

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

**S.S. 38 - LOTTO 4: NODO DI TIRANO -  
TRATTA "A" (SVINCOLO DI BIANZONE - SVINCOLO LA GANDA)  
E TRATTA "B" (SVINCOLO LA GANDA - CAMPONE IN TIRANO),  
AI SENSI DEL PROTOCOLLO D'INTESA DEL 05/11/2007**

**PROGETTO ESECUTIVO**

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**HE05**

**OPERE D'ARTE MAGGIORI - GALLERIE NATURALI**

HE - GN03 - GALLERIA IL DOSSO: IMBOCCO LATO BORMIO

Opere Provvisoriali - Relazione di calcolo

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## 1 INTRODUZIONE

La presente relazione è inserita nell'ambito del Progetto Esecutivo della progettazione della "SS 38 Lotto 4 Nodo di Tirano, Tratta A (Svincolo di Bianzone - Svincolo La Ganda) e Tratta B (Svincolo La Ganda - Campone in Tirano).

La galleria "Il Dosso" è ubicata a SE del Comune di Tirano al piede del versante orografico sinistro del Fiume Adda.

Nel presente documento si affrontano le problematiche progettuali connesse al dimensionamento ed alla verifica della paratia provvisoria di micropali necessaria a sostenere gli scavi per la realizzazione dell'imbocco della galleria.

La paratia di micropali in oggetto è costituita da una singola fila di micropali armati con tubo in acciaio S 355 H, disposti ad interasse di 40 cm, collegati in testa da un cordolo in c.a., al di sotto ci sono fino a 7 ordini di tiranti attivi provvisori.

L'azione di contrasto dei tiranti è distribuita sui micropali dalle travi di collegamento e ripartizione previste lungo ciascun ordine e costituite da un doppio profilato in acciaio S 275 della serie HE 220A, collegate da calastrelli, disposti con interasse di  $2 \div 2.4$  m. Gli stessi tiranti saranno ancorati a suddette travi tramite apposite piastre di ripartizione che garantiscono la stabilità e la ripartizione necessaria a trasferire gli elevati carichi concentrati dei tiranti al sistema di travi di contrasto.

La paratia sarà protetta mediante uno strato di betoncino proiettato di spessore 10 cm, armato con rete elettrosaldata  $\varnothing 5$ , passo 20x20 cm.

Formalmente la paratia risulta opera provvisoria dall'imbocco galleria Pk. 6+118,26 fino alla Pk. 6+158 (circa) dato che lo scavo sarà ritombato, in tale tratto vengono disposti tiranti temporanei; tra la Pk. 6+158 (circa) e la Pk. 6+227.26 invece l'opera viene rivestita da una parete in c.a. e ha carattere definitivo, in tale tratto si dispongono quindi tiranti permanenti.

Micropali paratia: verticali

diametro del tubo: 177.8 mm

spessore del tubo: 10 mm

interasse: 0.40 m

diametro perforazione: 240 mm

lunghezza micropali: variabile da 6 m a 26 m

Tiranti attivi: inclinati di  $10^\circ$  e  $20^\circ$  sull'orizzontale

composizione: 4 trefoli da 0.6" standard ( $A = 4 \times 139 = 556 \text{ mm}^2$ )

lunghezza totale: variabile da 22 m a 31 m

interasse:  $2.00 \div 2.40$  m

lunghezza bulbo: 12 m

diametro di perforazione: 160 mm

iniezione bulbo: malta cementizia ad alta pressione con iniezioni ripetute e selettive (IRS).

tensione di tesatura: 120 kN/trefolo (480 kN/tirante)

tensione di collaudo:  $1.2 \times 120 = 144$  kN/trefolo (576 kN/tirante)

Il cordolo in c.a. di collegamento di testa dei micropali ha dimensioni pari a 50x50 cm.

Nel seguito si eseguono i calcoli per le sezioni più significative; si assume che i tratti con altezza inferiore siano implicitamente verificati.

## 2 NORMATIVA DI RIFERIMENTO

La presente relazione è stata redatta in osservanza delle seguenti Normative:

- **Legge 05/01/1971 n.1086** → Norme per la disciplina delle opere in conglomerato cementizio armato, normale e precompresso ed a struttura metallica
- **Legge 02/02/1974 n. 64** → Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche
- **DM 17/01/2018** → Aggiornamento delle “Norme Tecniche per le Costruzioni”
- **Circolare 02/02/2009 n. 617, C.S. LL.PP.** → Istruzioni per l’applicazione delle “Norme Tecniche per le Costruzioni” di cui al DM 14/01/2008.
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## 3 CARATTERISTICHE DEI MATERIALI

Con riferimento alle normative citate, le strutture sono state verificate utilizzando il metodo di calcolo agli stati limite, adottando i seguenti parametri di resistenza dei materiali:

### 3.1 CALCESTRUZZO CORDOLO DI TESTA

- Classe calcestruzzo: C25/30
- resistenza cilindrica caratteristica:  $f_{ck} \geq 25 \text{ N/mm}^2$
- resistenza di calcolo a compressione:  $f_{cd} = \alpha_{cc} f_{ck} / \gamma_c = 0.85 \times 25 / 1.5 = 14.17 \text{ N/mm}^2$
- modulo di elasticità:  $E_{cm} = 22000 [(f_{ck}+8)/10]^{0.3} = 31476 \text{ N/mm}^2$

### 3.2 ACCIAIO ORDINARIO PER ARMATURE C.A.

- Tipo B450C controllato in stabilimento, di tipo saldabile.
- tensione caratteristica di rottura:  $f_{tk} = 540 \text{ N/mm}^2$
- tensione caratteristica di snervamento:  $f_{yk} = 450 \text{ N/mm}^2$
- resistenza di calcolo:  $f_{yd} = f_{yk} / \gamma_s = 450 / 1.15 = 391 \text{ N/mm}^2$
- modulo di elasticità:  $E_s = 210000 \text{ N/mm}^2$

### 3.3 ACCIAIO STRUTTURALE MICROPALI

- Classificazione acciaio (UNI EN 10210-1): S 355 H
- Tensione caratteristica di snervamento:  $f_{yk} = 355 \text{ N/mm}^2$
- Tensione caratteristica di rottura:  $f_{tk} = 510 \text{ N/mm}^2$
- Tensione limite di calcolo a trazione:  $f_{yd} = f_{yk} / \gamma_{M0} = 355 / 1.05 = 338.0 \text{ N/mm}^2$
- Modulo elastico:  $E = 210000 \text{ N/mm}^2$

### 3.4 ACCIAIO STRUTTURALE TRAVI DI RIPARTIZIONE TIRANTI

- Classificazione acciaio (UNI EN 10025-2): S 275
- Tensione caratteristica di snervamento:  $f_{yk} = 275 \text{ N/mm}^2$
- Tensione caratteristica di rottura:  $f_{tk} = 430 \text{ N/mm}^2$
- Tensione limite di calcolo a trazione:  $f_{yd} = f_{yk} / \gamma_{M0} = 275 / 1.05 = 262.0 \text{ N/mm}^2$
- Modulo elastico:  $E = 210000 \text{ N/mm}^2$

### 3.5 ACCIAIO IN TREFOLI PER TIRANTI

- Tipo acciaio armonico: 170/190
- tensione caratteristica di rottura:  $f_{ptk} = 1860 \text{ N/mm}^2$
- tensione caratteristica all' 1% di def. totale:  $f_{p(1)k} = 1670 \text{ N/mm}^2$
- resistenza di calcolo:  $f_{yd} = f_{pyk} / \gamma_s = 1670 / 1.15 = 1452 \text{ N/mm}^2$
- modulo di elasticità:  $E_s = 200000 \text{ N/mm}^2$

## 4 CARATTERIZZAZIONE GEOTECNICA

I parametri necessari a definire le caratteristiche del terreno ai fini del calcolo delle strutture sono ricavati dagli elaborati geologici e geotecnici.

La struttura ricade interamente, per un primo tratto, nello strato denominato "Morena: depositi caotici misti a detrito di versante costituiti da un accumulo caotico di diverse facies granulometriche rappresentate da sabbie, ghiaie e trovanti di dimensioni variabili in matrice limo-sabbiosa"; procedendo lungo l'asse gradatamente si incontra lo strato denominato "Conoide di deiezione: depositi detritici mediamente addensati a granulometria prevalentemente grossolana ghiaioso-sabbiosa in scarsa matrice limosa".

Si assumono i seguenti parametri geotecnici caratteristici:

Morena:

- peso specifico apparente:  $\gamma = 20 \text{ kN/m}^3$
- angolo di attrito interno:  $\phi = 33^\circ$
- coesione drenata:  $c' = 0 \text{ kN/m}^2$
- densità relativa:  $d_r = 48 \%$
- modulo di deformazione:  $E = 21000 \text{ kN/m}^2$

Conoide di deiezione:

- peso specifico apparente:  $\gamma = 19 \text{ kN/m}^3$
- angolo di attrito interno:  $\phi = 37^\circ$
- coesione drenata:  $c' = 0 \text{ kN/m}^2$
- densità relativa:  $d_r = 63 \%$
- modulo di deformazione:  $E = 33000 \text{ kN/m}^2$

Cautelativamente nei calcoli seguenti si considera sempre il terreno più "gravoso" (Morena).

Per entrambi i materiali si definiscono le tensioni limite di aderenza secondo Bustamante-Doix, per terreno ghiaioso/sabbioso,  $N_{SPT} = 30$ :

- iniezione a gravità o bassa pressione:  $\tau_{lim} = 84 \text{ kN/m}^2 \quad \alpha = 1$
- iniezione ripetuta ad alta pressione da una valvola di fondo:  $\tau_{lim} = 118 \text{ kN/m}^2 \quad \alpha = 1.2$

iniezione ripetuta ad alta pressione da più valvole ( $i \leq 1$  m):  $\tau_{lim} = 179 \text{ kN/m}^2$   $\alpha = 1.4$

La falda si trova a una profondità tale da non interessare l'opera in oggetto.

## 5 INQUADRAMENTO SISMICO DELL'OPERA

La vita nominale di un'opera strutturale, così come definita al punto 2.4.1 del DM 17/01/2018, è intesa come il numero di anni nel quale la struttura, purché soggetta alla manutenzione ordinaria, deve poter essere usata per lo scopo al quale è destinata.

Nel caso in oggetto, si hanno in realtà due tipi di costruzioni:

- Tratto provvisoriale che sarà ritombato: dall'imbocco galleria Pk. 6+118,26 fino alla Pk. 6+158 (circa): l'opera ricade nella definizione di Tipo 1: "Costruzioni temporanee o provvisorie" e si assume che la condizione di utilizzo permanga per meno di 2 anni.

Si omettono le verifiche sismiche relative.

- Tratto definitivo, rivestito: tra la Pk. 6+158 (circa) e la Pk. 6+227.26: l'opera ricade nella definizione di Tipo 3: "Costruzioni con livelli di prestazioni elevati" e si assume una vita nominale di progetto  $V_N = 100$  anni.

Per questo secondo tratto la pericolosità sismica del sito viene determinata secondo il D.M. 17/01/2018 allo stato limite di salvaguardia della vita (S.L.V.) assunto come coordinate di riferimento (ED50):

Latitudine (N) =  $46.2150^\circ$   
 Longitudine (E) =  $10.1853^\circ$

La vita nominale della struttura, intesa come il numero di anni durante il quale la struttura deve poter essere usata per lo scopo di destinazione, purché soggetta all'ordinaria manutenzione, viene stabilita:

$$V_N = 100 \text{ anni}$$

In riguardo alle azioni sismiche si fa riferimento a "Costruzioni il cui uso preveda affollamenti significativi"; la classe d'uso è quindi:

Classe III: coefficiente d'uso:  $C_U = 1.5$

Il periodo di riferimento per l'azione sismica risultante è quindi:

$$V_R = V_N \cdot C_U = 100 \cdot 1.5 = 150 \text{ anni}$$

I periodi di ritorno per la definizione dell'azione sismica e i parametri correlati a ciascun stato limite sono riportati nella seguente tabella in cui:

$T_R$ : tempo di riferimento di ritorno

$a_g$ : accelerazione orizzontale massima su sito di riferimento rigido orizzontale

$F_0$ : valore massimo del fattore di amplificazione dello spettro in acc. orizzontale

$T_C^*$ : periodo di inizio del tratto a velocità costante dello spettro in acc. orizzontale

STATO LIMITE	$T_R$ [anni]	$a_g$ [g]	$F_0$ [-]	$T_C^*$ [s]
SLO	90	0.0423	2.562	0.228
SLD	151	0.0520	2.561	0.243

SLV	1424	0.1108	2.618	0.289
SLC	2475	0.1310	2.642	0.296

La risposta sismica locale viene calcolata allo S.L.V. assumendo:

Categoria di sottosuolo: B  
 coefficiente di amplificazione stratigrafica:  $S_s = 1.2$

a) Per il lato fronte galleria / verso monte:

categoria topografica: T2  
 coefficiente di amplificazione topografica:  $S_t = 1.2$   
 accelerazione orizzontale massima attesa al sito:  $a_{max} = S_s S_t a_g = 0.1596 g$   
 spostamento ammissibile massimo:  $u_s = 2 cm$   
 Coefficienti riduttivi dell'accelerazione massima:  $\alpha = 1$   
 $\beta = 0.734$   
 Coefficiente sismico orizzontale:  $k_h = 0.1172$

b) Per il lato verso valle:

categoria topografica: T1  
 coefficiente di amplificazione topografica:  $S_t = 1$   
 accelerazione orizzontale massima attesa al sito:  $a_{max} = S_s S_t a_g = 0.1330 g$   
 spostamento ammissibile massimo:  $u_s = 2 cm$   
 Coefficienti riduttivi dell'accelerazione massima:  $\alpha = 1$   
 $\beta = 0.734$   
 Coefficiente sismico orizzontale:  $k_h = 0.0976$

## 6 APPROCCI DI PROGETTO

### 6.1 VERIFICHE STRUTTURALI (STR)

Si fa riferimento al paragrafo 2.5.3, 6.2.3.1.1 , 6.5.3.1.1 e 7.11.6.2.2 delle NTC 2018.

Per le verifiche strutturali della paratia e dei tiranti si considerano i seguenti stati limite:

- **SLU STR (A1+M1+R1):** Verifiche allo stato limite ultimo delle strutture, caso statico [2.5.1]
- **SLV STR (A1+M1+R1):** Verifiche allo stato limite ultimo delle strutture, caso sismico [2.5.5]

Nella tabella seguente si riportano i coefficienti parziali relativi alle azioni A1, o per il loro effetto, per le combinazioni di carico previste; si omettono i coefficienti parziali relativi al terreno ( $\gamma_M$ ) e alle resistenze ( $\gamma_R$ ), tutti unitari.

Si intende che le azioni del terreno (spinte attive e passive) e dell'acqua sono carichi permanenti strutturali, così come le azioni dei tiranti.



Si nota che l'azione del terreno sarebbe contemporaneamente "sfavorevole" (spinta attiva da monte) e "favorevole" (spinta passiva di valle); essendo le azioni originate da una fonte unica, si considera per entrambe lo stesso coefficiente parziale.

CASO	Permanenti strutturali $\gamma_{G1}$		Altri permanenti: $\gamma_{G2}$		Variabili: $\gamma_{Qki}$	
	Sfavorevoli	Favorevoli	Sfavorevoli	Favorevoli	Sfavorevoli	Favorevoli
<b>SLU (STR)</b>	1.3	1.0	1.5	0	1.5	0
<b>SLV (STR)</b>	1	1	1	0	1	0

TABELLA N.6.1- COEFFICIENTI PARZIALI AZIONI – CASO A1

## 6.2 ALTRE VERIFICHE

Si fa riferimento al paragrafo 6.5.3.1.2 delle NTC 2018 considerando gli stati limite ultimi pertinenti; si escludono stati limite di tipo idraulico (UPL e HYD) in quanto la falda non interferisce con l'opera che comunque possiede ampie capacità drenanti; inoltre si esclude la possibilità di collasso per rotazione rigida in quanto opera relativamente flessibile e vincolata da più file di tiranti.

### 6.2.1 Verifiche di stabilità del fondo scavo (GEO)

Si verifica che la spinta passiva mobilitata a valle della paratia sia inferiore alla spinta passiva disponibile.

- **SLU GEO (A2+M2+R1):** Verifiche allo stato limite ultimo, caso statico
- **SLV GEO (A2+M2+R1):** Verifiche allo stato limite ultimo, caso sismico

Nelle tabelle seguenti si riportano i coefficienti parziali relativi alle azioni A2, o per il loro effetto, e ai parametri geotecnici M2 per le combinazioni di carico previste; si omettono i coefficienti parziali relativi alle resistenze ( $\gamma_R$ ), tutti unitari.

CASO	Permanenti strutturali $\gamma_{G1}$		Altri permanenti: $\gamma_{G2}$		Variabili: $\gamma_{Qki}$	
	Sfavorevoli	Favorevoli	Sfavorevoli	Favorevoli	Sfavorevoli	Favorevoli
<b>SLU (GEO)</b>	1	1	1.3	0	1.3	0
<b>SLV (GEO)</b>	1	1	1	0	1	0

TABELLA N.6.2- COEFFICIENTI PARZIALI AZIONI – CASO A2

Parametro geotecnico	Coefficiente parziale	(M1)	(M2)
Tangente dell'angolo di resistenza al taglio	$\gamma_{\varphi'}$	1	1.25
Coesione efficace	$\gamma_{c'}$	1	1.25
Resistenza non drenata	$\gamma_{cu}$	1	1.4
Peso dell'unità di volume	$\gamma_Y$	1	1

TABELLA N.6.3- COEFFICIENTI PARZIALI PARAMETRI GEOTECNICI

## 6.2.2 Verifica del carico limite del bulbo di ancoraggio dei tiranti (GEO)

Si verifica lo stato limite di sfilamento della fondazione dell'ancoraggio.

- **SLU GEO (A1+M1+R3):** Verifica geotecnica ancoraggio tiranti

La verifica a sfilamento della fondazione dell'ancoraggio si esegue confrontando la massima azione di progetto  $E_d$  con la resistenza di progetto  $R_{ad}$ , determinata applicando alla resistenza caratteristica  $R_{ak}$  i coefficienti parziali  $\gamma_R$  riportati nella Tab. 6.6.I seguente.

	Simbolo	Coefficiente parziale
Temporanei	$\gamma_R$	1.1
Permanenti	$\gamma_R$	1.2

TABELLA N.6.6.I- COEFFICIENTI PARZIALI PER LA RESISTENZA DEGLI ANCORAGGI

Il valore caratteristico della resistenza allo sfilamento dell'ancoraggio  $R_{ak}$  si determina con metodo di calcolo analitico dai valori caratteristici dei parametri geotecnici e applicando i fattori di correlazione  $\xi_{a3}$  e  $\xi_{a4}$  riportati nella Tab. 6.6.III seguente.

Numero di profili di indagine	1	2	3	4	$\geq 5$
$\xi_{a3}$	1.80	1.75	1.70	1.65	1.60
$\xi_{a4}$	1.80	1.70	1.65	1.60	1.55

TABELLA N.6.6.III- FATTORI DI CORRELAZIONE PER DERIVARE LA RESISTENZA CARATTERISTICA DALLE PROVE GEOTECNICHE, IN FUNZIONE DEL NUMERO DI PROFILI DI INDAGINE

Nel caso in esame si assume:  $\xi_{a3} = \xi_{a4} = 1.80$  (1 profilo).

## 6.2.3 Instabilità globale dell'insieme terreno-opera (GEO)

Nelle verifiche agli stati limite ultimi per la verifica dell'instabilità globale dell'insieme terreno-opera l'analisi sarà condotta con riferimento alla **Combinazione 2: (A2+M2+R2)**, nella quale i parametri di resistenza del terreno sono ridotti tramite i coefficienti parziali del gruppo M2, i coefficienti sulla resistenza globale (R2) sono riportati in Tabella 6.8.I seguente e le sole azioni variabili sono amplificate con i coefficienti del gruppo A2. I parametri di resistenza di progetto sono perciò inferiori a quelli caratteristici. In linea generale, per la Combinazione in oggetto, essendo i coefficienti parziali amplificativi delle azioni permanenti pari ad 1.0 e dei variabili pari ad 1.3 (gruppo A2), si opererà applicando in fase di calcolo un coefficiente moltiplicativo ai carichi variabili pari a  $\gamma_Q=1.3$ .

COEFFICIENTE	R2
$\gamma_R$	1.1

TABELLA N.6.8.I- COEFFICIENTI PARZIALI PER LE VERIFICHE DI SICUREZZA DI OPERE DI MATERIALI SCIOLTI E DI FRONTI DI SCAVO

## 6.2.4 Verifiche agli stati limite di esercizio (SLE)

Nello specifico si valuteranno le deformazioni dell'opera per consentire di verificare la compatibilità con le funzionalità attese.

## 7 GENERALITA' SULLA MODELLAZIONE STRUTTURALE

I micropali vengono schematizzati come un' asta infissa in suolo avente caratteristiche elasto-plastiche nelle varie fasi di costruzione.

L'analisi viene condotta con l'impiego del programma "ParatiePlus" (ver. 19.0.1) della Ce.A.S. Srl di Milano.

Tale programma opera mediante la simulazione di uno scavo sostenuto da elementi flessibili con il metodo degli elementi finiti, permettendo così l'analisi dell'interazione terreno – struttura.

La schematizzazione del fenomeno fisico è del tipo "trave su suolo elastico", con i micropali rappresentati da elementi trave aventi comportamento flessionale definito da EJ, e il terreno da elementi elastoplastici monodirezionali connessi agli elementi trave. Viene così trascurata, con limitate ripercussioni sulla bontà dei risultati, l'interazione tra porzioni di terreno adiacenti.

La paratia viene discretizzata con elementi finiti tipo "beam". si tratta di elementi monodimensionali con comportamento elastico e sezione di inerzia equivalente a quella effettiva.

Il terreno a monte e a valle della paratia viene schematizzato attraverso elementi "soil": si tratta di elementi elasto-plastici il cui comportamento è così definito:

- ACTIVE: l'elemento non ha rigidezza (fase plastica) e reagisce con una forza pari alla spinta attiva.
- PASSIVE: l'elemento non ha rigidezza (fase plastica) e reagisce con una forza pari alla spinta passiva.
- V-C; UL-RL: l'elemento è soggetto a una compressione minore della spinta passiva; il comportamento è elastico con una rigidezza direttamente proporzionale ai moduli elastici  $E_{vc}$  (in compressione vergine, V-C), oppure  $E_{ur}$  (in scarico-ricarico, UL-RL).

Si assume un rapporto:  $\frac{E_{ur}}{E_{vc}} = 1.6$  per i terreni sabbiosi;  $\frac{E_{ur}}{E_{vc}} = 3$  per i terreni limosi/argillosi;

$\frac{E_{ur}}{E_{vc}} = 1$  per i terreni rocciosi.

Nelle fasi elastiche la rigidezza dell'elemento terreno è data da:

$$K = \frac{E \times \Delta}{L}$$

in cui:  $\Delta$  = distanza (passo) tra due elementi "molla" successivi

$L$  = lunghezza fittizia dell'elemento "molla".

Il valore di L è fissato automaticamente dal programma; esso rappresenta una grandezza caratteristica che è diversa a monte e a valle della paratia perché diversa è la zona di terreno coinvolta dal movimento in zona attiva e passiva.

Il programma valuta, in zona attiva: 
$$L_a = \frac{2}{3} \times Z_a \times \tan^2 \left( 45^\circ - \frac{\varphi}{2} \right)$$

in zona passiva: 
$$L_p = \frac{2}{3} \times Z_p \times \tan^2 \left( 45^\circ + \frac{\varphi}{2} \right)$$

ove  $Z_a$  e  $Z_p$  sono rispettivamente uguali a:

$$Z_a = \text{Min}(T, 2H) \qquad Z_p = \text{Min}(T - H, H)$$

con:  $T$  = altezza totale paratia

$H$  = altezza corrente dello scavo.

La logica di questa scelta è illustrata in: Becci B., Nova R. (1987) "Un metodo di calcolo automatico per il progetto di paratie", Rivista Italiana di Geotecnica, 1,33-47.

I coefficienti di spinta dei terreni a monte e a valle della paratia sono calcolati tenendo conto dell'angolo di attrito paratia/terreno, assunto pari a  $\delta = 2\Phi/3$  e dell'inclinazione equivalente del piano di campagna a monte e a valle; si considera il terreno in scavo come orizzontale.

Si nota che i coefficienti di spinta utilizzati dal programma sono relativi alle sole componenti orizzontali degli stessi.

Nella fase geostatica si considera il coefficiente di spinta "a riposo" calcolato con l'usuale formula di Jaky, valida per terreni normal-consolidati inclinati di  $\epsilon_m$ :

$$\lambda_0 = (1 - \text{sen } \varphi) \times (1 + \text{sen } \epsilon_m)$$

I coefficienti di spinta attiva sono calcolati con le formule di Müller-Breslau, basate sulla teoria di Coulomb:

$$\lambda_a = \frac{\text{sen}^2(\beta - \phi)}{\text{sen}^2\beta \times \text{sen}(\beta + \delta) \times \left[ 1 + \sqrt{\frac{\text{sen}(\delta + \phi) \times \text{sen}(\phi - \epsilon)}{\text{sen}(\beta + \delta) \times \text{sen}(\beta - \epsilon)}} \right]^2}$$

dove:  $\phi$  = angolo d'attrito del terreno

$\epsilon$  = Inclinazione del piano campagna rispetto al piano orizzontale, positiva se verso l'alto

$\delta < (\beta - \phi - \epsilon)$  = angolo d'attrito terreno-parete

$\beta$  = Inclinazione della parete interna rispetto al piano orizzontale passante per il piede

Rif.: Müller-Breslau: "Erddruck an Stuetzmannern", ed. Kroener, 1906

I coefficienti di spinta passiva sono calcolati secondo Caquot-Kerisel, formulazione che tiene conto della curvatura delle superfici di scorrimento, come da figura seguente.

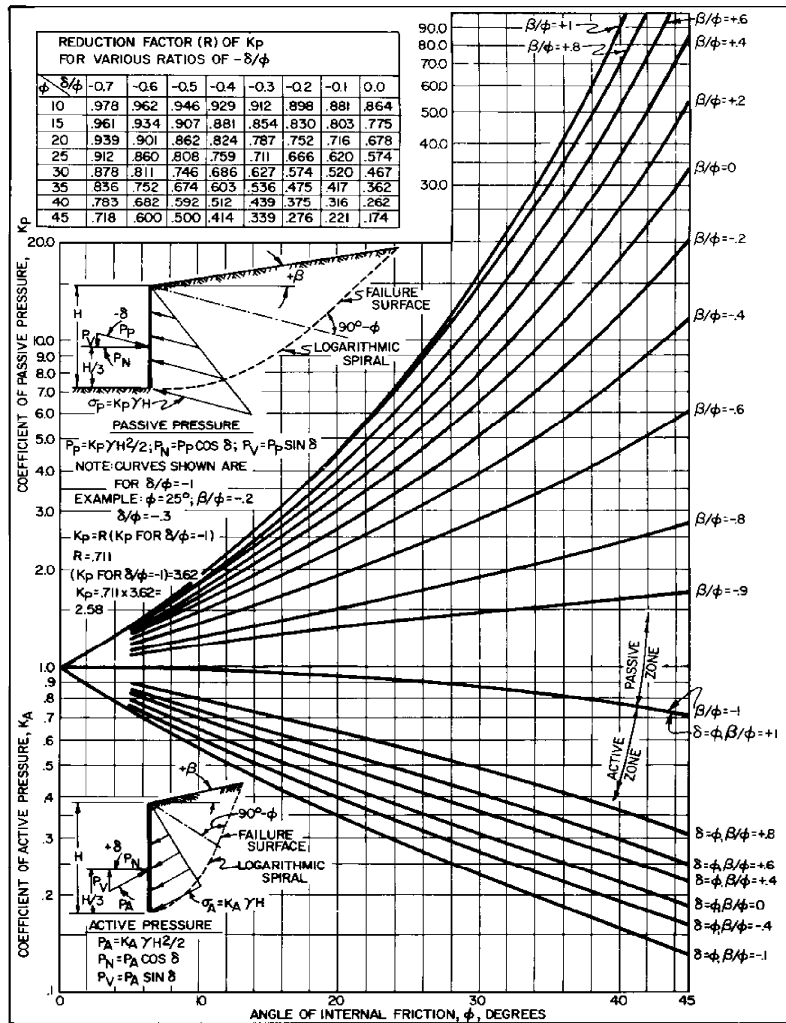


FIGURE 6 Active and Passive Coefficients with Wall Friction (Sloping Backfill)

Rif.: NAVFAC DESIGN MANUAL 7.02, "FOUNDATION & EARTH STRUCTURES", 1986

Nelle fasi sismiche si assume che la paratia abbia deformazioni apprezzabili e quindi si considera l'incremento di spinta da monte calcolato secondo Mononobe-Okabe:

$$K_{as} = \frac{\sin^2(\alpha + \varphi - \vartheta)}{\cos \vartheta \cdot \sin^2 \alpha \cdot \sin(\alpha - \vartheta - \delta) \left[ 1 - \frac{\sqrt{\sin(\varphi + \delta) \sin(\varphi - \beta - \vartheta)}}{\sqrt{\sin(\alpha - \vartheta - \delta) \sin(\alpha + \beta)}} \right]^2}$$

Dove (terreno sopra falda):  $\vartheta = \arctan \frac{k_h}{1 \pm k_v}$

In accordo a quanto indicato nelle NTC (paragrafo n.7.11.6.2.1) si assume che l'incremento di spinta attiva dovuto al sisma agisca nello stesso punto di quella statica.

Rif: Mononobe N., "Earthquake-Proof Construction of Masonry Dams", Proc. World Engineering Conference, vol.9, 1929.

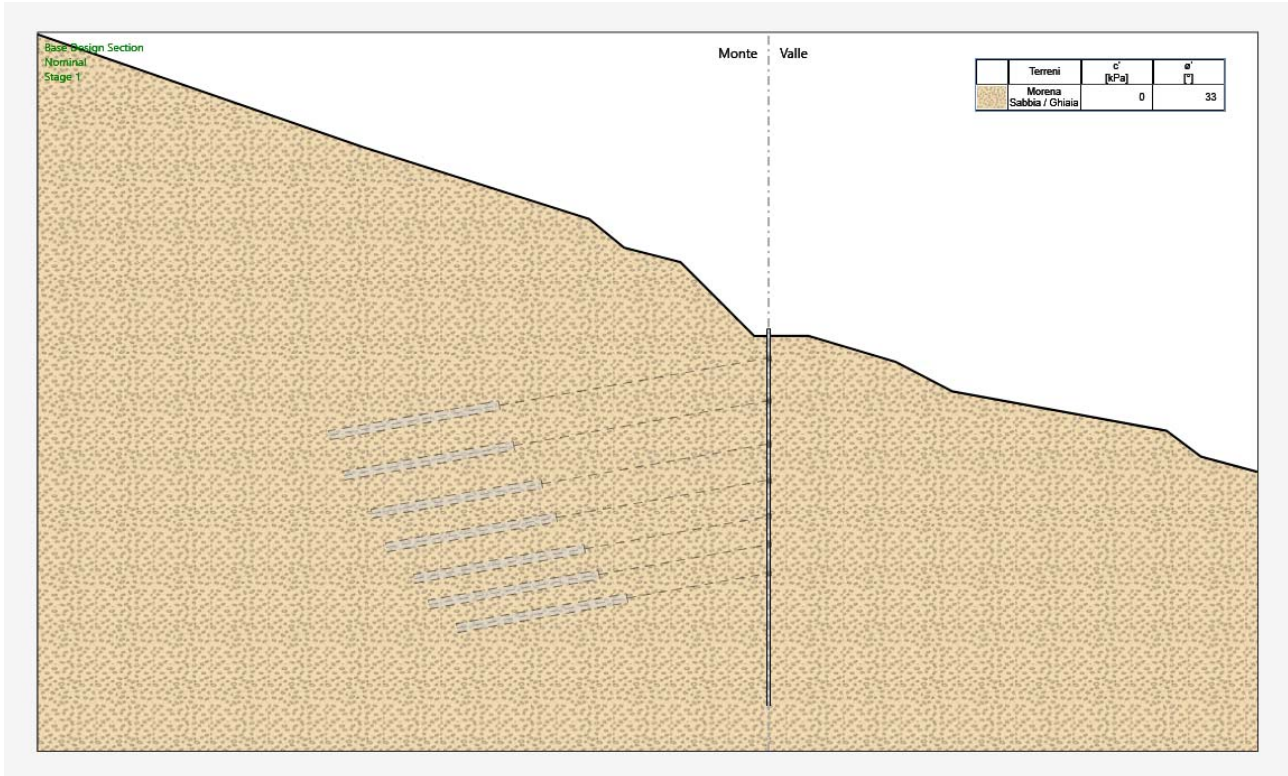
Tutti i calcoli sono svolti per una profondità di 1 metro.

## 8 ANALISI PARATIA PROVVISORIA CON 7 ORDINI DI TIRANTI

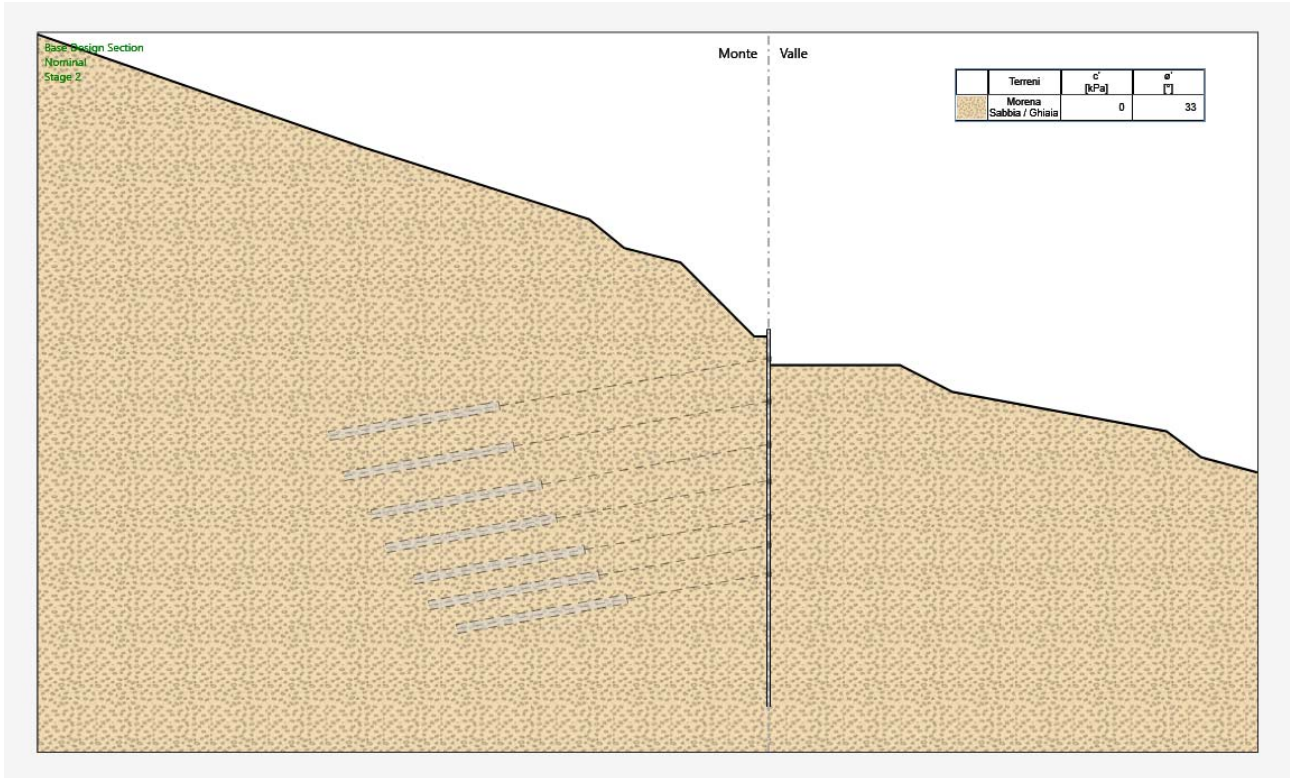
Si considera la sezione di “spigolo” a monte dell’imbocco galleria, avente la massima altezza; il calcolo si assume valido per tutto il lato di imbocco e per il tratto di paratia provvisoria lato monte.

### 8.1 FASI ESECUTIVE DI CALCOLO

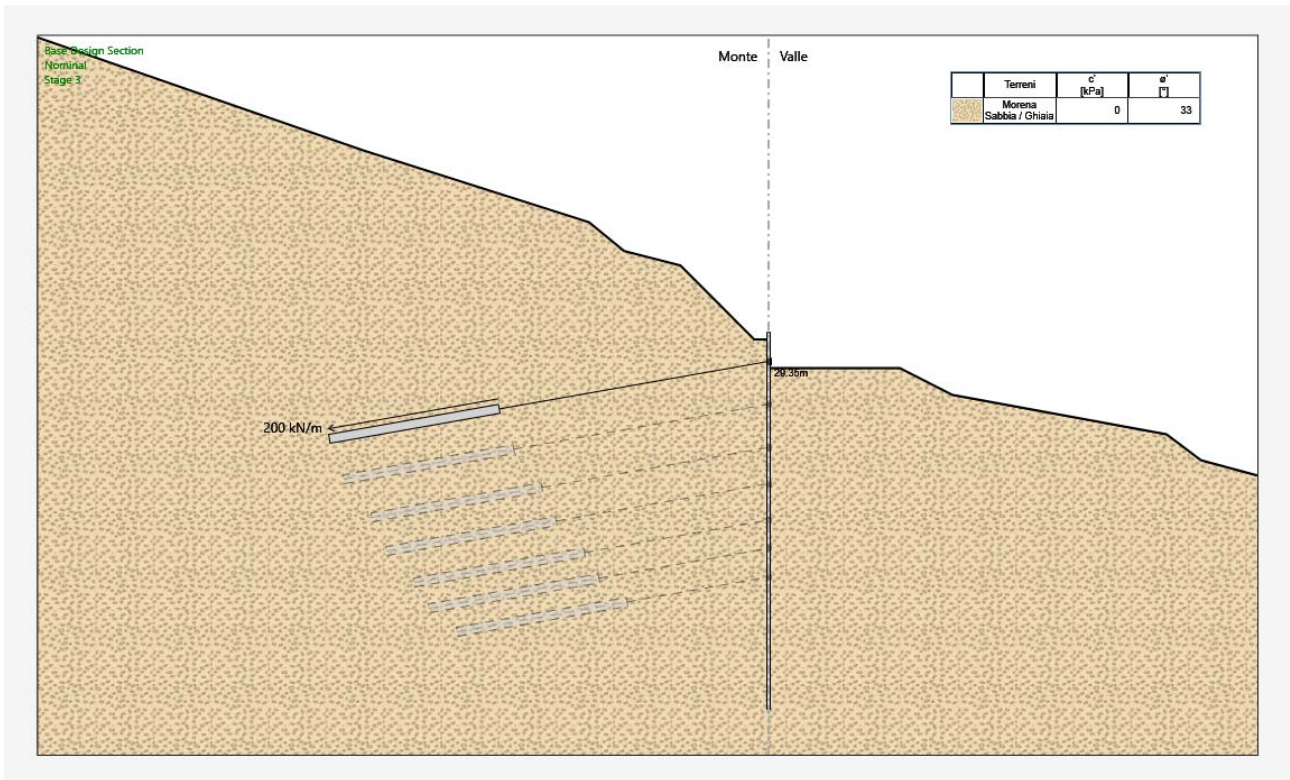
Seguono gli schemi grafici di ogni fase (Stage) di calcolo del programma “ParatiePlus”.



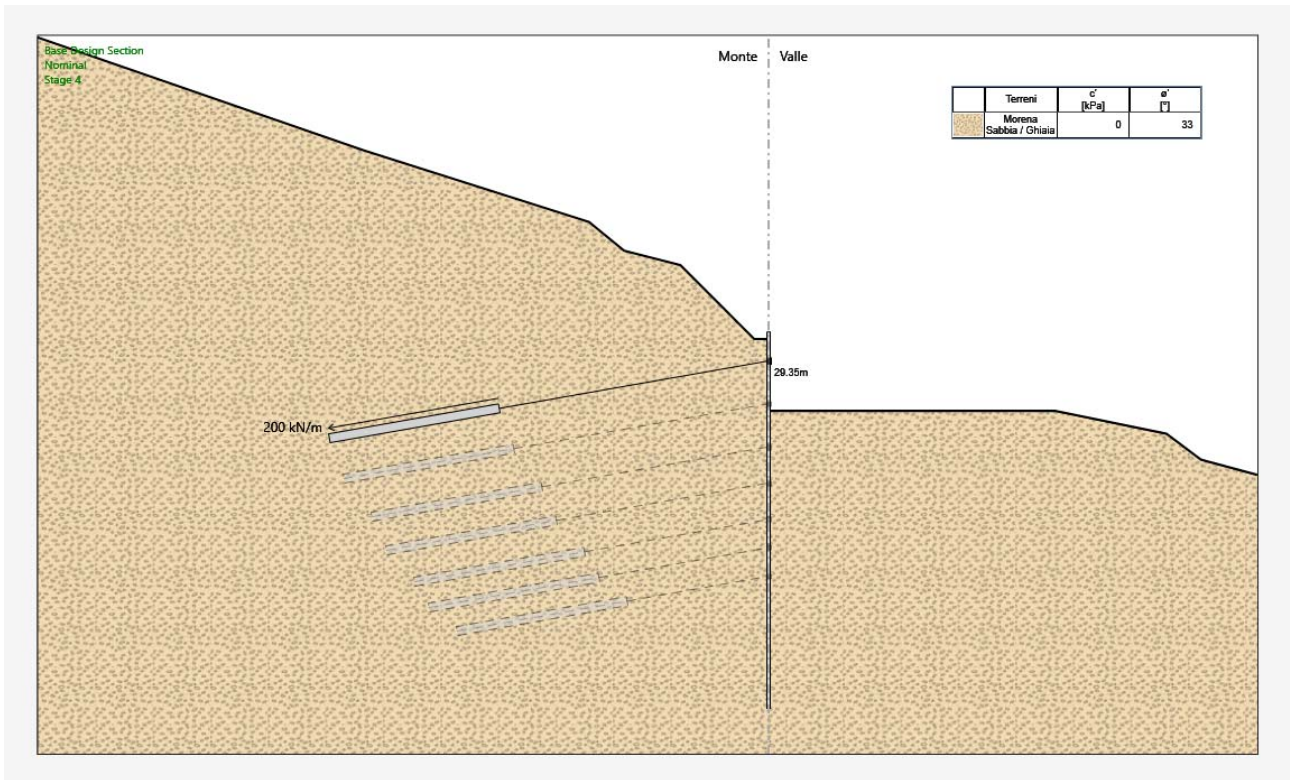
**FASE 1: FASE GEOSTATICA DI INIZIALIZZAZIONE:  
REALIZZAZIONE MICROPALI E CORDOLO DI TESTA**



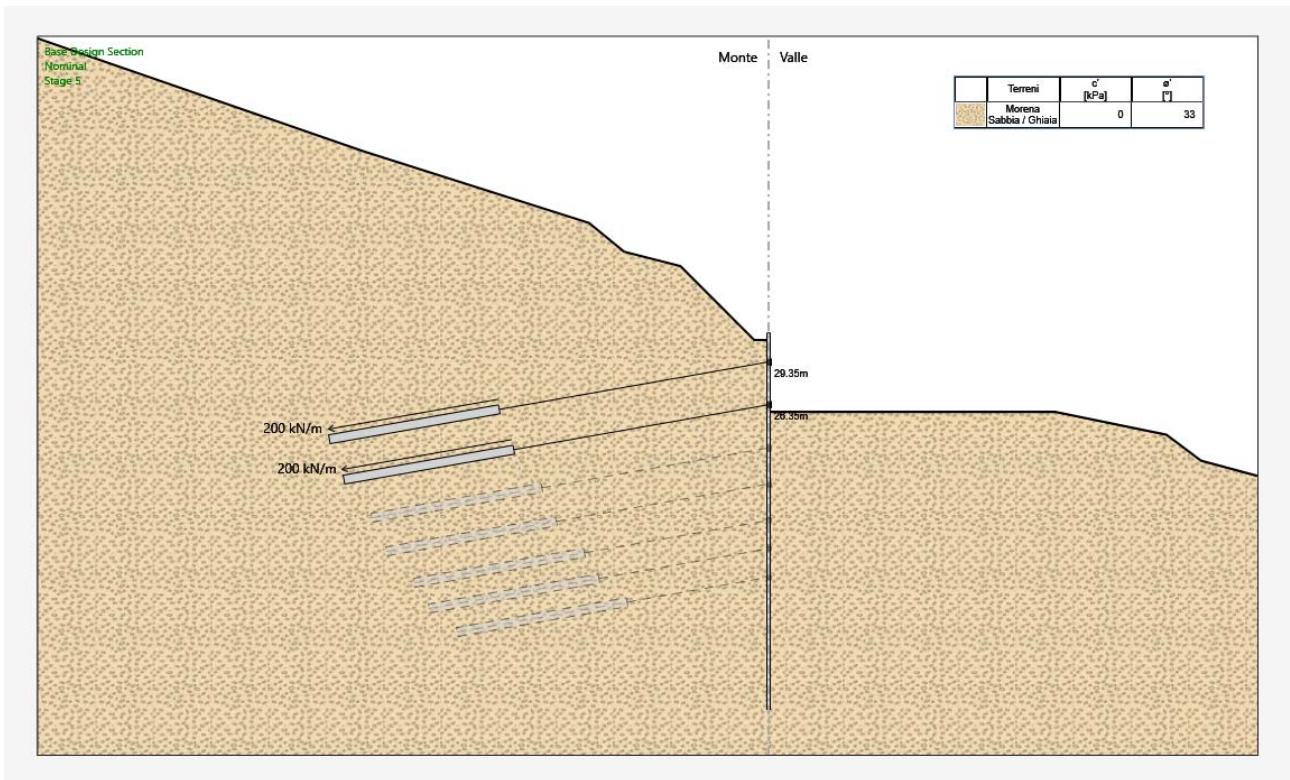
FASE 2: SCAVO FINO QUOTA -0.50 M DALLA 1° FILA DI TIRANTI



FASE 3: TESATURA DELLA 1° FILA DI TIRANTI

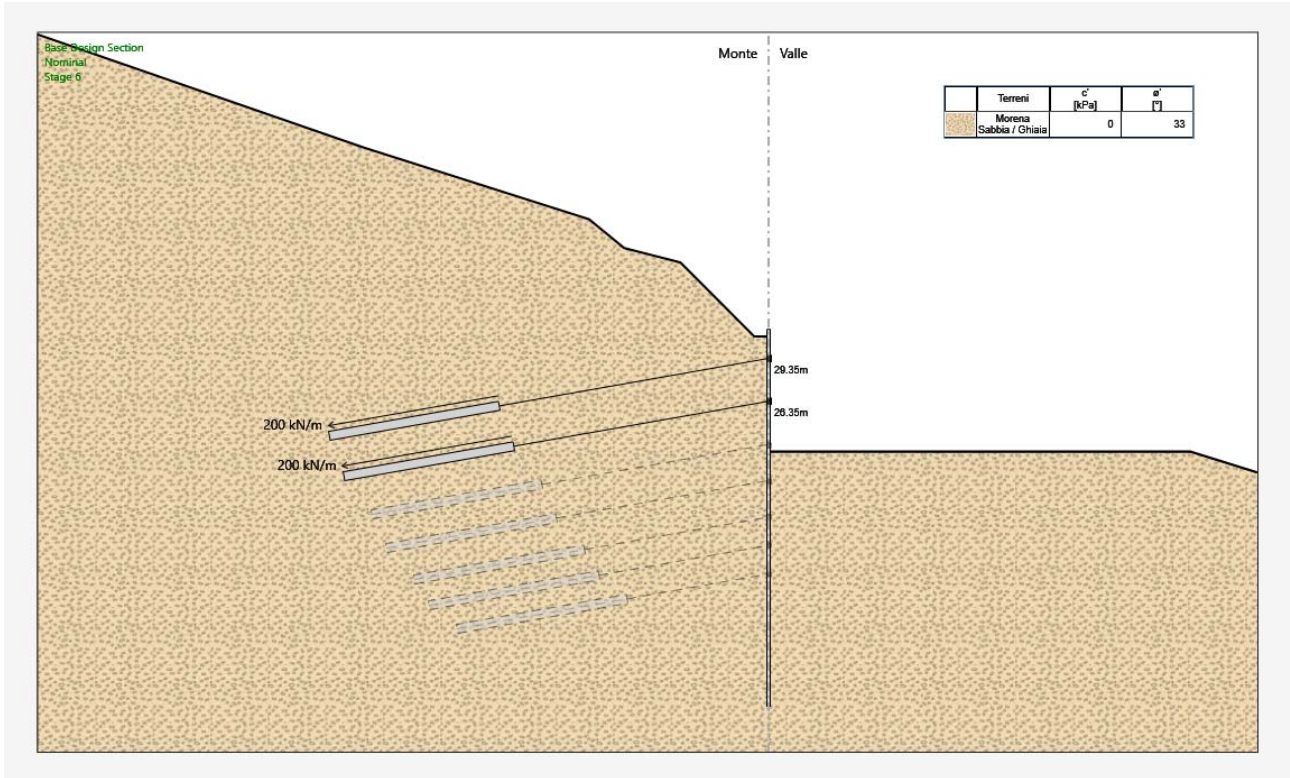


FASE 4: SCAVO FINO QUOTA -0.50 M DALLA 2° FILA DI TIRANTI

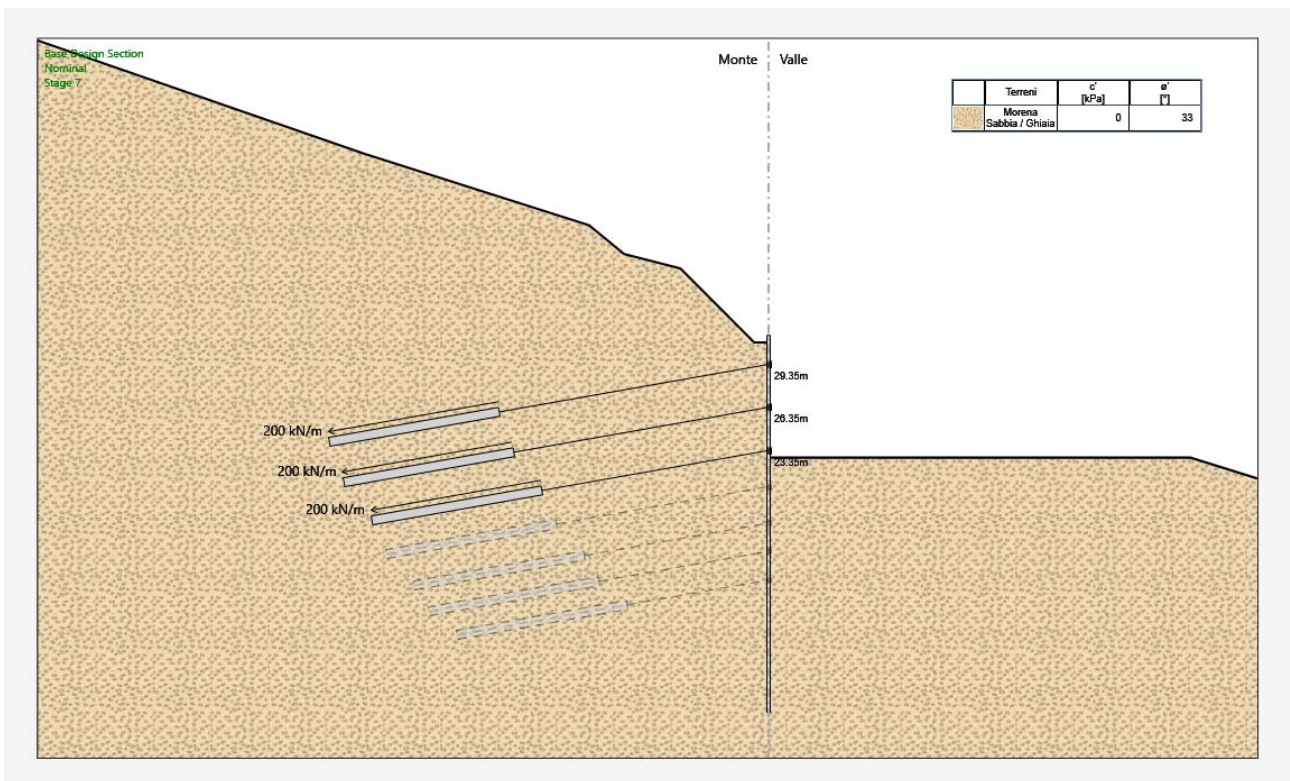


FASE 5: TESATURA DELLA 2° FILA DI TIRANTI

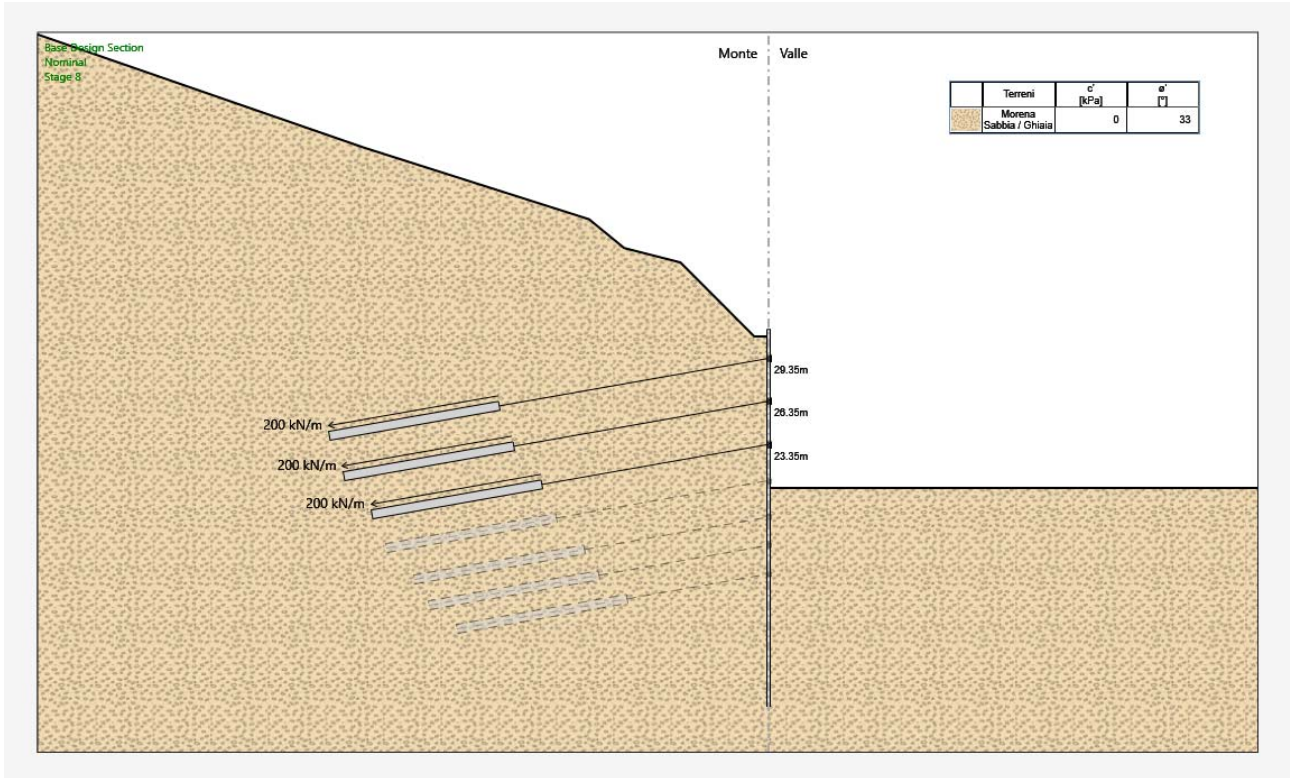




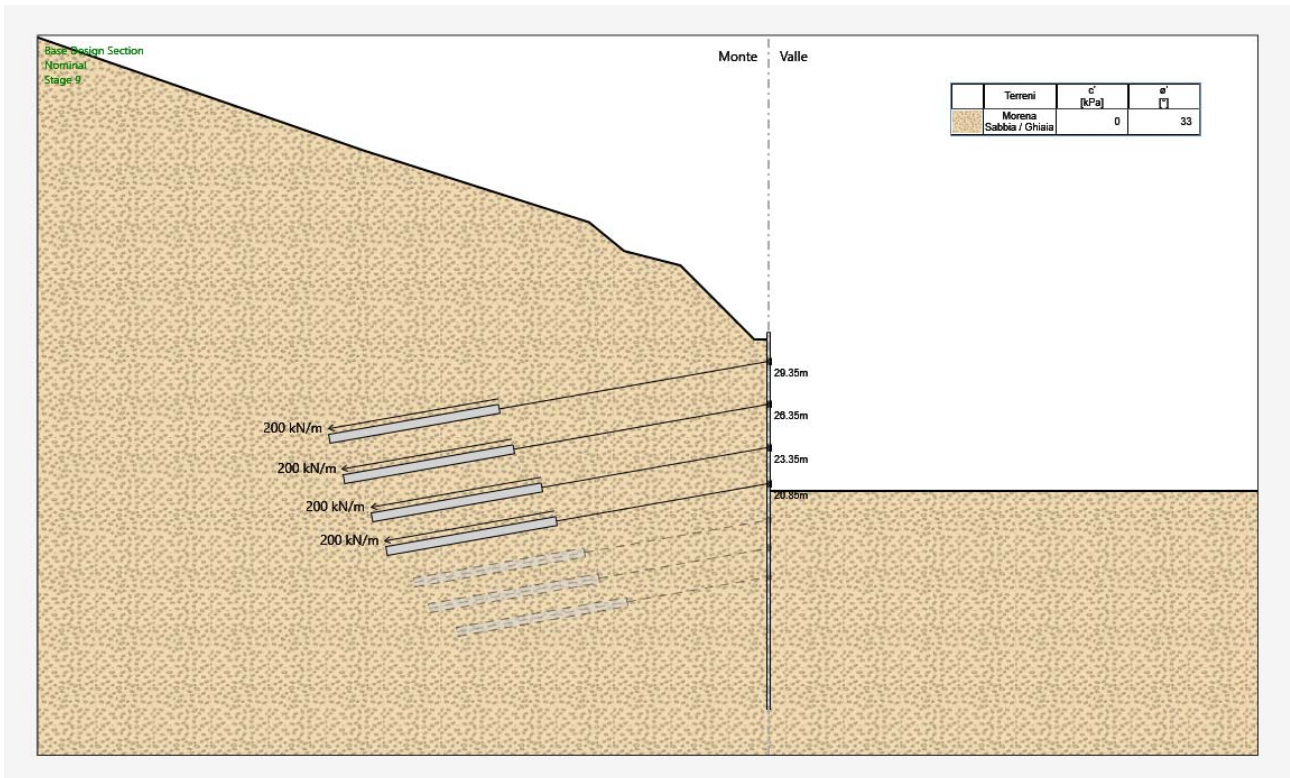
FASE 6: SCAVO FINO QUOTA -0.50 M DALLA 3° FILA DI TIRANTI



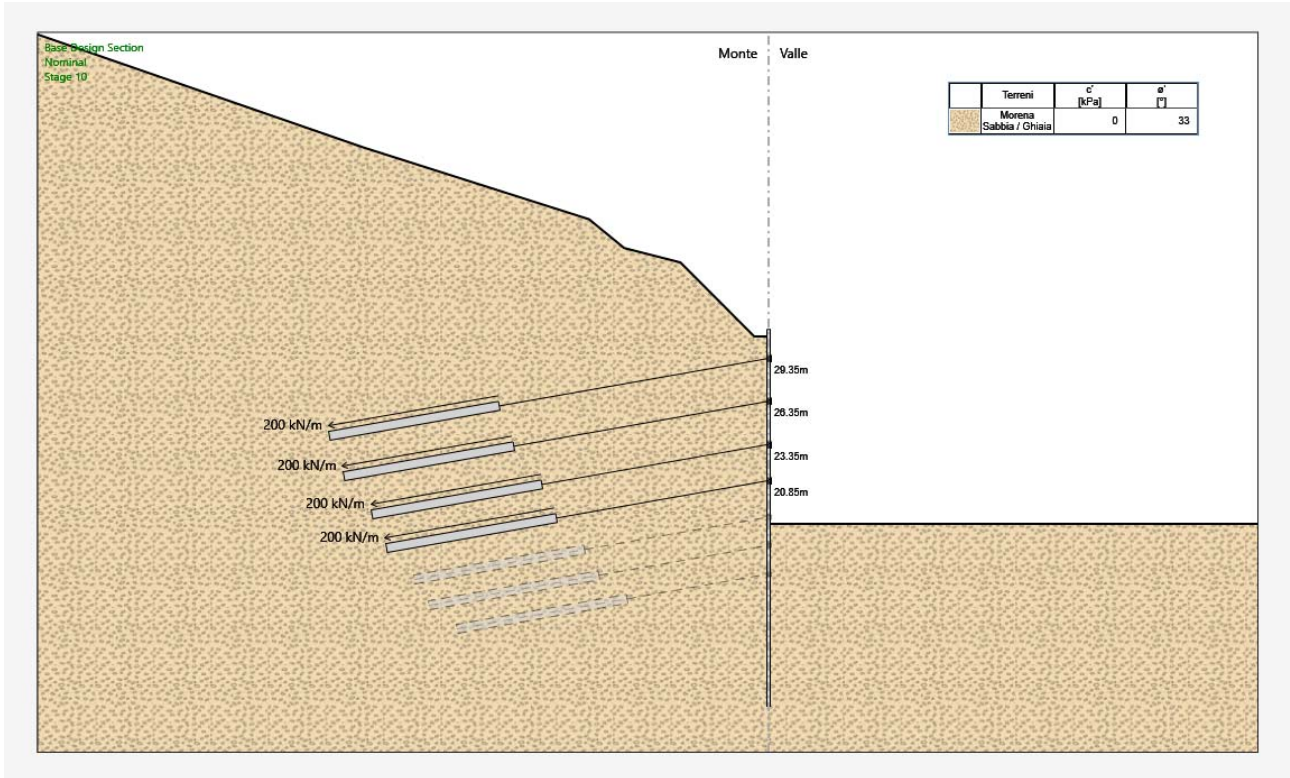
FASE 7: TESATURA DELLA 3° FILA DI TIRANTI



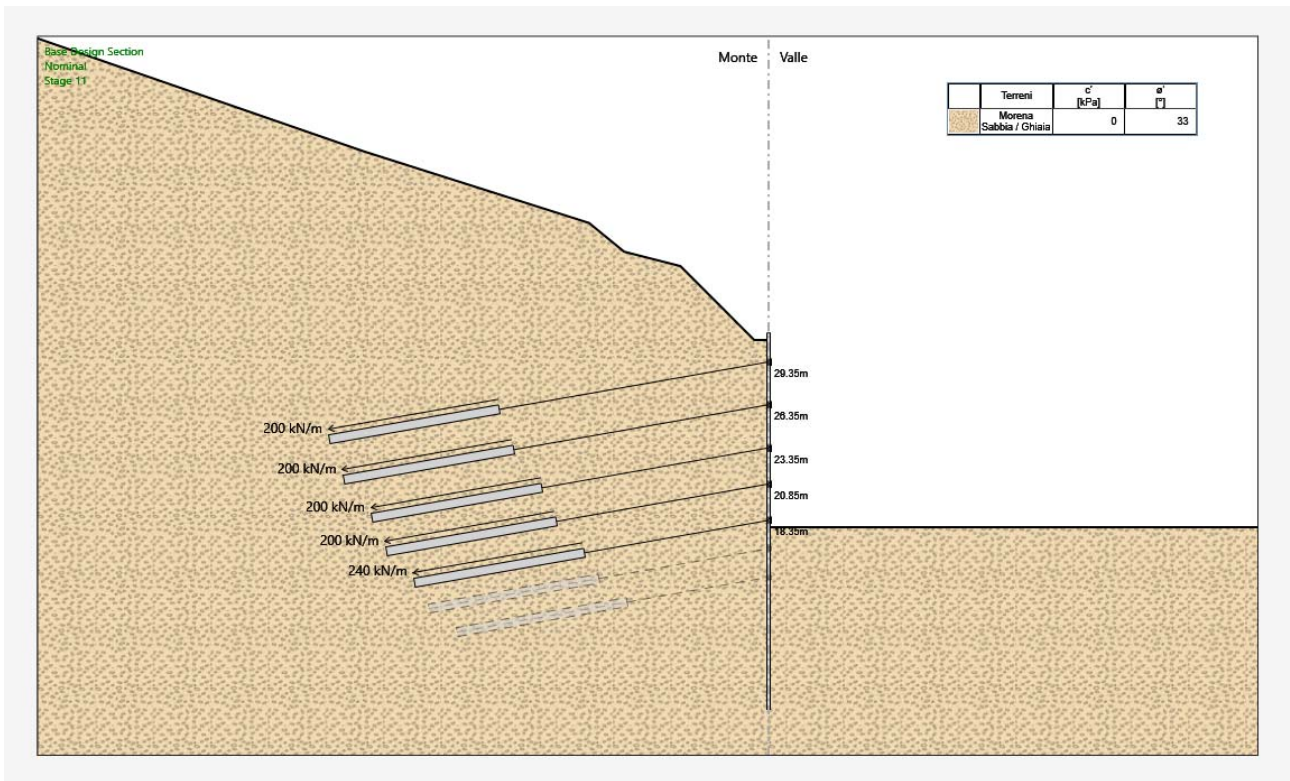
**FASE 8: SCAVO FINO QUOTA -0.50 M DALLA 4° FILA DI TIRANTI**



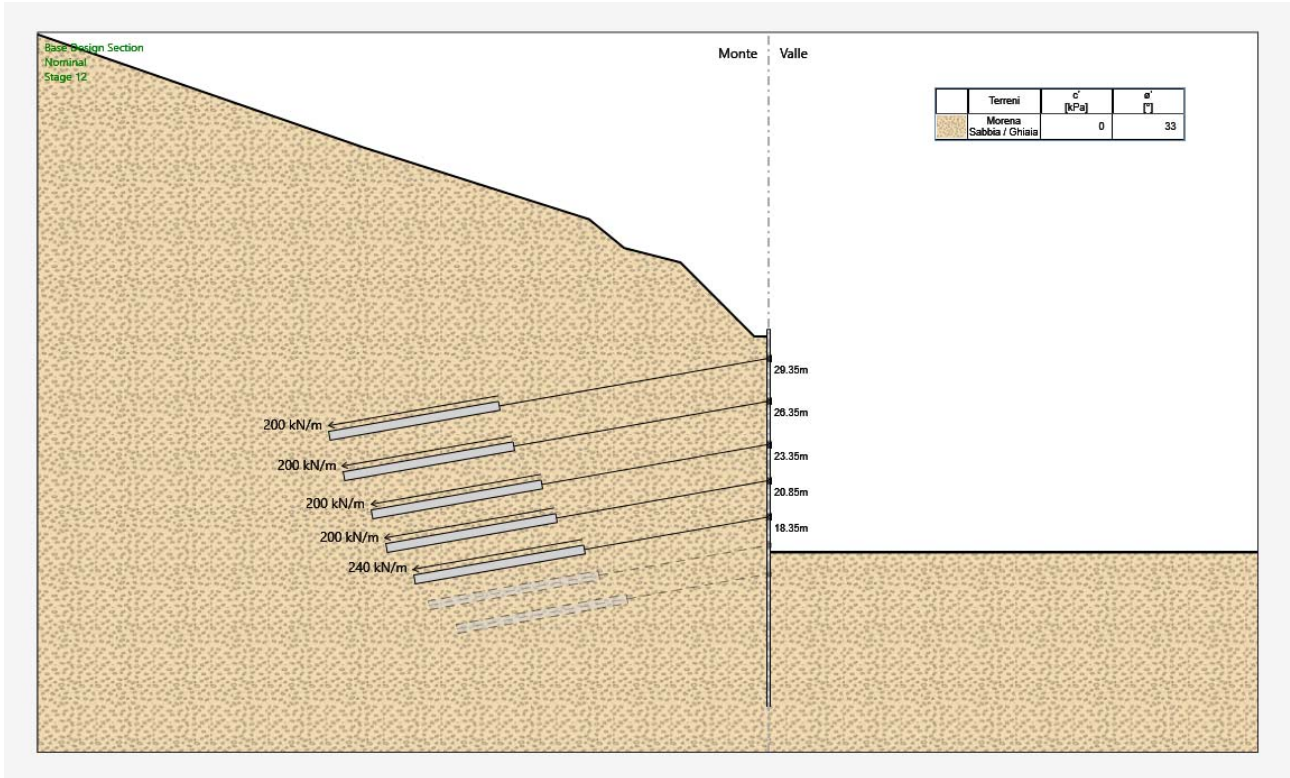
**FASE 9: TESATURA DELLA 4° FILA DI TIRANTI**



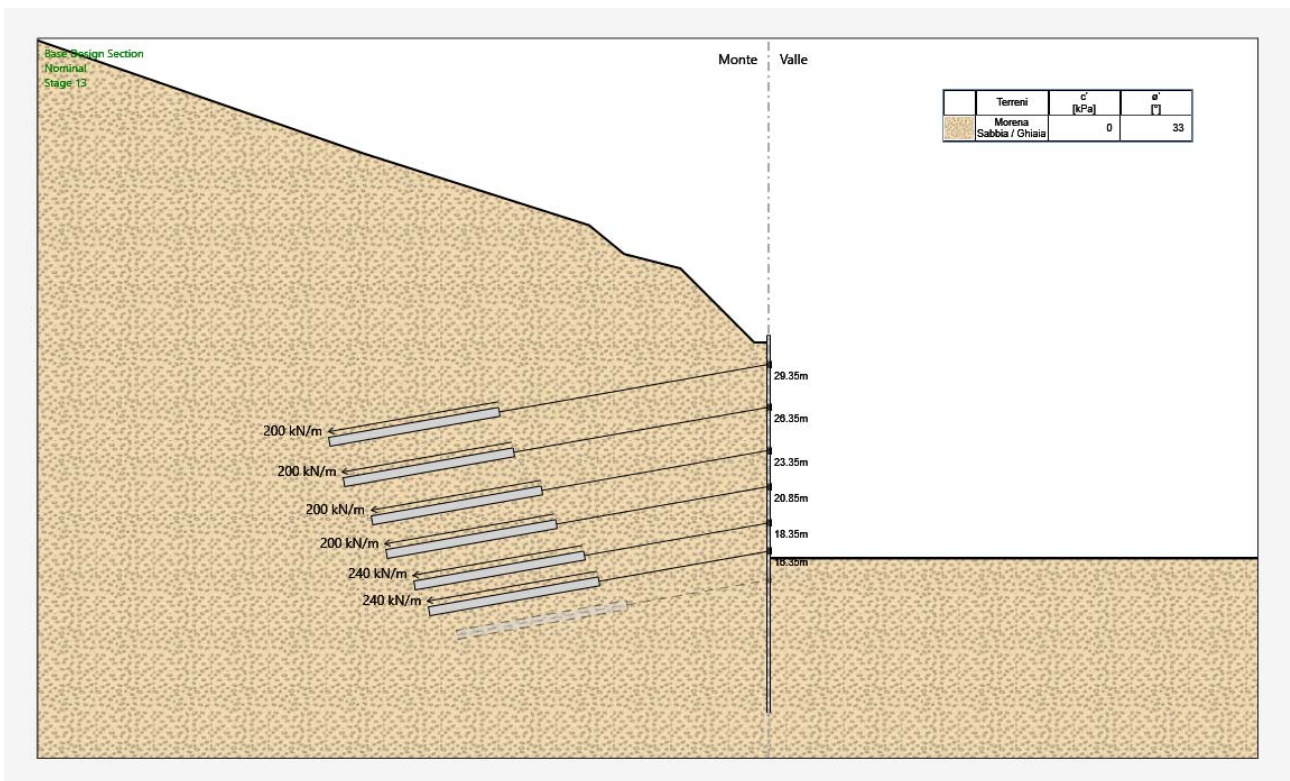
**FASE 10: SCAVO FINO QUOTA -0.50 M DALLA 5° FILA DI TIRANTI**



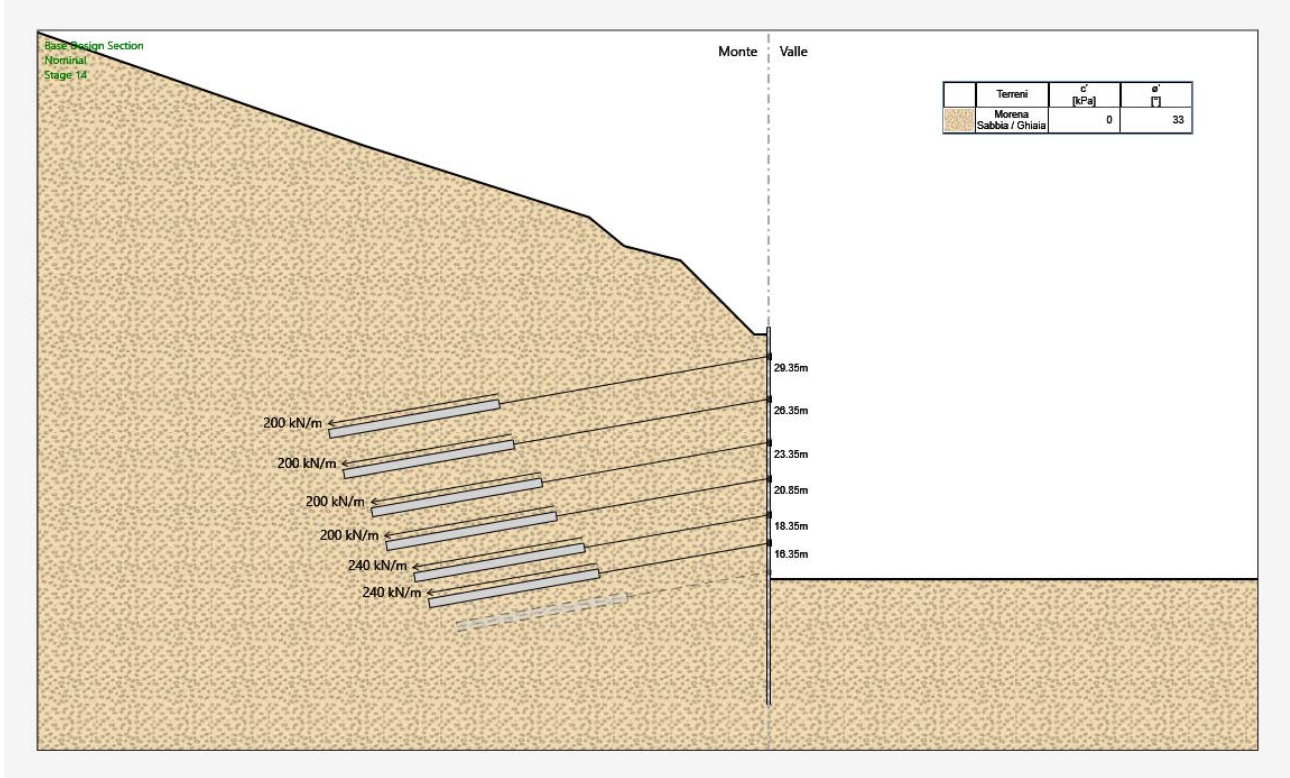
**FASE 11: TESATURA DELLA 5° FILA DI TIRANTI**



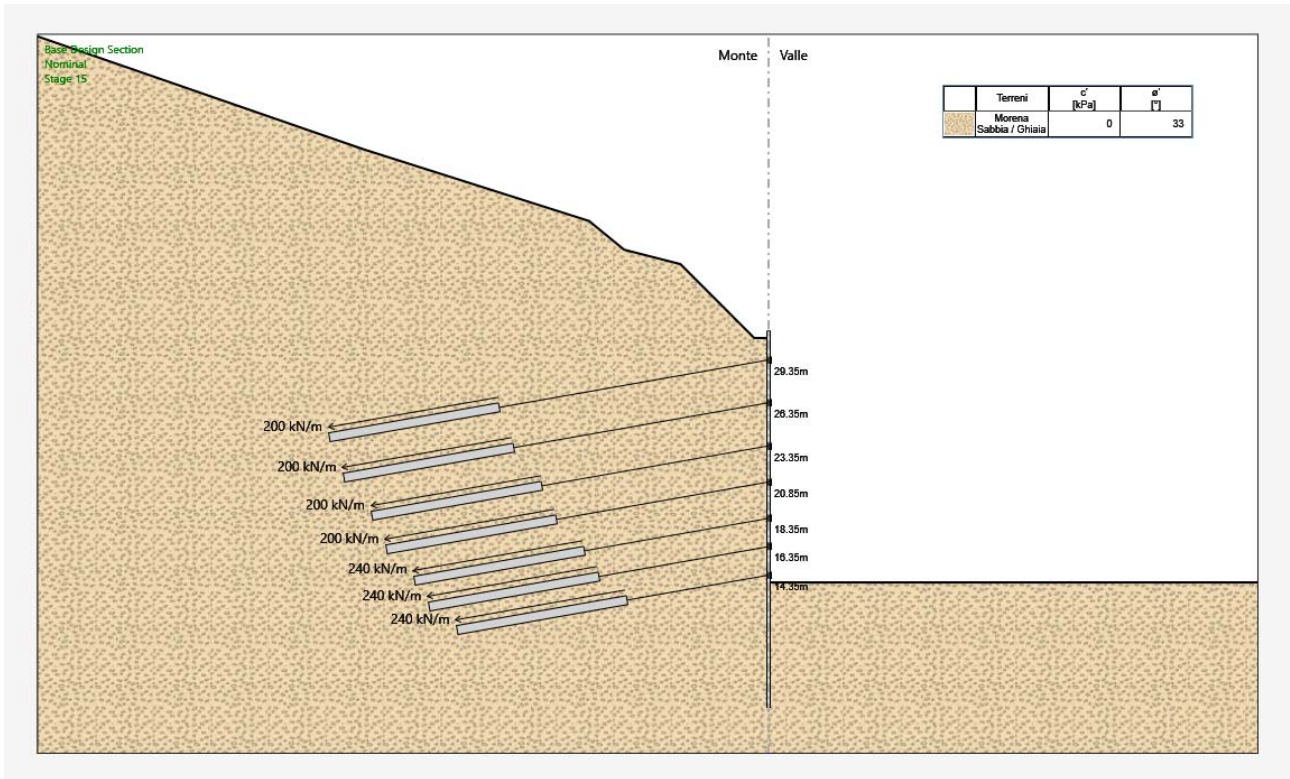
FASE 12: SCAVO FINO QUOTA -0.50 M DALLA 6° FILA DI TIRANTI



