.9	33.155	UL-RL	0	0	0	0	0	-110.628	33.155
Stage 4	-11	62.7	32.723	UL-RL	0	0	0	0	0	-112.898	32.723

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 4	-11.2	66.5	32.46	UL-RL	0	0	0	0	0	-114.979	32.46
Stage 4	-11.4	70.3	33.572	UL-RL	0	0	0	0	0	-115.666	33.572
Stage 4	-11.6	74.1	34.63	UL-RL	0	0	0	0	0	-116.387	34.63
Stage 4	-11.8	77.9	35.636	V-C	0	0	0	0	0	-117.142	35.636
Stage 4	-12	81.7	36.595	V-C	0	0	0	0	0	-117.927	36.595
Stage 4	-12.2	85.5	37.512	V-C	0	0	0	0	0	-118.74	37.512
Stage 4	-12.4	89.3	38.392	V-C	0	0	0	0	0	-119.577	38.392
Stage 4	-12.6	93.1	39.645	V-C	0	0	0	0	0	-119.437	39.645
Stage 4	-12.8	96.9	41.278	V-C	0	0	0	0	0	-118.315	41.278
Stage 4	-13	100.7	42.889	V-C	0	0	0	0	0	-117.207	42.889
Stage 4	-13.2	104.7	254.879	V-C	0	0	0	0	0	64.043	254.879
Stage 4	-13.4	108.7	246.023	V-C	0	0	0	0	0	58.354	246.023
Stage 4	-13.6	112.7	237.127	V-C	0	0	0	0	0	52.638	237.127
Stage 4	-13.8	116.7	228.234	V-C	0	0	0	0	0	46.922	228.234
Stage 4	-14	120.7	219.378	V-C	0	0	0	0	0	41.23	219.378
Stage 4	-14.2	124.7	210.589	V-C	0	0	0	0	0	35.582	210.589
Stage 4	-14.4	128.7	201.893	V-C	0	0	0	0	0	29.996	201.893
Stage 4	-14.6	132.7	193.31	V-C	0	0	0	0	0	24.484	193.31
Stage 4	-14.8	136.7	184.859	V-C	0	0	0	0	0	19.059	184.859
Stage 4	-15	140.7	176.55	V-C	0	0	0	0	0	13.729	176.55
Stage 4	-15.2	144.7	168.393	V-C	0	0	0	0	0	8.499	168.393
Stage 4	-15.4	148.7	160.395	V-C	0	0	0	0	0	3.375	160.395
Stage 4	-15.6	152.7	152.558	V-C	0	0	0	0	0	-1.644	152.558
Stage 4	-15.8	156.7	144.881	V-C	0	0	0	0	0	-6.555	144.881
Stage 4	-16	160.7	137.362	V-C	0	0	0	0	0	-11.362	137.362
Stage 4	-16.2	164.7	129.996	V-C	0	0	0	0	0	-16.067	129.996
Stage 4	-16.4	168.7	122.776	V-C	0	0	0	0	0	-20.676	122.776
Stage 4	-16.6	172.7	115.692	V-C	0	0	0	0	0	-25.194	115.692
Stage 4	-16.8	176.7	108.734	V-C	0	0	0	0	0	-29.629	108.734
Stage 4	-17	180.7	101.889	V-C	0	0	0	0	0	-33.989	101.889
Stage 4	-17.2	184.7	95.146	V-C	0	0	0	0	0	-38.281	95.146
Stage 4	-17.4	188.7	88.489	UL-RL	0	0	0	0	0	-42.516	88.489
Stage 4	-17.6	192.7	81.905	UL-RL	0	0	0	0	0	-46.703	81.905
Stage 4	-17.8	196.7	75.38	UL-RL	0	0	0	0	0	-50.85	75.38
Stage 4	-18	200.7	68.903	UL-RL	0	0	0	0	0	-54.965	68.903
Stage 4	-18.2	204.7	62.46	UL-RL	0	0	0	0	0	-59.058	62.46
Stage 4	-18.4	208.7	56.042	UL-RL	0	0	0	0	0	-63.136	56.042
Stage 4	-18.6	212.7	49.802	UL-RL	0	0	0	0	0	-67.039	49.802
Stage 4	-18.8	216.7	44.166	UL-RL	0	0	0	0	0	-70.343	44.166
Stage 4	-19	220.7	39.149	UL-RL	0	0	0	0	0	-73.027	39.149

Tabella Risultati Terreno Left Wall - Nominal - Stage 5

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 5	0	0	0	PASSIVE	0	0	0	0	0	0	0
Stage 5	-0.2	4.038	4.546	UL-RL	0	0	0	0	0	0	4.546
Stage 5	-0.4	8.605	8.525	UL-RL	0	0	0	0	0	0	8.525
Stage 5	-0.6	13.516	11.284	UL-RL	0	0	0	0	0	0	11.284
Stage 5	-0.8	18.446	13.322	UL-RL	0	0	0	0	0	0	13.322
Stage 5	-1	23.84	15	UL-RL	0	0	0	0	0	0	15
Stage 5	-1.2	29.017	16.503	UL-RL	0	0	0	0	0	0	16.503
Stage 5	-1.4	33.889	17.921	UL-RL	0	0	0	0	0	0	17.921
Stage 5	-1.6	38.554	19.298	UL-RL	0	0	0	0	0	0	19.298
Stage 5	-1.8	43.072	20.658	UL-RL	0	0	0	0	0	0	20.658
Stage 5	-2	47.482	18.82	UL-RL	0	0	0	0	0	0	18.82
Stage 5	-2.2	51.711	20.491	UL-RL	0	0	0	0	0	0	20.491
Stage 5	-2.4	55.876	22.138	UL-RL	0	0	0	0	0	0	22.138
Stage 5	-2.6	59.991	23.768	UL-RL	0	0	0	0	0	0	23.768
Stage 5	-2.8	64.065	25.384	UL-RL	0	0	0	0	0	0	25.384
Stage 5	-3	68.106	26.988	UL-RL	0	0	0	0	0	0	26.988
Stage 5	-3.2	72.427	28.696	UL-RL	0	0	0	0	0	0	28.696
Stage 5	-3.4	76.4	30.277	UL-RL	0	0	0	0	0	0	30.277
Stage 5	-3.6	80.355	31.853	UL-RL	0	0	0	0	0	0	31.853
Stage 5	-3.8	84.296	33.424	UL-RL	0	0	0	0	0	0	33.424
Stage 5	-4	87.976	34.902	UL-RL	0	0	0	0	0	0	34.902
Stage 5	-4.2	91.904	36.47	UL-RL	0	0	0	0	0	0	36.47
Stage 5	-4.4	95.82	38.036	UL-RL	0	0	0	0	0	0	38.036
Stage 5	-4.6	99.728	39.599	UL-RL	0	0	0	0	0	0	39.599
Stage 5	-4.8	103.627	41.159	UL-RL	0	0	0	0	0	0	41.159
Stage 5	-5	107.518	42.717	UL-RL	0	0	0	0	0	0	42.717
Stage 5	-5.2	111.403	44.273	UL-RL	0	0	0	0	0	0	44.273
Stage 5	-5.4	115.282	45.828	UL-RL	0	0	0	0	0	0	45.828
Stage 5	-5.6	119.156	47.38	UL-RL	0	0	0	0	0	0	47.38
Stage 5	-5.8	123.024	48.932	UL-RL	0	0	0	0	0	0	48.932
Stage 5	-6	126.889	50.481	UL-RL	0	0	0	0	0	0	50.481
Stage 5	-6.2	130.749	52.029	UL-RL	0	0	0	0	0	0	52.029
Stage 5	-6.4	134.606	53.575	UL-RL	0	0	0	0	0	0	53.575
Stage 5	-6.6	138.46	55.119	UL-RL	0	0	0	0	0	0	55.119
Stage 5	-6.8	142.31	56.661	UL-RL	0	0	0	0	0	0	56.661
Stage 5	-7	146.158	58.202	UL-RL	0	0	0	0	0	0	58.202
Stage 5	-7.2	150.004	61.682	UL-RL	0	0	0	0	0	0	61.682
Stage 5	-7.4	153.846	65.165	UL-RL	0	0	0	0	0	0	65.165
Stage 5	-7.6	157.687	68.645	UL-RL	0	0	0	0	0	0	68.645
Stage 5	-7.8	161.526	72.121	UL-RL	0	0	0	0	0	0	72.121
Stage 5	-8	165.363	75.593	UL-RL	0	0	0	0	0	0	75.593
Stage 5	-8.2	169.198	79.061	UL-RL	0	0	0	0	0	0	79.061
Stage 5	-8.4	173.032	82.524	UL-RL	0	0	0	0	0	0	82.524
Stage 5	-8.6	176.864	85.983	UL-RL	0	0	0	0	0	0	85.983

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 5	-8.8	180.694	89.436	UL-RL	0	0	0	0	0	0	89.436
Stage 5	-9	184.524	92.883	UL-RL	0	0	0	0	0	0	92.883
Stage 5	-9.2	188.352	96.325	UL-RL	0	0	0	0	0	0	96.325
Stage 5	-9.4	192.179	99.76	UL-RL	0	0	0	0	0	0	99.76
Stage 5	-9.6	196.004	103.187	UL-RL	0	0	0	0	0	0	103.187
Stage 5	-9.8	199.829	106.608	UL-RL	0	0	0	0	0	0	106.608
Stage 5	-10	203.653	110.02	UL-RL	0	0	0	0	0	0	110.02
Stage 5	-10.2	207.476	113.425	UL-RL	0	0	0	0	0	0	113.425
Stage 5	-10.4	211.298	116.822	UL-RL	0	0	0	0	0	0	116.822
Stage 5	-10.6	215.12	120.21	UL-RL	0	0	0	0	0	0	120.21
Stage 5	-10.8	218.754	123.452	UL-RL	0	0	0	0	0	0	123.452
Stage 5	-11	222.394	126.501	V-C	0	0	0	0	0	0	126.501
Stage 5	-11.2	226.037	129.309	V-C	0	0	0	0	0	0	129.309
Stage 5	-11.4	229.685	132.115	V-C	0	0	0	0	0	0	132.115
Stage 5	-11.6	233.336	135.088	V-C	0	0	0	0	0	0	135.088
Stage 5	-11.8	236.991	138.421	V-C	0	0	0	0	0	0	138.421
Stage 5	-12	240.65	141.754	V-C	0	0	0	0	0	0	141.754
Stage 5	-12.2	244.312	145.087	V-C	0	0	0	0	0	0	145.087
Stage 5	-12.4	247.977	148.418	V-C	0	0	0	0	0	0	148.418
Stage 5	-12.6	250.646	150.831	V-C	0	0	0	1	0	0	151.831
Stage 5	-12.8	252.318	152.327	V-C	0	0	0	3	0	0	155.327
Stage 5	-13	253.992	153.825	V-C	0	0	0	5	0	0	158.825
Stage 5	-13.2	255.87	89.872	V-C	0	0	0	7	0	0	96.872
Stage 5	-13.4	257.75	89.752	V-C	0	0	0	9	0	0	98.752
Stage 5	-13.6	259.633	89.269	UL-RL	0	0	0	11	0	0	100.269
Stage 5	-13.8	261.519	88.416	UL-RL	0	0	0	13	0	0	101.416
Stage 5	-14	263.407	87.615	UL-RL	0	0	0	15	0	0	102.614
Stage 5	-14.2	265.297	86.876	UL-RL	0	0	0	17	0	0	103.876
Stage 5	-14.4	267.19	86.209	UL-RL	0	0	0	19	0	0	105.209
Stage 5	-14.6	269.085	85.619	UL-RL	0	0	0	21	0	0	106.619
Stage 5	-14.8	270.982	85.111	UL-RL	0	0	0	23	0	0	108.111
Stage 5	-15	272.881	84.688	UL-RL	0	0	0	25	0	0	109.688
Stage 5	-15.2	274.783	84.349	UL-RL	0	0	0	27	0	0	111.349
Stage 5	-15.4	276.686	84.096	UL-RL	0	0	0	29	0	0	113.096
Stage 5	-15.6	278.591	83.927	UL-RL	0	0	0	31	0	0	114.927
Stage 5	-15.8	280.498	83.838	UL-RL	0	0	0	33	0	0	116.838
Stage 5	-16	282.408	83.827	UL-RL	0	0	0	35	0	0	118.826
Stage 5	-16.2	284.318	83.888	UL-RL	0	0	0	37	0	0	120.888
Stage 5	-16.4	286.231	84.017	UL-RL	0	0	0	39	0	0	123.017
Stage 5	-16.6	288.145	84.208	UL-RL	0	0	0	41	0	0	125.208
Stage 5	-16.8	290.06	84.455	UL-RL	0	0	0	43	0	0	127.455
Stage 5	-17	291.978	84.752	UL-RL	0	0	0	45	0	0	129.752
Stage 5	-17.2	293.896	85.093	UL-RL	0	0	0	47	0	0	132.093
Stage 5	-17.4	295.817	85.471	UL-RL	0	0	0	49	0	0	134.471

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 5	-17.6	297.738	85.888	UL-RL	0	0	0	51	0	0	136.888
Stage 5	-17.8	299.662	86.33	UL-RL	0	0	0	53	0	0	139.33
Stage 5	-18	301.586	86.791	UL-RL	0	0	0	55	0	0	141.791
Stage 5	-18.2	303.512	87.266	UL-RL	0	0	0	57	0	0	144.266
Stage 5	-18.4	305.439	87.751	UL-RL	0	0	0	59	0	0	146.751
Stage 5	-18.6	307.367	89.625	UL-RL	0	0	0	61	0	0	150.625
Stage 5	-18.8	309.297	103.926	UL-RL	0	0	0	63	0	0	166.926
Stage 5	-19	311.228	115.392	V-C	0	0	0	65	0	0	180.392

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 5	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-4.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-4.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-4.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-4.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-5.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-5.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-5.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-5.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-6.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-6.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-6.6	0	0	REMOVED	0	0	0	0	0	0	0

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 5	-6.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-7.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-7.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-7.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-7.8	1.9	2.122	UL-RL	0	0	0	0	0	0	2.122
Stage 5	-8	5.7	11.075	UL-RL	0	0	0	0	0	0	11.075
Stage 5	-8.2	9.5	20.03	UL-RL	0	0	0	0	0	0	20.03
Stage 5	-8.4	13.3	28.989	UL-RL	0	0	0	0	0	0	28.989
Stage 5	-8.6	17.1	37.951	UL-RL	0	0	0	0	0	0	37.951
Stage 5	-8.8	20.9	46.916	UL-RL	0	0	0	0	0	0	46.916
Stage 5	-9	24.7	55.886	UL-RL	0	0	0	0	0	0	55.886
Stage 5	-9.2	28.5	64.86	UL-RL	0	0	0	0	0	0	64.86
Stage 5	-9.4	32.3	73.84	UL-RL	0	0	0	0	0	0	73.84
Stage 5	-9.6	36.1	82.824	UL-RL	0	0	0	0	0	0	82.824
Stage 5	-9.8	39.9	86.911	UL-RL	0	0	0	0	0	0	86.911
Stage 5	-10	43.7	88.755	UL-RL	0	0	0	0	0	0	88.755
Stage 5	-10.2	47.5	90.525	UL-RL	0	0	0	0	0	0	90.525
Stage 5	-10.4	51.3	92.23	UL-RL	0	0	0	0	0	0	92.23
Stage 5	-10.6	55.1	93.877	UL-RL	0	0	0	0	0	0	93.877
Stage 5	-10.8	58.9	95.472	UL-RL	0	0	0	0	0	0	95.472
Stage 5	-11	62.7	97.021	UL-RL	0	0	0	0	0	0	97.021
Stage 5	-11.2	66.5	98.593	UL-RL	0	0	0	0	0	0	98.593
Stage 5	-11.4	70.3	100.577	UL-RL	0	0	0	0	0	0	100.577
Stage 5	-11.6	74.1	102.514	UL-RL	0	0	0	0	0	0	102.514
Stage 5	-11.8	77.9	104.406	UL-RL	0	0	0	0	0	0	104.406
Stage 5	-12	81.7	106.259	UL-RL	0	0	0	0	0	0	106.259
Stage 5	-12.2	85.5	108.077	UL-RL	0	0	0	0	0	0	108.077
Stage 5	-12.4	89.3	109.862	UL-RL	0	0	0	0	0	0	109.862
Stage 5	-12.6	92.1	110.959	UL-RL	0	0	0	1	0	0	111.959
Stage 5	-12.8	93.9	111.377	UL-RL	0	0	0	3	0	0	114.377
Stage 5	-13	95.7	111.784	UL-RL	0	0	0	5	0	0	116.784
Stage 5	-13.2	97.7	192.442	UL-RL	0	0	0	7	0	0	199.442
Stage 5	-13.4	99.7	187.083	UL-RL	0	0	0	9	0	0	196.083
Stage 5	-13.6	101.7	181.691	UL-RL	0	0	0	11	0	0	192.691
Stage 5	-13.8	103.7	176.284	UL-RL	0	0	0	13	0	0	189.284
Stage 5	-14	105.7	170.876	UL-RL	0	0	0	15	0	0	185.875
Stage 5	-14.2	107.7	165.479	UL-RL	0	0	0	17	0	0	182.479
Stage 5	-14.4	109.7	160.106	UL-RL	0	0	0	19	0	0	179.106
Stage 5	-14.6	111.7	154.764	UL-RL	0	0	0	21	0	0	175.764
Stage 5	-14.8	113.7	149.812	UL-RL	0	0	0	23	0	0	172.812
Stage 5	-15	115.7	145.267	UL-RL	0	0	0	25	0	0	170.267
Stage 5	-15.2	117.7	140.83	UL-RL	0	0	0	27	0	0	167.83
Stage 5	-15.4	119.7	136.496	UL-RL	0	0	0	29	0	0	165.496

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 5	-15.6	121.7	132.257	UL-RL	0	0	0	31	0	0	163.257
Stage 5	-15.8	123.7	128.108	UL-RL	0	0	0	33	0	0	161.108
Stage 5	-16	125.7	124.043	UL-RL	0	0	0	35	0	0	159.043
Stage 5	-16.2	127.7	120.056	UL-RL	0	0	0	37	0	0	157.056
Stage 5	-16.4	129.7	116.142	UL-RL	0	0	0	39	0	0	155.141
Stage 5	-16.6	131.7	112.294	UL-RL	0	0	0	41	0	0	153.294
Stage 5	-16.8	133.7	108.508	UL-RL	0	0	0	43	0	0	151.508
Stage 5	-17	135.7	104.778	UL-RL	0	0	0	45	0	0	149.778
Stage 5	-17.2	137.7	101.098	UL-RL	0	0	0	47	0	0	148.098
Stage 5	-17.4	139.7	97.462	UL-RL	0	0	0	49	0	0	146.462
Stage 5	-17.6	141.7	93.864	UL-RL	0	0	0	51	0	0	144.864
Stage 5	-17.8	143.7	90.3	UL-RL	0	0	0	53	0	0	143.3
Stage 5	-18	145.7	86.764	UL-RL	0	0	0	55	0	0	141.764
Stage 5	-18.2	147.7	83.253	UL-RL	0	0	0	57	0	0	140.253
Stage 5	-18.4	149.7	79.763	UL-RL	0	0	0	59	0	0	138.763
Stage 5	-18.6	151.7	76.312	UL-RL	0	0	0	61	0	0	137.312
Stage 5	-18.8	153.7	72.956	UL-RL	0	0	0	63	0	0	135.956
Stage 5	-19	155.7	69.69	UL-RL	0	0	0	65	0	0	134.69

Tabella Risultati Terreno Left Wall - Nominal - Stage 6

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 6	0	0	0	PASSIVE	0	0	0	0	0	0	0
Stage 6	-0.2	3.928	4.583	UL-RL	0	0	0	0	0	-0.037	4.583
Stage 6	-0.4	7.961	8.094	UL-RL	0	0	0	0	0	-0.537	8.094
Stage 6	-0.6	12.063	10.109	UL-RL	0	0	0	0	0	-1.314	10.109
Stage 6	-0.8	16.169	11.389	UL-RL	0	0	0	0	0	-2.105	11.389
Stage 6	-1	20.368	11.935	UL-RL	0	0	0	0	0	-3.269	11.935
Stage 6	-1.2	24.523	12.48	UL-RL	0	0	0	0	0	-4.258	12.48
Stage 6	-1.4	28.618	13.183	UL-RL	0	0	0	0	0	-5.005	13.183
Stage 6	-1.6	32.671	14.009	UL-RL	0	0	0	0	0	-5.586	14.009
Stage 6	-1.8	36.694	14.934	UL-RL	0	0	0	0	0	-6.05	14.934
Stage 6	-2	40.696	13.979	UL-RL	0	0	0	0	0	-5.814	13.979
Stage 6	-2.2	44.582	15.463	UL-RL	0	0	0	0	0	-6.078	15.463
Stage 6	-2.4	48.455	16.971	UL-RL	0	0	0	0	0	-6.294	16.971
Stage 6	-2.6	52.318	18.497	UL-RL	0	0	0	0	0	-6.472	18.497
Stage 6	-2.8	56.173	20.036	UL-RL	0	0	0	0	0	-6.62	20.036
Stage 6	-3	60.021	21.586	UL-RL	0	0	0	0	0	-6.744	21.586
Stage 6	-3.2	63.926	23.009	UL-RL	0	0	0	0	0	-7.094	23.009
Stage 6	-3.4	67.76	24.579	UL-RL	0	0	0	0	0	-7.169	24.579
Stage 6	-3.6	71.591	26.152	UL-RL	0	0	0	0	0	-7.232	26.152
Stage 6	-3.8	75.419	27.727	UL-RL	0	0	0	0	0	-7.287	27.727
Stage 6	-4	79.195	29.409	UL-RL	0	0	0	0	0	-7.137	29.409
Stage 6	-4.2	83.021	30.978	UL-RL	0	0	0	0	0	-7.187	30.978