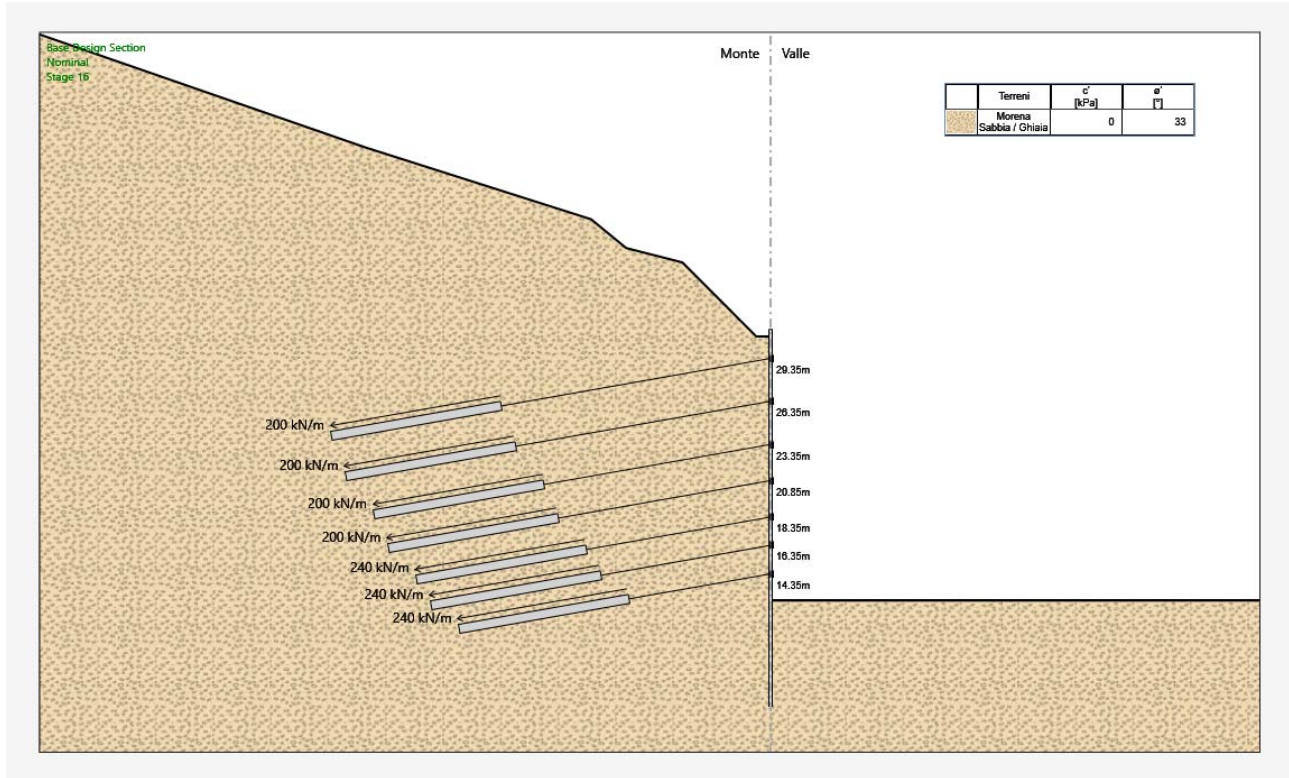
FASE 13: TESATURA DELLA 6° FILA DI TIRANTI



FASE 14: SCAVO FINO QUOTA -0.50 M DALLA 7° FILA DI TIRANTI



FASE 15: TESATURA DELLA 7° FILA DI TIRANTI

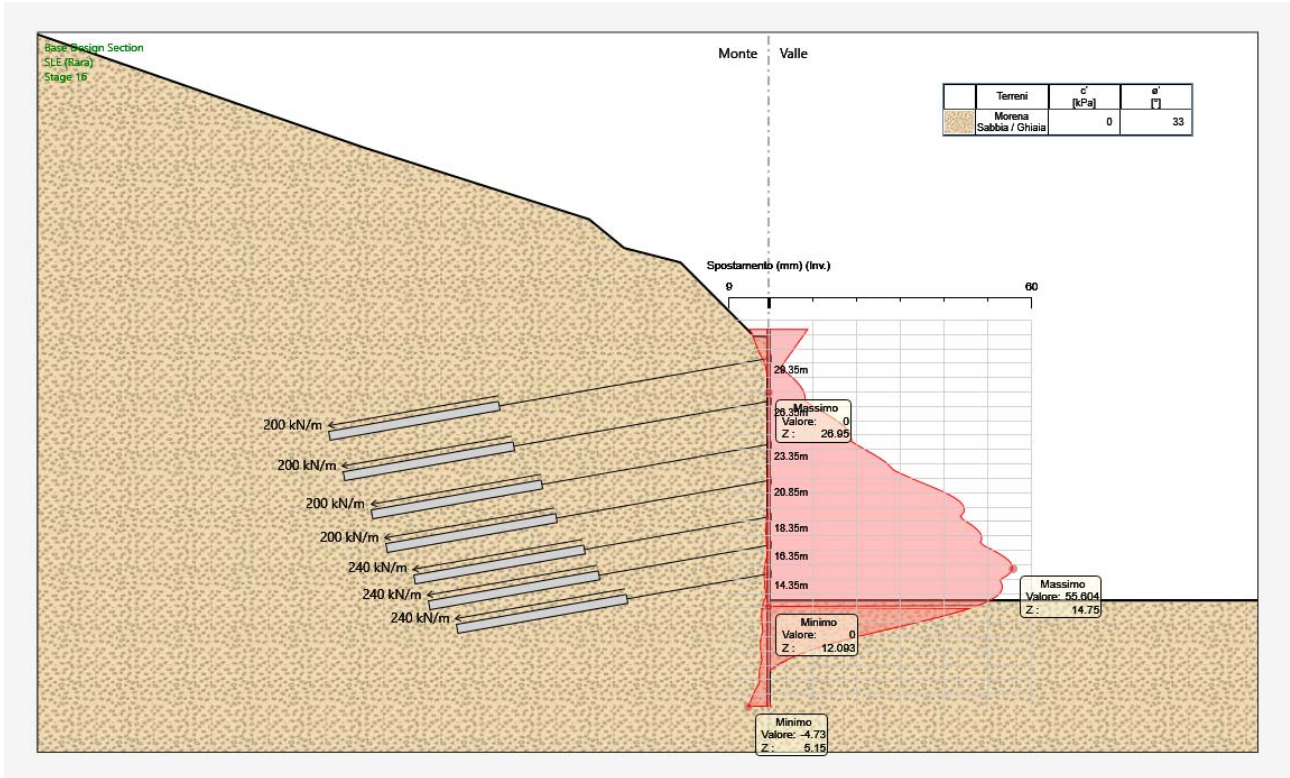


FASE 16: SCAVO FINO ALLA QUOTA DEFINITIVA PREVISTA

## 8.2 RISULTATI GRAFICI

### 8.2.1 Deformate

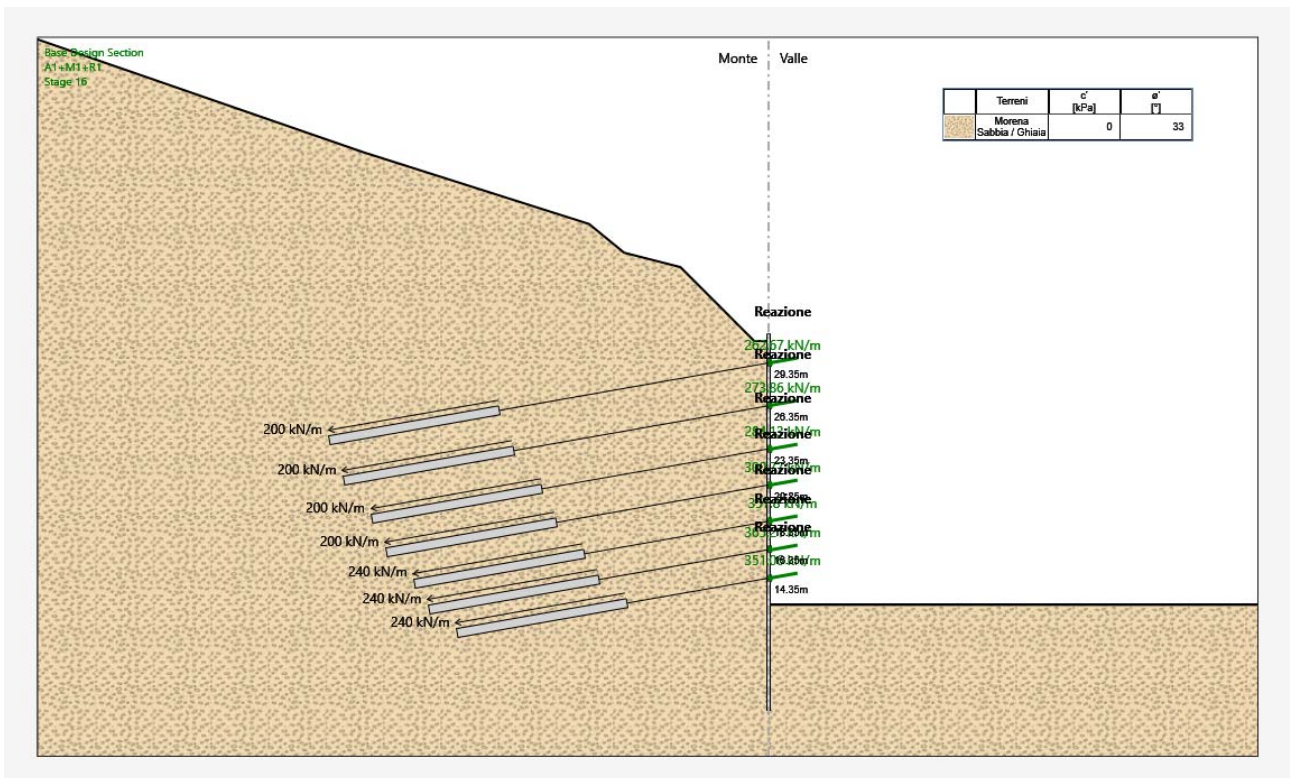
Le deformate, espresse in mm, sono visualizzate per l'involuppo di tutte le fasi della combinazione caratteristica (rara).



INVILUPPO FASI 1-16: COMBINAZIONE RARA - DEFORMATA

### 8.2.2 Reazioni (tiranti)

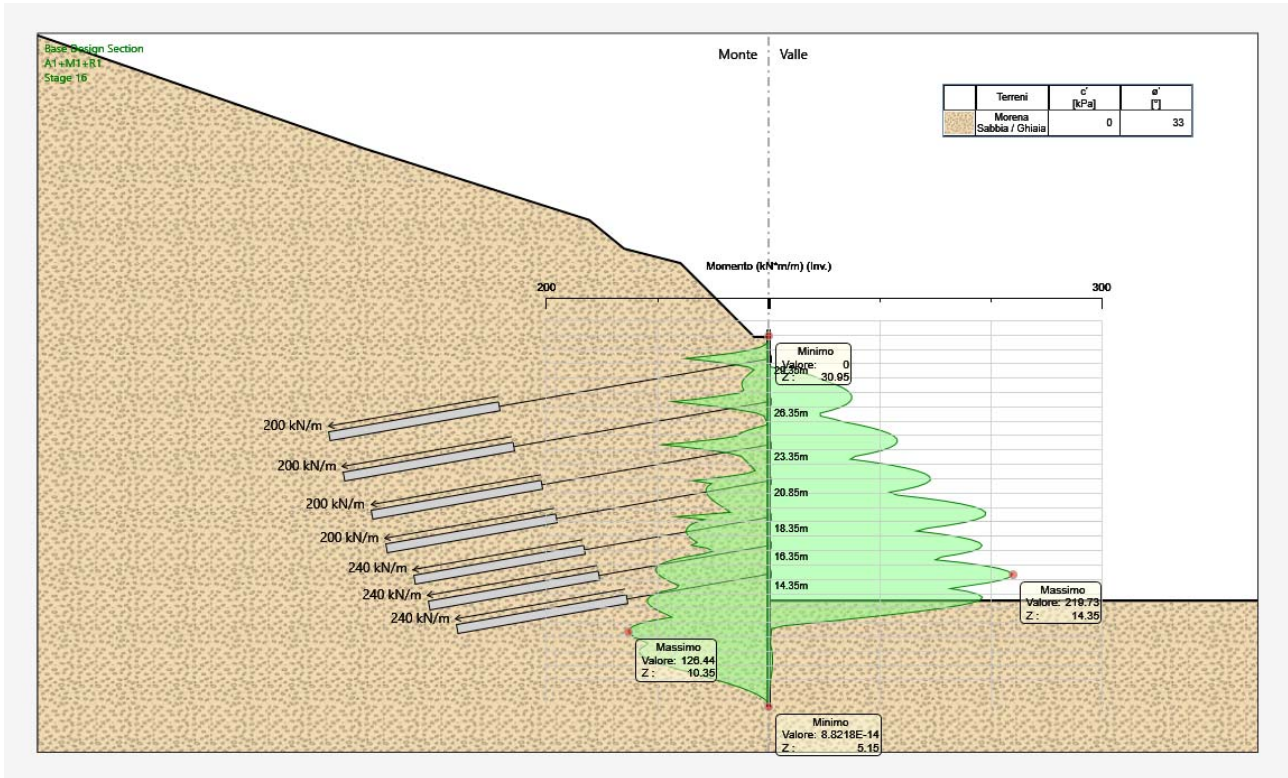
I valori delle reazioni ai tiranti sono espressi in kN/ml per gli involuppi delle combinazioni allo stato limite ultimo: STR: A1+M1+R1.



INVILUPPO FASI 1-16: COMBINAZIONE STR (A1+M1+R1) - REAZIONI TIRANTI

### 8.2.3 Momenti flettenti sui micropali

I momenti flettenti sulle strutture sono espressi in kNm/ml per gli involuipi delle combinazioni allo stato limite ultimo: STR: A1+M1+R1.

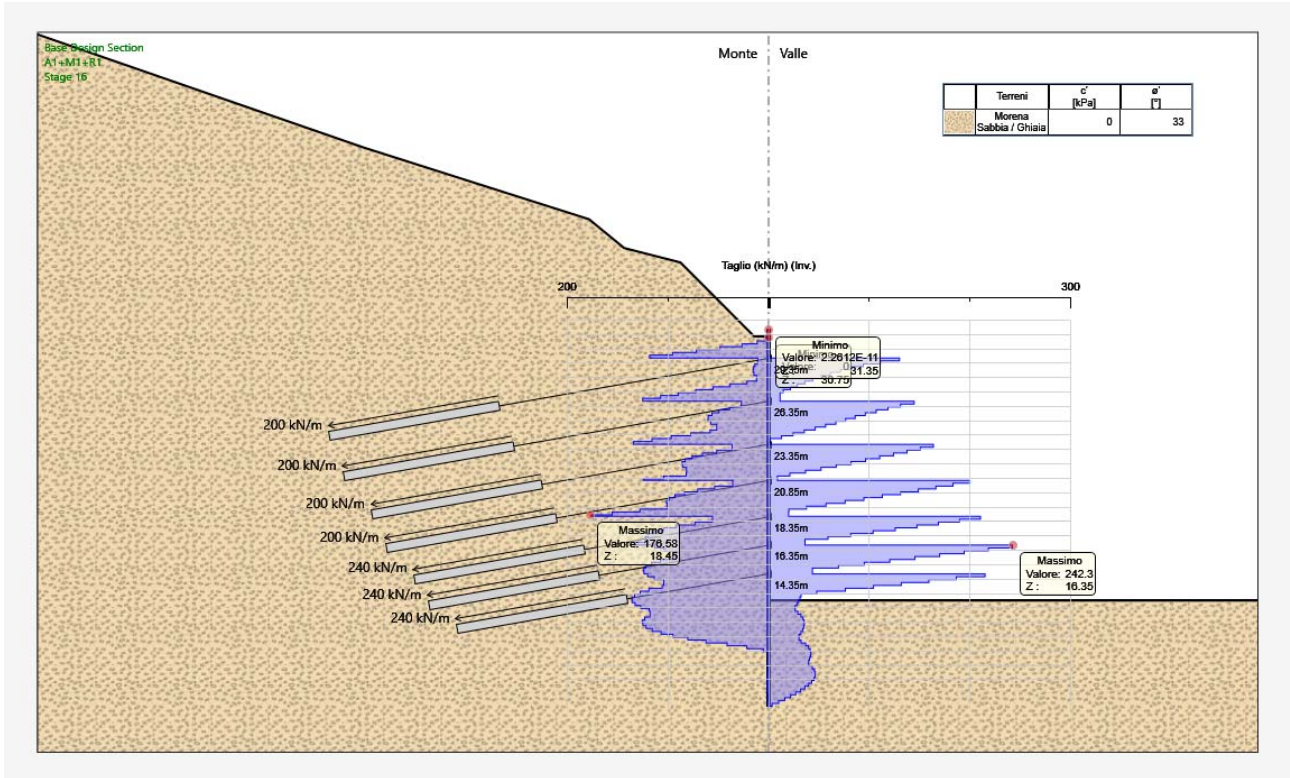


INVILUPPO FASI 1-16: COMBINAZIONE STR (A1+M1+R1) - MOMENTI FLETTENTI

### 8.2.4 Sforzi di taglio sui micropali

Gli sforzi taglianti sulle strutture sono espressi in kN/ml per gli involuipi delle combinazioni allo stato limite ultimo: STR: A1+M1+R1.

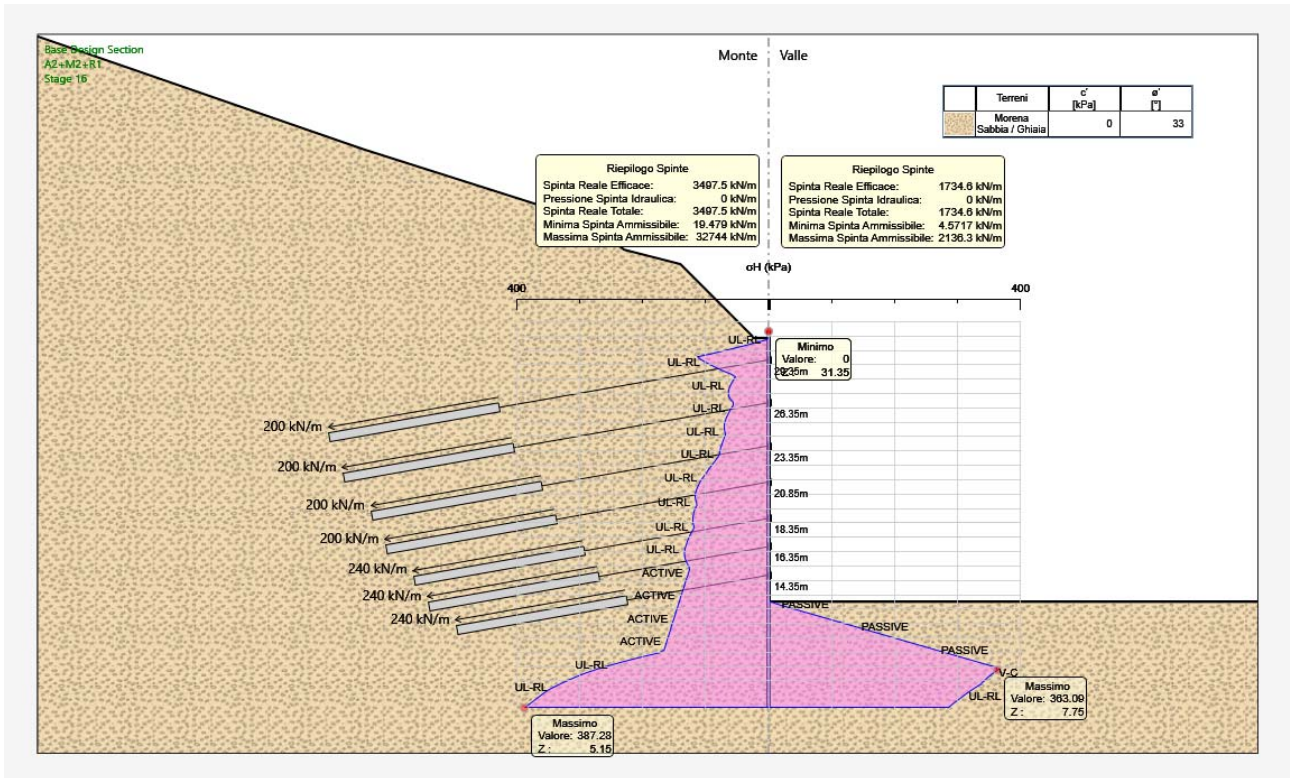




INVILUPPO FASI 1-16: COMBINAZIONE STR (A1+M1+R1) - SFORZI DI TAGLIO

### 8.2.5 Pressioni orizzontali terreno

Le pressioni sul terreno sono espresse in  $\text{kN/m}^2$  per le combinazioni allo stato limite ultimo: GEO: A2+M2+R1.



FASE 16: COMBINAZIONE GEO (A2+M2+R1) - PRESSIONI ORIZZONTALI EFFICACI E RIASSUNTO SPINTE

### 8.3 VERIFICHE ALLO STATO LIMITE ULTIMO

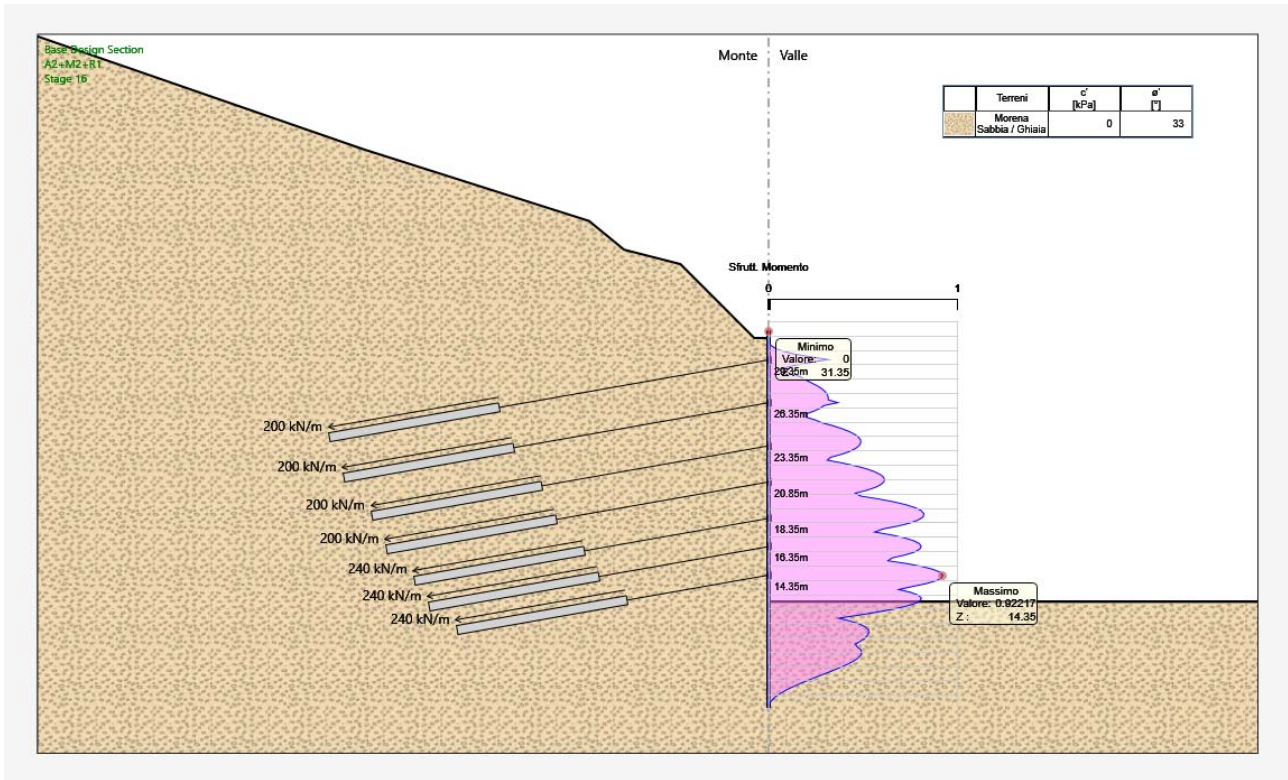
#### 8.3.1 Verifiche strutturali micropali: Verifiche a flessione e taglio

Le verifiche sono svolte automaticamente dal programma di calcolo considerando le sollecitazioni statiche e sismiche derivate dalle combinazioni allo stato limite ultimo: STR: (A1+M1+R1).

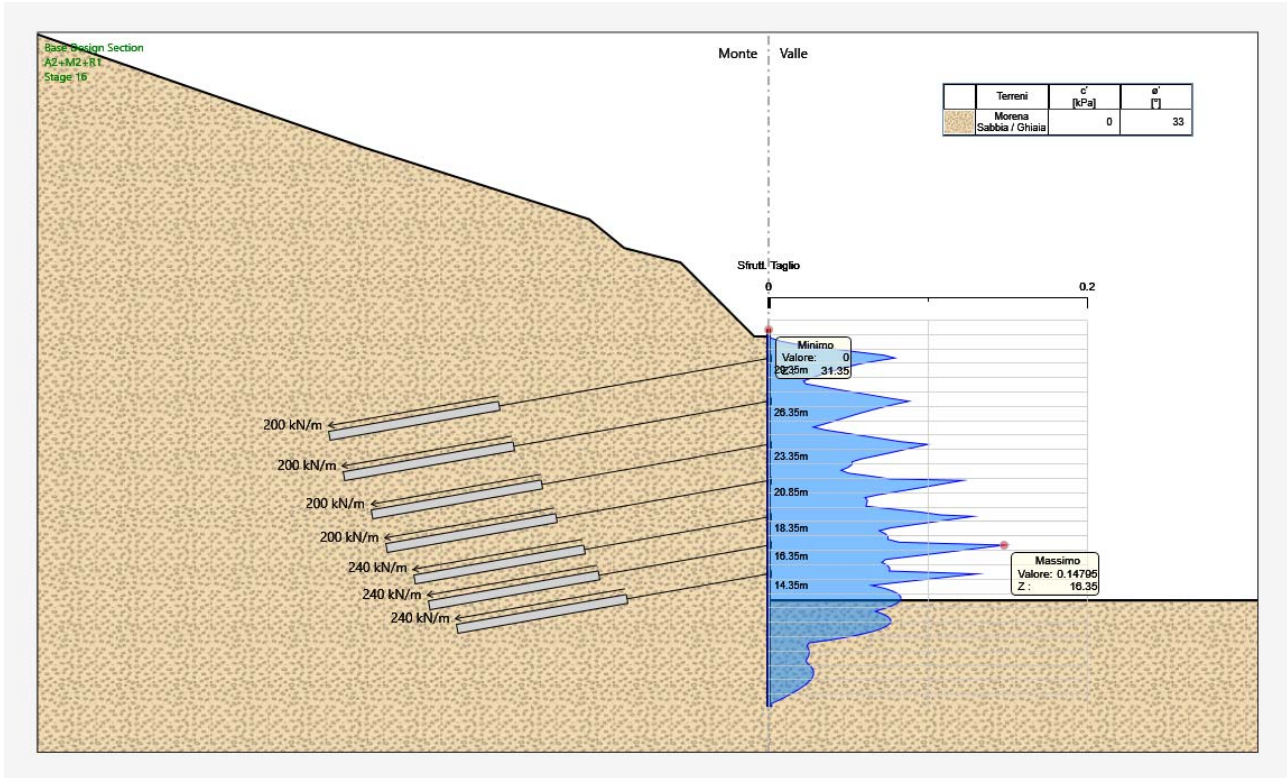
Seguono i diagrammi dei tassi di sfruttamento TS a flessione e a taglio della resistenza dei micropali metallici, per le combinazioni allo stato limite ultimo: STR: (A1+M1+R1).

Le verifiche sono soddisfatte se:  $TS = \frac{\text{Sollecitazione}}{\text{Resistenza}} \leq 1$

Lo sforzo assiale viene trascurato; nel calcolo del momento resistente  $M_{c,Rd}$  non viene considerata l'interazione con la forza di taglio, in quanto in tutti i casi esaminati il taglio di calcolo associato al momento flettente è sempre inferiore a metà della resistenza di calcolo a taglio  $V_{c,Rd}$ .



TS FLESSIONE: COMB. SLU: STR (A1+M1+R1); INVILUPPO FASI 1÷16:  $TS_{MAX} = 0.922 (<1)$



**TS TAGLIO: COMB. SLU: STR (A1+M1+R1); INVILUPPO FASI 1÷16:  $TS_{MAX} = 0.148 (<1)$**

Verifica analitica: per la combinazione STR (A1+M1+R1) si è ottenuto per il singolo palo:

- . sforzo assiale: trascurabile
- momento flettente:  $M_{Ed} = 219.73 \times 0.40 = 87.89 \text{ kNm}$
- sforzo di taglio:  $V_{Ed} = 242.30 \times 0.40 = 96.92 \text{ kN}$

A favore della sicurezza si considerano sforzi e momenti coincidenti.

Segue tabulato della verifica analitica realizzata con apposito foglio di calcolo.

### VERIFICA DI RESISTENZA SEZIONE TUBOLARE

Fattore parziale di resistenza delle sezioni:	$\gamma_{M0} =$	<b>1.05</b>
Tensione caratteristica di snervamento acciaio:		
spessore $t \leq 40$ mm:	$f_{yk} =$	<b>355.00</b> N/mm <sup>2</sup>
spessore $40$ mm $< t \leq 80$ mm:	$f_{yk} =$	<b>335.00</b> N/mm <sup>2</sup>
Diametro esterno:	$d =$	<b>177.8</b> mm
Spessore nominale:	$t =$	<b>10.0</b> mm
Classificazione sezione:	Classe 1 (compatta)	
Massa:	$P =$	41.38 kg/m
Area sezione metallica:	$A =$	5272 mm <sup>2</sup>
Area resistente a taglio:	$A_v =$	3356 mm <sup>2</sup>
Momento d'inerzia elastico:	$J =$	18619818 mm <sup>4</sup>
Raggio d'inerzia:	$i =$	59.4 mm
Modulo di resistenza elastico:	$W_e =$	209447 mm <sup>3</sup>
Modulo di resistenza plastico:	$W_p =$	281893 mm <sup>3</sup>
Resistenza di calcolo a compressione:	$N_{c,Rd} =$	1782.30 kN
Resistenza di calcolo a flessione:	$M_{c,Rd} =$	95.31 kN.m
Resistenza di calcolo a taglio:	$V_{c,Rd} =$	655.09 kN
Verifica di resistenza combinata assiale/flessione/taglio:		
Sforzo assiale di progetto:	$N_{Ed} =$	<b>0</b> kN
Sforzo tagliante di progetto:	$V_{Ed} =$	<b>96.92</b> kN
Momento flettente di progetto:	$M_{Ed} =$	<b>87.89</b> kN.m
Tensione di snervamento ridotta per interazione tra flessione e taglio (se la sollecitazione di taglio supera il 50% della resistenza):	$f_{y,red} =$	355.00 N/mm <sup>2</sup>
Verifica combinata assiale/flessione: $N_{Ed} / N_{c,Rd} + M_{Ed} / M_{c,Rd} \leq 1$ :	0.922	( $\leq 1$ : VERIFICATO)

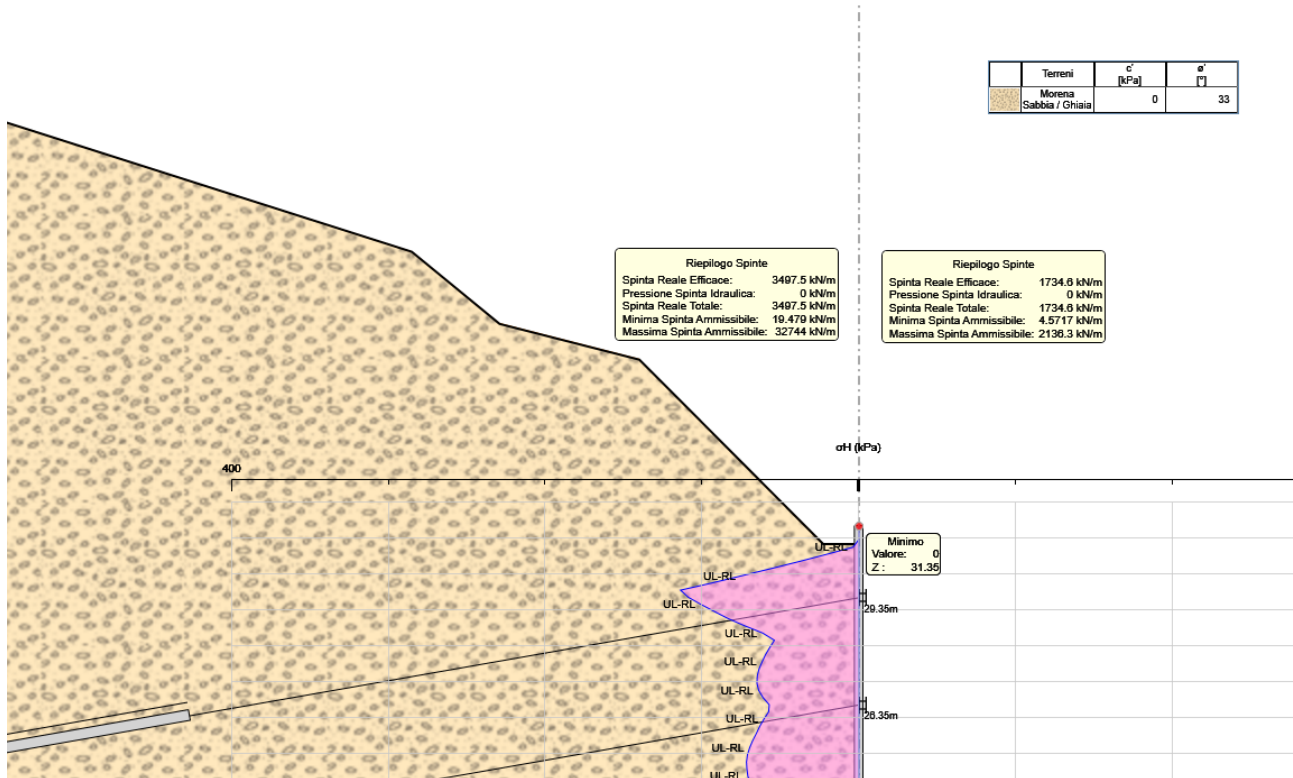
### 8.3.2 Verifiche geotecniche: Verifica di stabilità del fondo scavo

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

- 1) Il calcolo non lineare della paratia deve convergere a una soluzione equilibrata e congruente;
- 2) Sul lato di scavo (valle) la spinta efficace mobilitata deve essere minore della spinta passiva disponibile, quindi il loro rapporto deve essere  $< 1$ .

Dall'esame dei tabulati di calcolo, in particolare quello relativo a GEO (A2+M2+R1), combinazione più gravosa (ved. p. 8.2.5), si desume:

- 1) Il calcolo non lineare converge a una soluzione equilibrata per tutte le fasi di calcolo.
- 2) Il rapporto tra la spinta mobilitata e la spinta passiva possibile assume il massimo nella fase 16 con il valore (vedi figura seguente):



$$\frac{\text{Spinta Reale Totale}}{\text{Massima Spinta Ammissibile}} = \frac{1734.6}{2136.3} = 0.81 \quad (< 1: \text{verificato})$$

### 8.3.3 Tiranti attivi : Verifica strutturale e allo sfilamento dell'ancoraggio

La verifica viene svolta considerando uno stato limite GEO di tipo A1+M1+R3.

La resistenza del bulbo di ancoraggio dei tiranti attivi viene calcolata con il metodo di Bustamante-Doix (Rif. Bustamante M., Doix B. (1985): "Une méthode pour le calcul des tirants et des micropieux injectés", Bull. Liaison Lab. Ponts et Chaussées, n. 140, pagg. 75-95).

Si verifica inoltre, nell'ottica della gerarchia delle resistenze, che la resistenza caratteristica allo snervamento del tirante sia maggiore della resistenza a sfilamento di progetto dell'ancoraggio (p. 6.6.2. NTC 2018).

Dati geometrici:

- lunghezza bulbo di ancoraggio:  $L = 12 \text{ m}$
- diametro perforazione:  $\varnothing = 160 \text{ mm}$
- sollecitazione massima (Tirante F1, Fase 14):  $N_{Ed} = 365.21 \times 2.00 = 730.4 \text{ kN}$
- resistenza assiale tirante (4x0.6"):  $R_k = 4 \times 139 \times 1670/10^3 = 928 \text{ kN}$

- Per:
- tipo di terreno: sabbioso/ghiaioso
  - tipo di iniezione: ripetute e selettive ad alta pressione (IRS)

si ha (Bustamante-Doix):

- resistenza unitaria limite:  $q_s = 179 \text{ kN/m}^2$
- fattore di incremento del diametro:  $\alpha = 1.4$
- coefficiente parziale resistenza caratteristica (tiranti provvisori):  $\gamma_{Ra,t} = 1.1$
- fattore di correlazione (1 sondaggio):  $\xi_{a3} = 1.8$

Si determina quindi per il bulbo di ancoraggio:

- resistenza limite:  $R_{lim} = \alpha \pi \varnothing \Sigma(L q_s) = 1.4 \times \pi \times 0.16 \times 12 \times 179 = 1512 \text{ kN}$

- resistenza caratteristica:  $R_{ck} = \frac{R_{lim}}{\xi_{a3}} = \frac{1512}{1.8} = 840 \text{ kN}$

- resistenza di progetto:  $R_{cd} = \frac{R_{ck}}{\gamma_{Ra,t}} = \frac{840}{1.1} = 763 \text{ kN}$

Verifica di resistenza del tirante:  $R_k > N_{Ed} : 928 \text{ kN} > 730.4 \text{ kN} : \text{Verificato.}$

Verifica di resistenza dell'ancoraggio:  $R_{cd} > N_{Ed} : 763 \text{ kN} > 730.4 \text{ kN} : \text{Verificato.}$

Verifica della gerarchia delle resistenze:  $R_k > R_{cd} : 928 \text{ kN} > 763 \text{ kN} : \text{Verificato.}$

### 8.3.4 Travi di ripartizione - Verifica strutturale a flessione e taglio

Le travi di ripartizione dei tiranti sono considerate come continue su più appoggi aventi luce  $L = 2.40 \text{ m}$  o  $L = 2.00 \text{ m}$ , supposte caricate uniformemente dalla reazione orizzontale del tirante; a favore della sicurezza si assume  $M = \pm q L^2 / 10$ .

Le sollecitazioni massime allo stato limite ultimo risultano per il singolo profilato:

a) tiranti A1, B1, C1, D1 con interasse 2.40 m

- sforzo di taglio:  $V_{Ed} = 300.8 \times \cos 10^\circ \times 2.40 / (2 \times 2) = 177.7 \text{ kN}$

- momento flettente:  $M_{Ed} = 300.8 \times \cos 10^\circ \times 2.40^2 / (10 \times 2) = 85.31 \text{ kNm}$

b) tiranti E1, F1, G1 con interasse 2.00 m

- sforzo di taglio:  $V_{Ed} = 365.2 \times \cos 10^\circ \times 2.00 / (2 \times 2) = 179.8 \text{ kN}$

- momento flettente:  $M_{Ed} = 365.2 \times \cos 10^\circ \times 2.00^2 / (10 \times 2) = 71.93 \text{ kNm}$

In alternativa si considerano le travi di ripartizione come mensole a sbalzo dalla piastra, aventi luce  $L = 1.25 \text{ m}$  (4 pali) per i tiranti con interasse 2.40 m e luce  $L = 0.85 \text{ m}$  (3 pali) per i tiranti con interasse 2.00 m, supposte caricate uniformemente dalla reazione orizzontale del tirante.

Le sollecitazioni massime allo stato limite ultimo risultano per il singolo profilato:

c) tiranti A1, B1, C1, D1 con interasse 2.40 m

- sforzo di taglio:  $V_{Ed} = 300.8 \times \cos 10^\circ \times 1.25 / 2 = 185.1 \text{ kN}$

- momento flettente:  $M_{Ed} = 300.8 \times \cos 10^\circ \times 1.25^2 / (2 \times 2) = 115.71 \text{ kNm}$

d) tiranti E1, F1 con interasse 2.00 m

- sforzo di taglio:  $V_{Ed} = 365.2 \times \cos 10^\circ \times 0.85 / 2 = 152.8 \text{ kN}$

- momento flettente:  $M_{Ed} = 365.2 \times \cos 10^\circ \times 0.85^2 / (2 \times 2) = 64.96 \text{ kNm}$

La verifica viene svolta considerando gli sforzi massimi, caso c).

Caratteristiche di resistenza del profilato HE 220 A, acciaio S275:

- profilato compatto (Classe 2)

- resistenza caratteristica:  $f_{yk} = 275 \text{ N/mm}^2$

- area resistente a taglio:  $A_{yz} = 20.67 \text{ cm}^2$

- modulo di resistenza plastico:  $W_{pl,y} = 568.5 \text{ cm}^3$

- resistenza a taglio: 
$$V_{c,Rd} = \frac{A_{yz} \cdot f_{yk}}{\sqrt{3} \cdot \gamma_{M0}} = \frac{20.67 \cdot 275}{\sqrt{3} \cdot 1.05} \cdot \frac{1}{10} = 312 \text{ kN}$$

- verifica di resistenza a taglio: 
$$\frac{V_{Ed}}{V_{c,Rd}} = \frac{185.1}{312} = 0.593 \quad (< 1 : \text{Verificato})$$

Dato che  $V_{Ed} > 0.5 V_{c,Rd}$  occorre considerare l'influenza del taglio sulla resistenza a flessione:

- fattore d'influenza: 
$$\rho = \left( \frac{2 \cdot V_{Ed}}{V_{c,Rd}} - 1 \right)^2 = 0.035$$

- resistenza a flessione e taglio:

$$M_{y,V,Rd} = \frac{\left( W_{pl,y} - \frac{\rho \cdot A_{yz}^2}{4 \cdot t_w} \right) \cdot f_{yk}}{\gamma_{M0}} = \frac{\left( 568.5 - \frac{0.035 \cdot 20.67^2}{4 \cdot 0.7} \right) \cdot 275}{1.05} \cdot 10^{-3} = 147.49 \text{ kNm}$$

- verifica di resistenza a flessione: 
$$\frac{M_{Ed}}{M_{y,V,Rd}} = \frac{115.71}{147.49} = 0.785 \quad (< 1 : \text{Verificato})$$

### 8.3.5 Cordolo di testa - Verifica strutturale a flessione e taglio

Si omettono le verifiche del cordolo che non è direttamente sollecitato; si dispone comunque una armatura adeguata.

### 8.3.6 Verifica di stabilità globale dell'insieme terreno-struttura

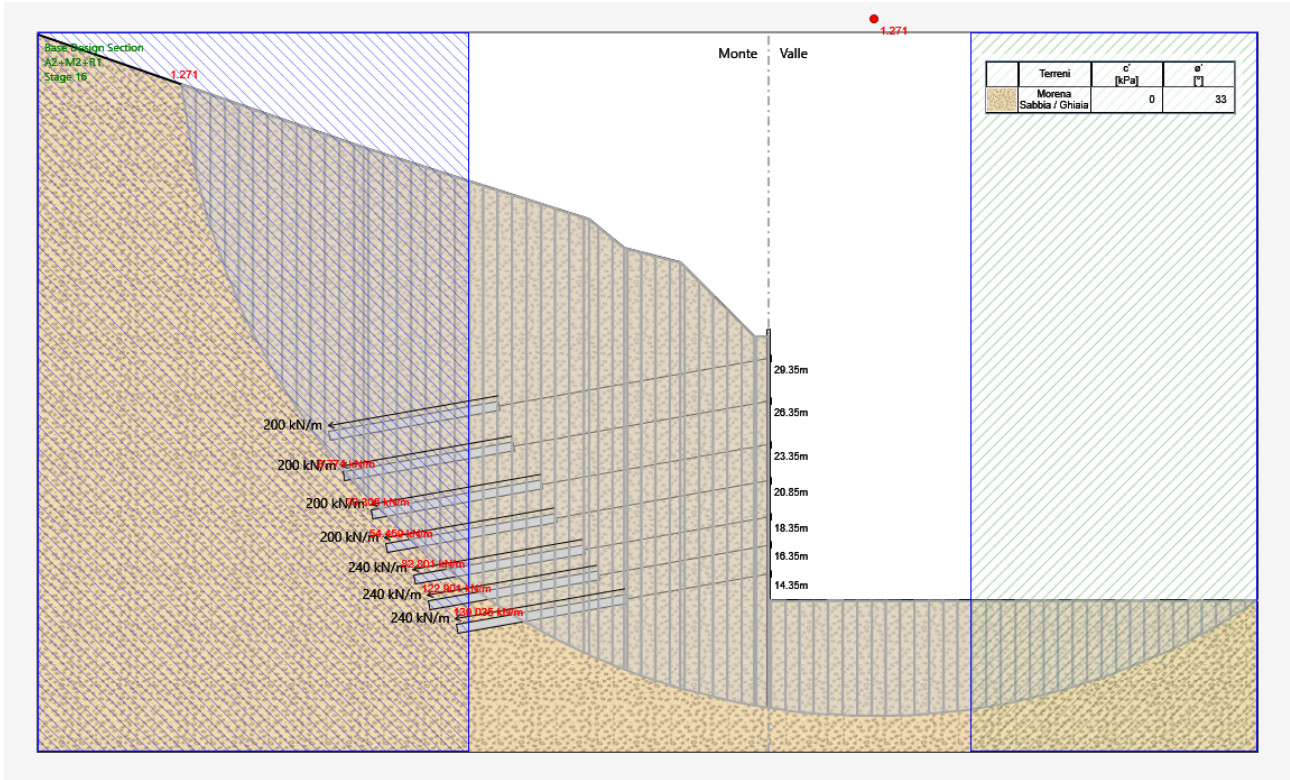
La verifica di stabilità globale del pendio viene svolta facendo riferimento alla sezione più gravosa nella fase finale (10); si considera la Combinazione 2: GEO (A2+M2+R2).

L'analisi viene svolta utilizzando il programma Paratie Plus della Ceas di Milano.

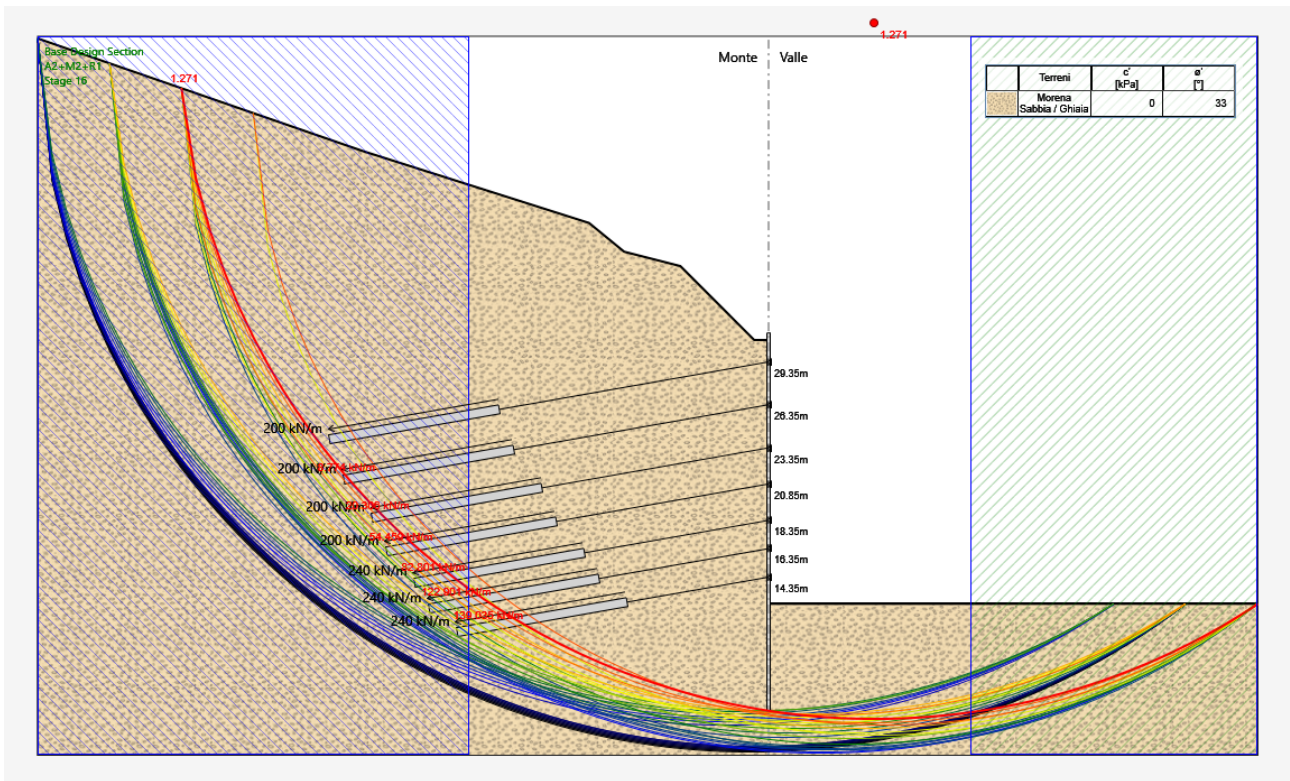
Nella fattispecie è stato utilizzato il metodo di Bishop semplificato con una generazione semi-automatica di superfici di scorrimento circolari..

Seguono gli schemi grafici del calcolo svolto; il coefficiente di sicurezza minimo risulta:

$$FS_{\min} = 1.271 \quad (FS_{\min} > 1.1 : \text{Verificato})$$



VERIFICA DI STABILITÀ GLOBALE - SUPERFICIE CRITICA



VERIFICA DI STABILITÀ GLOBALE - TUTTE LE SUPERFICIE GENERATE.

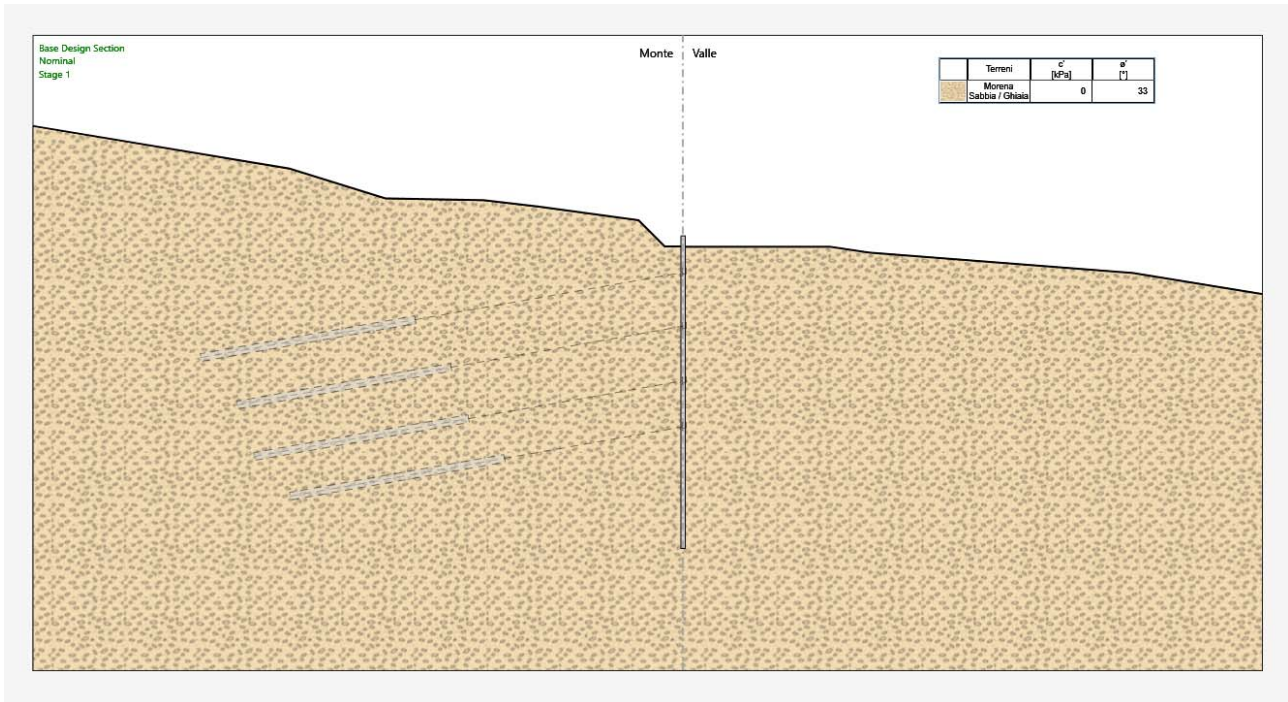


## 9 ANALISI PARATIA DEFINITIVA (RIVESTITA) - LATO MONTE - 4 ORDINI DI TIRANTI

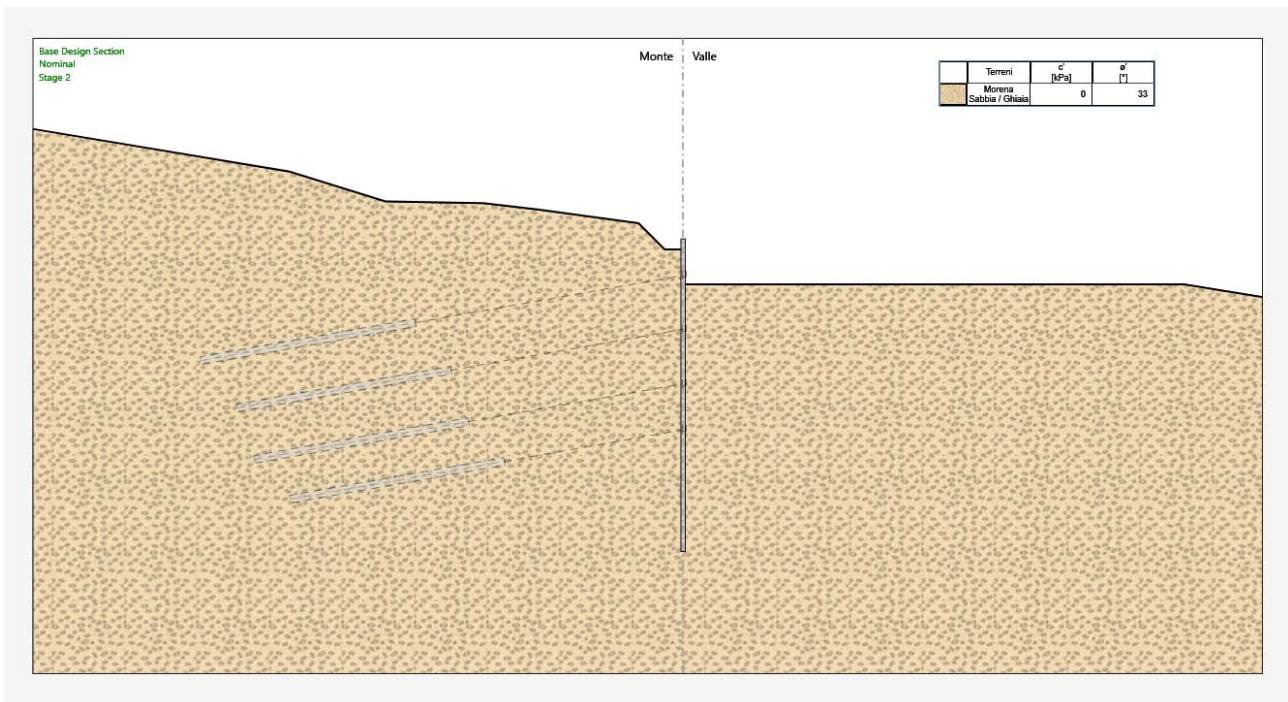
Si considera per il calcolo la sezione alla Pk. 6+175.76; il calcolo si assume valido per tutto il tratto di paratia rivestita lato monte.

### 9.1 FASI ESECUTIVE DI CALCOLO

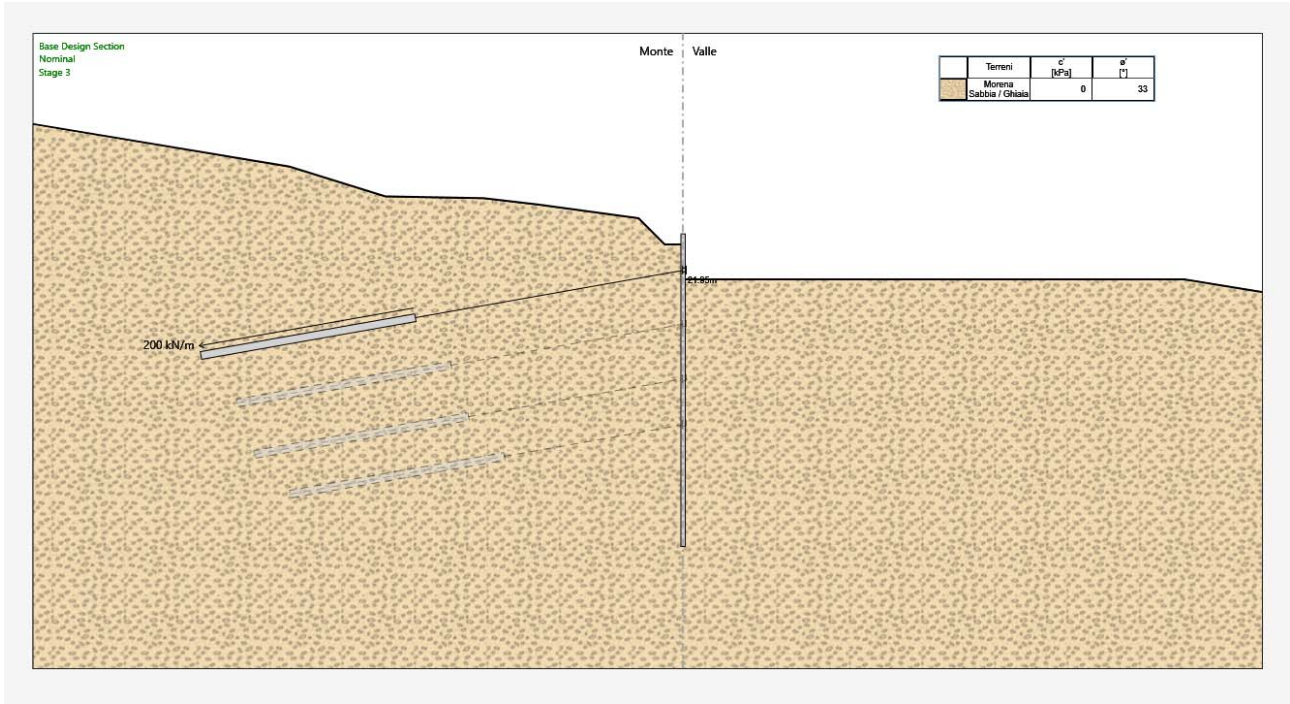
Seguono gli schemi grafici di ogni fase di calcolo del programma "ParatiePlus".



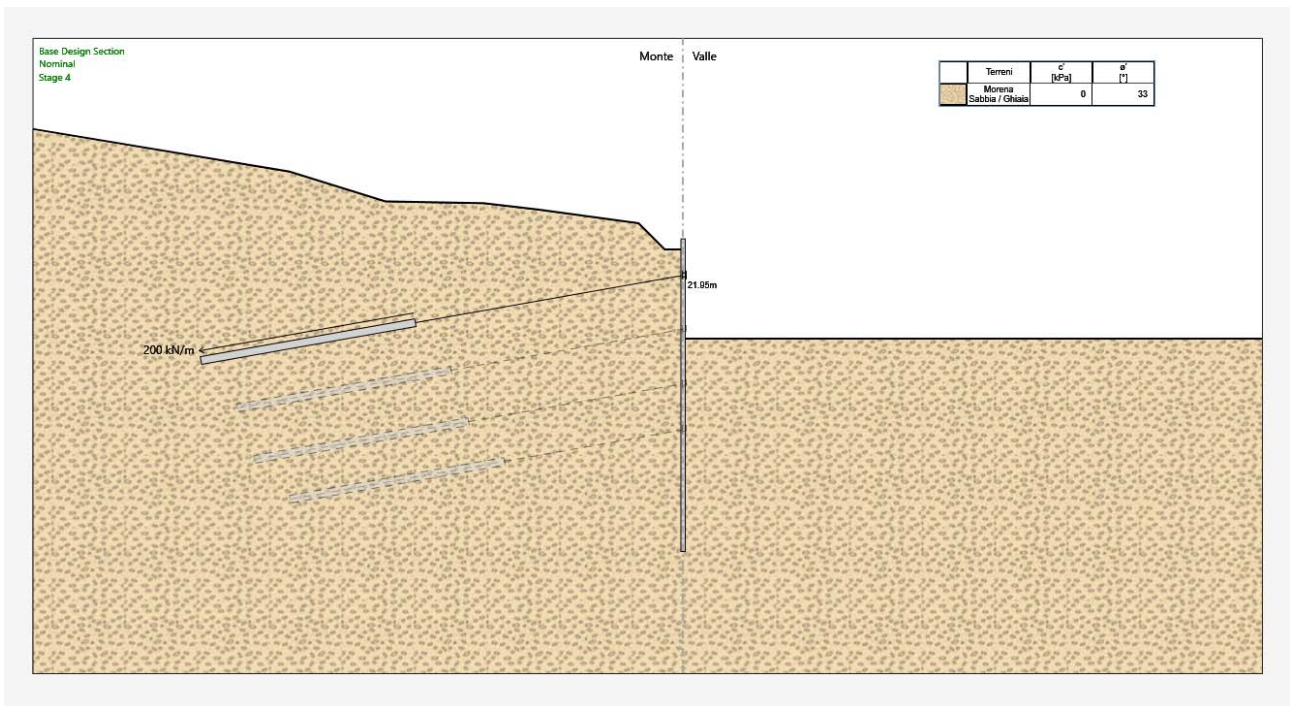
FASE 1: FASE GEOSTATICA DI INIZIALIZZAZIONE: REALIZZAZIONE MICROPALI



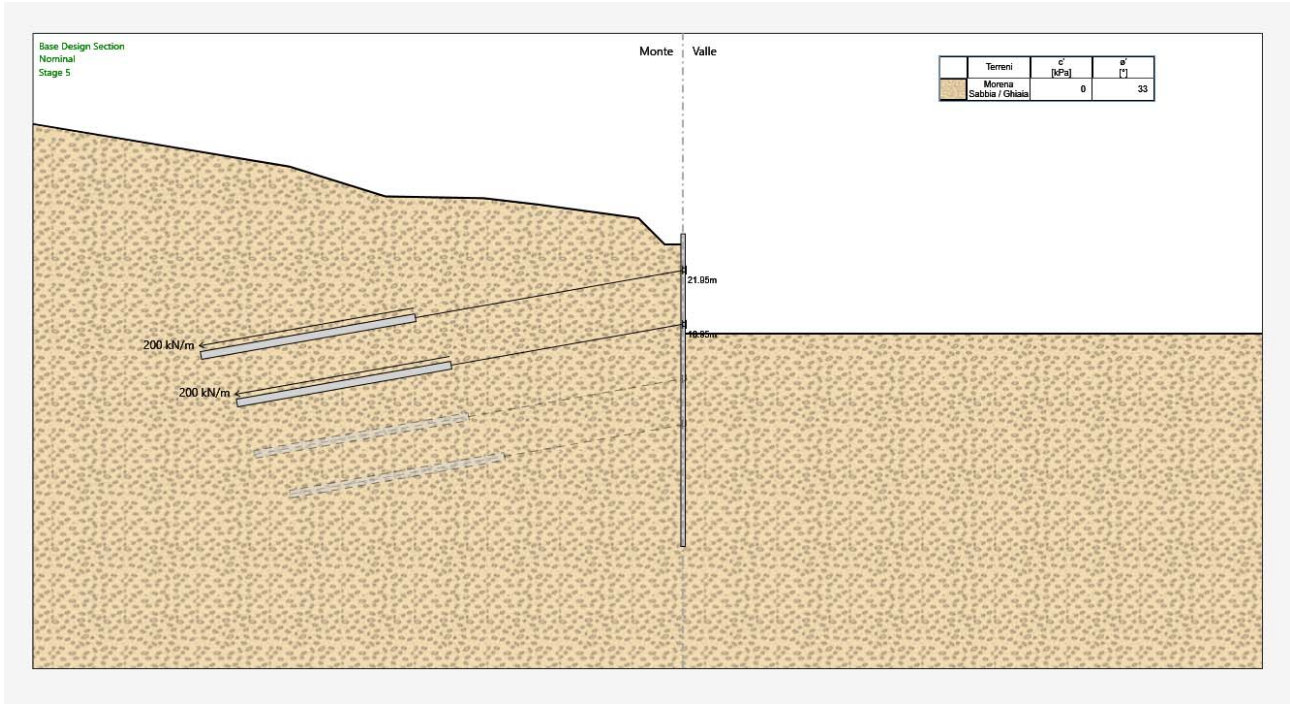
FASE 2: SCAVO FINO QUOTA -0.50 M DALLA 1° FILA DI TIRANTI



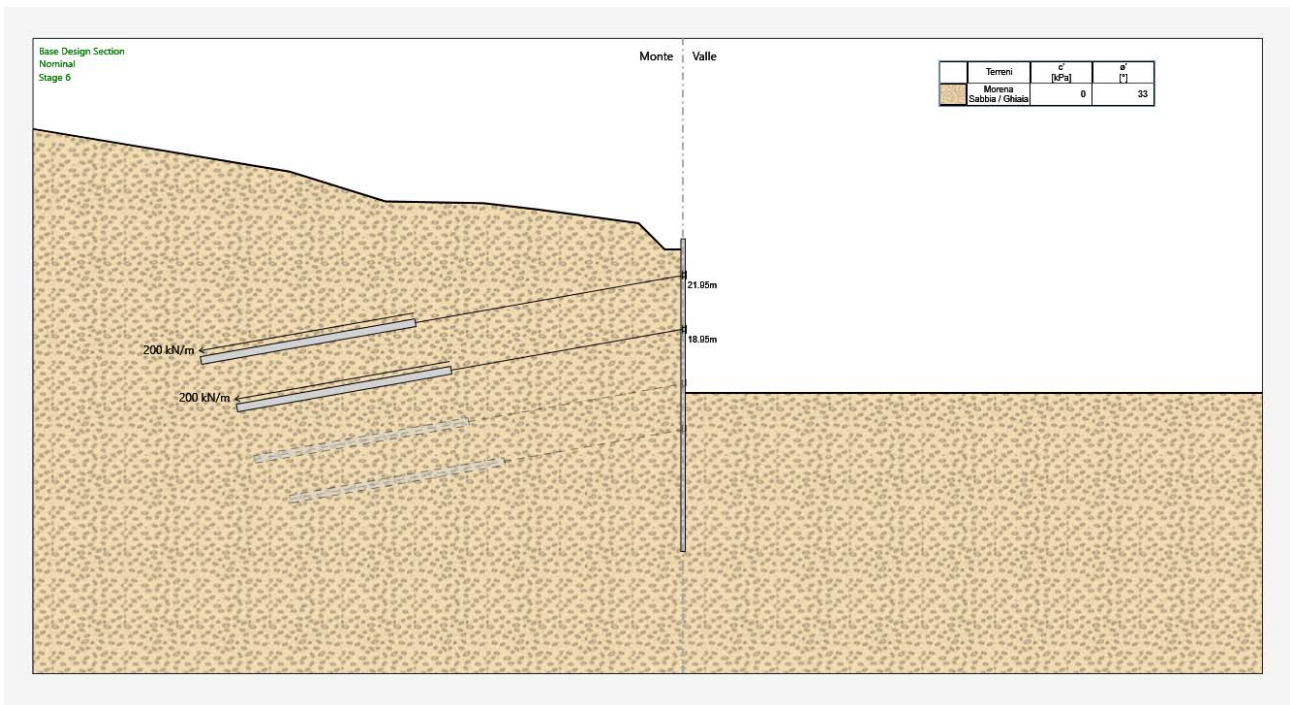
FASE 3: TESATURA DELLA 1° FILA DI TIRANTI



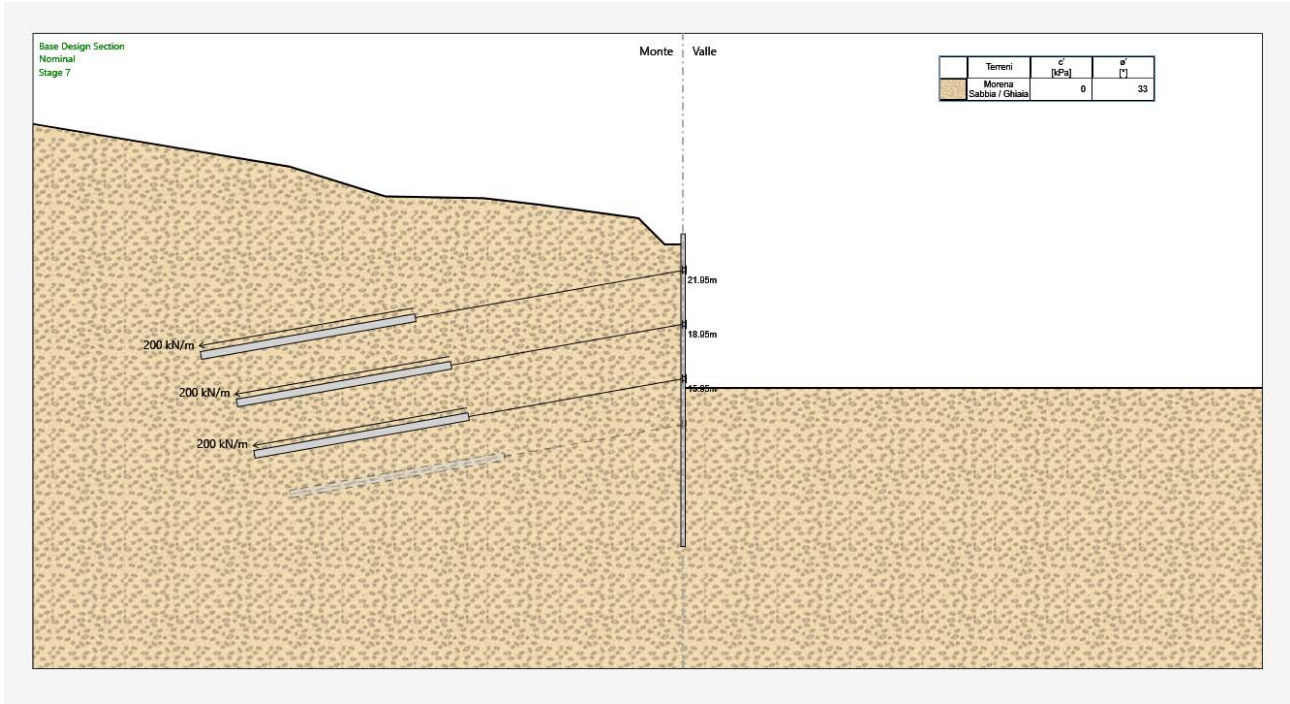
FASE 4: SCAVO FINO QUOTA -0.50 M DALLA 2° FILA DI TIRANTI



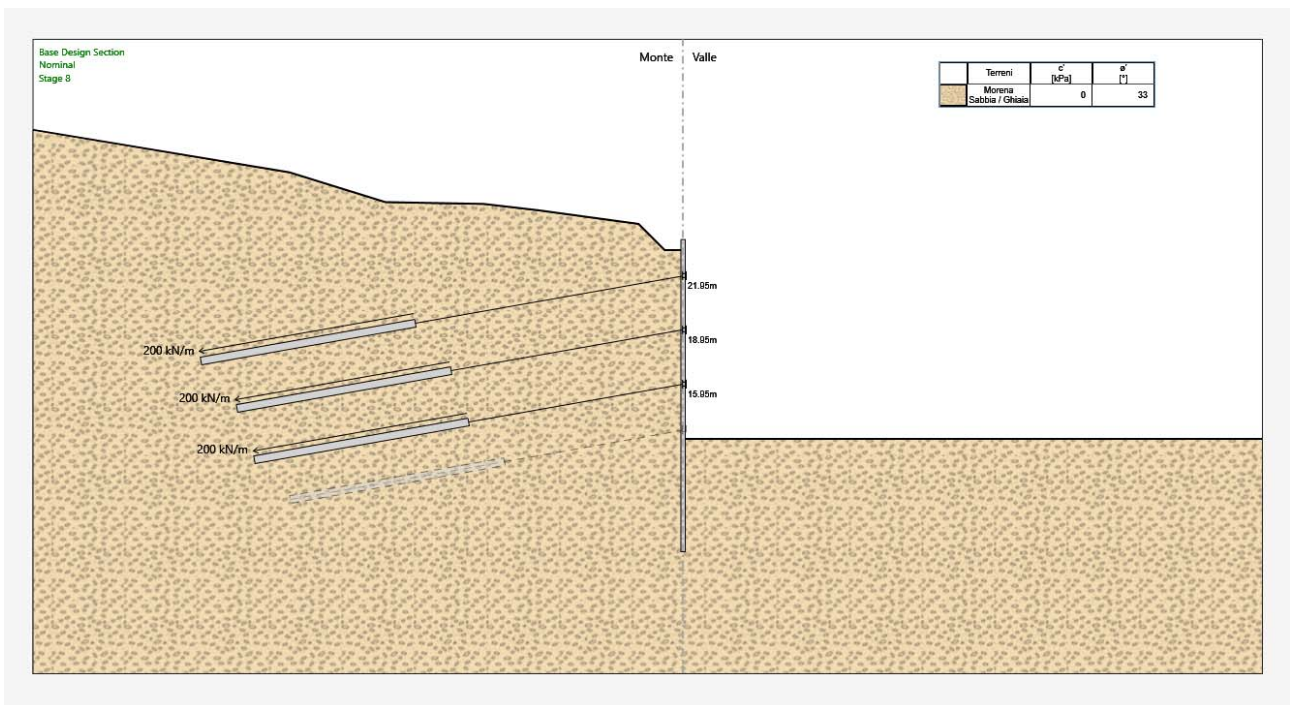
FASE 5: TESATURA DELLA 2° FILA DI TIRANTI



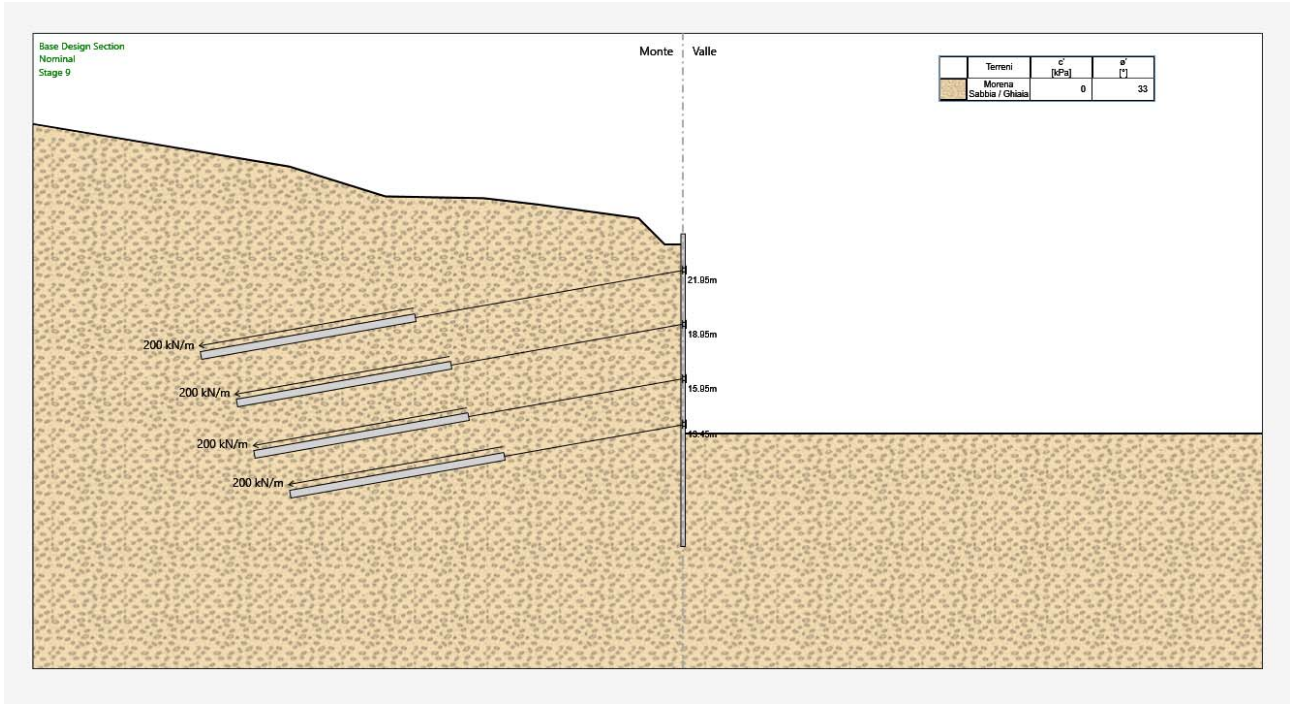
FASE 6: SCAVO FINO QUOTA -0.50 M DALLA 3° FILA DI TIRANTI



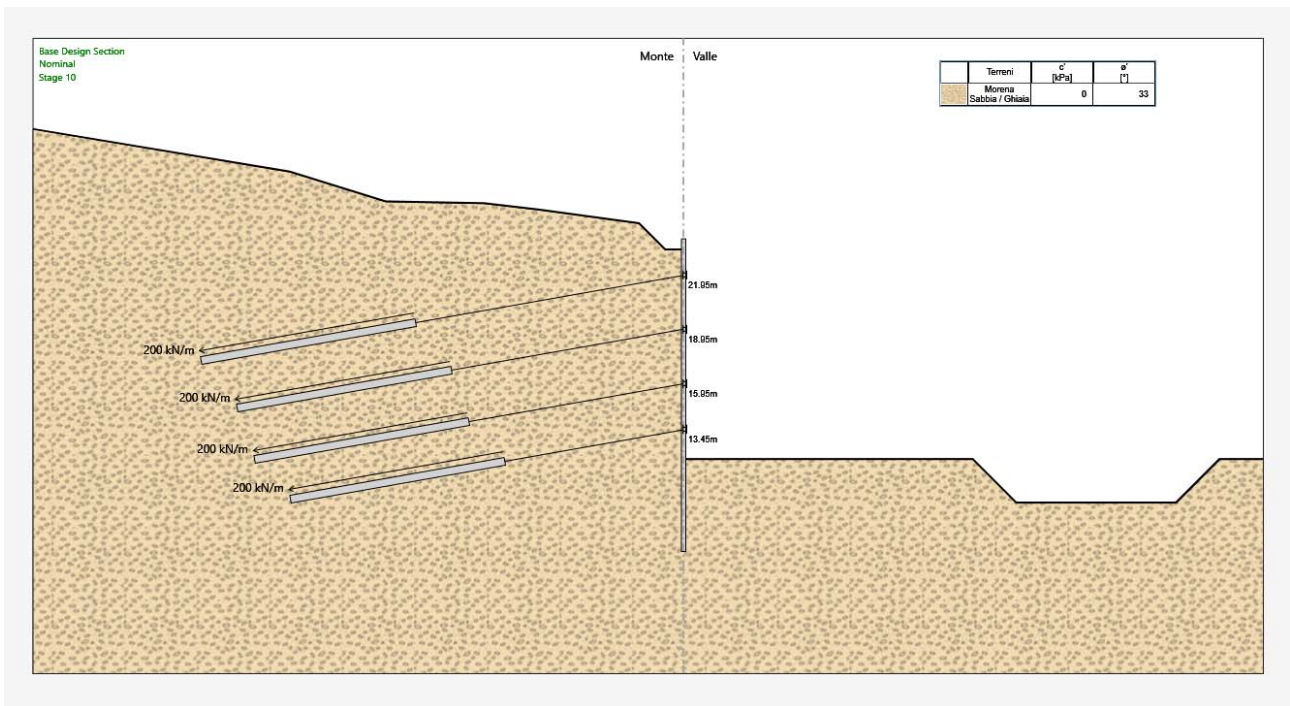
FASE 7: TESATURA DELLA 3° FILA DI TIRANTI



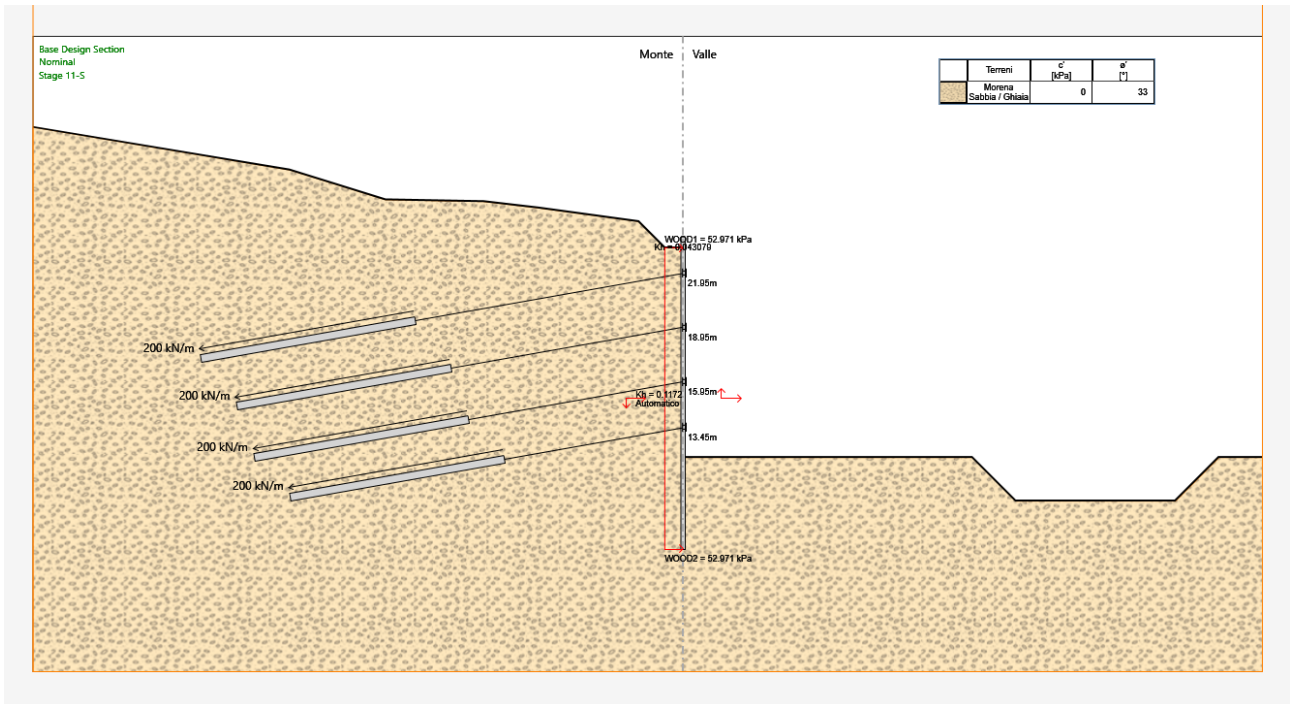
FASE 8: SCAVO FINO QUOTA -0.50 M DALLA 4° FILA DI TIRANTI



FASE 9: TESATURA DELLA 4° FILA DI TIRANTI



FASE 10: SCAVO FINO ALLA QUOTA DEFINITIVA - FASE FINALE STATICA

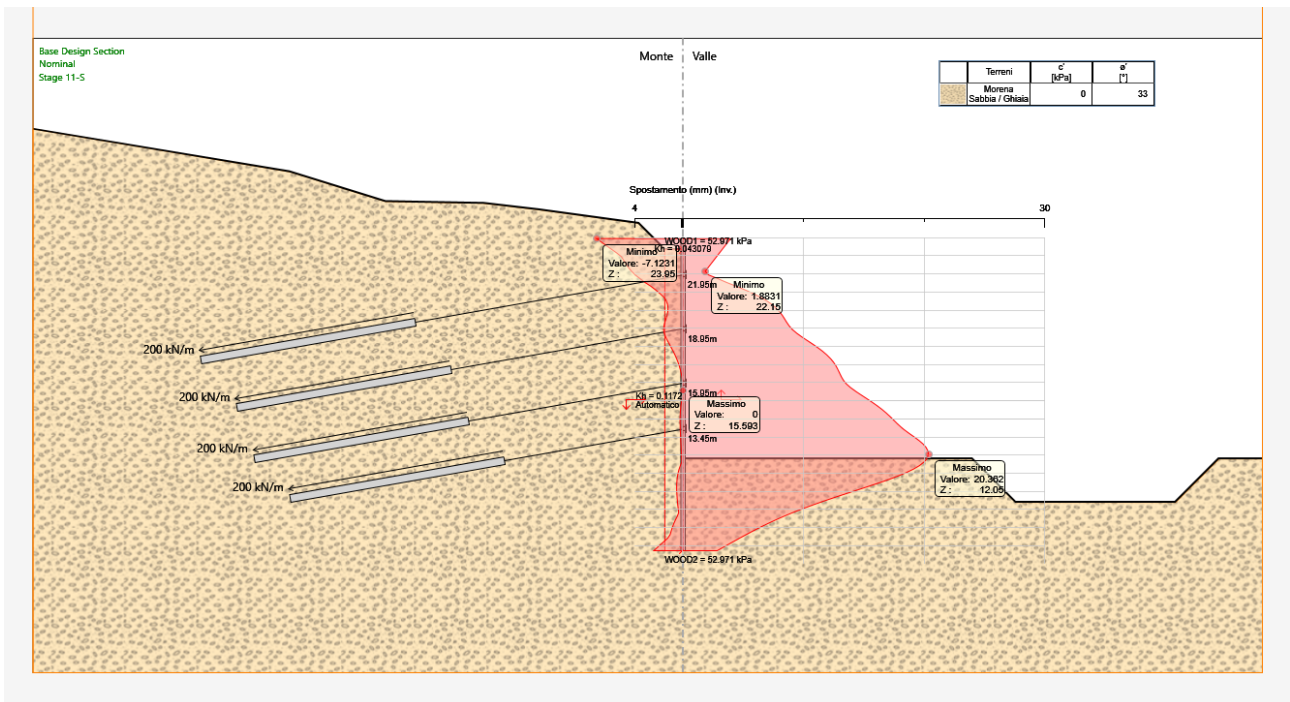


FASE 11: FASE FINALE SISMICA

## 9.2 RISULTATI GRAFICI

### 9.2.1 Deformate

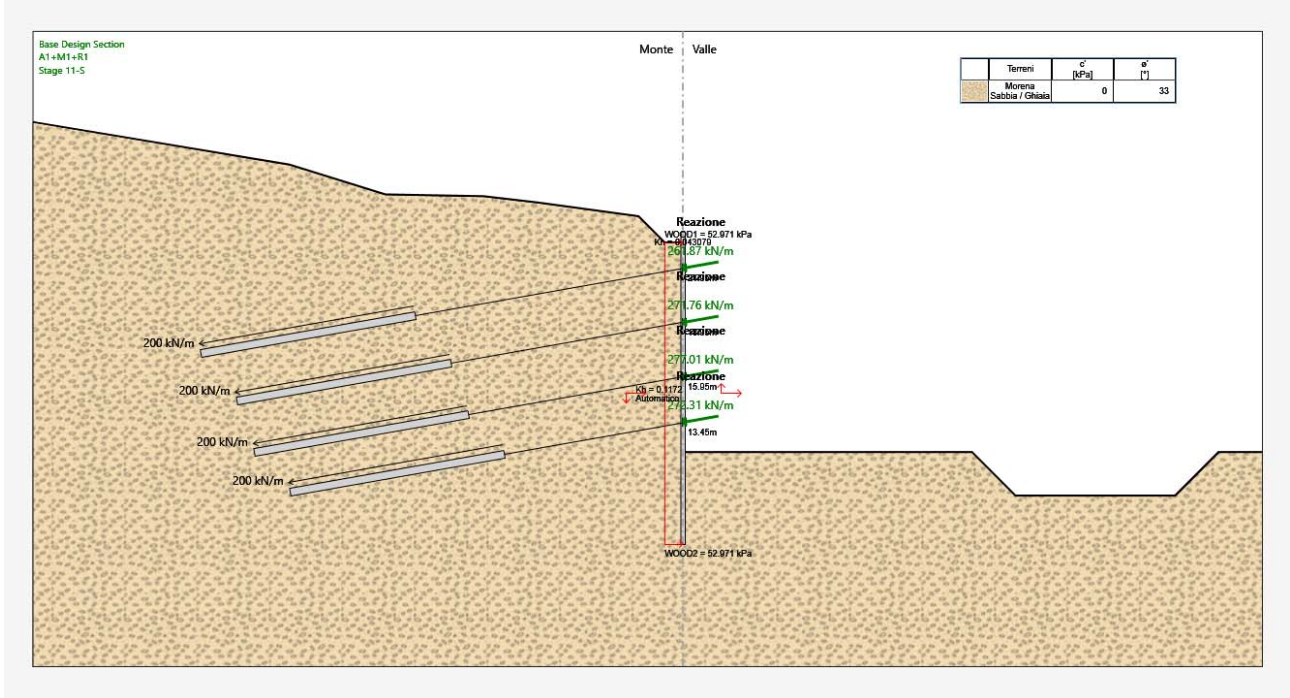
Le deformate, espresse in mm, sono visualizzate per l'involuppo di tutte le fasi della combinazione caratteristica (rara).



INVILUPPO FASI 1-11: COMBINAZIONE RARA - DEFORMATA

### 9.2.2 Reazioni (tiranti)

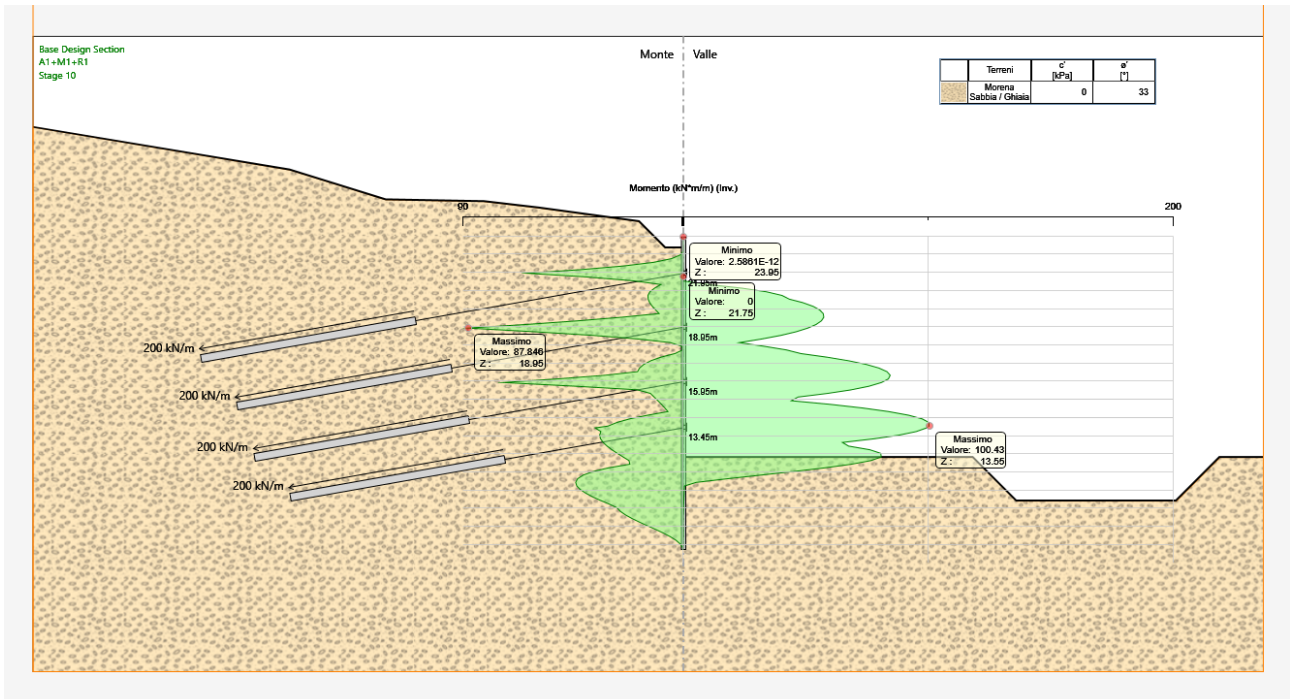
I valori delle reazioni ai tiranti sono espressi in kN/ml per gli involuipi delle combinazioni allo stato limite ultimo: STR: A1+M1+R1.



INVILUPPO FASI 1-11: COMBINAZIONE STR (A1+M1+R1) - REAZIONI TIRANTI

### 9.2.3 Momenti flettenti sui micropali

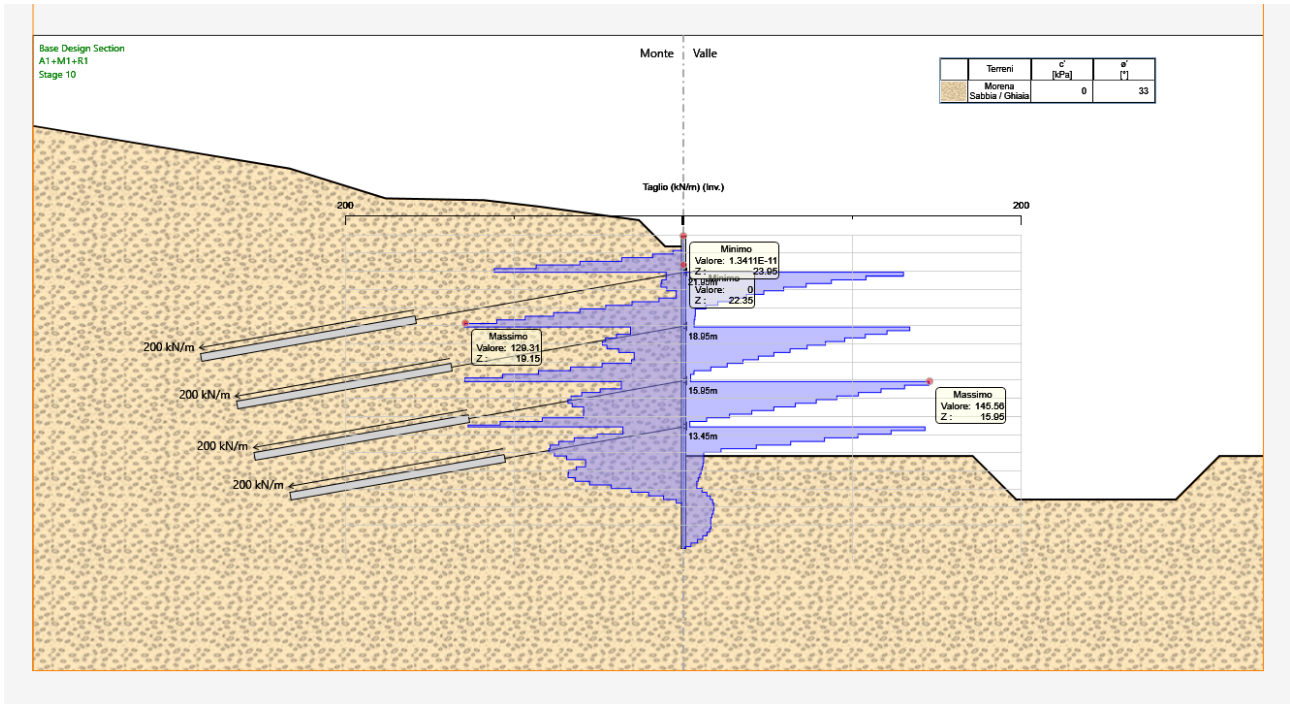
I momenti flettenti sulle strutture sono espressi in kNm/ml per gli involuipi delle combinazioni allo stato limite ultimo: STR: A1+M1+R1.



INVILUPPO FASI 1-11: COMBINAZIONE STR (A1+M1+R1) - MOMENTI FLETTENTI

### 9.2.4 Sforzi di taglio sui micropali

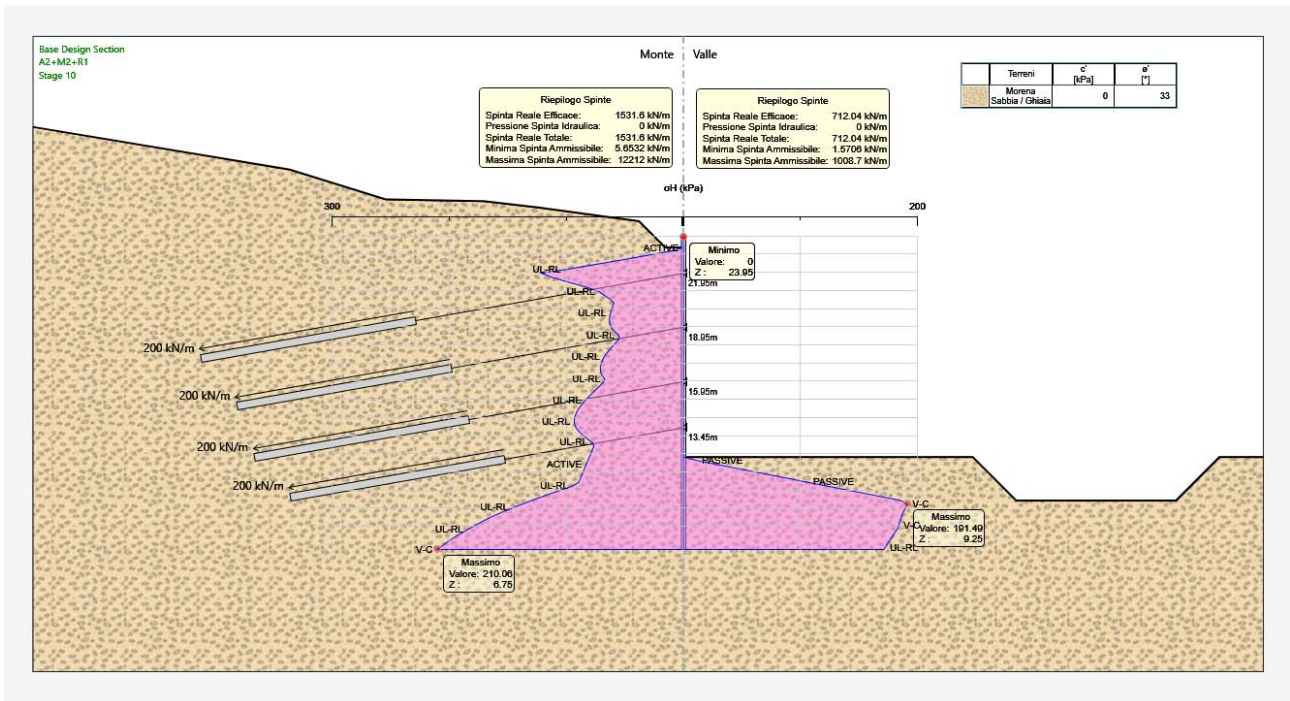
Gli sforzi taglianti sulle strutture sono espressi in kN/ml per gli involuipi delle combinazioni allo stato limite ultimo: STR: A1+M1+R1.



INVILUPPO FASI 1-11: COMBINAZIONE STR (A1+M1+R1) - SFORZI DI TAGLIO

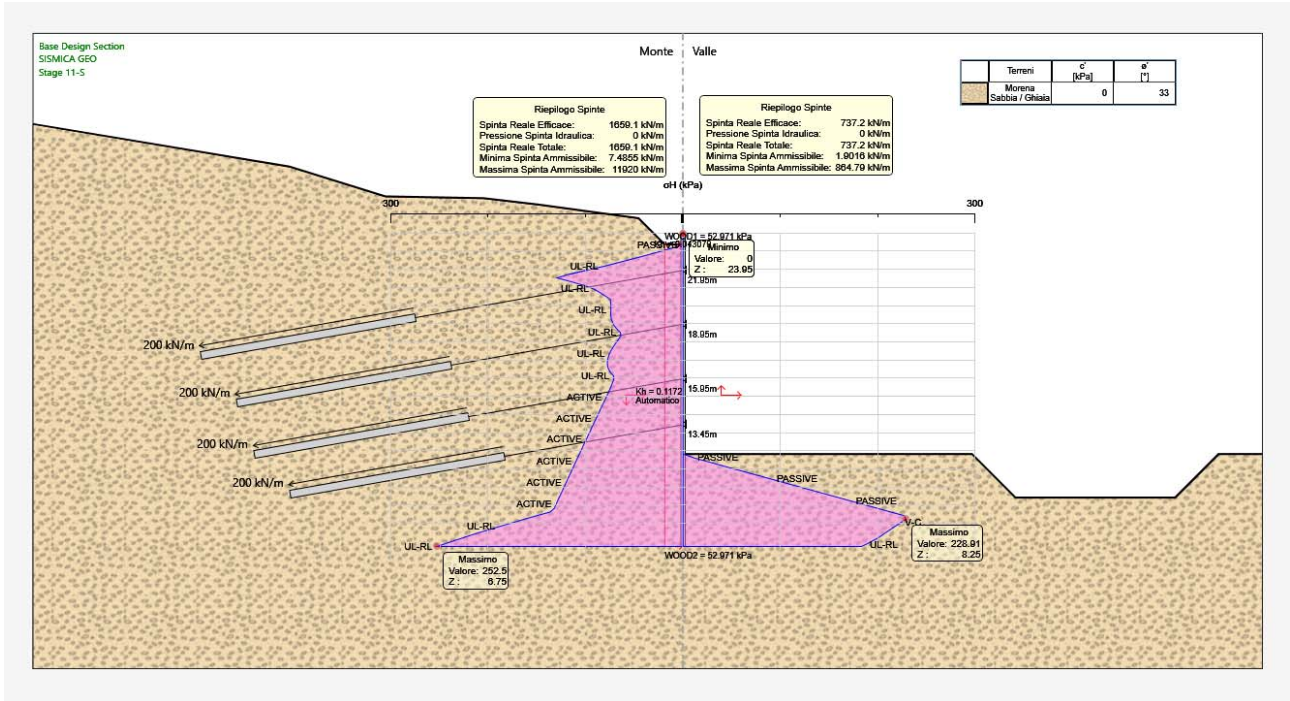
### 9.2.5 Pressioni orizzontali terreno

Le pressioni sul terreno sono espresse in kN/m<sup>2</sup> per le combinazioni allo stato limite ultimo: GEO: A2+M2+R1.



FASE 10 STATICA: COMBINAZIONE GEO (A2+M2+R1) - PRESSIONI ORIZZONTALI EFFICACI E RIASSUNTO SPINTE





FASE 11 SISMICA: COMBINAZIONE GEO (A2+M2+R1) - PRESSIONI ORIZZONTALI EFFICACI E RIASSUNTO SPINTE

### 9.3 VERIFICHE ALLO STATO LIMITE ULTIMO

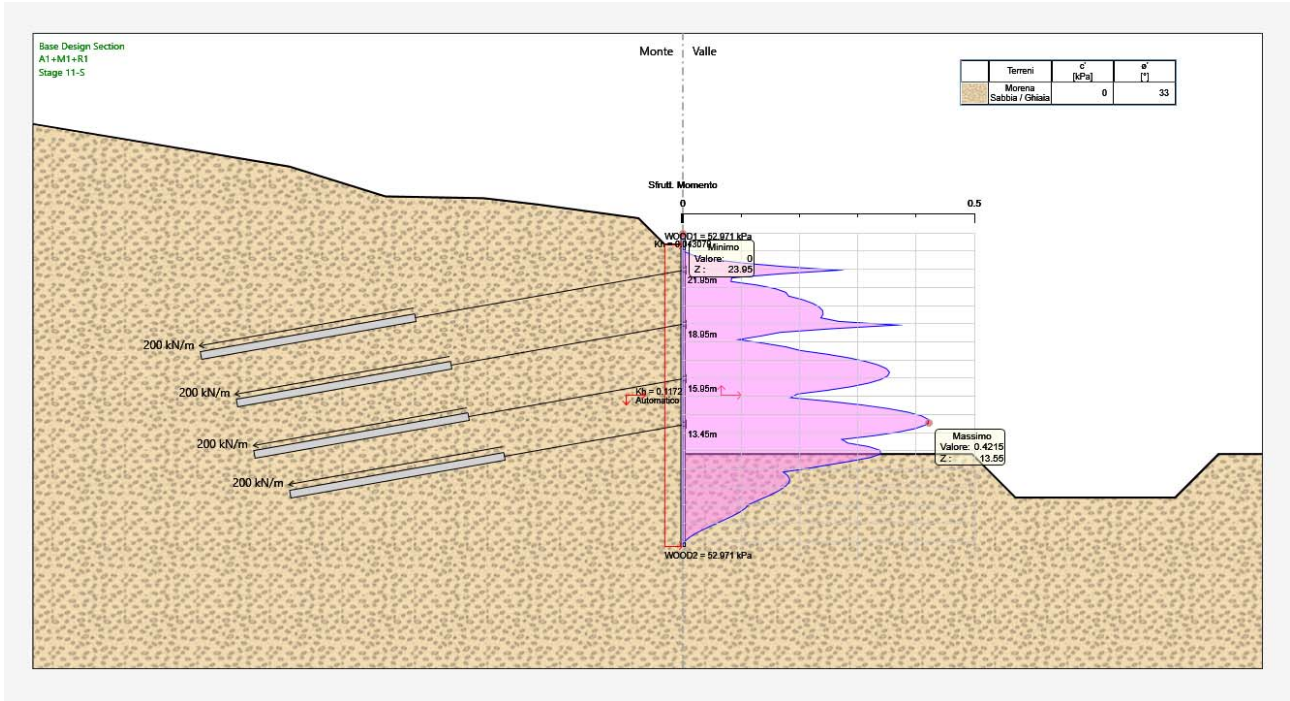
#### 9.3.1 Verifiche strutturali micropali: Verifiche a flessione e taglio

Le verifiche sono svolte automaticamente dal programma di calcolo considerando le sollecitazioni statiche e sismiche derivate dalle combinazioni allo stato limite ultimo: STR: (A1+M1+R1).

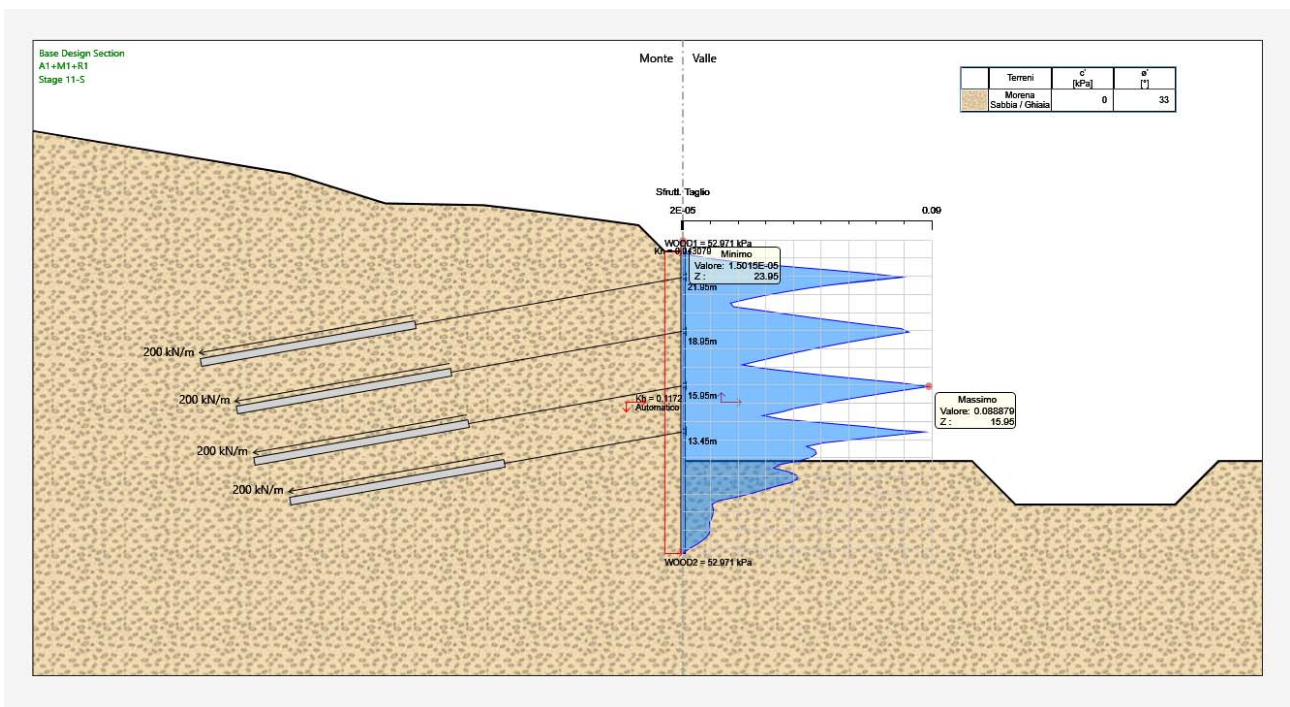
Seguono i diagrammi dei tassi di sfruttamento TS a flessione e a taglio della resistenza dei micropali metallici, per le combinazioni allo stato limite ultimo: STR: (A1+M1+R1).

Le verifiche sono soddisfatte se:  $TS = \frac{\text{Sollecitazione}}{\text{Re resistenza}} \leq 1$

Lo sforzo assiale viene trascurato; nel calcolo del momento resistente  $M_{c,Rd}$  non viene considerata l'interazione con la forza di taglio, in quanto in tutti i casi esaminati il taglio di calcolo associato al momento flettente è sempre inferiore a metà della resistenza di calcolo a taglio  $V_{c,Rd}$ .



**TS FLESSIONE: COMB. SLU: STR (A1+M1+R1); INVILUPPO FASI 1+11: TS<sub>MAX</sub> = 0.421 (<1)**



**TS TAGLIO: COMB. SLU: STR (A1+M1+R1); INVILUPPO FASI 1+11: TS<sub>MAX</sub> = 0.089 (<1)**

Verifica analitica: per la combinazione STR (A1+M1+R1) si è ottenuto per il singolo palo:

- . sforzo assiale: trascurabile
- momento flettente:  $M_{Ed} = 100.43 \times 0.40 = 40.17 \text{ kNm}$
- sforzo di taglio:  $V_{Ed} = 145.56 \times 0.40 = 58.22 \text{ kN}$

Segue tabulato della verifica analitica realizzata con apposito foglio di calcolo.

### VERIFICA DI RESISTENZA SEZIONE TUBOLARE

Fattore parziale di resistenza delle sezioni:	$\gamma_{M0} =$	1.05
Tensione caratteristica di snervamento acciaio:		
spessore $t \leq 40$ mm:	$f_{yk} =$	355.00 N/mm <sup>2</sup>
spessore $40$ mm $< t \leq 80$ mm:	$f_{yk} =$	335.00 N/mm <sup>2</sup>
Diametro esterno:	$d =$	177.8 mm
Spessore nominale:	$t =$	10.0 mm

Classificazione sezione: Classe 1 (compatta)

Massa:	$P =$	41.38 kg/m
Area sezione metallica:	$A =$	5272 mm <sup>2</sup>
Area resistente a taglio:	$A_v =$	3356 mm <sup>2</sup>
Momento d'inerzia elastico:	$J =$	18619818 mm <sup>4</sup>
Raggio d'inerzia:	$i =$	59.4 mm
Modulo di resistenza elastico:	$W_e =$	209447 mm <sup>3</sup>
Modulo di resistenza plastico:	$W_p =$	281893 mm <sup>3</sup>

Resistenza di calcolo a compressione:	$N_{c,Rd} =$	1782.30 kN
Resistenza di calcolo a flessione:	$M_{c,Rd} =$	95.31 kN.m
Resistenza di calcolo a taglio:	$V_{c,Rd} =$	655.09 kN

Verifica di resistenza combinata assiale/flessione/taglio:

Sforzo assiale di progetto:	$N_{Ed} =$	0 kN
Sforzo tagliante di progetto:	$V_{Ed} =$	58.22 kN
Momento flettente di progetto:	$M_{Ed} =$	40.17 kN.m

Tensione di snervamento ridotta per interazione tra flessione e taglio (se la sollecitazione di taglio supera il 50 % della resistenza):  $f_{y,red} =$  355.00 N/mm<sup>2</sup>

Verifica combinata assiale/flessione:  $N_{Ed} / N_{c,Rd} + M_{Ed} / M_{c,Rd} \leq 1$ : 0.421 ( $\leq 1$  :VERIFICATO)

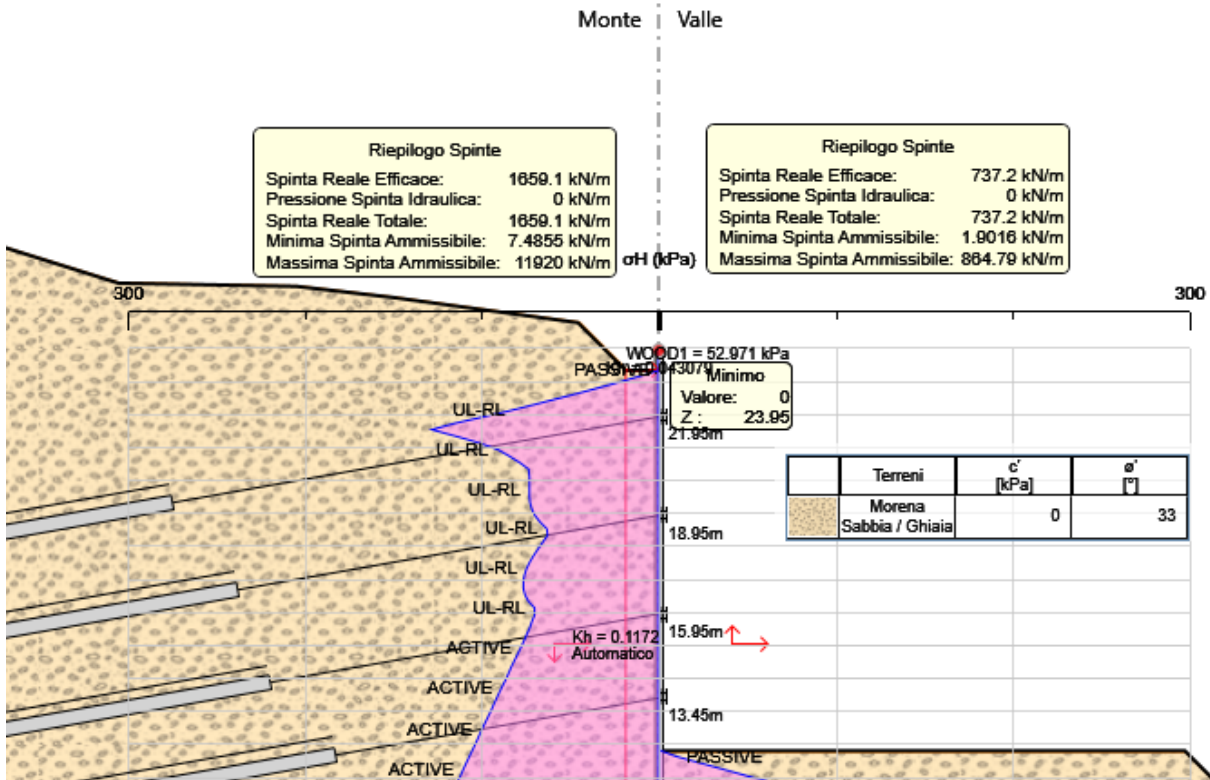
### 9.3.2 Verifiche geotecniche: Verifica di stabilità del fondo scavo

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

- 1) Il calcolo non lineare della paratia deve convergere a una soluzione equilibrata e congruente;
- 2) Sul lato di scavo (valle) la spinta efficace mobilitata deve essere minore della spinta passiva disponibile, quindi il loro rapporto deve essere  $< 1$ .

Dall'esame dei tabulati di calcolo, in particolare quello relativo a GEO (A2+M2+R1), combinazione sismica più gravosa (ved. 9.2.5), si desume:

- 1) Il calcolo non lineare converge a una soluzione equilibrata per tutte le fasi di calcolo.
- 2) Il rapporto tra la spinta mobilitata e la spinta passiva possibile assume il massimo nella fase 11 sismica con il valore (vedi figura seguente):



$$\frac{\text{Spinta Reale Totale}}{\text{Massima Spinta Ammissibile}} = \frac{737.2}{864.8} = 0.853 \quad (< 1: \text{verificato})$$

### 9.3.3 Tiranti attivi : Verifica strutturale e allo sfilamento dell'ancoraggio

La verifica viene svolta considerando uno stato limite GEO di tipo A1+M1+R3.

La resistenza del bulbo di ancoraggio dei tiranti attivi viene calcolata con il metodo di Bustamante-Doix (Rif. Bustamante M., Doix B. (1985): "Une méthode pour le calcul des tirants et des micropieux injectés", Bull. Liaison Lab. Ponts et Chaussées, n. 140, pagg. 75-95).

Si verifica inoltre, nell'ottica della gerarchia delle resistenze, che la resistenza caratteristica allo snervamento del tirante sia maggiore della resistenza a sfilamento di progetto dell'ancoraggio (p. 6.6.2. NTC 2018).

Dati geometrici:

- lunghezza bulbo di ancoraggio:  $L = 12 \text{ m}$
- diametro perforazione:  $\varnothing = 160 \text{ mm}$
- sollecitazione massima (Tirante E2, Fase 8):  $N_{Ed} = 277.01 \times 2.40 = 664.8 \text{ kN}$
- resistenza assiale tirante (4x0.6"):  $R_k = 4 \times 139 \times 1670/10^3 = 928 \text{ kN}$

- Per:
- tipo di terreno: sabbioso/ghiaioso
  - tipo di iniezione: ripetute e selettive ad alta pressione (IRS)

si ha (Bustamante-Doix):

- resistenza unitaria limite:  $q_s = 179 \text{ kN/m}^2$
- fattore di incremento del diametro:  $\alpha = 1.4$
- coefficiente parziale resistenza caratteristica (tiranti permanenti):  $\gamma_{Ra,t} = 1.2$
- fattore di correlazione (1 sondaggio):  $\xi_{a3} = 1.8$

Si determina quindi per il bulbo di ancoraggio:

- resistenza limite:  $R_{lim} = \alpha \pi \varnothing \Sigma(L q_s) = 1.4 \times \pi \times 0.16 \times 12 \times 179 = 1512 \text{ kN}$

- resistenza caratteristica:  $R_{ck} = \frac{R_{lim}}{\xi_{a3}} = \frac{1512}{1.8} = 840 \text{ kN}$

- resistenza di progetto:  $R_{cd} = \frac{R_{ck}}{\gamma_{Ra,t}} = \frac{840}{1.2} = 700 \text{ kN}$

Verifica di resistenza del tirante:  $R_k > N_{Ed} : 928 \text{ kN} > 664.8 \text{ kN} : \text{Verificato.}$

Verifica di resistenza dell'ancoraggio:  $R_{cd} > N_{Ed} : 700 \text{ kN} > 664.8 \text{ kN} : \text{Verificato.}$

Verifica della gerarchia delle resistenze:  $R_k > R_{cd} : 928 \text{ kN} > 700 \text{ kN} : \text{Verificato.}$

### 9.3.4 Travi di ripartizione - Verifica strutturale a flessione e taglio

Si assumono valide le verifiche svolte al punto 8.3.4.

### 9.3.5 Cordolo di testa - Verifica strutturale a flessione e taglio

Si omettono le verifiche del cordolo che non è direttamente sollecitato; si dispone comunque una armatura adeguata.

### 9.3.6 Verifica di stabilità globale dell'insieme terreno-struttura

La verifica di stabilità globale del pendio viene svolta facendo riferimento alla fase finale statica (10) e alla fase sismica (11); si considera la Combinazione 2: GEO (A2+M2+R2).

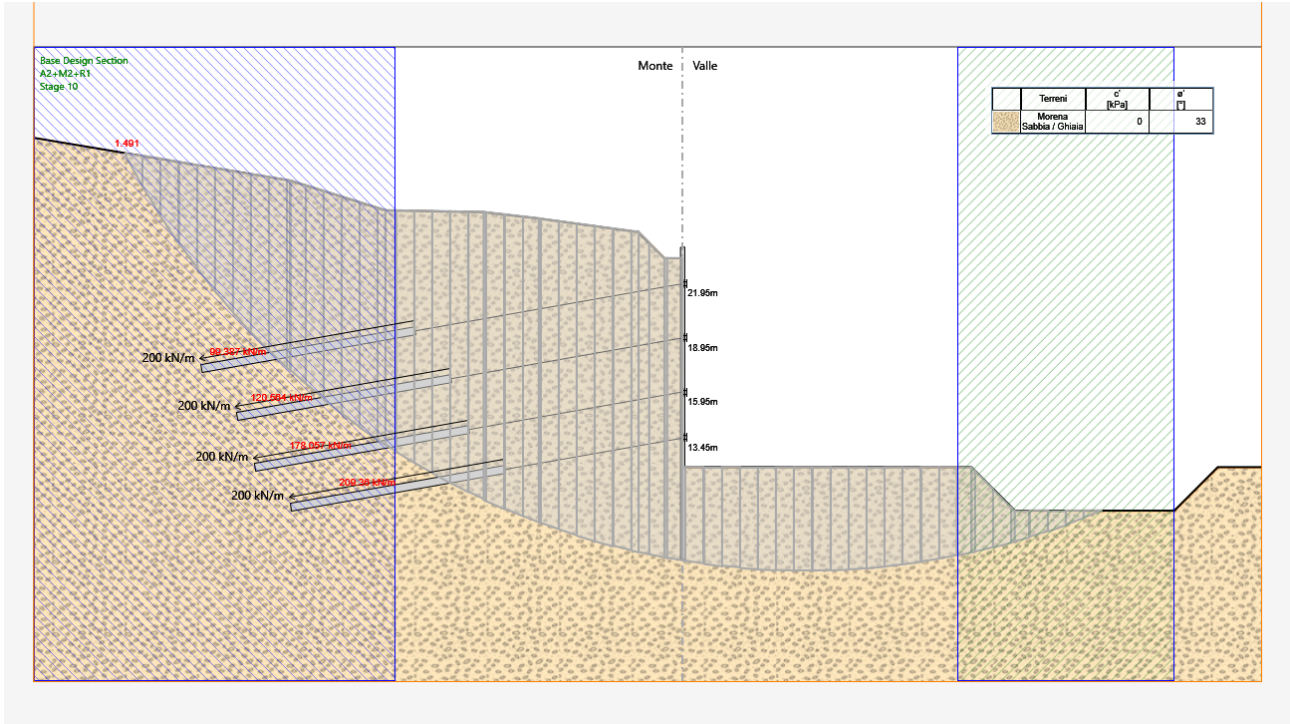
L'analisi viene svolta utilizzando il programma Paratie Plus della Ceas di Milano.

Nella fattispecie è stato utilizzato il metodo di Bishop semplificato con una generazione semi-automatica di superfici di scorrimento circolari..

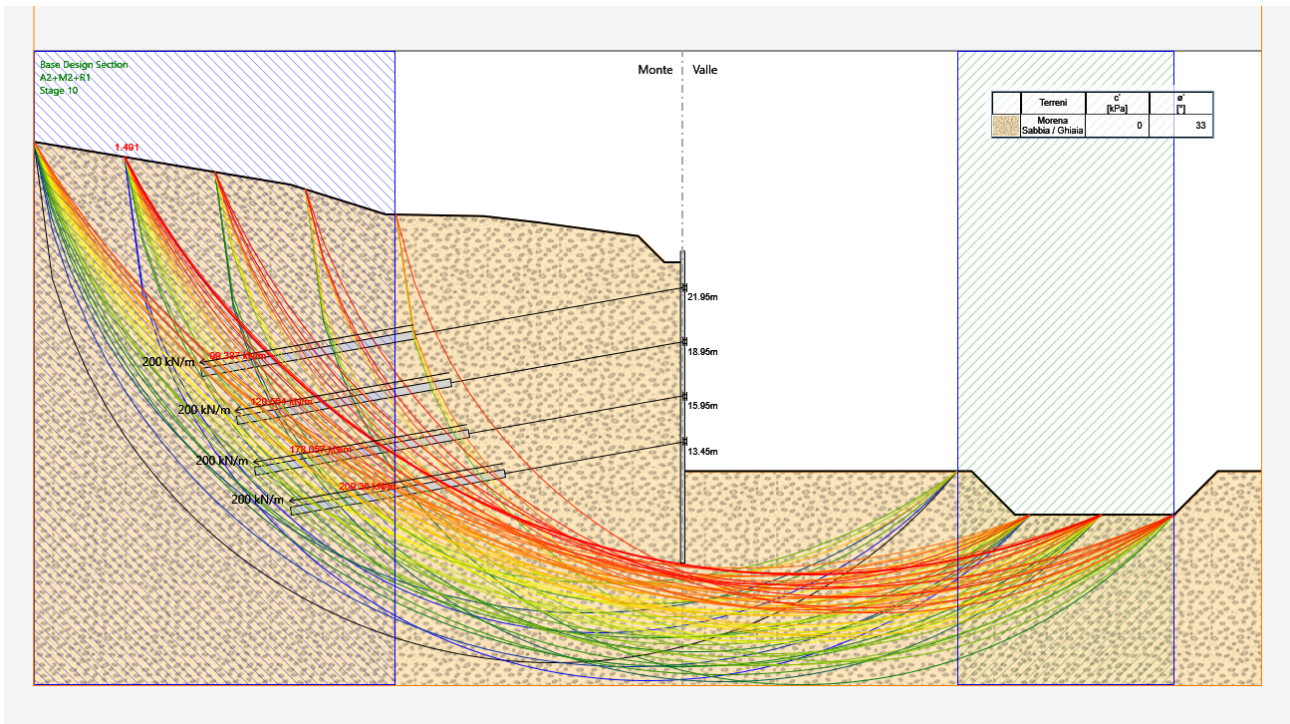
Seguono gli schemi grafici del calcolo svolto; il coefficiente di sicurezza minimo risulta:

- Fase statica:  $FS_{min} = 1.491$  (  $FS_{min} > 1.1$ : Verificato)

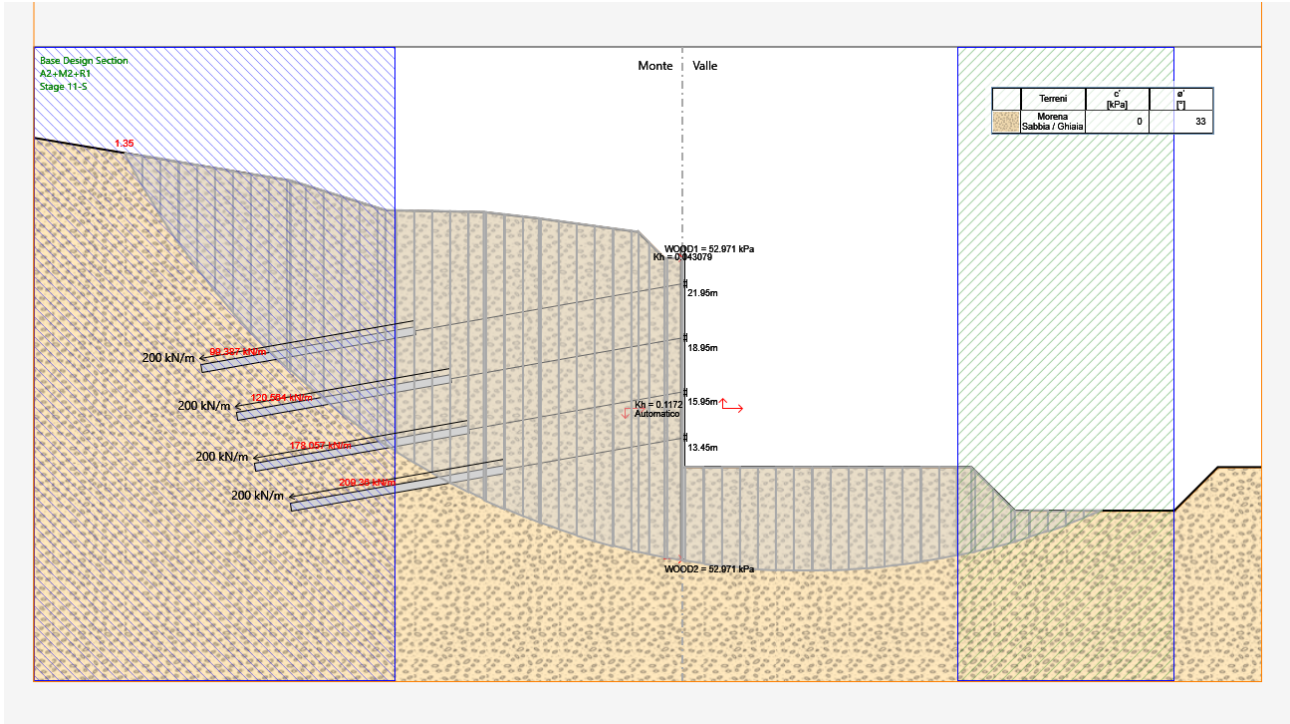
- Fase sismica:  $FS_{min} = 1.350$  (  $FS_{min} > 1.1$ : Verificato)



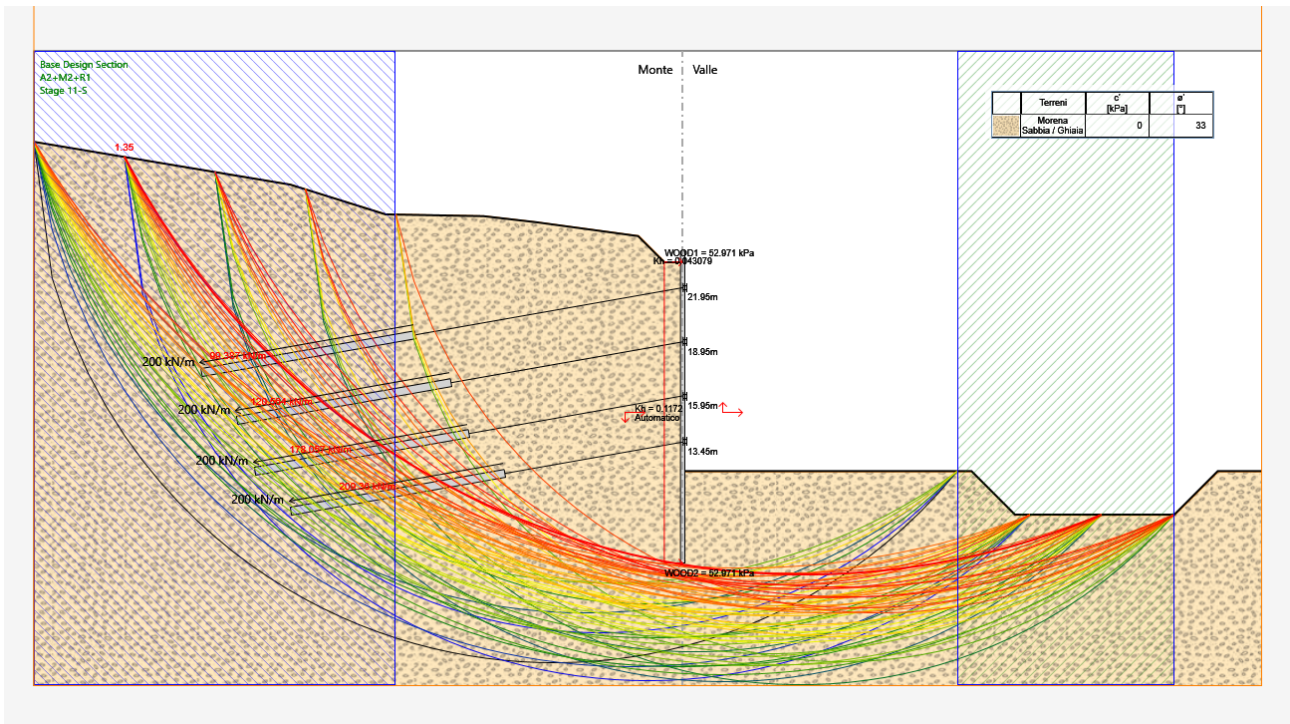
VERIFICA DI STABILITÀ GLOBALE - FASE STATICA - SUPERFICIE CRITICA



VERIFICA DI STABILITÀ GLOBALE - FASE STATICA - TUTTE LE SUPERFICI GENERATE.



VERIFICA DI STABILITÀ GLOBALE - FASE SISMICA - SUPERFICIE CRITICA



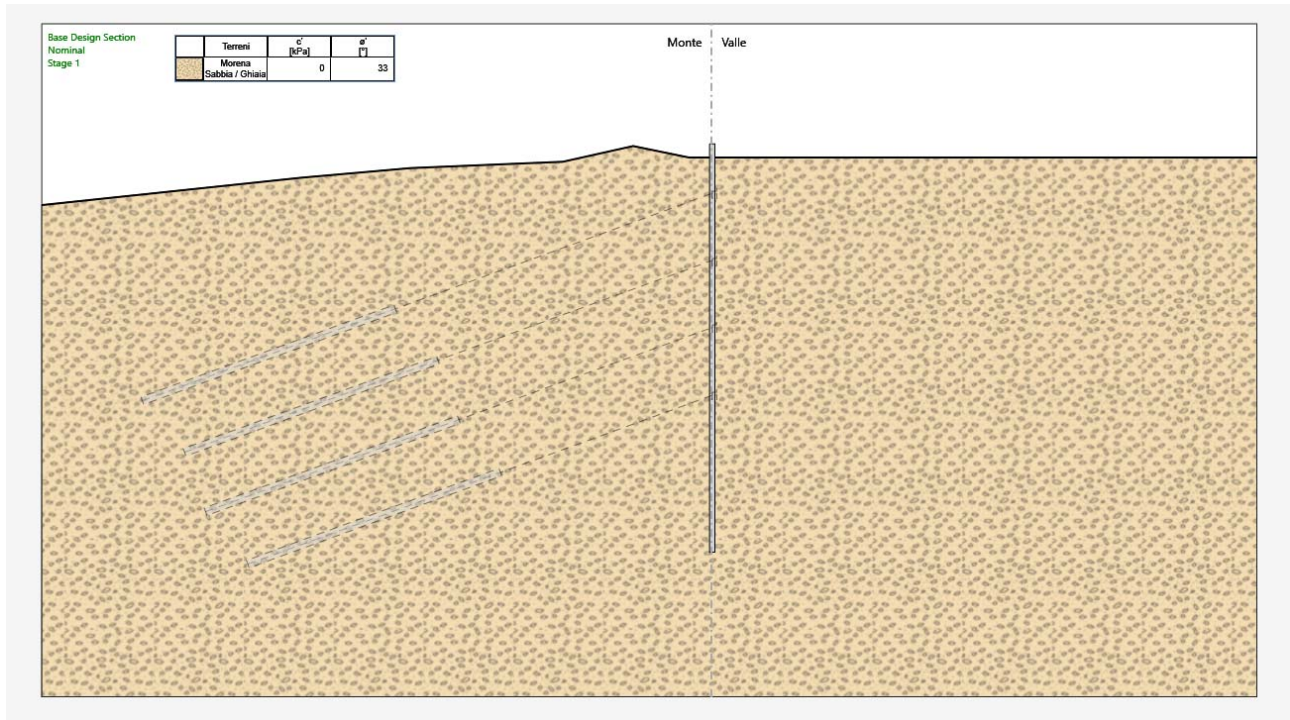
VERIFICA DI STABILITÀ GLOBALE - FASE SISMICA - TUTTE LE SUPERFICI GENERATE.

## 10 ANALISI PARATIA DEFINITIVA (RIVESTITA) - LATO VALLE - 4 ORDINI DI TIRANTI

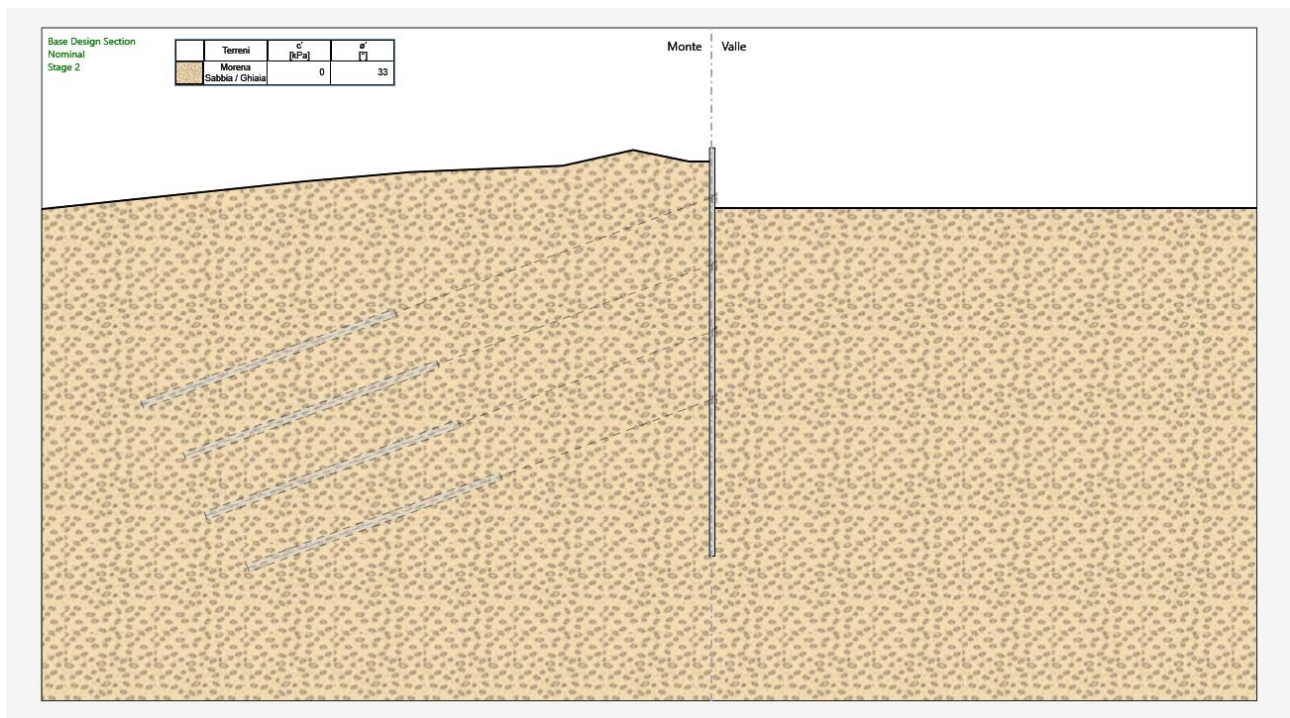
Si considera per il calcolo la sezione alla Pk. 6+205.70; il calcolo si assume valido per tutto il tratto di paratia lato valle.

### 10.1 FASI ESECUTIVE DI CALCOLO

Seguono gli schemi grafici di ogni fase di calcolo del programma "ParatiePlus".

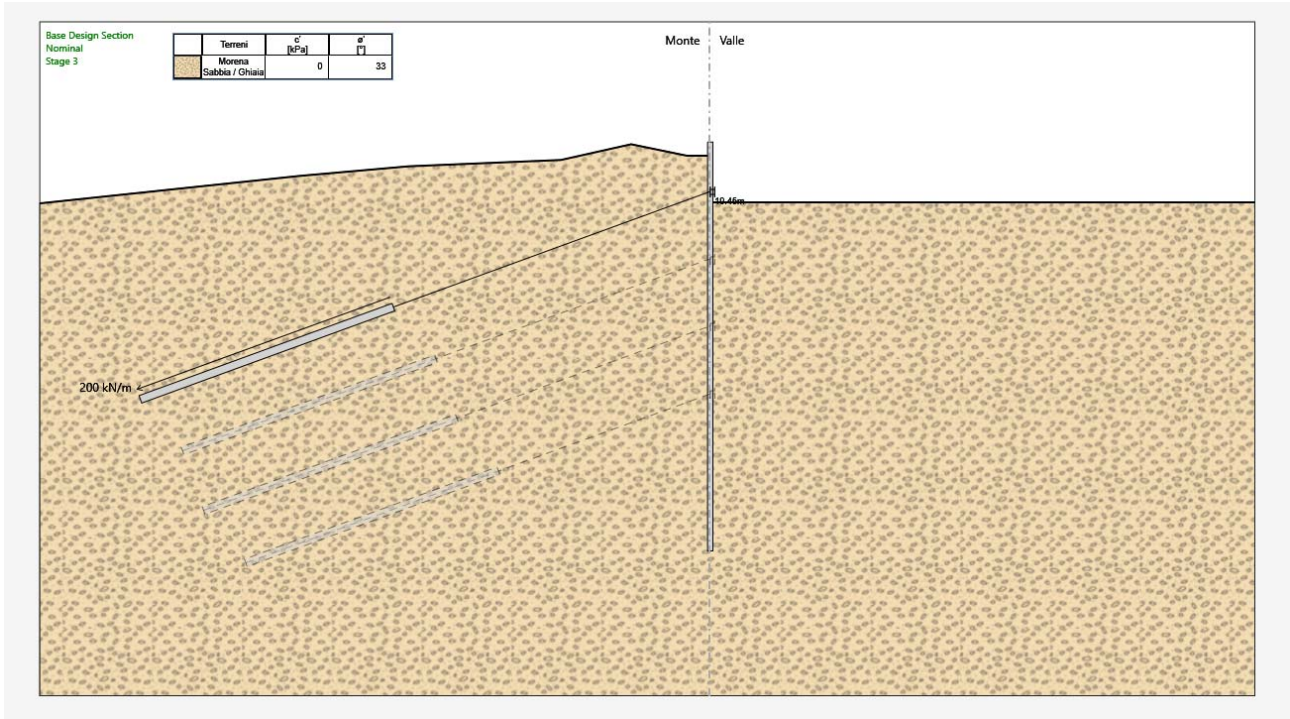


FASE 1: FASE GEOSTATICA DI INIZIALIZZAZIONE: REALIZZAZIONE MICROPALI

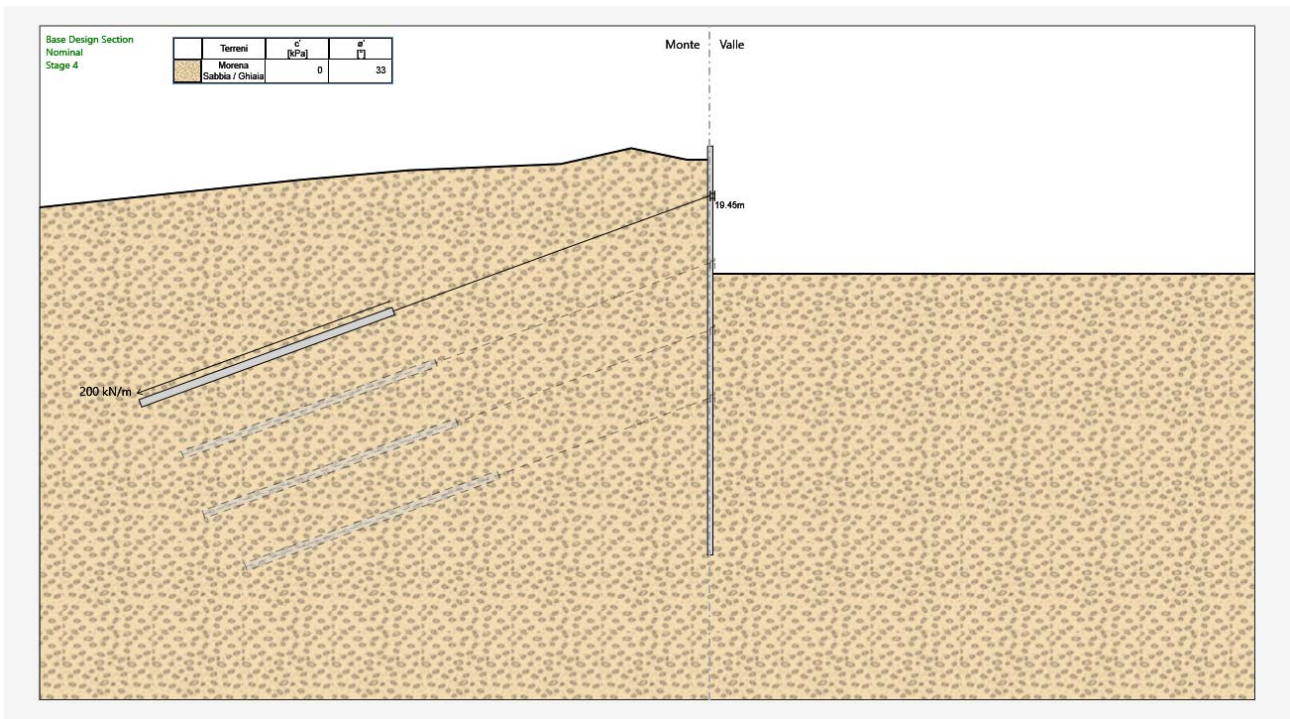


FASE 2: SCAVO FINO QUOTA -0.50 M DALLA 1° FILA DI TIRANTI

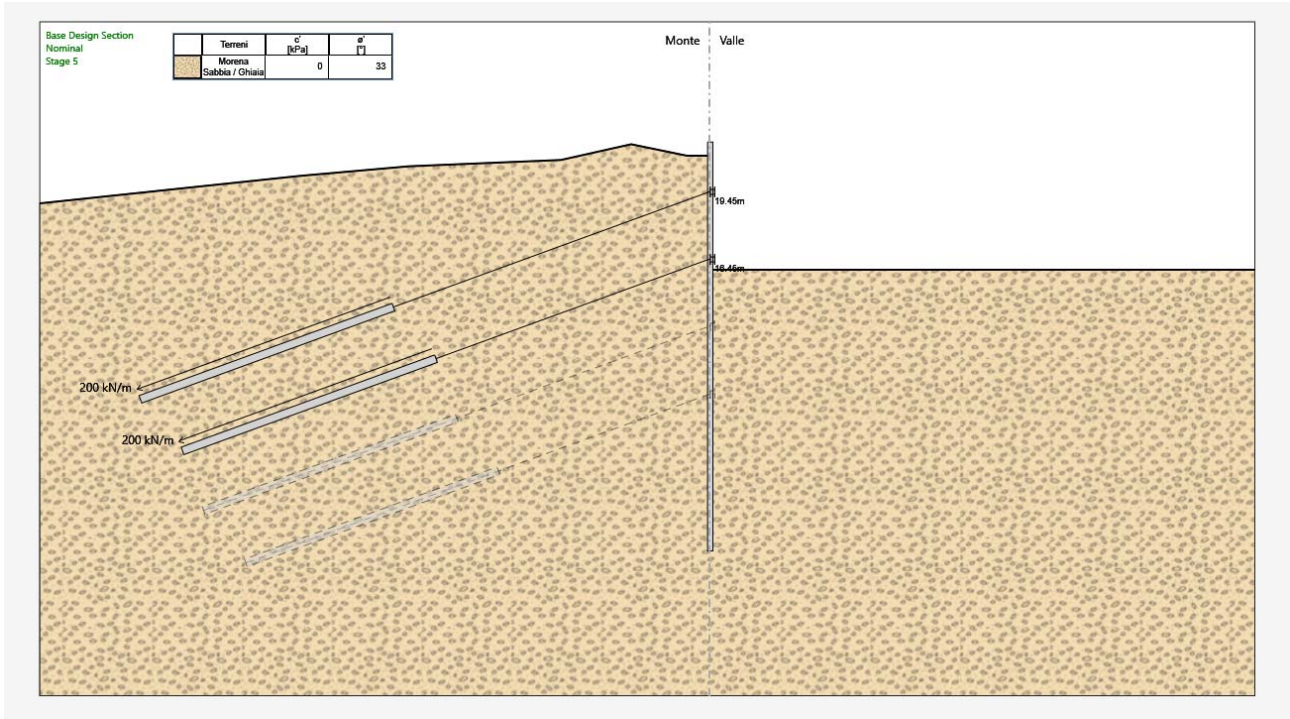




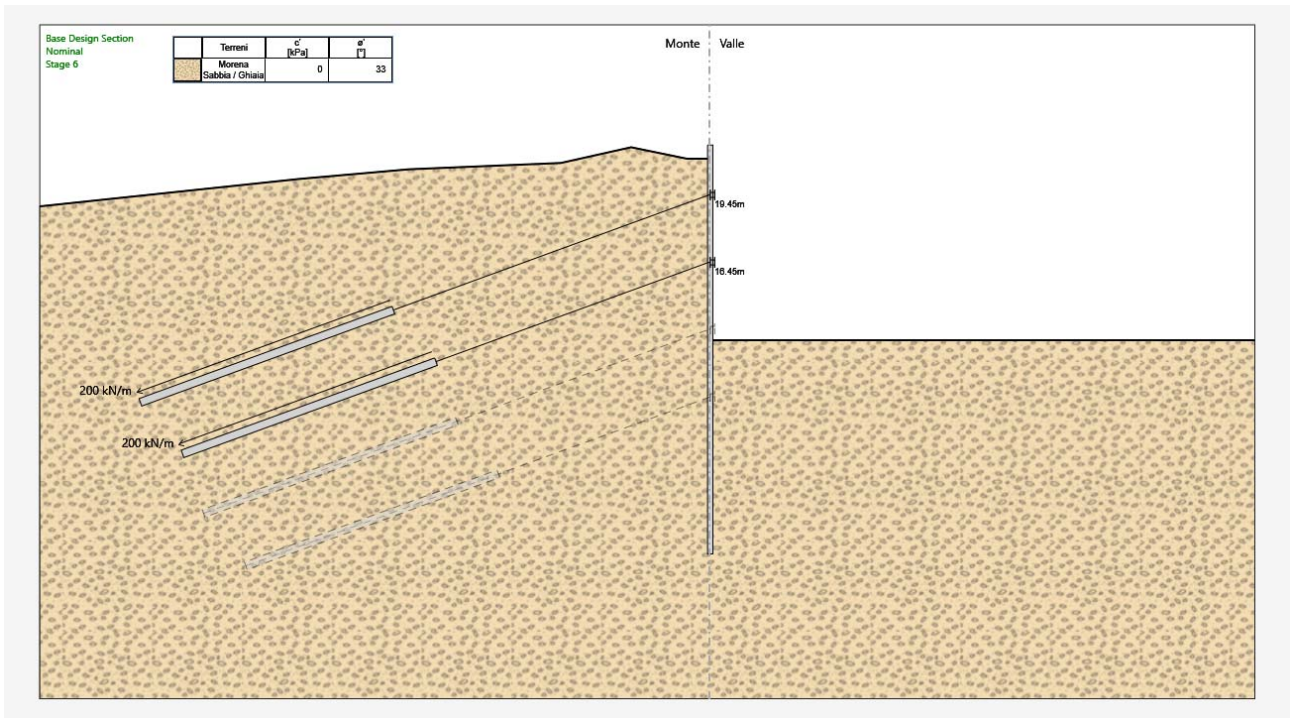
FASE 3: TESATURA DELLA 1° FILA DI TIRANTI



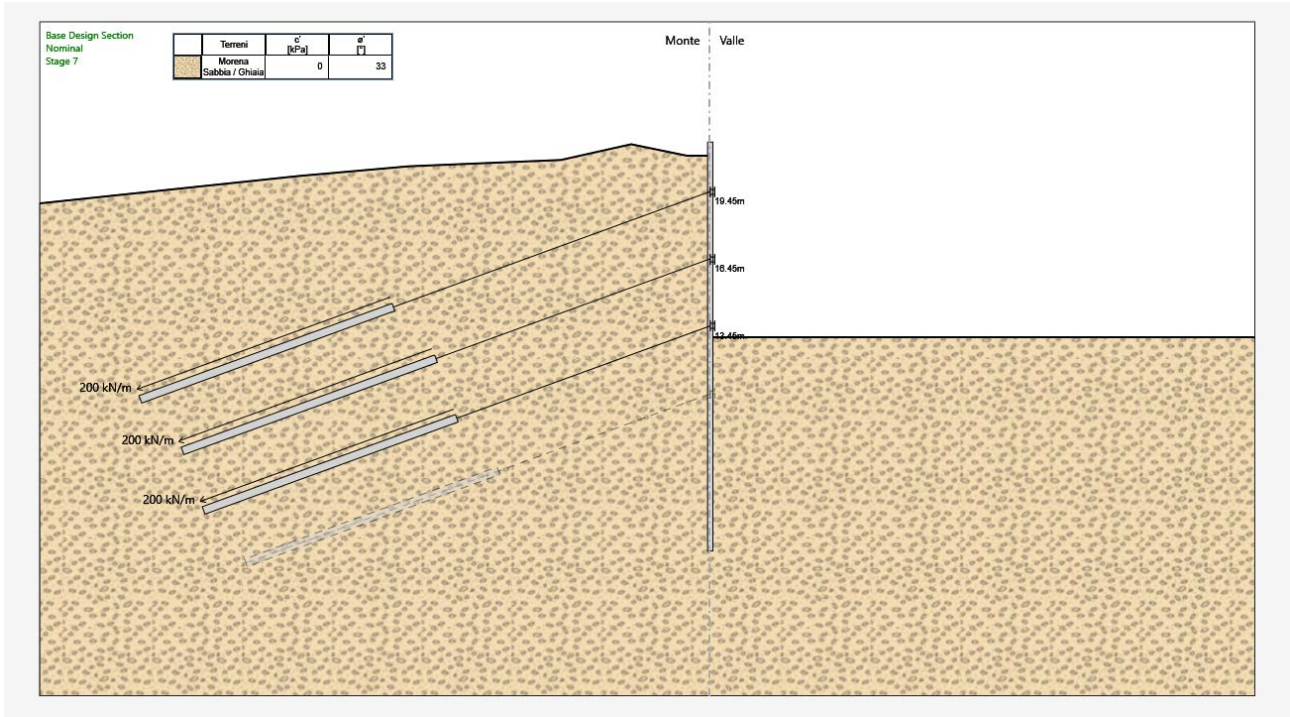
FASE 4: SCAVO FINO QUOTA -0.50 M DALLA 2° FILA DI TIRANTI