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 6	-4.4	86.844	32.547	UL-RL	0	0	0	0	0	-7.233	32.547
Stage 6	-4.6	90.666	34.113	UL-RL	0	0	0	0	0	-7.274	34.113
Stage 6	-4.8	94.485	35.677	UL-RL	0	0	0	0	0	-7.312	35.677
Stage 6	-5	98.304	37.238	UL-RL	0	0	0	0	0	-7.347	37.238
Stage 6	-5.2	102.121	38.795	UL-RL	0	0	0	0	0	-7.38	38.795
Stage 6	-5.4	105.936	40.348	UL-RL	0	0	0	0	0	-7.413	40.348
Stage 6	-5.6	109.751	41.897	UL-RL	0	0	0	0	0	-7.444	41.897
Stage 6	-5.8	113.565	43.441	UL-RL	0	0	0	0	0	-7.475	43.441
Stage 6	-6	117.378	44.979	UL-RL	0	0	0	0	0	-7.507	44.979
Stage 6	-6.2	121.19	46.512	UL-RL	0	0	0	0	0	-7.538	46.512
Stage 6	-6.4	125.001	48.038	UL-RL	0	0	0	0	0	-7.571	48.038
Stage 6	-6.6	128.812	49.559	UL-RL	0	0	0	0	0	-7.604	49.559
Stage 6	-6.8	132.622	51.073	UL-RL	0	0	0	0	0	-7.638	51.073
Stage 6	-7	136.432	52.58	UL-RL	0	0	0	0	0	-7.674	52.58
Stage 6	-7.2	140.241	56.022	UL-RL	0	0	0	0	0	-7.711	56.022
Stage 6	-7.4	144.049	59.462	UL-RL	0	0	0	0	0	-7.75	59.462
Stage 6	-7.6	147.857	62.894	UL-RL	0	0	0	0	0	-7.79	62.894
Stage 6	-7.8	151.665	66.317	UL-RL	0	0	0	0	0	-7.832	66.317
Stage 6	-8	155.472	69.731	UL-RL	0	0	0	0	0	-7.876	69.731
Stage 6	-8.2	159.28	73.136	UL-RL	0	0	0	0	0	-7.922	73.136
Stage 6	-8.4	163.086	76.532	UL-RL	0	0	0	0	0	-7.969	76.532
Stage 6	-8.6	166.893	79.918	UL-RL	0	0	0	0	0	-8.018	79.918
Stage 6	-8.8	170.699	83.295	UL-RL	0	0	0	0	0	-8.068	83.295
Stage 6	-9	174.505	86.661	UL-RL	0	0	0	0	0	-8.121	86.661
Stage 6	-9.2	178.31	90.017	UL-RL	0	0	0	0	0	-8.175	90.017
Stage 6	-9.4	182.116	93.362	UL-RL	0	0	0	0	0	-8.231	93.362
Stage 6	-9.6	185.921	96.695	UL-RL	0	0	0	0	0	-8.288	96.695
Stage 6	-9.8	189.726	100.018	UL-RL	0	0	0	0	0	-8.347	100.018
Stage 6	-10	193.531	103.329	UL-RL	0	0	0	0	0	-8.407	103.329
Stage 6	-10.2	197.335	106.629	UL-RL	0	0	0	0	0	-8.468	106.629
Stage 6	-10.4	201.14	109.918	UL-RL	0	0	0	0	0	-8.531	109.918
Stage 6	-10.6	204.944	113.195	UL-RL	0	0	0	0	0	-8.595	113.195
Stage 6	-10.8	208.711	116.081	V-C	0	0	0	0	0	-8.512	116.081
Stage 6	-11	212.479	118.939	V-C	0	0	0	0	0	-8.433	118.939
Stage 6	-11.2	216.247	121.79	V-C	0	0	0	0	0	-8.36	121.79
Stage 6	-11.4	220.017	124.635	V-C	0	0	0	0	0	-8.29	124.635
Stage 6	-11.6	223.787	127.642	V-C	0	0	0	0	0	-8.225	127.642
Stage 6	-11.8	227.558	131.004	V-C	0	0	0	0	0	-8.164	131.004
Stage 6	-12	231.33	134.363	V-C	0	0	0	0	0	-8.106	134.363
Stage 6	-12.2	235.102	137.718	V-C	0	0	0	0	0	-8.051	137.718
Stage 6	-12.4	238.875	141.068	V-C	0	0	0	0	0	-7.999	141.068
Stage 6	-12.6	242.649	144.496	V-C	0	0	0	0	0	-6.95	144.496
Stage 6	-12.8	246.423	148.007	V-C	0	0	0	0	0	-4.903	148.007
Stage 6	-13	250.198	151.518	V-C	0	0	0	0	0	-2.858	151.518

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato LEFT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 6	-13.2	254.174	109.84	V-C	0	0	0	0	0	12.747	109.84
Stage 6	-13.4	258.15	110.498	V-C	0	0	0	0	0	13.964	110.498
Stage 6	-13.6	262.126	111.195	V-C	0	0	0	0	0	15.198	111.195
Stage 6	-13.8	266.104	111.942	V-C	0	0	0	0	0	16.451	111.942
Stage 6	-14	270.081	112.75	V-C	0	0	0	0	0	17.726	112.75
Stage 6	-14.2	274.059	113.625	V-C	0	0	0	0	0	19.024	113.625
Stage 6	-14.4	278.038	114.576	V-C	0	0	0	0	0	20.347	114.576
Stage 6	-14.6	282.017	115.604	V-C	0	0	0	0	0	21.696	115.604
Stage 6	-14.8	285.996	116.239	UL-RL	0	0	0	0	0	23.071	116.239
Stage 6	-15	289.976	116.538	UL-RL	0	0	0	0	0	24.472	116.538
Stage 6	-15.2	293.956	116.975	UL-RL	0	0	0	0	0	25.9	116.975
Stage 6	-15.4	297.937	117.549	UL-RL	0	0	0	0	0	27.352	117.549
Stage 6	-15.6	301.918	118.257	UL-RL	0	0	0	0	0	28.829	118.257
Stage 6	-15.8	305.9	119.093	UL-RL	0	0	0	0	0	30.328	119.093
Stage 6	-16	309.881	120.051	UL-RL	0	0	0	0	0	31.849	120.051
Stage 6	-16.2	313.864	121.123	UL-RL	0	0	0	0	0	33.39	121.123
Stage 6	-16.4	317.846	122.301	UL-RL	0	0	0	0	0	34.95	122.301
Stage 6	-16.6	321.829	123.575	UL-RL	0	0	0	0	0	36.526	123.575
Stage 6	-16.8	325.812	124.935	UL-RL	0	0	0	0	0	38.116	124.935
Stage 6	-17	329.795	126.372	UL-RL	0	0	0	0	0	39.719	126.372
Stage 6	-17.2	333.779	127.875	UL-RL	0	0	0	0	0	41.332	127.875
Stage 6	-17.4	337.763	129.435	UL-RL	0	0	0	0	0	42.955	129.435
Stage 6	-17.6	341.748	131.049	UL-RL	0	0	0	0	0	44.585	131.049
Stage 6	-17.8	345.732	132.699	UL-RL	0	0	0	0	0	46.22	132.699
Stage 6	-18	349.717	134.378	UL-RL	0	0	0	0	0	47.859	134.378
Stage 6	-18.2	353.702	136.078	UL-RL	0	0	0	0	0	49.501	136.078
Stage 6	-18.4	357.688	137.791	UL-RL	0	0	0	0	0	51.144	137.791
Stage 6	-18.6	361.674	140.895	UL-RL	0	0	0	0	0	52.788	140.895
Stage 6	-18.8	365.659	156.426	UL-RL	0	0	0	0	0	54.431	156.426
Stage 6	-19	369.646	169.122	UL-RL	0	0	0	0	0	56.074	169.122

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 6	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.2	0	0	REMOVED	0	0	0	0	0	0	0

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 6	-2.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-5	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-5.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-5.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-5.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-5.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-6.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-6.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-6.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-6.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-7	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-7.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-7.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-7.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-7.8	1.9	0	ACTIVE	0	0	0	0	0	-1.061	0
Stage 6	-8	5.7	7.677	UL-RL	0	0	0	0	0	-1.699	7.677
Stage 6	-8.2	9.5	16.662	UL-RL	0	0	0	0	0	-1.684	16.662
Stage 6	-8.4	13.3	25.655	UL-RL	0	0	0	0	0	-1.667	25.655
Stage 6	-8.6	17.1	34.656	UL-RL	0	0	0	0	0	-1.648	34.656
Stage 6	-8.8	20.9	43.665	UL-RL	0	0	0	0	0	-1.625	43.665
Stage 6	-9	24.7	52.684	UL-RL	0	0	0	0	0	-1.601	52.684
Stage 6	-9.2	28.5	61.712	UL-RL	0	0	0	0	0	-1.574	61.712
Stage 6	-9.4	32.3	70.749	UL-RL	0	0	0	0	0	-1.546	70.749
Stage 6	-9.6	36.1	79.795	UL-RL	0	0	0	0	0	-1.515	79.795
Stage 6	-9.8	39.9	83.948	UL-RL	0	0	0	0	0	-1.482	83.948
Stage 6	-10	43.7	85.86	UL-RL	0	0	0	0	0	-1.447	85.86
Stage 6	-10.2	47.5	87.703	UL-RL	0	0	0	0	0	-1.411	87.703
Stage 6	-10.4	51.3	89.484	UL-RL	0	0	0	0	0	-1.373	89.484
Stage 6	-10.6	55.1	91.211	UL-RL	0	0	0	0	0	-1.333	91.211
Stage 6	-10.8	58.9	92.888	UL-RL	0	0	0	0	0	-1.292	92.888
Stage 6	-11	62.7	94.521	UL-RL	0	0	0	0	0	-1.25	94.521

Design Assumption: Nominal Risultati Terreno Muro: LEFT Lato RIGHT

Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Stage 6	-11.2	66.5	96.181	UL-RL	0	0	0	0	0	-1.206	96.181
Stage 6	-11.4	70.3	98.253	UL-RL	0	0	0	0	0	-1.162	98.253
Stage 6	-11.6	74.1	100.281	UL-RL	0	0	0	0	0	-1.117	100.281
Stage 6	-11.8	77.9	102.265	UL-RL	0	0	0	0	0	-1.071	102.265
Stage 6	-12	81.7	104.211	UL-RL	0	0	0	0	0	-1.024	104.211
Stage 6	-12.2	85.5	106.122	UL-RL	0	0	0	0	0	-0.977	106.122
Stage 6	-12.4	89.3	108.002	UL-RL	0	0	0	0	0	-0.93	108.002
Stage 6	-12.6	93.1	110.193	UL-RL	0	0	0	0	0	0.117	110.193
Stage 6	-12.8	96.9	112.705	UL-RL	0	0	0	0	0	2.164	112.705
Stage 6	-13	100.7	115.205	UL-RL	0	0	0	0	0	4.21	115.205
Stage 6	-13.2	104.7	186.88	UL-RL	0	0	0	0	0	0.719	186.88
Stage 6	-13.4	108.7	184.285	UL-RL	0	0	0	0	0	3.101	184.285
Stage 6	-13.6	112.7	181.641	UL-RL	0	0	0	0	0	5.475	181.641
Stage 6	-13.8	116.7	178.963	UL-RL	0	0	0	0	0	7.84	178.963
Stage 6	-14	120.7	176.264	UL-RL	0	0	0	0	0	10.194	176.264
Stage 6	-14.2	124.7	173.554	UL-RL	0	0	0	0	0	12.537	173.554
Stage 6	-14.4	128.7	170.844	UL-RL	0	0	0	0	0	14.869	170.844
Stage 6	-14.6	132.7	168.142	UL-RL	0	0	0	0	0	17.189	168.142
Stage 6	-14.8	136.7	165.805	UL-RL	0	0	0	0	0	19.496	165.805
Stage 6	-15	140.7	163.85	UL-RL	0	0	0	0	0	21.792	163.85
Stage 6	-15.2	144.7	161.98	UL-RL	0	0	0	0	0	24.075	161.98
Stage 6	-15.4	148.7	160.19	UL-RL	0	0	0	0	0	26.347	160.19
Stage 6	-15.6	152.7	158.472	UL-RL	0	0	0	0	0	28.607	158.472
Stage 6	-15.8	156.7	156.822	UL-RL	0	0	0	0	0	30.857	156.822
Stage 6	-16	160.7	155.237	UL-RL	0	0	0	0	0	33.097	155.237
Stage 6	-16.2	164.7	153.711	UL-RL	0	0	0	0	0	35.328	153.711
Stage 6	-16.4	168.7	152.241	UL-RL	0	0	0	0	0	37.55	152.241
Stage 6	-16.6	172.7	150.823	UL-RL	0	0	0	0	0	39.764	150.823
Stage 6	-16.8	176.7	149.452	UL-RL	0	0	0	0	0	41.972	149.452
Stage 6	-17	180.7	148.125	UL-RL	0	0	0	0	0	44.173	148.125
Stage 6	-17.2	184.7	146.837	UL-RL	0	0	0	0	0	46.369	146.837
Stage 6	-17.4	188.7	145.585	UL-RL	0	0	0	0	0	48.561	145.585
Stage 6	-17.6	192.7	144.363	UL-RL	0	0	0	0	0	50.749	144.363
Stage 6	-17.8	196.7	143.17	UL-RL	0	0	0	0	0	52.935	143.17
Stage 6	-18	200.7	142.001	UL-RL	0	0	0	0	0	55.118	142.001
Stage 6	-18.2	204.7	140.853	UL-RL	0	0	0	0	0	57.3	140.853
Stage 6	-18.4	208.7	139.723	UL-RL	0	0	0	0	0	59.48	139.723
Stage 6	-18.6	212.7	138.633	UL-RL	0	0	0	0	0	61.66	138.633
Stage 6	-18.8	216.7	137.636	UL-RL	0	0	0	0	0	63.84	137.636
Stage 6	-19	220.7	136.729	UL-RL	0	0	0	0	0	66.019	136.729

Riepilogo spinte

Design Assumption: Tipo Risultato: Muro: LEFT Lato LEFT

Nominal Riepilogo spinte

Stage	Vera effettiva (kN/m)	Pressione neutra (kN/m)	Vera Totale (kN/m)	Min ammissibile (kN/m)	Max ammissibile (kN/m)	Percentuale resistenza massima	di Vera / Attiva
Stage 1	1816.8	0	1816.8	1218.7	5805.1	31.3%	1.49
Stage 2	1816.8	0	1816.8	1218.7	5805.1	31.3%	1.49
Stage 3	1364.3	0	1364.3	1219	5755.8	23.7%	1.12
Stage 4	1241.9	0	1241.9	1219.1	5741.7	21.63%	1.02
Stage 5	1404.3	211.3	1615.6	976	19427.6	7.23%	1.44
Stage 6	1548.9	0	1548.9	1048.4	5585.3	27.73%	1.48

Design Assumption: Tipo Risultato: Muro: LEFT Lato RIGHT

Nominal Riepilogo spinte

Stage	Vera effettiva (kN/m)	Pressione neutra (kN/m)	Vera Totale (kN/m)	Min ammissibile (kN/m)	Max ammissibile (kN/m)	Percentuale resistenza massima	di Vera / Attiva
Stage 1	1816.8	0	1816.8	1100.8	5564.5	32.65%	1.65
Stage 2	1816.8	0	1816.8	1100.8	5564.5	32.65%	1.65
Stage 3	1277.4	0	1277.4	322.9	4475.3	28.54%	3.96
Stage 4	1019.5	0	1019.5	0.1	2920.5	34.91%	10195
Stage 5	1171.5	211.3	1382.8	277.7	4077.1	28.73%	4.22
Stage 6	1343.3	0	1343.3	0.1	2509	53.54%	13433

Descrizione Coefficienti Design Assumption

Coefficienti A

Nome	Carichi Permanenti Sfavorevoli (F_dead_load_unfavour)	Carichi Permanenti Favorevoli (F_dead_load_favour)	Carichi Variabili Sfavorevoli (F_live_load_unfavour)	Carichi Variabili Favorevoli (F_live_load_favour)	Carico Sismico (F_seism_load)	Pressioni Acqua Lato Monte (F_WaterDR)	Pressioni Acqua Lato Valle (F_WaterRes)	Carichi Permanenti Destabilizzanti (F_UPL_GDStab)	Carichi Permanenti Stabilizzanti (F_UPL_GStab)	Carichi Variabili Destabilizzanti (F_UPL_QDStab)	Carichi Permanenti Destabilizzanti (F_HYD_GDStab)	Carichi Permanenti Stabilizzanti (F_HYD_GStab)	Carichi Variabili Destabilizzanti (F_HYD_QDStab)
Simbolo	γG	γG	γQ	γQ	γQE	γG	γG	γGdst	γGstb	γQdst	γGdst	γGstb	γQdst
Nominal	1	1	1	1	1	1	1	1	1	1	1	1	1
NTC2018: SLE (Rara/Frequente/Quasi Permanente)	1	1	1	1	0	1	1	1	1	1	1	1	1
NTC2018: A1+M1+R1 (R3 per tiranti)	1.3	1	1.5	1	0	1.3	1	1	1	1	1.3	0.9	1

Nome	Carichi Permanenti Sfavorevoli (F_dead_load_unfavour)	Carichi Permanenti Favorevoli (F_dead_load_favour)	Carichi Variabili Sfavorevoli (F_live_load_unfavour)	Carichi Variabili Favorevoli (F_live_load_favour)	Carico Sismico (F_seism_load)	Pressioni Acqua Lato Monte (F_WaterDR)	Pressioni Acqua Lato Valle (F_WaterRes)	Carichi Permanenti Destabilizzanti (F_UPL_GDStab)	Carichi Permanenti Stabilizzanti (F_UPL_GStab)	Carichi Variabili Destabilizzanti (F_UPL_QDStab)	Carichi Permanenti Destabilizzanti (F_HYD_GDStab)	Carichi Permanenti Stabilizzanti (F_HYD_GStab)	Carichi Variabili Destabilizzanti (F_HYD_QDStab)
Simbolo	γG	γG	γQ	γQ	γQE	γG	γG	γGdst	γGstb	γQdst	γGdst	γGstb	γQdst
NTC2018: A2+M2+R1	1	1	1.3	1	0	1	1	1	1	1	1.3	0.9	1
NTC2018: SISMICA STR	1	1	1	1	1	1	1	1	1	1	1	1	1
NTC2018: SISMICA GEO	1	1	1	1	1	1	1	1	1	1	1.3	0.9	1

Coefficienti M

Nome	Parziale su tan(ø') (F_Fr)	Parziale su c' (F_eff_cohe)	Parziale su Su (F_Su)	Parziale su qu (F_qu)	Parziale su peso specifico (F_gamma)
Simbolo	γφ	γc	γcu	γqu	γγ
Nominal	1	1	1	1	1
NTC2018: SLE (Rara/Frequente/Quasi Permanente)	1	1	1	1	1
NTC2018: A1+M1+R1 (R3 per tiranti)	1	1	1	1	1
NTC2018: A2+M2+R1	1.25	1.25	1.4	1	1
NTC2018: SISMICA STR	1	1	1	1	1
NTC2018: SISMICA GEO	1	1	1	1	1

Coefficienti R

Nome	Parziale resistenza terreno (es. Kp) (F_Soil_Res_walls)	Parziale resistenza Tiranti permanenti (F_Anch_P)	Parziale resistenza Tiranti temporanei (F_Anch_T)	Parziale elementi strutturali (F_wall)
Simbolo	γRe	γap	γat	
Nominal	1	1	1	1
NTC2018: SLE (Rara/Frequente/Quasi Permanente)	1	1	1	1
NTC2018: A1+M1+R1 (R3 per tiranti)	1	1.2	1.1	1
NTC2018: A2+M2+R1	1	1.2	1.1	1
NTC2018: SISMICA STR	1	1.2	1.1	1
NTC2018: SISMICA GEO	1	1.2	1.1	1

Risultati NTC2018: SLE (Rara/Frequente/Quasi Permanente)

Tabella Spostamento NTC2018: SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 1

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 1	0	0
Stage 1	-0.2	0
Stage 1	-0.4	0
Stage 1	-0.6	0
Stage 1	-0.8	0
Stage 1	-1	0
Stage 1	-1.2	0
Stage 1	-1.4	0
Stage 1	-1.6	0
Stage 1	-1.8	0
Stage 1	-2	0
Stage 1	-2.2	0
Stage 1	-2.4	0
Stage 1	-2.6	0
Stage 1	-2.8	0
Stage 1	-3	0
Stage 1	-3.2	0
Stage 1	-3.4	0
Stage 1	-3.6	0
Stage 1	-3.8	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

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
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
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

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
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

Tabella Risultati Paratia NTC2018: SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 1

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.6	0	0
Stage 1	-0.8	0	0
Stage 1	-1	0	0
Stage 1	-1.2	0	0
Stage 1	-1.4	0	0
Stage 1	-1.6	0	0
Stage 1	-1.8	0	0
Stage 1	-2	0	0
Stage 1	-2.2	0	0
Stage 1	-2.4	0	0
Stage 1	-2.6	0	0
Stage 1	-2.8	0	0
Stage 1	-3	0	0
Stage 1	-3.2	0	0
Stage 1	-3.4	0	0
Stage 1	-3.6	0	0
Stage 1	-3.8	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

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
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
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

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
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

Tabella Spostamento NTC2018: SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 2

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 2	0	0
Stage 2	-0.2	0
Stage 2	-0.4	0
Stage 2	-0.6	0
Stage 2	-0.8	0
Stage 2	-1	0
Stage 2	-1.2	0
Stage 2	-1.4	0
Stage 2	-1.6	0
Stage 2	-1.8	0
Stage 2	-2	0
Stage 2	-2.2	0
Stage 2	-2.4	0
Stage 2	-2.6	0
Stage 2	-2.8	0
Stage 2	-3	0
Stage 2	-3.2	0
Stage 2	-3.4	0
Stage 2	-3.6	0