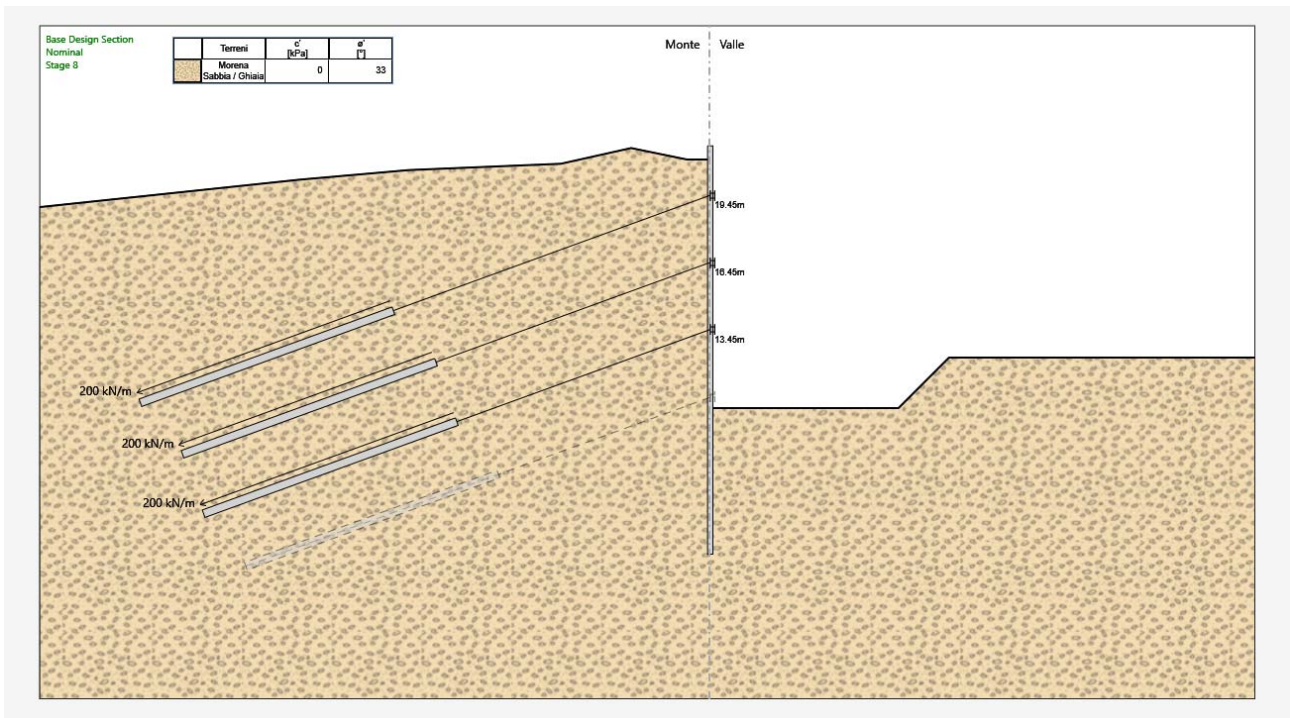
FASE 5: TESATURA DELLA 2° FILA DI TIRANTI



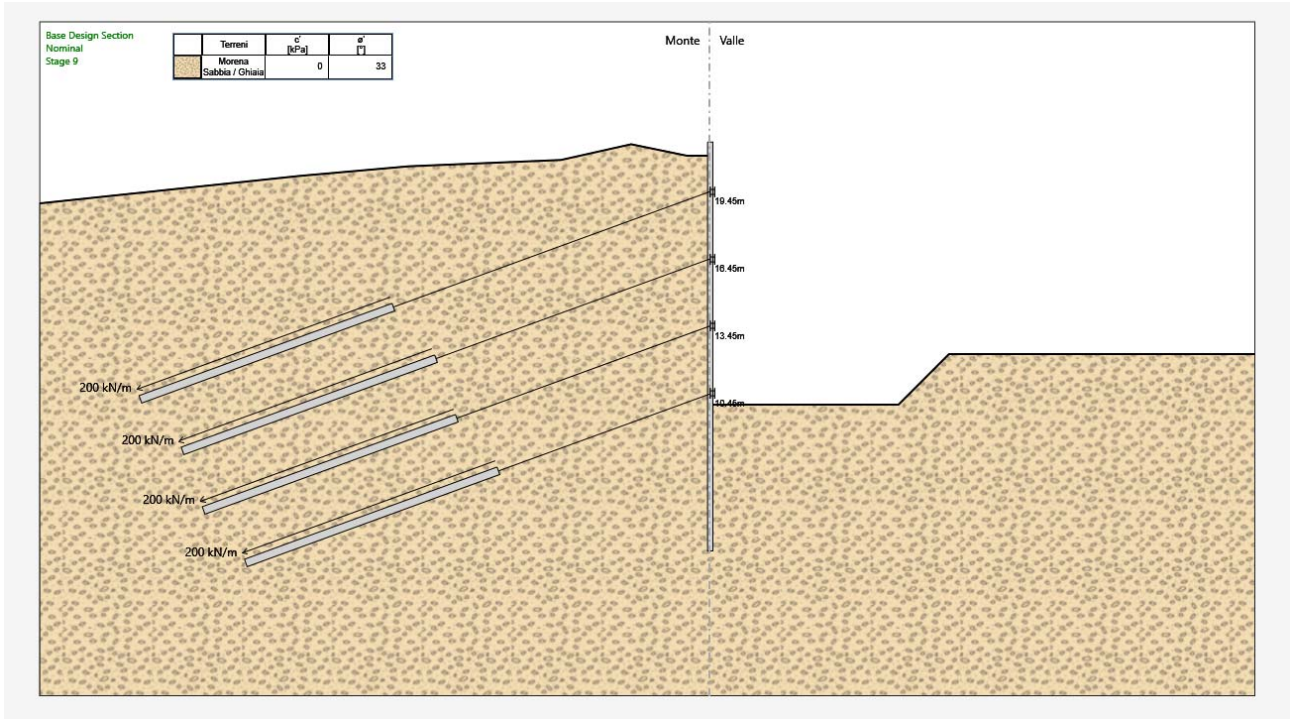
FASE 6: SCAVO FINO QUOTA -0.50 M DALLA 3° FILA DI TIRANTI



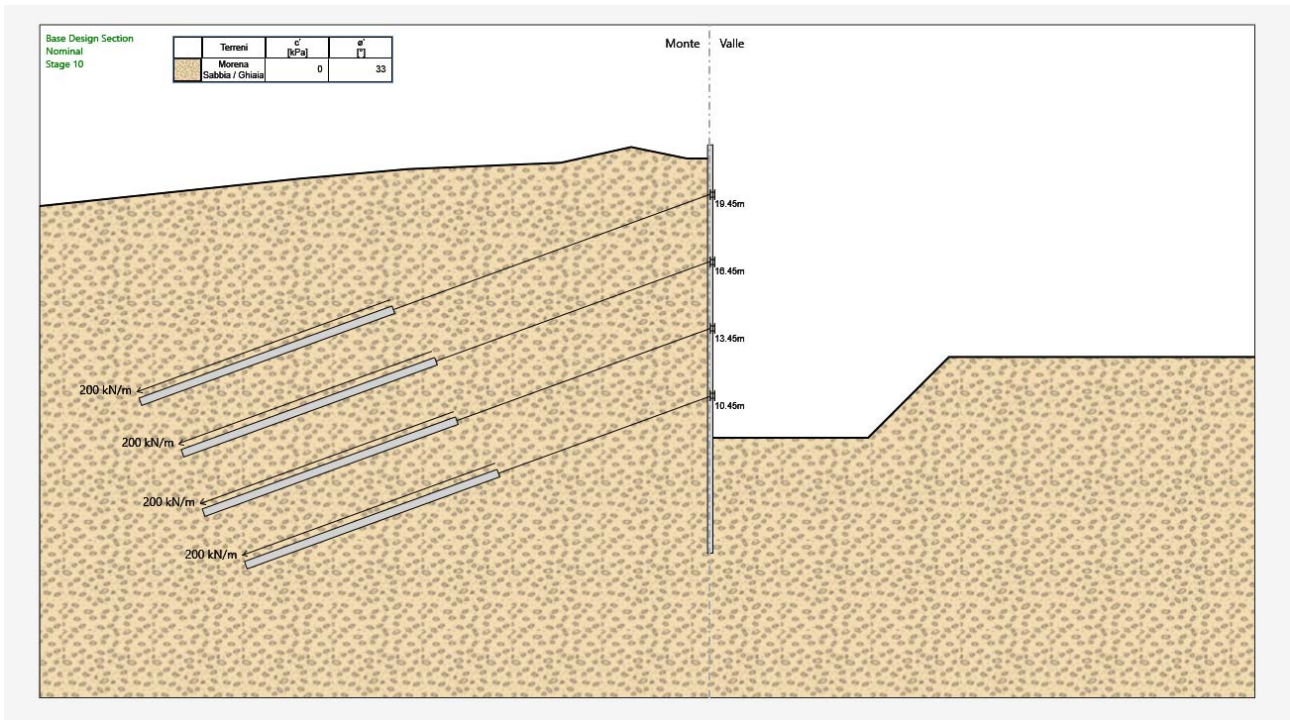
FASE 7: TESATURA DELLA 3° FILA DI TIRANTI



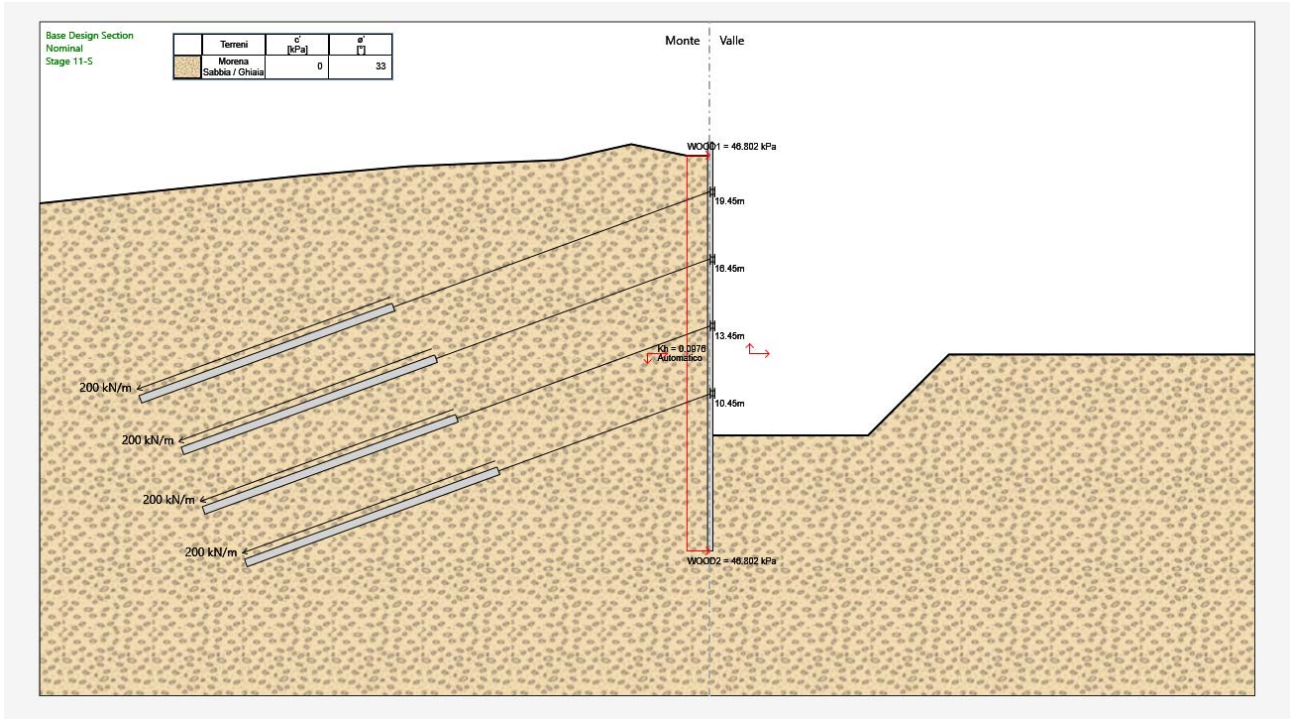
FASE 8: SCAVO FINO QUOTA -0.50 M DALLA 4° FILA DI TIRANTI



FASE 9: TESATURA DELLA 4° FILA DI TIRANTI



FASE 10: SCAVO FINO ALLA QUOTA DEFINITIVA - FASE FINALE STATICA

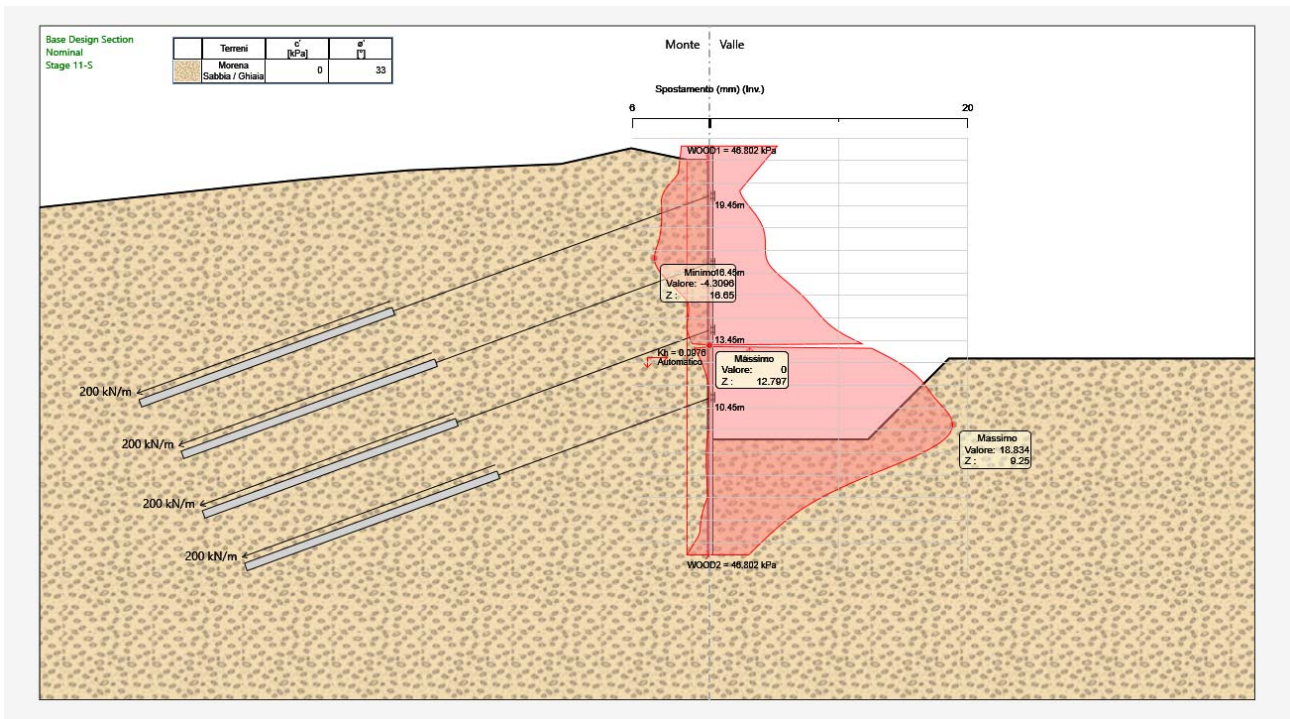


FASE 11: FASE FINALE SISMICA

## 10.2 RISULTATI GRAFICI

### 10.2.1 Deformate

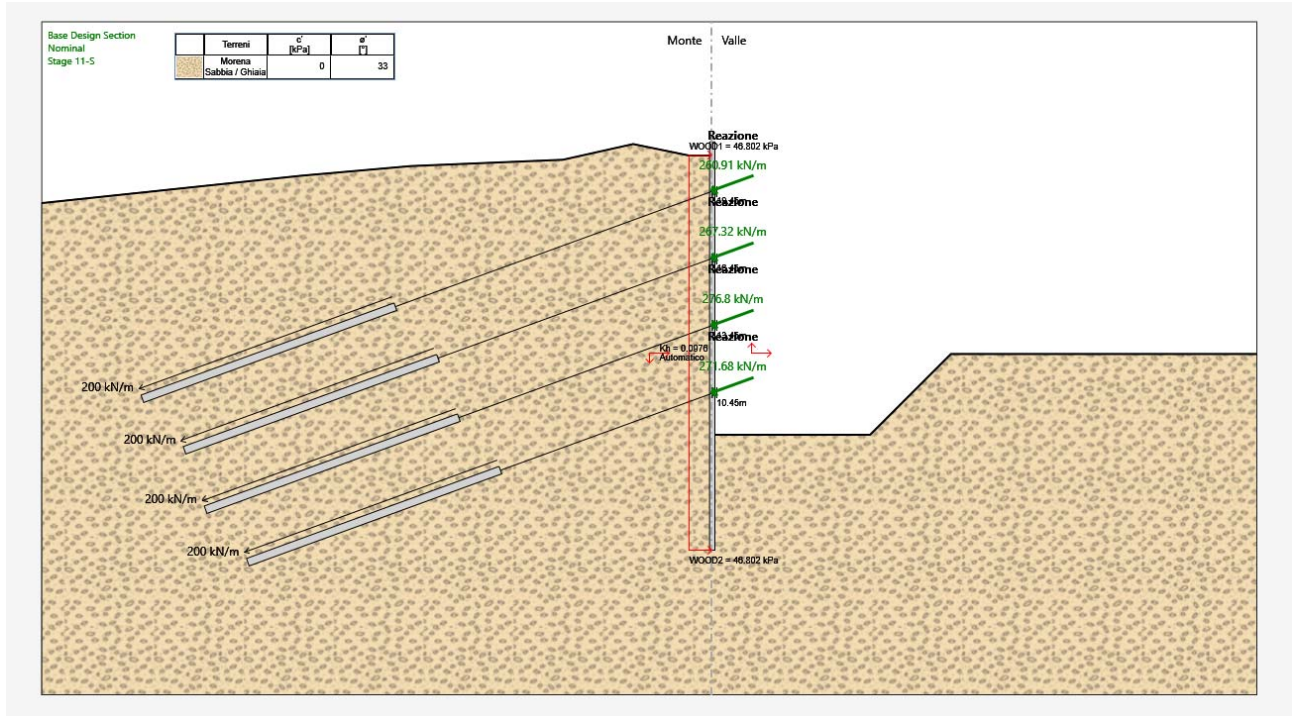
Le deformate, espresse in mm, sono visualizzate per l'involuppo di tutte le fasi della combinazione caratteristica (rara).



INVILUPPO FASI 1-11: COMBINAZIONE RARA - DEFORMATA

### 10.2.2 Reazioni (tiranti)

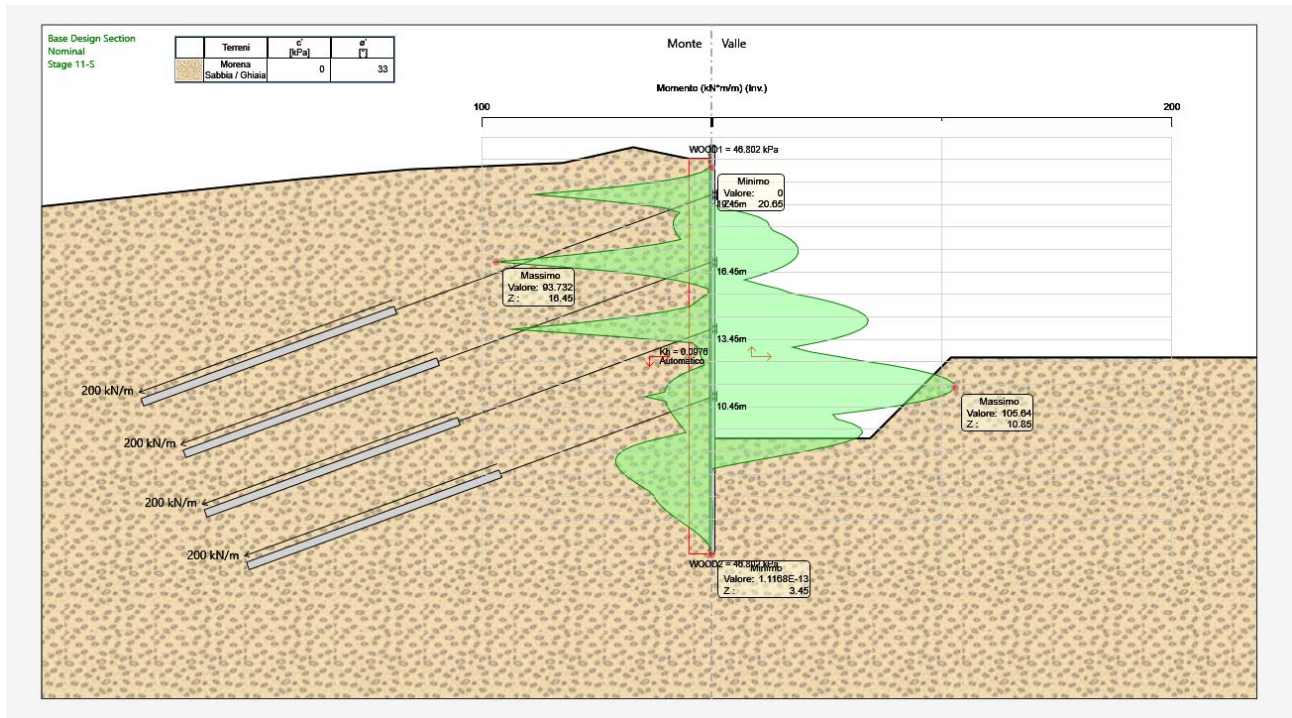
I valori delle reazioni ai tiranti sono espressi in kN/ml per gli involuppi delle combinazioni allo stato limite ultimo: STR: A1+M1+R1.



INVILUPPO FASI 1-11: COMBINAZIONE STR (A1+M1+R1) - REAZIONI TIRANTI

### 10.2.3 Momenti flettenti sui micropali

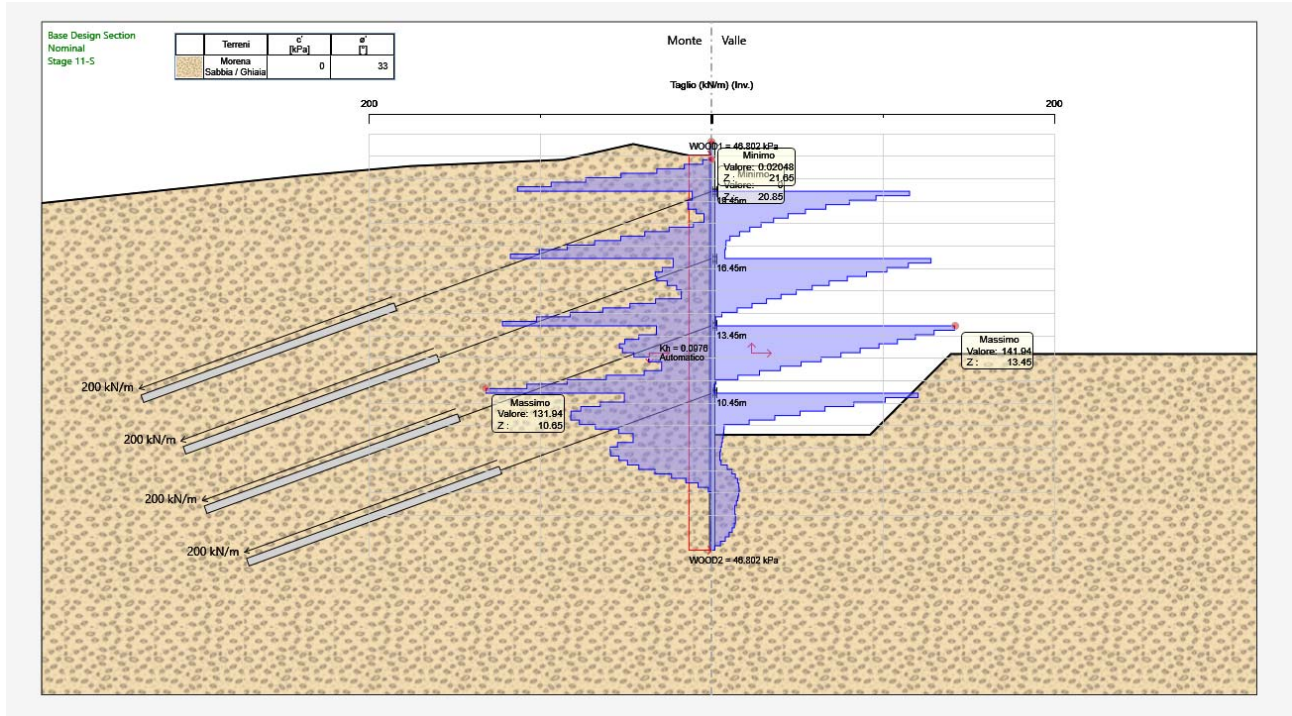
I momenti flettenti sulle strutture sono espressi in kNm/ml per gli involuppi delle combinazioni allo stato limite ultimo: STR: A1+M1+R1.



INVILUPPO FASI 1-11: COMBINAZIONE STR (A1+M1+R1) - MOMENTI FLETTENTI

### 10.2.4 Sforzi di taglio sui micropali

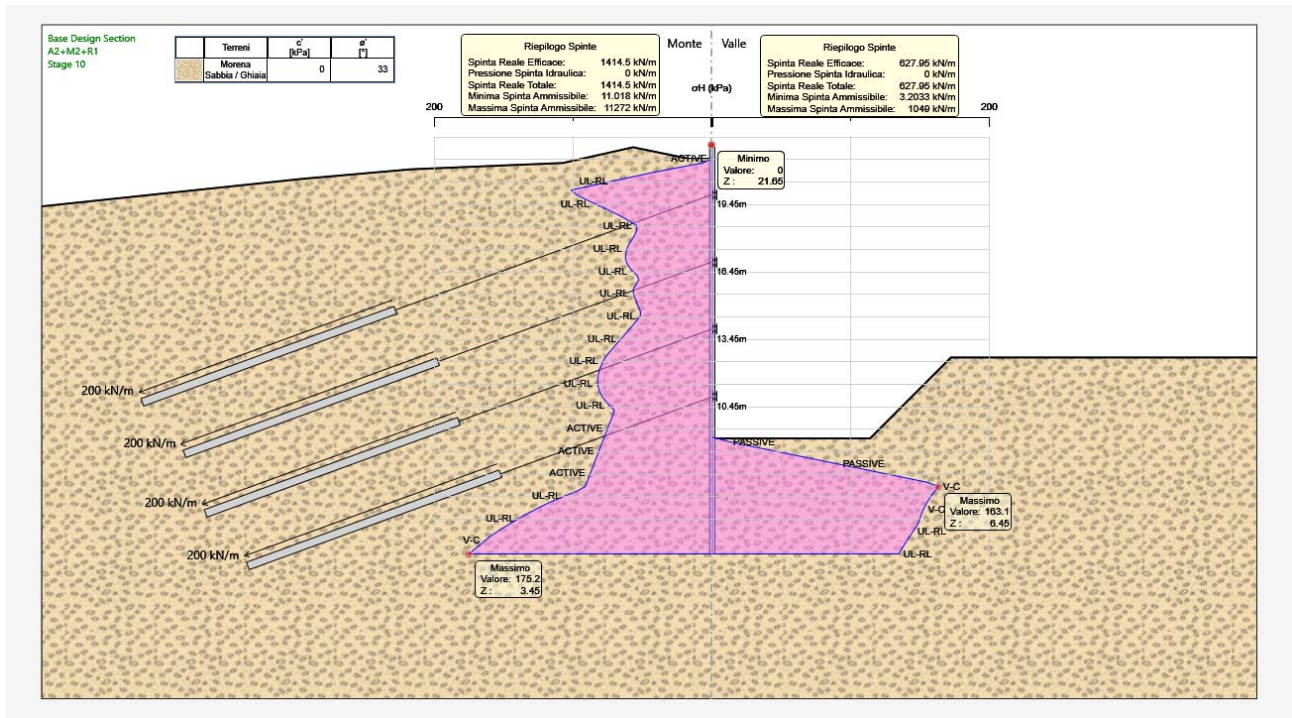
Gli sforzi taglianti sulle strutture sono espressi in kN/ml per gli involuipi delle combinazioni allo stato limite ultimo: STR: A1+M1+R1.



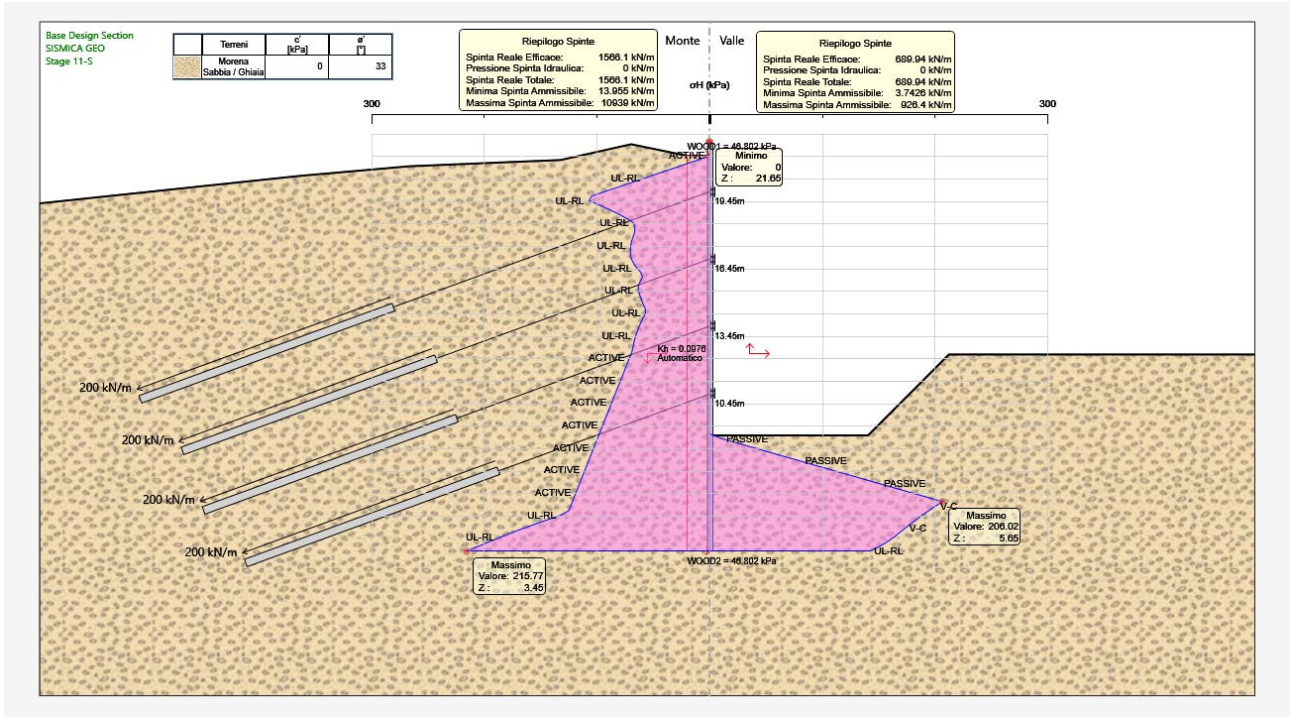
INVILUPPO FASI 1-11: COMBINAZIONE STR (A1+M1+R1) - SFORZI DI TAGLIO

### 10.2.5 Pressioni orizzontali terreno

Le pressioni sul terreno sono espresse in kN/m<sup>2</sup> per le combinazioni allo stato limite ultimo: GEO: A2+M2+R1.



FASE 10 STATICA: COMBINAZIONE GEO (A2+M2+R1) - PRESSIONI ORIZZONTALI EFFICACI E RIASSUNTO SPINTE



FASE 11 SISMICA: COMBINAZIONE GEO (A2+M2+R1) - PRESSIONI ORIZZONTALI EFFICACI E RIASSUNTO SPINTE

### 10.3 VERIFICHE ALLO STATO LIMITE ULTIMO

#### 10.3.1 Verifiche strutturali micropali: Verifiche a flessione e taglio

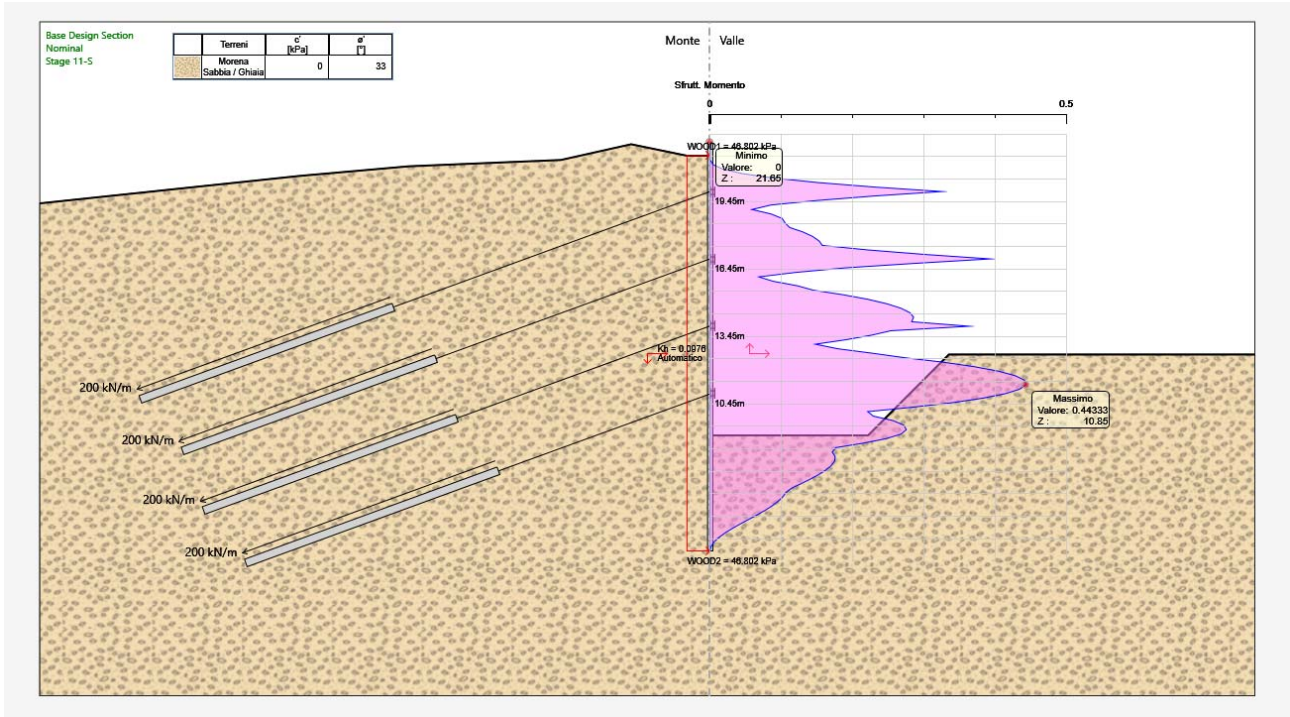
Le verifiche sono svolte automaticamente dal programma di calcolo considerando le sollecitazioni statiche e sismiche derivate dalle combinazioni allo stato limite ultimo: STR: (A1+M1+R1).

Seguono i diagrammi dei tassi di sfruttamento TS a flessione e a taglio della resistenza dei micropali metallici, per le combinazioni allo stato limite ultimo: STR: (A1+M1+R1).

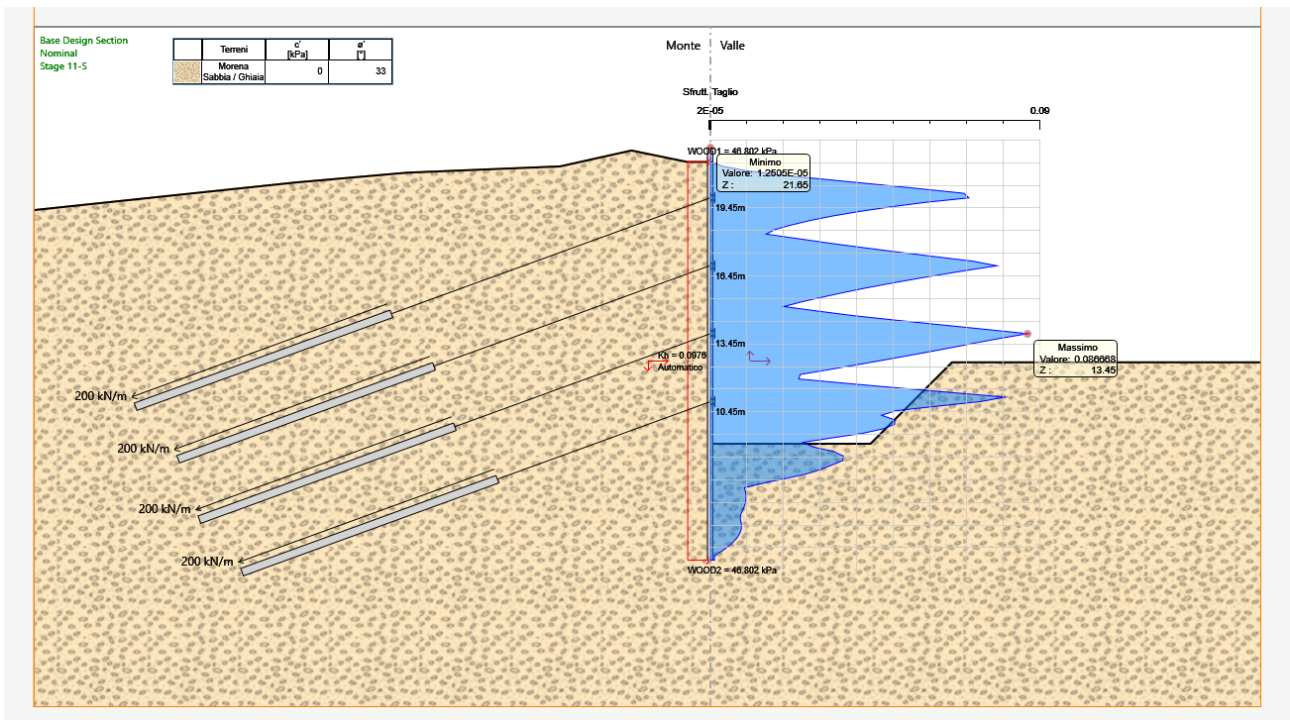
Le verifiche sono soddisfatte se:  $TS = \frac{\text{Sollecitazione}}{Re \text{ resistenza}} \leq 1$

Lo sforzo assiale viene trascurato; nel calcolo del momento resistente  $M_{c,Rd}$  non viene considerata l'interazione con la forza di taglio, in quanto in tutti i casi esaminati il taglio di calcolo associato al momento flettente è sempre inferiore a metà della resistenza di calcolo a taglio  $V_{c,Rd}$ .





TS FLESSIONE: COMB. SLU: STR (A1+M1+R1); INVILUPPO FASI 1÷11:  $TS_{MAX} = 0.443 (<1)$



TS TAGLIO: COMB. SLU: STR (A1+M1+R1); INVILUPPO FASI 1÷11:  $TS_{MAX} = 0.087 (<1)$

Verifica analitica: per la combinazione STR (A1+M1+R1) si è ottenuto per il singolo palo:

- sforzo assiale: trascurabile
- momento flettente:  $M_{Ed} = 105.64 \times 0.40 = 42.26 \text{ kNm}$
- sforzo di taglio:  $V_{Ed} = 141.94 \times 0.40 = 56.78 \text{ kN}$

Segue tabulato della verifica analitica realizzata con apposito foglio di calcolo.

### VERIFICA DI RESISTENZA SEZIONE TUBOLARE

Fattore parziale di resistenza delle sezioni:	$\gamma_{M0} =$	<b>1.05</b>
Tensione caratteristica di snervamento acciaio:		
spessore $t \leq 40$ mm:	$f_{yk} =$	<b>355.00</b> N/mm <sup>2</sup>
spessore $40$ mm $< t \leq 80$ mm:	$f_{yk} =$	<b>335.00</b> N/mm <sup>2</sup>
Diametro esterno:	$d =$	<b>177.8</b> mm
Spessore nominale:	$t =$	<b>10.0</b> mm
Classificazione sezione:	Classe 1 (compatta)	
Massa:	$P =$	41.38 kg/m
Area sezione metallica:	$A =$	5272 mm <sup>2</sup>
Area resistente a taglio:	$A_v =$	3356 mm <sup>2</sup>
Momento d'inerzia elastico:	$J =$	18619818 mm <sup>4</sup>
Raggio d'inerzia:	$i =$	59.4 mm
Modulo di resistenza elastico:	$W_e =$	209447 mm <sup>3</sup>
Modulo di resistenza plastico:	$W_p =$	281893 mm <sup>3</sup>
Resistenza di calcolo a compressione:	$N_{c,Rd} =$	1782.30 kN
Resistenza di calcolo a flessione:	$M_{c,Rd} =$	95.31 kN.m
Resistenza di calcolo a taglio:	$V_{c,Rd} =$	655.09 kN
Verifica di resistenza combinata assiale/flessione/taglio:		
Sforzo assiale di progetto:	$N_{Ed} =$	<b>0</b> kN
Sforzo tagliante di progetto:	$V_{Ed} =$	<b>56.78</b> kN
Momento flettente di progetto:	$M_{Ed} =$	<b>42.26</b> kN.m
Tensione di snervamento ridotta per interazione tra flessione e taglio (se la sollecitazione di taglio supera il 50 % della resistenza):	$f_{y,red} =$	355.00 N/mm <sup>2</sup>
Verifica combinata assiale/flessione: $N_{Ed} / N_{c,Rd} + M_{Ed} / M_{c,Rd} \leq 1$ :	0.443	( $\leq 1$ :VERIFICATO)

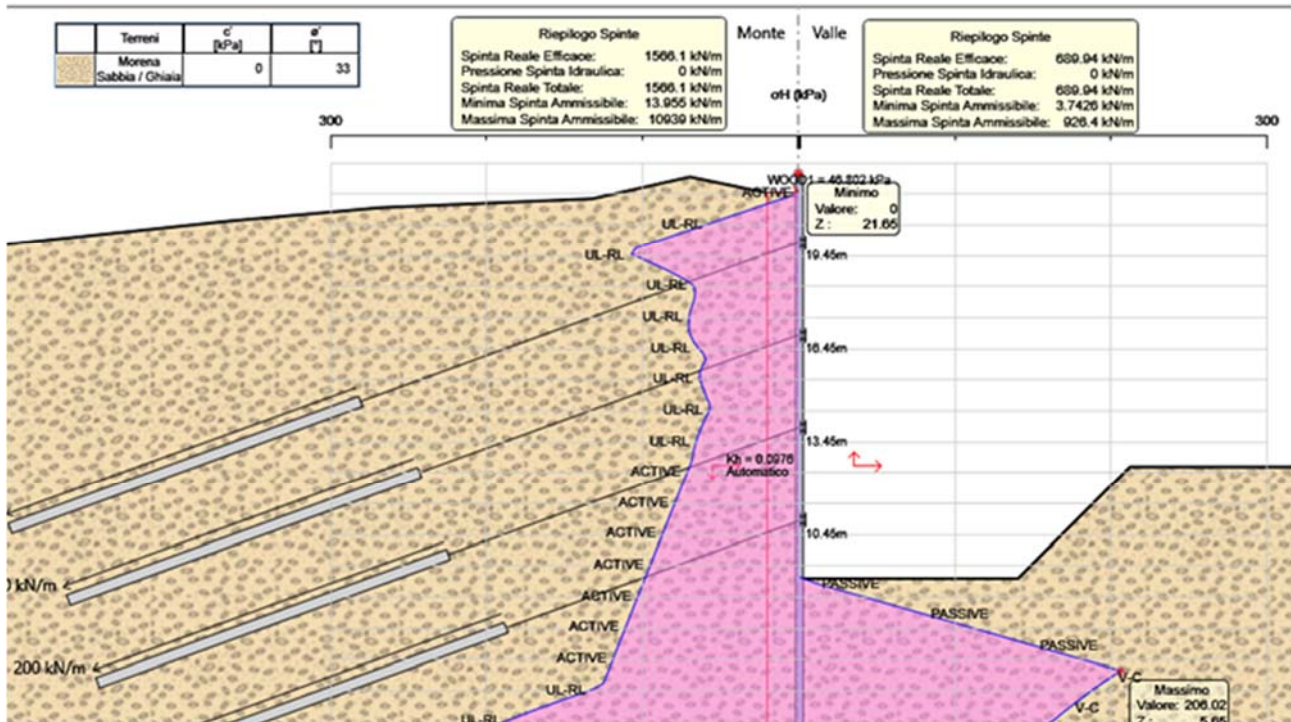
### 10.3.2 Verifiche geotecniche: Verifica di stabilità del fondo scavo

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

- 1) Il calcolo non lineare della paratia deve convergere a una soluzione equilibrata e congruente;
- 2) Sul lato di scavo (valle) la spinta efficace mobilitata deve essere minore della spinta passiva disponibile, quindi il loro rapporto deve essere  $< 1$ .

Dall'esame dei tabulati di calcolo, in particolare quello relativo a GEO (A2+M2+R1), combinazione sismica più gravosa (ved. 10.2.5), si desume:

- 1) Il calcolo non lineare converge a una soluzione equilibrata per tutte le fasi di calcolo.
- 2) Il rapporto tra la spinta mobilitata e la spinta passiva possibile assume il massimo nella fase 11 sismica con il valore (vedi figura seguente):



$$\frac{\text{Spinta Reale Totale}}{\text{Massima Spinta Ammissibile}} = \frac{689.94}{926.4} = 0.745 \quad (< 1: \text{verificato})$$

### 10.3.3 Tiranti attivi : Verifica strutturale e allo sfilamento dell'ancoraggio

La verifica viene svolta considerando uno stato limite GEO di tipo A1+M1+R3.

La resistenza del bulbo di ancoraggio dei tiranti attivi viene calcolata con il metodo di Bustamante-Doix (Rif. Bustamante M., Doix B. (1985): "Une méthode pour le calcul des tirants et des micropieux injectés", Bull. Liaison Lab. Ponts et Chaussées, n. 140, pagg. 75-95).

Si verifica inoltre, nell'ottica della gerarchia delle resistenze, che la resistenza caratteristica allo snervamento del tirante sia maggiore della resistenza a sfilamento di progetto dell'ancoraggio (p. 6.6.2. NTC 2018).

Dati geometrici:

- lunghezza bulbo di ancoraggio:  $L = 12 \text{ m}$
- diametro perforazione:  $\varnothing = 160 \text{ mm}$
- sollecitazione massima (Tirante F4, Fase 8):  $N_{Ed} = 276.8 \times 2.40 = 664.3 \text{ kN}$
- resistenza assiale tirante (4x0.6"):  $R_k = 4 \times 139 \times 1670/10^3 = 928 \text{ kN}$

- Per:
- tipo di terreno: sabbioso/ghiaioso
  - tipo di iniezione: ripetute e selettive ad alta pressione (IRS)

si ha (Bustamante-Doix):

- resistenza unitaria limite:  $q_s = 179 \text{ kN/m}^2$
- fattore di incremento del diametro:  $\alpha = 1.4$
- coefficiente parziale resistenza caratteristica (tiranti permanenti):  $\gamma_{Ra,t} = 1.2$
- fattore di correlazione (1 sondaggio):  $\xi_{a3} = 1.8$

Si determina quindi per il bulbo di ancoraggio:

- resistenza limite:  $R_{lim} = \alpha \pi \varnothing \sum(L q_s) = 1.4 \times \pi \times 0.16 \times 12 \times 179 = 1512 \text{ kN}$

- resistenza caratteristica:  $R_{ck} = \frac{R_{lim}}{\xi_{a3}} = \frac{1512}{1.8} = 840 \text{ kN}$

- resistenza di progetto:  $R_{cd} = \frac{R_{ck}}{\gamma_{Ra,t}} = \frac{840}{1.2} = 700 \text{ kN}$

Verifica di resistenza del tirante:	$R_k > N_{Ed} : 928 \text{ kN} > 664.3 \text{ kN}:$	Verificato.
Verifica di resistenza dell'ancoraggio:	$R_{cd} > N_{Ed} : 700 \text{ kN} > 664.3 \text{ kN}:$	Verificato.
Verifica della gerarchia delle resistenze:	$R_k > R_{cd} : 928 \text{ kN} > 700 \text{ kN}:$	Verificato.

### 10.3.4 Travi di ripartizione - Verifica strutturale a flessione e taglio

Si assumono valide le verifiche svolte al punto 8.3.4.

### 10.3.5 Cordolo di testa - Verifica strutturale a flessione e taglio

Si omettono le verifiche del cordolo che non è direttamente sollecitato; si dispone comunque una armatura adeguata.

### 10.3.6 Verifica di stabilità globale dell'insieme terreno-struttura

La verifica di stabilità globale del pendio viene svolta facendo riferimento alla fase finale statica (10) e alla fase sismica (11); si considera la Combinazione 2: GEO (A2+M2+R2).

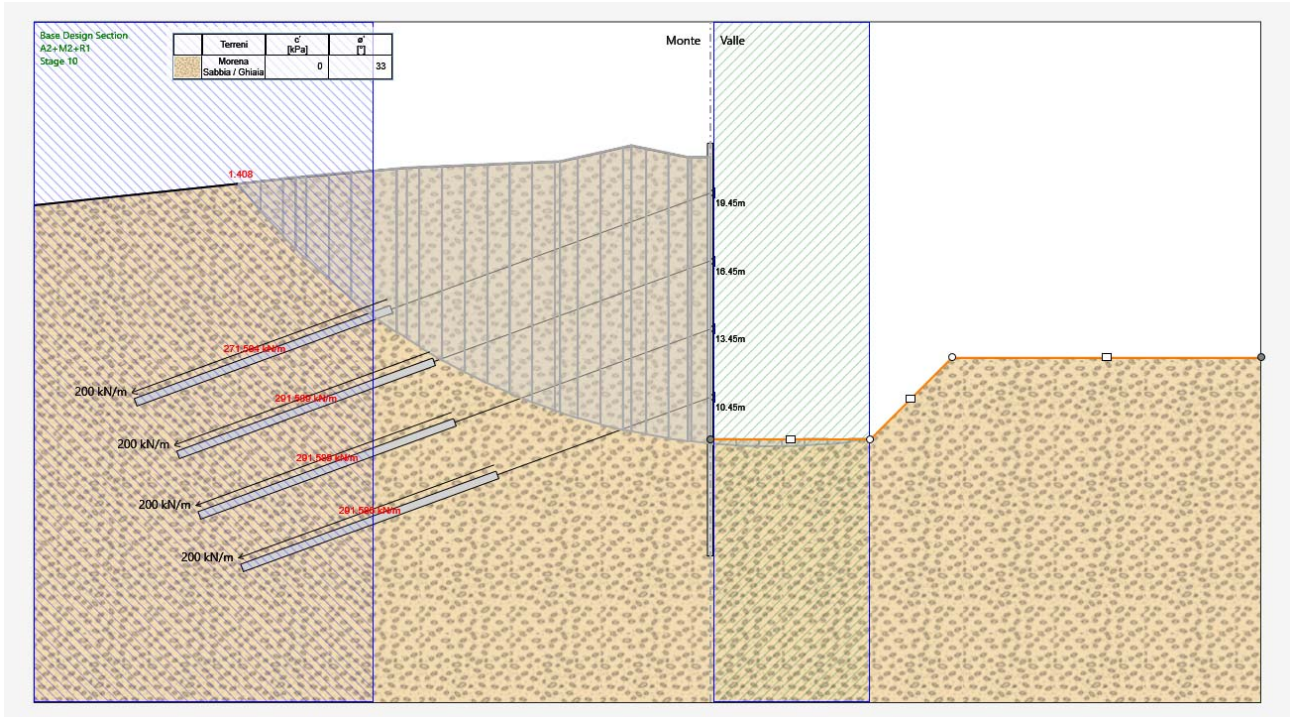
L'analisi viene svolta utilizzando il programma Paratie Plus della Ceas di Milano.

Nella fattispecie è stato utilizzato il metodo di Bishop semplificato con una generazione semi-automatica di superfici di scorrimento circolari.

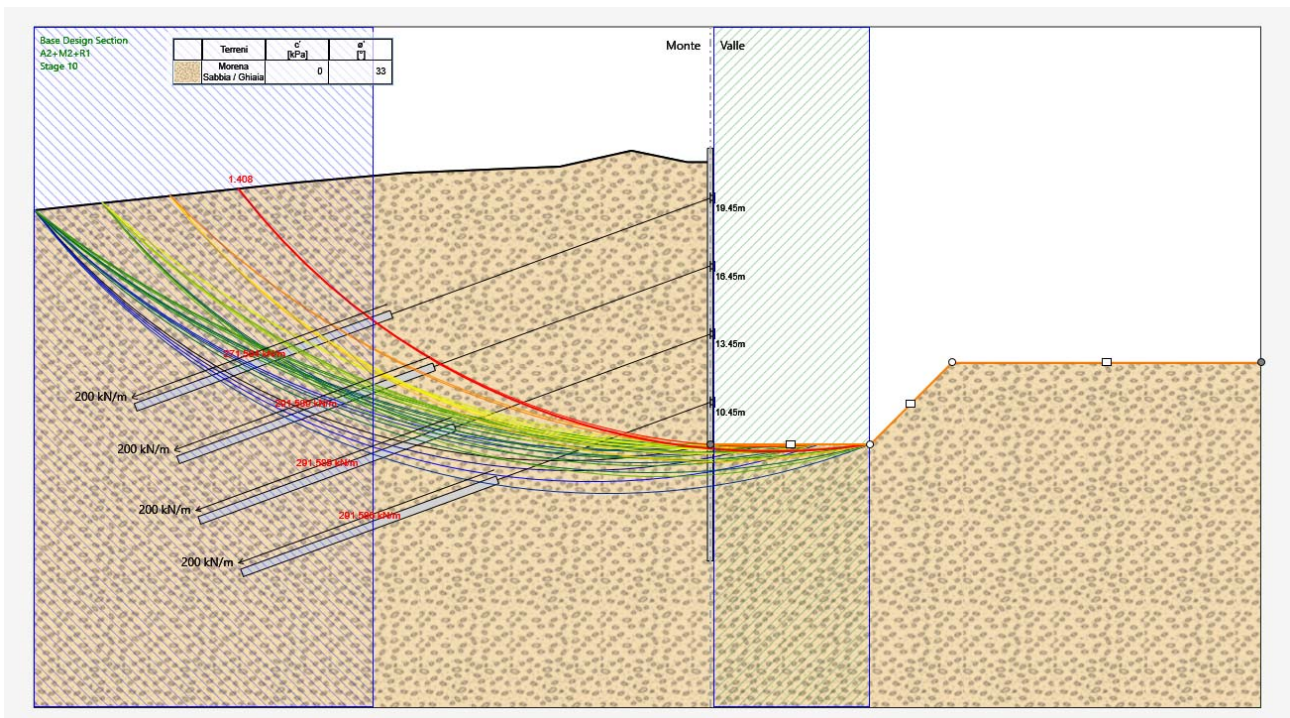
Cautelativamente si trascura il contributo resistente della paratia.

Seguono gli schemi grafici del calcolo svolto; il coefficiente di sicurezza minimo risulta:

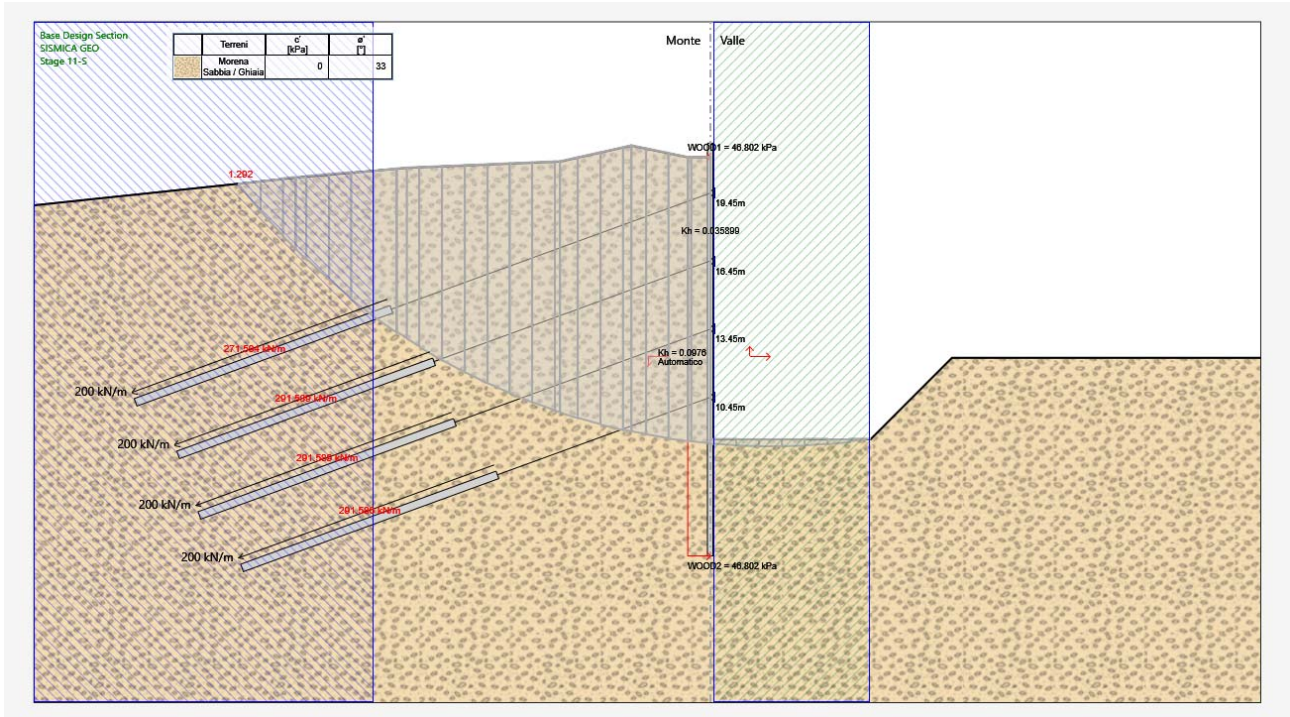
- Fase statica:	$FS_{min} = 1.408$	( $FS_{min} > 1.1$ : Verificato)
- Fase sismica:	$FS_{min} = 1.292$	( $FS_{min} > 1.1$ : Verificato)



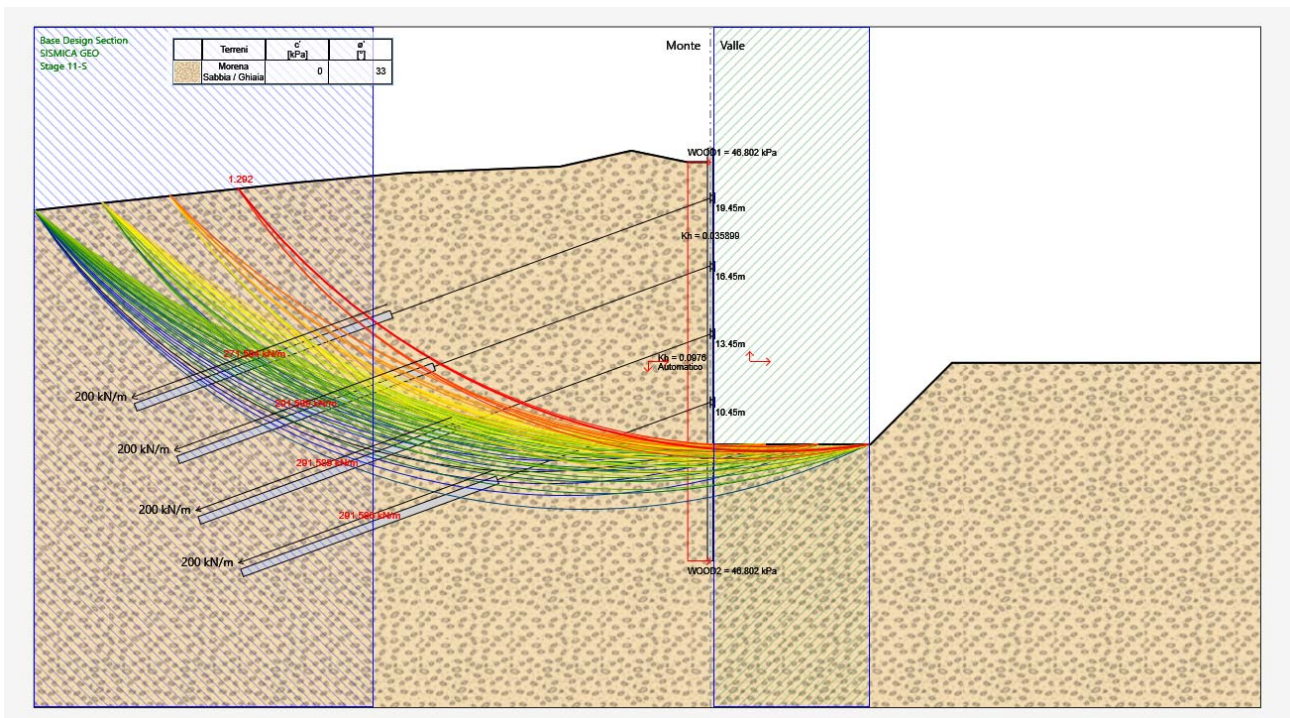
VERIFICA DI STABILITÀ GLOBALE - FASE STATICA - SUPERFICIE CRITICA



VERIFICA DI STABILITÀ GLOBALE - FASE STATICA - TUTTE LE SUPERFICIE GENERATE.



VERIFICA DI STABILITÀ GLOBALE - FASE SISMICA - SUPERFICIE CRITICA



VERIFICA DI STABILITÀ GLOBALE - FASE SISMICA - TUTTE LE SUPERFICIE GENERATE.

## 11 TABULATI ALLEGATI

### 11.1 PARATIA PROVVISORIA CON 7 ORDINI DI TIRANTI

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PARATIE *plus*<sup>TM</sup>

## *Report di Calcolo*

Nome Progetto: PARATIA IMBOCCO LATO BORMIO - SPIGOLO 7 TIRANTI

Autore: Ing. Renato Vaira

Jobname: D:\Documenti\Lavori\A832 - Tirano\Paratia Imbocco Bormio\SPIGOLO 7 TIRANTI V\_2.pplus

Data: 26/03/2019 18:23:37

Design Section: Base Design Section

## Descrizione del Software

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

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

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

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

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

La schematizzazione in elementi finiti avviene in questo modo:

- si analizza un problema piano (nel piano Y-Z): i gradi di libertà nodali attivi sono lo spostamento laterale e la rotazione fuori piano: gli spostamenti verticali sono automaticamente vincolati (di conseguenza le azioni assiali nelle pareti verticali non sono calcolate);
- la parete flessibile di sostegno vera e propria è schematizzata da una serie di elementi finiti BEAM verticali;
- il terreno, che spinge contro la parete (da monte e da valle) e che reagisce in modo complesso alle deformazioni della parete, è simulato attraverso un doppio letto di molle elasto-plastiche connesse agli stessi nodi della parete;
- i tiranti, i puntoni, le solette, gli appoggi cedevoli o fissi, sono schematizzati tramite molle puntuali convergenti in alcuni punti (nodi) della parete ove convergono parimenti elementi BEAM ed elementi terreno.



## Descrizione della Stratigrafia e degli Strati di Terreno

Tipo : HORIZONTAL

Quota : 60 m

OCR : 1

Strato di Terreno	Terreno	$\gamma$ dry	$\gamma$ sat	$\phi'$	$\phi$	$c_v$	$\phi_p$	$c'$	Su	Modulo	Elastico	Eu	Evc	Eur	Ah	Av	exp	Pa	Rur/Rvc	Rvc	Ku	Kvc	Kur		
		kN/m <sup>3</sup>	kN/m <sup>3</sup>	°	°	°	°	kPa	kPa			kPa	kPa	kPa				kPa			kPa	kN/m <sup>3</sup>	kN/m <sup>3</sup>	kN/m <sup>3</sup>	
1	Morena	20	22	33				0		Constant		21000	33600												

## Descrizione Pareti

X : -9.15 m

Quota in alto : 31.35 m

Quota di fondo : 5.15 m

Muro di sinistra

Sezione : Berlinese

Area equivalente : 0.0272491018831865 m

Inerzia equivalente : 0.0001 m<sup>4</sup>/m

Materiale calcestruzzo : C32/40

Tipo sezione : Tangent

Spaziatura : 0.4 m

Diametro : 0.24 m

Efficacia : 0.9

Materiale acciaio : S355

Sezione : CHS177.8\*10

Tipo sezione : O

Spaziatura : 0.4 m

Spessore : 0.01 m

Diametro : 0.1778 m

## ***Fasi di Calcolo***

Stage 1

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 30.85 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Irregolare)

(-9.15;30.85)

(-6.35;30.85)

(-0.31;29.05)

(3.63;27)

(18.54;24.26)

(20.93;22.46)

(24.85;21.4)

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 31.35 m

Quota di fondo : 5.15 m

Sezione : Berlinese

Stage 2

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 28.85 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Irregolare)

(-9.15;28.85)

(0;28.85)

(3.63;27)

(18.54;24.26)

(20.93;22.46)

(24.85;21.4)

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 31.35 m

Quota di fondo : 5.15 m

Sezione : Berlinese

Stage 3

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 28.85 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Irregolare)

(-9.15;28.85)

(0;28.85)

(3.63;27)

(18.54;24.26)

(20.93;22.46)

(24.85;21.4)

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Paratia : Berlinese

X : -9.15 m

Quota in alto : 31.35 m

Quota di fondo : 5.15 m

Sezione : Berlinese

Stage 4

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 25.85 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Irregolare)

(-9.15;25.85)

(10.8;25.85)

(18.54;24.26)

(20.93;22.46)

(24.85;21.4)

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Paratia : Berlinese

X : -9.15 m

Quota in alto : 31.35 m

Quota di fondo : 5.15 m

Sezione : Berlinese

Stage 5

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 25.85 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Irregolare)

(-9.15;25.85)

(10.8;25.85)

(18.54;24.26)

(20.93;22.46)

(24.85;21.4)

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Paratia : Berlinese

X : -9.15 m

Quota in alto : 31.35 m

Quota di fondo : 5.15 m

Sezione : Berlinese



Stage 6

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 22.85 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Irregolare)

(-9.15;22.85)

(20.2;22.85)

(24.85;21.4)

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Paratia : Berlinese

X : -9.15 m

Quota in alto : 31.35 m

Quota di fondo : 5.15 m

Sezione : Berlinese

Stage 7

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 22.85 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Irregolare)

(-9.15;22.85)

(20.2;22.85)

(24.85;21.4)

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-C1

X : -9.15 m

Z : 23.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 16 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Paratia : Berlinese

X : -9.15 m

Quota in alto : 31.35 m

Quota di fondo : 5.15 m

Sezione : Berlinese

Stage 8

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 20.35 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Orizzontale)

20.35 m

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-C1  
 X : -9.15 m  
 Z : 23.35 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 16 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Paratia : Berlinese  
 X : -9.15 m  
 Quota in alto : 31.35 m  
 Quota di fondo : 5.15 m  
 Sezione : Berlinese

Stage 9

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 20.35 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Orizzontale)

20.35 m

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-C1  
 X : -9.15 m  
 Z : 23.35 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 16 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Paratia : Berlinese  
 X : -9.15 m  
 Quota in alto : 31.35 m  
 Quota di fondo : 5.15 m  
 Sezione : Berlinese

Tirante : Tir-D1  
 X : -9.15 m  
 Z : 20.85 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 15 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275



Stage 10

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 17.85 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Orizzontale)

17.85 m

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-C1

X : -9.15 m  
 Z : 23.35 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 16 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands

Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Paratia : Berlinese

X : -9.15 m  
 Quota in alto : 31.35 m  
 Quota di fondo : 5.15 m  
 Sezione : Berlinese

Tirante : Tir-D1

X : -9.15 m  
 Z : 20.85 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 15 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands

Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

## Stage 11

### Scavo

#### Muro di sinistra

Lato monte : 30.85 m

Lato valle : 17.85 m

#### Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

#### Linea di scavo di destra (Orizzontale)

17.85 m

### Elementi strutturali

#### Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

#### Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

#### Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-C1  
 X : -9.15 m  
 Z : 23.35 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 16 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Paratia : Berlinese  
 X : -9.15 m  
 Quota in alto : 31.35 m  
 Quota di fondo : 5.15 m  
 Sezione : Berlinese

Tirante : Tir-D1  
 X : -9.15 m  
 Z : 20.85 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 15 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-E1  
 X : -9.15 m

Z : 18.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 12

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 15.85 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Orizzontale)

15.85 m

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-C1  
 X : -9.15 m  
 Z : 23.35 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 16 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Paratia : Berlinese  
 X : -9.15 m  
 Quota in alto : 31.35 m  
 Quota di fondo : 5.15 m  
 Sezione : Berlinese

Tirante : Tir-D1  
 X : -9.15 m  
 Z : 20.85 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 15 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-E1  
 X : -9.15 m

Z : 18.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275



Stage 13

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 15.85 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Orizzontale)

15.85 m

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-C1  
 X : -9.15 m  
 Z : 23.35 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 16 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Paratia : Berlinese  
 X : -9.15 m  
 Quota in alto : 31.35 m  
 Quota di fondo : 5.15 m  
 Sezione : Berlinese

Tirante : Tir-D1  
 X : -9.15 m  
 Z : 20.85 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 15 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-E1  
 X : -9.15 m

Z : 18.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-F1

X : -9.15 m

Z : 16.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 12 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 14

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 13.85 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Orizzontale)

13.85 m

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-C1  
 X : -9.15 m  
 Z : 23.35 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 16 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Paratia : Berlinese  
 X : -9.15 m  
 Quota in alto : 31.35 m  
 Quota di fondo : 5.15 m  
 Sezione : Berlinese

Tirante : Tir-D1  
 X : -9.15 m  
 Z : 20.85 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 15 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-E1  
 X : -9.15 m

Z : 18.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-F1

X : -9.15 m

Z : 16.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 12 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

## Stage 15

### Scavo

#### Muro di sinistra

Lato monte : 30.85 m

Lato valle : 13.85 m

#### Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

#### Linea di scavo di destra (Orizzontale)

13.85 m

### Elementi strutturali

#### Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

#### Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

#### Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-C1  
 X : -9.15 m  
 Z : 23.35 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 16 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Paratia : Berlinese  
 X : -9.15 m  
 Quota in alto : 31.35 m  
 Quota di fondo : 5.15 m  
 Sezione : Berlinese

Tirante : Tir-D1  
 X : -9.15 m  
 Z : 20.85 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 15 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-E1  
 X : -9.15 m



Z : 18.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-F1

X : -9.15 m

Z : 16.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 12 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-G1

X : -9.15 m

Z : 14.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 10 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 16

Scavo

Muro di sinistra

Lato monte : 30.85 m

Lato valle : 12.5 m

Linea di scavo di sinistra (Irregolare)

(-60;51.85)

(-37.34;44)

(-21.64;39)

(-19.2;37)

(-15.29;36)

(-10.15;30.85)

(-9.15;30.85)

Linea di scavo di destra (Orizzontale)

12.5 m

Elementi strutturali

Tirante : Tir-A1

X : -9.15 m

Z : 29.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 19 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-B1

X : -9.15 m

Z : 26.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 18 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-C1  
 X : -9.15 m  
 Z : 23.35 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 16 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Paratia : Berlinese  
 X : -9.15 m  
 Quota in alto : 31.35 m  
 Quota di fondo : 5.15 m  
 Sezione : Berlinese

Tirante : Tir-D1  
 X : -9.15 m  
 Z : 20.85 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 15 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-E1  
 X : -9.15 m

Z : 18.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-F1

X : -9.15 m

Z : 16.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 12 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-G1

X : -9.15 m

Z : 14.35 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 10 m

Spaziatura orizzontale : 2 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

## Descrizione Coefficienti Design Assumption

### Coefficienti A

Nome	Carichi Permanenti Sfavorevoli (F_dead_load _unfavour)	Carichi Permanenti Favorevoli (F_dead_loa d_favour)	Carichi Variabili Sfavorevoli (F_live_load_ unfavour)	Carichi Variabili Favorevoli (F_live_loa d_favour)	Carico Sismico (F_seism _load)	Pressio ni Acqua Lato Monte (F_Wat erDR)	Pressio ni Acqua Lato Valle (F_Wat erRes)	Carichi Permane nti Destabili zzanti (F_UPL_ Gdstab)	Carichi Perman enti Stabilizz anti (F_UPL_ Gdstab)	Carichi Variabili Destabili zzanti (F_UPL_ QDStab)	Carichi Permane nti Destabiliz zanti (F_HYD_ Gdstab)	Carichi Perman enti Stabilizz anti (F_HYD_ Gdstab)	Carichi Variabili Destabiliz zanti (F_HYD_ QDStab)
Simbo lo	$\gamma_G$	$\gamma_G$	$\gamma_Q$	$\gamma_Q$	$\gamma_{QE}$	$\gamma_G$	$\gamma_G$	$\gamma_{Gdst}$	$\gamma_{Gstb}$	$\gamma_{Qdst}$	$\gamma_{Gdst}$	$\gamma_{Gstb}$	$\gamma_{Qdst}$
Nominal	1	1	1	1	1	1	1	1	1	1	1	1	1
SLE (Rara)	1	1	1	1	0	1	1	1	1	1	1	1	1
A1+M 1+R1	1.3	1	1.5	1	0	1.3	1	1	1	1	1.3	0.9	1
A2+M 2+R1	1	1	1.3	1	0	1	1	1	1	1	1.3	0.9	1

### Coefficienti M

Nome	Parziale su $\tan(\phi')$ (F_Fr)	Parziale su $c'$ (F_eff_cohes)	Parziale su $S_u$ (F_Su)	Parziale su $q_u$ (F_qu)	Parziale su peso specifico (F_gamma)
Simbolo	$\gamma_\phi$	$\gamma_c$	$\gamma_{cu}$	$\gamma_{qu}$	$\gamma_\gamma$
Nominal	1	1	1	1	1
SLE (Rara)	1	1	1	1	1
A1+M1+R1	1	1	1	1	1
A2+M2+R1	1.25	1.25	1.4	1	1

### Coefficienti R

Nome	Parziale resistenza terreno (es. Kp) (F_Soil_Res_walls)	Parziale resistenza Tiranti permanenti (F_Anch_P)	Parziale resistenza Tiranti temporanei (F_Anch_T)	Parziale elementi strutturali (F_wall)
Simbolo	$\gamma_{Re}$	$\gamma_{ap}$	$\gamma_{at}$	
Nominal	1	1	1	1
SLE (Rara)	1	1	1	1
A1+M1+R1	1	1.2	1.1	1
A2+M2+R1	1	1.2	1.1	1

## Risultati SLE (Rara)

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 1

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento			Muro: LEFT
Stage	Z (m)	Spostamento (mm)	
Stage 1	31.35	0	
Stage 1	31.15	0	
Stage 1	30.95	0	
Stage 1	30.75	0	
Stage 1	30.55	0	
Stage 1	30.35	0	
Stage 1	30.15	0	
Stage 1	29.95	0	
Stage 1	29.75	0	
Stage 1	29.55	0	
Stage 1	29.35	0	
Stage 1	29.15	0	
Stage 1	28.95	0	
Stage 1	28.75	0	
Stage 1	28.55	0	
Stage 1	28.35	0	
Stage 1	28.15	0	
Stage 1	27.95	0	
Stage 1	27.75	0	
Stage 1	27.55	0	
Stage 1	27.35	0	
Stage 1	27.15	0	
Stage 1	26.95	0	
Stage 1	26.75	0	
Stage 1	26.55	0	
Stage 1	26.35	0	
Stage 1	26.15	0	
Stage 1	25.95	0	
Stage 1	25.75	0	
Stage 1	25.55	0	
Stage 1	25.35	0	
Stage 1	25.15	0	
Stage 1	24.95	0	
Stage 1	24.75	0	
Stage 1	24.55	0	
Stage 1	24.35	0	
Stage 1	24.15	0	
Stage 1	23.95	0	
Stage 1	23.75	0	
Stage 1	23.55	0	
Stage 1	23.35	0	
Stage 1	23.15	0	
Stage 1	22.95	0	
Stage 1	22.75	0	
Stage 1	22.55	0	
Stage 1	22.35	0	
Stage 1	22.15	0	
Stage 1	21.95	0	
Stage 1	21.75	0	
Stage 1	21.55	0	
Stage 1	21.35	0	
Stage 1	21.15	0	
Stage 1	20.95	0	
Stage 1	20.85	0	
Stage 1	20.65	0	
Stage 1	20.45	0	
Stage 1	20.25	0	
Stage 1	20.05	0	
Stage 1	19.85	0	
Stage 1	19.65	0	
Stage 1	19.45	0	
Stage 1	19.25	0	



Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 1	19.05	0
Stage 1	18.85	0
Stage 1	18.65	0
Stage 1	18.45	0
Stage 1	18.35	0
Stage 1	18.15	0
Stage 1	17.95	0
Stage 1	17.75	0
Stage 1	17.55	0
Stage 1	17.35	0
Stage 1	17.15	0
Stage 1	16.95	0
Stage 1	16.75	0
Stage 1	16.55	0
Stage 1	16.35	0
Stage 1	16.15	0
Stage 1	15.95	0
Stage 1	15.75	0
Stage 1	15.55	0
Stage 1	15.35	0
Stage 1	15.15	0
Stage 1	14.95	0
Stage 1	14.75	0
Stage 1	14.55	0
Stage 1	14.35	0
Stage 1	14.15	0
Stage 1	13.95	0
Stage 1	13.75	0
Stage 1	13.55	0
Stage 1	13.35	0
Stage 1	13.15	0
Stage 1	12.95	0
Stage 1	12.75	0
Stage 1	12.55	0
Stage 1	12.35	0
Stage 1	12.15	0
Stage 1	11.95	0
Stage 1	11.75	0
Stage 1	11.55	0
Stage 1	11.35	0
Stage 1	11.15	0
Stage 1	10.95	0
Stage 1	10.75	0
Stage 1	10.55	0
Stage 1	10.35	0
Stage 1	10.15	0
Stage 1	9.95	0
Stage 1	9.75	0
Stage 1	9.55	0
Stage 1	9.35	0
Stage 1	9.15	0
Stage 1	8.95	0
Stage 1	8.75	0
Stage 1	8.55	0
Stage 1	8.35	0
Stage 1	8.15	0
Stage 1	7.95	0
Stage 1	7.75	0
Stage 1	7.55	0
Stage 1	7.35	0
Stage 1	7.15	0
Stage 1	6.95	0
Stage 1	6.75	0
Stage 1	6.55	0
Stage 1	6.35	0
Stage 1	6.15	0
Stage 1	5.95	0
Stage 1	5.75	0
Stage 1	5.55	0

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 1	5.35	0
Stage 1	5.15	0

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 1

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	31.35	0	0
Stage 1	31.15	0	0
Stage 1	31.15	0	0
Stage 1	30.95	0	0
Stage 1	30.95	0	0
Stage 1	30.75	0	0
Stage 1	30.75	0	0
Stage 1	30.55	0	0
Stage 1	30.35	0	0
Stage 1	30.15	0	0
Stage 1	29.95	0	0
Stage 1	29.75	0	0
Stage 1	29.55	0	0
Stage 1	29.35	0	0
Stage 1	29.15	0	0
Stage 1	28.95	0	0
Stage 1	28.75	0	0
Stage 1	28.55	0	0
Stage 1	28.35	0	0
Stage 1	28.15	0	0
Stage 1	27.95	0	0
Stage 1	27.75	0	0
Stage 1	27.55	0	0
Stage 1	27.35	0	0
Stage 1	27.15	0	0
Stage 1	26.95	0	0
Stage 1	26.75	0	0
Stage 1	26.55	0	0
Stage 1	26.35	0	0
Stage 1	26.15	0	0
Stage 1	25.95	0	0
Stage 1	25.75	0	0
Stage 1	25.55	0	0
Stage 1	25.35	0	0
Stage 1	25.15	0	0
Stage 1	24.95	0	0
Stage 1	24.75	0	0
Stage 1	24.55	0	0
Stage 1	24.35	0	0
Stage 1	24.15	0	0
Stage 1	23.95	0	0
Stage 1	23.75	0	0
Stage 1	23.55	0	0
Stage 1	23.35	0	0
Stage 1	23.15	0	0
Stage 1	22.95	0	0
Stage 1	22.75	0	0
Stage 1	22.55	0	0
Stage 1	22.35	0	0
Stage 1	22.15	0	0
Stage 1	21.95	0	0
Stage 1	21.75	0	0
Stage 1	21.55	0	0
Stage 1	21.35	0	0
Stage 1	21.15	0	0
Stage 1	20.95	0	0
Stage 1	20.85	0	0
Stage 1	20.65	0	0
Stage 1	20.45	0	0
Stage 1	20.25	0	0
Stage 1	20.05	0	0
Stage 1	19.85	0	0
Stage 1	19.65	0	0
Stage 1	19.45	0	0
Stage 1	19.25	0	0

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	19.05	0	0
Stage 1	18.85	0	0
Stage 1	18.65	0	0
Stage 1	18.45	0	0
Stage 1	18.35	0	0
Stage 1	18.15	0	0
Stage 1	17.95	0	0
Stage 1	17.75	0	0
Stage 1	17.55	0	0
Stage 1	17.35	0	0
Stage 1	17.15	0	0
Stage 1	16.95	0	0
Stage 1	16.75	0	0
Stage 1	16.55	0	0
Stage 1	16.35	0	0
Stage 1	16.15	0	0
Stage 1	15.95	0	0
Stage 1	15.75	0	0
Stage 1	15.55	0	0
Stage 1	15.35	0	0
Stage 1	15.15	0	0
Stage 1	14.95	0	0
Stage 1	14.75	0	0
Stage 1	14.55	0	0
Stage 1	14.35	0	0
Stage 1	14.15	0	0
Stage 1	13.95	0	0
Stage 1	13.75	0	0
Stage 1	13.55	0	0
Stage 1	13.35	0	0
Stage 1	13.15	0	0
Stage 1	12.95	0	0
Stage 1	12.75	0	0
Stage 1	12.55	0	0
Stage 1	12.35	0	0
Stage 1	12.15	0	0
Stage 1	11.95	0	0
Stage 1	11.75	0	0
Stage 1	11.55	0	0
Stage 1	11.35	0	0
Stage 1	11.15	0	0
Stage 1	10.95	0	0
Stage 1	10.75	0	0
Stage 1	10.55	0	0
Stage 1	10.35	0	0
Stage 1	10.15	0	0
Stage 1	9.95	0	0
Stage 1	9.75	0	0
Stage 1	9.55	0	0
Stage 1	9.35	0	0
Stage 1	9.15	0	0
Stage 1	8.95	0	0
Stage 1	8.75	0	0
Stage 1	8.55	0	0
Stage 1	8.35	0	0
Stage 1	8.15	0	0
Stage 1	7.95	0	0
Stage 1	7.75	0	0
Stage 1	7.55	0	0
Stage 1	7.35	0	0
Stage 1	7.15	0	0
Stage 1	6.95	0	0
Stage 1	6.75	0	0
Stage 1	6.55	0	0
Stage 1	6.35	0	0
Stage 1	6.15	0	0
Stage 1	5.95	0	0
Stage 1	5.75	0	0
Stage 1	5.55	0	0

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	5.35	0	0
Stage 1	5.15	0	0

## Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 2

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 2	31.35 8.92
Stage 2	31.15 8.46
Stage 2	30.95 7.99
Stage 2	30.75 7.52
Stage 2	30.55 7.06
Stage 2	30.35 6.59
Stage 2	30.15 6.13
Stage 2	29.95 5.66
Stage 2	29.75 5.2
Stage 2	29.55 4.73
Stage 2	29.35 4.28
Stage 2	29.15 3.82
Stage 2	28.95 3.38
Stage 2	28.75 2.95
Stage 2	28.55 2.53
Stage 2	28.35 2.14
Stage 2	28.15 1.77
Stage 2	27.95 1.43
Stage 2	27.75 1.12
Stage 2	27.55 0.85
Stage 2	27.35 0.62
Stage 2	27.15 0.42
Stage 2	26.95 0.26
Stage 2	26.75 0.13
Stage 2	26.55 0.03
Stage 2	26.35 -0.05
Stage 2	26.15 -0.11
Stage 2	25.95 -0.15
Stage 2	25.75 -0.17
Stage 2	25.55 -0.18
Stage 2	25.35 -0.19
Stage 2	25.15 -0.18
Stage 2	24.95 -0.17
Stage 2	24.75 -0.16
Stage 2	24.55 -0.14
Stage 2	24.35 -0.12
Stage 2	24.15 -0.11
Stage 2	23.95 -0.09
Stage 2	23.75 -0.08
Stage 2	23.55 -0.06
Stage 2	23.35 -0.05
Stage 2	23.15 -0.04
Stage 2	22.95 -0.03
Stage 2	22.75 -0.02
Stage 2	22.55 -0.01
Stage 2	22.35 -0.01
Stage 2	22.15 0
Stage 2	21.95 0
Stage 2	21.75 0
Stage 2	21.55 0.01
Stage 2	21.35 0.01
Stage 2	21.15 0.01
Stage 2	20.95 0.01
Stage 2	20.85 0.01
Stage 2	20.65 0.01
Stage 2	20.45 0.01
Stage 2	20.25 0.01
Stage 2	20.05 0.01
Stage 2	19.85 0
Stage 2	19.65 0
Stage 2	19.45 0
Stage 2	19.25 0
Stage 2	19.05 0
Stage 2	18.85 0
Stage 2	18.65 0

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 2	18.45	0
Stage 2	18.35	0
Stage 2	18.15	0
Stage 2	17.95	0
Stage 2	17.75	0
Stage 2	17.55	0
Stage 2	17.35	0
Stage 2	17.15	0
Stage 2	16.95	0
Stage 2	16.75	0
Stage 2	16.55	0
Stage 2	16.35	0
Stage 2	16.15	0
Stage 2	15.95	0
Stage 2	15.75	0
Stage 2	15.55	0
Stage 2	15.35	0
Stage 2	15.15	0
Stage 2	14.95	0
Stage 2	14.75	0
Stage 2	14.55	0
Stage 2	14.35	0
Stage 2	14.15	0
Stage 2	13.95	0
Stage 2	13.75	0
Stage 2	13.55	0
Stage 2	13.35	0
Stage 2	13.15	0
Stage 2	12.95	0
Stage 2	12.75	0
Stage 2	12.55	0
Stage 2	12.35	0
Stage 2	12.15	0
Stage 2	11.95	0
Stage 2	11.75	0
Stage 2	11.55	0
Stage 2	11.35	0
Stage 2	11.15	0
Stage 2	10.95	0
Stage 2	10.75	0
Stage 2	10.55	0
Stage 2	10.35	0
Stage 2	10.15	0
Stage 2	9.95	0
Stage 2	9.75	0
Stage 2	9.55	0
Stage 2	9.35	0
Stage 2	9.15	0
Stage 2	8.95	0
Stage 2	8.75	0
Stage 2	8.55	0
Stage 2	8.35	0
Stage 2	8.15	0
Stage 2	7.95	0
Stage 2	7.75	0
Stage 2	7.55	0
Stage 2	7.35	0
Stage 2	7.15	0
Stage 2	6.95	0
Stage 2	6.75	0
Stage 2	6.55	0
Stage 2	6.35	0
Stage 2	6.15	0
Stage 2	5.95	0
Stage 2	5.75	0
Stage 2	5.55	0
Stage 2	5.35	0
Stage 2	5.15	0

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 2

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	31.35	0	0
Stage 2	31.15	0	0
Stage 2	31.15	0	0
Stage 2	30.95	0	0
Stage 2	30.95	0	0
Stage 2	30.75	0	0
Stage 2	30.75	0	0
Stage 2	30.55	-0.02	-0.1
Stage 2	30.35	-0.1	-0.4
Stage 2	30.15	-0.28	-0.9
Stage 2	29.95	-0.6	-1.62
Stage 2	29.75	-1.12	-2.56
Stage 2	29.55	-1.86	-3.74
Stage 2	29.35	-2.89	-5.16
Stage 2	29.15	-4.26	-6.83
Stage 2	28.95	-6.01	-8.76
Stage 2	28.75	-8.2	-10.95
Stage 2	28.55	-10.62	-12.09
Stage 2	28.35	-13.09	-12.33
Stage 2	28.15	-15.4	-11.56
Stage 2	27.95	-17.33	-9.66
Stage 2	27.75	-18.63	-6.49
Stage 2	27.55	-19.01	-1.92
Stage 2	27.35	-18.57	2.21
Stage 2	27.15	-17.53	5.2
Stage 2	26.95	-16.09	7.18
Stage 2	26.75	-14.43	8.34
Stage 2	26.55	-12.66	8.84
Stage 2	26.35	-10.89	8.83
Stage 2	26.15	-9.19	8.51
Stage 2	25.95	-7.59	7.99
Stage 2	25.75	-6.12	7.33
Stage 2	25.55	-4.8	6.6
Stage 2	25.35	-3.64	5.81
Stage 2	25.15	-2.64	5.01
Stage 2	24.95	-1.79	4.23
Stage 2	24.75	-1.09	3.5
Stage 2	24.55	-0.53	2.82
Stage 2	24.35	-0.09	2.21
Stage 2	24.15	0.25	1.68
Stage 2	23.95	0.49	1.22
Stage 2	23.75	0.66	0.83
Stage 2	23.55	0.76	0.5
Stage 2	23.35	0.8	0.24
Stage 2	23.15	0.81	0.03
Stage 2	22.95	0.79	-0.12
Stage 2	22.75	0.74	-0.24
Stage 2	22.55	0.68	-0.31
Stage 2	22.35	0.61	-0.36
Stage 2	22.15	0.53	-0.37
Stage 2	21.95	0.46	-0.37
Stage 2	21.75	0.38	-0.36
Stage 2	21.55	0.32	-0.34
Stage 2	21.35	0.25	-0.31
Stage 2	21.15	0.2	-0.28
Stage 2	20.95	0.15	-0.24
Stage 2	20.85	0.13	-0.22
Stage 2	20.65	0.09	-0.19
Stage 2	20.45	0.06	-0.16
Stage 2	20.25	0.03	-0.13
Stage 2	20.05	0.01	-0.1
Stage 2	19.85	-0.01	-0.08
Stage 2	19.65	-0.02	-0.06
Stage 2	19.45	-0.02	-0.04
Stage 2	19.25	-0.03	-0.02



Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	19.05	-0.03	-0.01
Stage 2	18.85	-0.03	0
Stage 2	18.65	-0.03	0
Stage 2	18.45	-0.03	0.01
Stage 2	18.35	-0.03	0.01
Stage 2	18.15	-0.03	0.01
Stage 2	17.95	-0.02	0.01
Stage 2	17.75	-0.02	0.02
Stage 2	17.55	-0.02	0.01
Stage 2	17.35	-0.01	0.01
Stage 2	17.15	-0.01	0.01
Stage 2	16.95	-0.01	0.01
Stage 2	16.75	-0.01	0.01
Stage 2	16.55	-0.01	0.01
Stage 2	16.35	0	0.01
Stage 2	16.15	0	0.01
Stage 2	15.95	0	0.01
Stage 2	15.75	0	0
Stage 2	15.55	0	0
Stage 2	15.35	0	0
Stage 2	15.15	0	0
Stage 2	14.95	0	0
Stage 2	14.75	0	0
Stage 2	14.55	0	0
Stage 2	14.35	0	0
Stage 2	14.15	0	0
Stage 2	13.95	0	0
Stage 2	13.75	0	0
Stage 2	13.55	0	0
Stage 2	13.35	0	0
Stage 2	13.15	0	0
Stage 2	12.95	0	0
Stage 2	12.75	0	0
Stage 2	12.55	0	0
Stage 2	12.35	0	0
Stage 2	12.15	0	0
Stage 2	11.95	0	0
Stage 2	11.75	0	0
Stage 2	11.55	0	0
Stage 2	11.35	0	0
Stage 2	11.15	0	0
Stage 2	10.95	0	0
Stage 2	10.75	0	0
Stage 2	10.55	0	0
Stage 2	10.35	0	0
Stage 2	10.15	0	0
Stage 2	9.95	0	0
Stage 2	9.75	0	0
Stage 2	9.55	0	0
Stage 2	9.35	0	0
Stage 2	9.15	0	0
Stage 2	8.95	0	0
Stage 2	8.75	0	0
Stage 2	8.55	0	0
Stage 2	8.35	0	0
Stage 2	8.15	0	0
Stage 2	7.95	0	0
Stage 2	7.75	0	0
Stage 2	7.55	0	0
Stage 2	7.35	0	0
Stage 2	7.15	0	0
Stage 2	6.95	0	0
Stage 2	6.75	0	0
Stage 2	6.55	0	0
Stage 2	6.35	0	0
Stage 2	6.15	0	0
Stage 2	5.95	0	0
Stage 2	5.75	0	0
Stage 2	5.55	0	0

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	5.35	0	0
Stage 2	5.15	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 3

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 3	31.35 1.4
Stage 3	31.15 1.12
Stage 3	30.95 0.84
Stage 3	30.75 0.56
Stage 3	30.55 0.29
Stage 3	30.35 0.01
Stage 3	30.15 -0.26
Stage 3	29.95 -0.52
Stage 3	29.75 -0.75
Stage 3	29.55 -0.93
Stage 3	29.35 -1.04
Stage 3	29.15 -1.04
Stage 3	28.95 -0.97
Stage 3	28.75 -0.85
Stage 3	28.55 -0.72
Stage 3	28.35 -0.57
Stage 3	28.15 -0.44
Stage 3	27.95 -0.32
Stage 3	27.75 -0.22
Stage 3	27.55 -0.13
Stage 3	27.35 -0.06
Stage 3	27.15 -0.01
Stage 3	26.95 0.03
Stage 3	26.75 0.05
Stage 3	26.55 0.07
Stage 3	26.35 0.08
Stage 3	26.15 0.08
Stage 3	25.95 0.07
Stage 3	25.75 0.07
Stage 3	25.55 0.06
Stage 3	25.35 0.05
Stage 3	25.15 0.04
Stage 3	24.95 0.03
Stage 3	24.75 0.02
Stage 3	24.55 0.01
Stage 3	24.35 0.01
Stage 3	24.15 0
Stage 3	23.95 0
Stage 3	23.75 -0.01
Stage 3	23.55 -0.01
Stage 3	23.35 -0.01
Stage 3	23.15 -0.01
Stage 3	22.95 -0.01
Stage 3	22.75 -0.01
Stage 3	22.55 -0.01
Stage 3	22.35 -0.01
Stage 3	22.15 -0.01
Stage 3	21.95 -0.01
Stage 3	21.75 -0.01
Stage 3	21.55 -0.01
Stage 3	21.35 0
Stage 3	21.15 0
Stage 3	20.95 0
Stage 3	20.85 0
Stage 3	20.65 0
Stage 3	20.45 0
Stage 3	20.25 0
Stage 3	20.05 0
Stage 3	19.85 0
Stage 3	19.65 0
Stage 3	19.45 0
Stage 3	19.25 0
Stage 3	19.05 0
Stage 3	18.85 0
Stage 3	18.65 0

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 3	18.45	0
Stage 3	18.35	0
Stage 3	18.15	0
Stage 3	17.95	0
Stage 3	17.75	0
Stage 3	17.55	0
Stage 3	17.35	0
Stage 3	17.15	0
Stage 3	16.95	0
Stage 3	16.75	0
Stage 3	16.55	0
Stage 3	16.35	0
Stage 3	16.15	0
Stage 3	15.95	0
Stage 3	15.75	0
Stage 3	15.55	0
Stage 3	15.35	0
Stage 3	15.15	0
Stage 3	14.95	0
Stage 3	14.75	0
Stage 3	14.55	0
Stage 3	14.35	0
Stage 3	14.15	0
Stage 3	13.95	0
Stage 3	13.75	0
Stage 3	13.55	0
Stage 3	13.35	0
Stage 3	13.15	0
Stage 3	12.95	0
Stage 3	12.75	0
Stage 3	12.55	0
Stage 3	12.35	0
Stage 3	12.15	0
Stage 3	11.95	0
Stage 3	11.75	0
Stage 3	11.55	0
Stage 3	11.35	0
Stage 3	11.15	0
Stage 3	10.95	0
Stage 3	10.75	0
Stage 3	10.55	0
Stage 3	10.35	0
Stage 3	10.15	0
Stage 3	9.95	0
Stage 3	9.75	0
Stage 3	9.55	0
Stage 3	9.35	0
Stage 3	9.15	0
Stage 3	8.95	0
Stage 3	8.75	0
Stage 3	8.55	0
Stage 3	8.35	0
Stage 3	8.15	0
Stage 3	7.95	0
Stage 3	7.75	0
Stage 3	7.55	0
Stage 3	7.35	0
Stage 3	7.15	0
Stage 3	6.95	0
Stage 3	6.75	0
Stage 3	6.55	0
Stage 3	6.35	0
Stage 3	6.15	0
Stage 3	5.95	0
Stage 3	5.75	0
Stage 3	5.55	0
Stage 3	5.35	0
Stage 3	5.15	0

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 3

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	31.35	0	0
Stage 3	31.15	0	0
Stage 3	31.15	0	0
Stage 3	30.95	0	0
Stage 3	30.95	0	0
Stage 3	30.75	0	0
Stage 3	30.75	0	0
Stage 3	30.55	-0.45	-2.27
Stage 3	30.35	-2.28	-9.15
Stage 3	30.15	-6.45	-20.82
Stage 3	29.95	-13.93	-37.4
Stage 3	29.75	-24.76	-54.16
Stage 3	29.55	-38.96	-71.02
Stage 3	29.35	-56.53	-87.85
Stage 3	29.15	-38.04	92.48
Stage 3	28.95	-22.78	76.28
Stage 3	28.75	-10.64	60.69
Stage 3	28.55	-1.51	45.66
Stage 3	28.35	4.53	30.19
Stage 3	28.15	7.82	16.46
Stage 3	27.95	9.12	6.52
Stage 3	27.75	9.18	0.27
Stage 3	27.55	8.7	-2.4
Stage 3	27.35	7.97	-3.64
Stage 3	27.15	7.09	-4.41
Stage 3	26.95	6.12	-4.83
Stage 3	26.75	5.13	-4.94
Stage 3	26.55	4.17	-4.84
Stage 3	26.35	3.25	-4.58
Stage 3	26.15	2.41	-4.18
Stage 3	25.95	1.68	-3.66
Stage 3	25.75	1.06	-3.1
Stage 3	25.55	0.55	-2.54
Stage 3	25.35	0.15	-2.01
Stage 3	25.15	-0.15	-1.52
Stage 3	24.95	-0.37	-1.09
Stage 3	24.75	-0.51	-0.72
Stage 3	24.55	-0.59	-0.41
Stage 3	24.35	-0.63	-0.15
Stage 3	24.15	-0.62	0.04
Stage 3	23.95	-0.58	0.18
Stage 3	23.75	-0.52	0.28
Stage 3	23.55	-0.46	0.34
Stage 3	23.35	-0.38	0.37
Stage 3	23.15	-0.31	0.36
Stage 3	22.95	-0.24	0.35
Stage 3	22.75	-0.18	0.31
Stage 3	22.55	-0.12	0.28
Stage 3	22.35	-0.08	0.24
Stage 3	22.15	-0.04	0.2
Stage 3	21.95	-0.01	0.16
Stage 3	21.75	0.02	0.12
Stage 3	21.55	0.04	0.09
Stage 3	21.35	0.05	0.06
Stage 3	21.15	0.06	0.04
Stage 3	20.95	0.06	0.02
Stage 3	20.85	0.06	0.01
Stage 3	20.65	0.06	0
Stage 3	20.45	0.06	-0.01
Stage 3	20.25	0.05	-0.02
Stage 3	20.05	0.05	-0.03
Stage 3	19.85	0.04	-0.03
Stage 3	19.65	0.04	-0.03
Stage 3	19.45	0.03	-0.03
Stage 3	19.25	0.02	-0.03

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	19.05	0.02	-0.03
Stage 3	18.85	0.01	-0.02
Stage 3	18.65	0.01	-0.02
Stage 3	18.45	0.01	-0.02
Stage 3	18.35	0	-0.02
Stage 3	18.15	0	-0.01
Stage 3	17.95	0	-0.01
Stage 3	17.75	0	-0.01
Stage 3	17.55	0	-0.01
Stage 3	17.35	0	0
Stage 3	17.15	0	0
Stage 3	16.95	0	0
Stage 3	16.75	0	0
Stage 3	16.55	0	0
Stage 3	16.35	0	0
Stage 3	16.15	0	0
Stage 3	15.95	0	0
Stage 3	15.75	0	0
Stage 3	15.55	0	0
Stage 3	15.35	0	0
Stage 3	15.15	0	0
Stage 3	14.95	0	0
Stage 3	14.75	0	0
Stage 3	14.55	0	0
Stage 3	14.35	0	0
Stage 3	14.15	0	0
Stage 3	13.95	0	0
Stage 3	13.75	0	0
Stage 3	13.55	0	0
Stage 3	13.35	0	0
Stage 3	13.15	0	0
Stage 3	12.95	0	0
Stage 3	12.75	0	0
Stage 3	12.55	0	0
Stage 3	12.35	0	0
Stage 3	12.15	0	0
Stage 3	11.95	0	0
Stage 3	11.75	0	0
Stage 3	11.55	0	0
Stage 3	11.35	0	0
Stage 3	11.15	0	0
Stage 3	10.95	0	0
Stage 3	10.75	0	0
Stage 3	10.55	0	0
Stage 3	10.35	0	0
Stage 3	10.15	0	0
Stage 3	9.95	0	0
Stage 3	9.75	0	0
Stage 3	9.55	0	0
Stage 3	9.35	0	0
Stage 3	9.15	0	0
Stage 3	8.95	0	0
Stage 3	8.75	0	0
Stage 3	8.55	0	0
Stage 3	8.35	0	0
Stage 3	8.15	0	0
Stage 3	7.95	0	0
Stage 3	7.75	0	0
Stage 3	7.55	0	0
Stage 3	7.35	0	0
Stage 3	7.15	0	0
Stage 3	6.95	0	0
Stage 3	6.75	0	0
Stage 3	6.55	0	0
Stage 3	6.35	0	0
Stage 3	6.15	0	0
Stage 3	5.95	0	0
Stage 3	5.75	0	0
Stage 3	5.55	0	0

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	5.35	0	0
Stage 3	5.15	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 4

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 4	31.35 -4.5
Stage 4	31.15 -4.07
Stage 4	30.95 -3.65
Stage 4	30.75 -3.22
Stage 4	30.55 -2.79
Stage 4	30.35 -2.37
Stage 4	30.15 -1.93
Stage 4	29.95 -1.49
Stage 4	29.75 -1.01
Stage 4	29.55 -0.49
Stage 4	29.35 0.12
Stage 4	29.15 0.82
Stage 4	28.95 1.6
Stage 4	28.75 2.42
Stage 4	28.55 3.26
Stage 4	28.35 4.08
Stage 4	28.15 4.87
Stage 4	27.95 5.61
Stage 4	27.75 6.29
Stage 4	27.55 6.88
Stage 4	27.35 7.39
Stage 4	27.15 7.79
Stage 4	26.95 8.09
Stage 4	26.75 8.28
Stage 4	26.55 8.35
Stage 4	26.35 8.32
Stage 4	26.15 8.17
Stage 4	25.95 7.92
Stage 4	25.75 7.57
Stage 4	25.55 7.13
Stage 4	25.35 6.63
Stage 4	25.15 6.07
Stage 4	24.95 5.48
Stage 4	24.75 4.87
Stage 4	24.55 4.26
Stage 4	24.35 3.67
Stage 4	24.15 3.11
Stage 4	23.95 2.58
Stage 4	23.75 2.1
Stage 4	23.55 1.67
Stage 4	23.35 1.29
Stage 4	23.15 0.95
Stage 4	22.95 0.66
Stage 4	22.75 0.42
Stage 4	22.55 0.22
Stage 4	22.35 0.06
Stage 4	22.15 -0.07
Stage 4	21.95 -0.17
Stage 4	21.75 -0.25
Stage 4	21.55 -0.3
Stage 4	21.35 -0.33
Stage 4	21.15 -0.34
Stage 4	20.95 -0.35
Stage 4	20.85 -0.35
Stage 4	20.65 -0.34
Stage 4	20.45 -0.32
Stage 4	20.25 -0.3
Stage 4	20.05 -0.27
Stage 4	19.85 -0.25
Stage 4	19.65 -0.22
Stage 4	19.45 -0.19
Stage 4	19.25 -0.17
Stage 4	19.05 -0.14
Stage 4	18.85 -0.12
Stage 4	18.65 -0.1



Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 4	18.45	-0.08
Stage 4	18.35	-0.07
Stage 4	18.15	-0.05
Stage 4	17.95	-0.04
Stage 4	17.75	-0.03
Stage 4	17.55	-0.02
Stage 4	17.35	-0.01
Stage 4	17.15	0
Stage 4	16.95	0
Stage 4	16.75	0.01
Stage 4	16.55	0.01
Stage 4	16.35	0.01
Stage 4	16.15	0.01
Stage 4	15.95	0.01
Stage 4	15.75	0.01
Stage 4	15.55	0.01
Stage 4	15.35	0.01
Stage 4	15.15	0.01
Stage 4	14.95	0.01
Stage 4	14.75	0.01
Stage 4	14.55	0.01
Stage 4	14.35	0.01
Stage 4	14.15	0.01
Stage 4	13.95	0.01
Stage 4	13.75	0
Stage 4	13.55	0
Stage 4	13.35	0
Stage 4	13.15	0
Stage 4	12.95	0
Stage 4	12.75	0
Stage 4	12.55	0
Stage 4	12.35	0
Stage 4	12.15	0
Stage 4	11.95	0
Stage 4	11.75	0
Stage 4	11.55	0
Stage 4	11.35	0
Stage 4	11.15	0
Stage 4	10.95	0
Stage 4	10.75	0
Stage 4	10.55	0
Stage 4	10.35	0
Stage 4	10.15	0
Stage 4	9.95	0
Stage 4	9.75	0
Stage 4	9.55	0
Stage 4	9.35	0
Stage 4	9.15	0
Stage 4	8.95	0
Stage 4	8.75	0
Stage 4	8.55	0
Stage 4	8.35	0
Stage 4	8.15	0
Stage 4	7.95	0
Stage 4	7.75	0
Stage 4	7.55	0
Stage 4	7.35	0
Stage 4	7.15	0
Stage 4	6.95	0
Stage 4	6.75	0
Stage 4	6.55	0
Stage 4	6.35	0
Stage 4	6.15	0
Stage 4	5.95	0
Stage 4	5.75	0
Stage 4	5.55	0
Stage 4	5.35	0
Stage 4	5.15	0

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 4

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	31.35	0	0
Stage 4	31.15	0	0
Stage 4	31.15	0	0
Stage 4	30.95	0	0
Stage 4	30.95	0	0
Stage 4	30.75	0	0
Stage 4	30.75	0	0
Stage 4	30.55	-0.45	-2.27
Stage 4	30.35	-2.28	-9.15
Stage 4	30.15	-6.45	-20.82
Stage 4	29.95	-13.94	-37.47
Stage 4	29.75	-25.01	-55.35
Stage 4	29.55	-39.52	-72.51
Stage 4	29.35	-57.22	-88.51
Stage 4	29.15	-38.02	95.98
Stage 4	28.95	-21.37	83.24
Stage 4	28.75	-6.89	72.41
Stage 4	28.55	5.78	63.37
Stage 4	28.35	16.78	54.98
Stage 4	28.15	26.24	47.29
Stage 4	27.95	34.28	40.24
Stage 4	27.75	41.04	33.78
Stage 4	27.55	46.6	27.79
Stage 4	27.35	51.03	22.15
Stage 4	27.15	54.37	16.71
Stage 4	26.95	56.64	11.34
Stage 4	26.75	57.81	5.84
Stage 4	26.55	57.81	0.03
Stage 4	26.35	56.55	-6.31
Stage 4	26.15	53.88	-13.35
Stage 4	25.95	49.63	-21.24
Stage 4	25.75	43.59	-30.21
Stage 4	25.55	35.92	-38.35
Stage 4	25.35	27.17	-43.75
Stage 4	25.15	17.86	-46.54
Stage 4	24.95	8.5	-46.82
Stage 4	24.75	-0.43	-44.65
Stage 4	24.55	-8.44	-40.06
Stage 4	24.35	-15.05	-33.03
Stage 4	24.15	-19.75	-23.52
Stage 4	23.95	-22.85	-15.48
Stage 4	23.75	-24.61	-8.8
Stage 4	23.55	-25.28	-3.38
Stage 4	23.35	-25.1	0.92
Stage 4	23.15	-24.25	4.23
Stage 4	22.95	-22.92	6.67
Stage 4	22.75	-21.24	8.37
Stage 4	22.55	-19.36	9.44
Stage 4	22.35	-17.36	10
Stage 4	22.15	-15.33	10.15
Stage 4	21.95	-13.33	9.97
Stage 4	21.75	-11.42	9.57
Stage 4	21.55	-9.62	9
Stage 4	21.35	-7.96	8.31
Stage 4	21.15	-6.45	7.56
Stage 4	20.95	-5.09	6.77
Stage 4	20.85	-4.48	6.17
Stage 4	20.65	-3.36	5.58
Stage 4	20.45	-2.4	4.81
Stage 4	20.25	-1.58	4.08
Stage 4	20.05	-0.9	3.41
Stage 4	19.85	-0.35	2.79
Stage 4	19.65	0.1	2.23
Stage 4	19.45	0.45	1.73
Stage 4	19.25	0.71	1.3

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	19.05	0.89	0.92
Stage 4	18.85	1.01	0.61
Stage 4	18.65	1.08	0.34
Stage 4	18.45	1.11	0.13
Stage 4	18.35	1.11	0
Stage 4	18.15	1.08	-0.12
Stage 4	17.95	1.04	-0.23
Stage 4	17.75	0.97	-0.32
Stage 4	17.55	0.9	-0.38
Stage 4	17.35	0.81	-0.42
Stage 4	17.15	0.72	-0.44
Stage 4	16.95	0.64	-0.44
Stage 4	16.75	0.55	-0.43
Stage 4	16.55	0.47	-0.41
Stage 4	16.35	0.39	-0.39
Stage 4	16.15	0.32	-0.35
Stage 4	15.95	0.26	-0.32
Stage 4	15.75	0.2	-0.28
Stage 4	15.55	0.15	-0.25
Stage 4	15.35	0.11	-0.21
Stage 4	15.15	0.07	-0.18
Stage 4	14.95	0.04	-0.15
Stage 4	14.75	0.02	-0.12
Stage 4	14.55	0	-0.1
Stage 4	14.35	-0.02	-0.08
Stage 4	14.15	-0.03	-0.06
Stage 4	13.95	-0.04	-0.04
Stage 4	13.75	-0.04	-0.03
Stage 4	13.55	-0.05	-0.01
Stage 4	13.35	-0.05	0
Stage 4	13.15	-0.05	0
Stage 4	12.95	-0.04	0.01
Stage 4	12.75	-0.04	0.01
Stage 4	12.55	-0.04	0.02
Stage 4	12.35	-0.03	0.02
Stage 4	12.15	-0.03	0.02
Stage 4	11.95	-0.03	0.02
Stage 4	11.75	-0.02	0.02
Stage 4	11.55	-0.02	0.02
Stage 4	11.35	-0.02	0.02
Stage 4	11.15	-0.01	0.01
Stage 4	10.95	-0.01	0.01
Stage 4	10.75	-0.01	0.01
Stage 4	10.55	-0.01	0.01
Stage 4	10.35	-0.01	0.01
Stage 4	10.15	0	0.01
Stage 4	9.95	0	0.01
Stage 4	9.75	0	0.01
Stage 4	9.55	0	0
Stage 4	9.35	0	0
Stage 4	9.15	0	0
Stage 4	8.95	0	0
Stage 4	8.75	0	0
Stage 4	8.55	0	0
Stage 4	8.35	0	0
Stage 4	8.15	0	0
Stage 4	7.95	0	0
Stage 4	7.75	0	0
Stage 4	7.55	0	0
Stage 4	7.35	0	0
Stage 4	7.15	0	0
Stage 4	6.95	0	0
Stage 4	6.75	0	0
Stage 4	6.55	0	0
Stage 4	6.35	0	0
Stage 4	6.15	0	0
Stage 4	5.95	0	0
Stage 4	5.75	0	0
Stage 4	5.55	0	0

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	5.35	0	0
Stage 4	5.15	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 5

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 5	31.35 -2.27
Stage 5	31.15 -2.12
Stage 5	30.95 -1.98
Stage 5	30.75 -1.83
Stage 5	30.55 -1.69
Stage 5	30.35 -1.54
Stage 5	30.15 -1.39
Stage 5	29.95 -1.23
Stage 5	29.75 -1.06
Stage 5	29.55 -0.84
Stage 5	29.35 -0.55
Stage 5	29.15 -0.19
Stage 5	28.95 0.24
Stage 5	28.75 0.69
Stage 5	28.55 1.14
Stage 5	28.35 1.56
Stage 5	28.15 1.93
Stage 5	27.95 2.25
Stage 5	27.75 2.49
Stage 5	27.55 2.67
Stage 5	27.35 2.77
Stage 5	27.15 2.81
Stage 5	26.95 2.8
Stage 5	26.75 2.75
Stage 5	26.55 2.69
Stage 5	26.35 2.65
Stage 5	26.15 2.65
Stage 5	25.95 2.67
Stage 5	25.75 2.69
Stage 5	25.55 2.68
Stage 5	25.35 2.64
Stage 5	25.15 2.56
Stage 5	24.95 2.44
Stage 5	24.75 2.29
Stage 5	24.55 2.11
Stage 5	24.35 1.91
Stage 5	24.15 1.7
Stage 5	23.95 1.49
Stage 5	23.75 1.29
Stage 5	23.55 1.09
Stage 5	23.35 0.91
Stage 5	23.15 0.74
Stage 5	22.95 0.59
Stage 5	22.75 0.45
Stage 5	22.55 0.33
Stage 5	22.35 0.22
Stage 5	22.15 0.13
Stage 5	21.95 0.06
Stage 5	21.75 0
Stage 5	21.55 -0.05
Stage 5	21.35 -0.09
Stage 5	21.15 -0.12
Stage 5	20.95 -0.14
Stage 5	20.85 -0.14
Stage 5	20.65 -0.15
Stage 5	20.45 -0.16
Stage 5	20.25 -0.15
Stage 5	20.05 -0.15
Stage 5	19.85 -0.14
Stage 5	19.65 -0.13
Stage 5	19.45 -0.12
Stage 5	19.25 -0.11
Stage 5	19.05 -0.1
Stage 5	18.85 -0.09
Stage 5	18.65 -0.08

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 5	18.45	-0.06
Stage 5	18.35	-0.06
Stage 5	18.15	-0.05
Stage 5	17.95	-0.04
Stage 5	17.75	-0.03
Stage 5	17.55	-0.02
Stage 5	17.35	-0.02
Stage 5	17.15	-0.01
Stage 5	16.95	-0.01
Stage 5	16.75	0
Stage 5	16.55	0
Stage 5	16.35	0
Stage 5	16.15	0
Stage 5	15.95	0.01
Stage 5	15.75	0.01
Stage 5	15.55	0.01
Stage 5	15.35	0.01
Stage 5	15.15	0.01
Stage 5	14.95	0.01
Stage 5	14.75	0.01
Stage 5	14.55	0.01
Stage 5	14.35	0.01
Stage 5	14.15	0
Stage 5	13.95	0
Stage 5	13.75	0
Stage 5	13.55	0
Stage 5	13.35	0
Stage 5	13.15	0
Stage 5	12.95	0
Stage 5	12.75	0
Stage 5	12.55	0
Stage 5	12.35	0
Stage 5	12.15	0
Stage 5	11.95	0
Stage 5	11.75	0
Stage 5	11.55	0
Stage 5	11.35	0
Stage 5	11.15	0
Stage 5	10.95	0
Stage 5	10.75	0
Stage 5	10.55	0
Stage 5	10.35	0
Stage 5	10.15	0
Stage 5	9.95	0
Stage 5	9.75	0
Stage 5	9.55	0
Stage 5	9.35	0
Stage 5	9.15	0
Stage 5	8.95	0
Stage 5	8.75	0
Stage 5	8.55	0
Stage 5	8.35	0
Stage 5	8.15	0
Stage 5	7.95	0
Stage 5	7.75	0
Stage 5	7.55	0
Stage 5	7.35	0
Stage 5	7.15	0
Stage 5	6.95	0
Stage 5	6.75	0
Stage 5	6.55	0
Stage 5	6.35	0
Stage 5	6.15	0
Stage 5	5.95	0
Stage 5	5.75	0
Stage 5	5.55	0
Stage 5	5.35	0
Stage 5	5.15	0

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 5

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	31.35	0	0
Stage 5	31.15	0	0
Stage 5	31.15	0	0
Stage 5	30.95	0	0
Stage 5	30.95	0	0
Stage 5	30.75	0	0
Stage 5	30.75	0	0
Stage 5	30.55	-0.02	-0.1
Stage 5	30.35	-1	-4.92
Stage 5	30.15	-4.01	-15.06
Stage 5	29.95	-10.16	-30.7
Stage 5	29.75	-19.78	-48.12
Stage 5	29.55	-32.85	-65.33
Stage 5	29.35	-49.24	-81.98
Stage 5	29.15	-29.22	100.1
Stage 5	28.95	-12.12	85.49
Stage 5	28.75	2.3	72.14
Stage 5	28.55	14.28	59.88
Stage 5	28.35	23.79	47.57
Stage 5	28.15	30.83	35.19
Stage 5	27.95	35.37	22.69
Stage 5	27.75	37.36	9.98
Stage 5	27.55	36.75	-3.05
Stage 5	27.35	33.45	-16.52
Stage 5	27.15	27.35	-30.53
Stage 5	26.95	18.32	-45.15
Stage 5	26.75	6.22	-60.47
Stage 5	26.55	-9.09	-76.55
Stage 5	26.35	-27.77	-93.41
Stage 5	26.15	-10.57	85.99
Stage 5	25.95	3	67.85
Stage 5	25.75	12.83	49.14
Stage 5	25.55	18.82	29.96
Stage 5	25.35	21.1	11.43
Stage 5	25.15	20.48	-3.12
Stage 5	24.95	17.73	-13.75
Stage 5	24.75	13.62	-20.54
Stage 5	24.55	8.91	-23.57
Stage 5	24.35	4.32	-22.91
Stage 5	24.15	0.6	-18.62
Stage 5	23.95	-2.35	-14.73
Stage 5	23.75	-4.6	-11.28
Stage 5	23.55	-6.25	-8.26
Stage 5	23.35	-7.39	-5.66
Stage 5	23.15	-8.08	-3.47
Stage 5	22.95	-8.41	-1.66
Stage 5	22.75	-8.45	-0.2
Stage 5	22.55	-8.26	0.95
Stage 5	22.35	-7.91	1.78
Stage 5	22.15	-7.44	2.34
Stage 5	21.95	-6.89	2.75
Stage 5	21.75	-6.28	3.04
Stage 5	21.55	-5.64	3.21
Stage 5	21.35	-4.99	3.27
Stage 5	21.15	-4.34	3.24
Stage 5	20.95	-3.71	3.13
Stage 5	20.85	-3.41	3.01
Stage 5	20.65	-2.84	2.86
Stage 5	20.45	-2.31	2.64
Stage 5	20.25	-1.83	2.4
Stage 5	20.05	-1.4	2.15
Stage 5	19.85	-1.02	1.89
Stage 5	19.65	-0.7	1.64
Stage 5	19.45	-0.42	1.4
Stage 5	19.25	-0.18	1.17

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	19.05	0.01	0.96
Stage 5	18.85	0.16	0.76
Stage 5	18.65	0.28	0.59
Stage 5	18.45	0.36	0.43
Stage 5	18.35	0.4	0.33
Stage 5	18.15	0.45	0.24
Stage 5	17.95	0.47	0.13
Stage 5	17.75	0.48	0.05
Stage 5	17.55	0.48	-0.02
Stage 5	17.35	0.46	-0.08
Stage 5	17.15	0.44	-0.12
Stage 5	16.95	0.41	-0.15
Stage 5	16.75	0.37	-0.17
Stage 5	16.55	0.34	-0.18
Stage 5	16.35	0.3	-0.19
Stage 5	16.15	0.26	-0.19
Stage 5	15.95	0.22	-0.19
Stage 5	15.75	0.19	-0.18
Stage 5	15.55	0.15	-0.16
Stage 5	15.35	0.12	-0.15
Stage 5	15.15	0.1	-0.13
Stage 5	14.95	0.07	-0.12
Stage 5	14.75	0.05	-0.1
Stage 5	14.55	0.04	-0.09
Stage 5	14.35	0.02	-0.07
Stage 5	14.15	0.01	-0.06
Stage 5	13.95	0	-0.05
Stage 5	13.75	-0.01	-0.04
Stage 5	13.55	-0.01	-0.03
Stage 5	13.35	-0.02	-0.02
Stage 5	13.15	-0.02	-0.01
Stage 5	12.95	-0.02	-0.01
Stage 5	12.75	-0.02	0
Stage 5	12.55	-0.02	0
Stage 5	12.35	-0.02	0
Stage 5	12.15	-0.02	0.01
Stage 5	11.95	-0.02	0.01
Stage 5	11.75	-0.02	0.01
Stage 5	11.55	-0.02	0.01
Stage 5	11.35	-0.01	0.01
Stage 5	11.15	-0.01	0.01
Stage 5	10.95	-0.01	0.01
Stage 5	10.75	-0.01	0.01
Stage 5	10.55	-0.01	0.01
Stage 5	10.35	-0.01	0.01
Stage 5	10.15	0	0.01
Stage 5	9.95	0	0.01
Stage 5	9.75	0	0.01
Stage 5	9.55	0	0
Stage 5	9.35	0	0
Stage 5	9.15	0	0
Stage 5	8.95	0	0
Stage 5	8.75	0	0
Stage 5	8.55	0	0
Stage 5	8.35	0	0
Stage 5	8.15	0	0
Stage 5	7.95	0	0
Stage 5	7.75	0	0
Stage 5	7.55	0	0
Stage 5	7.35	0	0
Stage 5	7.15	0	0
Stage 5	6.95	0	0
Stage 5	6.75	0	0
Stage 5	6.55	0	0
Stage 5	6.35	0	0
Stage 5	6.15	0	0
Stage 5	5.95	0	0
Stage 5	5.75	0	0
Stage 5	5.55	0	0



Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	5.35	0	0
Stage 5	5.15	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 6

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 6	31.35 -4.21
Stage 6	31.15 -3.98
Stage 6	30.95 -3.75
Stage 6	30.75 -3.52
Stage 6	30.55 -3.3
Stage 6	30.35 -3.07
Stage 6	30.15 -2.83
Stage 6	29.95 -2.58
Stage 6	29.75 -2.31
Stage 6	29.55 -1.98
Stage 6	29.35 -1.58
Stage 6	29.15 -1.07
Stage 6	28.95 -0.48
Stage 6	28.75 0.15
Stage 6	28.55 0.82
Stage 6	28.35 1.5
Stage 6	28.15 2.17
Stage 6	27.95 2.83
Stage 6	27.75 3.49
Stage 6	27.55 4.13
Stage 6	27.35 4.76
Stage 6	27.15 5.4
Stage 6	26.95 6.07
Stage 6	26.75 6.77
Stage 6	26.55 7.54
Stage 6	26.35 8.41
Stage 6	26.15 9.39
Stage 6	25.95 10.45
Stage 6	25.75 11.56
Stage 6	25.55 12.68
Stage 6	25.35 13.78
Stage 6	25.15 14.82
Stage 6	24.95 15.79
Stage 6	24.75 16.65
Stage 6	24.55 17.4
Stage 6	24.35 18.01
Stage 6	24.15 18.46
Stage 6	23.95 18.75
Stage 6	23.75 18.87
Stage 6	23.55 18.82
Stage 6	23.35 18.6
Stage 6	23.15 18.2
Stage 6	22.95 17.64
Stage 6	22.75 16.93
Stage 6	22.55 16.08
Stage 6	22.35 15.11
Stage 6	22.15 14.04
Stage 6	21.95 12.91
Stage 6	21.75 11.74
Stage 6	21.55 10.54
Stage 6	21.35 9.36
Stage 6	21.15 8.2
Stage 6	20.95 7.09
Stage 6	20.85 6.56
Stage 6	20.65 5.55
Stage 6	20.45 4.62
Stage 6	20.25 3.77
Stage 6	20.05 3
Stage 6	19.85 2.32
Stage 6	19.65 1.73
Stage 6	19.45 1.21
Stage 6	19.25 0.77
Stage 6	19.05 0.4
Stage 6	18.85 0.09
Stage 6	18.65 -0.16

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 6	18.45	-0.36
Stage 6	18.35	-0.44
Stage 6	18.15	-0.57
Stage 6	17.95	-0.66
Stage 6	17.75	-0.72
Stage 6	17.55	-0.76
Stage 6	17.35	-0.77
Stage 6	17.15	-0.76
Stage 6	16.95	-0.74
Stage 6	16.75	-0.7
Stage 6	16.55	-0.66
Stage 6	16.35	-0.62
Stage 6	16.15	-0.56
Stage 6	15.95	-0.51
Stage 6	15.75	-0.46
Stage 6	15.55	-0.41
Stage 6	15.35	-0.35
Stage 6	15.15	-0.31
Stage 6	14.95	-0.26
Stage 6	14.75	-0.22
Stage 6	14.55	-0.18
Stage 6	14.35	-0.15
Stage 6	14.15	-0.11
Stage 6	13.95	-0.09
Stage 6	13.75	-0.06
Stage 6	13.55	-0.04
Stage 6	13.35	-0.03
Stage 6	13.15	-0.01
Stage 6	12.95	0
Stage 6	12.75	0.01
Stage 6	12.55	0.02
Stage 6	12.35	0.02
Stage 6	12.15	0.03
Stage 6	11.95	0.03
Stage 6	11.75	0.03
Stage 6	11.55	0.03
Stage 6	11.35	0.03
Stage 6	11.15	0.03
Stage 6	10.95	0.03
Stage 6	10.75	0.03
Stage 6	10.55	0.02
Stage 6	10.35	0.02
Stage 6	10.15	0.02
Stage 6	9.95	0.02
Stage 6	9.75	0.02
Stage 6	9.55	0.01
Stage 6	9.35	0.01
Stage 6	9.15	0.01
Stage 6	8.95	0.01
Stage 6	8.75	0.01
Stage 6	8.55	0.01
Stage 6	8.35	0
Stage 6	8.15	0
Stage 6	7.95	0
Stage 6	7.75	0
Stage 6	7.55	0
Stage 6	7.35	0
Stage 6	7.15	0
Stage 6	6.95	0
Stage 6	6.75	0
Stage 6	6.55	0
Stage 6	6.35	0
Stage 6	6.15	0
Stage 6	5.95	0
Stage 6	5.75	0
Stage 6	5.55	0
Stage 6	5.35	0
Stage 6	5.15	0

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 6

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	31.35	0	0
Stage 6	31.15	0	0
Stage 6	31.15	0	0
Stage 6	30.95	0	0
Stage 6	30.95	0	0
Stage 6	30.75	0	0
Stage 6	30.75	0	0
Stage 6	30.55	-0.41	-2.06
Stage 6	30.35	-2.16	-8.75
Stage 6	30.15	-6.25	-20.42
Stage 6	29.95	-13.66	-37.08
Stage 6	29.75	-24.79	-55.64
Stage 6	29.55	-39.54	-73.76
Stage 6	29.35	-57.8	-91.31
Stage 6	29.15	-40.22	87.91
Stage 6	28.95	-25.77	72.27
Stage 6	28.75	-14.15	58.08
Stage 6	28.55	-5.11	45.2
Stage 6	28.35	1.39	32.52
Stage 6	28.15	5.41	20.07
Stage 6	27.95	6.98	7.84
Stage 6	27.75	6.14	-4.19
Stage 6	27.55	2.92	-16.07
Stage 6	27.35	-2.64	-27.84
Stage 6	27.15	-10.55	-39.54
Stage 6	26.95	-20.78	-51.16
Stage 6	26.75	-33.32	-62.68
Stage 6	26.55	-48.14	-74.09
Stage 6	26.35	-65.2	-85.32
Stage 6	26.15	-42.95	111.27
Stage 6	25.95	-22.76	100.94
Stage 6	25.75	-4.5	91.27
Stage 6	25.55	11.95	82.28
Stage 6	25.35	26.74	73.96
Stage 6	25.15	39.99	66.25
Stage 6	24.95	51.79	59
Stage 6	24.75	62.08	51.46
Stage 6	24.55	70.82	43.68
Stage 6	24.35	77.96	35.68
Stage 6	24.15	83.43	27.4
Stage 6	23.95	87.2	18.83
Stage 6	23.75	89.2	9.98
Stage 6	23.55	89.38	0.9
Stage 6	23.35	87.7	-8.39
Stage 6	23.15	84.11	-17.96
Stage 6	22.95	78.43	-28.37
Stage 6	22.75	70.41	-40.08
Stage 6	22.55	60.22	-50.99
Stage 6	22.35	48.42	-58.96
Stage 6	22.15	35.6	-64.14
Stage 6	21.95	22.29	-66.52
Stage 6	21.75	9.06	-66.19
Stage 6	21.55	-3.58	-63.2
Stage 6	21.35	-15.1	-57.57
Stage 6	21.15	-24.96	-49.31
Stage 6	20.95	-32.64	-38.37
Stage 6	20.85	-35.62	-29.84
Stage 6	20.65	-40.01	-21.95
Stage 6	20.45	-42.62	-13.06
Stage 6	20.25	-43.75	-5.65
Stage 6	20.05	-43.68	0.38
Stage 6	19.85	-42.64	5.2
Stage 6	19.65	-40.85	8.92
Stage 6	19.45	-38.51	11.69
Stage 6	19.25	-35.79	13.62

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	19.05	-32.82	14.85
Stage 6	18.85	-29.72	15.49
Stage 6	18.65	-26.59	15.63
Stage 6	18.45	-23.52	15.4
Stage 6	18.35	-22.01	15.01
Stage 6	18.15	-19.11	14.54
Stage 6	17.95	-16.36	13.72
Stage 6	17.75	-13.81	12.77
Stage 6	17.55	-11.46	11.73
Stage 6	17.35	-9.34	10.64
Stage 6	17.15	-7.43	9.55
Stage 6	16.95	-5.73	8.46
Stage 6	16.75	-4.25	7.41
Stage 6	16.55	-2.97	6.41
Stage 6	16.35	-1.87	5.47
Stage 6	16.15	-0.95	4.6
Stage 6	15.95	-0.19	3.8
Stage 6	15.75	0.42	3.08
Stage 6	15.55	0.91	2.44
Stage 6	15.35	1.28	1.86
Stage 6	15.15	1.56	1.37
Stage 6	14.95	1.75	0.94
Stage 6	14.75	1.86	0.57
Stage 6	14.55	1.91	0.26
Stage 6	14.35	1.91	0.01
Stage 6	14.15	1.88	-0.19
Stage 6	13.95	1.81	-0.35
Stage 6	13.75	1.71	-0.47
Stage 6	13.55	1.6	-0.56
Stage 6	13.35	1.48	-0.62
Stage 6	13.15	1.34	-0.65
Stage 6	12.95	1.21	-0.67
Stage 6	12.75	1.08	-0.67
Stage 6	12.55	0.94	-0.66
Stage 6	12.35	0.82	-0.63
Stage 6	12.15	0.7	-0.6
Stage 6	11.95	0.59	-0.56
Stage 6	11.75	0.48	-0.51
Stage 6	11.55	0.39	-0.46
Stage 6	11.35	0.31	-0.41
Stage 6	11.15	0.23	-0.37
Stage 6	10.95	0.17	-0.32
Stage 6	10.75	0.12	-0.27
Stage 6	10.55	0.07	-0.23
Stage 6	10.35	0.03	-0.19
Stage 6	10.15	0	-0.16
Stage 6	9.95	-0.02	-0.12
Stage 6	9.75	-0.04	-0.1
Stage 6	9.55	-0.06	-0.07
Stage 6	9.35	-0.07	-0.05
Stage 6	9.15	-0.07	-0.03
Stage 6	8.95	-0.08	-0.02
Stage 6	8.75	-0.08	0
Stage 6	8.55	-0.08	0.01
Stage 6	8.35	-0.07	0.02
Stage 6	8.15	-0.07	0.02
Stage 6	7.95	-0.06	0.03
Stage 6	7.75	-0.06	0.03
Stage 6	7.55	-0.05	0.03
Stage 6	7.35	-0.05	0.03
Stage 6	7.15	-0.04	0.03
Stage 6	6.95	-0.03	0.03
Stage 6	6.75	-0.03	0.03
Stage 6	6.55	-0.02	0.03
Stage 6	6.35	-0.02	0.03
Stage 6	6.15	-0.01	0.02
Stage 6	5.95	-0.01	0.02
Stage 6	5.75	0	0.02
Stage 6	5.55	0	0.01

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	5.35	0	0.01
Stage 6	5.15	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 7

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 7	31.35 -3.75
Stage 7	31.15 -3.52
Stage 7	30.95 -3.3
Stage 7	30.75 -3.07
Stage 7	30.55 -2.84
Stage 7	30.35 -2.62
Stage 7	30.15 -2.38
Stage 7	29.95 -2.14
Stage 7	29.75 -1.87
Stage 7	29.55 -1.55
Stage 7	29.35 -1.16
Stage 7	29.15 -0.68
Stage 7	28.95 -0.12
Stage 7	28.75 0.48
Stage 7	28.55 1.1
Stage 7	28.35 1.71
Stage 7	28.15 2.3
Stage 7	27.95 2.87
Stage 7	27.75 3.4
Stage 7	27.55 3.89
Stage 7	27.35 4.36
Stage 7	27.15 4.8
Stage 7	26.95 5.22
Stage 7	26.75 5.66
Stage 7	26.55 6.12
Stage 7	26.35 6.65
Stage 7	26.15 7.25
Stage 7	25.95 7.9
Stage 7	25.75 8.56
Stage 7	25.55 9.2
Stage 7	25.35 9.8
Stage 7	25.15 10.32
Stage 7	24.95 10.76
Stage 7	24.75 11.09
Stage 7	24.55 11.32
Stage 7	24.35 11.44
Stage 7	24.15 11.46
Stage 7	23.95 11.38
Stage 7	23.75 11.22
Stage 7	23.55 11.01
Stage 7	23.35 10.78
Stage 7	23.15 10.54
Stage 7	22.95 10.29
Stage 7	22.75 10
Stage 7	22.55 9.65
Stage 7	22.35 9.23
Stage 7	22.15 8.74
Stage 7	21.95 8.2
Stage 7	21.75 7.6
Stage 7	21.55 6.96
Stage 7	21.35 6.3
Stage 7	21.15 5.63
Stage 7	20.95 4.97
Stage 7	20.85 4.65
Stage 7	20.65 4.03
Stage 7	20.45 3.44
Stage 7	20.25 2.89
Stage 7	20.05 2.39
Stage 7	19.85 1.93
Stage 7	19.65 1.51
Stage 7	19.45 1.15
Stage 7	19.25 0.83
Stage 7	19.05 0.55
Stage 7	18.85 0.32
Stage 7	18.65 0.12

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 7	18.45	-0.04
Stage 7	18.35	-0.11
Stage 7	18.15	-0.23
Stage 7	17.95	-0.32
Stage 7	17.75	-0.39
Stage 7	17.55	-0.43
Stage 7	17.35	-0.46
Stage 7	17.15	-0.48
Stage 7	16.95	-0.48
Stage 7	16.75	-0.47
Stage 7	16.55	-0.45
Stage 7	16.35	-0.43
Stage 7	16.15	-0.41
Stage 7	15.95	-0.38
Stage 7	15.75	-0.34
Stage 7	15.55	-0.31
Stage 7	15.35	-0.28
Stage 7	15.15	-0.25
Stage 7	14.95	-0.22
Stage 7	14.75	-0.19
Stage 7	14.55	-0.16
Stage 7	14.35	-0.13
Stage 7	14.15	-0.11
Stage 7	13.95	-0.09
Stage 7	13.75	-0.07
Stage 7	13.55	-0.05
Stage 7	13.35	-0.04
Stage 7	13.15	-0.02
Stage 7	12.95	-0.01
Stage 7	12.75	-0.01
Stage 7	12.55	0
Stage 7	12.35	0.01
Stage 7	12.15	0.01
Stage 7	11.95	0.02
Stage 7	11.75	0.02
Stage 7	11.55	0.02
Stage 7	11.35	0.02
Stage 7	11.15	0.02
Stage 7	10.95	0.02
Stage 7	10.75	0.02
Stage 7	10.55	0.02
Stage 7	10.35	0.02
Stage 7	10.15	0.02
Stage 7	9.95	0.01
Stage 7	9.75	0.01
Stage 7	9.55	0.01
Stage 7	9.35	0.01
Stage 7	9.15	0.01
Stage 7	8.95	0.01
Stage 7	8.75	0.01
Stage 7	8.55	0.01
Stage 7	8.35	0
Stage 7	8.15	0
Stage 7	7.95	0
Stage 7	7.75	0
Stage 7	7.55	0
Stage 7	7.35	0
Stage 7	7.15	0
Stage 7	6.95	0
Stage 7	6.75	0
Stage 7	6.55	0
Stage 7	6.35	0
Stage 7	6.15	0
Stage 7	5.95	0
Stage 7	5.75	0
Stage 7	5.55	0
Stage 7	5.35	0
Stage 7	5.15	0



### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 7

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	31.35	0	0
Stage 7	31.15	0	0
Stage 7	31.15	0	0
Stage 7	30.95	0	0
Stage 7	30.95	0	0
Stage 7	30.75	0	0
Stage 7	30.75	0	0
Stage 7	30.55	-0.31	-1.53
Stage 7	30.35	-1.85	-7.7
Stage 7	30.15	-5.62	-18.85
Stage 7	29.95	-12.61	-34.98
Stage 7	29.75	-23.22	-53.04
Stage 7	29.55	-37.35	-70.65
Stage 7	29.35	-54.89	-87.7
Stage 7	29.15	-36.35	92.7
Stage 7	28.95	-20.85	77.52
Stage 7	28.75	-8.09	63.75
Stage 7	28.55	2.16	51.25
Stage 7	28.35	9.93	38.89
Stage 7	28.15	15.27	26.69
Stage 7	27.95	18.2	14.62
Stage 7	27.75	18.72	2.63
Stage 7	27.55	16.85	-9.35
Stage 7	27.35	12.57	-21.39
Stage 7	27.15	5.86	-33.56
Stage 7	26.95	-3.32	-45.88
Stage 7	26.75	-14.99	-58.38
Stage 7	26.55	-29.21	-71.08
Stage 7	26.35	-46	-83.95
Stage 7	26.15	-24.52	107.39
Stage 7	25.95	-5.6	94.58
Stage 7	25.75	10.79	81.95
Stage 7	25.55	24.68	69.47
Stage 7	25.35	36.11	57.12
Stage 7	25.15	45.06	44.8
Stage 7	24.95	51.53	32.32
Stage 7	24.75	55.32	18.95
Stage 7	24.55	56.26	4.71
Stage 7	24.35	54.19	-10.34
Stage 7	24.15	48.95	-26.23
Stage 7	23.95	40.36	-42.92
Stage 7	23.75	28.3	-60.32
Stage 7	23.55	12.64	-78.29
Stage 7	23.35	-6.69	-96.65
Stage 7	23.15	9.65	81.67
Stage 7	22.95	22.12	62.37
Stage 7	22.75	30.55	42.14
Stage 7	22.55	34.75	21.04
Stage 7	22.35	35	1.2
Stage 7	22.15	32.03	-14.82
Stage 7	21.95	26.64	-26.98
Stage 7	21.75	19.57	-35.35
Stage 7	21.55	11.57	-40
Stage 7	21.35	3.37	-40.99
Stage 7	21.15	-4.3	-38.36
Stage 7	20.95	-10.74	-32.16
Stage 7	20.85	-13.39	-26.56
Stage 7	20.65	-17.65	-21.31
Stage 7	20.45	-20.7	-15.21
Stage 7	20.25	-22.69	-9.98
Stage 7	20.05	-23.8	-5.55
Stage 7	19.85	-24.18	-1.88
Stage 7	19.65	-23.96	1.11
Stage 7	19.45	-23.26	3.49
Stage 7	19.25	-22.19	5.32

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	19.05	-20.86	6.65
Stage 7	18.85	-19.36	7.53
Stage 7	18.65	-17.75	8.04
Stage 7	18.45	-16.09	8.3
Stage 7	18.35	-15.26	8.35
Stage 7	18.15	-13.59	8.33
Stage 7	17.95	-11.97	8.13
Stage 7	17.75	-10.4	7.81
Stage 7	17.55	-8.92	7.39
Stage 7	17.35	-7.54	6.9
Stage 7	17.15	-6.27	6.37
Stage 7	16.95	-5.11	5.8
Stage 7	16.75	-4.06	5.23
Stage 7	16.55	-3.13	4.66
Stage 7	16.35	-2.31	4.1
Stage 7	16.15	-1.6	3.57
Stage 7	15.95	-0.99	3.06
Stage 7	15.75	-0.47	2.59
Stage 7	15.55	-0.04	2.15
Stage 7	15.35	0.31	1.75
Stage 7	15.15	0.59	1.39
Stage 7	14.95	0.8	1.07
Stage 7	14.75	0.96	0.79
Stage 7	14.55	1.07	0.54
Stage 7	14.35	1.14	0.33
Stage 7	14.15	1.17	0.15
Stage 7	13.95	1.17	0.01
Stage 7	13.75	1.15	-0.12
Stage 7	13.55	1.1	-0.21
Stage 7	13.35	1.05	-0.28
Stage 7	13.15	0.98	-0.33
Stage 7	12.95	0.91	-0.37
Stage 7	12.75	0.83	-0.39
Stage 7	12.55	0.74	-0.41
Stage 7	12.35	0.66	-0.41
Stage 7	12.15	0.58	-0.4
Stage 7	11.95	0.5	-0.39
Stage 7	11.75	0.43	-0.37
Stage 7	11.55	0.36	-0.34
Stage 7	11.35	0.3	-0.32
Stage 7	11.15	0.24	-0.29
Stage 7	10.95	0.19	-0.26
Stage 7	10.75	0.15	-0.23
Stage 7	10.55	0.11	-0.2
Stage 7	10.35	0.07	-0.17
Stage 7	10.15	0.04	-0.14
Stage 7	9.95	0.02	-0.12
Stage 7	9.75	0	-0.1
Stage 7	9.55	-0.02	-0.08
Stage 7	9.35	-0.03	-0.06
Stage 7	9.15	-0.04	-0.04
Stage 7	8.95	-0.04	-0.03
Stage 7	8.75	-0.05	-0.02
Stage 7	8.55	-0.05	-0.01
Stage 7	8.35	-0.05	0
Stage 7	8.15	-0.05	0.01
Stage 7	7.95	-0.05	0.01
Stage 7	7.75	-0.04	0.02
Stage 7	7.55	-0.04	0.02
Stage 7	7.35	-0.03	0.02
Stage 7	7.15	-0.03	0.02
Stage 7	6.95	-0.03	0.02
Stage 7	6.75	-0.02	0.02
Stage 7	6.55	-0.02	0.02
Stage 7	6.35	-0.01	0.02
Stage 7	6.15	-0.01	0.02
Stage 7	5.95	-0.01	0.02
Stage 7	5.75	0	0.01
Stage 7	5.55	0	0.01

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	5.35	0	0.01
Stage 7	5.15	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 8

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 8	31.35 -3.4
Stage 8	31.15 -3.25
Stage 8	30.95 -3.11
Stage 8	30.75 -2.96
Stage 8	30.55 -2.81
Stage 8	30.35 -2.67
Stage 8	30.15 -2.52
Stage 8	29.95 -2.35
Stage 8	29.75 -2.16
Stage 8	29.55 -1.93
Stage 8	29.35 -1.62
Stage 8	29.15 -1.21
Stage 8	28.95 -0.73
Stage 8	28.75 -0.21
Stage 8	28.55 0.33
Stage 8	28.35 0.88
Stage 8	28.15 1.41
Stage 8	27.95 1.92
Stage 8	27.75 2.41
Stage 8	27.55 2.88
Stage 8	27.35 3.33
Stage 8	27.15 3.77
Stage 8	26.95 4.23
Stage 8	26.75 4.73
Stage 8	26.55 5.28
Stage 8	26.35 5.93
Stage 8	26.15 6.7
Stage 8	25.95 7.57
Stage 8	25.75 8.49
Stage 8	25.55 9.46
Stage 8	25.35 10.45
Stage 8	25.15 11.44
Stage 8	24.95 12.41
Stage 8	24.75 13.37
Stage 8	24.55 14.31
Stage 8	24.35 15.23
Stage 8	24.15 16.14
Stage 8	23.95 17.04
Stage 8	23.75 17.97
Stage 8	23.55 18.94
Stage 8	23.35 19.97
Stage 8	23.15 21.08
Stage 8	22.95 22.24
Stage 8	22.75 23.4
Stage 8	22.55 24.52
Stage 8	22.35 25.56
Stage 8	22.15 26.5
Stage 8	21.95 27.29
Stage 8	21.75 27.92
Stage 8	21.55 28.36
Stage 8	21.35 28.61
Stage 8	21.15 28.64
Stage 8	20.95 28.46
Stage 8	20.85 28.28
Stage 8	20.65 27.77
Stage 8	20.45 27.05
Stage 8	20.25 26.12
Stage 8	20.05 25.01
Stage 8	19.85 23.74
Stage 8	19.65 22.32
Stage 8	19.45 20.8
Stage 8	19.25 19.19
Stage 8	19.05 17.54
Stage 8	18.85 15.86
Stage 8	18.65 14.19

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 8	18.45	12.56
Stage 8	18.35	11.77
Stage 8	18.15	10.24
Stage 8	17.95	8.79
Stage 8	17.75	7.44
Stage 8	17.55	6.2
Stage 8	17.35	5.07
Stage 8	17.15	4.05
Stage 8	16.95	3.14
Stage 8	16.75	2.34
Stage 8	16.55	1.64
Stage 8	16.35	1.04
Stage 8	16.15	0.54
Stage 8	15.95	0.11
Stage 8	15.75	-0.24
Stage 8	15.55	-0.51
Stage 8	15.35	-0.73
Stage 8	15.15	-0.9
Stage 8	14.95	-1.01
Stage 8	14.75	-1.09
Stage 8	14.55	-1.13
Stage 8	14.35	-1.15
Stage 8	14.15	-1.14
Stage 8	13.95	-1.11
Stage 8	13.75	-1.06
Stage 8	13.55	-1
Stage 8	13.35	-0.94
Stage 8	13.15	-0.87
Stage 8	12.95	-0.8
Stage 8	12.75	-0.72
Stage 8	12.55	-0.65
Stage 8	12.35	-0.57
Stage 8	12.15	-0.5
Stage 8	11.95	-0.44
Stage 8	11.75	-0.38
Stage 8	11.55	-0.32
Stage 8	11.35	-0.26
Stage 8	11.15	-0.22
Stage 8	10.95	-0.17
Stage 8	10.75	-0.13
Stage 8	10.55	-0.1
Stage 8	10.35	-0.07
Stage 8	10.15	-0.04
Stage 8	9.95	-0.02
Stage 8	9.75	-0.01
Stage 8	9.55	0.01
Stage 8	9.35	0.02
Stage 8	9.15	0.03
Stage 8	8.95	0.04
Stage 8	8.75	0.04
Stage 8	8.55	0.05
Stage 8	8.35	0.05
Stage 8	8.15	0.05
Stage 8	7.95	0.05
Stage 8	7.75	0.05
Stage 8	7.55	0.04
Stage 8	7.35	0.04
Stage 8	7.15	0.04
Stage 8	6.95	0.03
Stage 8	6.75	0.03
Stage 8	6.55	0.03
Stage 8	6.35	0.02
Stage 8	6.15	0.02
Stage 8	5.95	0.02
Stage 8	5.75	0.01
Stage 8	5.55	0.01
Stage 8	5.35	0
Stage 8	5.15	0

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 8

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	31.35	0	0
Stage 8	31.15	0	0
Stage 8	31.15	0	0
Stage 8	30.95	0	0
Stage 8	30.95	0	0
Stage 8	30.75	0	0
Stage 8	30.75	0	0
Stage 8	30.55	-0.29	-1.44
Stage 8	30.35	-1.8	-7.58
Stage 8	30.15	-5.56	-18.77
Stage 8	29.95	-12.56	-35.02
Stage 8	29.75	-23.21	-53.26
Stage 8	29.55	-37.44	-71.13
Stage 8	29.35	-55.14	-88.52
Stage 8	29.15	-37	90.69
Stage 8	28.95	-21.99	75.04
Stage 8	28.75	-9.85	60.73
Stage 8	28.55	-0.32	47.62
Stage 8	28.35	6.59	34.58
Stage 8	28.15	10.92	21.65
Stage 8	27.95	12.68	8.78
Stage 8	27.75	11.87	-4.04
Stage 8	27.55	8.49	-16.89
Stage 8	27.35	2.53	-29.83
Stage 8	27.15	-6.06	-42.91
Stage 8	26.95	-17.28	-56.13
Stage 8	26.75	-31.19	-69.51
Stage 8	26.55	-47.79	-83.04
Stage 8	26.35	-67.12	-96.65
Stage 8	26.15	-48.57	92.75
Stage 8	25.95	-32.68	79.46
Stage 8	25.75	-19.38	66.53
Stage 8	25.55	-8.58	54
Stage 8	25.35	-0.2	41.87
Stage 8	25.15	5.82	30.13
Stage 8	24.95	9.55	18.64
Stage 8	24.75	10.9	6.73
Stage 8	24.55	9.8	-5.49
Stage 8	24.35	6.22	-17.9
Stage 8	24.15	0.13	-30.45
Stage 8	23.95	-8.48	-43.01
Stage 8	23.75	-19.56	-55.4
Stage 8	23.55	-33.04	-67.4
Stage 8	23.35	-48.79	-78.75
Stage 8	23.15	-23.59	125.97
Stage 8	22.95	-0.4	115.99
Stage 8	22.75	20.78	105.88
Stage 8	22.55	39.89	95.53
Stage 8	22.35	56.88	84.98
Stage 8	22.15	71.71	74.16
Stage 8	21.95	84.33	63.07
Stage 8	21.75	94.67	51.73
Stage 8	21.55	102.7	40.14
Stage 8	21.35	108.37	28.36
Stage 8	21.15	111.64	16.31
Stage 8	20.95	112.44	4
Stage 8	20.85	111.89	-5.43
Stage 8	20.65	108.9	-14.95
Stage 8	20.45	103.33	-27.84
Stage 8	20.25	95.01	-41.65
Stage 8	20.05	84.08	-54.64
Stage 8	19.85	71.14	-64.7
Stage 8	19.65	56.75	-71.96
Stage 8	19.45	41.44	-76.52
Stage 8	19.25	25.74	-78.48

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	19.05	10.17	-77.87
Stage 8	18.85	-4.77	-74.73
Stage 8	18.65	-18.59	-69.06
Stage 8	18.45	-30.74	-60.77
Stage 8	18.35	-35.99	-52.54
Stage 8	18.15	-44.65	-43.3
Stage 8	17.95	-50.81	-30.76
Stage 8	17.75	-54.8	-19.98
Stage 8	17.55	-56.97	-10.82
Stage 8	17.35	-57.6	-3.18
Stage 8	17.15	-56.98	3.1
Stage 8	16.95	-55.36	8.14
Stage 8	16.75	-52.94	12.07
Stage 8	16.55	-49.94	15.02
Stage 8	16.35	-46.51	17.13
Stage 8	16.15	-42.81	18.5
Stage 8	15.95	-38.96	19.24
Stage 8	15.75	-35.07	19.45
Stage 8	15.55	-31.24	19.17
Stage 8	15.35	-27.53	18.54
Stage 8	15.15	-23.99	17.68
Stage 8	14.95	-20.67	16.64
Stage 8	14.75	-17.57	15.48
Stage 8	14.55	-14.72	14.25
Stage 8	14.35	-12.12	12.98
Stage 8	14.15	-9.78	11.71
Stage 8	13.95	-7.69	10.46
Stage 8	13.75	-5.84	9.24
Stage 8	13.55	-4.22	8.08
Stage 8	13.35	-2.83	6.98
Stage 8	13.15	-1.64	5.96
Stage 8	12.95	-0.63	5.02
Stage 8	12.75	0.2	4.15
Stage 8	12.55	0.87	3.37
Stage 8	12.35	1.41	2.67
Stage 8	12.15	1.82	2.05
Stage 8	11.95	2.12	1.5
Stage 8	11.75	2.32	1.03
Stage 8	11.55	2.45	0.63
Stage 8	11.35	2.51	0.28
Stage 8	11.15	2.51	0
Stage 8	10.95	2.46	-0.23
Stage 8	10.75	2.38	-0.42
Stage 8	10.55	2.26	-0.56
Stage 8	10.35	2.13	-0.67
Stage 8	10.15	1.98	-0.75
Stage 8	9.95	1.82	-0.79
Stage 8	9.75	1.66	-0.82
Stage 8	9.55	1.49	-0.83
Stage 8	9.35	1.33	-0.81
Stage 8	9.15	1.17	-0.79
Stage 8	8.95	1.02	-0.75
Stage 8	8.75	0.88	-0.7
Stage 8	8.55	0.75	-0.65
Stage 8	8.35	0.63	-0.6
Stage 8	8.15	0.52	-0.54
Stage 8	7.95	0.43	-0.48
Stage 8	7.75	0.34	-0.42
Stage 8	7.55	0.27	-0.36
Stage 8	7.35	0.21	-0.31
Stage 8	7.15	0.16	-0.26
Stage 8	6.95	0.12	-0.21
Stage 8	6.75	0.08	-0.17
Stage 8	6.55	0.05	-0.13
Stage 8	6.35	0.03	-0.1
Stage 8	6.15	0.02	-0.07
Stage 8	5.95	0.01	-0.05
Stage 8	5.75	0	-0.03
Stage 8	5.55	0	-0.01