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 2	-3.8	0
Stage 2	-4	0
Stage 2	-4.2	0
Stage 2	-4.4	0
Stage 2	-4.6	0
Stage 2	-4.8	0
Stage 2	-5	0
Stage 2	-5.2	0
Stage 2	-5.4	0
Stage 2	-5.6	0
Stage 2	-5.8	0
Stage 2	-6	0
Stage 2	-6.2	0
Stage 2	-6.4	0
Stage 2	-6.6	0
Stage 2	-6.8	0
Stage 2	-7	0
Stage 2	-7.2	0
Stage 2	-7.4	0
Stage 2	-7.6	0
Stage 2	-7.8	0
Stage 2	-8	0
Stage 2	-8.2	0
Stage 2	-8.4	0
Stage 2	-8.6	0
Stage 2	-8.8	0
Stage 2	-9	0
Stage 2	-9.2	0
Stage 2	-9.4	0
Stage 2	-9.6	0
Stage 2	-9.8	0
Stage 2	-10	0
Stage 2	-10.2	0
Stage 2	-10.4	0
Stage 2	-10.6	0
Stage 2	-10.8	0
Stage 2	-11	0
Stage 2	-11.2	0
Stage 2	-11.4	0
Stage 2	-11.6	0
Stage 2	-11.8	0
Stage 2	-12	0
Stage 2	-12.2	0
Stage 2	-12.4	0

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 2	-12.6	0
Stage 2	-12.8	0
Stage 2	-13	0
Stage 2	-13.2	0
Stage 2	-13.4	0
Stage 2	-13.6	0
Stage 2	-13.8	0
Stage 2	-14	0
Stage 2	-14.2	0
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

Tabella Risultati Paratia NTC2018: SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 2

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	0
Stage 2	-0.2	0	0
Stage 2	-0.4	0	0
Stage 2	-0.6	0	0
Stage 2	-0.8	0	0
Stage 2	-1	0	0

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-1.2	0	0
Stage 2	-1.4	0	0
Stage 2	-1.6	0	0
Stage 2	-1.8	0	0
Stage 2	-2	0	0
Stage 2	-2.2	0	0
Stage 2	-2.4	0	0
Stage 2	-2.6	0	0
Stage 2	-2.8	0	0
Stage 2	-3	0	0
Stage 2	-3.2	0	0
Stage 2	-3.4	0	0
Stage 2	-3.6	0	0
Stage 2	-3.8	0	0
Stage 2	-4	0	0
Stage 2	-4.2	0	0
Stage 2	-4.4	0	0
Stage 2	-4.6	0	0
Stage 2	-4.8	0	0
Stage 2	-5	0	0
Stage 2	-5.2	0	0
Stage 2	-5.4	0	0
Stage 2	-5.6	0	0
Stage 2	-5.8	0	0
Stage 2	-6	0	0
Stage 2	-6.2	0	0
Stage 2	-6.4	0	0
Stage 2	-6.6	0	0
Stage 2	-6.8	0	0
Stage 2	-7	0	0
Stage 2	-7.2	0	0
Stage 2	-7.4	0	0
Stage 2	-7.6	0	0
Stage 2	-7.8	0	0
Stage 2	-8	0	0
Stage 2	-8.2	0	0
Stage 2	-8.4	0	0
Stage 2	-8.6	0	0
Stage 2	-8.8	0	0
Stage 2	-9	0	0
Stage 2	-9.2	0	0
Stage 2	-9.4	0	0
Stage 2	-9.6	0	0
Stage 2	-9.8	0	0

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-10	0	0
Stage 2	-10.2	0	0
Stage 2	-10.4	0	0
Stage 2	-10.6	0	0
Stage 2	-10.8	0	0
Stage 2	-11	0	0
Stage 2	-11.2	0	0
Stage 2	-11.4	0	0
Stage 2	-11.6	0	0
Stage 2	-11.8	0	0
Stage 2	-12	0	0
Stage 2	-12.2	0	0
Stage 2	-12.4	0	0
Stage 2	-12.6	0	0
Stage 2	-12.8	0	0
Stage 2	-13	0	0
Stage 2	-13.2	0	0
Stage 2	-13.4	0	0
Stage 2	-13.6	0	0
Stage 2	-13.8	0	0
Stage 2	-14	0	0
Stage 2	-14.2	0	0
Stage 2	-14.4	0	0
Stage 2	-14.6	0	0
Stage 2	-14.8	0	0
Stage 2	-15	0	0
Stage 2	-15.2	0	0
Stage 2	-15.4	0	0
Stage 2	-15.6	0	0
Stage 2	-15.8	0	0
Stage 2	-16	0	0
Stage 2	-16.2	0	0
Stage 2	-16.4	0	0
Stage 2	-16.6	0	0
Stage 2	-16.8	0	0
Stage 2	-17	0	0
Stage 2	-17.2	0	0
Stage 2	-17.4	0	0
Stage 2	-17.6	0	0
Stage 2	-17.8	0	0
Stage 2	-18	0	0
Stage 2	-18.2	0	0
Stage 2	-18.4	0	0
Stage 2	-18.6	0	0

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-18.8	0	0
Stage 2	-19	0	0

Tabella Spostamento NTC2018: SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 3

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 3	0	0.14
Stage 3	-0.2	0.25
Stage 3	-0.4	0.37
Stage 3	-0.6	0.48
Stage 3	-0.8	0.59
Stage 3	-1	0.7
Stage 3	-1.2	0.81
Stage 3	-1.4	0.92
Stage 3	-1.6	1.03
Stage 3	-1.8	1.13
Stage 3	-2	1.23
Stage 3	-2.2	1.33
Stage 3	-2.4	1.43
Stage 3	-2.6	1.53
Stage 3	-2.8	1.62
Stage 3	-3	1.71
Stage 3	-3.2	1.8
Stage 3	-3.4	1.88
Stage 3	-3.6	1.96
Stage 3	-3.8	2.04
Stage 3	-4	2.11
Stage 3	-4.2	2.18
Stage 3	-4.4	2.25
Stage 3	-4.6	2.31
Stage 3	-4.8	2.37
Stage 3	-5	2.43
Stage 3	-5.2	2.48
Stage 3	-5.4	2.53
Stage 3	-5.6	2.57
Stage 3	-5.8	2.61
Stage 3	-6	2.64
Stage 3	-6.2	2.68
Stage 3	-6.4	2.7
Stage 3	-6.6	2.73
Stage 3	-6.8	2.75
Stage 3	-7	2.76
Stage 3	-7.2	2.78
Stage 3	-7.4	2.78

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 3	-7.6	2.79
Stage 3	-7.8	2.79
Stage 3	-8	2.78
Stage 3	-8.2	2.77
Stage 3	-8.4	2.76
Stage 3	-8.6	2.74
Stage 3	-8.8	2.72
Stage 3	-9	2.7
Stage 3	-9.2	2.67
Stage 3	-9.4	2.63
Stage 3	-9.6	2.6
Stage 3	-9.8	2.56
Stage 3	-10	2.51
Stage 3	-10.2	2.47
Stage 3	-10.4	2.41
Stage 3	-10.6	2.36
Stage 3	-10.8	2.3
Stage 3	-11	2.24
Stage 3	-11.2	2.18
Stage 3	-11.4	2.11
Stage 3	-11.6	2.04
Stage 3	-11.8	1.97
Stage 3	-12	1.89
Stage 3	-12.2	1.82
Stage 3	-12.4	1.74
Stage 3	-12.6	1.66
Stage 3	-12.8	1.59
Stage 3	-13	1.51
Stage 3	-13.2	1.43
Stage 3	-13.4	1.35
Stage 3	-13.6	1.27
Stage 3	-13.8	1.2
Stage 3	-14	1.12
Stage 3	-14.2	1.05
Stage 3	-14.4	0.98
Stage 3	-14.6	0.91
Stage 3	-14.8	0.85
Stage 3	-15	0.79
Stage 3	-15.2	0.73
Stage 3	-15.4	0.67
Stage 3	-15.6	0.61
Stage 3	-15.8	0.56
Stage 3	-16	0.51
Stage 3	-16.2	0.46

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 3	-16.4	0.42
Stage 3	-16.6	0.37
Stage 3	-16.8	0.33
Stage 3	-17	0.29
Stage 3	-17.2	0.25
Stage 3	-17.4	0.21
Stage 3	-17.6	0.18
Stage 3	-17.8	0.14
Stage 3	-18	0.11
Stage 3	-18.2	0.07
Stage 3	-18.4	0.04
Stage 3	-18.6	0
Stage 3	-18.8	-0.03
Stage 3	-19	-0.06

Tabella Risultati Paratia NTC2018: SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 3

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	86.98
Stage 3	-0.2	17.4	86.98
Stage 3	-0.4	34.59	86
Stage 3	-0.6	51.43	84.17
Stage 3	-0.8	67.78	81.75
Stage 3	-1	83.55	78.87
Stage 3	-1.2	98.67	75.6
Stage 3	-1.4	113.07	71.99
Stage 3	-1.6	126.68	68.05
Stage 3	-1.8	139.44	63.78
Stage 3	-2	151.27	59.19
Stage 3	-2.2	162.4	55.62
Stage 3	-2.4	172.77	51.85
Stage 3	-2.6	182.34	47.87
Stage 3	-2.8	191.08	43.68
Stage 3	-3	198.93	39.27
Stage 3	-3.2	206.46	37.63
Stage 3	-3.4	213.64	35.92
Stage 3	-3.6	220.46	34.11
Stage 3	-3.8	226.9	32.2
Stage 3	-4	232.94	30.18
Stage 3	-4.2	238.54	28.02
Stage 3	-4.4	243.69	25.71
Stage 3	-4.6	248.34	23.25
Stage 3	-4.8	252.46	20.61

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-5	256.08	18.09
Stage 3	-5.2	259.24	15.79
Stage 3	-5.4	261.97	13.68
Stage 3	-5.6	264.32	11.76
Stage 3	-5.8	266.33	10.01
Stage 3	-6	268.01	8.41
Stage 3	-6.2	269.39	6.94
Stage 3	-6.4	270.51	5.6
Stage 3	-6.6	271.39	4.36
Stage 3	-6.8	272.03	3.22
Stage 3	-7	272.46	2.15
Stage 3	-7.2	272.69	1.14
Stage 3	-7.4	272.73	0.18
Stage 3	-7.6	272.57	-0.76
Stage 3	-7.8	272.24	-1.68
Stage 3	-8	271.72	-2.61
Stage 3	-8.2	270.98	-3.69
Stage 3	-8.4	269.95	-5.13
Stage 3	-8.6	268.57	-6.92
Stage 3	-8.8	266.75	-9.08
Stage 3	-9	264.43	-11.61
Stage 3	-9.2	261.53	-14.51
Stage 3	-9.4	257.97	-17.8
Stage 3	-9.6	253.67	-21.47
Stage 3	-9.8	248.57	-25.53
Stage 3	-10	242.57	-30
Stage 3	-10.2	235.59	-34.87
Stage 3	-10.4	227.56	-40.15
Stage 3	-10.6	218.39	-45.85
Stage 3	-10.8	208	-51.97
Stage 3	-11	196.31	-58.48
Stage 3	-11.2	183.23	-65.38
Stage 3	-11.4	168.69	-72.69
Stage 3	-11.6	152.61	-80.4
Stage 3	-11.8	134.91	-88.52
Stage 3	-12	115.49	-97.06
Stage 3	-12.2	94.29	-106.02
Stage 3	-12.4	71.21	-115.41
Stage 3	-12.6	46.17	-125.21
Stage 3	-12.8	19.09	-135.37
Stage 3	-13	-10.07	-145.79
Stage 3	-13.2	-41.36	-156.48
Stage 3	-13.4	-68.74	-136.9
Stage 3	-13.6	-92.41	-118.32

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-13.8	-112.55	-100.73
Stage 3	-14	-129.38	-84.11
Stage 3	-14.2	-143.06	-68.43
Stage 3	-14.4	-153.8	-53.68
Stage 3	-14.6	-161.76	-39.8
Stage 3	-14.8	-167.12	-26.79
Stage 3	-15	-170.03	-14.59
Stage 3	-15.2	-170.67	-3.18
Stage 3	-15.4	-169.18	7.48
Stage 3	-15.6	-165.69	17.42
Stage 3	-15.8	-160.35	26.69
Stage 3	-16	-153.29	35.31
Stage 3	-16.2	-144.63	43.32
Stage 3	-16.4	-134.48	50.75
Stage 3	-16.6	-122.95	57.63
Stage 3	-16.8	-110.3	63.26
Stage 3	-17	-96.91	66.95
Stage 3	-17.2	-83.15	68.79
Stage 3	-17.4	-69.39	68.83
Stage 3	-17.6	-55.96	67.14
Stage 3	-17.8	-43.21	63.77
Stage 3	-18	-31.46	58.75
Stage 3	-18.2	-21.03	52.11
Stage 3	-18.4	-12.32	43.57
Stage 3	-18.6	-5.69	33.16
Stage 3	-18.8	-1.49	20.99
Stage 3	-19	0	7.45

Tabella Spostamento NTC2018: SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 4

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 4	0	0.36
Stage 4	-0.2	0.83
Stage 4	-0.4	1.3
Stage 4	-0.6	1.77
Stage 4	-0.8	2.24
Stage 4	-1	2.7
Stage 4	-1.2	3.16
Stage 4	-1.4	3.62
Stage 4	-1.6	4.07
Stage 4	-1.8	4.52
Stage 4	-2	4.96
Stage 4	-2.2	5.4
Stage 4	-2.4	5.82

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 4	-2.6	6.24
Stage 4	-2.8	6.66
Stage 4	-3	7.06
Stage 4	-3.2	7.46
Stage 4	-3.4	7.84
Stage 4	-3.6	8.22
Stage 4	-3.8	8.58
Stage 4	-4	8.93
Stage 4	-4.2	9.27
Stage 4	-4.4	9.6
Stage 4	-4.6	9.92
Stage 4	-4.8	10.22
Stage 4	-5	10.51
Stage 4	-5.2	10.78
Stage 4	-5.4	11.05
Stage 4	-5.6	11.29
Stage 4	-5.8	11.52
Stage 4	-6	11.74
Stage 4	-6.2	11.94
Stage 4	-6.4	12.12
Stage 4	-6.6	12.29
Stage 4	-6.8	12.45
Stage 4	-7	12.58
Stage 4	-7.2	12.7
Stage 4	-7.4	12.8
Stage 4	-7.6	12.89
Stage 4	-7.8	12.96
Stage 4	-8	13.01
Stage 4	-8.2	13.05
Stage 4	-8.4	13.07
Stage 4	-8.6	13.07
Stage 4	-8.8	13.05
Stage 4	-9	13.02
Stage 4	-9.2	12.97
Stage 4	-9.4	12.91
Stage 4	-9.6	12.83
Stage 4	-9.8	12.73
Stage 4	-10	12.62
Stage 4	-10.2	12.49
Stage 4	-10.4	12.34
Stage 4	-10.6	12.18
Stage 4	-10.8	12.01
Stage 4	-11	11.82
Stage 4	-11.2	11.62

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 4	-11.4	11.41
Stage 4	-11.6	11.18
Stage 4	-11.8	10.94
Stage 4	-12	10.69
Stage 4	-12.2	10.43
Stage 4	-12.4	10.16
Stage 4	-12.6	9.88
Stage 4	-12.8	9.6
Stage 4	-13	9.31
Stage 4	-13.2	9.01
Stage 4	-13.4	8.71
Stage 4	-13.6	8.4
Stage 4	-13.8	8.1
Stage 4	-14	7.79
Stage 4	-14.2	7.48
Stage 4	-14.4	7.17
Stage 4	-14.6	6.87
Stage 4	-14.8	6.56
Stage 4	-15	6.26
Stage 4	-15.2	5.95
Stage 4	-15.4	5.65
Stage 4	-15.6	5.35
Stage 4	-15.8	5.05
Stage 4	-16	4.76
Stage 4	-16.2	4.46
Stage 4	-16.4	4.17
Stage 4	-16.6	3.88
Stage 4	-16.8	3.59
Stage 4	-17	3.3
Stage 4	-17.2	3.02
Stage 4	-17.4	2.73
Stage 4	-17.6	2.45
Stage 4	-17.8	2.17
Stage 4	-18	1.89
Stage 4	-18.2	1.61
Stage 4	-18.4	1.32
Stage 4	-18.6	1.04
Stage 4	-18.8	0.76
Stage 4	-19	0.48

Tabella Risultati Paratia NTC2018: SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 4

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	222.32
Stage 4	-0.2	44.46	222.32
Stage 4	-0.4	88.77	221.52
Stage 4	-0.6	132.76	219.98
Stage 4	-0.8	176.36	217.96
Stage 4	-1	219.47	215.59
Stage 4	-1.2	262.06	212.95
Stage 4	-1.4	304.08	210.07
Stage 4	-1.6	345.47	206.97
Stage 4	-1.8	386.2	203.65
Stage 4	-2	426.22	200.12
Stage 4	-2.2	465.69	197.34
Stage 4	-2.4	504.55	194.27
Stage 4	-2.6	542.73	190.92
Stage 4	-2.8	580.19	187.3
Stage 4	-3	616.87	183.4
Stage 4	-3.2	652.72	179.23
Stage 4	-3.4	687.67	174.77
Stage 4	-3.6	721.68	170.04
Stage 4	-3.8	754.69	165.05
Stage 4	-4	786.65	159.8
Stage 4	-4.2	817.51	154.32
Stage 4	-4.4	847.23	148.58
Stage 4	-4.6	875.74	142.58
Stage 4	-4.8	903.01	136.33
Stage 4	-5	928.97	129.82
Stage 4	-5.2	953.59	123.06
Stage 4	-5.4	976.8	116.05
Stage 4	-5.6	998.55	108.79
Stage 4	-5.8	1018.81	101.28
Stage 4	-6	1037.51	93.51
Stage 4	-6.2	1054.61	85.5
Stage 4	-6.4	1070.06	77.24
Stage 4	-6.6	1083.81	68.74
Stage 4	-6.8	1095.81	59.98
Stage 4	-7	1106	50.98
Stage 4	-7.2	1114.35	41.74
Stage 4	-7.4	1120.7	31.72
Stage 4	-7.6	1124.88	20.94
Stage 4	-7.8	1126.76	9.39
Stage 4	-8	1127.57	4.02
Stage 4	-8.2	1127.15	-2.08
Stage 4	-8.4	1125.37	-8.91
Stage 4	-8.6	1122.07	-16.49

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-8.8	1117.11	-24.82
Stage 4	-9	1110.32	-33.92
Stage 4	-9.2	1101.57	-43.78
Stage 4	-9.4	1090.68	-54.42
Stage 4	-9.6	1077.51	-65.85
Stage 4	-9.8	1061.9	-78.08
Stage 4	-10	1043.67	-91.11
Stage 4	-10.2	1022.68	-104.95
Stage 4	-10.4	998.77	-119.6
Stage 4	-10.6	971.75	-135.09
Stage 4	-10.8	941.47	-151.41
Stage 4	-11	907.76	-168.53
Stage 4	-11.2	870.47	-186.47
Stage 4	-11.4	829.43	-205.19
Stage 4	-11.6	784.54	-224.41
Stage 4	-11.8	735.71	-244.15
Stage 4	-12	682.83	-264.42
Stage 4	-12.2	625.78	-285.23
Stage 4	-12.4	564.47	-306.59
Stage 4	-12.6	498.76	-328.51
Stage 4	-12.8	428.58	-350.91
Stage 4	-13	353.84	-373.71
Stage 4	-13.2	274.45	-396.93
Stage 4	-13.4	203.68	-353.89
Stage 4	-13.6	141.06	-313.07
Stage 4	-13.8	86.17	-274.47
Stage 4	-14	38.55	-238.1
Stage 4	-14.2	-2.24	-203.94
Stage 4	-14.4	-36.64	-171.99
Stage 4	-14.6	-65.08	-142.22
Stage 4	-14.8	-88.01	-114.62
Stage 4	-15	-105.84	-89.15
Stage 4	-15.2	-119	-65.79
Stage 4	-15.4	-127.9	-44.51
Stage 4	-15.6	-132.95	-25.28
Stage 4	-15.8	-134.56	-8.05
Stage 4	-16	-133.13	7.18
Stage 4	-16.2	-129.03	20.47
Stage 4	-16.4	-122.66	31.84
Stage 4	-16.6	-114.4	41.32
Stage 4	-16.8	-104.61	48.94
Stage 4	-17	-93.67	54.71
Stage 4	-17.2	-81.93	58.68
Stage 4	-17.4	-69.77	60.84

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-17.6	-57.52	61.23
Stage 4	-17.8	-45.55	59.85
Stage 4	-18	-34.2	56.73
Stage 4	-18.2	-23.83	51.86
Stage 4	-18.4	-14.78	45.25
Stage 4	-18.6	-7.4	36.92
Stage 4	-18.8	-2.1	26.47
Stage 4	-19	0	10.52

Tabella Spostamento NTC2018: SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 5

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 5	0	0.38
Stage 5	-0.2	0.82
Stage 5	-0.4	1.27
Stage 5	-0.6	1.71
Stage 5	-0.8	2.15
Stage 5	-1	2.59
Stage 5	-1.2	3.02
Stage 5	-1.4	3.46
Stage 5	-1.6	3.88
Stage 5	-1.8	4.3
Stage 5	-2	4.72
Stage 5	-2.2	5.13
Stage 5	-2.4	5.53
Stage 5	-2.6	5.92
Stage 5	-2.8	6.3
Stage 5	-3	6.68
Stage 5	-3.2	7.05
Stage 5	-3.4	7.4
Stage 5	-3.6	7.75
Stage 5	-3.8	8.08
Stage 5	-4	8.4
Stage 5	-4.2	8.71
Stage 5	-4.4	9.01
Stage 5	-4.6	9.3
Stage 5	-4.8	9.57
Stage 5	-5	9.83
Stage 5	-5.2	10.07
Stage 5	-5.4	10.3
Stage 5	-5.6	10.52
Stage 5	-5.8	10.72
Stage 5	-6	10.9
Stage 5	-6.2	11.07