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	5.35	0	-0.01
Stage 8	5.15	0	0



### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 9

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 9	31.35 -3.55
Stage 9	31.15 -3.37
Stage 9	30.95 -3.19
Stage 9	30.75 -3.02
Stage 9	30.55 -2.84
Stage 9	30.35 -2.66
Stage 9	30.15 -2.47
Stage 9	29.95 -2.28
Stage 9	29.75 -2.05
Stage 9	29.55 -1.78
Stage 9	29.35 -1.44
Stage 9	29.15 -1
Stage 9	28.95 -0.49
Stage 9	28.75 0.07
Stage 9	28.55 0.64
Stage 9	28.35 1.21
Stage 9	28.15 1.77
Stage 9	27.95 2.31
Stage 9	27.75 2.82
Stage 9	27.55 3.3
Stage 9	27.35 3.76
Stage 9	27.15 4.2
Stage 9	26.95 4.66
Stage 9	26.75 5.13
Stage 9	26.55 5.65
Stage 9	26.35 6.26
Stage 9	26.15 6.97
Stage 9	25.95 7.75
Stage 9	25.75 8.58
Stage 9	25.55 9.42
Stage 9	25.35 10.26
Stage 9	25.15 11.06
Stage 9	24.95 11.83
Stage 9	24.75 12.54
Stage 9	24.55 13.2
Stage 9	24.35 13.8
Stage 9	24.15 14.36
Stage 9	23.95 14.87
Stage 9	23.75 15.36
Stage 9	23.55 15.85
Stage 9	23.35 16.36
Stage 9	23.15 16.93
Stage 9	22.95 17.51
Stage 9	22.75 18.07
Stage 9	22.55 18.57
Stage 9	22.35 19
Stage 9	22.15 19.33
Stage 9	21.95 19.55
Stage 9	21.75 19.66
Stage 9	21.55 19.64
Stage 9	21.35 19.52
Stage 9	21.15 19.3
Stage 9	20.95 19.01
Stage 9	20.85 18.85
Stage 9	20.65 18.51
Stage 9	20.45 18.11
Stage 9	20.25 17.63
Stage 9	20.05 17.07
Stage 9	19.85 16.39
Stage 9	19.65 15.62
Stage 9	19.45 14.75
Stage 9	19.25 13.8
Stage 9	19.05 12.79
Stage 9	18.85 11.73
Stage 9	18.65 10.65

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 9	18.45	9.56
Stage 9	18.35	9.03
Stage 9	18.15	7.97
Stage 9	17.95	6.96
Stage 9	17.75	6
Stage 9	17.55	5.1
Stage 9	17.35	4.27
Stage 9	17.15	3.51
Stage 9	16.95	2.82
Stage 9	16.75	2.2
Stage 9	16.55	1.66
Stage 9	16.35	1.18
Stage 9	16.15	0.76
Stage 9	15.95	0.41
Stage 9	15.75	0.12
Stage 9	15.55	-0.13
Stage 9	15.35	-0.33
Stage 9	15.15	-0.49
Stage 9	14.95	-0.61
Stage 9	14.75	-0.69
Stage 9	14.55	-0.75
Stage 9	14.35	-0.79
Stage 9	14.15	-0.8
Stage 9	13.95	-0.8
Stage 9	13.75	-0.78
Stage 9	13.55	-0.76
Stage 9	13.35	-0.72
Stage 9	13.15	-0.68
Stage 9	12.95	-0.63
Stage 9	12.75	-0.58
Stage 9	12.55	-0.53
Stage 9	12.35	-0.48
Stage 9	12.15	-0.43
Stage 9	11.95	-0.38
Stage 9	11.75	-0.33
Stage 9	11.55	-0.28
Stage 9	11.35	-0.24
Stage 9	11.15	-0.2
Stage 9	10.95	-0.17
Stage 9	10.75	-0.14
Stage 9	10.55	-0.11
Stage 9	10.35	-0.08
Stage 9	10.15	-0.06
Stage 9	9.95	-0.04
Stage 9	9.75	-0.02
Stage 9	9.55	-0.01
Stage 9	9.35	0
Stage 9	9.15	0.01
Stage 9	8.95	0.02
Stage 9	8.75	0.02
Stage 9	8.55	0.03
Stage 9	8.35	0.03
Stage 9	8.15	0.03
Stage 9	7.95	0.03
Stage 9	7.75	0.03
Stage 9	7.55	0.03
Stage 9	7.35	0.03
Stage 9	7.15	0.03
Stage 9	6.95	0.03
Stage 9	6.75	0.03
Stage 9	6.55	0.02
Stage 9	6.35	0.02
Stage 9	6.15	0.02
Stage 9	5.95	0.02
Stage 9	5.75	0.01
Stage 9	5.55	0.01
Stage 9	5.35	0.01
Stage 9	5.15	0

**Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 9**

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	31.35	0	0
Stage 9	31.15	0	0
Stage 9	31.15	0	0
Stage 9	30.95	0	0
Stage 9	30.95	0	0
Stage 9	30.75	0	0
Stage 9	30.75	0	0
Stage 9	30.55	-0.3	-1.49
Stage 9	30.35	-1.83	-7.65
Stage 9	30.15	-5.59	-18.83
Stage 9	29.95	-12.6	-35.04
Stage 9	29.75	-23.25	-53.22
Stage 9	29.55	-37.44	-70.99
Stage 9	29.35	-55.09	-88.25
Stage 9	29.15	-36.81	91.43
Stage 9	28.95	-21.61	75.96
Stage 9	28.75	-9.24	61.87
Stage 9	28.55	0.56	49
Stage 9	28.35	7.81	36.24
Stage 9	28.15	12.53	23.59
Stage 9	27.95	14.74	11.05
Stage 9	27.75	14.45	-1.43
Stage 9	27.55	11.67	-13.92
Stage 9	27.35	6.37	-26.49
Stage 9	27.15	-1.47	-39.19
Stage 9	26.95	-11.88	-52.03
Stage 9	26.75	-24.88	-65.04
Stage 9	26.55	-40.52	-78.2
Stage 9	26.35	-58.82	-91.49
Stage 9	26.15	-39.06	98.8
Stage 9	25.95	-21.91	85.74
Stage 9	25.75	-7.32	72.97
Stage 9	25.55	4.78	60.52
Stage 9	25.35	14.46	48.36
Stage 9	25.15	21.74	36.44
Stage 9	24.95	26.67	24.62
Stage 9	24.75	29.11	12.2
Stage 9	24.55	28.96	-0.76
Stage 9	24.35	26.13	-14.14
Stage 9	24.15	20.54	-27.95
Stage 9	23.95	12.12	-42.08
Stage 9	23.75	0.84	-56.4
Stage 9	23.55	-13.3	-70.71
Stage 9	23.35	-30.26	-84.79
Stage 9	23.15	-8.34	109.58
Stage 9	22.95	10.84	95.92
Stage 9	22.75	27.17	81.63
Stage 9	22.55	40.48	66.57
Stage 9	22.35	50.63	50.76
Stage 9	22.15	57.46	34.14
Stage 9	21.95	60.8	16.72
Stage 9	21.75	60.51	-1.47
Stage 9	21.55	56.44	-20.36
Stage 9	21.35	48.47	-39.85
Stage 9	21.15	36.48	-59.94
Stage 9	20.95	20.38	-80.51
Stage 9	20.85	10.76	-96.2
Stage 9	20.65	27.76	84.99
Stage 9	20.45	40.54	63.9
Stage 9	20.25	48.98	42.2
Stage 9	20.05	52.88	19.54
Stage 9	19.85	52.55	-1.69
Stage 9	19.65	48.69	-19.26
Stage 9	19.45	42.05	-33.24
Stage 9	19.25	33.31	-43.69

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	19.05	23.18	-50.65
Stage 9	18.85	12.34	-54.18
Stage 9	18.65	1.48	-54.32
Stage 9	18.45	-8.72	-51.01
Stage 9	18.35	-13.32	-45.94
Stage 9	18.15	-21.24	-39.59
Stage 9	17.95	-27.28	-30.24
Stage 9	17.75	-31.69	-22.02
Stage 9	17.55	-34.67	-14.9
Stage 9	17.35	-36.43	-8.8
Stage 9	17.15	-37.16	-3.65
Stage 9	16.95	-37.03	0.63
Stage 9	16.75	-36.21	4.11
Stage 9	16.55	-34.83	6.87
Stage 9	16.35	-33.03	8.99
Stage 9	16.15	-30.93	10.52
Stage 9	15.95	-28.62	11.54
Stage 9	15.75	-26.2	12.12
Stage 9	15.55	-23.73	12.33
Stage 9	15.35	-21.28	12.25
Stage 9	15.15	-18.89	11.95
Stage 9	14.95	-16.59	11.5
Stage 9	14.75	-14.41	10.91
Stage 9	14.55	-12.36	10.24
Stage 9	14.35	-10.46	9.5
Stage 9	14.15	-8.71	8.73
Stage 9	13.95	-7.13	7.95
Stage 9	13.75	-5.69	7.16
Stage 9	13.55	-4.42	6.39
Stage 9	13.35	-3.29	5.64
Stage 9	13.15	-2.3	4.93
Stage 9	12.95	-1.45	4.26
Stage 9	12.75	-0.72	3.63
Stage 9	12.55	-0.11	3.05
Stage 9	12.35	0.39	2.51
Stage 9	12.15	0.79	2.03
Stage 9	11.95	1.11	1.59
Stage 9	11.75	1.35	1.21
Stage 9	11.55	1.53	0.87
Stage 9	11.35	1.64	0.58
Stage 9	11.15	1.71	0.32
Stage 9	10.95	1.73	0.11
Stage 9	10.75	1.72	-0.07
Stage 9	10.55	1.67	-0.22
Stage 9	10.35	1.61	-0.33
Stage 9	10.15	1.52	-0.42
Stage 9	9.95	1.43	-0.48
Stage 9	9.75	1.32	-0.52
Stage 9	9.55	1.21	-0.55
Stage 9	9.35	1.1	-0.56
Stage 9	9.15	0.99	-0.56
Stage 9	8.95	0.88	-0.55
Stage 9	8.75	0.77	-0.53
Stage 9	8.55	0.67	-0.5
Stage 9	8.35	0.58	-0.47
Stage 9	8.15	0.49	-0.44
Stage 9	7.95	0.41	-0.4
Stage 9	7.75	0.34	-0.36
Stage 9	7.55	0.27	-0.32
Stage 9	7.35	0.22	-0.28
Stage 9	7.15	0.17	-0.24
Stage 9	6.95	0.13	-0.2
Stage 9	6.75	0.1	-0.17
Stage 9	6.55	0.07	-0.14
Stage 9	6.35	0.05	-0.11
Stage 9	6.15	0.03	-0.08
Stage 9	5.95	0.02	-0.06
Stage 9	5.75	0.01	-0.04
Stage 9	5.55	0	-0.03

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	5.35	0	-0.01
Stage 9	5.15	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 10

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 10	31.35 -3.06
Stage 10	31.15 -2.93
Stage 10	30.95 -2.8
Stage 10	30.75 -2.67
Stage 10	30.55 -2.54
Stage 10	30.35 -2.41
Stage 10	30.15 -2.28
Stage 10	29.95 -2.13
Stage 10	29.75 -1.96
Stage 10	29.55 -1.75
Stage 10	29.35 -1.46
Stage 10	29.15 -1.08
Stage 10	28.95 -0.63
Stage 10	28.75 -0.13
Stage 10	28.55 0.38
Stage 10	28.35 0.88
Stage 10	28.15 1.37
Stage 10	27.95 1.83
Stage 10	27.75 2.27
Stage 10	27.55 2.66
Stage 10	27.35 3.04
Stage 10	27.15 3.4
Stage 10	26.95 3.76
Stage 10	26.75 4.15
Stage 10	26.55 4.59
Stage 10	26.35 5.11
Stage 10	26.15 5.73
Stage 10	25.95 6.44
Stage 10	25.75 7.2
Stage 10	25.55 7.99
Stage 10	25.35 8.79
Stage 10	25.15 9.59
Stage 10	24.95 10.37
Stage 10	24.75 11.13
Stage 10	24.55 11.87
Stage 10	24.35 12.6
Stage 10	24.15 13.32
Stage 10	23.95 14.07
Stage 10	23.75 14.86
Stage 10	23.55 15.71
Stage 10	23.35 16.67
Stage 10	23.15 17.77
Stage 10	22.95 18.97
Stage 10	22.75 20.25
Stage 10	22.55 21.59
Stage 10	22.35 22.96
Stage 10	22.15 24.35
Stage 10	21.95 25.74
Stage 10	21.75 27.15
Stage 10	21.55 28.56
Stage 10	21.35 29.98
Stage 10	21.15 31.42
Stage 10	20.95 32.91
Stage 10	20.85 33.68
Stage 10	20.65 35.26
Stage 10	20.45 36.85
Stage 10	20.25 38.4
Stage 10	20.05 39.86
Stage 10	19.85 41.19
Stage 10	19.65 42.34
Stage 10	19.45 43.29
Stage 10	19.25 44
Stage 10	19.05 44.45
Stage 10	18.85 44.62
Stage 10	18.65 44.51

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 10	18.45	44.1
Stage 10	18.35	43.78
Stage 10	18.15	42.94
Stage 10	17.95	41.81
Stage 10	17.75	40.42
Stage 10	17.55	38.78
Stage 10	17.35	36.93
Stage 10	17.15	34.9
Stage 10	16.95	32.71
Stage 10	16.75	30.42
Stage 10	16.55	28.04
Stage 10	16.35	25.63
Stage 10	16.15	23.21
Stage 10	15.95	20.82
Stage 10	15.75	18.49
Stage 10	15.55	16.26
Stage 10	15.35	14.13
Stage 10	15.15	12.13
Stage 10	14.95	10.27
Stage 10	14.75	8.57
Stage 10	14.55	7.01
Stage 10	14.35	5.61
Stage 10	14.15	4.36
Stage 10	13.95	3.25
Stage 10	13.75	2.28
Stage 10	13.55	1.45
Stage 10	13.35	0.73
Stage 10	13.15	0.13
Stage 10	12.95	-0.36
Stage 10	12.75	-0.77
Stage 10	12.55	-1.09
Stage 10	12.35	-1.33
Stage 10	12.15	-1.51
Stage 10	11.95	-1.64
Stage 10	11.75	-1.71
Stage 10	11.55	-1.75
Stage 10	11.35	-1.74
Stage 10	11.15	-1.71
Stage 10	10.95	-1.66
Stage 10	10.75	-1.59
Stage 10	10.55	-1.51
Stage 10	10.35	-1.41
Stage 10	10.15	-1.31
Stage 10	9.95	-1.2
Stage 10	9.75	-1.1
Stage 10	9.55	-0.99
Stage 10	9.35	-0.89
Stage 10	9.15	-0.79
Stage 10	8.95	-0.69
Stage 10	8.75	-0.6
Stage 10	8.55	-0.51
Stage 10	8.35	-0.43
Stage 10	8.15	-0.36
Stage 10	7.95	-0.29
Stage 10	7.75	-0.23
Stage 10	7.55	-0.17
Stage 10	7.35	-0.12
Stage 10	7.15	-0.07
Stage 10	6.95	-0.02
Stage 10	6.75	0.02
Stage 10	6.55	0.06
Stage 10	6.35	0.1
Stage 10	6.15	0.14
Stage 10	5.95	0.17
Stage 10	5.75	0.2
Stage 10	5.55	0.24
Stage 10	5.35	0.27
Stage 10	5.15	0.3

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 10

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	31.35	0	0
Stage 10	31.15	0	0
Stage 10	31.15	0	0
Stage 10	30.95	0	0
Stage 10	30.95	0	0
Stage 10	30.75	0	0
Stage 10	30.75	0	0
Stage 10	30.55	-0.25	-1.24
Stage 10	30.35	-1.69	-7.19
Stage 10	30.15	-5.33	-18.2
Stage 10	29.95	-12.18	-34.28
Stage 10	29.75	-22.65	-52.35
Stage 10	29.55	-36.66	-70.06
Stage 10	29.35	-54.12	-87.29
Stage 10	29.15	-35.65	92.34
Stage 10	28.95	-20.29	76.82
Stage 10	28.75	-7.76	62.63
Stage 10	28.55	2.16	49.62
Stage 10	28.35	9.49	36.67
Stage 10	28.15	14.25	23.79
Stage 10	27.95	16.44	10.96
Stage 10	27.75	16.07	-1.86
Stage 10	27.55	13.12	-14.75
Stage 10	27.35	7.57	-27.77
Stage 10	27.15	-0.63	-40.98
Stage 10	26.95	-11.51	-54.4
Stage 10	26.75	-25.11	-68.04
Stage 10	26.55	-41.5	-81.91
Stage 10	26.35	-60.69	-95.95
Stage 10	26.15	-42.4	91.4
Stage 10	25.95	-26.91	77.47
Stage 10	25.75	-14.16	63.76
Stage 10	25.55	-4.09	50.32
Stage 10	25.35	3.33	37.14
Stage 10	25.15	8.17	24.18
Stage 10	24.95	10.43	11.31
Stage 10	24.75	10	-2.16
Stage 10	24.55	6.77	-16.13
Stage 10	24.35	0.68	-30.47
Stage 10	24.15	-8.35	-45.14
Stage 10	23.95	-20.35	-60.01
Stage 10	23.75	-35.33	-74.9
Stage 10	23.55	-53.24	-89.56
Stage 10	23.35	-73.99	-103.74
Stage 10	23.15	-55.7	91.47
Stage 10	22.95	-40.02	78.41
Stage 10	22.75	-26.98	65.16
Stage 10	22.55	-16.65	51.66
Stage 10	22.35	-9.05	38.01
Stage 10	22.15	-4.21	24.21
Stage 10	21.95	-2.13	10.37
Stage 10	21.75	-2.81	-3.39
Stage 10	21.55	-6.2	-16.93
Stage 10	21.35	-12.21	-30.07
Stage 10	21.15	-20.75	-42.68
Stage 10	20.95	-31.74	-54.99
Stage 10	20.85	-38.19	-64.42
Stage 10	20.65	-7.4	153.91
Stage 10	20.45	20.8	141.01
Stage 10	20.25	46.38	127.89
Stage 10	20.05	69.28	114.51
Stage 10	19.85	89.45	100.86
Stage 10	19.65	106.84	86.96
Stage 10	19.45	121.42	72.87
Stage 10	19.25	133.12	58.54



Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	19.05	141.91	43.95
Stage 10	18.85	147.74	29.1
Stage 10	18.65	150.54	14
Stage 10	18.45	150.27	-1.3
Stage 10	18.35	148.98	-12.95
Stage 10	18.15	144.04	-24.69
Stage 10	17.95	135.92	-40.61
Stage 10	17.75	124.56	-56.79
Stage 10	17.55	110.38	-70.92
Stage 10	17.35	94.24	-80.69
Stage 10	17.15	76.68	-87.81
Stage 10	16.95	58.19	-92.43
Stage 10	16.75	39.26	-94.63
Stage 10	16.55	20.37	-94.48
Stage 10	16.35	1.96	-92.03
Stage 10	16.15	-15.49	-87.29
Stage 10	15.95	-31.55	-80.25
Stage 10	15.75	-45.72	-70.89
Stage 10	15.55	-57.55	-59.14
Stage 10	15.35	-66.53	-44.88
Stage 10	15.15	-72.72	-30.96
Stage 10	14.95	-76.51	-18.98
Stage 10	14.75	-78.27	-8.8
Stage 10	14.55	-78.33	-0.27
Stage 10	14.35	-76.98	6.74
Stage 10	14.15	-74.5	12.39
Stage 10	13.95	-71.14	16.81
Stage 10	13.75	-67.11	20.15
Stage 10	13.55	-62.6	22.53
Stage 10	13.35	-57.78	24.1
Stage 10	13.15	-52.79	24.95
Stage 10	12.95	-47.75	25.2
Stage 10	12.75	-42.78	24.87
Stage 10	12.55	-37.96	24.08
Stage 10	12.35	-33.36	23.02
Stage 10	12.15	-29.01	21.76
Stage 10	11.95	-24.93	20.36
Stage 10	11.75	-21.16	18.86
Stage 10	11.55	-17.7	17.3
Stage 10	11.35	-14.56	15.73
Stage 10	11.15	-11.72	14.17
Stage 10	10.95	-9.2	12.64
Stage 10	10.75	-6.96	11.16
Stage 10	10.55	-5.01	9.75
Stage 10	10.35	-3.33	8.42
Stage 10	10.15	-1.89	7.18
Stage 10	9.95	-0.68	6.04
Stage 10	9.75	0.31	4.98
Stage 10	9.55	1.12	4.03
Stage 10	9.35	1.75	3.16
Stage 10	9.15	2.23	2.39
Stage 10	8.95	2.57	1.7
Stage 10	8.75	2.79	1.1
Stage 10	8.55	2.9	0.57
Stage 10	8.35	2.93	0.12
Stage 10	8.15	2.88	-0.25
Stage 10	7.95	2.76	-0.57
Stage 10	7.75	2.6	-0.82
Stage 10	7.55	2.39	-1.02
Stage 10	7.35	2.16	-1.17
Stage 10	7.15	1.9	-1.27
Stage 10	6.95	1.64	-1.33
Stage 10	6.75	1.37	-1.35
Stage 10	6.55	1.1	-1.33
Stage 10	6.35	0.85	-1.26
Stage 10	6.15	0.62	-1.16
Stage 10	5.95	0.41	-1.02
Stage 10	5.75	0.24	-0.85
Stage 10	5.55	0.11	-0.65

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	5.35	0.03	-0.42
Stage 10	5.15	0	-0.15

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 11

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 11	31.35 -3.25
Stage 11	31.15 -3.1
Stage 11	30.95 -2.95
Stage 11	30.75 -2.81
Stage 11	30.55 -2.66
Stage 11	30.35 -2.51
Stage 11	30.15 -2.36
Stage 11	29.95 -2.2
Stage 11	29.75 -2.01
Stage 11	29.55 -1.77
Stage 11	29.35 -1.46
Stage 11	29.15 -1.06
Stage 11	28.95 -0.58
Stage 11	28.75 -0.07
Stage 11	28.55 0.47
Stage 11	28.35 1
Stage 11	28.15 1.51
Stage 11	27.95 2
Stage 11	27.75 2.46
Stage 11	27.55 2.89
Stage 11	27.35 3.3
Stage 11	27.15 3.7
Stage 11	26.95 4.09
Stage 11	26.75 4.52
Stage 11	26.55 4.99
Stage 11	26.35 5.54
Stage 11	26.15 6.2
Stage 11	25.95 6.95
Stage 11	25.75 7.74
Stage 11	25.55 8.56
Stage 11	25.35 9.38
Stage 11	25.15 10.19
Stage 11	24.95 10.97
Stage 11	24.75 11.72
Stage 11	24.55 12.44
Stage 11	24.35 13.14
Stage 11	24.15 13.81
Stage 11	23.95 14.48
Stage 11	23.75 15.17
Stage 11	23.55 15.9
Stage 11	23.35 16.71
Stage 11	23.15 17.62
Stage 11	22.95 18.61
Stage 11	22.75 19.63
Stage 11	22.55 20.67
Stage 11	22.35 21.7
Stage 11	22.15 22.7
Stage 11	21.95 23.66
Stage 11	21.75 24.57
Stage 11	21.55 25.44
Stage 11	21.35 26.28
Stage 11	21.15 27.09
Stage 11	20.95 27.88
Stage 11	20.85 28.29
Stage 11	20.65 29.11
Stage 11	20.45 29.91
Stage 11	20.25 30.65
Stage 11	20.05 31.29
Stage 11	19.85 31.79
Stage 11	19.65 32.15
Stage 11	19.45 32.34
Stage 11	19.25 32.36
Stage 11	19.05 32.2
Stage 11	18.85 31.9
Stage 11	18.65 31.46

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 11	18.45	30.91
Stage 11	18.35	30.61
Stage 11	18.15	29.98
Stage 11	17.95	29.26
Stage 11	17.75	28.44
Stage 11	17.55	27.5
Stage 11	17.35	26.44
Stage 11	17.15	25.24
Stage 11	16.95	23.92
Stage 11	16.75	22.49
Stage 11	16.55	20.98
Stage 11	16.35	19.4
Stage 11	16.15	17.78
Stage 11	15.95	16.14
Stage 11	15.75	14.52
Stage 11	15.55	12.93
Stage 11	15.35	11.39
Stage 11	15.15	9.93
Stage 11	14.95	8.55
Stage 11	14.75	7.26
Stage 11	14.55	6.08
Stage 11	14.35	4.99
Stage 11	14.15	4.01
Stage 11	13.95	3.13
Stage 11	13.75	2.35
Stage 11	13.55	1.67
Stage 11	13.35	1.07
Stage 11	13.15	0.56
Stage 11	12.95	0.13
Stage 11	12.75	-0.23
Stage 11	12.55	-0.52
Stage 11	12.35	-0.76
Stage 11	12.15	-0.94
Stage 11	11.95	-1.08
Stage 11	11.75	-1.17
Stage 11	11.55	-1.23
Stage 11	11.35	-1.27
Stage 11	11.15	-1.27
Stage 11	10.95	-1.25
Stage 11	10.75	-1.22
Stage 11	10.55	-1.17
Stage 11	10.35	-1.12
Stage 11	10.15	-1.05
Stage 11	9.95	-0.98
Stage 11	9.75	-0.9
Stage 11	9.55	-0.83
Stage 11	9.35	-0.75
Stage 11	9.15	-0.68
Stage 11	8.95	-0.6
Stage 11	8.75	-0.53
Stage 11	8.55	-0.46
Stage 11	8.35	-0.4
Stage 11	8.15	-0.34
Stage 11	7.95	-0.28
Stage 11	7.75	-0.23
Stage 11	7.55	-0.18
Stage 11	7.35	-0.13
Stage 11	7.15	-0.09
Stage 11	6.95	-0.05
Stage 11	6.75	-0.01
Stage 11	6.55	0.03
Stage 11	6.35	0.06
Stage 11	6.15	0.1
Stage 11	5.95	0.13
Stage 11	5.75	0.16
Stage 11	5.55	0.19
Stage 11	5.35	0.22
Stage 11	5.15	0.25

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 11

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11	31.35	0	0
Stage 11	31.15	0	0
Stage 11	31.15	0	0
Stage 11	30.95	0	0
Stage 11	30.95	0	0
Stage 11	30.75	0	0
Stage 11	30.75	0	0
Stage 11	30.55	-0.27	-1.34
Stage 11	30.35	-1.74	-7.37
Stage 11	30.15	-5.43	-18.45
Stage 11	29.95	-12.35	-34.58
Stage 11	29.75	-22.89	-52.7
Stage 11	29.55	-36.97	-70.44
Stage 11	29.35	-54.51	-87.69
Stage 11	29.15	-36.12	91.94
Stage 11	28.95	-20.84	76.43
Stage 11	28.75	-8.38	62.27
Stage 11	28.55	1.48	49.3
Stage 11	28.35	8.76	36.42
Stage 11	28.15	13.49	23.62
Stage 11	27.95	15.67	10.89
Stage 11	27.75	15.3	-1.81
Stage 11	27.55	12.39	-14.56
Stage 11	27.35	6.91	-27.41
Stage 11	27.15	-1.18	-40.44
Stage 11	26.95	-11.91	-53.64
Stage 11	26.75	-25.32	-67.05
Stage 11	26.55	-41.45	-80.65
Stage 11	26.35	-60.33	-94.41
Stage 11	26.15	-41.52	94.06
Stage 11	25.95	-25.42	80.46
Stage 11	25.75	-12	67.12
Stage 11	25.55	-1.19	54.07
Stage 11	25.35	7.07	41.29
Stage 11	25.15	12.82	28.74
Stage 11	24.95	16.08	16.3
Stage 11	24.75	16.73	3.26
Stage 11	24.55	14.68	-10.28
Stage 11	24.35	9.84	-24.21
Stage 11	24.15	2.14	-38.49
Stage 11	23.95	-8.46	-53.01
Stage 11	23.75	-21.99	-67.6
Stage 11	23.55	-38.39	-82.04
Stage 11	23.35	-57.61	-96.09
Stage 11	23.15	-37.76	99.23
Stage 11	22.95	-20.55	86.07
Stage 11	22.75	-6.04	72.57
Stage 11	22.55	5.69	58.62
Stage 11	22.35	14.55	44.31
Stage 11	22.15	20.47	29.61
Stage 11	21.95	23.39	14.6
Stage 11	21.75	23.26	-0.66
Stage 11	21.55	20.05	-16.04
Stage 11	21.35	13.77	-31.39
Stage 11	21.15	4.44	-46.65
Stage 11	20.95	-7.97	-62.06
Stage 11	20.85	-15.39	-74.18
Stage 11	20.65	10.62	130.04
Stage 11	20.45	33.17	112.75
Stage 11	20.25	52.11	94.68
Stage 11	20.05	67.26	75.76
Stage 11	19.85	78.46	55.99
Stage 11	19.65	85.53	35.39
Stage 11	19.45	88.34	14.01
Stage 11	19.25	86.71	-8.14

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11	19.05	80.5	-31.04
Stage 11	18.85	69.57	-54.63
Stage 11	18.65	53.81	-78.82
Stage 11	18.45	33.12	-103.44
Stage 11	18.35	20.91	-122.15
Stage 11	18.15	39.99	95.41
Stage 11	17.95	54.03	70.24
Stage 11	17.75	63.05	45.1
Stage 11	17.55	67.1	20.25
Stage 11	17.35	66.63	-2.35
Stage 11	17.15	62.35	-21.4
Stage 11	16.95	54.96	-36.98
Stage 11	16.75	45.12	-49.17
Stage 11	16.55	33.52	-58.01
Stage 11	16.35	20.81	-63.58
Stage 11	16.15	7.62	-65.91
Stage 11	15.95	-5.39	-65.04
Stage 11	15.75	-17.58	-60.99
Stage 11	15.55	-28.33	-53.75
Stage 11	15.35	-36.99	-43.26
Stage 11	15.15	-43.48	-32.45
Stage 11	14.95	-48.07	-22.96
Stage 11	14.75	-51.02	-14.74
Stage 11	14.55	-52.55	-7.69
Stage 11	14.35	-52.9	-1.74
Stage 11	14.15	-52.26	3.21
Stage 11	13.95	-50.81	7.23
Stage 11	13.75	-48.73	10.44
Stage 11	13.55	-46.15	12.89
Stage 11	13.35	-43.22	14.66
Stage 11	13.15	-40.05	15.85
Stage 11	12.95	-36.74	16.53
Stage 11	12.75	-33.39	16.76
Stage 11	12.55	-30.07	16.59
Stage 11	12.35	-26.84	16.17
Stage 11	12.15	-23.73	15.56
Stage 11	11.95	-20.77	14.81
Stage 11	11.75	-17.98	13.94
Stage 11	11.55	-15.38	13
Stage 11	11.35	-12.98	12
Stage 11	11.15	-10.78	10.98
Stage 11	10.95	-8.79	9.96
Stage 11	10.75	-7	8.94
Stage 11	10.55	-5.41	7.95
Stage 11	10.35	-4.01	7
Stage 11	10.15	-2.79	6.1
Stage 11	9.95	-1.74	5.24
Stage 11	9.75	-0.85	4.44
Stage 11	9.55	-0.11	3.71
Stage 11	9.35	0.49	3.03
Stage 11	9.15	0.98	2.41
Stage 11	8.95	1.34	1.85
Stage 11	8.75	1.61	1.34
Stage 11	8.55	1.79	0.9
Stage 11	8.35	1.89	0.51
Stage 11	8.15	1.93	0.17
Stage 11	7.95	1.9	-0.12
Stage 11	7.75	1.83	-0.36
Stage 11	7.55	1.72	-0.56
Stage 11	7.35	1.58	-0.72
Stage 11	7.15	1.41	-0.83
Stage 11	6.95	1.23	-0.91
Stage 11	6.75	1.04	-0.95
Stage 11	6.55	0.85	-0.96
Stage 11	6.35	0.66	-0.94
Stage 11	6.15	0.48	-0.88
Stage 11	5.95	0.33	-0.79
Stage 11	5.75	0.19	-0.67
Stage 11	5.55	0.09	-0.51

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11	5.35	0.02	-0.33
Stage 11	5.15	0	-0.12

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 12

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 12	31.35 -3.17
Stage 12	31.15 -3.03
Stage 12	30.95 -2.88
Stage 12	30.75 -2.73
Stage 12	30.55 -2.59
Stage 12	30.35 -2.44
Stage 12	30.15 -2.29
Stage 12	29.95 -2.13
Stage 12	29.75 -1.94
Stage 12	29.55 -1.7
Stage 12	29.35 -1.4
Stage 12	29.15 -0.99
Stage 12	28.95 -0.52
Stage 12	28.75 -0.01
Stage 12	28.55 0.52
Stage 12	28.35 1.05
Stage 12	28.15 1.55
Stage 12	27.95 2.03
Stage 12	27.75 2.48
Stage 12	27.55 2.9
Stage 12	27.35 3.29
Stage 12	27.15 3.66
Stage 12	26.95 4.04
Stage 12	26.75 4.43
Stage 12	26.55 4.87
Stage 12	26.35 5.39
Stage 12	26.15 6.01
Stage 12	25.95 6.7
Stage 12	25.75 7.45
Stage 12	25.55 8.21
Stage 12	25.35 8.97
Stage 12	25.15 9.71
Stage 12	24.95 10.43
Stage 12	24.75 11.11
Stage 12	24.55 11.76
Stage 12	24.35 12.38
Stage 12	24.15 12.97
Stage 12	23.95 13.57
Stage 12	23.75 14.18
Stage 12	23.55 14.85
Stage 12	23.35 15.59
Stage 12	23.15 16.44
Stage 12	22.95 17.38
Stage 12	22.75 18.37
Stage 12	22.55 19.4
Stage 12	22.35 20.43
Stage 12	22.15 21.47
Stage 12	21.95 22.51
Stage 12	21.75 23.53
Stage 12	21.55 24.56
Stage 12	21.35 25.6
Stage 12	21.15 26.67
Stage 12	20.95 27.8
Stage 12	20.85 28.39
Stage 12	20.65 29.65
Stage 12	20.45 30.97
Stage 12	20.25 32.31
Stage 12	20.05 33.64
Stage 12	19.85 34.94
Stage 12	19.65 36.2
Stage 12	19.45 37.39
Stage 12	19.25 38.52
Stage 12	19.05 39.6
Stage 12	18.85 40.63
Stage 12	18.65 41.64



Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 12	18.45	42.65
Stage 12	18.35	43.16
Stage 12	18.15	44.22
Stage 12	17.95	45.27
Stage 12	17.75	46.25
Stage 12	17.55	47.11
Stage 12	17.35	47.81
Stage 12	17.15	48.31
Stage 12	16.95	48.58
Stage 12	16.75	48.59
Stage 12	16.55	48.33
Stage 12	16.35	47.78
Stage 12	16.15	46.94
Stage 12	15.95	45.82
Stage 12	15.75	44.43
Stage 12	15.55	42.77
Stage 12	15.35	40.88
Stage 12	15.15	38.79
Stage 12	14.95	36.52
Stage 12	14.75	34.12
Stage 12	14.55	31.61
Stage 12	14.35	29.04
Stage 12	14.15	26.44
Stage 12	13.95	23.85
Stage 12	13.75	21.31
Stage 12	13.55	18.84
Stage 12	13.35	16.47
Stage 12	13.15	14.23
Stage 12	12.95	12.13
Stage 12	12.75	10.19
Stage 12	12.55	8.4
Stage 12	12.35	6.79
Stage 12	12.15	5.33
Stage 12	11.95	4.04
Stage 12	11.75	2.9
Stage 12	11.55	1.91
Stage 12	11.35	1.06
Stage 12	11.15	0.34
Stage 12	10.95	-0.26
Stage 12	10.75	-0.75
Stage 12	10.55	-1.14
Stage 12	10.35	-1.45
Stage 12	10.15	-1.68
Stage 12	9.95	-1.84
Stage 12	9.75	-1.94
Stage 12	9.55	-1.99
Stage 12	9.35	-2
Stage 12	9.15	-1.98
Stage 12	8.95	-1.92
Stage 12	8.75	-1.84
Stage 12	8.55	-1.75
Stage 12	8.35	-1.64
Stage 12	8.15	-1.52
Stage 12	7.95	-1.39
Stage 12	7.75	-1.25
Stage 12	7.55	-1.12
Stage 12	7.35	-0.98
Stage 12	7.15	-0.84
Stage 12	6.95	-0.71
Stage 12	6.75	-0.57
Stage 12	6.55	-0.44
Stage 12	6.35	-0.3
Stage 12	6.15	-0.17
Stage 12	5.95	-0.04
Stage 12	5.75	0.09
Stage 12	5.55	0.22
Stage 12	5.35	0.34
Stage 12	5.15	0.47

**Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 12**

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 12	31.35	0	0
Stage 12	31.15	0	0
Stage 12	31.15	0	0
Stage 12	30.95	0	0
Stage 12	30.95	0	0
Stage 12	30.75	0	0
Stage 12	30.75	0	0
Stage 12	30.55	-0.26	-1.29
Stage 12	30.35	-1.71	-7.27
Stage 12	30.15	-5.37	-18.3
Stage 12	29.95	-12.25	-34.38
Stage 12	29.75	-22.74	-52.45
Stage 12	29.55	-36.76	-70.14
Stage 12	29.35	-54.23	-87.34
Stage 12	29.15	-35.74	92.45
Stage 12	28.95	-20.34	76.99
Stage 12	28.75	-7.77	62.87
Stage 12	28.55	2.22	49.95
Stage 12	28.35	9.65	37.1
Stage 12	28.15	14.51	24.34
Stage 12	27.95	16.84	11.64
Stage 12	27.75	16.63	-1.04
Stage 12	27.55	13.88	-13.77
Stage 12	27.35	8.55	-26.62
Stage 12	27.15	0.62	-39.66
Stage 12	26.95	-9.96	-52.89
Stage 12	26.75	-23.22	-66.34
Stage 12	26.55	-39.22	-80.01
Stage 12	26.35	-57.99	-93.85
Stage 12	26.15	-39.15	94.22
Stage 12	25.95	-23.05	80.48
Stage 12	25.75	-9.66	66.97
Stage 12	25.55	1.08	53.71
Stage 12	25.35	9.22	40.68
Stage 12	25.15	14.79	27.85
Stage 12	24.95	17.8	15.07
Stage 12	24.75	18.13	1.64
Stage 12	24.55	15.66	-12.33
Stage 12	24.35	10.32	-26.74
Stage 12	24.15	2	-41.57
Stage 12	23.95	-9.33	-56.68
Stage 12	23.75	-23.72	-71.92
Stage 12	23.55	-41.13	-87.06
Stage 12	23.35	-61.5	-101.85
Stage 12	23.15	-43.41	90.43
Stage 12	22.95	-28.13	76.44
Stage 12	22.75	-15.72	62.06
Stage 12	22.55	-6.27	47.22
Stage 12	22.35	0.13	32
Stage 12	22.15	3.41	16.41
Stage 12	21.95	3.52	0.53
Stage 12	21.75	0.41	-15.54
Stage 12	21.55	-5.92	-31.66
Stage 12	21.35	-15.45	-47.64
Stage 12	21.15	-28.13	-63.38
Stage 12	20.95	-43.94	-79.08
Stage 12	20.85	-53.06	-91.24
Stage 12	20.65	-30.41	113.25
Stage 12	20.45	-11.14	96.35
Stage 12	20.25	4.66	79.02
Stage 12	20.05	16.92	61.28
Stage 12	19.85	25.56	43.19
Stage 12	19.65	30.52	24.81
Stage 12	19.45	31.78	6.3
Stage 12	19.25	29.32	-12.27

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 12	19.05	23.16	-30.8
Stage 12	18.85	13.34	-49.15
Stage 12	18.65	-0.09	-67.15
Stage 12	18.45	-17	-84.55
Stage 12	18.35	-26.71	-97.02
Stage 12	18.15	5.67	161.9
Stage 12	17.95	34.87	145.98
Stage 12	17.75	60.83	129.81
Stage 12	17.55	83.51	113.4
Stage 12	17.35	102.87	96.8
Stage 12	17.15	118.86	79.95
Stage 12	16.95	131.43	62.84
Stage 12	16.75	140.53	45.48
Stage 12	16.55	146.1	27.89
Stage 12	16.35	148.13	10.1
Stage 12	16.15	146.54	-7.93
Stage 12	15.95	141.29	-26.22
Stage 12	15.75	132.34	-44.76
Stage 12	15.55	120.09	-61.26
Stage 12	15.35	105.38	-73.54
Stage 12	15.15	88.78	-83.02
Stage 12	14.95	70.81	-89.85
Stage 12	14.75	51.98	-94.16
Stage 12	14.55	32.77	-96.06
Stage 12	14.35	13.65	-95.6
Stage 12	14.15	-4.93	-92.86
Stage 12	13.95	-22.5	-87.84
Stage 12	13.75	-38.61	-80.55
Stage 12	13.55	-52.8	-70.95
Stage 12	13.35	-64.6	-59
Stage 12	13.15	-73.52	-44.61
Stage 12	12.95	-79.53	-30.08
Stage 12	12.75	-83.07	-17.67
Stage 12	12.55	-84.51	-7.22
Stage 12	12.35	-84.21	1.53
Stage 12	12.15	-82.46	8.72
Stage 12	11.95	-79.56	14.5
Stage 12	11.75	-75.76	19.01
Stage 12	11.55	-71.28	22.41
Stage 12	11.35	-66.32	24.82
Stage 12	11.15	-61.04	26.38
Stage 12	10.95	-55.6	27.2
Stage 12	10.75	-50.13	27.38
Stage 12	10.55	-44.73	26.96
Stage 12	10.35	-39.52	26.05
Stage 12	10.15	-34.57	24.76
Stage 12	9.95	-29.92	23.25
Stage 12	9.75	-25.61	21.59
Stage 12	9.55	-21.64	19.83
Stage 12	9.35	-18.03	18.03
Stage 12	9.15	-14.79	16.2
Stage 12	8.95	-11.91	14.4
Stage 12	8.75	-9.38	12.64
Stage 12	8.55	-7.19	10.96
Stage 12	8.35	-5.32	9.36
Stage 12	8.15	-3.75	7.85
Stage 12	7.95	-2.46	6.46
Stage 12	7.75	-1.42	5.19
Stage 12	7.55	-0.62	4.03
Stage 12	7.35	-0.02	3
Stage 12	7.15	0.4	2.09
Stage 12	6.95	0.67	1.31
Stage 12	6.75	0.8	0.66
Stage 12	6.55	0.82	0.12
Stage 12	6.35	0.76	-0.29
Stage 12	6.15	0.64	-0.59
Stage 12	5.95	0.49	-0.78
Stage 12	5.75	0.32	-0.85
Stage 12	5.55	0.16	-0.78

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 12	5.35	0.05	-0.58
Stage 12	5.15	0	-0.24

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 13

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 13	31.35 -3.22
Stage 13	31.15 -3.07
Stage 13	30.95 -2.92
Stage 13	30.75 -2.78
Stage 13	30.55 -2.63
Stage 13	30.35 -2.48
Stage 13	30.15 -2.33
Stage 13	29.95 -2.16
Stage 13	29.75 -1.97
Stage 13	29.55 -1.74
Stage 13	29.35 -1.43
Stage 13	29.15 -1.02
Stage 13	28.95 -0.55
Stage 13	28.75 -0.03
Stage 13	28.55 0.5
Stage 13	28.35 1.03
Stage 13	28.15 1.54
Stage 13	27.95 2.03
Stage 13	27.75 2.48
Stage 13	27.55 2.91
Stage 13	27.35 3.31
Stage 13	27.15 3.7
Stage 13	26.95 4.08
Stage 13	26.75 4.49
Stage 13	26.55 4.95
Stage 13	26.35 5.49
Stage 13	26.15 6.13
Stage 13	25.95 6.85
Stage 13	25.75 7.62
Stage 13	25.55 8.41
Stage 13	25.35 9.2
Stage 13	25.15 9.98
Stage 13	24.95 10.72
Stage 13	24.75 11.44
Stage 13	24.55 12.12
Stage 13	24.35 12.77
Stage 13	24.15 13.4
Stage 13	23.95 14.03
Stage 13	23.75 14.68
Stage 13	23.55 15.37
Stage 13	23.35 16.13
Stage 13	23.15 17
Stage 13	22.95 17.95
Stage 13	22.75 18.94
Stage 13	22.55 19.95
Stage 13	22.35 20.96
Stage 13	22.15 21.96
Stage 13	21.95 22.93
Stage 13	21.75 23.88
Stage 13	21.55 24.8
Stage 13	21.35 25.71
Stage 13	21.15 26.61
Stage 13	20.95 27.54
Stage 13	20.85 28.02
Stage 13	20.65 29.03
Stage 13	20.45 30.05
Stage 13	20.25 31.05
Stage 13	20.05 32
Stage 13	19.85 32.87
Stage 13	19.65 33.65
Stage 13	19.45 34.32
Stage 13	19.25 34.87
Stage 13	19.05 35.32
Stage 13	18.85 35.68
Stage 13	18.65 35.98

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento		
Stage	Z (m)	Muro: LEFT Spostamento (mm)
Stage 13	18.45	36.23
Stage 13	18.35	36.36
Stage 13	18.15	36.61
Stage 13	17.95	36.85
Stage 13	17.75	37.02
Stage 13	17.55	37.1
Stage 13	17.35	37.06
Stage 13	17.15	36.9
Stage 13	16.95	36.61
Stage 13	16.75	36.19
Stage 13	16.55	35.68
Stage 13	16.35	35.09
Stage 13	16.15	34.44
Stage 13	15.95	33.71
Stage 13	15.75	32.87
Stage 13	15.55	31.89
Stage 13	15.35	30.77
Stage 13	15.15	29.49
Stage 13	14.95	28.07
Stage 13	14.75	26.51
Stage 13	14.55	24.84
Stage 13	14.35	23.09
Stage 13	14.15	21.27
Stage 13	13.95	19.41
Stage 13	13.75	17.55
Stage 13	13.55	15.71
Stage 13	13.35	13.91
Stage 13	13.15	12.18
Stage 13	12.95	10.54
Stage 13	12.75	9
Stage 13	12.55	7.57
Stage 13	12.35	6.25
Stage 13	12.15	5.05
Stage 13	11.95	3.98
Stage 13	11.75	3.01
Stage 13	11.55	2.17
Stage 13	11.35	1.43
Stage 13	11.15	0.79
Stage 13	10.95	0.25
Stage 13	10.75	-0.21
Stage 13	10.55	-0.58
Stage 13	10.35	-0.88
Stage 13	10.15	-1.12
Stage 13	9.95	-1.29
Stage 13	9.75	-1.42
Stage 13	9.55	-1.5
Stage 13	9.35	-1.54
Stage 13	9.15	-1.55
Stage 13	8.95	-1.53
Stage 13	8.75	-1.49
Stage 13	8.55	-1.43
Stage 13	8.35	-1.36
Stage 13	8.15	-1.27
Stage 13	7.95	-1.18
Stage 13	7.75	-1.08
Stage 13	7.55	-0.97
Stage 13	7.35	-0.87
Stage 13	7.15	-0.76
Stage 13	6.95	-0.65
Stage 13	6.75	-0.53
Stage 13	6.55	-0.42
Stage 13	6.35	-0.31
Stage 13	6.15	-0.2
Stage 13	5.95	-0.1
Stage 13	5.75	0.01
Stage 13	5.55	0.12
Stage 13	5.35	0.23
Stage 13	5.15	0.33

**Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 13**

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 13	31.35	0	0
Stage 13	31.15	0	0
Stage 13	31.15	0	0
Stage 13	30.95	0	0
Stage 13	30.95	0	0
Stage 13	30.75	0	0
Stage 13	30.75	0	0
Stage 13	30.55	-0.26	-1.32
Stage 13	30.35	-1.73	-7.33
Stage 13	30.15	-5.41	-18.38
Stage 13	29.95	-12.3	-34.5
Stage 13	29.75	-22.82	-52.59
Stage 13	29.55	-36.88	-70.3
Stage 13	29.35	-54.39	-87.53
Stage 13	29.15	-35.95	92.18
Stage 13	28.95	-20.61	76.7
Stage 13	28.75	-8.1	62.56
Stage 13	28.55	1.83	49.62
Stage 13	28.35	9.18	36.76
Stage 13	28.15	13.98	23.99
Stage 13	27.95	16.23	11.28
Stage 13	27.75	15.95	-1.41
Stage 13	27.55	13.12	-14.14
Stage 13	27.35	7.73	-26.98
Stage 13	27.15	-0.27	-40
Stage 13	26.95	-10.91	-53.21
Stage 13	26.75	-24.24	-66.62
Stage 13	26.55	-40.29	-80.24
Stage 13	26.35	-59.09	-94.03
Stage 13	26.15	-40.23	94.3
Stage 13	25.95	-24.1	80.65
Stage 13	25.75	-10.65	67.24
Stage 13	25.55	0.17	54.1
Stage 13	25.35	8.41	41.22
Stage 13	25.15	14.12	28.55
Stage 13	24.95	17.31	15.96
Stage 13	24.75	17.86	2.74
Stage 13	24.55	15.66	-11
Stage 13	24.35	10.63	-25.15
Stage 13	24.15	2.69	-39.7
Stage 13	23.95	-8.21	-54.51
Stage 13	23.75	-22.09	-69.42
Stage 13	23.55	-38.94	-84.21
Stage 13	23.35	-58.66	-98.63
Stage 13	23.15	-39.64	95.11
Stage 13	22.95	-23.34	81.51
Stage 13	22.75	-9.83	67.54
Stage 13	22.55	0.79	53.1
Stage 13	22.35	8.45	38.28
Stage 13	22.15	13.06	23.07
Stage 13	21.95	14.57	7.53
Stage 13	21.75	12.92	-8.24
Stage 13	21.55	8.1	-24.11
Stage 13	21.35	0.11	-39.92
Stage 13	21.15	-11	-55.58
Stage 13	20.95	-25.27	-71.32
Stage 13	20.85	-33.63	-83.63
Stage 13	20.65	-9.65	119.89
Stage 13	20.45	10.86	102.55
Stage 13	20.25	27.78	84.57
Stage 13	20.05	40.96	65.94
Stage 13	19.85	50.3	46.69
Stage 13	19.65	55.67	26.84
Stage 13	19.45	56.97	6.53
Stage 13	19.25	54.13	-14.22

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 13	19.05	47.06	-35.34
Stage 13	18.85	35.72	-56.72
Stage 13	18.65	20.08	-78.22
Stage 13	18.45	0.15	-99.64
Stage 13	18.35	-11.4	-115.52
Stage 13	18.15	12.79	120.97
Stage 13	17.95	32.72	99.66
Stage 13	17.75	48.23	77.52
Stage 13	17.55	59.14	54.58
Stage 13	17.35	65.32	30.89
Stage 13	17.15	66.6	6.42
Stage 13	16.95	62.85	-18.78
Stage 13	16.75	53.92	-44.62
Stage 13	16.55	39.72	-71
Stage 13	16.35	20.18	-97.74
Stage 13	16.15	42.49	111.58
Stage 13	15.95	59.38	84.43
Stage 13	15.75	70.84	57.31
Stage 13	15.55	76.93	30.46
Stage 13	15.35	77.96	5.16
Stage 13	15.15	74.67	-16.43
Stage 13	14.95	67.79	-34.4
Stage 13	14.75	58.03	-48.84
Stage 13	14.55	46.06	-59.84
Stage 13	14.35	32.56	-67.5
Stage 13	14.15	18.18	-71.88
Stage 13	13.95	3.57	-73.06
Stage 13	13.75	-10.65	-71.09
Stage 13	13.55	-23.85	-65.99
Stage 13	13.35	-35.4	-57.79
Stage 13	13.15	-44.7	-46.47
Stage 13	12.95	-51.58	-34.39
Stage 13	12.75	-56.36	-23.89
Stage 13	12.55	-59.33	-14.86
Stage 13	12.35	-60.75	-7.12
Stage 13	12.15	-60.86	-0.57
Stage 13	11.95	-59.89	4.88
Stage 13	11.75	-58.03	9.32
Stage 13	11.55	-55.46	12.82
Stage 13	11.35	-52.36	15.49
Stage 13	11.15	-48.88	17.41
Stage 13	10.95	-45.14	18.69
Stage 13	10.75	-41.26	19.41
Stage 13	10.55	-37.34	19.63
Stage 13	10.35	-33.46	19.39
Stage 13	10.15	-29.7	18.78
Stage 13	9.95	-26.12	17.94
Stage 13	9.75	-22.73	16.94
Stage 13	9.55	-19.57	15.81
Stage 13	9.35	-16.65	14.59
Stage 13	9.15	-13.99	13.32
Stage 13	8.95	-11.58	12.03
Stage 13	8.75	-9.43	10.74
Stage 13	8.55	-7.54	9.47
Stage 13	8.35	-5.89	8.25
Stage 13	8.15	-4.47	7.08
Stage 13	7.95	-3.28	5.98
Stage 13	7.75	-2.29	4.95
Stage 13	7.55	-1.48	4.01
Stage 13	7.35	-0.86	3.15
Stage 13	7.15	-0.38	2.38
Stage 13	6.95	-0.04	1.7
Stage 13	6.75	0.18	1.12
Stage 13	6.55	0.31	0.63
Stage 13	6.35	0.35	0.22
Stage 13	6.15	0.34	-0.09
Stage 13	5.95	0.28	-0.3
Stage 13	5.75	0.19	-0.42
Stage 13	5.55	0.1	-0.45



Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 13	5.35	0.03	-0.35
Stage 13	5.15	0	-0.15

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 14

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 14	31.35 -3.24
Stage 14	31.15 -3.09
Stage 14	30.95 -2.94
Stage 14	30.75 -2.79
Stage 14	30.55 -2.63
Stage 14	30.35 -2.48
Stage 14	30.15 -2.32
Stage 14	29.95 -2.15
Stage 14	29.75 -1.96
Stage 14	29.55 -1.72
Stage 14	29.35 -1.4
Stage 14	29.15 -0.99
Stage 14	28.95 -0.51
Stage 14	28.75 0.01
Stage 14	28.55 0.54
Stage 14	28.35 1.08
Stage 14	28.15 1.6
Stage 14	27.95 2.09
Stage 14	27.75 2.55
Stage 14	27.55 2.97
Stage 14	27.35 3.38
Stage 14	27.15 3.76
Stage 14	26.95 4.15
Stage 14	26.75 4.56
Stage 14	26.55 5.01
Stage 14	26.35 5.55
Stage 14	26.15 6.18
Stage 14	25.95 6.89
Stage 14	25.75 7.65
Stage 14	25.55 8.43
Stage 14	25.35 9.2
Stage 14	25.15 9.96
Stage 14	24.95 10.68
Stage 14	24.75 11.36
Stage 14	24.55 12.01
Stage 14	24.35 12.62
Stage 14	24.15 13.21
Stage 14	23.95 13.79
Stage 14	23.75 14.38
Stage 14	23.55 15.01
Stage 14	23.35 15.71
Stage 14	23.15 16.5
Stage 14	22.95 17.37
Stage 14	22.75 18.28
Stage 14	22.55 19.21
Stage 14	22.35 20.13
Stage 14	22.15 21.04
Stage 14	21.95 21.92
Stage 14	21.75 22.77
Stage 14	21.55 23.61
Stage 14	21.35 24.44
Stage 14	21.15 25.27
Stage 14	20.95 26.14
Stage 14	20.85 26.6
Stage 14	20.65 27.57
Stage 14	20.45 28.57
Stage 14	20.25 29.59
Stage 14	20.05 30.59
Stage 14	19.85 31.54
Stage 14	19.65 32.45
Stage 14	19.45 33.3
Stage 14	19.25 34.1
Stage 14	19.05 34.86
Stage 14	18.85 35.61
Stage 14	18.65 36.38

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 14	18.45	37.2
Stage 14	18.35	37.64
Stage 14	18.15	38.62
Stage 14	17.95	39.68
Stage 14	17.75	40.79
Stage 14	17.55	41.93
Stage 14	17.35	43.08
Stage 14	17.15	44.23
Stage 14	16.95	45.37
Stage 14	16.75	46.52
Stage 14	16.55	47.69
Stage 14	16.35	48.9
Stage 14	16.15	50.16
Stage 14	15.95	51.41
Stage 14	15.75	52.58
Stage 14	15.55	53.63
Stage 14	15.35	54.5
Stage 14	15.15	55.14
Stage 14	14.95	55.52
Stage 14	14.75	55.6
Stage 14	14.55	55.38
Stage 14	14.35	54.84
Stage 14	14.15	53.96
Stage 14	13.95	52.76
Stage 14	13.75	51.24
Stage 14	13.55	49.42
Stage 14	13.35	47.34
Stage 14	13.15	45.01
Stage 14	12.95	42.48
Stage 14	12.75	39.79
Stage 14	12.55	36.97
Stage 14	12.35	34.07
Stage 14	12.15	31.12
Stage 14	11.95	28.17
Stage 14	11.75	25.25
Stage 14	11.55	22.41
Stage 14	11.35	19.67
Stage 14	11.15	17.06
Stage 14	10.95	14.6
Stage 14	10.75	12.32
Stage 14	10.55	10.21
Stage 14	10.35	8.3
Stage 14	10.15	6.57
Stage 14	9.95	5.04
Stage 14	9.75	3.68
Stage 14	9.55	2.5
Stage 14	9.35	1.48
Stage 14	9.15	0.62
Stage 14	8.95	-0.1
Stage 14	8.75	-0.7
Stage 14	8.55	-1.17
Stage 14	8.35	-1.55
Stage 14	8.15	-1.83
Stage 14	7.95	-2.03
Stage 14	7.75	-2.17
Stage 14	7.55	-2.24
Stage 14	7.35	-2.27
Stage 14	7.15	-2.25
Stage 14	6.95	-2.2
Stage 14	6.75	-2.13
Stage 14	6.55	-2.04
Stage 14	6.35	-1.93
Stage 14	6.15	-1.81
Stage 14	5.95	-1.68
Stage 14	5.75	-1.55
Stage 14	5.55	-1.41
Stage 14	5.35	-1.28
Stage 14	5.15	-1.14

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 14

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 14	31.35	0	0
Stage 14	31.15	0	0
Stage 14	31.15	0	0
Stage 14	30.95	0	0
Stage 14	30.95	0	0
Stage 14	30.75	0	0
Stage 14	30.75	0	0
Stage 14	30.55	-0.26	-1.32
Stage 14	30.35	-1.73	-7.34
Stage 14	30.15	-5.41	-18.39
Stage 14	29.95	-12.31	-34.5
Stage 14	29.75	-22.83	-52.58
Stage 14	29.55	-36.89	-70.29
Stage 14	29.35	-54.38	-87.5
Stage 14	29.15	-35.93	92.27
Stage 14	28.95	-20.57	76.81
Stage 14	28.75	-8.03	62.7
Stage 14	28.55	1.93	49.79
Stage 14	28.35	9.32	36.96
Stage 14	28.15	14.17	24.22
Stage 14	27.95	16.48	11.55
Stage 14	27.75	16.26	-1.09
Stage 14	27.55	13.5	-13.78
Stage 14	27.35	8.19	-26.58
Stage 14	27.15	0.28	-39.55
Stage 14	26.95	-10.26	-52.71
Stage 14	26.75	-23.48	-66.07
Stage 14	26.55	-39.41	-79.65
Stage 14	26.35	-58.08	-93.39
Stage 14	26.15	-39.07	95.09
Stage 14	25.95	-22.77	81.48
Stage 14	25.75	-9.15	68.1
Stage 14	25.55	1.84	54.98
Stage 14	25.35	10.27	42.11
Stage 14	25.15	16.15	29.44
Stage 14	24.95	19.52	16.83
Stage 14	24.75	20.24	3.59
Stage 14	24.55	18.2	-10.2
Stage 14	24.35	13.31	-24.44
Stage 14	24.15	5.49	-39.09
Stage 14	23.95	-5.31	-54.03
Stage 14	23.75	-19.14	-69.11
Stage 14	23.55	-35.96	-84.12
Stage 14	23.35	-55.72	-98.8
Stage 14	23.15	-36.96	93.8
Stage 14	22.95	-20.99	79.85
Stage 14	22.75	-7.9	65.46
Stage 14	22.55	2.22	50.56
Stage 14	22.35	9.26	35.21
Stage 14	22.15	13.14	19.41
Stage 14	21.95	13.78	3.22
Stage 14	21.75	11.13	-13.28
Stage 14	21.55	5.14	-29.93
Stage 14	21.35	-4.17	-46.58
Stage 14	21.15	-16.8	-63.14
Stage 14	20.95	-32.77	-79.84
Stage 14	20.85	-42.06	-92.88
Stage 14	20.65	-20.67	106.91
Stage 14	20.45	-2.97	88.54
Stage 14	20.25	10.94	69.51
Stage 14	20.05	20.9	49.84
Stage 14	19.85	26.82	29.58
Stage 14	19.65	28.58	8.79
Stage 14	19.45	26.1	-12.37
Stage 14	19.25	19.34	-33.84

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 14	19.05	8.23	-55.51
Stage 14	18.85	-7.21	-77.22
Stage 14	18.65	-26.96	-98.77
Stage 14	18.45	-50.94	-119.9
Stage 14	18.35	-64.47	-135.27
Stage 14	18.15	-43.38	105.45
Stage 14	17.95	-26.27	85.56
Stage 14	17.75	-13.18	65.42
Stage 14	17.55	-4.15	45.15
Stage 14	17.35	0.82	24.88
Stage 14	17.15	1.76	4.68
Stage 14	16.95	-1.31	-15.32
Stage 14	16.75	-8.3	-34.96
Stage 14	16.55	-19.1	-54.01
Stage 14	16.35	-33.55	-72.24
Stage 14	16.15	3.73	186.38
Stage 14	15.95	37.35	168.09
Stage 14	15.75	67.26	149.55
Stage 14	15.55	93.42	130.79
Stage 14	15.35	115.78	111.83
Stage 14	15.15	134.31	92.62
Stage 14	14.95	148.94	73.17
Stage 14	14.75	159.63	53.46
Stage 14	14.55	166.34	33.53
Stage 14	14.35	169.02	13.41
Stage 14	14.15	167.63	-6.96
Stage 14	13.95	162.12	-27.57
Stage 14	13.75	152.43	-48.43
Stage 14	13.55	138.98	-67.25
Stage 14	13.35	122.63	-81.73
Stage 14	13.15	104.25	-91.92
Stage 14	12.95	84.55	-98.51
Stage 14	12.75	63.99	-102.79
Stage 14	12.55	43.02	-104.86
Stage 14	12.35	22.07	-104.72
Stage 14	12.15	1.59	-102.43
Stage 14	11.95	-18.02	-98.05
Stage 14	11.75	-36.34	-91.59
Stage 14	11.55	-52.95	-83.05
Stage 14	11.35	-67.42	-72.37
Stage 14	11.15	-79.32	-59.5
Stage 14	10.95	-88.19	-44.36
Stage 14	10.75	-93.82	-28.13
Stage 14	10.55	-96.69	-14.36
Stage 14	10.35	-97.26	-2.85
Stage 14	10.15	-95.95	6.59
Stage 14	9.95	-93.09	14.25
Stage 14	9.75	-89.03	20.3
Stage 14	9.55	-84.05	24.93
Stage 14	9.35	-78.39	28.29
Stage 14	9.15	-72.28	30.56
Stage 14	8.95	-65.9	31.89
Stage 14	8.75	-59.42	32.42
Stage 14	8.55	-52.98	32.19
Stage 14	8.35	-46.71	31.31
Stage 14	8.15	-40.74	29.89
Stage 14	7.95	-35.11	28.15
Stage 14	7.75	-29.87	26.18
Stage 14	7.55	-25.06	24.06
Stage 14	7.35	-20.69	21.85
Stage 14	7.15	-16.77	19.59
Stage 14	6.95	-13.3	17.34
Stage 14	6.75	-10.28	15.12
Stage 14	6.55	-7.68	12.97
Stage 14	6.35	-5.51	10.89
Stage 14	6.15	-3.73	8.9
Stage 14	5.95	-2.32	7.02
Stage 14	5.75	-1.27	5.26
Stage 14	5.55	-0.55	3.61

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 14	5.35	-0.13	2.08
Stage 14	5.15	0	0.66

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 15

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 15	31.35 -3.24
Stage 15	31.15 -3.09
Stage 15	30.95 -2.94
Stage 15	30.75 -2.78
Stage 15	30.55 -2.63
Stage 15	30.35 -2.48
Stage 15	30.15 -2.33
Stage 15	29.95 -2.16
Stage 15	29.75 -1.97
Stage 15	29.55 -1.73
Stage 15	29.35 -1.42
Stage 15	29.15 -1.01
Stage 15	28.95 -0.53
Stage 15	28.75 -0.01
Stage 15	28.55 0.52
Stage 15	28.35 1.06
Stage 15	28.15 1.57
Stage 15	27.95 2.06
Stage 15	27.75 2.52
Stage 15	27.55 2.95
Stage 15	27.35 3.35
Stage 15	27.15 3.74
Stage 15	26.95 4.13
Stage 15	26.75 4.54
Stage 15	26.55 4.99
Stage 15	26.35 5.53
Stage 15	26.15 6.17
Stage 15	25.95 6.88
Stage 15	25.75 7.65
Stage 15	25.55 8.43
Stage 15	25.35 9.22
Stage 15	25.15 9.98
Stage 15	24.95 10.72
Stage 15	24.75 11.42
Stage 15	24.55 12.08
Stage 15	24.35 12.71
Stage 15	24.15 13.32
Stage 15	23.95 13.92
Stage 15	23.75 14.53
Stage 15	23.55 15.19
Stage 15	23.35 15.92
Stage 15	23.15 16.75
Stage 15	22.95 17.65
Stage 15	22.75 18.59
Stage 15	22.55 19.56
Stage 15	22.35 20.52
Stage 15	22.15 21.46
Stage 15	21.95 22.37
Stage 15	21.75 23.26
Stage 15	21.55 24.13
Stage 15	21.35 24.98
Stage 15	21.15 25.84
Stage 15	20.95 26.72
Stage 15	20.85 27.18
Stage 15	20.65 28.15
Stage 15	20.45 29.14
Stage 15	20.25 30.13
Stage 15	20.05 31.09
Stage 15	19.85 31.98
Stage 15	19.65 32.8
Stage 15	19.45 33.54
Stage 15	19.25 34.2
Stage 15	19.05 34.8
Stage 15	18.85 35.34
Stage 15	18.65 35.86

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento		
Stage	Z (m)	Muro: LEFT Spostamento (mm)
Stage 15	18.45	36.4
Stage 15	18.35	36.68
Stage 15	18.15	37.3
Stage 15	17.95	37.97
Stage 15	17.75	38.63
Stage 15	17.55	39.27
Stage 15	17.35	39.88
Stage 15	17.15	40.43
Stage 15	16.95	40.93
Stage 15	16.75	41.4
Stage 15	16.55	41.84
Stage 15	16.35	42.28
Stage 15	16.15	42.74
Stage 15	15.95	43.19
Stage 15	15.75	43.56
Stage 15	15.55	43.84
Stage 15	15.35	43.98
Stage 15	15.15	43.97
Stage 15	14.95	43.81
Stage 15	14.75	43.48
Stage 15	14.55	43.02
Stage 15	14.35	42.45
Stage 15	14.15	41.77
Stage 15	13.95	40.98
Stage 15	13.75	40.03
Stage 15	13.55	38.9
Stage 15	13.35	37.58
Stage 15	13.15	36.08
Stage 15	12.95	34.39
Stage 15	12.75	32.55
Stage 15	12.55	30.56
Stage 15	12.35	28.46
Stage 15	12.15	26.28
Stage 15	11.95	24.04
Stage 15	11.75	21.79
Stage 15	11.55	19.56
Stage 15	11.35	17.37
Stage 15	11.15	15.25
Stage 15	10.95	13.23
Stage 15	10.75	11.32
Stage 15	10.55	9.55
Stage 15	10.35	7.92
Stage 15	10.15	6.43
Stage 15	9.95	5.09
Stage 15	9.75	3.89
Stage 15	9.55	2.83
Stage 15	9.35	1.91
Stage 15	9.15	1.11
Stage 15	8.95	0.44
Stage 15	8.75	-0.13
Stage 15	8.55	-0.6
Stage 15	8.35	-0.98
Stage 15	8.15	-1.27
Stage 15	7.95	-1.5
Stage 15	7.75	-1.66
Stage 15	7.55	-1.77
Stage 15	7.35	-1.84
Stage 15	7.15	-1.87
Stage 15	6.95	-1.86
Stage 15	6.75	-1.83
Stage 15	6.55	-1.79
Stage 15	6.35	-1.72
Stage 15	6.15	-1.65
Stage 15	5.95	-1.57
Stage 15	5.75	-1.49
Stage 15	5.55	-1.4
Stage 15	5.35	-1.31
Stage 15	5.15	-1.22



### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 15

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 15	31.35	0	0
Stage 15	31.15	0	0
Stage 15	31.15	0	0
Stage 15	30.95	0	0
Stage 15	30.95	0	0
Stage 15	30.75	0	0
Stage 15	30.75	0	0
Stage 15	30.55	-0.26	-1.32
Stage 15	30.35	-1.73	-7.34
Stage 15	30.15	-5.41	-18.39
Stage 15	29.95	-12.31	-34.5
Stage 15	29.75	-22.83	-52.59
Stage 15	29.55	-36.89	-70.3
Stage 15	29.35	-54.4	-87.52
Stage 15	29.15	-35.95	92.22
Stage 15	28.95	-20.6	76.75
Stage 15	28.75	-8.08	62.62
Stage 15	28.55	1.86	49.7
Stage 15	28.35	9.23	36.85
Stage 15	28.15	14.05	24.1
Stage 15	27.95	16.34	11.42
Stage 15	27.75	16.09	-1.25
Stage 15	27.55	13.3	-13.95
Stage 15	27.35	7.94	-26.77
Stage 15	27.15	-0.01	-39.76
Stage 15	26.95	-10.6	-52.94
Stage 15	26.75	-23.86	-66.32
Stage 15	26.55	-39.84	-79.91
Stage 15	26.35	-58.58	-93.67
Stage 15	26.15	-39.63	94.76
Stage 15	25.95	-23.4	81.14
Stage 15	25.75	-9.85	67.75
Stage 15	25.55	1.08	54.63
Stage 15	25.35	9.43	41.76
Stage 15	25.15	15.25	29.11
Stage 15	24.95	18.56	16.52
Stage 15	24.75	19.22	3.3
Stage 15	24.55	17.12	-10.46
Stage 15	24.35	12.19	-24.65
Stage 15	24.15	4.35	-39.23
Stage 15	23.95	-6.47	-54.1
Stage 15	23.75	-20.29	-69.09
Stage 15	23.55	-37.09	-83.98
Stage 15	23.35	-56.79	-98.53
Stage 15	23.15	-37.86	94.64
Stage 15	22.95	-21.69	80.86
Stage 15	22.75	-8.36	66.68
Stage 15	22.55	2.04	52
Stage 15	22.35	9.42	36.89
Stage 15	22.15	13.69	21.36
Stage 15	21.95	14.79	5.47
Stage 15	21.75	12.65	-10.7
Stage 15	21.55	7.25	-27
Stage 15	21.35	-1.41	-43.29
Stage 15	21.15	-13.3	-59.47
Stage 15	20.95	-28.46	-75.76
Stage 15	20.85	-37.3	-88.5
Stage 15	20.65	-14.74	112.81
Stage 15	20.45	4.23	94.85
Stage 15	20.25	19.47	76.23
Stage 15	20.05	30.86	56.94
Stage 15	19.85	38.27	37.04
Stage 15	19.65	41.58	16.56
Stage 15	19.45	40.71	-4.36
Stage 15	19.25	35.58	-25.65

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 15	19.05	26.13	-47.25
Stage 15	18.85	12.33	-69
Stage 15	18.65	-5.82	-90.75
Stage 15	18.45	-28.27	-112.24
Stage 15	18.35	-41.07	-128.04
Stage 15	18.15	-19.17	109.53
Stage 15	17.95	-1.42	88.71
Stage 15	17.75	12.05	67.36
Stage 15	17.55	21.16	45.56
Stage 15	17.35	25.84	23.41
Stage 15	17.15	26.03	0.93
Stage 15	16.95	21.68	-21.76
Stage 15	16.75	12.77	-44.54
Stage 15	16.55	-0.67	-67.22
Stage 15	16.35	-18.59	-89.61
Stage 15	16.15	10.41	145.01
Stage 15	15.95	34.7	121.46
Stage 15	15.75	54.12	97.1
Stage 15	15.55	68.51	71.94
Stage 15	15.35	77.72	46.05
Stage 15	15.15	81.59	19.39
Stage 15	14.95	80	-7.98
Stage 15	14.75	72.8	-35.98
Stage 15	14.55	59.9	-64.5
Stage 15	14.35	41.23	-93.38
Stage 15	14.15	63.99	113.83
Stage 15	13.95	80.91	84.58
Stage 15	13.75	91.98	55.37
Stage 15	13.55	97.27	26.45
Stage 15	13.35	96.92	-1.75
Stage 15	13.15	91.99	-24.65
Stage 15	12.95	83.41	-42.9
Stage 15	12.75	71.87	-57.72
Stage 15	12.55	58.02	-69.23
Stage 15	12.35	42.54	-77.44
Stage 15	12.15	26.04	-82.46
Stage 15	11.95	9.17	-84.39
Stage 15	11.75	-7.5	-83.31
Stage 15	11.55	-23.35	-79.28
Stage 15	11.35	-37.82	-72.32
Stage 15	11.15	-50.31	-62.45
Stage 15	10.95	-60.24	-49.67
Stage 15	10.75	-67.29	-35.23
Stage 15	10.55	-71.84	-22.76
Stage 15	10.35	-74.26	-12.11
Stage 15	10.15	-74.89	-3.16
Stage 15	9.95	-74.03	4.3
Stage 15	9.75	-71.95	10.41
Stage 15	9.55	-68.9	15.25
Stage 15	9.35	-65.11	18.97
Stage 15	9.15	-60.77	21.7
Stage 15	8.95	-56.05	23.56
Stage 15	8.75	-51.12	24.68
Stage 15	8.55	-46.09	25.15
Stage 15	8.35	-41.08	25.02
Stage 15	8.15	-36.22	24.35
Stage 15	7.95	-31.55	23.33
Stage 15	7.75	-27.14	22.06
Stage 15	7.55	-23.02	20.6
Stage 15	7.35	-19.22	19
Stage 15	7.15	-15.76	17.3
Stage 15	6.95	-12.64	15.56
Stage 15	6.75	-9.89	13.79
Stage 15	6.55	-7.49	12.01
Stage 15	6.35	-5.43	10.26
Stage 15	6.15	-3.73	8.54
Stage 15	5.95	-2.35	6.86
Stage 15	5.75	-1.31	5.24
Stage 15	5.55	-0.57	3.67

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 15	5.35	-0.14	2.16
Stage 15	5.15	0	0.7

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 16

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 16	31.35 -3.25
Stage 16	31.15 -3.1
Stage 16	30.95 -2.95
Stage 16	30.75 -2.79
Stage 16	30.55 -2.64
Stage 16	30.35 -2.49
Stage 16	30.15 -2.33
Stage 16	29.95 -2.16
Stage 16	29.75 -1.97
Stage 16	29.55 -1.73
Stage 16	29.35 -1.42
Stage 16	29.15 -1.01
Stage 16	28.95 -0.53
Stage 16	28.75 -0.01
Stage 16	28.55 0.53
Stage 16	28.35 1.07
Stage 16	28.15 1.58
Stage 16	27.95 2.07
Stage 16	27.75 2.53
Stage 16	27.55 2.96
Stage 16	27.35 3.37
Stage 16	27.15 3.76
Stage 16	26.95 4.15
Stage 16	26.75 4.56
Stage 16	26.55 5.02
Stage 16	26.35 5.56
Stage 16	26.15 6.2
Stage 16	25.95 6.92
Stage 16	25.75 7.69
Stage 16	25.55 8.47
Stage 16	25.35 9.26
Stage 16	25.15 10.02
Stage 16	24.95 10.76
Stage 16	24.75 11.46
Stage 16	24.55 12.12
Stage 16	24.35 12.75
Stage 16	24.15 13.35
Stage 16	23.95 13.95
Stage 16	23.75 14.56
Stage 16	23.55 15.2
Stage 16	23.35 15.92
Stage 16	23.15 16.74
Stage 16	22.95 17.62
Stage 16	22.75 18.55
Stage 16	22.55 19.49
Stage 16	22.35 20.42
Stage 16	22.15 21.34
Stage 16	21.95 22.22
Stage 16	21.75 23.08
Stage 16	21.55 23.9
Stage 16	21.35 24.71
Stage 16	21.15 25.52
Stage 16	20.95 26.36
Stage 16	20.85 26.79
Stage 16	20.65 27.7
Stage 16	20.45 28.64
Stage 16	20.25 29.58
Stage 16	20.05 30.47
Stage 16	19.85 31.3
Stage 16	19.65 32.07
Stage 16	19.45 32.75
Stage 16	19.25 33.37
Stage 16	19.05 33.92
Stage 16	18.85 34.43
Stage 16	18.65 34.92