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 5	-6.4	11.22
Stage 5	-6.6	11.36
Stage 5	-6.8	11.48
Stage 5	-7	11.59
Stage 5	-7.2	11.68
Stage 5	-7.4	11.75
Stage 5	-7.6	11.81
Stage 5	-7.8	11.85
Stage 5	-8	11.88
Stage 5	-8.2	11.89
Stage 5	-8.4	11.88
Stage 5	-8.6	11.86
Stage 5	-8.8	11.83
Stage 5	-9	11.78
Stage 5	-9.2	11.71
Stage 5	-9.4	11.63
Stage 5	-9.6	11.54
Stage 5	-9.8	11.43
Stage 5	-10	11.31
Stage 5	-10.2	11.18
Stage 5	-10.4	11.04
Stage 5	-10.6	10.88
Stage 5	-10.8	10.71
Stage 5	-11	10.53
Stage 5	-11.2	10.34
Stage 5	-11.4	10.14
Stage 5	-11.6	9.93
Stage 5	-11.8	9.71
Stage 5	-12	9.49
Stage 5	-12.2	9.25
Stage 5	-12.4	9.01
Stage 5	-12.6	8.76
Stage 5	-12.8	8.5
Stage 5	-13	8.24
Stage 5	-13.2	7.98
Stage 5	-13.4	7.71
Stage 5	-13.6	7.43
Stage 5	-13.8	7.16
Stage 5	-14	6.88
Stage 5	-14.2	6.59
Stage 5	-14.4	6.31
Stage 5	-14.6	6.02
Stage 5	-14.8	5.74
Stage 5	-15	5.45

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 5	-15.2	5.17
Stage 5	-15.4	4.88
Stage 5	-15.6	4.59
Stage 5	-15.8	4.3
Stage 5	-16	4.02
Stage 5	-16.2	3.73
Stage 5	-16.4	3.44
Stage 5	-16.6	3.16
Stage 5	-16.8	2.87
Stage 5	-17	2.58
Stage 5	-17.2	2.3
Stage 5	-17.4	2.02
Stage 5	-17.6	1.73
Stage 5	-17.8	1.45
Stage 5	-18	1.16
Stage 5	-18.2	0.88
Stage 5	-18.4	0.59
Stage 5	-18.6	0.31
Stage 5	-18.8	0.03
Stage 5	-19	-0.26

Tabella Risultati Paratia NTC2018: SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 5

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	232.77
Stage 5	-0.2	46.55	232.77
Stage 5	-0.4	92.92	231.86
Stage 5	-0.6	138.95	230.15
Stage 5	-0.8	184.53	227.89
Stage 5	-1	229.58	225.23
Stage 5	-1.2	274.03	222.23
Stage 5	-1.4	317.81	218.93
Stage 5	-1.6	360.88	215.35
Stage 5	-1.8	403.18	211.49
Stage 5	-2	444.65	207.35
Stage 5	-2.2	485.37	203.59
Stage 5	-2.4	525.27	199.49
Stage 5	-2.6	564.28	195.06
Stage 5	-2.8	602.34	190.31
Stage 5	-3	639.39	185.23
Stage 5	-3.2	675.36	179.84
Stage 5	-3.4	710.18	174.1
Stage 5	-3.6	743.78	168.04

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-3.8	776.12	161.67
Stage 5	-4	807.12	154.99
Stage 5	-4.2	836.72	148.01
Stage 5	-4.4	864.86	140.71
Stage 5	-4.6	891.48	133.11
Stage 5	-4.8	916.52	125.19
Stage 5	-5	939.91	116.95
Stage 5	-5.2	961.59	108.41
Stage 5	-5.4	981.5	99.56
Stage 5	-5.6	999.58	90.39
Stage 5	-5.8	1015.76	80.91
Stage 5	-6	1029.99	71.13
Stage 5	-6.2	1042.19	61.03
Stage 5	-6.4	1052.32	50.63
Stage 5	-6.6	1060.3	39.91
Stage 5	-6.8	1066.08	28.89
Stage 5	-7	1069.59	17.55
Stage 5	-7.2	1070.77	5.91
Stage 5	-7.4	1069.49	-6.42
Stage 5	-7.6	1065.6	-19.46
Stage 5	-7.8	1058.96	-33.18
Stage 5	-8	1049.52	-47.18
Stage 5	-8.2	1037.51	-60.09
Stage 5	-8.4	1023.13	-71.89
Stage 5	-8.6	1006.61	-82.6
Stage 5	-8.8	988.17	-92.21
Stage 5	-9	968.02	-100.71
Stage 5	-9.2	946.4	-108.11
Stage 5	-9.4	923.52	-114.4
Stage 5	-9.6	899.6	-119.59
Stage 5	-9.8	874.87	-123.66
Stage 5	-10	849.35	-127.6
Stage 5	-10.2	822.98	-131.85
Stage 5	-10.4	795.7	-136.43
Stage 5	-10.6	767.42	-141.35
Stage 5	-10.8	738.1	-146.62
Stage 5	-11	707.66	-152.21
Stage 5	-11.2	676.04	-158.11
Stage 5	-11.4	643.19	-164.25
Stage 5	-11.6	609.07	-170.56
Stage 5	-11.8	573.66	-177.07
Stage 5	-12	536.88	-183.88
Stage 5	-12.2	498.69	-190.98
Stage 5	-12.4	459.01	-198.38

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-12.6	417.79	-206.09
Stage 5	-12.8	374.98	-214.06
Stage 5	-13	330.53	-222.25
Stage 5	-13.2	284.4	-230.66
Stage 5	-13.4	242.37	-210.15
Stage 5	-13.6	204.23	-190.68
Stage 5	-13.8	169.79	-172.2
Stage 5	-14	138.87	-154.62
Stage 5	-14.2	111.27	-137.97
Stage 5	-14.4	86.82	-122.25
Stage 5	-14.6	65.33	-107.47
Stage 5	-14.8	46.6	-93.64
Stage 5	-15	30.46	-80.7
Stage 5	-15.2	16.74	-68.59
Stage 5	-15.4	5.28	-57.29
Stage 5	-15.6	-4.08	-46.81
Stage 5	-15.8	-11.51	-37.15
Stage 5	-16	-17.17	-28.29
Stage 5	-16.2	-21.22	-20.25
Stage 5	-16.4	-23.82	-13.01
Stage 5	-16.6	-25.14	-6.59
Stage 5	-16.8	-25.33	-0.97
Stage 5	-17	-24.56	3.84
Stage 5	-17.2	-22.99	7.84
Stage 5	-17.4	-20.79	11.04
Stage 5	-17.6	-18.1	13.44
Stage 5	-17.8	-15.09	15.04
Stage 5	-18	-11.92	15.83
Stage 5	-18.2	-8.76	15.83
Stage 5	-18.4	-5.75	15.02
Stage 5	-18.6	-3.07	13.43
Stage 5	-18.8	-0.91	10.76
Stage 5	-19	0	4.57

Tabella Spostamento NTC2018: SLE (Rara/Frequente/Quasi Permanente) - LEFT Stage: Stage 6

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 6	0	0.33
Stage 6	-0.2	0.74
Stage 6	-0.4	1.15
Stage 6	-0.6	1.56
Stage 6	-0.8	1.97
Stage 6	-1	2.37
Stage 6	-1.2	2.77

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 6	-1.4	3.17
Stage 6	-1.6	3.56
Stage 6	-1.8	3.95
Stage 6	-2	4.34
Stage 6	-2.2	4.71
Stage 6	-2.4	5.09
Stage 6	-2.6	5.45
Stage 6	-2.8	5.81
Stage 6	-3	6.15
Stage 6	-3.2	6.49
Stage 6	-3.4	6.83
Stage 6	-3.6	7.15
Stage 6	-3.8	7.46
Stage 6	-4	7.76
Stage 6	-4.2	8.05
Stage 6	-4.4	8.33
Stage 6	-4.6	8.6
Stage 6	-4.8	8.85
Stage 6	-5	9.09
Stage 6	-5.2	9.33
Stage 6	-5.4	9.54
Stage 6	-5.6	9.75
Stage 6	-5.8	9.94
Stage 6	-6	10.11
Stage 6	-6.2	10.28
Stage 6	-6.4	10.42
Stage 6	-6.6	10.56
Stage 6	-6.8	10.68
Stage 6	-7	10.78
Stage 6	-7.2	10.87
Stage 6	-7.4	10.95
Stage 6	-7.6	11.01
Stage 6	-7.8	11.06
Stage 6	-8	11.09
Stage 6	-8.2	11.1
Stage 6	-8.4	11.11
Stage 6	-8.6	11.1
Stage 6	-8.8	11.07
Stage 6	-9	11.03
Stage 6	-9.2	10.98
Stage 6	-9.4	10.91
Stage 6	-9.6	10.83
Stage 6	-9.8	10.74
Stage 6	-10	10.64

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 6	-10.2	10.52
Stage 6	-10.4	10.4
Stage 6	-10.6	10.26
Stage 6	-10.8	10.11
Stage 6	-11	9.95
Stage 6	-11.2	9.78
Stage 6	-11.4	9.6
Stage 6	-11.6	9.41
Stage 6	-11.8	9.22
Stage 6	-12	9.01
Stage 6	-12.2	8.8
Stage 6	-12.4	8.58
Stage 6	-12.6	8.35
Stage 6	-12.8	8.12
Stage 6	-13	7.88
Stage 6	-13.2	7.63
Stage 6	-13.4	7.38
Stage 6	-13.6	7.13
Stage 6	-13.8	6.87
Stage 6	-14	6.61
Stage 6	-14.2	6.35
Stage 6	-14.4	6.08
Stage 6	-14.6	5.82
Stage 6	-14.8	5.55
Stage 6	-15	5.28
Stage 6	-15.2	5
Stage 6	-15.4	4.73
Stage 6	-15.6	4.46
Stage 6	-15.8	4.19
Stage 6	-16	3.91
Stage 6	-16.2	3.64
Stage 6	-16.4	3.36
Stage 6	-16.6	3.09
Stage 6	-16.8	2.81
Stage 6	-17	2.54
Stage 6	-17.2	2.27
Stage 6	-17.4	1.99
Stage 6	-17.6	1.72
Stage 6	-17.8	1.44
Stage 6	-18	1.17
Stage 6	-18.2	0.9
Stage 6	-18.4	0.62
Stage 6	-18.6	0.35
Stage 6	-18.8	0.07

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Tipo Risultato: Spostamento Muro: LEFT

Stage	Z (m)	Spostamento (mm)
Stage 6	-19	-0.2

Tabella Risultati Paratia NTC2018: SLE (Rara/Frequente/Quasi Permanente) - Left Wall - Stage: Stage 6

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	205.56
Stage 6	-0.2	41.11	205.56
Stage 6	-0.4	82.04	204.64
Stage 6	-0.6	122.64	203.02
Stage 6	-0.8	162.84	201
Stage 6	-1	202.59	198.72
Stage 6	-1.2	241.85	196.33
Stage 6	-1.4	280.62	193.84
Stage 6	-1.6	318.86	191.2
Stage 6	-1.8	356.54	188.4
Stage 6	-2	393.63	185.41
Stage 6	-2.2	430.15	182.62
Stage 6	-2.4	466.05	179.53
Stage 6	-2.6	501.28	176.13
Stage 6	-2.8	535.77	172.43
Stage 6	-3	569.45	168.42
Stage 6	-3.2	602.27	164.11
Stage 6	-3.4	634.17	159.51
Stage 6	-3.6	665.09	154.59
Stage 6	-3.8	694.96	149.36
Stage 6	-4	723.73	143.81
Stage 6	-4.2	751.31	137.93
Stage 6	-4.4	777.66	131.74
Stage 6	-4.6	802.71	125.23
Stage 6	-4.8	826.39	118.4
Stage 6	-5	848.64	111.27
Stage 6	-5.2	869.41	103.82
Stage 6	-5.4	888.62	96.06
Stage 6	-5.6	906.22	87.99
Stage 6	-5.8	922.14	79.61
Stage 6	-6	936.32	70.93
Stage 6	-6.2	948.71	61.93
Stage 6	-6.4	959.24	52.63
Stage 6	-6.6	967.84	43.02
Stage 6	-6.8	974.46	33.11
Stage 6	-7	979.04	22.89
Stage 6	-7.2	981.52	12.38
Stage 6	-7.4	981.75	1.17

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-7.6	979.61	-10.72
Stage 6	-7.8	974.95	-23.3
Stage 6	-8	967.63	-36.56
Stage 6	-8.2	957.84	-48.97
Stage 6	-8.4	945.79	-60.27
Stage 6	-8.6	931.7	-70.44
Stage 6	-8.8	915.8	-79.49
Stage 6	-9	898.32	-87.42
Stage 6	-9.2	879.47	-94.22
Stage 6	-9.4	859.5	-99.88
Stage 6	-9.6	838.62	-104.4
Stage 6	-9.8	817.06	-107.78
Stage 6	-10	794.86	-110.99
Stage 6	-10.2	771.96	-114.49
Stage 6	-10.4	748.31	-118.27
Stage 6	-10.6	723.84	-122.36
Stage 6	-10.8	698.49	-126.76
Stage 6	-11	672.21	-131.4
Stage 6	-11.2	644.95	-136.28
Stage 6	-11.4	616.67	-141.4
Stage 6	-11.6	587.34	-146.68
Stage 6	-11.8	556.91	-152.15
Stage 6	-12	525.33	-157.9
Stage 6	-12.2	492.54	-163.93
Stage 6	-12.4	458.49	-170.25
Stage 6	-12.6	423.12	-176.86
Stage 6	-12.8	386.38	-183.72
Stage 6	-13	348.22	-190.78
Stage 6	-13.2	308.61	-198.04
Stage 6	-13.4	272.09	-182.64
Stage 6	-13.6	238.51	-167.88
Stage 6	-13.8	207.75	-153.79
Stage 6	-14	179.68	-140.38
Stage 6	-14.2	154.14	-127.68
Stage 6	-14.4	131	-115.7
Stage 6	-14.6	110.11	-104.44
Stage 6	-14.8	91.32	-93.94
Stage 6	-15	74.52	-84.02
Stage 6	-15.2	59.61	-74.56
Stage 6	-15.4	46.5	-65.56
Stage 6	-15.6	35.09	-57.03
Stage 6	-15.8	25.29	-48.99
Stage 6	-16	17	-41.44
Stage 6	-16.2	10.12	-34.4

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-16.4	4.55	-27.89
Stage 6	-16.6	0.17	-21.9
Stage 6	-16.8	-3.12	-16.45
Stage 6	-17	-5.43	-11.55
Stage 6	-17.2	-6.87	-7.2
Stage 6	-17.4	-7.55	-3.4
Stage 6	-17.6	-7.59	-0.17
Stage 6	-17.8	-7.09	2.49
Stage 6	-18	-6.17	4.58
Stage 6	-18.2	-4.95	6.11
Stage 6	-18.4	-3.54	7.06
Stage 6	-18.6	-2.05	7.45
Stage 6	-18.8	-0.65	7
Stage 6	-19	0	3.24

Risultati Elementi strutturali - NTC2018: SLE (Rara/Frequente/Quasi Permanente)

Design Assumption: NTC2018: SLE (Rara/Frequente/Quasi Permanente) Sollecitazione Spring

Stage	Forza (kN/m)
Stage 2	-4.6129075E-16
Stage 3	86.975
Stage 4	222.3155
Stage 5	232.7658
Stage 6	205.5567

Risultati NTC2018: A1+M1+R1 (R3 per tiranti)

Tabella Risultati Paratia NTC2018: A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 1

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.6	0	0
Stage 1	-0.8	0	0
Stage 1	-1	0	0
Stage 1	-1.2	0	0
Stage 1	-1.4	0	0
Stage 1	-1.6	0	0
Stage 1	-1.8	0	0
Stage 1	-2	0	0
Stage 1	-2.2	0	0
Stage 1	-2.4	0	0
Stage 1	-2.6	0	0
Stage 1	-2.8	0	0
Stage 1	-3	0	0

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	-3.2	0	0
Stage 1	-3.4	0	0
Stage 1	-3.6	0	0
Stage 1	-3.8	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

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	-12	0	0
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

Tabella Risultati Paratia NTC2018: A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 2

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	-0.37
Stage 2	-0.2	-0.07	-0.37
Stage 2	-0.4	-0.15	-0.37
Stage 2	-0.6	-0.22	-0.37

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-0.8	-0.3	-0.37
Stage 2	-1	-0.37	-0.37
Stage 2	-1.2	-0.45	-0.37
Stage 2	-1.4	-0.52	-0.37
Stage 2	-1.6	-0.59	-0.37
Stage 2	-1.8	-0.67	-0.36
Stage 2	-2	-0.74	-0.36
Stage 2	-2.2	-0.81	-0.35
Stage 2	-2.4	-0.88	-0.34
Stage 2	-2.6	-0.94	-0.33
Stage 2	-2.8	-1	-0.31
Stage 2	-3	-1.06	-0.29
Stage 2	-3.2	-1.12	-0.27
Stage 2	-3.4	-1.17	-0.25
Stage 2	-3.6	-1.21	-0.23
Stage 2	-3.8	-1.25	-0.2
Stage 2	-4	-1.29	-0.17
Stage 2	-4.2	-1.32	-0.14
Stage 2	-4.4	-1.34	-0.11
Stage 2	-4.6	-1.35	-0.07
Stage 2	-4.8	-1.36	-0.03
Stage 2	-5	-1.35	0.01
Stage 2	-5.2	-1.34	0.06
Stage 2	-5.4	-1.32	0.11
Stage 2	-5.6	-1.29	0.16
Stage 2	-5.8	-1.25	0.21
Stage 2	-6	-1.19	0.27
Stage 2	-6.2	-1.13	0.34
Stage 2	-6.4	-1.04	0.4
Stage 2	-6.6	-0.95	0.47
Stage 2	-6.8	-0.84	0.55
Stage 2	-7	-0.71	0.63
Stage 2	-7.2	-0.57	0.71
Stage 2	-7.4	-0.41	0.8
Stage 2	-7.6	-0.23	0.89
Stage 2	-7.8	-0.04	0.99
Stage 2	-8	0.18	1.09
Stage 2	-8.2	0.42	1.19
Stage 2	-8.4	0.68	1.3
Stage 2	-8.6	0.96	1.41
Stage 2	-8.8	1.27	1.53
Stage 2	-9	1.6	1.65
Stage 2	-9.2	1.95	1.78
Stage 2	-9.4	2.33	1.91

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-9.6	2.74	2.04
Stage 2	-9.8	3.18	2.18
Stage 2	-10	3.64	2.32
Stage 2	-10.2	4.13	2.46
Stage 2	-10.4	4.66	2.61
Stage 2	-10.6	5.21	2.76
Stage 2	-10.8	5.79	2.91
Stage 2	-11	6.4	3.06
Stage 2	-11.2	7.04	3.21
Stage 2	-11.4	7.71	3.36
Stage 2	-11.6	8.37	3.26
Stage 2	-11.8	8.92	2.78
Stage 2	-12	9.31	1.93
Stage 2	-12.2	9.45	0.7
Stage 2	-12.4	9.27	-0.9
Stage 2	-12.6	8.69	-2.88
Stage 2	-12.8	7.67	-5.13
Stage 2	-13	6.16	-7.55
Stage 2	-13.2	4.13	-10.14
Stage 2	-13.4	2.38	-8.76
Stage 2	-13.6	0.88	-7.48
Stage 2	-13.8	-0.38	-6.3
Stage 2	-14	-1.42	-5.21
Stage 2	-14.2	-2.26	-4.21
Stage 2	-14.4	-2.92	-3.3
Stage 2	-14.6	-3.42	-2.49
Stage 2	-14.8	-3.77	-1.76
Stage 2	-15	-4	-1.12
Stage 2	-15.2	-4.11	-0.55
Stage 2	-15.4	-4.12	-0.06
Stage 2	-15.6	-4.05	0.35
Stage 2	-15.8	-3.91	0.71
Stage 2	-16	-3.71	1
Stage 2	-16.2	-3.46	1.23
Stage 2	-16.4	-3.18	1.41
Stage 2	-16.6	-2.87	1.54
Stage 2	-16.8	-2.55	1.63
Stage 2	-17	-2.21	1.67
Stage 2	-17.2	-1.88	1.67
Stage 2	-17.4	-1.55	1.63
Stage 2	-17.6	-1.24	1.56
Stage 2	-17.8	-0.95	1.46
Stage 2	-18	-0.68	1.32
Stage 2	-18.2	-0.45	1.15

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-18.4	-0.27	0.95
Stage 2	-18.6	-0.12	0.71
Stage 2	-18.8	-0.03	0.45
Stage 2	-19	0	0.16

Tabella Risultati Paratia NTC2018: A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 3

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	116.27
Stage 3	-0.2	23.25	116.27
Stage 3	-0.4	46.22	114.85
Stage 3	-0.6	68.67	112.24
Stage 3	-0.8	90.43	108.8
Stage 3	-1	111.38	104.75
Stage 3	-1.2	131.42	100.19
Stage 3	-1.4	150.46	95.18
Stage 3	-1.6	168.41	89.75
Stage 3	-1.8	185.19	83.9
Stage 3	-2	200.72	77.65
Stage 3	-2.2	215.27	72.77
Stage 3	-2.4	228.8	67.63
Stage 3	-2.6	241.25	62.24
Stage 3	-2.8	252.56	56.59
Stage 3	-3	262.7	50.67
Stage 3	-3.2	272.38	48.42
Stage 3	-3.4	281.6	46.08
Stage 3	-3.6	290.32	43.64
Stage 3	-3.8	298.54	41.08
Stage 3	-4	306.22	38.38
Stage 3	-4.2	313.32	35.52
Stage 3	-4.4	319.81	32.48
Stage 3	-4.6	325.66	29.24
Stage 3	-4.8	330.84	25.88
Stage 3	-5	335.4	22.82
Stage 3	-5.2	339.41	20.04
Stage 3	-5.4	342.91	17.52
Stage 3	-5.6	345.96	15.24
Stage 3	-5.8	348.6	13.19
Stage 3	-6	350.87	11.35
Stage 3	-6.2	352.81	9.68
Stage 3	-6.4	354.44	8.19
Stage 3	-6.6	355.81	6.83
Stage 3	-6.8	356.93	5.6
Stage 3	-7	357.83	4.47

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-7.2	358.51	3.43
Stage 3	-7.4	359	2.45
Stage 3	-7.6	359.3	1.51
Stage 3	-7.8	359.42	0.59
Stage 3	-8	359.29	-0.63
Stage 3	-8.2	358.84	-2.29
Stage 3	-8.4	357.95	-4.41
Stage 3	-8.6	356.55	-7
Stage 3	-8.8	354.54	-10.07
Stage 3	-9	351.81	-13.62
Stage 3	-9.2	348.28	-17.66
Stage 3	-9.4	343.84	-22.21
Stage 3	-9.6	338.39	-27.26
Stage 3	-9.8	331.82	-32.82
Stage 3	-10	324.04	-38.91
Stage 3	-10.2	314.93	-45.54
Stage 3	-10.4	304.4	-52.7
Stage 3	-10.6	292.31	-60.4
Stage 3	-10.8	278.58	-68.66
Stage 3	-11	263.1	-77.42
Stage 3	-11.2	245.76	-86.7
Stage 3	-11.4	226.46	-96.5
Stage 3	-11.6	205.09	-106.82
Stage 3	-11.8	181.56	-117.68
Stage 3	-12	155.74	-129.08
Stage 3	-12.2	127.54	-141.02
Stage 3	-12.4	96.84	-153.51
Stage 3	-12.6	63.53	-166.56
Stage 3	-12.8	27.51	-180.06
Stage 3	-13	-11.27	-193.9
Stage 3	-13.2	-52.88	-208.1
Stage 3	-13.4	-89.29	-182
Stage 3	-13.6	-120.74	-157.25
Stage 3	-13.8	-147.5	-133.83
Stage 3	-14	-169.84	-111.71
Stage 3	-14.2	-188.02	-90.86
Stage 3	-14.4	-202.26	-71.24
Stage 3	-14.6	-212.83	-52.81
Stage 3	-14.8	-219.93	-35.54
Stage 3	-15	-223.81	-19.37
Stage 3	-15.2	-224.66	-4.26
Stage 3	-15.4	-222.69	9.84
Stage 3	-15.6	-218.1	22.97
Stage 3	-15.8	-211.06	35.19

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-16	-201.75	46.54
Stage 3	-16.2	-190.34	57.06
Stage 3	-16.4	-176.98	66.8
Stage 3	-16.6	-161.82	75.8
Stage 3	-16.8	-145.15	83.35
Stage 3	-17	-127.49	88.3
Stage 3	-17.2	-109.34	90.75
Stage 3	-17.4	-91.18	90.8
Stage 3	-17.6	-73.48	88.51
Stage 3	-17.8	-56.68	83.96
Stage 3	-18	-41.24	77.2
Stage 3	-18.2	-27.59	68.26
Stage 3	-18.4	-16.17	57.13
Stage 3	-18.6	-7.47	43.49
Stage 3	-18.8	-1.96	27.55
Stage 3	-19	0	9.79

Tabella Risultati Paratia NTC2018: A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 4

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	296.12
Stage 4	-0.2	59.22	296.12
Stage 4	-0.4	118.21	294.94
Stage 4	-0.6	176.75	292.71
Stage 4	-0.8	234.71	289.8
Stage 4	-1	292	286.43
Stage 4	-1.2	348.54	282.7
Stage 4	-1.4	404.27	278.66
Stage 4	-1.6	459.14	274.34
Stage 4	-1.8	513.09	269.75
Stage 4	-2	566.07	264.89
Stage 4	-2.2	618.31	261.21
Stage 4	-2.4	669.74	257.15
Stage 4	-2.6	720.28	252.71
Stage 4	-2.8	769.86	247.91
Stage 4	-3	818.41	242.74
Stage 4	-3.2	865.85	237.21
Stage 4	-3.4	912.11	231.29
Stage 4	-3.6	957.12	225.01
Stage 4	-3.8	1000.79	218.4
Stage 4	-4	1043.08	211.44
Stage 4	-4.2	1083.92	204.18
Stage 4	-4.4	1123.23	196.58
Stage 4	-4.6	1160.96	188.64

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-4.8	1197.04	180.37
Stage 4	-5	1231.39	171.76
Stage 4	-5.2	1263.95	162.82
Stage 4	-5.4	1294.66	153.55
Stage 4	-5.6	1323.45	143.95
Stage 4	-5.8	1350.26	134.02
Stage 4	-6	1375.01	123.77
Stage 4	-6.2	1397.65	113.19
Stage 4	-6.4	1418.1	102.28
Stage 4	-6.6	1436.31	91.05
Stage 4	-6.8	1452.21	79.49
Stage 4	-7	1465.73	67.62
Stage 4	-7.2	1476.76	55.13
Stage 4	-7.4	1485.09	41.64
Stage 4	-7.6	1490.52	27.15
Stage 4	-7.8	1492.85	11.66
Stage 4	-8	1493.72	4.34
Stage 4	-8.2	1492.93	-3.92
Stage 4	-8.4	1490.3	-13.15
Stage 4	-8.6	1485.63	-23.35
Stage 4	-8.8	1478.73	-34.52
Stage 4	-9	1469.39	-46.7
Stage 4	-9.2	1457.41	-59.87
Stage 4	-9.4	1442.6	-74.07
Stage 4	-9.6	1424.74	-89.29
Stage 4	-9.8	1403.63	-105.54
Stage 4	-10	1379.07	-122.85
Stage 4	-10.2	1350.82	-141.21
Stage 4	-10.4	1318.7	-160.65
Stage 4	-10.6	1282.46	-181.16
Stage 4	-10.8	1241.91	-202.76
Stage 4	-11	1196.83	-225.41
Stage 4	-11.2	1147.01	-249.11
Stage 4	-11.4	1092.28	-273.64
Stage 4	-11.6	1032.51	-298.82
Stage 4	-11.8	967.58	-324.69
Stage 4	-12	897.33	-351.24
Stage 4	-12.2	821.63	-378.5
Stage 4	-12.4	740.33	-406.48
Stage 4	-12.6	653.3	-435.18
Stage 4	-12.8	560.39	-464.52
Stage 4	-13	461.52	-494.39
Stage 4	-13.2	356.55	-524.81
Stage 4	-13.4	263.02	-467.67

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-13.6	180.33	-413.48
Stage 4	-13.8	107.88	-362.25
Stage 4	-14	45.08	-313.99
Stage 4	-14.2	-8.66	-268.67
Stage 4	-14.4	-53.91	-226.29
Stage 4	-14.6	-91.28	-186.82
Stage 4	-14.8	-121.32	-150.23
Stage 4	-15	-144.62	-116.47
Stage 4	-15.2	-161.72	-85.52
Stage 4	-15.4	-173.19	-57.34
Stage 4	-15.6	-179.56	-31.87
Stage 4	-15.8	-181.38	-9.08
Stage 4	-16	-179.16	11.07
Stage 4	-16.2	-173.44	28.64
Stage 4	-16.4	-164.71	43.65
Stage 4	-16.6	-153.47	56.16
Stage 4	-16.8	-140.24	66.18
Stage 4	-17	-125.48	73.77
Stage 4	-17.2	-109.69	78.95
Stage 4	-17.4	-93.35	81.74
Stage 4	-17.6	-76.91	82.17
Stage 4	-17.8	-60.86	80.27
Stage 4	-18	-45.65	76.04
Stage 4	-18.2	-31.75	69.49
Stage 4	-18.4	-19.62	60.65
Stage 4	-18.6	-9.72	49.51
Stage 4	-18.8	-2.7	35.08
Stage 4	-19	0	13.52

Tabella Risultati Paratia NTC2018: A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 5

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	310.1
Stage 5	-0.2	62.02	310.1
Stage 5	-0.4	123.77	308.77
Stage 5	-0.6	185.04	306.32
Stage 5	-0.8	245.66	303.1
Stage 5	-1	305.53	299.34
Stage 5	-1.2	364.55	295.13
Stage 5	-1.4	422.66	290.54
Stage 5	-1.6	479.77	285.58
Stage 5	-1.8	535.83	280.28
Stage 5	-2	590.76	274.63
Stage 5	-2.2	644.68	269.61

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-2.4	697.51	264.15
Stage 5	-2.6	749.16	258.25
Stage 5	-2.8	799.54	251.93
Stage 5	-3	848.58	245.18
Stage 5	-3.2	896.18	238.01
Stage 5	-3.4	942.26	230.4
Stage 5	-3.6	986.73	222.37
Stage 5	-3.8	1029.52	213.92
Stage 5	-4	1070.53	205.07
Stage 5	-4.2	1109.7	195.84
Stage 5	-4.4	1146.94	186.19
Stage 5	-4.6	1182.17	176.14
Stage 5	-4.8	1215.3	165.68
Stage 5	-5	1246.27	154.82
Stage 5	-5.2	1274.98	143.54
Stage 5	-5.4	1301.35	131.87
Stage 5	-5.6	1325.31	119.79
Stage 5	-5.8	1346.77	107.3
Stage 5	-6	1365.65	94.41
Stage 5	-6.2	1381.87	81.11
Stage 5	-6.4	1395.35	67.42
Stage 5	-6.6	1406.02	53.32
Stage 5	-6.8	1413.78	38.82
Stage 5	-7	1418.56	23.91
Stage 5	-7.2	1420.24	8.4
Stage 5	-7.4	1418.64	-8.03
Stage 5	-7.6	1413.56	-25.36
Stage 5	-7.8	1404.85	-43.59
Stage 5	-8	1392.41	-62.17
Stage 5	-8.2	1376.55	-79.33
Stage 5	-8.4	1357.53	-95.06
Stage 5	-8.6	1335.66	-109.36
Stage 5	-8.8	1311.22	-122.22
Stage 5	-9	1284.49	-133.66
Stage 5	-9.2	1255.76	-143.66
Stage 5	-9.4	1225.31	-152.22
Stage 5	-9.6	1193.45	-159.33
Stage 5	-9.8	1160.44	-165.01
Stage 5	-10	1126.37	-170.35
Stage 5	-10.2	1091.15	-176.1
Stage 5	-10.4	1054.7	-182.28
Stage 5	-10.6	1016.92	-188.9
Stage 5	-10.8	977.73	-195.97
Stage 5	-11	937.04	-203.41

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-11.2	894.81	-211.18
Stage 5	-11.4	850.97	-219.21
Stage 5	-11.6	805.46	-227.51
Stage 5	-11.8	758.23	-236.18
Stage 5	-12	709.18	-245.22
Stage 5	-12.2	658.25	-254.65
Stage 5	-12.4	605.36	-264.47
Stage 5	-12.6	550.42	-274.69
Stage 5	-12.8	493.37	-285.26
Stage 5	-13	434.15	-296.11
Stage 5	-13.2	372.7	-307.25
Stage 5	-13.4	316.75	-279.76
Stage 5	-13.6	266.01	-253.67
Stage 5	-13.8	220.24	-228.85
Stage 5	-14	179.19	-205.26
Stage 5	-14.2	142.61	-182.91
Stage 5	-14.4	110.24	-161.81
Stage 5	-14.6	81.85	-141.98
Stage 5	-14.8	57.16	-123.42
Stage 5	-15	35.94	-106.11
Stage 5	-15.2	17.96	-89.91
Stage 5	-15.4	2.99	-74.82
Stage 5	-15.6	-9.17	-60.84
Stage 5	-15.8	-18.76	-47.94
Stage 5	-16	-25.99	-36.15
Stage 5	-16.2	-31.08	-25.44
Stage 5	-16.4	-34.25	-15.83
Stage 5	-16.6	-35.71	-7.3
Stage 5	-16.8	-35.68	0.14
Stage 5	-17	-34.38	6.49
Stage 5	-17.2	-32.03	11.77
Stage 5	-17.4	-28.84	15.96
Stage 5	-17.6	-25.02	19.08
Stage 5	-17.8	-20.8	21.12
Stage 5	-18	-16.38	22.08
Stage 5	-18.2	-11.98	21.98
Stage 5	-18.4	-7.82	20.81
Stage 5	-18.6	-4.11	18.58
Stage 5	-18.8	-1.19	14.56
Stage 5	-19	0	5.97

Tabella Risultati Paratia NTC2018: A1+M1+R1 (R3 per tiranti) - Left Wall - Stage: Stage 6

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	267.9
Stage 6	-0.2	53.58	267.9
Stage 6	-0.4	106.89	266.57
Stage 6	-0.6	159.74	264.25
Stage 6	-0.8	212.02	261.39
Stage 6	-1	263.67	258.22
Stage 6	-1.2	314.66	254.97
Stage 6	-1.4	364.98	251.62
Stage 6	-1.6	414.61	248.14
Stage 6	-1.8	463.51	244.47
Stage 6	-2	511.63	240.6
Stage 6	-2.2	559.04	237.08
Stage 6	-2.4	605.67	233.17
Stage 6	-2.6	651.45	228.88
Stage 6	-2.8	696.29	224.19
Stage 6	-3	740.11	219.1
Stage 6	-3.2	782.83	213.6
Stage 6	-3.4	824.38	207.75
Stage 6	-3.6	864.67	201.48
Stage 6	-3.8	903.63	194.8
Stage 6	-4	941.18	187.71
Stage 6	-4.2	977.21	180.18
Stage 6	-4.4	1011.66	172.24
Stage 6	-4.6	1044.44	163.89
Stage 6	-4.8	1075.46	155.12
Stage 6	-5	1104.65	145.96
Stage 6	-5.2	1131.93	136.38
Stage 6	-5.4	1157.21	126.4
Stage 6	-5.6	1180.41	116.01
Stage 6	-5.8	1201.46	105.22
Stage 6	-6	1220.26	94.03
Stage 6	-6.2	1236.75	82.44
Stage 6	-6.4	1250.84	70.45
Stage 6	-6.6	1262.45	58.06
Stage 6	-6.8	1271.51	45.28
Stage 6	-7	1277.93	32.11
Stage 6	-7.2	1281.6	18.33
Stage 6	-7.4	1282.33	3.66
Stage 6	-7.6	1279.95	-11.91
Stage 6	-7.8	1274.27	-28.36
Stage 6	-8	1265.13	-45.7
Stage 6	-8.2	1252.71	-62.1
Stage 6	-8.4	1237.31	-77.04
Stage 6	-8.6	1219.2	-90.52

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-8.8	1198.69	-102.54
Stage 6	-9	1176.08	-113.09
Stage 6	-9.2	1151.64	-122.15
Stage 6	-9.4	1125.7	-129.74
Stage 6	-9.6	1098.53	-135.84
Stage 6	-9.8	1070.44	-140.45
Stage 6	-10	1041.51	-144.67
Stage 6	-10.2	1011.65	-149.25
Stage 6	-10.4	980.82	-154.2
Stage 6	-10.6	948.92	-159.51
Stage 6	-10.8	915.9	-165.08
Stage 6	-11	881.7	-170.97
Stage 6	-11.2	846.27	-177.17
Stage 6	-11.4	809.55	-183.62
Stage 6	-11.6	771.48	-190.33
Stage 6	-11.8	732	-197.39
Stage 6	-12	691.04	-204.8
Stage 6	-12.2	648.53	-212.58
Stage 6	-12.4	604.38	-220.72
Stage 6	-12.6	558.53	-229.25
Stage 6	-12.8	510.91	-238.1
Stage 6	-13	461.47	-247.2
Stage 6	-13.2	410.16	-256.56
Stage 6	-13.4	362.75	-237.03
Stage 6	-13.6	319.09	-218.29
Stage 6	-13.8	279.02	-200.35
Stage 6	-14	242.37	-183.26
Stage 6	-14.2	208.97	-167.02
Stage 6	-14.4	178.64	-151.66
Stage 6	-14.6	151.2	-137.2
Stage 6	-14.8	126.46	-123.68
Stage 6	-15	104.24	-111.09
Stage 6	-15.2	84.44	-99.04
Stage 6	-15.4	66.93	-87.53
Stage 6	-15.6	51.61	-76.6
Stage 6	-15.8	38.36	-66.24
Stage 6	-16	27.06	-56.5
Stage 6	-16.2	17.59	-47.37
Stage 6	-16.4	9.81	-38.88
Stage 6	-16.6	3.6	-31.05
Stage 6	-16.8	-1.17	-23.88
Stage 6	-17	-4.65	-17.39
Stage 6	-17.2	-6.97	-11.59
Stage 6	-17.4	-8.27	-6.48

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-17.6	-8.68	-2.08
Stage 6	-17.8	-8.36	1.62
Stage 6	-18	-7.44	4.6
Stage 6	-18.2	-6.06	6.87
Stage 6	-18.4	-4.38	8.43
Stage 6	-18.6	-2.52	9.28
Stage 6	-18.8	-0.78	8.7
Stage 6	-19	0	3.9

Risultati Elementi strutturali - NTC2018: A1+M1+R1 (R3 per tiranti)

Design Assumption: NTC2018: A1+M1+R1 (R3 per tiranti) Sollecitazione Spring

Stage	Forza (kN/m)
Stage 2	-0.37199227
Stage 3	116.265929
Stage 4	296.11517
Stage 5	310.09589
Stage 6	267.90049

Risultati NTC2018: A2+M2+R1

Tabella Risultati Paratia NTC2018: A2+M2+R1 - Left Wall - Stage: Stage 1

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.6	0	0
Stage 1	-0.8	0	0
Stage 1	-1	0	0
Stage 1	-1.2	0	0
Stage 1	-1.4	0	0
Stage 1	-1.6	0	0
Stage 1	-1.8	0	0
Stage 1	-2	0	0
Stage 1	-2.2	0	0
Stage 1	-2.4	0	0
Stage 1	-2.6	0	0
Stage 1	-2.8	0	0
Stage 1	-3	0	0
Stage 1	-3.2	0	0
Stage 1	-3.4	0	0
Stage 1	-3.6	0	0
Stage 1	-3.8	0	0
Stage 1	-4	0	0
Stage 1	-4.2	0	0

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
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
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

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
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

Tabella Risultati Paratia NTC2018: A2+M2+R1 - Left Wall - Stage: Stage 2

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	-4.78
Stage 2	-0.2	-0.96	-4.78
Stage 2	-0.4	-1.91	-4.78
Stage 2	-0.6	-2.87	-4.77
Stage 2	-0.8	-3.82	-4.75
Stage 2	-1	-4.76	-4.71
Stage 2	-1.2	-5.69	-4.67
Stage 2	-1.4	-6.61	-4.6
Stage 2	-1.6	-7.52	-4.52
Stage 2	-1.8	-8.41	-4.43

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-2	-9.27	-4.33
Stage 2	-2.2	-10.07	-4
Stage 2	-2.4	-10.8	-3.63
Stage 2	-2.6	-11.44	-3.23
Stage 2	-2.8	-12	-2.78
Stage 2	-3	-12.45	-2.28
Stage 2	-3.2	-12.8	-1.74
Stage 2	-3.4	-13.04	-1.16
Stage 2	-3.6	-13.14	-0.53
Stage 2	-3.8	-13.11	0.15
Stage 2	-4	-12.94	0.88
Stage 2	-4.2	-12.61	1.65
Stage 2	-4.4	-12.11	2.48
Stage 2	-4.6	-11.44	3.37
Stage 2	-4.8	-10.57	4.3
Stage 2	-5	-9.52	5.29
Stage 2	-5.2	-8.25	6.34
Stage 2	-5.4	-6.76	7.44
Stage 2	-5.6	-5.04	8.6
Stage 2	-5.8	-3.08	9.82
Stage 2	-6	-0.86	11.1
Stage 2	-6.2	1.63	12.43
Stage 2	-6.4	4.39	13.82
Stage 2	-6.6	7.45	15.28
Stage 2	-6.8	10.81	16.79
Stage 2	-7	14.48	18.35
Stage 2	-7.2	18.47	19.98
Stage 2	-7.4	22.78	21.55
Stage 2	-7.6	27.35	22.81
Stage 2	-7.8	32.09	23.74
Stage 2	-8	36.96	24.35
Stage 2	-8.2	41.89	24.64
Stage 2	-8.4	46.81	24.6
Stage 2	-8.6	51.66	24.25
Stage 2	-8.8	56.37	23.57
Stage 2	-9	60.89	22.56
Stage 2	-9.2	65.13	21.23
Stage 2	-9.4	69.05	19.57
Stage 2	-9.6	72.56	17.59
Stage 2	-9.8	75.62	15.27
Stage 2	-10	78.14	12.61
Stage 2	-10.2	80.06	9.62
Stage 2	-10.4	81.32	6.3
Stage 2	-10.6	81.85	2.63