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 16	18.45	35.45
Stage 16	18.35	35.73
Stage 16	18.15	36.37
Stage 16	17.95	37.07
Stage 16	17.75	37.8
Stage 16	17.55	38.54
Stage 16	17.35	39.27
Stage 16	17.15	40
Stage 16	16.95	40.73
Stage 16	16.75	41.46
Stage 16	16.55	42.24
Stage 16	16.35	43.07
Stage 16	16.15	44
Stage 16	15.95	44.99
Stage 16	15.75	45.98
Stage 16	15.55	46.95
Stage 16	15.35	47.87
Stage 16	15.15	48.73
Stage 16	14.95	49.51
Stage 16	14.75	50.23
Stage 16	14.55	50.88
Stage 16	14.35	51.51
Stage 16	14.15	52.11
Stage 16	13.95	52.64
Stage 16	13.75	53.04
Stage 16	13.55	53.27
Stage 16	13.35	53.28
Stage 16	13.15	53.05
Stage 16	12.95	52.55
Stage 16	12.75	51.77
Stage 16	12.55	50.7
Stage 16	12.35	49.34
Stage 16	12.15	47.71
Stage 16	11.95	45.82
Stage 16	11.75	43.7
Stage 16	11.55	41.38
Stage 16	11.35	38.9
Stage 16	11.15	36.28
Stage 16	10.95	33.56
Stage 16	10.75	30.79
Stage 16	10.55	27.99
Stage 16	10.35	25.21
Stage 16	10.15	22.48
Stage 16	9.95	19.84
Stage 16	9.75	17.31
Stage 16	9.55	14.91
Stage 16	9.35	12.67
Stage 16	9.15	10.59
Stage 16	8.95	8.69
Stage 16	8.75	6.97
Stage 16	8.55	5.42
Stage 16	8.35	4.03
Stage 16	8.15	2.81
Stage 16	7.95	1.74
Stage 16	7.75	0.8
Stage 16	7.55	-0.01
Stage 16	7.35	-0.71
Stage 16	7.15	-1.32
Stage 16	6.95	-1.84
Stage 16	6.75	-2.29
Stage 16	6.55	-2.69
Stage 16	6.35	-3.04
Stage 16	6.15	-3.36
Stage 16	5.95	-3.65
Stage 16	5.75	-3.93
Stage 16	5.55	-4.2
Stage 16	5.35	-4.47
Stage 16	5.15	-4.73

**Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 16**

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 16	31.35	0	0
Stage 16	31.15	0	0
Stage 16	31.15	0	0
Stage 16	30.95	0	0
Stage 16	30.95	0	0
Stage 16	30.75	0	0
Stage 16	30.75	0	0
Stage 16	30.55	-0.27	-1.33
Stage 16	30.35	-1.74	-7.35
Stage 16	30.15	-5.42	-18.41
Stage 16	29.95	-12.32	-34.53
Stage 16	29.75	-22.85	-52.62
Stage 16	29.55	-36.91	-70.33
Stage 16	29.35	-54.42	-87.55
Stage 16	29.15	-35.99	92.19
Stage 16	28.95	-20.64	76.72
Stage 16	28.75	-8.12	62.6
Stage 16	28.55	1.81	49.68
Stage 16	28.35	9.18	36.84
Stage 16	28.15	14	24.09
Stage 16	27.95	16.28	11.41
Stage 16	27.75	16.03	-1.24
Stage 16	27.55	13.24	-13.94
Stage 16	27.35	7.9	-26.74
Stage 16	27.15	-0.05	-39.72
Stage 16	26.95	-10.62	-52.88
Stage 16	26.75	-23.87	-66.25
Stage 16	26.55	-39.84	-79.82
Stage 16	26.35	-58.55	-93.56
Stage 16	26.15	-39.56	94.95
Stage 16	25.95	-23.29	81.35
Stage 16	25.75	-9.69	67.99
Stage 16	25.55	1.29	54.9
Stage 16	25.35	9.7	42.06
Stage 16	25.15	15.59	29.43
Stage 16	24.95	18.96	16.87
Stage 16	24.75	19.7	3.69
Stage 16	24.55	17.69	-10.04
Stage 16	24.35	12.85	-24.2
Stage 16	24.15	5.1	-38.76
Stage 16	23.95	-5.62	-53.6
Stage 16	23.75	-19.33	-68.57
Stage 16	23.55	-36.02	-83.44
Stage 16	23.35	-55.62	-97.98
Stage 16	23.15	-36.58	95.2
Stage 16	22.95	-20.29	81.41
Stage 16	22.75	-6.85	67.21
Stage 16	22.55	3.65	52.49
Stage 16	22.35	11.12	37.35
Stage 16	22.15	15.47	21.75
Stage 16	21.95	16.62	5.77
Stage 16	21.75	14.52	-10.5
Stage 16	21.55	9.13	-26.94
Stage 16	21.35	0.46	-43.38
Stage 16	21.15	-11.49	-59.75
Stage 16	20.95	-26.75	-76.26
Stage 16	20.85	-35.67	-89.19
Stage 16	20.65	-13.44	111.11
Stage 16	20.45	5.12	92.83
Stage 16	20.25	19.89	73.85
Stage 16	20.05	30.73	54.17
Stage 16	19.85	37.49	33.83
Stage 16	19.65	40.07	12.87
Stage 16	19.45	38.35	-8.56
Stage 16	19.25	32.27	-30.41

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 16	19.05	21.75	-52.6
Stage 16	18.85	6.76	-74.98
Stage 16	18.65	-12.72	-97.37
Stage 16	18.45	-36.63	-119.54
Stage 16	18.35	-50.21	-135.83
Stage 16	18.15	-30.49	98.6
Stage 16	17.95	-15.06	77.13
Stage 16	17.75	-4.03	55.14
Stage 16	17.55	2.52	32.75
Stage 16	17.35	4.53	10.08
Stage 16	17.15	1.97	-12.82
Stage 16	16.95	-5.19	-35.81
Stage 16	16.75	-16.94	-58.74
Stage 16	16.55	-33.22	-81.37
Stage 16	16.35	-53.91	-103.47
Stage 16	16.15	-27.1	134.02
Stage 16	15.95	-4.83	111.37
Stage 16	15.75	12.83	88.28
Stage 16	15.55	25.8	64.84
Stage 16	15.35	34.02	41.15
Stage 16	15.15	37.47	17.25
Stage 16	14.95	36.12	-6.75
Stage 16	14.75	29.98	-30.72
Stage 16	14.55	19.09	-54.45
Stage 16	14.35	3.54	-77.76
Stage 16	14.15	36.63	165.45
Stage 16	13.95	65.33	143.52
Stage 16	13.75	89.85	122.58
Stage 16	13.55	110.15	101.49
Stage 16	13.35	126.19	80.22
Stage 16	13.15	137.93	58.7
Stage 16	12.95	145.32	36.94
Stage 16	12.75	148.3	14.93
Stage 16	12.55	146.84	-7.3
Stage 16	12.35	140.9	-29.72
Stage 16	12.15	131.11	-48.98
Stage 16	11.95	118.32	-63.95
Stage 16	11.75	103.2	-75.57
Stage 16	11.55	86.29	-84.54
Stage 16	11.35	68.09	-91
Stage 16	11.15	49.07	-95.1
Stage 16	10.95	29.69	-96.92
Stage 16	10.75	10.38	-96.55
Stage 16	10.55	-8.43	-94.02
Stage 16	10.35	-26.3	-89.36
Stage 16	10.15	-42.81	-82.55
Stage 16	9.95	-57.5	-73.47
Stage 16	9.75	-69.92	-62.09
Stage 16	9.55	-79.59	-48.34
Stage 16	9.35	-86.02	-32.14
Stage 16	9.15	-89.44	-17.1
Stage 16	8.95	-90.32	-4.39
Stage 16	8.75	-89.08	6.17
Stage 16	8.55	-86.13	14.76
Stage 16	8.35	-81.81	21.58
Stage 16	8.15	-76.45	26.81
Stage 16	7.95	-70.31	30.69
Stage 16	7.75	-63.63	33.41
Stage 16	7.55	-56.61	35.1
Stage 16	7.35	-49.44	35.87
Stage 16	7.15	-42.29	35.75
Stage 16	6.95	-35.33	34.77
Stage 16	6.75	-28.73	33.03
Stage 16	6.55	-22.6	30.66
Stage 16	6.35	-17.03	27.81
Stage 16	6.15	-12.13	24.53
Stage 16	5.95	-7.95	20.87
Stage 16	5.75	-4.59	16.84
Stage 16	5.55	-2.09	12.47

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 16	5.35	-0.54	7.76
Stage 16	5.15	0	2.7



## Risultati Elementi strutturali - SLE (Rara)

### Design Assumption: SLE (Rara) Sollecitazione Tir-A1

Stage	Forza (kN/m)
Stage 3	200
Stage 4	202.0505
Stage 5	200.8586
Stage 6	199.0436
Stage 7	199.774
Stage 8	198.9664
Stage 9	199.2812
Stage 10	199.2465
Stage 11	199.2428
Stage 12	199.3627
Stage 13	199.305
Stage 14	199.3508
Stage 15	199.3279
Stage 16	199.3277

**Design Assumption: SLE (Rara) Sollecitazione Tir-B1**

Stage	Forza (kN/m)
Stage 5	200
Stage 6	210.6628
Stage 7	207.4088
Stage 8	206.0825
Stage 9	206.6879
Stage 10	204.552
Stage 11	205.3654
Stage 12	205.0742
Stage 13	205.2625
Stage 14	205.3717
Stage 15	205.337
Stage 16	205.3957

**Design Assumption: SLE (Rara) Sollecitazione Tir-C1**

Stage	Forza (kN/m)
Stage 7	200
Stage 8	218.558
Stage 9	211.2826
Stage 10	211.9085
Stage 11	211.9901
Stage 12	209.7197
Stage 13	210.8139
Stage 14	209.9539
Stage 15	210.3847
Stage 16	210.3904

**Design Assumption: SLE (Rara) Sollecitazione Tir-D1**

Stage	Forza (kN/m)
Stage 9	200
Stage 10	231.3611
Stage 11	219.962
Stage 12	220.1851
Stage 13	219.4013
Stage 14	216.3866
Stage 15	217.6151
Stage 16	216.7957

**Design Assumption: SLE (Rara) Sollecitazione Tir-E1**

Stage	Forza (kN/m)
Stage 11	240
Stage 12	275.2278
Stage 13	256.1237
Stage 14	259.7276
Stage 15	257.0382
Stage 16	254.3763

**Design Assumption: SLE (Rara) Sollecitazione Tir-F1**

Stage	Forza (kN/m)
Stage 13	240
Stage 14	280.9273
Stage 15	261.3096
Stage 16	263.6681

**Design Assumption: SLE (Rara) Sollecitazione Tir-G1**

Stage	Forza (kN/m)
Stage 15	240
Stage 16	270.0453

## Risultati A1+M1+R1

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 1

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	31.35	0	0
Stage 1	31.15	0	0
Stage 1	31.15	0	0
Stage 1	30.95	0	0
Stage 1	30.95	0	0
Stage 1	30.75	0	0
Stage 1	30.75	0	0
Stage 1	30.55	0	0
Stage 1	30.35	0	0
Stage 1	30.15	0	0
Stage 1	29.95	0	0
Stage 1	29.75	0	0
Stage 1	29.55	0	0
Stage 1	29.35	0	0
Stage 1	29.15	0	0
Stage 1	28.95	0	0
Stage 1	28.75	0	0
Stage 1	28.55	0	0
Stage 1	28.35	0	0
Stage 1	28.15	0	0
Stage 1	27.95	0	0
Stage 1	27.75	0	0
Stage 1	27.55	0	0
Stage 1	27.35	0	0
Stage 1	27.15	0	0
Stage 1	26.95	0	0
Stage 1	26.75	0	0
Stage 1	26.55	0	0
Stage 1	26.35	0	0
Stage 1	26.15	0	0
Stage 1	25.95	0	0
Stage 1	25.75	0	0
Stage 1	25.55	0	0
Stage 1	25.35	0	0
Stage 1	25.15	0	0
Stage 1	24.95	0	0
Stage 1	24.75	0	0
Stage 1	24.55	0	0
Stage 1	24.35	0	0
Stage 1	24.15	0	0
Stage 1	23.95	0	0
Stage 1	23.75	0	0
Stage 1	23.55	0	0
Stage 1	23.35	0	0
Stage 1	23.15	0	0
Stage 1	22.95	0	0
Stage 1	22.75	0	0
Stage 1	22.55	0	0
Stage 1	22.35	0	0
Stage 1	22.15	0	0
Stage 1	21.95	0	0
Stage 1	21.75	0	0
Stage 1	21.55	0	0
Stage 1	21.35	0	0
Stage 1	21.15	0	0
Stage 1	20.95	0	0
Stage 1	20.85	0	0
Stage 1	20.65	0	0
Stage 1	20.45	0	0
Stage 1	20.25	0	0
Stage 1	20.05	0	0
Stage 1	19.85	0	0



Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	19.65	0	0
Stage 1	19.45	0	0
Stage 1	19.25	0	0
Stage 1	19.05	0	0
Stage 1	18.85	0	0
Stage 1	18.65	0	0
Stage 1	18.45	0	0
Stage 1	18.35	0	0
Stage 1	18.15	0	0
Stage 1	17.95	0	0
Stage 1	17.75	0	0
Stage 1	17.55	0	0
Stage 1	17.35	0	0
Stage 1	17.15	0	0
Stage 1	16.95	0	0
Stage 1	16.75	0	0
Stage 1	16.55	0	0
Stage 1	16.35	0	0
Stage 1	16.15	0	0
Stage 1	15.95	0	0
Stage 1	15.75	0	0
Stage 1	15.55	0	0
Stage 1	15.35	0	0
Stage 1	15.15	0	0
Stage 1	14.95	0	0
Stage 1	14.75	0	0
Stage 1	14.55	0	0
Stage 1	14.35	0	0
Stage 1	14.15	0	0
Stage 1	13.95	0	0
Stage 1	13.75	0	0
Stage 1	13.55	0	0
Stage 1	13.35	0	0
Stage 1	13.15	0	0
Stage 1	12.95	0	0
Stage 1	12.75	0	0
Stage 1	12.55	0	0
Stage 1	12.35	0	0
Stage 1	12.15	0	0
Stage 1	11.95	0	0
Stage 1	11.75	0	0
Stage 1	11.55	0	0
Stage 1	11.35	0	0
Stage 1	11.15	0	0
Stage 1	10.95	0	0
Stage 1	10.75	0	0
Stage 1	10.55	0	0
Stage 1	10.35	0	0
Stage 1	10.15	0	0
Stage 1	9.95	0	0
Stage 1	9.75	0	0
Stage 1	9.55	0	0
Stage 1	9.35	0	0
Stage 1	9.15	0	0
Stage 1	8.95	0	0
Stage 1	8.75	0	0
Stage 1	8.55	0	0
Stage 1	8.35	0	0
Stage 1	8.15	0	0
Stage 1	7.95	0	0
Stage 1	7.75	0	0
Stage 1	7.55	0	0
Stage 1	7.35	0	0
Stage 1	7.15	0	0
Stage 1	6.95	0	0
Stage 1	6.75	0	0
Stage 1	6.55	0	0
Stage 1	6.35	0	0
Stage 1	6.15	0	0

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	5.95	0	0
Stage 1	5.75	0	0
Stage 1	5.55	0	0
Stage 1	5.35	0	0
Stage 1	5.15	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 2

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	31.35	0	0
Stage 2	31.15	0	0
Stage 2	31.15	0	0
Stage 2	30.95	0	0
Stage 2	30.95	0	0
Stage 2	30.75	0	0
Stage 2	30.75	0	0
Stage 2	30.55	-0.03	-0.13
Stage 2	30.35	-0.13	-0.51
Stage 2	30.15	-0.36	-1.17
Stage 2	29.95	-0.78	-2.11
Stage 2	29.75	-1.45	-3.33
Stage 2	29.55	-2.42	-4.86
Stage 2	29.35	-3.76	-6.7
Stage 2	29.15	-5.54	-8.88
Stage 2	28.95	-7.82	-11.39
Stage 2	28.75	-10.66	-14.24
Stage 2	28.55	-13.81	-15.72
Stage 2	28.35	-17.01	-16.03
Stage 2	28.15	-20.02	-15.03
Stage 2	27.95	-22.53	-12.56
Stage 2	27.75	-24.22	-8.44
Stage 2	27.55	-24.72	-2.49
Stage 2	27.35	-24.14	2.88
Stage 2	27.15	-22.79	6.76
Stage 2	26.95	-20.92	9.34
Stage 2	26.75	-18.75	10.85
Stage 2	26.55	-16.45	11.5
Stage 2	26.35	-14.16	11.48
Stage 2	26.15	-11.94	11.06
Stage 2	25.95	-9.87	10.38
Stage 2	25.75	-7.96	9.53
Stage 2	25.55	-6.25	8.58
Stage 2	25.35	-4.74	7.55
Stage 2	25.15	-3.43	6.51
Stage 2	24.95	-2.33	5.5
Stage 2	24.75	-1.42	4.55
Stage 2	24.55	-0.69	3.67
Stage 2	24.35	-0.11	2.88
Stage 2	24.15	0.32	2.18
Stage 2	23.95	0.64	1.58
Stage 2	23.75	0.85	1.07
Stage 2	23.55	0.98	0.65
Stage 2	23.35	1.05	0.31
Stage 2	23.15	1.05	0.04
Stage 2	22.95	1.02	-0.16
Stage 2	22.75	0.96	-0.31
Stage 2	22.55	0.88	-0.41
Stage 2	22.35	0.79	-0.46
Stage 2	22.15	0.69	-0.49
Stage 2	21.95	0.59	-0.49
Stage 2	21.75	0.5	-0.47
Stage 2	21.55	0.41	-0.44
Stage 2	21.35	0.33	-0.4
Stage 2	21.15	0.26	-0.36
Stage 2	20.95	0.19	-0.32
Stage 2	20.85	0.17	-0.28
Stage 2	20.65	0.12	-0.25
Stage 2	20.45	0.07	-0.21
Stage 2	20.25	0.04	-0.17
Stage 2	20.05	0.01	-0.13
Stage 2	19.85	-0.01	-0.1
Stage 2	19.65	-0.02	-0.07
Stage 2	19.45	-0.03	-0.05
Stage 2	19.25	-0.04	-0.03

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	19.05	-0.04	-0.02
Stage 2	18.85	-0.04	0
Stage 2	18.65	-0.04	0
Stage 2	18.45	-0.04	0.01
Stage 2	18.35	-0.04	0.01
Stage 2	18.15	-0.03	0.02
Stage 2	17.95	-0.03	0.02
Stage 2	17.75	-0.03	0.02
Stage 2	17.55	-0.02	0.02
Stage 2	17.35	-0.02	0.02
Stage 2	17.15	-0.02	0.02
Stage 2	16.95	-0.01	0.02
Stage 2	16.75	-0.01	0.01
Stage 2	16.55	-0.01	0.01
Stage 2	16.35	0	0.01
Stage 2	16.15	0	0.01
Stage 2	15.95	0	0.01
Stage 2	15.75	0	0.01
Stage 2	15.55	0	0
Stage 2	15.35	0	0
Stage 2	15.15	0	0
Stage 2	14.95	0	0
Stage 2	14.75	0	0
Stage 2	14.55	0	0
Stage 2	14.35	0	0
Stage 2	14.15	0	0
Stage 2	13.95	0	0
Stage 2	13.75	0	0
Stage 2	13.55	0	0
Stage 2	13.35	0	0
Stage 2	13.15	0	0
Stage 2	12.95	0	0
Stage 2	12.75	0	0
Stage 2	12.55	0	0
Stage 2	12.35	0	0
Stage 2	12.15	0	0
Stage 2	11.95	0	0
Stage 2	11.75	0	0
Stage 2	11.55	0	0
Stage 2	11.35	0	0
Stage 2	11.15	0	0
Stage 2	10.95	0	0
Stage 2	10.75	0	0
Stage 2	10.55	0	0
Stage 2	10.35	0	0
Stage 2	10.15	0	0
Stage 2	9.95	0	0
Stage 2	9.75	0	0
Stage 2	9.55	0	0
Stage 2	9.35	0	0
Stage 2	9.15	0	0
Stage 2	8.95	0	0
Stage 2	8.75	0	0
Stage 2	8.55	0	0
Stage 2	8.35	0	0
Stage 2	8.15	0	0
Stage 2	7.95	0	0
Stage 2	7.75	0	0
Stage 2	7.55	0	0
Stage 2	7.35	0	0
Stage 2	7.15	0	0
Stage 2	6.95	0	0
Stage 2	6.75	0	0
Stage 2	6.55	0	0
Stage 2	6.35	0	0
Stage 2	6.15	0	0
Stage 2	5.95	0	0
Stage 2	5.75	0	0
Stage 2	5.55	0	0

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	5.35	0	0
Stage 2	5.15	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 3

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	31.35	0	0
Stage 3	31.15	0	0
Stage 3	31.15	0	0
Stage 3	30.95	0	0
Stage 3	30.95	0	0
Stage 3	30.75	0	0
Stage 3	30.75	0	0
Stage 3	30.55	-0.59	-2.95
Stage 3	30.35	-2.97	-11.89
Stage 3	30.15	-8.38	-27.06
Stage 3	29.95	-18.1	-48.62
Stage 3	29.75	-32.19	-70.41
Stage 3	29.55	-50.65	-92.33
Stage 3	29.35	-73.49	-114.21
Stage 3	29.15	-49.45	120.23
Stage 3	28.95	-29.61	99.17
Stage 3	28.75	-13.84	78.89
Stage 3	28.55	-1.96	59.35
Stage 3	28.35	5.89	39.25
Stage 3	28.15	10.17	21.4
Stage 3	27.95	11.86	8.48
Stage 3	27.75	11.93	0.35
Stage 3	27.55	11.31	-3.12
Stage 3	27.35	10.36	-4.73
Stage 3	27.15	9.21	-5.74
Stage 3	26.95	7.96	-6.28
Stage 3	26.75	6.67	-6.43
Stage 3	26.55	5.41	-6.29
Stage 3	26.35	4.22	-5.95
Stage 3	26.15	3.14	-5.44
Stage 3	25.95	2.19	-4.75
Stage 3	25.75	1.38	-4.03
Stage 3	25.55	0.72	-3.3
Stage 3	25.35	0.2	-2.61
Stage 3	25.15	-0.2	-1.98
Stage 3	24.95	-0.48	-1.41
Stage 3	24.75	-0.67	-0.93
Stage 3	24.55	-0.77	-0.53
Stage 3	24.35	-0.81	-0.2
Stage 3	24.15	-0.8	0.05
Stage 3	23.95	-0.75	0.24
Stage 3	23.75	-0.68	0.37
Stage 3	23.55	-0.59	0.44
Stage 3	23.35	-0.5	0.47
Stage 3	23.15	-0.4	0.47
Stage 3	22.95	-0.31	0.45
Stage 3	22.75	-0.23	0.41
Stage 3	22.55	-0.16	0.36
Stage 3	22.35	-0.1	0.31
Stage 3	22.15	-0.05	0.25
Stage 3	21.95	-0.01	0.2
Stage 3	21.75	0.02	0.16
Stage 3	21.55	0.05	0.12
Stage 3	21.35	0.06	0.08
Stage 3	21.15	0.07	0.05
Stage 3	20.95	0.08	0.03
Stage 3	20.85	0.08	0.01
Stage 3	20.65	0.08	0
Stage 3	20.45	0.08	-0.02
Stage 3	20.25	0.07	-0.03
Stage 3	20.05	0.06	-0.04
Stage 3	19.85	0.06	-0.04
Stage 3	19.65	0.05	-0.04
Stage 3	19.45	0.04	-0.04
Stage 3	19.25	0.03	-0.04

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	19.05	0.02	-0.04
Stage 3	18.85	0.02	-0.03
Stage 3	18.65	0.01	-0.03
Stage 3	18.45	0.01	-0.02
Stage 3	18.35	0.01	-0.02
Stage 3	18.15	0	-0.02
Stage 3	17.95	0	-0.01
Stage 3	17.75	0	-0.01
Stage 3	17.55	0	-0.01
Stage 3	17.35	0	-0.01
Stage 3	17.15	-0.01	0
Stage 3	16.95	-0.01	0
Stage 3	16.75	-0.01	0
Stage 3	16.55	-0.01	0
Stage 3	16.35	0	0
Stage 3	16.15	0	0
Stage 3	15.95	0	0
Stage 3	15.75	0	0
Stage 3	15.55	0	0
Stage 3	15.35	0	0
Stage 3	15.15	0	0
Stage 3	14.95	0	0
Stage 3	14.75	0	0
Stage 3	14.55	0	0
Stage 3	14.35	0	0
Stage 3	14.15	0	0
Stage 3	13.95	0	0
Stage 3	13.75	0	0
Stage 3	13.55	0	0
Stage 3	13.35	0	0
Stage 3	13.15	0	0
Stage 3	12.95	0	0
Stage 3	12.75	0	0
Stage 3	12.55	0	0
Stage 3	12.35	0	0
Stage 3	12.15	0	0
Stage 3	11.95	0	0
Stage 3	11.75	0	0
Stage 3	11.55	0	0
Stage 3	11.35	0	0
Stage 3	11.15	0	0
Stage 3	10.95	0	0
Stage 3	10.75	0	0
Stage 3	10.55	0	0
Stage 3	10.35	0	0
Stage 3	10.15	0	0
Stage 3	9.95	0	0
Stage 3	9.75	0	0
Stage 3	9.55	0	0
Stage 3	9.35	0	0
Stage 3	9.15	0	0
Stage 3	8.95	0	0
Stage 3	8.75	0	0
Stage 3	8.55	0	0
Stage 3	8.35	0	0
Stage 3	8.15	0	0
Stage 3	7.95	0	0
Stage 3	7.75	0	0
Stage 3	7.55	0	0
Stage 3	7.35	0	0
Stage 3	7.15	0	0
Stage 3	6.95	0	0
Stage 3	6.75	0	0
Stage 3	6.55	0	0
Stage 3	6.35	0	0
Stage 3	6.15	0	0
Stage 3	5.95	0	0
Stage 3	5.75	0	0
Stage 3	5.55	0	0

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	5.35	0	0
Stage 3	5.15	0	0



### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 4

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	31.35	0	0
Stage 4	31.15	0	0
Stage 4	31.15	0	0
Stage 4	30.95	0	0
Stage 4	30.95	0	0
Stage 4	30.75	0	0
Stage 4	30.75	0	0
Stage 4	30.55	-0.59	-2.95
Stage 4	30.35	-2.97	-11.89
Stage 4	30.15	-8.38	-27.06
Stage 4	29.95	-18.12	-48.71
Stage 4	29.75	-32.52	-71.96
Stage 4	29.55	-51.37	-94.27
Stage 4	29.35	-74.38	-115.07
Stage 4	29.15	-49.43	124.77
Stage 4	28.95	-27.78	108.21
Stage 4	28.75	-8.96	94.14
Stage 4	28.55	7.52	82.37
Stage 4	28.35	21.81	71.48
Stage 4	28.15	34.11	61.47
Stage 4	27.95	44.57	52.31
Stage 4	27.75	53.35	43.91
Stage 4	27.55	60.58	36.13
Stage 4	27.35	66.34	28.8
Stage 4	27.15	70.68	21.73
Stage 4	26.95	73.63	14.74
Stage 4	26.75	75.15	7.6
Stage 4	26.55	75.16	0.04
Stage 4	26.35	73.52	-8.2
Stage 4	26.15	70.05	-17.35
Stage 4	25.95	64.53	-27.61
Stage 4	25.75	56.67	-39.27
Stage 4	25.55	46.7	-49.86
Stage 4	25.35	35.32	-56.88
Stage 4	25.15	23.22	-60.51
Stage 4	24.95	11.05	-60.87
Stage 4	24.75	-0.56	-58.05
Stage 4	24.55	-10.97	-52.07
Stage 4	24.35	-19.56	-42.94
Stage 4	24.15	-25.68	-30.58
Stage 4	23.95	-29.7	-20.12
Stage 4	23.75	-31.99	-11.44
Stage 4	23.55	-32.87	-4.39
Stage 4	23.35	-32.63	1.2
Stage 4	23.15	-31.53	5.5
Stage 4	22.95	-29.79	8.67
Stage 4	22.75	-27.62	10.88
Stage 4	22.55	-25.16	12.27
Stage 4	22.35	-22.57	12.99
Stage 4	22.15	-19.93	13.2
Stage 4	21.95	-17.33	12.96
Stage 4	21.75	-14.85	12.43
Stage 4	21.55	-12.51	11.69
Stage 4	21.35	-10.35	10.81
Stage 4	21.15	-8.38	9.82
Stage 4	20.95	-6.62	8.8
Stage 4	20.85	-5.82	8.02
Stage 4	20.65	-4.37	7.25
Stage 4	20.45	-3.12	6.25
Stage 4	20.25	-2.06	5.31
Stage 4	20.05	-1.17	4.43
Stage 4	19.85	-0.45	3.62
Stage 4	19.65	0.13	2.9
Stage 4	19.45	0.58	2.25
Stage 4	19.25	0.92	1.69

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	19.05	1.16	1.2
Stage 4	18.85	1.32	0.79
Stage 4	18.65	1.4	0.45
Stage 4	18.45	1.44	0.16
Stage 4	18.35	1.44	0
Stage 4	18.15	1.41	-0.15
Stage 4	17.95	1.35	-0.3
Stage 4	17.75	1.26	-0.42
Stage 4	17.55	1.16	-0.49
Stage 4	17.35	1.06	-0.54
Stage 4	17.15	0.94	-0.57
Stage 4	16.95	0.83	-0.57
Stage 4	16.75	0.72	-0.56
Stage 4	16.55	0.61	-0.53
Stage 4	16.35	0.51	-0.5
Stage 4	16.15	0.42	-0.46
Stage 4	15.95	0.33	-0.42
Stage 4	15.75	0.26	-0.37
Stage 4	15.55	0.2	-0.32
Stage 4	15.35	0.14	-0.28
Stage 4	15.15	0.09	-0.24
Stage 4	14.95	0.05	-0.2
Stage 4	14.75	0.02	-0.16
Stage 4	14.55	0	-0.13
Stage 4	14.35	-0.02	-0.1
Stage 4	14.15	-0.04	-0.07
Stage 4	13.95	-0.05	-0.05
Stage 4	13.75	-0.06	-0.03
Stage 4	13.55	-0.06	-0.02
Stage 4	13.35	-0.06	-0.01
Stage 4	13.15	-0.06	0
Stage 4	12.95	-0.06	0.01
Stage 4	12.75	-0.05	0.02
Stage 4	12.55	-0.05	0.02
Stage 4	12.35	-0.05	0.02
Stage 4	12.15	-0.04	0.02
Stage 4	11.95	-0.04	0.02
Stage 4	11.75	-0.03	0.02
Stage 4	11.55	-0.03	0.02
Stage 4	11.35	-0.02	0.02
Stage 4	11.15	-0.02	0.02
Stage 4	10.95	-0.01	0.02
Stage 4	10.75	-0.01	0.02
Stage 4	10.55	-0.01	0.01
Stage 4	10.35	-0.01	0.01
Stage 4	10.15	0	0.01
Stage 4	9.95	0	0.01
Stage 4	9.75	0	0.01
Stage 4	9.55	0	0.01
Stage 4	9.35	0	0
Stage 4	9.15	0	0
Stage 4	8.95	0	0
Stage 4	8.75	0	0
Stage 4	8.55	0	0
Stage 4	8.35	0	0
Stage 4	8.15	0	0
Stage 4	7.95	0	0
Stage 4	7.75	0	0
Stage 4	7.55	0	0
Stage 4	7.35	0	0
Stage 4	7.15	0	0
Stage 4	6.95	0	0
Stage 4	6.75	0	0
Stage 4	6.55	0	0
Stage 4	6.35	0	0
Stage 4	6.15	0	0
Stage 4	5.95	0	0
Stage 4	5.75	0	0
Stage 4	5.55	0	0

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	5.35	0	0
Stage 4	5.15	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 5

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	31.35	0	0
Stage 5	31.15	0	0
Stage 5	31.15	0	0
Stage 5	30.95	0	0
Stage 5	30.95	0	0
Stage 5	30.75	0	0
Stage 5	30.75	0	0
Stage 5	30.55	-0.03	-0.13
Stage 5	30.35	-1.31	-6.4
Stage 5	30.15	-5.22	-19.57
Stage 5	29.95	-13.2	-39.92
Stage 5	29.75	-25.71	-62.55
Stage 5	29.55	-42.7	-84.92
Stage 5	29.35	-64.01	-106.57
Stage 5	29.15	-37.99	130.12
Stage 5	28.95	-15.76	111.13
Stage 5	28.75	2.99	93.78
Stage 5	28.55	18.56	77.85
Stage 5	28.35	30.93	61.84
Stage 5	28.15	40.08	45.75
Stage 5	27.95	45.98	29.49
Stage 5	27.75	48.57	12.97
Stage 5	27.55	47.78	-3.97
Stage 5	27.35	43.49	-21.47
Stage 5	27.15	35.55	-39.68
Stage 5	26.95	23.81	-58.7
Stage 5	26.75	8.09	-78.61
Stage 5	26.55	-11.81	-99.51
Stage 5	26.35	-36.1	-121.43
Stage 5	26.15	-13.74	111.79
Stage 5	25.95	3.9	88.2
Stage 5	25.75	16.68	63.89
Stage 5	25.55	24.46	38.94
Stage 5	25.35	27.44	14.86
Stage 5	25.15	26.63	-4.05
Stage 5	24.95	23.05	-17.88
Stage 5	24.75	17.71	-26.71
Stage 5	24.55	11.58	-30.65
Stage 5	24.35	5.62	-29.79
Stage 5	24.15	0.78	-24.2
Stage 5	23.95	-3.05	-19.15
Stage 5	23.75	-5.98	-14.66
Stage 5	23.55	-8.13	-10.74
Stage 5	23.35	-9.6	-7.36
Stage 5	23.15	-10.5	-4.51
Stage 5	22.95	-10.94	-2.16
Stage 5	22.75	-10.99	-0.25
Stage 5	22.55	-10.74	1.23
Stage 5	22.35	-10.28	2.31
Stage 5	22.15	-9.67	3.04
Stage 5	21.95	-8.96	3.57
Stage 5	21.75	-8.17	3.95
Stage 5	21.55	-7.33	4.17
Stage 5	21.35	-6.48	4.25
Stage 5	21.15	-5.64	4.21
Stage 5	20.95	-4.83	4.07
Stage 5	20.85	-4.44	3.91
Stage 5	20.65	-3.69	3.72
Stage 5	20.45	-3.01	3.43
Stage 5	20.25	-2.38	3.12
Stage 5	20.05	-1.82	2.79
Stage 5	19.85	-1.33	2.46
Stage 5	19.65	-0.91	2.13
Stage 5	19.45	-0.54	1.82
Stage 5	19.25	-0.24	1.52

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	19.05	0.01	1.24
Stage 5	18.85	0.21	0.99
Stage 5	18.65	0.36	0.77
Stage 5	18.45	0.47	0.57
Stage 5	18.35	0.52	0.43
Stage 5	18.15	0.58	0.31
Stage 5	17.95	0.61	0.17
Stage 5	17.75	0.63	0.06
Stage 5	17.55	0.62	-0.03
Stage 5	17.35	0.6	-0.1
Stage 5	17.15	0.57	-0.15
Stage 5	16.95	0.53	-0.19
Stage 5	16.75	0.48	-0.22
Stage 5	16.55	0.44	-0.24
Stage 5	16.35	0.39	-0.25
Stage 5	16.15	0.34	-0.25
Stage 5	15.95	0.29	-0.24
Stage 5	15.75	0.24	-0.23
Stage 5	15.55	0.2	-0.21
Stage 5	15.35	0.16	-0.19
Stage 5	15.15	0.13	-0.17
Stage 5	14.95	0.1	-0.15
Stage 5	14.75	0.07	-0.13
Stage 5	14.55	0.05	-0.11
Stage 5	14.35	0.03	-0.1
Stage 5	14.15	0.01	-0.08
Stage 5	13.95	0	-0.06
Stage 5	13.75	-0.01	-0.05
Stage 5	13.55	-0.02	-0.04
Stage 5	13.35	-0.02	-0.03
Stage 5	13.15	-0.03	-0.02
Stage 5	12.95	-0.03	-0.01
Stage 5	12.75	-0.03	0
Stage 5	12.55	-0.03	0
Stage 5	12.35	-0.03	0
Stage 5	12.15	-0.03	0.01
Stage 5	11.95	-0.03	0.01
Stage 5	11.75	-0.02	0.01
Stage 5	11.55	-0.02	0.01
Stage 5	11.35	-0.02	0.01
Stage 5	11.15	-0.02	0.01
Stage 5	10.95	-0.01	0.01
Stage 5	10.75	-0.01	0.01
Stage 5	10.55	-0.01	0.01
Stage 5	10.35	-0.01	0.01
Stage 5	10.15	-0.01	0.01
Stage 5	9.95	0	0.01
Stage 5	9.75	0	0.01
Stage 5	9.55	0	0.01
Stage 5	9.35	0	0
Stage 5	9.15	0	0
Stage 5	8.95	0	0
Stage 5	8.75	0	0
Stage 5	8.55	0	0
Stage 5	8.35	0	0
Stage 5	8.15	0	0
Stage 5	7.95	0	0
Stage 5	7.75	0	0
Stage 5	7.55	0	0
Stage 5	7.35	0	0
Stage 5	7.15	0	0
Stage 5	6.95	0	0
Stage 5	6.75	0	0
Stage 5	6.55	0	0
Stage 5	6.35	0	0
Stage 5	6.15	0	0
Stage 5	5.95	0	0
Stage 5	5.75	0	0
Stage 5	5.55	0	0

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	5.35	0	0
Stage 5	5.15	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 6

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	31.35	0	0
Stage 6	31.15	0	0
Stage 6	31.15	0	0
Stage 6	30.95	0	0
Stage 6	30.95	0	0
Stage 6	30.75	0	0
Stage 6	30.75	0	0
Stage 6	30.55	-0.54	-2.68
Stage 6	30.35	-2.81	-11.38
Stage 6	30.15	-8.12	-26.55
Stage 6	29.95	-17.76	-48.2
Stage 6	29.75	-32.23	-72.33
Stage 6	29.55	-51.4	-95.88
Stage 6	29.35	-75.14	-118.7
Stage 6	29.15	-52.29	114.28
Stage 6	28.95	-33.5	93.95
Stage 6	28.75	-18.39	75.51
Stage 6	28.55	-6.64	58.76
Stage 6	28.35	1.81	42.28
Stage 6	28.15	7.03	26.09
Stage 6	27.95	9.07	10.19
Stage 6	27.75	7.98	-5.45
Stage 6	27.55	3.8	-20.89
Stage 6	27.35	-3.44	-36.19
Stage 6	27.15	-13.72	-51.4
Stage 6	26.95	-27.02	-66.5
Stage 6	26.75	-43.32	-81.48
Stage 6	26.55	-62.58	-96.32
Stage 6	26.35	-84.76	-110.91
Stage 6	26.15	-55.83	144.65
Stage 6	25.95	-29.59	131.23
Stage 6	25.75	-5.86	118.65
Stage 6	25.55	15.54	106.96
Stage 6	25.35	34.76	96.14
Stage 6	25.15	51.99	86.13
Stage 6	24.95	67.33	76.7
Stage 6	24.75	80.71	66.9
Stage 6	24.55	92.07	56.78
Stage 6	24.35	101.34	46.38
Stage 6	24.15	108.46	35.61
Stage 6	23.95	113.36	24.48
Stage 6	23.75	115.96	12.98
Stage 6	23.55	116.19	1.17
Stage 6	23.35	114.01	-10.91
Stage 6	23.15	109.34	-23.35
Stage 6	22.95	101.96	-36.89
Stage 6	22.75	91.54	-52.11
Stage 6	22.55	78.28	-66.28
Stage 6	22.35	62.95	-76.65
Stage 6	22.15	46.28	-83.38
Stage 6	21.95	28.98	-86.47
Stage 6	21.75	11.77	-86.04
Stage 6	21.55	-4.66	-82.16
Stage 6	21.35	-19.63	-74.85
Stage 6	21.15	-32.45	-64.1
Stage 6	20.95	-42.43	-49.88
Stage 6	20.85	-46.31	-38.79
Stage 6	20.65	-52.01	-28.54
Stage 6	20.45	-55.41	-16.97
Stage 6	20.25	-56.88	-7.35
Stage 6	20.05	-56.78	0.5
Stage 6	19.85	-55.43	6.76
Stage 6	19.65	-53.11	11.6
Stage 6	19.45	-50.07	15.19
Stage 6	19.25	-46.53	17.71

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	19.05	-42.66	19.31
Stage 6	18.85	-38.64	20.14
Stage 6	18.65	-34.57	20.32
Stage 6	18.45	-30.57	20.01
Stage 6	18.35	-28.62	19.51
Stage 6	18.15	-24.84	18.9
Stage 6	17.95	-21.27	17.83
Stage 6	17.75	-17.95	16.6
Stage 6	17.55	-14.9	15.25
Stage 6	17.35	-12.14	13.84
Stage 6	17.15	-9.65	12.41
Stage 6	16.95	-7.45	11
Stage 6	16.75	-5.52	9.64
Stage 6	16.55	-3.86	8.34
Stage 6	16.35	-2.43	7.12
Stage 6	16.15	-1.24	5.98
Stage 6	15.95	-0.25	4.94
Stage 6	15.75	0.55	4.01
Stage 6	15.55	1.19	3.17
Stage 6	15.35	1.67	2.42
Stage 6	15.15	2.03	1.78
Stage 6	14.95	2.27	1.22
Stage 6	14.75	2.42	0.74
Stage 6	14.55	2.49	0.34
Stage 6	14.35	2.49	0.02
Stage 6	14.15	2.44	-0.25
Stage 6	13.95	2.35	-0.46
Stage 6	13.75	2.22	-0.61
Stage 6	13.55	2.08	-0.73
Stage 6	13.35	1.92	-0.8
Stage 6	13.15	1.75	-0.85
Stage 6	12.95	1.57	-0.87
Stage 6	12.75	1.4	-0.88
Stage 6	12.55	1.23	-0.86
Stage 6	12.35	1.06	-0.83
Stage 6	12.15	0.91	-0.78
Stage 6	11.95	0.76	-0.73
Stage 6	11.75	0.63	-0.67
Stage 6	11.55	0.51	-0.6
Stage 6	11.35	0.4	-0.54
Stage 6	11.15	0.3	-0.47
Stage 6	10.95	0.22	-0.41
Stage 6	10.75	0.15	-0.35
Stage 6	10.55	0.09	-0.3
Stage 6	10.35	0.04	-0.25
Stage 6	10.15	0	-0.2
Stage 6	9.95	-0.03	-0.16
Stage 6	9.75	-0.06	-0.13
Stage 6	9.55	-0.08	-0.09
Stage 6	9.35	-0.09	-0.06
Stage 6	9.15	-0.1	-0.04
Stage 6	8.95	-0.1	-0.02
Stage 6	8.75	-0.1	0
Stage 6	8.55	-0.1	0.01
Stage 6	8.35	-0.1	0.02
Stage 6	8.15	-0.09	0.03
Stage 6	7.95	-0.08	0.03
Stage 6	7.75	-0.08	0.04
Stage 6	7.55	-0.07	0.04
Stage 6	7.35	-0.06	0.04
Stage 6	7.15	-0.05	0.04
Stage 6	6.95	-0.04	0.04
Stage 6	6.75	-0.03	0.04
Stage 6	6.55	-0.03	0.04
Stage 6	6.35	-0.02	0.03
Stage 6	6.15	-0.01	0.03
Stage 6	5.95	-0.01	0.02
Stage 6	5.75	-0.01	0.02
Stage 6	5.55	0	0.01



Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	5.35	0	0.01
Stage 6	5.15	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 7

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	31.35	0	0
Stage 7	31.15	0	0
Stage 7	31.15	0	0
Stage 7	30.95	0	0
Stage 7	30.95	0	0
Stage 7	30.75	0	0
Stage 7	30.75	0	0
Stage 7	30.55	-0.4	-1.99
Stage 7	30.35	-2.4	-10.01
Stage 7	30.15	-7.3	-24.5
Stage 7	29.95	-16.4	-45.48
Stage 7	29.75	-30.19	-68.95
Stage 7	29.55	-48.56	-91.84
Stage 7	29.35	-71.36	-114.02
Stage 7	29.15	-47.26	120.51
Stage 7	28.95	-27.1	100.78
Stage 7	28.75	-10.52	82.88
Stage 7	28.55	2.8	66.63
Stage 7	28.35	12.91	50.56
Stage 7	28.15	19.85	34.7
Stage 7	27.95	23.65	19
Stage 7	27.75	24.34	3.41
Stage 7	27.55	21.91	-12.16
Stage 7	27.35	16.34	-27.81
Stage 7	27.15	7.62	-43.63
Stage 7	26.95	-4.31	-59.64
Stage 7	26.75	-19.49	-75.9
Stage 7	26.55	-37.97	-92.41
Stage 7	26.35	-59.8	-109.14
Stage 7	26.15	-31.88	139.6
Stage 7	25.95	-7.28	122.96
Stage 7	25.75	14.02	106.53
Stage 7	25.55	32.09	90.32
Stage 7	25.35	46.94	74.26
Stage 7	25.15	58.58	58.24
Stage 7	24.95	66.99	42.02
Stage 7	24.75	71.91	24.63
Stage 7	24.55	73.14	6.13
Stage 7	24.35	70.45	-13.44
Stage 7	24.15	63.63	-34.1
Stage 7	23.95	52.47	-55.8
Stage 7	23.75	36.79	-78.42
Stage 7	23.55	16.43	-101.78
Stage 7	23.35	-8.7	-125.64
Stage 7	23.15	12.54	106.17
Stage 7	22.95	28.76	81.08
Stage 7	22.75	39.71	54.78
Stage 7	22.55	45.18	27.35
Stage 7	22.35	45.49	1.56
Stage 7	22.15	41.64	-19.26
Stage 7	21.95	34.63	-35.07
Stage 7	21.75	25.44	-45.95
Stage 7	21.55	15.04	-52
Stage 7	21.35	4.38	-53.29
Stage 7	21.15	-5.6	-49.87
Stage 7	20.95	-13.96	-41.81
Stage 7	20.85	-17.41	-34.53
Stage 7	20.65	-22.95	-27.7
Stage 7	20.45	-26.91	-19.78
Stage 7	20.25	-29.5	-12.97
Stage 7	20.05	-30.94	-7.22
Stage 7	19.85	-31.43	-2.44
Stage 7	19.65	-31.14	1.45
Stage 7	19.45	-30.23	4.54
Stage 7	19.25	-28.85	6.91

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	19.05	-27.12	8.64
Stage 7	18.85	-25.17	9.79
Stage 7	18.65	-23.08	10.45
Stage 7	18.45	-20.92	10.79
Stage 7	18.35	-19.83	10.85
Stage 7	18.15	-17.67	10.82
Stage 7	17.95	-15.55	10.57
Stage 7	17.75	-13.52	10.16
Stage 7	17.55	-11.6	9.61
Stage 7	17.35	-9.81	8.97
Stage 7	17.15	-8.15	8.28
Stage 7	16.95	-6.64	7.54
Stage 7	16.75	-5.28	6.8
Stage 7	16.55	-4.07	6.06
Stage 7	16.35	-3.01	5.33
Stage 7	16.15	-2.08	4.64
Stage 7	15.95	-1.28	3.98
Stage 7	15.75	-0.61	3.36
Stage 7	15.55	-0.05	2.79
Stage 7	15.35	0.4	2.28
Stage 7	15.15	0.77	1.81
Stage 7	14.95	1.04	1.39
Stage 7	14.75	1.25	1.03
Stage 7	14.55	1.39	0.71
Stage 7	14.35	1.48	0.43
Stage 7	14.15	1.52	0.2
Stage 7	13.95	1.52	0.01
Stage 7	13.75	1.49	-0.15
Stage 7	13.55	1.43	-0.27
Stage 7	13.35	1.36	-0.37
Stage 7	13.15	1.27	-0.43
Stage 7	12.95	1.18	-0.48
Stage 7	12.75	1.07	-0.51
Stage 7	12.55	0.97	-0.53
Stage 7	12.35	0.86	-0.53
Stage 7	12.15	0.76	-0.52
Stage 7	11.95	0.66	-0.51
Stage 7	11.75	0.56	-0.48
Stage 7	11.55	0.47	-0.45
Stage 7	11.35	0.39	-0.41
Stage 7	11.15	0.31	-0.37
Stage 7	10.95	0.25	-0.33
Stage 7	10.75	0.19	-0.29
Stage 7	10.55	0.14	-0.26
Stage 7	10.35	0.09	-0.22
Stage 7	10.15	0.06	-0.19
Stage 7	9.95	0.02	-0.16
Stage 7	9.75	0	-0.13
Stage 7	9.55	-0.02	-0.1
Stage 7	9.35	-0.04	-0.08
Stage 7	9.15	-0.05	-0.06
Stage 7	8.95	-0.06	-0.04
Stage 7	8.75	-0.06	-0.02
Stage 7	8.55	-0.06	-0.01
Stage 7	8.35	-0.06	0
Stage 7	8.15	-0.06	0.01
Stage 7	7.95	-0.06	0.01
Stage 7	7.75	-0.05	0.02
Stage 7	7.55	-0.05	0.02
Stage 7	7.35	-0.04	0.03
Stage 7	7.15	-0.04	0.03
Stage 7	6.95	-0.03	0.03
Stage 7	6.75	-0.03	0.03
Stage 7	6.55	-0.02	0.03
Stage 7	6.35	-0.02	0.03
Stage 7	6.15	-0.01	0.02
Stage 7	5.95	-0.01	0.02
Stage 7	5.75	0	0.02
Stage 7	5.55	0	0.01

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	5.35	0	0.01
Stage 7	5.15	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 8

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	31.35	0	0
Stage 8	31.15	0	0
Stage 8	31.15	0	0
Stage 8	30.95	0	0
Stage 8	30.95	0	0
Stage 8	30.75	0	0
Stage 8	30.75	0	0
Stage 8	30.55	-0.37	-1.87
Stage 8	30.35	-2.34	-9.85
Stage 8	30.15	-7.22	-24.4
Stage 8	29.95	-16.33	-45.53
Stage 8	29.75	-30.18	-69.24
Stage 8	29.55	-48.67	-92.47
Stage 8	29.35	-71.68	-115.07
Stage 8	29.15	-48.1	117.9
Stage 8	28.95	-28.59	97.55
Stage 8	28.75	-12.8	78.95
Stage 8	28.55	-0.42	61.9
Stage 8	28.35	8.57	44.96
Stage 8	28.15	14.2	28.14
Stage 8	27.95	16.48	11.42
Stage 8	27.75	15.43	-5.26
Stage 8	27.55	11.04	-21.96
Stage 8	27.35	3.28	-38.78
Stage 8	27.15	-7.87	-55.78
Stage 8	26.95	-22.47	-72.98
Stage 8	26.75	-40.54	-90.37
Stage 8	26.55	-62.13	-107.95
Stage 8	26.35	-87.26	-125.65
Stage 8	26.15	-63.15	120.57
Stage 8	25.95	-42.49	103.3
Stage 8	25.75	-25.19	86.49
Stage 8	25.55	-11.15	70.2
Stage 8	25.35	-0.26	54.43
Stage 8	25.15	7.57	39.16
Stage 8	24.95	12.42	24.23
Stage 8	24.75	14.16	8.75
Stage 8	24.55	12.74	-7.14
Stage 8	24.35	8.08	-23.27
Stage 8	24.15	0.16	-39.59
Stage 8	23.95	-11.02	-55.91
Stage 8	23.75	-25.42	-72.02
Stage 8	23.55	-42.95	-87.62
Stage 8	23.35	-63.42	-102.38
Stage 8	23.15	-30.67	163.76
Stage 8	22.95	-0.51	150.78
Stage 8	22.75	27.01	137.64
Stage 8	22.55	51.85	124.19
Stage 8	22.35	73.94	110.47
Stage 8	22.15	93.23	96.41
Stage 8	21.95	109.63	82
Stage 8	21.75	123.07	67.24
Stage 8	21.55	133.51	52.19
Stage 8	21.35	140.89	36.86
Stage 8	21.15	145.13	21.2
Stage 8	20.95	146.17	5.2
Stage 8	20.85	145.46	-7.05
Stage 8	20.65	141.57	-19.43
Stage 8	20.45	134.34	-36.2
Stage 8	20.25	123.51	-54.14
Stage 8	20.05	109.3	-71.03
Stage 8	19.85	92.48	-84.11
Stage 8	19.65	73.77	-93.55
Stage 8	19.45	53.87	-99.48
Stage 8	19.25	33.47	-102.02

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	19.05	13.22	-101.23
Stage 8	18.85	-6.21	-97.15
Stage 8	18.65	-24.16	-89.78
Stage 8	18.45	-39.96	-79
Stage 8	18.35	-46.79	-68.3
Stage 8	18.15	-58.05	-56.29
Stage 8	17.95	-66.05	-39.99
Stage 8	17.75	-71.24	-25.97
Stage 8	17.55	-74.06	-14.07
Stage 8	17.35	-74.88	-4.13
Stage 8	17.15	-74.08	4.03
Stage 8	16.95	-71.96	10.58
Stage 8	16.75	-68.82	15.69
Stage 8	16.55	-64.92	19.53
Stage 8	16.35	-60.47	22.27
Stage 8	16.15	-55.66	24.05
Stage 8	15.95	-50.65	25.01
Stage 8	15.75	-45.6	25.29
Stage 8	15.55	-40.61	24.92
Stage 8	15.35	-35.79	24.11
Stage 8	15.15	-31.19	22.99
Stage 8	14.95	-26.87	21.64
Stage 8	14.75	-22.84	20.13
Stage 8	14.55	-19.13	18.53
Stage 8	14.35	-15.76	16.88
Stage 8	14.15	-12.71	15.22
Stage 8	13.95	-10	13.59
Stage 8	13.75	-7.59	12.01
Stage 8	13.55	-5.49	10.5
Stage 8	13.35	-3.68	9.08
Stage 8	13.15	-2.13	7.75
Stage 8	12.95	-0.82	6.52
Stage 8	12.75	0.26	5.4
Stage 8	12.55	1.14	4.38
Stage 8	12.35	1.83	3.47
Stage 8	12.15	2.36	2.66
Stage 8	11.95	2.75	1.95
Stage 8	11.75	3.02	1.34
Stage 8	11.55	3.18	0.81
Stage 8	11.35	3.26	0.37
Stage 8	11.15	3.26	0
Stage 8	10.95	3.2	-0.3
Stage 8	10.75	3.09	-0.54
Stage 8	10.55	2.94	-0.73
Stage 8	10.35	2.77	-0.87
Stage 8	10.15	2.57	-0.97
Stage 8	9.95	2.37	-1.03
Stage 8	9.75	2.15	-1.06
Stage 8	9.55	1.94	-1.07
Stage 8	9.35	1.73	-1.06
Stage 8	9.15	1.52	-1.02
Stage 8	8.95	1.33	-0.97
Stage 8	8.75	1.15	-0.91
Stage 8	8.55	0.98	-0.85
Stage 8	8.35	0.82	-0.77
Stage 8	8.15	0.68	-0.7
Stage 8	7.95	0.56	-0.62
Stage 8	7.75	0.45	-0.55
Stage 8	7.55	0.35	-0.47
Stage 8	7.35	0.27	-0.4
Stage 8	7.15	0.21	-0.34
Stage 8	6.95	0.15	-0.28
Stage 8	6.75	0.1	-0.22
Stage 8	6.55	0.07	-0.17
Stage 8	6.35	0.04	-0.13
Stage 8	6.15	0.03	-0.09
Stage 8	5.95	0.01	-0.06
Stage 8	5.75	0.01	-0.04
Stage 8	5.55	0	-0.02

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	5.35	0	-0.01
Stage 8	5.15	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 9

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	31.35	0	0
Stage 9	31.15	0	0
Stage 9	31.15	0	0
Stage 9	30.95	0	0
Stage 9	30.95	0	0
Stage 9	30.75	0	0
Stage 9	30.75	0	0
Stage 9	30.55	-0.39	-1.93
Stage 9	30.35	-2.37	-9.94
Stage 9	30.15	-7.27	-24.48
Stage 9	29.95	-16.38	-45.56
Stage 9	29.75	-30.22	-69.18
Stage 9	29.55	-48.68	-92.29
Stage 9	29.35	-71.62	-114.72
Stage 9	29.15	-47.85	118.86
Stage 9	28.95	-28.1	98.75
Stage 9	28.75	-12.01	80.43
Stage 9	28.55	0.73	63.7
Stage 9	28.35	10.15	47.11
Stage 9	28.15	16.28	30.67
Stage 9	27.95	19.16	14.37
Stage 9	27.75	18.78	-1.86
Stage 9	27.55	15.16	-18.1
Stage 9	27.35	8.28	-34.43
Stage 9	27.15	-1.91	-50.94
Stage 9	26.95	-15.44	-67.64
Stage 9	26.75	-32.35	-84.55
Stage 9	26.55	-52.68	-101.66
Stage 9	26.35	-76.47	-118.94
Stage 9	26.15	-50.78	128.43
Stage 9	25.95	-28.49	111.46
Stage 9	25.75	-9.52	94.86
Stage 9	25.55	6.22	78.67
Stage 9	25.35	18.79	62.86
Stage 9	25.15	28.27	47.37
Stage 9	24.95	34.67	32.01
Stage 9	24.75	37.84	15.86
Stage 9	24.55	37.64	-0.98
Stage 9	24.35	33.97	-18.39
Stage 9	24.15	26.7	-36.34
Stage 9	23.95	15.76	-54.71
Stage 9	23.75	1.09	-73.32
Stage 9	23.55	-17.29	-91.92
Stage 9	23.35	-39.34	-110.23
Stage 9	23.15	-10.85	142.45
Stage 9	22.95	14.09	124.7
Stage 9	22.75	35.32	106.12
Stage 9	22.55	52.62	86.54
Stage 9	22.35	65.82	65.98
Stage 9	22.15	74.7	44.38
Stage 9	21.95	79.04	21.74
Stage 9	21.75	78.66	-1.91
Stage 9	21.55	73.37	-26.46
Stage 9	21.35	63.01	-51.81
Stage 9	21.15	47.42	-77.92
Stage 9	20.95	26.49	-104.66
Stage 9	20.85	13.99	-125.06
Stage 9	20.65	36.08	110.49
Stage 9	20.45	52.7	83.07
Stage 9	20.25	63.67	54.86
Stage 9	20.05	68.75	25.4
Stage 9	19.85	68.31	-2.19
Stage 9	19.65	63.3	-25.04
Stage 9	19.45	54.66	-43.22
Stage 9	19.25	43.3	-56.79



Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	19.05	30.13	-65.85
Stage 9	18.85	16.04	-70.43
Stage 9	18.65	1.92	-70.61
Stage 9	18.45	-11.34	-66.31
Stage 9	18.35	-17.31	-59.72
Stage 9	18.15	-27.61	-51.47
Stage 9	17.95	-35.47	-39.31
Stage 9	17.75	-41.19	-28.63
Stage 9	17.55	-45.07	-19.37
Stage 9	17.35	-47.36	-11.44
Stage 9	17.15	-48.3	-4.74
Stage 9	16.95	-48.14	0.82
Stage 9	16.75	-47.07	5.34
Stage 9	16.55	-45.28	8.93
Stage 9	16.35	-42.95	11.69
Stage 9	16.15	-40.21	13.68
Stage 9	15.95	-37.21	15
Stage 9	15.75	-34.06	15.76
Stage 9	15.55	-30.85	16.03
Stage 9	15.35	-27.67	15.92
Stage 9	15.15	-24.56	15.54
Stage 9	14.95	-21.57	14.94
Stage 9	14.75	-18.73	14.18
Stage 9	14.55	-16.07	13.31
Stage 9	14.35	-13.6	12.35
Stage 9	14.15	-11.33	11.35
Stage 9	13.95	-9.26	10.33
Stage 9	13.75	-7.4	9.31
Stage 9	13.55	-5.74	8.31
Stage 9	13.35	-4.27	7.34
Stage 9	13.15	-2.99	6.41
Stage 9	12.95	-1.88	5.54
Stage 9	12.75	-0.94	4.72
Stage 9	12.55	-0.15	3.96
Stage 9	12.35	0.51	3.27
Stage 9	12.15	1.03	2.64
Stage 9	11.95	1.45	2.07
Stage 9	11.75	1.76	1.57
Stage 9	11.55	1.99	1.13
Stage 9	11.35	2.14	0.75
Stage 9	11.15	2.22	0.42
Stage 9	10.95	2.25	0.14
Stage 9	10.75	2.23	-0.09
Stage 9	10.55	2.18	-0.28
Stage 9	10.35	2.09	-0.43
Stage 9	10.15	1.98	-0.54
Stage 9	9.95	1.86	-0.63
Stage 9	9.75	1.72	-0.68
Stage 9	9.55	1.58	-0.71
Stage 9	9.35	1.43	-0.73
Stage 9	9.15	1.28	-0.73
Stage 9	8.95	1.14	-0.72
Stage 9	8.75	1	-0.69
Stage 9	8.55	0.87	-0.66
Stage 9	8.35	0.75	-0.61
Stage 9	8.15	0.64	-0.57
Stage 9	7.95	0.53	-0.52
Stage 9	7.75	0.44	-0.46
Stage 9	7.55	0.36	-0.41
Stage 9	7.35	0.28	-0.36
Stage 9	7.15	0.22	-0.31
Stage 9	6.95	0.17	-0.26
Stage 9	6.75	0.13	-0.22
Stage 9	6.55	0.09	-0.18
Stage 9	6.35	0.06	-0.14
Stage 9	6.15	0.04	-0.11
Stage 9	5.95	0.02	-0.08
Stage 9	5.75	0.01	-0.06
Stage 9	5.55	0	-0.03

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	5.35	0	-0.02
Stage 9	5.15	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 10

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	31.35	0	0
Stage 10	31.15	0	0
Stage 10	31.15	0	0
Stage 10	30.95	0	0
Stage 10	30.95	0	0
Stage 10	30.75	0	0
Stage 10	30.75	0	0
Stage 10	30.55	-0.32	-1.61
Stage 10	30.35	-2.19	-9.35
Stage 10	30.15	-6.92	-23.66
Stage 10	29.95	-15.83	-44.56
Stage 10	29.75	-29.45	-68.05
Stage 10	29.55	-47.66	-91.07
Stage 10	29.35	-70.35	-113.48
Stage 10	29.15	-46.35	120.04
Stage 10	28.95	-26.37	99.86
Stage 10	28.75	-10.09	81.41
Stage 10	28.55	2.81	64.5
Stage 10	28.35	12.34	47.67
Stage 10	28.15	18.53	30.93
Stage 10	27.95	21.38	14.25
Stage 10	27.75	20.89	-2.42
Stage 10	27.55	17.06	-19.17
Stage 10	27.35	9.84	-36.1
Stage 10	27.15	-0.82	-53.27
Stage 10	26.95	-14.96	-70.72
Stage 10	26.75	-32.65	-88.45
Stage 10	26.55	-53.94	-106.48
Stage 10	26.35	-78.89	-124.74
Stage 10	26.15	-55.13	118.82
Stage 10	25.95	-34.98	100.71
Stage 10	25.75	-18.41	82.89
Stage 10	25.55	-5.32	65.42
Stage 10	25.35	4.33	48.28
Stage 10	25.15	10.62	31.43
Stage 10	24.95	13.56	14.7
Stage 10	24.75	13	-2.81
Stage 10	24.55	8.8	-20.97
Stage 10	24.35	0.88	-39.61
Stage 10	24.15	-10.85	-58.69
Stage 10	23.95	-26.46	-78.01
Stage 10	23.75	-45.93	-97.36
Stage 10	23.55	-69.22	-116.43
Stage 10	23.35	-96.19	-134.87
Stage 10	23.15	-72.41	118.91
Stage 10	22.95	-52.02	101.94
Stage 10	22.75	-35.08	84.71
Stage 10	22.55	-21.65	67.16
Stage 10	22.35	-11.76	49.41
Stage 10	22.15	-5.47	31.48
Stage 10	21.95	-2.77	13.49
Stage 10	21.75	-3.65	-4.41
Stage 10	21.55	-8.06	-22.01
Stage 10	21.35	-15.87	-39.08
Stage 10	21.15	-26.97	-55.49
Stage 10	20.95	-41.27	-71.49
Stage 10	20.85	-49.64	-83.74
Stage 10	20.65	-9.63	200.08
Stage 10	20.45	27.04	183.32
Stage 10	20.25	60.29	166.26
Stage 10	20.05	90.06	148.86
Stage 10	19.85	116.29	131.12
Stage 10	19.65	138.9	113.05
Stage 10	19.45	157.84	94.73
Stage 10	19.25	173.06	76.1

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	19.05	184.49	57.14
Stage 10	18.85	192.06	37.83
Stage 10	18.65	195.7	18.2
Stage 10	18.45	195.36	-1.69
Stage 10	18.35	193.67	-16.84
Stage 10	18.15	187.25	-32.1
Stage 10	17.95	176.69	-52.79
Stage 10	17.75	161.93	-73.82
Stage 10	17.55	143.49	-92.2
Stage 10	17.35	122.51	-104.89
Stage 10	17.15	99.68	-114.16
Stage 10	16.95	75.65	-120.16
Stage 10	16.75	51.04	-123.02
Stage 10	16.55	26.48	-122.83
Stage 10	16.35	2.55	-119.64
Stage 10	16.15	-20.14	-113.48
Stage 10	15.95	-41.01	-104.33
Stage 10	15.75	-59.44	-92.16
Stage 10	15.55	-74.82	-76.88
Stage 10	15.35	-86.49	-58.34
Stage 10	15.15	-94.53	-40.25
Stage 10	14.95	-99.47	-24.67
Stage 10	14.75	-101.76	-11.43
Stage 10	14.55	-101.83	-0.35
Stage 10	14.35	-100.07	8.77
Stage 10	14.15	-96.85	16.11
Stage 10	13.95	-92.48	21.85
Stage 10	13.75	-87.24	26.19
Stage 10	13.55	-81.38	29.29
Stage 10	13.35	-75.12	31.32
Stage 10	13.15	-68.63	32.43
Stage 10	12.95	-62.08	32.76
Stage 10	12.75	-55.61	32.33
Stage 10	12.55	-49.35	31.31
Stage 10	12.35	-43.37	29.93
Stage 10	12.15	-37.71	28.29
Stage 10	11.95	-32.41	26.47
Stage 10	11.75	-27.51	24.52
Stage 10	11.55	-23.01	22.49
Stage 10	11.35	-18.92	20.45
Stage 10	11.15	-15.24	18.42
Stage 10	10.95	-11.95	16.43
Stage 10	10.75	-9.05	14.51
Stage 10	10.55	-6.52	12.68
Stage 10	10.35	-4.33	10.95
Stage 10	10.15	-2.46	9.34
Stage 10	9.95	-0.89	7.85
Stage 10	9.75	0.41	6.48
Stage 10	9.55	1.45	5.23
Stage 10	9.35	2.27	4.11
Stage 10	9.15	2.9	3.1
Stage 10	8.95	3.34	2.21
Stage 10	8.75	3.62	1.43
Stage 10	8.55	3.77	0.75
Stage 10	8.35	3.8	0.16
Stage 10	8.15	3.74	-0.33
Stage 10	7.95	3.59	-0.74
Stage 10	7.75	3.38	-1.07
Stage 10	7.55	3.11	-1.33
Stage 10	7.35	2.81	-1.52
Stage 10	7.15	2.48	-1.65
Stage 10	6.95	2.13	-1.73
Stage 10	6.75	1.78	-1.75
Stage 10	6.55	1.44	-1.72
Stage 10	6.35	1.11	-1.64
Stage 10	6.15	0.81	-1.51
Stage 10	5.95	0.54	-1.33
Stage 10	5.75	0.32	-1.11
Stage 10	5.55	0.15	-0.85

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	5.35	0.04	-0.54
Stage 10	5.15	0	-0.19

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 11

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11	31.35	0	0
Stage 11	31.15	0	0
Stage 11	31.15	0	0
Stage 11	30.95	0	0
Stage 11	30.95	0	0
Stage 11	30.75	0	0
Stage 11	30.75	0	0
Stage 11	30.55	-0.35	-1.74
Stage 11	30.35	-2.26	-9.58
Stage 11	30.15	-7.06	-23.98
Stage 11	29.95	-16.05	-44.96
Stage 11	29.75	-29.75	-68.51
Stage 11	29.55	-48.07	-91.57
Stage 11	29.35	-70.86	-113.99
Stage 11	29.15	-46.96	119.52
Stage 11	28.95	-27.09	99.36
Stage 11	28.75	-10.9	80.95
Stage 11	28.55	1.92	64.1
Stage 11	28.35	11.39	47.34
Stage 11	28.15	17.53	30.71
Stage 11	27.95	20.36	14.16
Stage 11	27.75	19.89	-2.35
Stage 11	27.55	16.11	-18.92
Stage 11	27.35	8.98	-35.63
Stage 11	27.15	-1.53	-52.57
Stage 11	26.95	-15.48	-69.74
Stage 11	26.75	-32.91	-87.16
Stage 11	26.55	-53.88	-104.85
Stage 11	26.35	-78.43	-122.74
Stage 11	26.15	-53.97	122.28
Stage 11	25.95	-33.05	104.6
Stage 11	25.75	-15.6	87.26
Stage 11	25.55	-1.54	70.29
Stage 11	25.35	9.19	53.67
Stage 11	25.15	16.67	37.37
Stage 11	24.95	20.9	21.19
Stage 11	24.75	21.75	4.24
Stage 11	24.55	19.08	-13.36
Stage 11	24.35	12.79	-31.47
Stage 11	24.15	2.78	-50.04
Stage 11	23.95	-11	-68.91
Stage 11	23.75	-28.58	-87.88
Stage 11	23.55	-49.91	-106.66
Stage 11	23.35	-74.89	-124.91
Stage 11	23.15	-49.09	129
Stage 11	22.95	-26.71	111.9
Stage 11	22.75	-7.85	94.34
Stage 11	22.55	7.39	76.21
Stage 11	22.35	18.91	57.6
Stage 11	22.15	26.61	38.5
Stage 11	21.95	30.41	18.98
Stage 11	21.75	30.24	-0.86
Stage 11	21.55	26.07	-20.85
Stage 11	21.35	17.9	-40.81
Stage 11	21.15	5.78	-60.65
Stage 11	20.95	-10.36	-80.68
Stage 11	20.85	-20	-96.43
Stage 11	20.65	13.81	169.05
Stage 11	20.45	43.12	146.58
Stage 11	20.25	67.74	123.08
Stage 11	20.05	87.44	98.49
Stage 11	19.85	101.99	72.79
Stage 11	19.65	111.19	46
Stage 11	19.45	114.84	18.21
Stage 11	19.25	112.72	-10.58

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11	19.05	104.65	-40.36
Stage 11	18.85	90.44	-71.02
Stage 11	18.65	69.95	-102.47
Stage 11	18.45	43.05	-134.47
Stage 11	18.35	27.18	-158.8
Stage 11	18.15	51.98	124.03
Stage 11	17.95	70.24	91.31
Stage 11	17.75	81.97	58.63
Stage 11	17.55	87.23	26.32
Stage 11	17.35	86.62	-3.06
Stage 11	17.15	81.06	-27.82
Stage 11	16.95	71.44	-48.07
Stage 11	16.75	58.66	-63.91
Stage 11	16.55	43.58	-75.42
Stage 11	16.35	27.05	-82.66
Stage 11	16.15	9.91	-85.69
Stage 11	15.95	-7	-84.56
Stage 11	15.75	-22.86	-79.28
Stage 11	15.55	-36.83	-69.87
Stage 11	15.35	-48.08	-56.24
Stage 11	15.15	-56.52	-42.18
Stage 11	14.95	-62.49	-29.85
Stage 11	14.75	-66.32	-19.16
Stage 11	14.55	-68.32	-10
Stage 11	14.35	-68.77	-2.26
Stage 11	14.15	-67.94	4.17
Stage 11	13.95	-66.06	9.4
Stage 11	13.75	-63.35	13.57
Stage 11	13.55	-59.99	16.76
Stage 11	13.35	-56.18	19.06
Stage 11	13.15	-52.06	20.6
Stage 11	12.95	-47.76	21.48
Stage 11	12.75	-43.41	21.79
Stage 11	12.55	-39.09	21.56
Stage 11	12.35	-34.89	21.02
Stage 11	12.15	-30.84	20.23
Stage 11	11.95	-26.99	19.25
Stage 11	11.75	-23.37	18.12
Stage 11	11.55	-19.99	16.9
Stage 11	11.35	-16.87	15.6
Stage 11	11.15	-14.01	14.28
Stage 11	10.95	-11.43	12.94
Stage 11	10.75	-9.1	11.63
Stage 11	10.55	-7.03	10.34
Stage 11	10.35	-5.21	9.1
Stage 11	10.15	-3.63	7.93
Stage 11	9.95	-2.26	6.82
Stage 11	9.75	-1.11	5.78
Stage 11	9.55	-0.14	4.82
Stage 11	9.35	0.64	3.93
Stage 11	9.15	1.27	3.13
Stage 11	8.95	1.75	2.4
Stage 11	8.75	2.1	1.75
Stage 11	8.55	2.33	1.17
Stage 11	8.35	2.46	0.66
Stage 11	8.15	2.51	0.22
Stage 11	7.95	2.48	-0.16
Stage 11	7.75	2.38	-0.47
Stage 11	7.55	2.24	-0.73
Stage 11	7.35	2.05	-0.93
Stage 11	7.15	1.83	-1.08
Stage 11	6.95	1.6	-1.18
Stage 11	6.75	1.35	-1.23
Stage 11	6.55	1.1	-1.25
Stage 11	6.35	0.86	-1.22
Stage 11	6.15	0.63	-1.14
Stage 11	5.95	0.42	-1.02
Stage 11	5.75	0.25	-0.86
Stage 11	5.55	0.12	-0.67

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11	5.35	0.03	-0.43
Stage 11	5.15	0	-0.16



**Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 12**

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 12	31.35	0	0
Stage 12	31.15	0	0
Stage 12	31.15	0	0
Stage 12	30.95	0	0
Stage 12	30.95	0	0
Stage 12	30.75	0	0
Stage 12	30.75	0	0
Stage 12	30.55	-0.33	-1.67
Stage 12	30.35	-2.22	-9.45
Stage 12	30.15	-6.98	-23.78
Stage 12	29.95	-15.92	-44.69
Stage 12	29.75	-29.56	-68.18
Stage 12	29.55	-47.79	-91.18
Stage 12	29.35	-70.5	-113.54
Stage 12	29.15	-46.46	120.19
Stage 12	28.95	-26.44	100.09
Stage 12	28.75	-10.1	81.74
Stage 12	28.55	2.89	64.94
Stage 12	28.35	12.54	48.23
Stage 12	28.15	18.87	31.64
Stage 12	27.95	21.9	15.14
Stage 12	27.75	21.62	-1.35
Stage 12	27.55	18.04	-17.9
Stage 12	27.35	11.12	-34.61
Stage 12	27.15	0.81	-51.56
Stage 12	26.95	-12.94	-68.76
Stage 12	26.75	-30.19	-86.24
Stage 12	26.55	-50.99	-104.01
Stage 12	26.35	-75.39	-122.01
Stage 12	26.15	-50.89	122.49
Stage 12	25.95	-29.97	104.63
Stage 12	25.75	-12.56	87.06
Stage 12	25.55	1.41	69.82
Stage 12	25.35	11.98	52.88
Stage 12	25.15	19.22	36.2
Stage 12	24.95	23.14	19.59
Stage 12	24.75	23.57	2.14
Stage 12	24.55	20.36	-16.03
Stage 12	24.35	13.41	-34.77
Stage 12	24.15	2.6	-54.04
Stage 12	23.95	-12.13	-73.69
Stage 12	23.75	-30.83	-93.5
Stage 12	23.55	-53.47	-113.18
Stage 12	23.35	-79.95	-132.41
Stage 12	23.15	-56.44	117.56
Stage 12	22.95	-36.56	99.37
Stage 12	22.75	-20.43	80.67
Stage 12	22.55	-8.15	61.38
Stage 12	22.35	0.17	41.6
Stage 12	22.15	4.44	21.34
Stage 12	21.95	4.57	0.69
Stage 12	21.75	0.53	-20.21
Stage 12	21.55	-7.7	-41.16
Stage 12	21.35	-20.09	-61.93
Stage 12	21.15	-36.56	-82.39
Stage 12	20.95	-57.12	-102.8
Stage 12	20.85	-68.98	-118.61
Stage 12	20.65	-39.54	147.22
Stage 12	20.45	-14.49	125.26
Stage 12	20.25	6.06	102.73
Stage 12	20.05	21.99	79.67
Stage 12	19.85	33.22	56.14
Stage 12	19.65	39.67	32.25
Stage 12	19.45	41.31	8.19
Stage 12	19.25	38.12	-15.94