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-10.8	81.57	-1.39
Stage 2	-11	80.43	-5.7
Stage 2	-11.2	78.37	-10.32
Stage 2	-11.4	75.32	-15.25
Stage 2	-11.6	71.22	-20.48
Stage 2	-11.8	66.01	-26.03
Stage 2	-12	59.63	-31.9
Stage 2	-12.2	52.01	-38.1
Stage 2	-12.4	43.09	-44.62
Stage 2	-12.6	32.8	-51.47
Stage 2	-12.8	21.08	-58.56
Stage 2	-13	7.92	-65.83
Stage 2	-13.2	-6.74	-73.27
Stage 2	-13.4	-19.14	-62.01
Stage 2	-13.6	-29.35	-51.09
Stage 2	-13.8	-37.48	-40.62
Stage 2	-14	-43.72	-31.2
Stage 2	-14.2	-48.28	-22.78
Stage 2	-14.4	-51.34	-15.33
Stage 2	-14.6	-53.1	-8.78
Stage 2	-14.8	-53.72	-3.09
Stage 2	-15	-53.36	1.8
Stage 2	-15.2	-52.16	5.98
Stage 2	-15.4	-50.26	9.49
Stage 2	-15.6	-47.79	12.39
Stage 2	-15.8	-44.84	14.72
Stage 2	-16	-41.54	16.53
Stage 2	-16.2	-37.96	17.87
Stage 2	-16.4	-34.21	18.77
Stage 2	-16.6	-30.36	19.27
Stage 2	-16.8	-26.48	19.4
Stage 2	-17	-22.66	19.08
Stage 2	-17.2	-18.97	18.44
Stage 2	-17.4	-15.47	17.51
Stage 2	-17.6	-12.21	16.31
Stage 2	-17.8	-9.23	14.87
Stage 2	-18	-6.6	13.19
Stage 2	-18.2	-4.34	11.28
Stage 2	-18.4	-2.51	9.15
Stage 2	-18.6	-1.15	6.81
Stage 2	-18.8	-0.3	4.25
Stage 2	-19	0	1.49

Tabella Risultati Paratia NTC2018: A2+M2+R1 - Left Wall - Stage: Stage 3

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	108.24
Stage 3	-0.2	21.65	108.24
Stage 3	-0.4	43.06	107.08
Stage 3	-0.6	64.06	104.96
Stage 3	-0.8	84.5	102.19
Stage 3	-1	104.29	98.97
Stage 3	-1.2	123.36	95.38
Stage 3	-1.4	141.66	91.47
Stage 3	-1.6	159.11	87.26
Stage 3	-1.8	175.66	82.77
Stage 3	-2	191.26	78
Stage 3	-2.2	206.08	74.08
Stage 3	-2.4	220.03	69.76
Stage 3	-2.6	233.05	65.07
Stage 3	-2.8	245.05	60
Stage 3	-3	255.96	54.58
Stage 3	-3.2	266.62	53.27
Stage 3	-3.4	276.97	51.79
Stage 3	-3.6	287.01	50.19
Stage 3	-3.8	296.7	48.45
Stage 3	-4	306.02	46.57
Stage 3	-4.2	314.93	44.59
Stage 3	-4.4	323.42	42.45
Stage 3	-4.6	331.5	40.38
Stage 3	-4.8	339.21	38.57
Stage 3	-5	346.62	37.02
Stage 3	-5.2	353.76	35.72
Stage 3	-5.4	360.7	34.67
Stage 3	-5.6	367.46	33.84
Stage 3	-5.8	374.11	33.22
Stage 3	-6	380.58	32.37
Stage 3	-6.2	386.84	31.29
Stage 3	-6.4	392.83	29.95
Stage 3	-6.6	398.5	28.37
Stage 3	-6.8	403.81	26.52
Stage 3	-7	408.69	24.39
Stage 3	-7.2	413.08	21.99
Stage 3	-7.4	416.94	19.29
Stage 3	-7.6	420.2	16.28
Stage 3	-7.8	422.79	12.96
Stage 3	-8	424.65	9.32
Stage 3	-8.2	425.72	5.34
Stage 3	-8.4	425.92	1.01
Stage 3	-8.6	425.18	-3.68

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-8.8	423.43	-8.75
Stage 3	-9	420.6	-14.19
Stage 3	-9.2	416.59	-20.03
Stage 3	-9.4	411.34	-26.28
Stage 3	-9.6	404.75	-32.94
Stage 3	-9.8	396.74	-40.04
Stage 3	-10	387.23	-47.57
Stage 3	-10.2	376.11	-55.57
Stage 3	-10.4	363.31	-64.02
Stage 3	-10.6	348.72	-72.96
Stage 3	-10.8	332.24	-82.38
Stage 3	-11	313.79	-92.25
Stage 3	-11.2	293.27	-102.58
Stage 3	-11.4	270.6	-113.39
Stage 3	-11.6	245.66	-124.67
Stage 3	-11.8	218.37	-136.45
Stage 3	-12	188.62	-148.73
Stage 3	-12.2	156.32	-161.52
Stage 3	-12.4	121.36	-174.82
Stage 3	-12.6	83.63	-188.64
Stage 3	-12.8	43.05	-202.91
Stage 3	-13	-0.46	-217.54
Stage 3	-13.2	-46.97	-232.54
Stage 3	-13.4	-87.09	-200.6
Stage 3	-13.6	-121.22	-170.64
Stage 3	-13.8	-149.75	-142.64
Stage 3	-14	-173.06	-116.56
Stage 3	-14.2	-191.53	-92.35
Stage 3	-14.4	-205.53	-69.98
Stage 3	-14.6	-215.4	-49.39
Stage 3	-14.8	-221.51	-30.53
Stage 3	-15	-224.17	-13.32
Stage 3	-15.2	-223.71	2.29
Stage 3	-15.4	-220.44	16.36
Stage 3	-15.6	-214.65	28.95
Stage 3	-15.8	-206.63	40.11
Stage 3	-16	-196.65	49.91
Stage 3	-16.2	-184.97	58.4
Stage 3	-16.4	-171.84	65.63
Stage 3	-16.6	-157.51	71.65
Stage 3	-16.8	-142.21	76.51
Stage 3	-17	-126.16	80.24
Stage 3	-17.2	-109.58	82.9
Stage 3	-17.4	-92.68	84.52

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-17.6	-75.65	85.14
Stage 3	-17.8	-59.06	82.94
Stage 3	-18	-43.47	77.97
Stage 3	-18.2	-29.41	70.27
Stage 3	-18.4	-17.44	59.87
Stage 3	-18.6	-8.18	46.3
Stage 3	-18.8	-2.18	29.98
Stage 3	-19	0	10.91

Tabella Risultati Paratia NTC2018: A2+M2+R1 - Left Wall - Stage: Stage 4

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	297.34
Stage 4	-0.2	59.47	297.34
Stage 4	-0.4	118.75	296.4
Stage 4	-0.6	177.67	294.62
Stage 4	-0.8	236.14	292.33
Stage 4	-1	294.08	289.7
Stage 4	-1.2	351.45	286.84
Stage 4	-1.4	408.21	283.79
Stage 4	-1.6	464.32	280.56
Stage 4	-1.8	519.76	277.18
Stage 4	-2	574.48	273.64
Stage 4	-2.2	628.43	269.72
Stage 4	-2.4	681.51	265.4
Stage 4	-2.6	733.65	260.71
Stage 4	-2.8	784.78	255.64
Stage 4	-3	834.82	250.22
Stage 4	-3.2	883.71	244.43
Stage 4	-3.4	931.35	238.24
Stage 4	-3.6	977.7	231.7
Stage 4	-3.8	1022.66	224.82
Stage 4	-4	1066.18	217.59
Stage 4	-4.2	1108.19	210.05
Stage 4	-4.4	1148.62	202.18
Stage 4	-4.6	1187.42	193.96
Stage 4	-4.8	1224.5	185.41
Stage 4	-5	1259.8	176.51
Stage 4	-5.2	1293.26	167.29
Stage 4	-5.4	1324.8	157.73
Stage 4	-5.6	1354.37	147.83
Stage 4	-5.8	1381.88	137.58
Stage 4	-6	1407.2	126.55
Stage 4	-6.2	1430.14	114.75

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-6.4	1450.58	102.17
Stage 4	-6.6	1468.34	88.81
Stage 4	-6.8	1483.28	74.68
Stage 4	-7	1495.23	59.78
Stage 4	-7.2	1504.05	44.1
Stage 4	-7.4	1509.58	27.65
Stage 4	-7.6	1511.67	10.44
Stage 4	-7.8	1510.16	-7.55
Stage 4	-8	1506.75	-17.04
Stage 4	-8.2	1501.3	-27.26
Stage 4	-8.4	1493.66	-38.22
Stage 4	-8.6	1483.67	-49.94
Stage 4	-8.8	1471.18	-62.42
Stage 4	-9	1456.05	-75.69
Stage 4	-9.2	1438.1	-89.75
Stage 4	-9.4	1417.18	-104.57
Stage 4	-9.6	1393.21	-119.86
Stage 4	-9.8	1366.08	-135.64
Stage 4	-10	1335.69	-151.93
Stage 4	-10.2	1301.94	-168.75
Stage 4	-10.4	1264.72	-186.13
Stage 4	-10.6	1223.9	-204.08
Stage 4	-10.8	1179.38	-222.63
Stage 4	-11	1131.03	-241.75
Stage 4	-11.2	1078.73	-261.46
Stage 4	-11.4	1022.38	-281.78
Stage 4	-11.6	961.83	-302.72
Stage 4	-11.8	896.97	-324.32
Stage 4	-12	827.66	-346.57
Stage 4	-12.2	753.75	-369.51
Stage 4	-12.4	675.13	-393.13
Stage 4	-12.6	591.63	-417.47
Stage 4	-12.8	503.15	-442.43
Stage 4	-13	409.56	-467.96
Stage 4	-13.2	310.75	-494.05
Stage 4	-13.4	219.95	-453.98
Stage 4	-13.6	137.28	-413.34
Stage 4	-13.8	62.86	-372.12
Stage 4	-14	-3.21	-330.33
Stage 4	-14.2	-60.8	-287.97
Stage 4	-14.4	-109.81	-245.03
Stage 4	-14.6	-150.11	-201.52
Stage 4	-14.8	-181.75	-158.21
Stage 4	-15	-205.44	-118.43

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-15.2	-221.87	-82.14
Stage 4	-15.4	-231.72	-49.26
Stage 4	-15.6	-235.67	-19.74
Stage 4	-15.8	-234.37	6.48
Stage 4	-16	-228.48	29.45
Stage 4	-16.2	-218.63	49.25
Stage 4	-16.4	-205.45	65.91
Stage 4	-16.6	-189.55	79.5
Stage 4	-16.8	-171.54	90.07
Stage 4	-17	-152	97.65
Stage 4	-17.2	-131.54	102.31
Stage 4	-17.4	-110.73	104.07
Stage 4	-17.6	-90.13	102.97
Stage 4	-17.8	-70.32	99.04
Stage 4	-18	-51.87	92.29
Stage 4	-18.2	-35.31	82.77
Stage 4	-18.4	-21.24	70.35
Stage 4	-18.6	-10.23	55.05
Stage 4	-18.8	-2.83	37.02
Stage 4	-19	0	14.13

Tabella Risultati Paratia NTC2018: A2+M2+R1 - Left Wall - Stage: Stage 5

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	304.71
Stage 5	-0.2	60.94	304.71
Stage 5	-0.4	121.67	303.64
Stage 5	-0.6	182	301.65
Stage 5	-0.8	241.81	299.08
Stage 5	-1	301.03	296.1
Stage 5	-1.2	359.6	292.81
Stage 5	-1.4	417.45	289.25
Stage 5	-1.6	474.54	285.46
Stage 5	-1.8	530.82	281.43
Stage 5	-2	586.26	277.18
Stage 5	-2.2	640.76	272.48
Stage 5	-2.4	694.23	267.38
Stage 5	-2.6	746.61	261.9
Stage 5	-2.8	797.82	256.02
Stage 5	-3	847.77	249.76
Stage 5	-3.2	896.39	243.12
Stage 5	-3.4	943.61	236.08
Stage 5	-3.6	989.34	228.66
Stage 5	-3.8	1033.51	220.86

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-4	1076.05	212.7
Stage 5	-4.2	1116.89	204.2
Stage 5	-4.4	1155.96	195.33
Stage 5	-4.6	1193.18	186.1
Stage 5	-4.8	1228.48	176.5
Stage 5	-5	1261.79	166.53
Stage 5	-5.2	1293.02	156.2
Stage 5	-5.4	1322.12	145.5
Stage 5	-5.6	1349.01	134.44
Stage 5	-5.8	1373.61	123
Stage 5	-6	1395.79	110.87
Stage 5	-6.2	1415.4	98.04
Stage 5	-6.4	1432.3	84.52
Stage 5	-6.6	1446.36	70.31
Stage 5	-6.8	1457.44	55.41
Stage 5	-7	1465.4	39.81
Stage 5	-7.2	1470.11	23.53
Stage 5	-7.4	1471.42	6.55
Stage 5	-7.6	1469.2	-11.11
Stage 5	-7.8	1463.3	-29.46
Stage 5	-8	1453.71	-47.97
Stage 5	-8.2	1440.58	-65.65
Stage 5	-8.4	1424.08	-82.53
Stage 5	-8.6	1404.36	-98.58
Stage 5	-8.8	1381.6	-113.82
Stage 5	-9	1355.95	-128.24
Stage 5	-9.2	1327.58	-141.83
Stage 5	-9.4	1296.66	-154.61
Stage 5	-9.6	1263.35	-166.56
Stage 5	-9.8	1227.81	-177.69
Stage 5	-10	1190.21	-188
Stage 5	-10.2	1150.71	-197.47
Stage 5	-10.4	1109.49	-206.12
Stage 5	-10.6	1066.7	-213.94
Stage 5	-10.8	1022.51	-220.99
Stage 5	-11	976.84	-228.34
Stage 5	-11.2	929.64	-236
Stage 5	-11.4	880.84	-243.99
Stage 5	-11.6	830.38	-252.32
Stage 5	-11.8	778.17	-261.01
Stage 5	-12	724.16	-270.07
Stage 5	-12.2	668.26	-279.51
Stage 5	-12.4	610.39	-289.34
Stage 5	-12.6	550.48	-299.56

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-12.8	488.45	-310.14
Stage 5	-13	424.24	-321.03
Stage 5	-13.2	357.8	-332.23
Stage 5	-13.4	295.9	-309.5
Stage 5	-13.6	238.66	-286.16
Stage 5	-13.8	186.21	-262.25
Stage 5	-14	138.66	-237.76
Stage 5	-14.2	96.12	-212.73
Stage 5	-14.4	58.68	-187.18
Stage 5	-14.6	26.45	-161.14
Stage 5	-14.8	-0.56	-135.06
Stage 5	-15	-22.74	-110.9
Stage 5	-15.2	-40.47	-88.65
Stage 5	-15.4	-54.13	-68.3
Stage 5	-15.6	-64.1	-49.86
Stage 5	-15.8	-70.77	-33.32
Stage 5	-16	-74.5	-18.67
Stage 5	-16.2	-75.66	-5.76
Stage 5	-16.4	-74.56	5.49
Stage 5	-16.6	-71.53	15.11
Stage 5	-16.8	-66.91	23.12
Stage 5	-17	-61	29.54
Stage 5	-17.2	-54.13	34.38
Stage 5	-17.4	-46.59	37.66
Stage 5	-17.6	-38.71	39.4
Stage 5	-17.8	-30.79	39.6
Stage 5	-18	-23.14	38.27
Stage 5	-18.2	-16.05	35.42
Stage 5	-18.4	-9.86	30.99
Stage 5	-18.6	-4.86	25
Stage 5	-18.8	-1.36	17.48
Stage 5	-19	0	6.79

Tabella Risultati Paratia NTC2018: A2+M2+R1 - Left Wall - Stage: Stage 6

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	265.97
Stage 6	-0.2	53.19	265.97
Stage 6	-0.4	106.17	264.89
Stage 6	-0.6	158.78	263.03
Stage 6	-0.8	210.93	260.78
Stage 6	-1	262.6	258.34
Stage 6	-1.2	313.78	255.9
Stage 6	-1.4	364.47	253.45

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-1.6	414.66	250.97
Stage 6	-1.8	464.34	248.4
Stage 6	-2	513.49	245.73
Stage 6	-2.2	561.97	242.38
Stage 6	-2.4	609.7	238.68
Stage 6	-2.6	656.63	234.64
Stage 6	-2.8	702.68	230.23
Stage 6	-3	747.77	225.47
Stage 6	-3.2	791.84	220.34
Stage 6	-3.4	834.81	214.88
Stage 6	-3.6	876.62	209.05
Stage 6	-3.8	917.2	202.85
Stage 6	-4	956.45	196.29
Stage 6	-4.2	994.32	189.33
Stage 6	-4.4	1030.72	182
Stage 6	-4.6	1065.58	174.3
Stage 6	-4.8	1098.82	166.24
Stage 6	-5	1130.39	157.81
Stage 6	-5.2	1160.19	149.01
Stage 6	-5.4	1188.16	139.85
Stage 6	-5.6	1214.22	130.33
Stage 6	-5.8	1238.31	120.43
Stage 6	-6	1260.28	109.84
Stage 6	-6.2	1279.99	98.56
Stage 6	-6.4	1297.31	86.59
Stage 6	-6.6	1312.1	73.93
Stage 6	-6.8	1324.21	60.59
Stage 6	-7	1333.52	46.56
Stage 6	-7.2	1339.9	31.88
Stage 6	-7.4	1343.23	16.63
Stage 6	-7.6	1343.39	0.82
Stage 6	-7.8	1340.28	-15.57
Stage 6	-8	1333.75	-32.63
Stage 6	-8.2	1323.85	-49.52
Stage 6	-8.4	1310.73	-65.58
Stage 6	-8.6	1294.57	-80.79
Stage 6	-8.8	1275.54	-95.16
Stage 6	-9	1253.8	-108.68
Stage 6	-9.2	1229.54	-121.34
Stage 6	-9.4	1202.91	-133.14
Stage 6	-9.6	1174.09	-144.09
Stage 6	-9.8	1143.26	-154.17
Stage 6	-10	1110.58	-163.38
Stage 6	-10.2	1076.24	-171.72

Design Assumption: NTC2018: A2+M2+R1 Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-10.4	1040.4	-179.18
Stage 6	-10.6	1003.25	-185.77
Stage 6	-10.8	964.94	-191.54
Stage 6	-11	925.42	-197.59
Stage 6	-11.2	884.63	-203.95
Stage 6	-11.4	842.51	-210.62
Stage 6	-11.6	798.98	-217.62
Stage 6	-11.8	753.99	-224.96
Stage 6	-12	707.46	-232.64
Stage 6	-12.2	659.33	-240.68
Stage 6	-12.4	609.51	-249.09
Stage 6	-12.6	557.93	-257.88
Stage 6	-12.8	504.54	-266.99
Stage 6	-13	449.26	-276.39
Stage 6	-13.2	392.04	-286.08
Stage 6	-13.4	337.9	-270.73
Stage 6	-13.6	287.03	-254.33
Stage 6	-13.8	239.65	-236.89
Stage 6	-14	195.96	-218.45
Stage 6	-14.2	156.16	-199.02
Stage 6	-14.4	120.43	-178.65
Stage 6	-14.6	88.95	-157.37
Stage 6	-14.8	61.82	-135.65
Stage 6	-15	38.74	-115.44
Stage 6	-15.2	19.39	-96.76
Stage 6	-15.4	3.46	-79.6
Stage 6	-15.6	-9.33	-63.95
Stage 6	-15.8	-19.27	-49.74
Stage 6	-16	-26.67	-36.98
Stage 6	-16.2	-31.77	-25.52
Stage 6	-16.4	-34.83	-15.31
Stage 6	-16.6	-36.1	-6.33
Stage 6	-16.8	-35.82	1.41
Stage 6	-17	-34.23	7.94
Stage 6	-17.2	-31.58	13.25
Stage 6	-17.4	-28.11	17.36
Stage 6	-17.6	-24.06	20.26
Stage 6	-17.8	-19.66	21.97
Stage 6	-18	-15.17	22.48
Stage 6	-18.2	-10.81	21.81
Stage 6	-18.4	-6.83	19.89
Stage 6	-18.6	-3.48	16.73
Stage 6	-18.8	-1.01	12.36
Stage 6	-19	0	5.05

Risultati Elementi strutturali - NTC2018: A2+M2+R1

Design Assumption: NTC2018: A2+M2+R1 Sollecitazione Spring

Stage	Forza (kN/m)
Stage 2	-4.779026
Stage 3	108.2416
Stage 4	297.3433
Stage 5	304.7094
Stage 6	265.9736

Risultati NTC2018: SISMICA STR

Tabella Risultati Paratia NTC2018: SISMICA STR - Left Wall - Stage: Stage 1

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.6	0	0
Stage 1	-0.8	0	0
Stage 1	-1	0	0
Stage 1	-1.2	0	0
Stage 1	-1.4	0	0
Stage 1	-1.6	0	0
Stage 1	-1.8	0	0
Stage 1	-2	0	0
Stage 1	-2.2	0	0
Stage 1	-2.4	0	0
Stage 1	-2.6	0	0
Stage 1	-2.8	0	0
Stage 1	-3	0	0
Stage 1	-3.2	0	0
Stage 1	-3.4	0	0
Stage 1	-3.6	0	0
Stage 1	-3.8	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

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
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
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

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
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

Tabella Risultati Paratia NTC2018: SISMICA STR - Left Wall - Stage: Stage 2

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	0
Stage 2	-0.2	0	0
Stage 2	-0.4	0	0
Stage 2	-0.6	0	0
Stage 2	-0.8	0	0
Stage 2	-1	0	0
Stage 2	-1.2	0	0
Stage 2	-1.4	0	0
Stage 2	-1.6	0	0
Stage 2	-1.8	0	0
Stage 2	-2	0	0
Stage 2	-2.2	0	0
Stage 2	-2.4	0	0
Stage 2	-2.6	0	0
Stage 2	-2.8	0	0
Stage 2	-3	0	0
Stage 2	-3.2	0	0
Stage 2	-3.4	0	0
Stage 2	-3.6	0	0
Stage 2	-3.8	0	0

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-4	0	0
Stage 2	-4.2	0	0
Stage 2	-4.4	0	0
Stage 2	-4.6	0	0
Stage 2	-4.8	0	0
Stage 2	-5	0	0
Stage 2	-5.2	0	0
Stage 2	-5.4	0	0
Stage 2	-5.6	0	0
Stage 2	-5.8	0	0
Stage 2	-6	0	0
Stage 2	-6.2	0	0
Stage 2	-6.4	0	0
Stage 2	-6.6	0	0
Stage 2	-6.8	0	0
Stage 2	-7	0	0
Stage 2	-7.2	0	0
Stage 2	-7.4	0	0
Stage 2	-7.6	0	0
Stage 2	-7.8	0	0
Stage 2	-8	0	0
Stage 2	-8.2	0	0
Stage 2	-8.4	0	0
Stage 2	-8.6	0	0
Stage 2	-8.8	0	0
Stage 2	-9	0	0
Stage 2	-9.2	0	0
Stage 2	-9.4	0	0
Stage 2	-9.6	0	0
Stage 2	-9.8	0	0
Stage 2	-10	0	0
Stage 2	-10.2	0	0
Stage 2	-10.4	0	0
Stage 2	-10.6	0	0
Stage 2	-10.8	0	0
Stage 2	-11	0	0
Stage 2	-11.2	0	0
Stage 2	-11.4	0	0
Stage 2	-11.6	0	0
Stage 2	-11.8	0	0
Stage 2	-12	0	0
Stage 2	-12.2	0	0
Stage 2	-12.4	0	0
Stage 2	-12.6	0	0

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-12.8	0	0
Stage 2	-13	0	0
Stage 2	-13.2	0	0
Stage 2	-13.4	0	0
Stage 2	-13.6	0	0
Stage 2	-13.8	0	0
Stage 2	-14	0	0
Stage 2	-14.2	0	0
Stage 2	-14.4	0	0
Stage 2	-14.6	0	0
Stage 2	-14.8	0	0
Stage 2	-15	0	0
Stage 2	-15.2	0	0
Stage 2	-15.4	0	0
Stage 2	-15.6	0	0
Stage 2	-15.8	0	0
Stage 2	-16	0	0
Stage 2	-16.2	0	0
Stage 2	-16.4	0	0
Stage 2	-16.6	0	0
Stage 2	-16.8	0	0
Stage 2	-17	0	0
Stage 2	-17.2	0	0
Stage 2	-17.4	0	0
Stage 2	-17.6	0	0
Stage 2	-17.8	0	0
Stage 2	-18	0	0
Stage 2	-18.2	0	0
Stage 2	-18.4	0	0
Stage 2	-18.6	0	0
Stage 2	-18.8	0	0
Stage 2	-19	0	0

Tabella Risultati Paratia NTC2018: SISMICA STR - Left Wall - Stage: Stage 3

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	86.98
Stage 3	-0.2	17.4	86.98
Stage 3	-0.4	34.59	86
Stage 3	-0.6	51.43	84.17
Stage 3	-0.8	67.78	81.75
Stage 3	-1	83.55	78.87
Stage 3	-1.2	98.67	75.6
Stage 3	-1.4	113.07	71.99

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-1.6	126.68	68.05
Stage 3	-1.8	139.44	63.78
Stage 3	-2	151.27	59.19
Stage 3	-2.2	162.4	55.62
Stage 3	-2.4	172.77	51.85
Stage 3	-2.6	182.34	47.87
Stage 3	-2.8	191.08	43.68
Stage 3	-3	198.93	39.27
Stage 3	-3.2	206.46	37.63
Stage 3	-3.4	213.64	35.92
Stage 3	-3.6	220.46	34.11
Stage 3	-3.8	226.9	32.2
Stage 3	-4	232.94	30.18
Stage 3	-4.2	238.54	28.02
Stage 3	-4.4	243.69	25.71
Stage 3	-4.6	248.34	23.25
Stage 3	-4.8	252.46	20.61
Stage 3	-5	256.08	18.09
Stage 3	-5.2	259.24	15.79
Stage 3	-5.4	261.97	13.68
Stage 3	-5.6	264.32	11.76
Stage 3	-5.8	266.33	10.01
Stage 3	-6	268.01	8.41
Stage 3	-6.2	269.39	6.94
Stage 3	-6.4	270.51	5.6
Stage 3	-6.6	271.39	4.36
Stage 3	-6.8	272.03	3.22
Stage 3	-7	272.46	2.15
Stage 3	-7.2	272.69	1.14
Stage 3	-7.4	272.73	0.18
Stage 3	-7.6	272.57	-0.76
Stage 3	-7.8	272.24	-1.68
Stage 3	-8	271.72	-2.61
Stage 3	-8.2	270.98	-3.69
Stage 3	-8.4	269.95	-5.13
Stage 3	-8.6	268.57	-6.92
Stage 3	-8.8	266.75	-9.08
Stage 3	-9	264.43	-11.61
Stage 3	-9.2	261.53	-14.51
Stage 3	-9.4	257.97	-17.8
Stage 3	-9.6	253.67	-21.47
Stage 3	-9.8	248.57	-25.53
Stage 3	-10	242.57	-30
Stage 3	-10.2	235.59	-34.87

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-10.4	227.56	-40.15
Stage 3	-10.6	218.39	-45.85
Stage 3	-10.8	208	-51.97
Stage 3	-11	196.31	-58.48
Stage 3	-11.2	183.23	-65.38
Stage 3	-11.4	168.69	-72.69
Stage 3	-11.6	152.61	-80.4
Stage 3	-11.8	134.91	-88.52
Stage 3	-12	115.49	-97.06
Stage 3	-12.2	94.29	-106.02
Stage 3	-12.4	71.21	-115.41
Stage 3	-12.6	46.17	-125.21
Stage 3	-12.8	19.09	-135.37
Stage 3	-13	-10.07	-145.79
Stage 3	-13.2	-41.36	-156.48
Stage 3	-13.4	-68.74	-136.9
Stage 3	-13.6	-92.41	-118.32
Stage 3	-13.8	-112.55	-100.73
Stage 3	-14	-129.38	-84.11
Stage 3	-14.2	-143.06	-68.43
Stage 3	-14.4	-153.8	-53.68
Stage 3	-14.6	-161.76	-39.8
Stage 3	-14.8	-167.12	-26.79
Stage 3	-15	-170.03	-14.59
Stage 3	-15.2	-170.67	-3.18
Stage 3	-15.4	-169.18	7.48
Stage 3	-15.6	-165.69	17.42
Stage 3	-15.8	-160.35	26.69
Stage 3	-16	-153.29	35.31
Stage 3	-16.2	-144.63	43.32
Stage 3	-16.4	-134.48	50.75
Stage 3	-16.6	-122.95	57.63
Stage 3	-16.8	-110.3	63.26
Stage 3	-17	-96.91	66.95
Stage 3	-17.2	-83.15	68.79
Stage 3	-17.4	-69.39	68.83
Stage 3	-17.6	-55.96	67.14
Stage 3	-17.8	-43.21	63.77
Stage 3	-18	-31.46	58.75
Stage 3	-18.2	-21.03	52.11
Stage 3	-18.4	-12.32	43.57
Stage 3	-18.6	-5.69	33.16
Stage 3	-18.8	-1.49	20.99
Stage 3	-19	0	7.45

Tabella Risultati Paratia NTC2018: SISMICA STR - Left Wall - Stage: Stage 4

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	222.32
Stage 4	-0.2	44.46	222.32
Stage 4	-0.4	88.77	221.52
Stage 4	-0.6	132.76	219.98
Stage 4	-0.8	176.36	217.96
Stage 4	-1	219.47	215.59
Stage 4	-1.2	262.06	212.95
Stage 4	-1.4	304.08	210.07
Stage 4	-1.6	345.47	206.97
Stage 4	-1.8	386.2	203.65
Stage 4	-2	426.22	200.12
Stage 4	-2.2	465.69	197.34
Stage 4	-2.4	504.55	194.27
Stage 4	-2.6	542.73	190.92
Stage 4	-2.8	580.19	187.3
Stage 4	-3	616.87	183.4
Stage 4	-3.2	652.72	179.23
Stage 4	-3.4	687.67	174.77
Stage 4	-3.6	721.68	170.04
Stage 4	-3.8	754.69	165.05
Stage 4	-4	786.65	159.8
Stage 4	-4.2	817.51	154.32
Stage 4	-4.4	847.23	148.58
Stage 4	-4.6	875.74	142.58
Stage 4	-4.8	903.01	136.33
Stage 4	-5	928.97	129.82
Stage 4	-5.2	953.59	123.06
Stage 4	-5.4	976.8	116.05
Stage 4	-5.6	998.55	108.79
Stage 4	-5.8	1018.81	101.28
Stage 4	-6	1037.51	93.51
Stage 4	-6.2	1054.61	85.5
Stage 4	-6.4	1070.06	77.24
Stage 4	-6.6	1083.81	68.74
Stage 4	-6.8	1095.81	59.98
Stage 4	-7	1106	50.98
Stage 4	-7.2	1114.35	41.74
Stage 4	-7.4	1120.7	31.72
Stage 4	-7.6	1124.88	20.94
Stage 4	-7.8	1126.76	9.39
Stage 4	-8	1127.57	4.02
Stage 4	-8.2	1127.15	-2.08
Stage 4	-8.4	1125.37	-8.91

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-8.6	1122.07	-16.49
Stage 4	-8.8	1117.11	-24.82
Stage 4	-9	1110.32	-33.92
Stage 4	-9.2	1101.57	-43.78
Stage 4	-9.4	1090.68	-54.42
Stage 4	-9.6	1077.51	-65.85
Stage 4	-9.8	1061.9	-78.08
Stage 4	-10	1043.67	-91.11
Stage 4	-10.2	1022.68	-104.95
Stage 4	-10.4	998.77	-119.6
Stage 4	-10.6	971.75	-135.09
Stage 4	-10.8	941.47	-151.41
Stage 4	-11	907.76	-168.53
Stage 4	-11.2	870.47	-186.47
Stage 4	-11.4	829.43	-205.19
Stage 4	-11.6	784.54	-224.41
Stage 4	-11.8	735.71	-244.15
Stage 4	-12	682.83	-264.42
Stage 4	-12.2	625.78	-285.23
Stage 4	-12.4	564.47	-306.59
Stage 4	-12.6	498.76	-328.51
Stage 4	-12.8	428.58	-350.91
Stage 4	-13	353.84	-373.71
Stage 4	-13.2	274.45	-396.93
Stage 4	-13.4	203.68	-353.89
Stage 4	-13.6	141.06	-313.07
Stage 4	-13.8	86.17	-274.47
Stage 4	-14	38.55	-238.1
Stage 4	-14.2	-2.24	-203.94
Stage 4	-14.4	-36.64	-171.99
Stage 4	-14.6	-65.08	-142.22
Stage 4	-14.8	-88.01	-114.62
Stage 4	-15	-105.84	-89.15
Stage 4	-15.2	-119	-65.79
Stage 4	-15.4	-127.9	-44.51
Stage 4	-15.6	-132.95	-25.28
Stage 4	-15.8	-134.56	-8.05
Stage 4	-16	-133.13	7.18
Stage 4	-16.2	-129.03	20.47
Stage 4	-16.4	-122.66	31.84
Stage 4	-16.6	-114.4	41.32
Stage 4	-16.8	-104.61	48.94
Stage 4	-17	-93.67	54.71
Stage 4	-17.2	-81.93	58.68

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-17.4	-69.77	60.84
Stage 4	-17.6	-57.52	61.23
Stage 4	-17.8	-45.55	59.85
Stage 4	-18	-34.2	56.73
Stage 4	-18.2	-23.83	51.86
Stage 4	-18.4	-14.78	45.25
Stage 4	-18.6	-7.4	36.92
Stage 4	-18.8	-2.1	26.47
Stage 4	-19	0	10.52

Tabella Risultati Paratia NTC2018: SISMICA STR - Left Wall - Stage: Stage 5

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	232.77
Stage 5	-0.2	46.55	232.77
Stage 5	-0.4	92.92	231.86
Stage 5	-0.6	138.95	230.15
Stage 5	-0.8	184.53	227.89
Stage 5	-1	229.58	225.23
Stage 5	-1.2	274.03	222.23
Stage 5	-1.4	317.81	218.93
Stage 5	-1.6	360.88	215.35
Stage 5	-1.8	403.18	211.49
Stage 5	-2	444.65	207.35
Stage 5	-2.2	485.37	203.59
Stage 5	-2.4	525.27	199.49
Stage 5	-2.6	564.28	195.06
Stage 5	-2.8	602.34	190.31
Stage 5	-3	639.39	185.23
Stage 5	-3.2	675.36	179.84
Stage 5	-3.4	710.18	174.1
Stage 5	-3.6	743.78	168.04
Stage 5	-3.8	776.12	161.67
Stage 5	-4	807.12	154.99
Stage 5	-4.2	836.72	148.01
Stage 5	-4.4	864.86	140.71
Stage 5	-4.6	891.48	133.11
Stage 5	-4.8	916.52	125.19
Stage 5	-5	939.91	116.95
Stage 5	-5.2	961.59	108.41
Stage 5	-5.4	981.5	99.56
Stage 5	-5.6	999.58	90.39
Stage 5	-5.8	1015.76	80.91
Stage 5	-6	1029.99	71.13

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-6.2	1042.19	61.03
Stage 5	-6.4	1052.32	50.63
Stage 5	-6.6	1060.3	39.91
Stage 5	-6.8	1066.08	28.89
Stage 5	-7	1069.59	17.55
Stage 5	-7.2	1070.77	5.91
Stage 5	-7.4	1069.49	-6.42
Stage 5	-7.6	1065.6	-19.46
Stage 5	-7.8	1058.96	-33.18
Stage 5	-8	1049.52	-47.18
Stage 5	-8.2	1037.51	-60.09
Stage 5	-8.4	1023.13	-71.89
Stage 5	-8.6	1006.61	-82.6
Stage 5	-8.8	988.17	-92.21
Stage 5	-9	968.02	-100.71
Stage 5	-9.2	946.4	-108.11
Stage 5	-9.4	923.52	-114.4
Stage 5	-9.6	899.6	-119.59
Stage 5	-9.8	874.87	-123.66
Stage 5	-10	849.35	-127.6
Stage 5	-10.2	822.98	-131.85
Stage 5	-10.4	795.7	-136.43
Stage 5	-10.6	767.42	-141.35
Stage 5	-10.8	738.1	-146.62
Stage 5	-11	707.66	-152.21
Stage 5	-11.2	676.04	-158.11
Stage 5	-11.4	643.19	-164.25
Stage 5	-11.6	609.07	-170.56
Stage 5	-11.8	573.66	-177.07
Stage 5	-12	536.88	-183.88
Stage 5	-12.2	498.69	-190.98
Stage 5	-12.4	459.01	-198.38
Stage 5	-12.6	417.79	-206.09
Stage 5	-12.8	374.98	-214.06
Stage 5	-13	330.53	-222.25
Stage 5	-13.2	284.4	-230.66
Stage 5	-13.4	242.37	-210.15
Stage 5	-13.6	204.23	-190.68
Stage 5	-13.8	169.79	-172.2
Stage 5	-14	138.87	-154.62
Stage 5	-14.2	111.27	-137.97
Stage 5	-14.4	86.82	-122.25
Stage 5	-14.6	65.33	-107.47
Stage 5	-14.8	46.6	-93.64

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-15	30.46	-80.7
Stage 5	-15.2	16.74	-68.59
Stage 5	-15.4	5.28	-57.29
Stage 5	-15.6	-4.08	-46.81
Stage 5	-15.8	-11.51	-37.15
Stage 5	-16	-17.17	-28.29
Stage 5	-16.2	-21.22	-20.25
Stage 5	-16.4	-23.82	-13.01
Stage 5	-16.6	-25.14	-6.59
Stage 5	-16.8	-25.33	-0.97
Stage 5	-17	-24.56	3.84
Stage 5	-17.2	-22.99	7.84
Stage 5	-17.4	-20.79	11.04
Stage 5	-17.6	-18.1	13.44
Stage 5	-17.8	-15.09	15.04
Stage 5	-18	-11.92	15.83
Stage 5	-18.2	-8.76	15.83
Stage 5	-18.4	-5.75	15.02
Stage 5	-18.6	-3.07	13.43
Stage 5	-18.8	-0.91	10.76
Stage 5	-19	0	4.57

Tabella Risultati Paratia NTC2018: SISMICA STR - Left Wall - Stage: Stage 6

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	205.56
Stage 6	-0.2	41.11	205.56
Stage 6	-0.4	82.04	204.64
Stage 6	-0.6	122.64	203.02
Stage 6	-0.8	162.84	201
Stage 6	-1	202.59	198.72
Stage 6	-1.2	241.85	196.33
Stage 6	-1.4	280.62	193.84
Stage 6	-1.6	318.86	191.2
Stage 6	-1.8	356.54	188.4
Stage 6	-2	393.63	185.41
Stage 6	-2.2	430.15	182.62
Stage 6	-2.4	466.05	179.53
Stage 6	-2.6	501.28	176.13
Stage 6	-2.8	535.77	172.43
Stage 6	-3	569.45	168.42
Stage 6	-3.2	602.27	164.11
Stage 6	-3.4	634.17	159.51
Stage 6	-3.6	665.09	154.59

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-3.8	694.96	149.36
Stage 6	-4	723.73	143.81
Stage 6	-4.2	751.31	137.93
Stage 6	-4.4	777.66	131.74
Stage 6	-4.6	802.71	125.23
Stage 6	-4.8	826.39	118.4
Stage 6	-5	848.64	111.27
Stage 6	-5.2	869.41	103.82
Stage 6	-5.4	888.62	96.06
Stage 6	-5.6	906.22	87.99
Stage 6	-5.8	922.14	79.61
Stage 6	-6	936.32	70.93
Stage 6	-6.2	948.71	61.93
Stage 6	-6.4	959.24	52.63
Stage 6	-6.6	967.84	43.02
Stage 6	-6.8	974.46	33.11
Stage 6	-7	979.04	22.89
Stage 6	-7.2	981.52	12.38
Stage 6	-7.4	981.75	1.17
Stage 6	-7.6	979.61	-10.72
Stage 6	-7.8	974.95	-23.3
Stage 6	-8	967.63	-36.56
Stage 6	-8.2	957.84	-48.97
Stage 6	-8.4	945.79	-60.27
Stage 6	-8.6	931.7	-70.44
Stage 6	-8.8	915.8	-79.49
Stage 6	-9	898.32	-87.42
Stage 6	-9.2	879.47	-94.22
Stage 6	-9.4	859.5	-99.88
Stage 6	-9.6	838.62	-104.4
Stage 6	-9.8	817.06	-107.78
Stage 6	-10	794.86	-110.99
Stage 6	-10.2	771.96	-114.49
Stage 6	-10.4	748.31	-118.27
Stage 6	-10.6	723.84	-122.36
Stage 6	-10.8	698.49	-126.76
Stage 6	-11	672.21	-131.4
Stage 6	-11.2	644.95	-136.28
Stage 6	-11.4	616.67	-141.4
Stage 6	-11.6	587.34	-146.68
Stage 6	-11.8	556.91	-152.15
Stage 6	-12	525.33	-157.9
Stage 6	-12.2	492.54	-163.93
Stage 6	-12.4	458.49	-170.25

Design Assumption: NTC2018: SISMICA STR Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-12.6	423.12	-176.86
Stage 6	-12.8	386.38	-183.72
Stage 6	-13	348.22	-190.78
Stage 6	-13.2	308.61	-198.04
Stage 6	-13.4	272.09	-182.64
Stage 6	-13.6	238.51	-167.88
Stage 6	-13.8	207.75	-153.79
Stage 6	-14	179.68	-140.38
Stage 6	-14.2	154.14	-127.68
Stage 6	-14.4	131	-115.7
Stage 6	-14.6	110.11	-104.44
Stage 6	-14.8	91.32	-93.94
Stage 6	-15	74.52	-84.02
Stage 6	-15.2	59.61	-74.56
Stage 6	-15.4	46.5	-65.56
Stage 6	-15.6	35.09	-57.03
Stage 6	-15.8	25.29	-48.99
Stage 6	-16	17	-41.44
Stage 6	-16.2	10.12	-34.4
Stage 6	-16.4	4.55	-27.89
Stage 6	-16.6	0.17	-21.9
Stage 6	-16.8	-3.12	-16.45
Stage 6	-17	-5.43	-11.55
Stage 6	-17.2	-6.87	-7.2
Stage 6	-17.4	-7.55	-3.4
Stage 6	-17.6	-7.59	-0.17
Stage 6	-17.8	-7.09	2.49
Stage 6	-18	-6.17	4.58
Stage 6	-18.2	-4.95	6.11
Stage 6	-18.4	-3.54	7.06
Stage 6	-18.6	-2.05	7.45
Stage 6	-18.8	-0.65	7
Stage 6	-19	0	3.24

Risultati Elementi strutturali - NTC2018: SISMICA STR

Design Assumption: NTC2018: SISMICA STR Sollecitazione Spring

Stage	Forza (kN/m)
Stage 2	-4.6129075E-16
Stage 3	86.975
Stage 4	222.3155
Stage 5	232.7658
Stage 6	205.5567

Risultati NTC2018: SISMICA GEO

Tabella Risultati Paratia NTC2018: SISMICA GEO - Left Wall - Stage: Stage 1

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.6	0	0
Stage 1	-0.8	0	0
Stage 1	-1	0	0
Stage 1	-1.2	0	0
Stage 1	-1.4	0	0
Stage 1	-1.6	0	0
Stage 1	-1.8	0	0
Stage 1	-2	0	0
Stage 1	-2.2	0	0
Stage 1	-2.4	0	0
Stage 1	-2.6	0	0
Stage 1	-2.8	0	0
Stage 1	-3	0	0
Stage 1	-3.2	0	0
Stage 1	-3.4	0	0
Stage 1	-3.6	0	0
Stage 1	-3.8	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

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
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
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

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
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

Tabella Risultati Paratia NTC2018: SISMICA GEO - Left Wall - Stage: Stage 2

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	0
Stage 2	-0.2	0	0
Stage 2	-0.4	0	0
Stage 2	-0.6	0	0
Stage 2	-0.8	0	0
Stage 2	-1	0	0
Stage 2	-1.2	0	0
Stage 2	-1.4	0	0
Stage 2	-1.6	0	0
Stage 2	-1.8	0	0
Stage 2	-2	0	0
Stage 2	-2.2	0	0
Stage 2	-2.4	0	0
Stage 2	-2.6	0	0
Stage 2	-2.8	0	0
Stage 2	-3	0	0
Stage 2	-3.2	0	0
Stage 2	-3.4	0	0
Stage 2	-3.6	0	0
Stage 2	-3.8	0	0
Stage 2	-4	0	0
Stage 2	-4.2	0	0
Stage 2	-4.4	0	0
Stage 2	-4.6	0	0
Stage 2	-4.8	0	0
Stage 2	-5	0	0
Stage 2	-5.2	0	0
Stage 2	-5.4	0	0
Stage 2	-5.6	0	0
Stage 2	-5.8	0	0
Stage 2	-6	0	0

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-6.2	0	0
Stage 2	-6.4	0	0
Stage 2	-6.6	0	0
Stage 2	-6.8	0	0
Stage 2	-7	0	0
Stage 2	-7.2	0	0
Stage 2	-7.4	0	0
Stage 2	-7.6	0	0
Stage 2	-7.8	0	0
Stage 2	-8	0	0
Stage 2	-8.2	0	0
Stage 2	-8.4	0	0
Stage 2	-8.6	0	0
Stage 2	-8.8	0	0
Stage 2	-9	0	0
Stage 2	-9.2	0	0
Stage 2	-9.4	0	0
Stage 2	-9.6	0	0
Stage 2	-9.8	0	0
Stage 2	-10	0	0
Stage 2	-10.2	0	0
Stage 2	-10.4	0	0
Stage 2	-10.6	0	0
Stage 2	-10.8	0	0
Stage 2	-11	0	0
Stage 2	-11.2	0	0
Stage 2	-11.4	0	0
Stage 2	-11.6	0	0
Stage 2	-11.8	0	0
Stage 2	-12	0	0
Stage 2	-12.2	0	0
Stage 2	-12.4	0	0
Stage 2	-12.6	0	0
Stage 2	-12.8	0	0
Stage 2	-13	0	0
Stage 2	-13.2	0	0
Stage 2	-13.4	0	0
Stage 2	-13.6	0	0
Stage 2	-13.8	0	0
Stage 2	-14	0	0
Stage 2	-14.2	0	0
Stage 2	-14.4	0	0
Stage 2	-14.6	0	0
Stage 2	-14.8	0	0

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-15	0	0
Stage 2	-15.2	0	0
Stage 2	-15.4	0	0
Stage 2	-15.6	0	0
Stage 2	-15.8	0	0
Stage 2	-16	0	0
Stage 2	-16.2	0	0
Stage 2	-16.4	0	0
Stage 2	-16.6	0	0
Stage 2	-16.8	0	0
Stage 2	-17	0	0
Stage 2	-17.2	0	0
Stage 2	-17.4	0	0
Stage 2	-17.6	0	0
Stage 2	-17.8	0	0
Stage 2	-18	0	0
Stage 2	-18.2	0	0
Stage 2	-18.4	0	0
Stage 2	-18.6	0	0
Stage 2	-18.8	0	0
Stage 2	-19	0	0

Tabella Risultati Paratia NTC2018: SISMICA GEO - Left Wall - Stage: Stage 3

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	86.98
Stage 3	-0.2	17.4	86.98
Stage 3	-0.4	34.59	86
Stage 3	-0.6	51.43	84.17
Stage 3	-0.8	67.78	81.75
Stage 3	-1	83.55	78.87
Stage 3	-1.2	98.67	75.6
Stage 3	-1.4	113.07	71.99
Stage 3	-1.6	126.68	68.05
Stage 3	-1.8	139.44	63.78
Stage 3	-2	151.27	59.19
Stage 3	-2.2	162.4	55.62
Stage 3	-2.4	172.77	51.85
Stage 3	-2.6	182.34	47.87
Stage 3	-2.8	191.08	43.68
Stage 3	-3	198.93	39.27
Stage 3	-3.2	206.46	37.63
Stage 3	-3.4	213.64	35.92
Stage 3	-3.6	220.46	34.11

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-3.8	226.9	32.2
Stage 3	-4	232.94	30.18
Stage 3	-4.2	238.54	28.02
Stage 3	-4.4	243.69	25.71
Stage 3	-4.6	248.34	23.25
Stage 3	-4.8	252.46	20.61
Stage 3	-5	256.08	18.09
Stage 3	-5.2	259.24	15.79
Stage 3	-5.4	261.97	13.68
Stage 3	-5.6	264.32	11.76
Stage 3	-5.8	266.33	10.01
Stage 3	-6	268.01	8.41
Stage 3	-6.2	269.39	6.94
Stage 3	-6.4	270.51	5.6
Stage 3	-6.6	271.39	4.36
Stage 3	-6.8	272.03	3.22
Stage 3	-7	272.46	2.15
Stage 3	-7.2	272.69	1.14
Stage 3	-7.4	272.73	0.18
Stage 3	-7.6	272.57	-0.76
Stage 3	-7.8	272.24	-1.68
Stage 3	-8	271.72	-2.61
Stage 3	-8.2	270.98	-3.69
Stage 3	-8.4	269.95	-5.13
Stage 3	-8.6	268.57	-6.92
Stage 3	-8.8	266.75	-9.08
Stage 3	-9	264.43	-11.61
Stage 3	-9.2	261.53	-14.51
Stage 3	-9.4	257.97	-17.8
Stage 3	-9.6	253.67	-21.47
Stage 3	-9.8	248.57	-25.53
Stage 3	-10	242.57	-30
Stage 3	-10.2	235.59	-34.87
Stage 3	-10.4	227.56	-40.15
Stage 3	-10.6	218.39	-45.85
Stage 3	-10.8	208	-51.97
Stage 3	-11	196.31	-58.48
Stage 3	-11.2	183.23	-65.38
Stage 3	-11.4	168.69	-72.69
Stage 3	-11.6	152.61	-80.4
Stage 3	-11.8	134.91	-88.52
Stage 3	-12	115.49	-97.06
Stage 3	-12.2	94.29	-106.02
Stage 3	-12.4	71.21	-115.41

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-12.6	46.17	-125.21
Stage 3	-12.8	19.09	-135.37
Stage 3	-13	-10.07	-145.79
Stage 3	-13.2	-41.36	-156.48
Stage 3	-13.4	-68.74	-136.9
Stage 3	-13.6	-92.41	-118.32
Stage 3	-13.8	-112.55	-100.73
Stage 3	-14	-129.38	-84.11
Stage 3	-14.2	-143.06	-68.43
Stage 3	-14.4	-153.8	-53.68
Stage 3	-14.6	-161.76	-39.8
Stage 3	-14.8	-167.12	-26.79
Stage 3	-15	-170.03	-14.59
Stage 3	-15.2	-170.67	-3.18
Stage 3	-15.4	-169.18	7.48
Stage 3	-15.6	-165.69	17.42
Stage 3	-15.8	-160.35	26.69
Stage 3	-16	-153.29	35.31
Stage 3	-16.2	-144.63	43.32
Stage 3	-16.4	-134.48	50.75
Stage 3	-16.6	-122.95	57.63
Stage 3	-16.8	-110.3	63.26
Stage 3	-17	-96.91	66.95
Stage 3	-17.2	-83.15	68.79
Stage 3	-17.4	-69.39	68.83
Stage 3	-17.6	-55.96	67.14
Stage 3	-17.8	-43.21	63.77
Stage 3	-18	-31.46	58.75
Stage 3	-18.2	-21.03	52.11
Stage 3	-18.4	-12.32	43.57
Stage 3	-18.6	-5.69	33.16
Stage 3	-18.8	-1.49	20.99
Stage 3	-19	0	7.45

Tabella Risultati Paratia NTC2018: SISMICA GEO - Left Wall - Stage: Stage 4

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	222.32
Stage 4	-0.2	44.46	222.32
Stage 4	-0.4	88.77	221.52
Stage 4	-0.6	132.76	219.98
Stage 4	-0.8	176.36	217.96
Stage 4	-1	219.47	215.59
Stage 4	-1.2	262.06	212.95

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-1.4	304.08	210.07
Stage 4	-1.6	345.47	206.97
Stage 4	-1.8	386.2	203.65
Stage 4	-2	426.22	200.12
Stage 4	-2.2	465.69	197.34
Stage 4	-2.4	504.55	194.27
Stage 4	-2.6	542.73	190.92
Stage 4	-2.8	580.19	187.3
Stage 4	-3	616.87	183.4
Stage 4	-3.2	652.72	179.23
Stage 4	-3.4	687.67	174.77
Stage 4	-3.6	721.68	170.04
Stage 4	-3.8	754.69	165.05
Stage 4	-4	786.65	159.8
Stage 4	-4.2	817.51	154.32
Stage 4	-4.4	847.23	148.58
Stage 4	-4.6	875.74	142.58
Stage 4	-4.8	903.01	136.33
Stage 4	-5	928.97	129.82
Stage 4	-5.2	953.59	123.06
Stage 4	-5.4	976.8	116.05
Stage 4	-5.6	998.55	108.79
Stage 4	-5.8	1018.81	101.28
Stage 4	-6	1037.51	93.51
Stage 4	-6.2	1054.61	85.5
Stage 4	-6.4	1070.06	77.24
Stage 4	-6.6	1083.81	68.74
Stage 4	-6.8	1095.81	59.98
Stage 4	-7	1106	50.98
Stage 4	-7.2	1114.35	41.74
Stage 4	-7.4	1120.7	31.72
Stage 4	-7.6	1124.88	20.94
Stage 4	-7.8	1126.76	9.39
Stage 4	-8	1127.57	4.02
Stage 4	-8.2	1127.15	-2.08
Stage 4	-8.4	1125.37	-8.91
Stage 4	-8.6	1122.07	-16.49
Stage 4	-8.8	1117.11	-24.82
Stage 4	-9	1110.32	-33.92
Stage 4	-9.2	1101.57	-43.78
Stage 4	-9.4	1090.68	-54.42
Stage 4	-9.6	1077.51	-65.85
Stage 4	-9.8	1061.9	-78.08
Stage 4	-10	1043.67	-91.11

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-10.2	1022.68	-104.95
Stage 4	-10.4	998.77	-119.6
Stage 4	-10.6	971.75	-135.09
Stage 4	-10.8	941.47	-151.41
Stage 4	-11	907.76	-168.53
Stage 4	-11.2	870.47	-186.47
Stage 4	-11.4	829.43	-205.19
Stage 4	-11.6	784.54	-224.41
Stage 4	-11.8	735.71	-244.15
Stage 4	-12	682.83	-264.42
Stage 4	-12.2	625.78	-285.23
Stage 4	-12.4	564.47	-306.59
Stage 4	-12.6	498.76	-328.51
Stage 4	-12.8	428.58	-350.91
Stage 4	-13	353.84	-373.71
Stage 4	-13.2	274.45	-396.93
Stage 4	-13.4	203.68	-353.89
Stage 4	-13.6	141.06	-313.07
Stage 4	-13.8	86.17	-274.47
Stage 4	-14	38.55	-238.1
Stage 4	-14.2	-2.24	-203.94
Stage 4	-14.4	-36.64	-171.99
Stage 4	-14.6	-65.08	-142.22
Stage 4	-14.8	-88.01	-114.62
Stage 4	-15	-105.84	-89.15
Stage 4	-15.2	-119	-65.79
Stage 4	-15.4	-127.9	-44.51
Stage 4	-15.6	-132.95	-25.28
Stage 4	-15.8	-134.56	-8.05
Stage 4	-16	-133.13	7.18
Stage 4	-16.2	-129.03	20.47
Stage 4	-16.4	-122.66	31.84
Stage 4	-16.6	-114.4	41.32
Stage 4	-16.8	-104.61	48.94
Stage 4	-17	-93.67	54.71
Stage 4	-17.2	-81.93	58.68
Stage 4	-17.4	-69.77	60.84
Stage 4	-17.6	-57.52	61.23
Stage 4	-17.8	-45.55	59.85
Stage 4	-18	-34.2	56.73
Stage 4	-18.2	-23.83	51.86
Stage 4	-18.4	-14.78	45.25
Stage 4	-18.6	-7.4	36.92
Stage 4	-18.8	-2.1	26.47

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-19	0	10.52

Tabella Risultati Paratia NTC2018: SISMICA GEO - Left Wall - Stage: Stage 5

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	232.77
Stage 5	-0.2	46.55	232.77
Stage 5	-0.4	92.92	231.86
Stage 5	-0.6	138.95	230.15
Stage 5	-0.8	184.53	227.89
Stage 5	-1	229.58	225.23
Stage 5	-1.2	274.03	222.23
Stage 5	-1.4	317.81	218.93
Stage 5	-1.6	360.88	215.35
Stage 5	-1.8	403.18	211.49
Stage 5	-2	444.65	207.35
Stage 5	-2.2	485.37	203.59
Stage 5	-2.4	525.27	199.49
Stage 5	-2.6	564.28	195.06
Stage 5	-2.8	602.34	190.31
Stage 5	-3	639.39	185.23
Stage 5	-3.2	675.36	179.84
Stage 5	-3.4	710.18	174.1
Stage 5	-3.6	743.78	168.04
Stage 5	-3.8	776.12	161.67
Stage 5	-4	807.12	154.99
Stage 5	-4.2	836.72	148.01
Stage 5	-4.4	864.86	140.71
Stage 5	-4.6	891.48	133.11
Stage 5	-4.8	916.52	125.19
Stage 5	-5	939.91	116.95
Stage 5	-5.2	961.59	108.41
Stage 5	-5.4	981.5	99.56
Stage 5	-5.6	999.58	90.39
Stage 5	-5.8	1015.76	80.91
Stage 5	-6	1029.99	71.13
Stage 5	-6.2	1042.19	61.03
Stage 5	-6.4	1052.32	50.63
Stage 5	-6.6	1060.3	39.91
Stage 5	-6.8	1066.08	28.89
Stage 5	-7	1069.59	17.55
Stage 5	-7.2	1070.77	5.91
Stage 5	-7.4	1069.49	-6.42
Stage 5	-7.6	1065.6	-19.46

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-7.8	1058.96	-33.18
Stage 5	-8	1049.52	-47.18
Stage 5	-8.2	1037.51	-60.09
Stage 5	-8.4	1023.13	-71.89
Stage 5	-8.6	1006.61	-82.6
Stage 5	-8.8	988.17	-92.21
Stage 5	-9	968.02	-100.71
Stage 5	-9.2	946.4	-108.11
Stage 5	-9.4	923.52	-114.4
Stage 5	-9.6	899.6	-119.59
Stage 5	-9.8	874.87	-123.66
Stage 5	-10	849.35	-127.6
Stage 5	-10.2	822.98	-131.85
Stage 5	-10.4	795.7	-136.43
Stage 5	-10.6	767.42	-141.35
Stage 5	-10.8	738.1	-146.62
Stage 5	-11	707.66	-152.21
Stage 5	-11.2	676.04	-158.11
Stage 5	-11.4	643.19	-164.25
Stage 5	-11.6	609.07	-170.56
Stage 5	-11.8	573.66	-177.07
Stage 5	-12	536.88	-183.88
Stage 5	-12.2	498.69	-190.98
Stage 5	-12.4	459.01	-198.38
Stage 5	-12.6	417.79	-206.09
Stage 5	-12.8	374.98	-214.06
Stage 5	-13	330.53	-222.25
Stage 5	-13.2	284.4	-230.66
Stage 5	-13.4	242.37	-210.15
Stage 5	-13.6	204.23	-190.68
Stage 5	-13.8	169.79	-172.2
Stage 5	-14	138.87	-154.62
Stage 5	-14.2	111.27	-137.97
Stage 5	-14.4	86.82	-122.25
Stage 5	-14.6	65.33	-107.47
Stage 5	-14.8	46.6	-93.64
Stage 5	-15	30.46	-80.7
Stage 5	-15.2	16.74	-68.59
Stage 5	-15.4	5.28	-57.29
Stage 5	-15.6	-4.08	-46.81
Stage 5	-15.8	-11.51	-37.15
Stage 5	-16	-17.17	-28.29
Stage 5	-16.2	-21.22	-20.25
Stage 5	-16.4	-23.82	-13.01

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-16.6	-25.14	-6.59
Stage 5	-16.8	-25.33	-0.97
Stage 5	-17	-24.56	3.84
Stage 5	-17.2	-22.99	7.84
Stage 5	-17.4	-20.79	11.04
Stage 5	-17.6	-18.1	13.44
Stage 5	-17.8	-15.09	15.04
Stage 5	-18	-11.92	15.83
Stage 5	-18.2	-8.76	15.83
Stage 5	-18.4	-5.75	15.02
Stage 5	-18.6	-3.07	13.43
Stage 5	-18.8	-0.91	10.76
Stage 5	-19	0	4.57

Tabella Risultati Paratia NTC2018: SISMICA GEO - Left Wall - Stage: Stage 6

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	205.56
Stage 6	-0.2	41.11	205.56
Stage 6	-0.4	82.04	204.64
Stage 6	-0.6	122.64	203.02
Stage 6	-0.8	162.84	201
Stage 6	-1	202.59	198.72
Stage 6	-1.2	241.85	196.33
Stage 6	-1.4	280.62	193.84
Stage 6	-1.6	318.86	191.2
Stage 6	-1.8	356.54	188.4
Stage 6	-2	393.63	185.41
Stage 6	-2.2	430.15	182.62
Stage 6	-2.4	466.05	179.53
Stage 6	-2.6	501.28	176.13
Stage 6	-2.8	535.77	172.43
Stage 6	-3	569.45	168.42
Stage 6	-3.2	602.27	164.11
Stage 6	-3.4	634.17	159.51
Stage 6	-3.6	665.09	154.59
Stage 6	-3.8	694.96	149.36
Stage 6	-4	723.73	143.81
Stage 6	-4.2	751.31	137.93
Stage 6	-4.4	777.66	131.74
Stage 6	-4.6	802.71	125.23
Stage 6	-4.8	826.39	118.4
Stage 6	-5	848.64	111.27
Stage 6	-5.2	869.41	103.82

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-5.4	888.62	96.06
Stage 6	-5.6	906.22	87.99
Stage 6	-5.8	922.14	79.61
Stage 6	-6	936.32	70.93
Stage 6	-6.2	948.71	61.93
Stage 6	-6.4	959.24	52.63
Stage 6	-6.6	967.84	43.02
Stage 6	-6.8	974.46	33.11
Stage 6	-7	979.04	22.89
Stage 6	-7.2	981.52	12.38
Stage 6	-7.4	981.75	1.17
Stage 6	-7.6	979.61	-10.72
Stage 6	-7.8	974.95	-23.3
Stage 6	-8	967.63	-36.56
Stage 6	-8.2	957.84	-48.97
Stage 6	-8.4	945.79	-60.27
Stage 6	-8.6	931.7	-70.44
Stage 6	-8.8	915.8	-79.49
Stage 6	-9	898.32	-87.42
Stage 6	-9.2	879.47	-94.22
Stage 6	-9.4	859.5	-99.88
Stage 6	-9.6	838.62	-104.4
Stage 6	-9.8	817.06	-107.78
Stage 6	-10	794.86	-110.99
Stage 6	-10.2	771.96	-114.49
Stage 6	-10.4	748.31	-118.27
Stage 6	-10.6	723.84	-122.36
Stage 6	-10.8	698.49	-126.76
Stage 6	-11	672.21	-131.4
Stage 6	-11.2	644.95	-136.28
Stage 6	-11.4	616.67	-141.4
Stage 6	-11.6	587.34	-146.68
Stage 6	-11.8	556.91	-152.15
Stage 6	-12	525.33	-157.9
Stage 6	-12.2	492.54	-163.93
Stage 6	-12.4	458.49	-170.25
Stage 6	-12.6	423.12	-176.86
Stage 6	-12.8	386.38	-183.72
Stage 6	-13	348.22	-190.78
Stage 6	-13.2	308.61	-198.04
Stage 6	-13.4	272.09	-182.64
Stage 6	-13.6	238.51	-167.88
Stage 6	-13.8	207.75	-153.79
Stage 6	-14	179.68	-140.38

Design Assumption: NTC2018: SISMICA GEO Risultati Paratia Muro: LEFT

Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-14.2	154.14	-127.68
Stage 6	-14.4	131	-115.7
Stage 6	-14.6	110.11	-104.44
Stage 6	-14.8	91.32	-93.94
Stage 6	-15	74.52	-84.02
Stage 6	-15.2	59.61	-74.56
Stage 6	-15.4	46.5	-65.56
Stage 6	-15.6	35.09	-57.03
Stage 6	-15.8	25.29	-48.99
Stage 6	-16	17	-41.44
Stage 6	-16.2	10.12	-34.4
Stage 6	-16.4	4.55	-27.89
Stage 6	-16.6	0.17	-21.9
Stage 6	-16.8	-3.12	-16.45
Stage 6	-17	-5.43	-11.55
Stage 6	-17.2	-6.87	-7.2
Stage 6	-17.4	-7.55	-3.4
Stage 6	-17.6	-7.59	-0.17
Stage 6	-17.8	-7.09	2.49
Stage 6	-18	-6.17	4.58
Stage 6	-18.2	-4.95	6.11
Stage 6	-18.4	-3.54	7.06
Stage 6	-18.6	-2.05	7.45
Stage 6	-18.8	-0.65	7
Stage 6	-19	0	3.24

Risultati Elementi strutturali - NTC2018: SISMICA GEO

Design Assumption: NTC2018: SISMICA GEO Sollecitazione Spring

Stage	Forza (kN/m)
Stage 2	-4.6129075E-16
Stage 3	86.975
Stage 4	222.3155
Stage 5	232.7658
Stage 6	205.5567