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 12	19.05	30.11	-40.04
Stage 12	18.85	17.34	-63.89
Stage 12	18.65	-0.12	-87.29
Stage 12	18.45	-22.11	-109.92
Stage 12	18.35	-34.72	-126.13
Stage 12	18.15	7.38	210.47
Stage 12	17.95	45.33	189.77
Stage 12	17.75	79.08	168.75
Stage 12	17.55	108.56	147.42
Stage 12	17.35	133.73	125.85
Stage 12	17.15	154.52	103.94
Stage 12	16.95	170.86	81.7
Stage 12	16.75	182.69	59.12
Stage 12	16.55	189.94	36.26
Stage 12	16.35	192.56	13.13
Stage 12	16.15	190.5	-10.31
Stage 12	15.95	183.68	-34.09
Stage 12	15.75	172.04	-58.19
Stage 12	15.55	156.12	-79.64
Stage 12	15.35	137	-95.6
Stage 12	15.15	115.41	-107.92
Stage 12	14.95	92.05	-116.8
Stage 12	14.75	67.57	-122.41
Stage 12	14.55	42.6	-124.87
Stage 12	14.35	17.74	-124.29
Stage 12	14.15	-6.4	-120.72
Stage 12	13.95	-29.24	-114.2
Stage 12	13.75	-50.19	-104.72
Stage 12	13.55	-68.64	-92.24
Stage 12	13.35	-83.98	-76.7
Stage 12	13.15	-95.57	-58
Stage 12	12.95	-103.4	-39.1
Stage 12	12.75	-107.99	-22.97
Stage 12	12.55	-109.87	-9.38
Stage 12	12.35	-109.47	1.99
Stage 12	12.15	-107.2	11.33
Stage 12	11.95	-103.43	18.84
Stage 12	11.75	-98.49	24.71
Stage 12	11.55	-92.66	29.13
Stage 12	11.35	-86.21	32.26
Stage 12	11.15	-79.35	34.29
Stage 12	10.95	-72.28	35.36
Stage 12	10.75	-65.16	35.6
Stage 12	10.55	-58.15	35.05
Stage 12	10.35	-51.38	33.86
Stage 12	10.15	-44.95	32.18
Stage 12	9.95	-38.9	30.22
Stage 12	9.75	-33.29	28.07
Stage 12	9.55	-28.13	25.78
Stage 12	9.35	-23.44	23.43
Stage 12	9.15	-19.23	21.06
Stage 12	8.95	-15.49	18.72
Stage 12	8.75	-12.2	16.44
Stage 12	8.55	-9.35	14.24
Stage 12	8.35	-6.92	12.16
Stage 12	8.15	-4.88	10.21
Stage 12	7.95	-3.2	8.4
Stage 12	7.75	-1.85	6.74
Stage 12	7.55	-0.8	5.24
Stage 12	7.35	-0.02	3.9
Stage 12	7.15	0.52	2.72
Stage 12	6.95	0.87	1.71
Stage 12	6.75	1.04	0.85
Stage 12	6.55	1.07	0.16
Stage 12	6.35	0.99	-0.38
Stage 12	6.15	0.84	-0.77
Stage 12	5.95	0.64	-1.01
Stage 12	5.75	0.41	-1.1
Stage 12	5.55	0.21	-1.02

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 12	5.35	0.06	-0.75
Stage 12	5.15	0	-0.31

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 13

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 13	31.35	0	0
Stage 13	31.15	0	0
Stage 13	31.15	0	0
Stage 13	30.95	0	0
Stage 13	30.95	0	0
Stage 13	30.75	0	0
Stage 13	30.75	0	0
Stage 13	30.55	-0.34	-1.71
Stage 13	30.35	-2.25	-9.53
Stage 13	30.15	-7.03	-23.9
Stage 13	29.95	-16	-44.84
Stage 13	29.75	-29.67	-68.36
Stage 13	29.55	-47.95	-91.39
Stage 13	29.35	-70.7	-113.79
Stage 13	29.15	-46.74	119.84
Stage 13	28.95	-26.79	99.71
Stage 13	28.75	-10.53	81.33
Stage 13	28.55	2.37	64.51
Stage 13	28.35	11.93	47.79
Stage 13	28.15	18.17	31.18
Stage 13	27.95	21.1	14.66
Stage 13	27.75	20.74	-1.83
Stage 13	27.55	17.06	-18.38
Stage 13	27.35	10.04	-35.07
Stage 13	27.15	-0.36	-52
Stage 13	26.95	-14.19	-69.17
Stage 13	26.75	-31.51	-86.61
Stage 13	26.55	-52.37	-104.31
Stage 13	26.35	-76.82	-122.24
Stage 13	26.15	-52.3	122.59
Stage 13	25.95	-31.33	104.85
Stage 13	25.75	-13.85	87.41
Stage 13	25.55	0.22	70.33
Stage 13	25.35	10.93	53.58
Stage 13	25.15	18.36	37.11
Stage 13	24.95	22.51	20.74
Stage 13	24.75	23.22	3.56
Stage 13	24.55	20.36	-14.3
Stage 13	24.35	13.82	-32.7
Stage 13	24.15	3.5	-51.61
Stage 13	23.95	-10.67	-70.86
Stage 13	23.75	-28.72	-90.24
Stage 13	23.55	-50.62	-109.47
Stage 13	23.35	-76.26	-128.22
Stage 13	23.15	-51.53	123.65
Stage 13	22.95	-30.34	105.97
Stage 13	22.75	-12.78	87.8
Stage 13	22.55	1.03	69.03
Stage 13	22.35	10.98	49.77
Stage 13	22.15	16.98	29.99
Stage 13	21.95	18.94	9.79
Stage 13	21.75	16.8	-10.71
Stage 13	21.55	10.53	-31.34
Stage 13	21.35	0.15	-51.9
Stage 13	21.15	-14.3	-72.26
Stage 13	20.95	-32.85	-92.72
Stage 13	20.85	-43.72	-108.71
Stage 13	20.65	-12.55	155.86
Stage 13	20.45	14.12	133.32
Stage 13	20.25	36.11	109.95
Stage 13	20.05	53.25	85.73
Stage 13	19.85	65.39	60.69
Stage 13	19.65	72.37	34.9
Stage 13	19.45	74.07	8.49
Stage 13	19.25	70.37	-18.48

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 13	19.05	61.18	-45.94
Stage 13	18.85	46.44	-73.73
Stage 13	18.65	26.1	-101.69
Stage 13	18.45	0.19	-129.53
Stage 13	18.35	-14.82	-150.18
Stage 13	18.15	16.63	157.26
Stage 13	17.95	42.54	129.56
Stage 13	17.75	62.69	100.78
Stage 13	17.55	76.89	70.95
Stage 13	17.35	84.92	40.15
Stage 13	17.15	86.58	8.34
Stage 13	16.95	81.7	-24.41
Stage 13	16.75	70.1	-58.01
Stage 13	16.55	51.64	-92.29
Stage 13	16.35	26.23	-127.07
Stage 13	16.15	55.24	145.05
Stage 13	15.95	77.19	109.76
Stage 13	15.75	92.09	74.5
Stage 13	15.55	100.01	39.59
Stage 13	15.35	101.35	6.7
Stage 13	15.15	97.08	-21.37
Stage 13	14.95	88.13	-44.72
Stage 13	14.75	75.43	-63.5
Stage 13	14.55	59.87	-77.8
Stage 13	14.35	42.33	-87.74
Stage 13	14.15	23.64	-93.44
Stage 13	13.95	4.64	-94.98
Stage 13	13.75	-13.84	-92.41
Stage 13	13.55	-31	-85.79
Stage 13	13.35	-46.03	-75.13
Stage 13	13.15	-58.11	-60.42
Stage 13	12.95	-67.05	-44.71
Stage 13	12.75	-73.26	-31.05
Stage 13	12.55	-77.13	-19.32
Stage 13	12.35	-78.98	-9.25
Stage 13	12.15	-79.12	-0.74
Stage 13	11.95	-77.86	6.34
Stage 13	11.75	-75.43	12.11
Stage 13	11.55	-72.1	16.67
Stage 13	11.35	-68.07	20.14
Stage 13	11.15	-63.55	22.64
Stage 13	10.95	-58.69	24.3
Stage 13	10.75	-53.64	25.23
Stage 13	10.55	-48.54	25.52
Stage 13	10.35	-43.5	25.2
Stage 13	10.15	-38.62	24.41
Stage 13	9.95	-33.95	23.32
Stage 13	9.75	-29.55	22.02
Stage 13	9.55	-25.44	20.55
Stage 13	9.35	-21.65	18.97
Stage 13	9.15	-18.18	17.32
Stage 13	8.95	-15.05	15.64
Stage 13	8.75	-12.26	13.96
Stage 13	8.55	-9.8	12.32
Stage 13	8.35	-7.65	10.73
Stage 13	8.15	-5.81	9.21
Stage 13	7.95	-4.26	7.77
Stage 13	7.75	-2.97	6.44
Stage 13	7.55	-1.93	5.21
Stage 13	7.35	-1.11	4.09
Stage 13	7.15	-0.49	3.09
Stage 13	6.95	-0.05	2.21
Stage 13	6.75	0.24	1.45
Stage 13	6.55	0.4	0.81
Stage 13	6.35	0.46	0.29
Stage 13	6.15	0.44	-0.11
Stage 13	5.95	0.36	-0.39
Stage 13	5.75	0.25	-0.55
Stage 13	5.55	0.13	-0.58

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 13	5.35	0.04	-0.46
Stage 13	5.15	0	-0.2

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 14

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 14	31.35	0	0
Stage 14	31.15	0	0
Stage 14	31.15	0	0
Stage 14	30.95	0	0
Stage 14	30.95	0	0
Stage 14	30.75	0	0
Stage 14	30.75	0	0
Stage 14	30.55	-0.34	-1.72
Stage 14	30.35	-2.25	-9.54
Stage 14	30.15	-7.03	-23.91
Stage 14	29.95	-16	-44.85
Stage 14	29.75	-29.68	-68.36
Stage 14	29.55	-47.95	-91.37
Stage 14	29.35	-70.7	-113.75
Stage 14	29.15	-46.71	119.96
Stage 14	28.95	-26.74	99.86
Stage 14	28.75	-10.43	81.51
Stage 14	28.55	2.51	64.73
Stage 14	28.35	12.12	48.05
Stage 14	28.15	18.42	31.49
Stage 14	27.95	21.42	15.02
Stage 14	27.75	21.14	-1.42
Stage 14	27.55	17.56	-17.91
Stage 14	27.35	10.65	-34.55
Stage 14	27.15	0.36	-51.41
Stage 14	26.95	-13.34	-68.52
Stage 14	26.75	-30.52	-85.9
Stage 14	26.55	-51.23	-103.54
Stage 14	26.35	-75.51	-121.41
Stage 14	26.15	-50.79	123.62
Stage 14	25.95	-29.6	105.92
Stage 14	25.75	-11.9	88.53
Stage 14	25.55	2.4	71.47
Stage 14	25.35	13.35	54.74
Stage 14	25.15	21	38.27
Stage 14	24.95	25.38	21.88
Stage 14	24.75	26.31	4.66
Stage 14	24.55	23.66	-13.27
Stage 14	24.35	17.3	-31.77
Stage 14	24.15	7.14	-50.82
Stage 14	23.95	-6.91	-70.24
Stage 14	23.75	-24.88	-89.85
Stage 14	23.55	-46.75	-109.35
Stage 14	23.35	-72.43	-128.43
Stage 14	23.15	-48.05	121.94
Stage 14	22.95	-27.29	103.8
Stage 14	22.75	-10.26	85.1
Stage 14	22.55	2.88	65.73
Stage 14	22.35	12.04	45.78
Stage 14	22.15	17.08	25.23
Stage 14	21.95	17.92	4.18
Stage 14	21.75	14.47	-17.26
Stage 14	21.55	6.69	-38.9
Stage 14	21.35	-5.43	-60.55
Stage 14	21.15	-21.84	-82.09
Stage 14	20.95	-42.6	-103.79
Stage 14	20.85	-54.67	-120.74
Stage 14	20.65	-26.88	138.99
Stage 14	20.45	-3.86	115.1
Stage 14	20.25	14.22	90.36
Stage 14	20.05	27.18	64.8
Stage 14	19.85	34.87	38.46
Stage 14	19.65	37.15	11.43
Stage 14	19.45	33.94	-16.08
Stage 14	19.25	25.14	-43.99

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 14	19.05	10.71	-72.16
Stage 14	18.85	-9.37	-100.38
Stage 14	18.65	-35.05	-128.4
Stage 14	18.45	-66.23	-155.87
Stage 14	18.35	-83.81	-175.85
Stage 14	18.15	-56.39	137.08
Stage 14	17.95	-34.15	111.23
Stage 14	17.75	-17.14	85.05
Stage 14	17.55	-5.4	58.7
Stage 14	17.35	1.07	32.35
Stage 14	17.15	2.29	6.08
Stage 14	16.95	-1.7	-19.92
Stage 14	16.75	-10.79	-45.44
Stage 14	16.55	-24.83	-70.21
Stage 14	16.35	-43.61	-93.91
Stage 14	16.15	4.85	242.3
Stage 14	15.95	48.56	218.52
Stage 14	15.75	87.44	194.42
Stage 14	15.55	121.44	170.03
Stage 14	15.35	150.52	145.38
Stage 14	15.15	174.6	120.41
Stage 14	14.95	193.63	95.12
Stage 14	14.75	207.53	69.5
Stage 14	14.55	216.24	43.59
Stage 14	14.35	219.73	17.43
Stage 14	14.15	217.92	-9.04
Stage 14	13.95	210.75	-35.84
Stage 14	13.75	198.16	-62.96
Stage 14	13.55	180.67	-87.43
Stage 14	13.35	159.43	-106.25
Stage 14	13.15	135.53	-119.49
Stage 14	12.95	109.91	-128.07
Stage 14	12.75	83.19	-133.63
Stage 14	12.55	55.92	-136.32
Stage 14	12.35	28.7	-136.13
Stage 14	12.15	2.07	-133.16
Stage 14	11.95	-23.43	-127.46
Stage 14	11.75	-47.24	-119.07
Stage 14	11.55	-68.83	-107.96
Stage 14	11.35	-87.65	-94.08
Stage 14	11.15	-103.12	-77.35
Stage 14	10.95	-114.65	-57.67
Stage 14	10.75	-121.97	-36.57
Stage 14	10.55	-125.7	-18.67
Stage 14	10.35	-126.44	-3.71
Stage 14	10.15	-124.73	8.57
Stage 14	9.95	-121.02	18.53
Stage 14	9.75	-115.74	26.4
Stage 14	9.55	-109.26	32.41
Stage 14	9.35	-101.91	36.78
Stage 14	9.15	-93.96	39.73
Stage 14	8.95	-85.67	41.46
Stage 14	8.75	-77.24	42.15
Stage 14	8.55	-68.87	41.85
Stage 14	8.35	-60.73	40.7
Stage 14	8.15	-52.96	38.86
Stage 14	7.95	-45.64	36.59
Stage 14	7.75	-38.83	34.03
Stage 14	7.55	-32.58	31.28
Stage 14	7.35	-26.9	28.4
Stage 14	7.15	-21.8	25.47
Stage 14	6.95	-17.29	22.54
Stage 14	6.75	-13.36	19.66
Stage 14	6.55	-9.99	16.86
Stage 14	6.35	-7.16	14.15
Stage 14	6.15	-4.84	11.57
Stage 14	5.95	-3.02	9.13
Stage 14	5.75	-1.65	6.84
Stage 14	5.55	-0.71	4.69



Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 14	5.35	-0.17	2.7
Stage 14	5.15	0	0.85

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 15

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 15	31.35	0	0
Stage 15	31.15	0	0
Stage 15	31.15	0	0
Stage 15	30.95	0	0
Stage 15	30.95	0	0
Stage 15	30.75	0	0
Stage 15	30.75	0	0
Stage 15	30.55	-0.34	-1.72
Stage 15	30.35	-2.25	-9.54
Stage 15	30.15	-7.03	-23.91
Stage 15	29.95	-16	-44.86
Stage 15	29.75	-29.68	-68.37
Stage 15	29.55	-47.96	-91.4
Stage 15	29.35	-70.71	-113.78
Stage 15	29.15	-46.74	119.88
Stage 15	28.95	-26.78	99.77
Stage 15	28.75	-10.5	81.41
Stage 15	28.55	2.42	64.61
Stage 15	28.35	12	47.91
Stage 15	28.15	18.27	31.33
Stage 15	27.95	21.24	14.84
Stage 15	27.75	20.91	-1.62
Stage 15	27.55	17.29	-18.14
Stage 15	27.35	10.33	-34.8
Stage 15	27.15	-0.01	-51.69
Stage 15	26.95	-13.78	-68.82
Stage 15	26.75	-31.02	-86.22
Stage 15	26.55	-51.8	-103.89
Stage 15	26.35	-76.15	-121.77
Stage 15	26.15	-51.51	123.19
Stage 15	25.95	-30.42	105.48
Stage 15	25.75	-12.8	88.08
Stage 15	25.55	1.4	71.02
Stage 15	25.35	12.26	54.29
Stage 15	25.15	19.83	37.84
Stage 15	24.95	24.12	21.47
Stage 15	24.75	24.98	4.29
Stage 15	24.55	22.26	-13.6
Stage 15	24.35	15.85	-32.04
Stage 15	24.15	5.65	-51
Stage 15	23.95	-8.41	-70.33
Stage 15	23.75	-26.38	-89.82
Stage 15	23.55	-48.21	-109.18
Stage 15	23.35	-73.83	-128.09
Stage 15	23.15	-49.22	123.04
Stage 15	22.95	-28.2	105.12
Stage 15	22.75	-10.86	86.68
Stage 15	22.55	2.66	67.59
Stage 15	22.35	12.25	47.96
Stage 15	22.15	17.8	27.77
Stage 15	21.95	19.23	7.11
Stage 15	21.75	16.44	-13.91
Stage 15	21.55	9.42	-35.1
Stage 15	21.35	-1.83	-56.28
Stage 15	21.15	-17.29	-77.31
Stage 15	20.95	-36.99	-98.49
Stage 15	20.85	-48.5	-115.05
Stage 15	20.65	-19.16	146.66
Stage 15	20.45	5.5	123.3
Stage 15	20.25	25.31	99.09
Stage 15	20.05	40.12	74.03
Stage 15	19.85	49.75	48.15
Stage 15	19.65	54.05	21.53
Stage 15	19.45	52.92	-5.66
Stage 15	19.25	46.25	-33.35

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 15	19.05	33.97	-61.42
Stage 15	18.85	16.03	-89.7
Stage 15	18.65	-7.57	-117.97
Stage 15	18.45	-36.75	-145.92
Stage 15	18.35	-53.39	-166.45
Stage 15	18.15	-24.91	142.38
Stage 15	17.95	-1.85	115.32
Stage 15	17.75	15.66	87.57
Stage 15	17.55	27.51	59.23
Stage 15	17.35	33.59	30.43
Stage 15	17.15	33.84	1.21
Stage 15	16.95	28.18	-28.28
Stage 15	16.75	16.6	-57.9
Stage 15	16.55	-0.88	-87.39
Stage 15	16.35	-24.17	-116.49
Stage 15	16.15	13.53	188.51
Stage 15	15.95	45.11	157.9
Stage 15	15.75	70.35	126.23
Stage 15	15.55	89.06	93.53
Stage 15	15.35	101.03	59.86
Stage 15	15.15	106.07	25.21
Stage 15	14.95	104	-10.37
Stage 15	14.75	94.64	-46.78
Stage 15	14.55	77.87	-83.85
Stage 15	14.35	53.6	-121.39
Stage 15	14.15	83.19	147.98
Stage 15	13.95	105.18	109.96
Stage 15	13.75	119.58	71.99
Stage 15	13.55	126.46	34.38
Stage 15	13.35	126	-2.27
Stage 15	13.15	119.59	-32.05
Stage 15	12.95	108.44	-55.76
Stage 15	12.75	93.43	-75.04
Stage 15	12.55	75.43	-90
Stage 15	12.35	55.3	-100.67
Stage 15	12.15	33.86	-107.2
Stage 15	11.95	11.91	-109.71
Stage 15	11.75	-9.75	-108.3
Stage 15	11.55	-30.36	-103.06
Stage 15	11.35	-49.16	-94.02
Stage 15	11.15	-65.4	-81.19
Stage 15	10.95	-78.31	-64.57
Stage 15	10.75	-87.47	-45.8
Stage 15	10.55	-93.39	-29.58
Stage 15	10.35	-96.54	-15.75
Stage 15	10.15	-97.36	-4.11
Stage 15	9.95	-96.24	5.59
Stage 15	9.75	-93.54	13.53
Stage 15	9.55	-89.57	19.83
Stage 15	9.35	-84.64	24.67
Stage 15	9.15	-79	28.21
Stage 15	8.95	-72.87	30.63
Stage 15	8.75	-66.45	32.08
Stage 15	8.55	-59.91	32.7
Stage 15	8.35	-53.41	32.52
Stage 15	8.15	-47.08	31.65
Stage 15	7.95	-41.01	30.33
Stage 15	7.75	-35.28	28.68
Stage 15	7.55	-29.92	26.78
Stage 15	7.35	-24.98	24.7
Stage 15	7.15	-20.48	22.5
Stage 15	6.95	-16.44	20.22
Stage 15	6.75	-12.85	17.92
Stage 15	6.55	-9.73	15.62
Stage 15	6.35	-7.06	13.34
Stage 15	6.15	-4.84	11.1
Stage 15	5.95	-3.06	8.92
Stage 15	5.75	-1.7	6.81
Stage 15	5.55	-0.74	4.77

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 15	5.35	-0.18	2.8
Stage 15	5.15	0	0.91

**Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 16**

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 16	31.35	0	0
Stage 16	31.15	0	0
Stage 16	31.15	0	0
Stage 16	30.95	0	0
Stage 16	30.95	0	0
Stage 16	30.75	0	0
Stage 16	30.75	0	0
Stage 16	30.55	-0.35	-1.73
Stage 16	30.35	-2.26	-9.55
Stage 16	30.15	-7.04	-23.94
Stage 16	29.95	-16.02	-44.88
Stage 16	29.75	-29.7	-68.41
Stage 16	29.55	-47.99	-91.43
Stage 16	29.35	-70.75	-113.82
Stage 16	29.15	-46.78	119.85
Stage 16	28.95	-26.83	99.74
Stage 16	28.75	-10.56	81.38
Stage 16	28.55	2.36	64.58
Stage 16	28.35	11.94	47.89
Stage 16	28.15	18.2	31.31
Stage 16	27.95	21.17	14.83
Stage 16	27.75	20.84	-1.62
Stage 16	27.55	17.22	-18.12
Stage 16	27.35	10.26	-34.77
Stage 16	27.15	-0.06	-51.64
Stage 16	26.95	-13.81	-68.75
Stage 16	26.75	-31.04	-86.13
Stage 16	26.55	-51.79	-103.77
Stage 16	26.35	-76.12	-121.63
Stage 16	26.15	-51.43	123.44
Stage 16	25.95	-30.28	105.76
Stage 16	25.75	-12.6	88.39
Stage 16	25.55	1.68	71.37
Stage 16	25.35	12.61	54.68
Stage 16	25.15	20.26	38.26
Stage 16	24.95	24.65	21.94
Stage 16	24.75	25.61	4.79
Stage 16	24.55	23	-13.05
Stage 16	24.35	16.71	-31.46
Stage 16	24.15	6.63	-50.38
Stage 16	23.95	-7.3	-69.68
Stage 16	23.75	-25.13	-89.14
Stage 16	23.55	-46.83	-108.48
Stage 16	23.35	-72.3	-127.38
Stage 16	23.15	-47.55	123.76
Stage 16	22.95	-26.38	105.84
Stage 16	22.75	-8.91	87.37
Stage 16	22.55	4.74	68.24
Stage 16	22.35	14.45	48.55
Stage 16	22.15	20.11	28.27
Stage 16	21.95	21.61	7.5
Stage 16	21.75	18.88	-13.65
Stage 16	21.55	11.87	-35.02
Stage 16	21.35	0.59	-56.4
Stage 16	21.15	-14.94	-77.67
Stage 16	20.95	-34.77	-99.14
Stage 16	20.85	-46.37	-115.95
Stage 16	20.65	-17.48	144.44
Stage 16	20.45	6.66	120.67
Stage 16	20.25	25.86	96.01
Stage 16	20.05	39.94	70.43
Stage 16	19.85	48.74	43.98
Stage 16	19.65	52.09	16.74
Stage 16	19.45	49.86	-11.13
Stage 16	19.25	41.95	-39.54

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 16	19.05	28.28	-68.38
Stage 16	18.85	8.78	-97.47
Stage 16	18.65	-16.53	-126.59
Stage 16	18.45	-47.61	-155.4
Stage 16	18.35	-65.27	-176.58
Stage 16	18.15	-39.63	128.18
Stage 16	17.95	-19.58	100.26
Stage 16	17.75	-5.24	71.68
Stage 16	17.55	3.27	42.58
Stage 16	17.35	5.89	13.11
Stage 16	17.15	2.56	-16.66
Stage 16	16.95	-6.75	-46.56
Stage 16	16.75	-22.02	-76.36
Stage 16	16.55	-43.18	-105.79
Stage 16	16.35	-70.08	-134.52
Stage 16	16.15	-35.24	174.23
Stage 16	15.95	-6.28	144.79
Stage 16	15.75	16.68	114.77
Stage 16	15.55	33.53	84.29
Stage 16	15.35	44.23	53.49
Stage 16	15.15	48.72	22.42
Stage 16	14.95	46.96	-8.78
Stage 16	14.75	38.97	-39.93
Stage 16	14.55	24.82	-70.79
Stage 16	14.35	4.6	-101.09
Stage 16	14.15	47.62	215.09
Stage 16	13.95	84.93	186.58
Stage 16	13.75	116.8	159.35
Stage 16	13.55	143.19	131.94
Stage 16	13.35	164.05	104.29
Stage 16	13.15	179.31	76.31
Stage 16	12.95	188.91	48.02
Stage 16	12.75	192.79	19.41
Stage 16	12.55	190.9	-9.49
Stage 16	12.35	183.17	-38.63
Stage 16	12.15	170.44	-63.67
Stage 16	11.95	153.81	-83.14
Stage 16	11.75	134.16	-98.24
Stage 16	11.55	112.18	-109.9
Stage 16	11.35	88.52	-118.31
Stage 16	11.15	63.79	-123.63
Stage 16	10.95	38.59	-126
Stage 16	10.75	13.49	-125.51
Stage 16	10.55	-10.95	-122.23
Stage 16	10.35	-34.19	-116.17
Stage 16	10.15	-55.65	-107.31
Stage 16	9.95	-74.75	-95.51
Stage 16	9.75	-90.9	-80.72
Stage 16	9.55	-103.47	-62.85
Stage 16	9.35	-111.82	-41.78
Stage 16	9.15	-116.27	-22.23
Stage 16	8.95	-117.41	-5.71
Stage 16	8.75	-115.81	8.02
Stage 16	8.55	-111.97	19.19
Stage 16	8.35	-106.36	28.06
Stage 16	8.15	-99.39	34.85
Stage 16	7.95	-91.41	39.9
Stage 16	7.75	-82.72	43.44
Stage 16	7.55	-73.6	45.62
Stage 16	7.35	-64.27	46.63
Stage 16	7.15	-54.98	46.48
Stage 16	6.95	-45.93	45.2
Stage 16	6.75	-37.35	42.94
Stage 16	6.55	-29.37	39.86
Stage 16	6.35	-22.14	36.15
Stage 16	6.15	-15.77	31.89
Stage 16	5.95	-10.34	27.13
Stage 16	5.75	-5.96	21.89
Stage 16	5.55	-2.72	16.21

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 16	5.35	-0.7	10.08
Stage 16	5.15	0	3.51

## Risultati Elementi strutturali - A1+M1+R1

### Design Assumption: A1+M1+R1 Sollecitazione Tir-A1

Stage	Forza (kN/m)
Stage 3	260
Stage 4	262.66565
Stage 5	261.11618
Stage 6	258.75668
Stage 7	259.7062
Stage 8	258.65632
Stage 9	259.06556
Stage 10	259.02045
Stage 11	259.01564
Stage 12	259.17151
Stage 13	259.0965
Stage 14	259.15604
Stage 15	259.12627
Stage 16	259.12601



**Design Assumption: A1+M1+R1 Sollecitazione Tir-B1**

Stage	Forza (kN/m)
Stage 5	260
Stage 6	273.86164
Stage 7	269.63144
Stage 8	267.90725
Stage 9	268.69427
Stage 10	265.9176
Stage 11	266.97502
Stage 12	266.59646
Stage 13	266.84125
Stage 14	266.98321
Stage 15	266.9381
Stage 16	267.01441

**Design Assumption: A1+M1+R1 Sollecitazione Tir-C1**

Stage	Forza (kN/m)
Stage 7	260
Stage 8	284.1254
Stage 9	274.66738
Stage 10	275.48105
Stage 11	275.58713
Stage 12	272.63561
Stage 13	274.05807
Stage 14	272.94007
Stage 15	273.50011
Stage 16	273.50752

**Design Assumption: A1+M1+R1 Sollecitazione Tir-D1**

Stage	Forza (kN/m)
Stage 9	260
Stage 10	300.76943
Stage 11	285.9506
Stage 12	286.24063
Stage 13	285.22169
Stage 14	281.30258
Stage 15	282.89963
Stage 16	281.83441

**Design Assumption: A1+M1+R1 Sollecitazione Tir-E1**

Stage	Forza (kN/m)
Stage 11	312
Stage 12	357.79614
Stage 13	332.96081
Stage 14	337.64588
Stage 15	334.14966
Stage 16	330.68919

**Design Assumption: A1+M1+R1 Sollecitazione Tir-F1**

Stage	Forza (kN/m)
Stage 13	312
Stage 14	365.20549
Stage 15	339.70248
Stage 16	342.76853

**Design Assumption: A1+M1+R1 Sollecitazione Tir-G1**

Stage	Forza (kN/m)
Stage 15	312
Stage 16	351.05889

## Risultati A2+M2+R1

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	31.35	0	0
Stage 1	31.15	0	0
Stage 1	31.15	0	0
Stage 1	30.95	0	0
Stage 1	30.95	0	0
Stage 1	30.75	0	0
Stage 1	30.75	0	0
Stage 1	30.55	0	0
Stage 1	30.35	0	0
Stage 1	30.15	0	0
Stage 1	29.95	0	0
Stage 1	29.75	0	0
Stage 1	29.55	0	0
Stage 1	29.35	0	0
Stage 1	29.15	0	0
Stage 1	28.95	0	0
Stage 1	28.75	0	0
Stage 1	28.55	0	0
Stage 1	28.35	0	0
Stage 1	28.15	0	0
Stage 1	27.95	0	0
Stage 1	27.75	0	0
Stage 1	27.55	0	0
Stage 1	27.35	0	0
Stage 1	27.15	0	0
Stage 1	26.95	0	0
Stage 1	26.75	0	0
Stage 1	26.55	0	0
Stage 1	26.35	0	0
Stage 1	26.15	0	0
Stage 1	25.95	0	0
Stage 1	25.75	0	0
Stage 1	25.55	0	0
Stage 1	25.35	0	0
Stage 1	25.15	0	0
Stage 1	24.95	0	0
Stage 1	24.75	0	0
Stage 1	24.55	0	0
Stage 1	24.35	0	0
Stage 1	24.15	0	0
Stage 1	23.95	0	0
Stage 1	23.75	0	0
Stage 1	23.55	0	0
Stage 1	23.35	0	0
Stage 1	23.15	0	0
Stage 1	22.95	0	0
Stage 1	22.75	0	0
Stage 1	22.55	0	0
Stage 1	22.35	0	0
Stage 1	22.15	0	0
Stage 1	21.95	0	0
Stage 1	21.75	0	0
Stage 1	21.55	0	0
Stage 1	21.35	0	0
Stage 1	21.15	0	0
Stage 1	20.95	0	0
Stage 1	20.85	0	0
Stage 1	20.65	0	0
Stage 1	20.45	0	0
Stage 1	20.25	0	0
Stage 1	20.05	0	0
Stage 1	19.85	0	0

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	19.65	0	0
Stage 1	19.45	0	0
Stage 1	19.25	0	0
Stage 1	19.05	0	0
Stage 1	18.85	0	0
Stage 1	18.65	0	0
Stage 1	18.45	0	0
Stage 1	18.35	0	0
Stage 1	18.15	0	0
Stage 1	17.95	0	0
Stage 1	17.75	0	0
Stage 1	17.55	0	0
Stage 1	17.35	0	0
Stage 1	17.15	0	0
Stage 1	16.95	0	0
Stage 1	16.75	0	0
Stage 1	16.55	0	0
Stage 1	16.35	0	0
Stage 1	16.15	0	0
Stage 1	15.95	0	0
Stage 1	15.75	0	0
Stage 1	15.55	0	0
Stage 1	15.35	0	0
Stage 1	15.15	0	0
Stage 1	14.95	0	0
Stage 1	14.75	0	0
Stage 1	14.55	0	0
Stage 1	14.35	0	0
Stage 1	14.15	0	0
Stage 1	13.95	0	0
Stage 1	13.75	0	0
Stage 1	13.55	0	0
Stage 1	13.35	0	0
Stage 1	13.15	0	0
Stage 1	12.95	0	0
Stage 1	12.75	0	0
Stage 1	12.55	0	0
Stage 1	12.35	0	0
Stage 1	12.15	0	0
Stage 1	11.95	0	0
Stage 1	11.75	0	0
Stage 1	11.55	0	0
Stage 1	11.35	0	0
Stage 1	11.15	0	0
Stage 1	10.95	0	0
Stage 1	10.75	0	0
Stage 1	10.55	0	0
Stage 1	10.35	0	0
Stage 1	10.15	0	0
Stage 1	9.95	0	0
Stage 1	9.75	0	0
Stage 1	9.55	0	0
Stage 1	9.35	0	0
Stage 1	9.15	0	0
Stage 1	8.95	0	0
Stage 1	8.75	0	0
Stage 1	8.55	0	0
Stage 1	8.35	0	0
Stage 1	8.15	0	0
Stage 1	7.95	0	0
Stage 1	7.75	0	0
Stage 1	7.55	0	0
Stage 1	7.35	0	0
Stage 1	7.15	0	0
Stage 1	6.95	0	0
Stage 1	6.75	0	0
Stage 1	6.55	0	0
Stage 1	6.35	0	0
Stage 1	6.15	0	0



Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	5.95	0	0
Stage 1	5.75	0	0
Stage 1	5.55	0	0
Stage 1	5.35	0	0
Stage 1	5.15	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	31.35	0	0
Stage 2	31.15	0	0
Stage 2	31.15	0	0
Stage 2	30.95	0	0
Stage 2	30.95	0	0
Stage 2	30.75	0	0
Stage 2	30.75	0	0
Stage 2	30.55	-0.02	-0.12
Stage 2	30.35	-0.13	-0.5
Stage 2	30.15	-0.35	-1.14
Stage 2	29.95	-0.77	-2.06
Stage 2	29.75	-1.42	-3.26
Stage 2	29.55	-2.37	-4.74
Stage 2	29.35	-3.67	-6.54
Stage 2	29.15	-5.41	-8.67
Stage 2	28.95	-7.63	-11.12
Stage 2	28.75	-10.41	-13.9
Stage 2	28.55	-13.58	-15.81
Stage 2	28.35	-16.71	-15.66
Stage 2	28.15	-19.41	-13.5
Stage 2	27.95	-21.57	-10.8
Stage 2	27.75	-23.21	-8.24
Stage 2	27.55	-24.35	-5.67
Stage 2	27.35	-24.93	-2.92
Stage 2	27.15	-24.9	0.18
Stage 2	26.95	-24.13	3.81
Stage 2	26.75	-22.65	7.4
Stage 2	26.55	-20.71	9.74
Stage 2	26.35	-18.49	11.06
Stage 2	26.15	-16.18	11.58
Stage 2	25.95	-13.88	11.48
Stage 2	25.75	-11.68	11.01
Stage 2	25.55	-9.62	10.29
Stage 2	25.35	-7.74	9.41
Stage 2	25.15	-6.05	8.44
Stage 2	24.95	-4.57	7.42
Stage 2	24.75	-3.29	6.38
Stage 2	24.55	-2.21	5.38
Stage 2	24.35	-1.33	4.43
Stage 2	24.15	-0.61	3.57
Stage 2	23.95	-0.06	2.79
Stage 2	23.75	0.36	2.1
Stage 2	23.55	0.67	1.51
Stage 2	23.35	0.87	1.02
Stage 2	23.15	0.99	0.61
Stage 2	22.95	1.05	0.28
Stage 2	22.75	1.05	0.02
Stage 2	22.55	1.01	-0.18
Stage 2	22.35	0.95	-0.32
Stage 2	22.15	0.87	-0.41
Stage 2	21.95	0.77	-0.47
Stage 2	21.75	0.68	-0.49
Stage 2	21.55	0.58	-0.48
Stage 2	21.35	0.49	-0.46
Stage 2	21.15	0.4	-0.43
Stage 2	20.95	0.32	-0.39
Stage 2	20.85	0.29	-0.36
Stage 2	20.65	0.22	-0.33
Stage 2	20.45	0.16	-0.29
Stage 2	20.25	0.11	-0.25
Stage 2	20.05	0.07	-0.2
Stage 2	19.85	0.04	-0.17
Stage 2	19.65	0.01	-0.13
Stage 2	19.45	-0.01	-0.1
Stage 2	19.25	-0.02	-0.07

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	19.05	-0.03	-0.05
Stage 2	18.85	-0.04	-0.03
Stage 2	18.65	-0.04	-0.02
Stage 2	18.45	-0.04	0
Stage 2	18.35	-0.04	0
Stage 2	18.15	-0.04	0.01
Stage 2	17.95	-0.04	0.01
Stage 2	17.75	-0.03	0.02
Stage 2	17.55	-0.03	0.02
Stage 2	17.35	-0.03	0.02
Stage 2	17.15	-0.02	0.02
Stage 2	16.95	-0.02	0.02
Stage 2	16.75	-0.02	0.02
Stage 2	16.55	-0.01	0.02
Stage 2	16.35	-0.01	0.01
Stage 2	16.15	-0.01	0.01
Stage 2	15.95	-0.01	0.01
Stage 2	15.75	0	0.01
Stage 2	15.55	0	0.01
Stage 2	15.35	0	0.01
Stage 2	15.15	0	0
Stage 2	14.95	0	0
Stage 2	14.75	0	0
Stage 2	14.55	0	0
Stage 2	14.35	0	0
Stage 2	14.15	0	0
Stage 2	13.95	0	0
Stage 2	13.75	0	0
Stage 2	13.55	0	0
Stage 2	13.35	0	0
Stage 2	13.15	0	0
Stage 2	12.95	0	0
Stage 2	12.75	0	0
Stage 2	12.55	0	0
Stage 2	12.35	0	0
Stage 2	12.15	0	0
Stage 2	11.95	0	0
Stage 2	11.75	0	0
Stage 2	11.55	0	0
Stage 2	11.35	0	0
Stage 2	11.15	0	0
Stage 2	10.95	0	0
Stage 2	10.75	0	0
Stage 2	10.55	0	0
Stage 2	10.35	0	0
Stage 2	10.15	0	0
Stage 2	9.95	0	0
Stage 2	9.75	0	0
Stage 2	9.55	0	0
Stage 2	9.35	0	0
Stage 2	9.15	0	0
Stage 2	8.95	0	0
Stage 2	8.75	0	0
Stage 2	8.55	0	0
Stage 2	8.35	0	0
Stage 2	8.15	0	0
Stage 2	7.95	0	0
Stage 2	7.75	0	0
Stage 2	7.55	0	0
Stage 2	7.35	0	0
Stage 2	7.15	0	0
Stage 2	6.95	0	0
Stage 2	6.75	0	0
Stage 2	6.55	0	0
Stage 2	6.35	0	0
Stage 2	6.15	0	0
Stage 2	5.95	0	0
Stage 2	5.75	0	0
Stage 2	5.55	0	0

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	5.35	0	0
Stage 2	5.15	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	31.35	0	0
Stage 3	31.15	0	0
Stage 3	31.15	0	0
Stage 3	30.95	0	0
Stage 3	30.95	0	0
Stage 3	30.75	0	0
Stage 3	30.75	0	0
Stage 3	30.55	-0.32	-1.58
Stage 3	30.35	-1.59	-6.39
Stage 3	30.15	-4.5	-14.53
Stage 3	29.95	-9.73	-26.16
Stage 3	29.75	-18.01	-41.39
Stage 3	29.55	-30.07	-60.31
Stage 3	29.35	-46.2	-80.67
Stage 3	29.15	-26.87	96.68
Stage 3	28.95	-11.27	77.97
Stage 3	28.75	0.78	60.27
Stage 3	28.55	9.53	43.74
Stage 3	28.35	15.23	28.48
Stage 3	28.15	18.15	14.6
Stage 3	27.95	18.63	2.44
Stage 3	27.75	17.33	-6.5
Stage 3	27.55	14.84	-12.46
Stage 3	27.35	11.7	-15.73
Stage 3	27.15	8.39	-16.54
Stage 3	26.95	5.36	-15.12
Stage 3	26.75	2.88	-12.4
Stage 3	26.55	0.91	-9.9
Stage 3	26.35	-0.62	-7.65
Stage 3	26.15	-1.77	-5.73
Stage 3	25.95	-2.6	-4.14
Stage 3	25.75	-3.15	-2.76
Stage 3	25.55	-3.47	-1.59
Stage 3	25.35	-3.59	-0.61
Stage 3	25.15	-3.55	0.18
Stage 3	24.95	-3.4	0.79
Stage 3	24.75	-3.15	1.24
Stage 3	24.55	-2.84	1.55
Stage 3	24.35	-2.49	1.74
Stage 3	24.15	-2.13	1.81
Stage 3	23.95	-1.77	1.79
Stage 3	23.75	-1.43	1.71
Stage 3	23.55	-1.11	1.58
Stage 3	23.35	-0.83	1.42
Stage 3	23.15	-0.58	1.24
Stage 3	22.95	-0.37	1.05
Stage 3	22.75	-0.19	0.87
Stage 3	22.55	-0.06	0.69
Stage 3	22.35	0.05	0.53
Stage 3	22.15	0.13	0.39
Stage 3	21.95	0.18	0.27
Stage 3	21.75	0.22	0.18
Stage 3	21.55	0.24	0.1
Stage 3	21.35	0.24	0.04
Stage 3	21.15	0.24	-0.01
Stage 3	20.95	0.23	-0.05
Stage 3	20.85	0.22	-0.07
Stage 3	20.65	0.21	-0.09
Stage 3	20.45	0.18	-0.11
Stage 3	20.25	0.16	-0.12
Stage 3	20.05	0.14	-0.12
Stage 3	19.85	0.12	-0.12
Stage 3	19.65	0.09	-0.11
Stage 3	19.45	0.07	-0.1
Stage 3	19.25	0.06	-0.09

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	19.05	0.04	-0.08
Stage 3	18.85	0.03	-0.07
Stage 3	18.65	0.02	-0.05
Stage 3	18.45	0.01	-0.04
Stage 3	18.35	0	-0.04
Stage 3	18.15	0	-0.03
Stage 3	17.95	-0.01	-0.02
Stage 3	17.75	-0.01	-0.02
Stage 3	17.55	-0.01	-0.01
Stage 3	17.35	-0.01	-0.01
Stage 3	17.15	-0.01	0
Stage 3	16.95	-0.01	0
Stage 3	16.75	-0.01	0
Stage 3	16.55	-0.01	0
Stage 3	16.35	-0.01	0.01
Stage 3	16.15	-0.01	0.01
Stage 3	15.95	-0.01	0.01
Stage 3	15.75	-0.01	0.01
Stage 3	15.55	-0.01	0.01
Stage 3	15.35	0	0.01
Stage 3	15.15	0	0.01
Stage 3	14.95	0	0
Stage 3	14.75	0	0
Stage 3	14.55	0	0
Stage 3	14.35	0	0
Stage 3	14.15	0	0
Stage 3	13.95	0	0
Stage 3	13.75	0	0
Stage 3	13.55	0	0
Stage 3	13.35	0	0
Stage 3	13.15	0	0
Stage 3	12.95	0	0
Stage 3	12.75	0	0
Stage 3	12.55	0	0
Stage 3	12.35	0	0
Stage 3	12.15	0	0
Stage 3	11.95	0	0
Stage 3	11.75	0	0
Stage 3	11.55	0	0
Stage 3	11.35	0	0
Stage 3	11.15	0	0
Stage 3	10.95	0	0
Stage 3	10.75	0	0
Stage 3	10.55	0	0
Stage 3	10.35	0	0
Stage 3	10.15	0	0
Stage 3	9.95	0	0
Stage 3	9.75	0	0
Stage 3	9.55	0	0
Stage 3	9.35	0	0
Stage 3	9.15	0	0
Stage 3	8.95	0	0
Stage 3	8.75	0	0
Stage 3	8.55	0	0
Stage 3	8.35	0	0
Stage 3	8.15	0	0
Stage 3	7.95	0	0
Stage 3	7.75	0	0
Stage 3	7.55	0	0
Stage 3	7.35	0	0
Stage 3	7.15	0	0
Stage 3	6.95	0	0
Stage 3	6.75	0	0
Stage 3	6.55	0	0
Stage 3	6.35	0	0
Stage 3	6.15	0	0
Stage 3	5.95	0	0
Stage 3	5.75	0	0
Stage 3	5.55	0	0

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	5.35	0	0
Stage 3	5.15	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	31.35	0	0
Stage 4	31.15	0	0
Stage 4	31.15	0	0
Stage 4	30.95	0	0
Stage 4	30.95	0	0
Stage 4	30.75	0	0
Stage 4	30.75	0	0
Stage 4	30.55	-0.32	-1.58
Stage 4	30.35	-1.59	-6.39
Stage 4	30.15	-4.5	-14.53
Stage 4	29.95	-9.73	-26.16
Stage 4	29.75	-18.01	-41.39
Stage 4	29.55	-30.07	-60.31
Stage 4	29.35	-46.27	-80.97
Stage 4	29.15	-26.57	98.47
Stage 4	28.95	-10.12	82.29
Stage 4	28.75	3.61	68.63
Stage 4	28.55	15.12	57.53
Stage 4	28.35	24.9	48.94
Stage 4	28.15	33.5	42.97
Stage 4	27.95	41.26	38.81
Stage 4	27.75	48.13	34.34
Stage 4	27.55	54.04	29.55
Stage 4	27.35	58.93	24.46
Stage 4	27.15	62.73	19
Stage 4	26.95	65.37	13.18
Stage 4	26.75	66.77	7
Stage 4	26.55	66.87	0.5
Stage 4	26.35	65.61	-6.28
Stage 4	26.15	62.93	-13.44
Stage 4	25.95	58.74	-20.95
Stage 4	25.75	52.97	-28.83
Stage 4	25.55	45.86	-35.56
Stage 4	25.35	37.93	-39.63
Stage 4	25.15	29.53	-42
Stage 4	24.95	20.91	-43.11
Stage 4	24.75	12.3	-43.03
Stage 4	24.55	3.93	-41.83
Stage 4	24.35	-3.97	-39.54
Stage 4	24.15	-11.21	-36.16
Stage 4	23.95	-17.54	-31.67
Stage 4	23.75	-22.74	-26.02
Stage 4	23.55	-26.57	-19.13
Stage 4	23.35	-28.82	-11.27
Stage 4	23.15	-29.79	-4.84
Stage 4	22.95	-29.74	0.29
Stage 4	22.75	-28.88	4.27
Stage 4	22.55	-27.43	7.25
Stage 4	22.35	-25.56	9.36
Stage 4	22.15	-23.41	10.75
Stage 4	21.95	-21.1	11.54
Stage 4	21.75	-18.74	11.83
Stage 4	21.55	-16.39	11.75
Stage 4	21.35	-14.11	11.37
Stage 4	21.15	-11.96	10.77
Stage 4	20.95	-9.96	10
Stage 4	20.85	-9.02	9.36
Stage 4	20.65	-7.29	8.69
Stage 4	20.45	-5.73	7.76
Stage 4	20.25	-4.37	6.83
Stage 4	20.05	-3.18	5.92
Stage 4	19.85	-2.17	5.06
Stage 4	19.65	-1.32	4.25
Stage 4	19.45	-0.62	3.5
Stage 4	19.25	-0.06	2.82



Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	19.05	0.38	2.22
Stage 4	18.85	0.72	1.69
Stage 4	18.65	0.97	1.23
Stage 4	18.45	1.13	0.84
Stage 4	18.35	1.19	0.59
Stage 4	18.15	1.27	0.36
Stage 4	17.95	1.29	0.12
Stage 4	17.75	1.28	-0.07
Stage 4	17.55	1.23	-0.23
Stage 4	17.35	1.16	-0.34
Stage 4	17.15	1.08	-0.42
Stage 4	16.95	0.99	-0.47
Stage 4	16.75	0.89	-0.5
Stage 4	16.55	0.79	-0.51
Stage 4	16.35	0.68	-0.51
Stage 4	16.15	0.59	-0.49
Stage 4	15.95	0.49	-0.46
Stage 4	15.75	0.41	-0.43
Stage 4	15.55	0.33	-0.39
Stage 4	15.35	0.26	-0.35
Stage 4	15.15	0.2	-0.31
Stage 4	14.95	0.15	-0.27
Stage 4	14.75	0.1	-0.23
Stage 4	14.55	0.06	-0.19
Stage 4	14.35	0.03	-0.16
Stage 4	14.15	0.01	-0.13
Stage 4	13.95	-0.01	-0.1
Stage 4	13.75	-0.03	-0.08
Stage 4	13.55	-0.04	-0.06
Stage 4	13.35	-0.05	-0.04
Stage 4	13.15	-0.05	-0.02
Stage 4	12.95	-0.06	-0.01
Stage 4	12.75	-0.06	0
Stage 4	12.55	-0.05	0.01
Stage 4	12.35	-0.05	0.01
Stage 4	12.15	-0.05	0.02
Stage 4	11.95	-0.04	0.02
Stage 4	11.75	-0.04	0.02
Stage 4	11.55	-0.04	0.02
Stage 4	11.35	-0.03	0.02
Stage 4	11.15	-0.03	0.02
Stage 4	10.95	-0.02	0.02
Stage 4	10.75	-0.02	0.02
Stage 4	10.55	-0.02	0.02
Stage 4	10.35	-0.01	0.02
Stage 4	10.15	-0.01	0.01
Stage 4	9.95	-0.01	0.01
Stage 4	9.75	-0.01	0.01
Stage 4	9.55	0	0.01
Stage 4	9.35	0	0.01
Stage 4	9.15	0	0.01
Stage 4	8.95	0	0
Stage 4	8.75	0	0
Stage 4	8.55	0	0
Stage 4	8.35	0	0
Stage 4	8.15	0	0
Stage 4	7.95	0	0
Stage 4	7.75	0	0
Stage 4	7.55	0	0
Stage 4	7.35	0	0
Stage 4	7.15	0	0
Stage 4	6.95	0	0
Stage 4	6.75	0	0
Stage 4	6.55	0	0
Stage 4	6.35	0	0
Stage 4	6.15	0	0
Stage 4	5.95	0	0
Stage 4	5.75	0	0
Stage 4	5.55	0	0

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	5.35	0	0
Stage 4	5.15	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	31.35	0	0
Stage 5	31.15	0	0
Stage 5	31.15	0	0
Stage 5	30.95	0	0
Stage 5	30.95	0	0
Stage 5	30.75	0	0
Stage 5	30.75	0	0
Stage 5	30.55	-0.02	-0.12
Stage 5	30.35	-0.59	-2.82
Stage 5	30.15	-2.47	-9.42
Stage 5	29.95	-6.48	-20.05
Stage 5	29.75	-13.45	-34.85
Stage 5	29.55	-24.19	-53.69
Stage 5	29.35	-39.15	-74.79
Stage 5	29.15	-18.74	102.03
Stage 5	28.95	-1.97	83.89
Stage 5	28.75	11.55	67.61
Stage 5	28.55	22.2	53.2
Stage 5	28.35	30.32	40.61
Stage 5	28.15	36.3	29.91
Stage 5	27.95	40.35	20.25
Stage 5	27.75	42.26	9.55
Stage 5	27.55	41.81	-2.23
Stage 5	27.35	38.81	-15.04
Stage 5	27.15	33.02	-28.91
Stage 5	26.95	24.27	-43.77
Stage 5	26.75	12.37	-59.51
Stage 5	26.55	-2.82	-75.96
Stage 5	26.35	-21.41	-92.92
Stage 5	26.15	-4.06	86.73
Stage 5	25.95	9.81	69.33
Stage 5	25.75	20.22	52.06
Stage 5	25.55	27.27	35.26
Stage 5	25.35	31.11	19.18
Stage 5	25.15	31.98	4.38
Stage 5	24.95	30.45	-7.69
Stage 5	24.75	27.02	-17.11
Stage 5	24.55	22.22	-24.01
Stage 5	24.35	16.53	-28.48
Stage 5	24.15	10.4	-30.65
Stage 5	23.95	4.28	-30.6
Stage 5	23.75	-1.4	-28.39
Stage 5	23.55	-6.22	-24.09
Stage 5	23.35	-9.83	-18.07
Stage 5	23.15	-12.41	-12.86
Stage 5	22.95	-14.09	-8.42
Stage 5	22.75	-15.03	-4.7
Stage 5	22.55	-15.36	-1.66
Stage 5	22.35	-15.22	0.73
Stage 5	22.15	-14.7	2.56
Stage 5	21.95	-13.92	3.9
Stage 5	21.75	-12.96	4.81
Stage 5	21.55	-11.88	5.41
Stage 5	21.35	-10.72	5.78
Stage 5	21.15	-9.53	5.96
Stage 5	20.95	-8.34	5.93
Stage 5	20.85	-7.76	5.81
Stage 5	20.65	-6.64	5.63
Stage 5	20.45	-5.57	5.31
Stage 5	20.25	-4.59	4.92
Stage 5	20.05	-3.7	4.48
Stage 5	19.85	-2.89	4.02
Stage 5	19.65	-2.18	3.55
Stage 5	19.45	-1.56	3.09
Stage 5	19.25	-1.03	2.65

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	19.05	-0.59	2.23
Stage 5	18.85	-0.22	1.84
Stage 5	18.65	0.07	1.48
Stage 5	18.45	0.31	1.16
Stage 5	18.35	0.4	0.95
Stage 5	18.15	0.55	0.75
Stage 5	17.95	0.65	0.52
Stage 5	17.75	0.72	0.32
Stage 5	17.55	0.75	0.16
Stage 5	17.35	0.76	0.03
Stage 5	17.15	0.74	-0.07
Stage 5	16.95	0.71	-0.15
Stage 5	16.75	0.67	-0.21
Stage 5	16.55	0.62	-0.25
Stage 5	16.35	0.56	-0.28
Stage 5	16.15	0.51	-0.29
Stage 5	15.95	0.45	-0.3
Stage 5	15.75	0.39	-0.3
Stage 5	15.55	0.33	-0.28
Stage 5	15.35	0.28	-0.27
Stage 5	15.15	0.23	-0.25
Stage 5	14.95	0.18	-0.22
Stage 5	14.75	0.14	-0.2
Stage 5	14.55	0.11	-0.18
Stage 5	14.35	0.08	-0.15
Stage 5	14.15	0.05	-0.13
Stage 5	13.95	0.03	-0.11
Stage 5	13.75	0.01	-0.09
Stage 5	13.55	0	-0.07
Stage 5	13.35	-0.01	-0.06
Stage 5	13.15	-0.02	-0.04
Stage 5	12.95	-0.03	-0.03
Stage 5	12.75	-0.03	-0.02
Stage 5	12.55	-0.03	-0.01
Stage 5	12.35	-0.04	0
Stage 5	12.15	-0.04	0
Stage 5	11.95	-0.03	0.01
Stage 5	11.75	-0.03	0.01
Stage 5	11.55	-0.03	0.01
Stage 5	11.35	-0.03	0.01
Stage 5	11.15	-0.02	0.01
Stage 5	10.95	-0.02	0.01
Stage 5	10.75	-0.02	0.01
Stage 5	10.55	-0.02	0.01
Stage 5	10.35	-0.01	0.01
Stage 5	10.15	-0.01	0.01
Stage 5	9.95	-0.01	0.01
Stage 5	9.75	-0.01	0.01
Stage 5	9.55	-0.01	0.01
Stage 5	9.35	0	0.01
Stage 5	9.15	0	0.01
Stage 5	8.95	0	0.01
Stage 5	8.75	0	0
Stage 5	8.55	0	0
Stage 5	8.35	0	0
Stage 5	8.15	0	0
Stage 5	7.95	0	0
Stage 5	7.75	0	0
Stage 5	7.55	0	0
Stage 5	7.35	0	0
Stage 5	7.15	0	0
Stage 5	6.95	0	0
Stage 5	6.75	0	0
Stage 5	6.55	0	0
Stage 5	6.35	0	0
Stage 5	6.15	0	0
Stage 5	5.95	0	0
Stage 5	5.75	0	0
Stage 5	5.55	0	0

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	5.35	0	0
Stage 5	5.15	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	31.35	0	0
Stage 6	31.15	0	0
Stage 6	31.15	0	0
Stage 6	30.95	0	0
Stage 6	30.95	0	0
Stage 6	30.75	0	0
Stage 6	30.75	0	0
Stage 6	30.55	-0.32	-1.58
Stage 6	30.35	-1.59	-6.39
Stage 6	30.15	-4.5	-14.53
Stage 6	29.95	-9.73	-26.16
Stage 6	29.75	-18.01	-41.39
Stage 6	29.55	-30.07	-60.31
Stage 6	29.35	-46.71	-83.21
Stage 6	29.15	-29.35	86.82
Stage 6	28.95	-15.97	66.91
Stage 6	28.75	-6.2	48.84
Stage 6	28.55	0.38	32.92
Stage 6	28.35	4.26	19.36
Stage 6	28.15	5.91	8.26
Stage 6	27.95	5.68	-1.14
Stage 6	27.75	3.5	-10.9
Stage 6	27.55	-0.69	-20.97
Stage 6	27.35	-6.94	-31.22
Stage 6	27.15	-15.26	-41.59
Stage 6	26.95	-25.64	-51.94
Stage 6	26.75	-38.05	-62.04
Stage 6	26.55	-52.38	-71.63
Stage 6	26.35	-68.46	-80.4
Stage 6	26.15	-43.3	125.76
Stage 6	25.95	-19.66	118.24
Stage 6	25.75	2.42	110.36
Stage 6	25.55	22.85	102.17
Stage 6	25.35	41.59	93.69
Stage 6	25.15	58.56	84.85
Stage 6	24.95	73.69	75.65
Stage 6	24.75	86.9	66.08
Stage 6	24.55	98.14	56.2
Stage 6	24.35	107.35	46.05
Stage 6	24.15	114.46	35.53
Stage 6	23.95	119.39	24.66
Stage 6	23.75	122.08	13.43
Stage 6	23.55	122.46	1.9
Stage 6	23.35	120.48	-9.9
Stage 6	23.15	116.07	-22.04
Stage 6	22.95	109.16	-34.53
Stage 6	22.75	99.69	-47.37
Stage 6	22.55	87.9	-58.93
Stage 6	22.35	74.38	-67.59
Stage 6	22.15	59.7	-73.44
Stage 6	21.95	44.4	-76.47
Stage 6	21.75	29.07	-76.68
Stage 6	21.55	14.26	-74.04
Stage 6	21.35	0.26	-69.97
Stage 6	21.15	-12.74	-65.03
Stage 6	20.95	-24.59	-59.22
Stage 6	20.85	-30	-54.18
Stage 6	20.65	-39.76	-48.78
Stage 6	20.45	-47.88	-40.59
Stage 6	20.25	-54.15	-31.33
Stage 6	20.05	-58.32	-20.9
Stage 6	19.85	-60.4	-10.36
Stage 6	19.65	-60.73	-1.69
Stage 6	19.45	-59.68	5.29
Stage 6	19.25	-57.52	10.77

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	19.05	-54.54	14.92
Stage 6	18.85	-50.95	17.91
Stage 6	18.65	-46.97	19.91
Stage 6	18.45	-42.76	21.07
Stage 6	18.35	-40.61	21.42
Stage 6	18.15	-36.31	21.53
Stage 6	17.95	-32.08	21.14
Stage 6	17.75	-28.01	20.37
Stage 6	17.55	-24.14	19.33
Stage 6	17.35	-20.52	18.09
Stage 6	17.15	-17.18	16.71
Stage 6	16.95	-14.13	15.25
Stage 6	16.75	-11.37	13.76
Stage 6	16.55	-8.92	12.27
Stage 6	16.35	-6.76	10.81
Stage 6	16.15	-4.88	9.41
Stage 6	15.95	-3.26	8.09
Stage 6	15.75	-1.89	6.85
Stage 6	15.55	-0.75	5.71
Stage 6	15.35	0.19	4.68
Stage 6	15.15	0.94	3.74
Stage 6	14.95	1.52	2.91
Stage 6	14.75	1.96	2.18
Stage 6	14.55	2.27	1.55
Stage 6	14.35	2.47	1.01
Stage 6	14.15	2.58	0.55
Stage 6	13.95	2.61	0.17
Stage 6	13.75	2.59	-0.14
Stage 6	13.55	2.51	-0.38
Stage 6	13.35	2.4	-0.57
Stage 6	13.15	2.25	-0.71
Stage 6	12.95	2.09	-0.81
Stage 6	12.75	1.92	-0.87
Stage 6	12.55	1.74	-0.91
Stage 6	12.35	1.55	-0.92
Stage 6	12.15	1.37	-0.91
Stage 6	11.95	1.19	-0.88
Stage 6	11.75	1.03	-0.83
Stage 6	11.55	0.87	-0.78
Stage 6	11.35	0.73	-0.72
Stage 6	11.15	0.6	-0.66
Stage 6	10.95	0.48	-0.59
Stage 6	10.75	0.37	-0.53
Stage 6	10.55	0.28	-0.46
Stage 6	10.35	0.2	-0.4
Stage 6	10.15	0.13	-0.34
Stage 6	9.95	0.07	-0.29
Stage 6	9.75	0.03	-0.24
Stage 6	9.55	-0.01	-0.19
Stage 6	9.35	-0.04	-0.15
Stage 6	9.15	-0.06	-0.11
Stage 6	8.95	-0.08	-0.08
Stage 6	8.75	-0.09	-0.06
Stage 6	8.55	-0.1	-0.03
Stage 6	8.35	-0.1	-0.01
Stage 6	8.15	-0.1	0
Stage 6	7.95	-0.1	0.02
Stage 6	7.75	-0.09	0.03
Stage 6	7.55	-0.08	0.04
Stage 6	7.35	-0.07	0.04
Stage 6	7.15	-0.07	0.05
Stage 6	6.95	-0.06	0.05
Stage 6	6.75	-0.05	0.05
Stage 6	6.55	-0.04	0.05
Stage 6	6.35	-0.03	0.04
Stage 6	6.15	-0.02	0.04
Stage 6	5.95	-0.01	0.03
Stage 6	5.75	-0.01	0.03
Stage 6	5.55	0	0.02

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	5.35	0	0.01
Stage 6	5.15	0	0



### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 7

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	31.35	0	0
Stage 7	31.15	0	0
Stage 7	31.15	0	0
Stage 7	30.95	0	0
Stage 7	30.95	0	0
Stage 7	30.75	0	0
Stage 7	30.75	0	0
Stage 7	30.55	-0.19	-0.97
Stage 7	30.35	-1.23	-5.18
Stage 7	30.15	-3.78	-12.74
Stage 7	29.95	-8.54	-23.8
Stage 7	29.75	-16.23	-38.48
Stage 7	29.55	-27.61	-56.88
Stage 7	29.35	-43.46	-79.27
Stage 7	29.15	-25.06	92.03
Stage 7	28.95	-10.54	72.56
Stage 7	28.75	0.43	54.88
Stage 7	28.55	8.3	39.31
Stage 7	28.35	13.5	26.02
Stage 7	28.15	16.52	15.11
Stage 7	27.95	17.68	5.78
Stage 7	27.75	16.87	-4.02
Stage 7	27.55	14.02	-14.28
Stage 7	27.35	9.04	-24.9
Stage 7	27.15	1.87	-35.85
Stage 7	26.95	-7.53	-47.01
Stage 7	26.75	-19.17	-58.2
Stage 7	26.55	-33.01	-69.19
Stage 7	26.35	-48.95	-79.71
Stage 7	26.15	-24.84	120.56
Stage 7	25.95	-2.75	110.48
Stage 7	25.75	17.17	99.57
Stage 7	25.55	34.74	87.85
Stage 7	25.35	49.8	75.33
Stage 7	25.15	62.18	61.88
Stage 7	24.95	71.68	47.5
Stage 7	24.75	78.12	32.18
Stage 7	24.55	81.31	15.98
Stage 7	24.35	81.11	-1.04
Stage 7	24.15	77.32	-18.95
Stage 7	23.95	69.78	-37.67
Stage 7	23.75	58.35	-57.15
Stage 7	23.55	42.91	-77.21
Stage 7	23.35	23.37	-97.69
Stage 7	23.15	39.06	78.45
Stage 7	22.95	50.56	57.46
Stage 7	22.75	57.85	36.48
Stage 7	22.55	61.01	15.79
Stage 7	22.35	60.14	-4.36
Stage 7	22.15	55.83	-21.54
Stage 7	21.95	48.87	-34.8
Stage 7	21.75	40.04	-44.13
Stage 7	21.55	30.15	-49.49
Stage 7	21.35	19.67	-52.36
Stage 7	21.15	9.01	-53.34
Stage 7	20.95	-1.5	-52.51
Stage 7	20.85	-6.55	-50.55
Stage 7	20.65	-16.14	-47.93
Stage 7	20.45	-24.68	-42.7
Stage 7	20.25	-31.82	-35.74
Stage 7	20.05	-37.23	-27.02
Stage 7	19.85	-40.77	-17.69
Stage 7	19.65	-42.73	-9.8
Stage 7	19.45	-43.37	-3.24
Stage 7	19.25	-42.95	2.11

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	19.05	-41.68	6.35
Stage 7	18.85	-39.76	9.6
Stage 7	18.65	-37.37	11.97
Stage 7	18.45	-34.65	13.59
Stage 7	18.35	-33.22	14.32
Stage 7	18.15	-30.25	14.84
Stage 7	17.95	-27.23	15.09
Stage 7	17.75	-24.23	15
Stage 7	17.55	-21.31	14.62
Stage 7	17.35	-18.51	14.01
Stage 7	17.15	-15.86	13.23
Stage 7	16.95	-13.39	12.34
Stage 7	16.75	-11.12	11.36
Stage 7	16.55	-9.05	10.33
Stage 7	16.35	-7.2	9.29
Stage 7	16.15	-5.55	8.25
Stage 7	15.95	-4.1	7.25
Stage 7	15.75	-2.84	6.28
Stage 7	15.55	-1.77	5.37
Stage 7	15.35	-0.86	4.53
Stage 7	15.15	-0.11	3.75
Stage 7	14.95	0.5	3.04
Stage 7	14.75	0.98	2.41
Stage 7	14.55	1.35	1.84
Stage 7	14.35	1.62	1.35
Stage 7	14.15	1.8	0.92
Stage 7	13.95	1.91	0.55
Stage 7	13.75	1.96	0.24
Stage 7	13.55	1.96	-0.01
Stage 7	13.35	1.92	-0.21
Stage 7	13.15	1.84	-0.37
Stage 7	12.95	1.74	-0.49
Stage 7	12.75	1.63	-0.58
Stage 7	12.55	1.5	-0.63
Stage 7	12.35	1.37	-0.67
Stage 7	12.15	1.23	-0.68
Stage 7	11.95	1.1	-0.68
Stage 7	11.75	0.96	-0.67
Stage 7	11.55	0.83	-0.64
Stage 7	11.35	0.71	-0.61
Stage 7	11.15	0.6	-0.56
Stage 7	10.95	0.5	-0.52
Stage 7	10.75	0.4	-0.47
Stage 7	10.55	0.32	-0.42
Stage 7	10.35	0.24	-0.37
Stage 7	10.15	0.18	-0.32
Stage 7	9.95	0.12	-0.28
Stage 7	9.75	0.08	-0.24
Stage 7	9.55	0.04	-0.2
Stage 7	9.35	0	-0.16
Stage 7	9.15	-0.02	-0.13
Stage 7	8.95	-0.04	-0.1
Stage 7	8.75	-0.06	-0.07
Stage 7	8.55	-0.07	-0.05
Stage 7	8.35	-0.07	-0.03
Stage 7	8.15	-0.07	-0.01
Stage 7	7.95	-0.07	0
Stage 7	7.75	-0.07	0.01
Stage 7	7.55	-0.07	0.02
Stage 7	7.35	-0.06	0.03
Stage 7	7.15	-0.05	0.03
Stage 7	6.95	-0.05	0.04
Stage 7	6.75	-0.04	0.04
Stage 7	6.55	-0.03	0.04
Stage 7	6.35	-0.03	0.04
Stage 7	6.15	-0.02	0.03
Stage 7	5.95	-0.01	0.03
Stage 7	5.75	-0.01	0.03
Stage 7	5.55	0	0.02

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	5.35	0	0.01
Stage 7	5.15	0	0

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 8

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	31.35	0	0
Stage 8	31.15	0	0
Stage 8	31.15	0	0
Stage 8	30.95	0	0
Stage 8	30.95	0	0
Stage 8	30.75	0	0
Stage 8	30.75	0	0
Stage 8	30.55	-0.22	-1.08
Stage 8	30.35	-1.31	-5.49
Stage 8	30.15	-3.99	-13.36
Stage 8	29.95	-8.95	-24.84
Stage 8	29.75	-16.96	-40.03
Stage 8	29.55	-28.75	-58.96
Stage 8	29.35	-45.12	-81.85
Stage 8	29.15	-27.73	86.95
Stage 8	28.95	-14.38	66.75
Stage 8	28.75	-4.72	48.3
Stage 8	28.55	1.61	31.64
Stage 8	28.35	5.05	17.19
Stage 8	28.15	6.06	5.05
Stage 8	27.95	4.94	-5.56
Stage 8	27.75	1.6	-16.69
Stage 8	27.55	-4.05	-28.29
Stage 8	27.35	-12.1	-40.25
Stage 8	27.15	-22.61	-52.51
Stage 8	26.95	-35.58	-64.9
Stage 8	26.75	-51.03	-77.22
Stage 8	26.55	-68.87	-89.2
Stage 8	26.35	-88.97	-100.5
Stage 8	26.15	-69.37	98
Stage 8	25.95	-51.83	87.7
Stage 8	25.75	-36.43	76.96
Stage 8	25.55	-23.26	65.86
Stage 8	25.35	-12.36	54.5
Stage 8	25.15	-3.79	42.85
Stage 8	24.95	2.41	31
Stage 8	24.75	6.22	19.04
Stage 8	24.55	7.64	7.13
Stage 8	24.35	6.73	-4.56
Stage 8	24.15	3.54	-15.96
Stage 8	23.95	-1.85	-26.91
Stage 8	23.75	-9.47	-38.14
Stage 8	23.55	-19.41	-49.68
Stage 8	23.35	-31.7	-61.47
Stage 8	23.15	-0.01	158.49
Stage 8	22.95	29.2	146.01
Stage 8	22.75	55.83	133.17
Stage 8	22.55	79.84	120.04
Stage 8	22.35	101.17	106.64
Stage 8	22.15	119.75	92.91
Stage 8	21.95	135.52	78.84
Stage 8	21.75	148.4	64.43
Stage 8	21.55	158.35	49.73
Stage 8	21.35	165.3	34.77
Stage 8	21.15	169.2	19.48
Stage 8	20.95	169.97	3.85
Stage 8	20.85	169.16	-8.11
Stage 8	20.65	165.12	-20.2
Stage 8	20.45	157.81	-36.57
Stage 8	20.25	147.16	-53.23
Stage 8	20.05	133.43	-68.64
Stage 8	19.85	117.19	-81.21
Stage 8	19.65	99	-90.94
Stage 8	19.45	79.45	-97.77
Stage 8	19.25	59.1	-101.72

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	19.05	38.54	-102.84
Stage 8	18.85	18.31	-101.13
Stage 8	18.65	-1.01	-96.58
Stage 8	18.45	-18.83	-89.11
Stage 8	18.35	-27.12	-82.91
Stage 8	18.15	-42.42	-76.54
Stage 8	17.95	-55.93	-67.51
Stage 8	17.75	-67.48	-57.79
Stage 8	17.55	-76.94	-47.3
Stage 8	17.35	-84.13	-35.95
Stage 8	17.15	-88.86	-23.63
Stage 8	16.95	-91	-10.68
Stage 8	16.75	-90.98	0.07
Stage 8	16.55	-89.22	8.83
Stage 8	16.35	-86.06	15.79
Stage 8	16.15	-81.83	21.15
Stage 8	15.95	-76.81	25.12
Stage 8	15.75	-71.24	27.86
Stage 8	15.55	-65.32	29.56
Stage 8	15.35	-59.25	30.38
Stage 8	15.15	-53.16	30.43
Stage 8	14.95	-47.21	29.76
Stage 8	14.75	-41.48	28.64
Stage 8	14.55	-36.04	27.19
Stage 8	14.35	-30.94	25.51
Stage 8	14.15	-26.21	23.66
Stage 8	13.95	-21.87	21.72
Stage 8	13.75	-17.92	19.73
Stage 8	13.55	-14.37	17.75
Stage 8	13.35	-11.21	15.81
Stage 8	13.15	-8.42	13.93
Stage 8	12.95	-5.99	12.14
Stage 8	12.75	-3.9	10.46
Stage 8	12.55	-2.12	8.9
Stage 8	12.35	-0.63	7.46
Stage 8	12.15	0.6	6.15
Stage 8	11.95	1.59	4.96
Stage 8	11.75	2.37	3.9
Stage 8	11.55	2.97	2.96
Stage 8	11.35	3.4	2.14
Stage 8	11.15	3.68	1.43
Stage 8	10.95	3.85	0.83
Stage 8	10.75	3.91	0.32
Stage 8	10.55	3.89	-0.11
Stage 8	10.35	3.8	-0.45
Stage 8	10.15	3.66	-0.72
Stage 8	9.95	3.47	-0.93
Stage 8	9.75	3.25	-1.09
Stage 8	9.55	3.01	-1.19
Stage 8	9.35	2.76	-1.26
Stage 8	9.15	2.51	-1.29
Stage 8	8.95	2.25	-1.29
Stage 8	8.75	2	-1.26
Stage 8	8.55	1.75	-1.21
Stage 8	8.35	1.52	-1.15
Stage 8	8.15	1.31	-1.07
Stage 8	7.95	1.11	-0.99
Stage 8	7.75	0.93	-0.9
Stage 8	7.55	0.77	-0.81
Stage 8	7.35	0.62	-0.72
Stage 8	7.15	0.49	-0.64
Stage 8	6.95	0.38	-0.55
Stage 8	6.75	0.29	-0.47
Stage 8	6.55	0.21	-0.39
Stage 8	6.35	0.15	-0.32
Stage 8	6.15	0.1	-0.25
Stage 8	5.95	0.06	-0.19
Stage 8	5.75	0.03	-0.14
Stage 8	5.55	0.01	-0.09

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	5.35	0	-0.05
Stage 8	5.15	0	-0.01

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 9

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	31.35	0	0
Stage 9	31.15	0	0
Stage 9	31.15	0	0
Stage 9	30.95	0	0
Stage 9	30.95	0	0
Stage 9	30.75	0	0
Stage 9	30.75	0	0
Stage 9	30.55	-0.22	-1.1
Stage 9	30.35	-1.32	-5.51
Stage 9	30.15	-3.99	-13.35
Stage 9	29.95	-8.94	-24.76
Stage 9	29.75	-16.92	-39.86
Stage 9	29.55	-28.65	-58.67
Stage 9	29.35	-44.93	-81.42
Stage 9	29.15	-27.34	87.95
Stage 9	28.95	-13.75	67.95
Stage 9	28.75	-3.8	49.73
Stage 9	28.55	2.86	33.33
Stage 9	28.35	6.69	19.16
Stage 9	28.15	8.16	7.32
Stage 9	27.95	7.56	-2.97
Stage 9	27.75	4.81	-13.75
Stage 9	27.55	-0.19	-25
Stage 9	27.35	-7.5	-36.59
Stage 9	27.15	-17.2	-48.49
Stage 9	26.95	-29.31	-60.52
Stage 9	26.75	-43.81	-72.5
Stage 9	26.55	-60.64	-84.15
Stage 9	26.35	-79.67	-95.17
Stage 9	26.15	-58.84	104.13
Stage 9	25.95	-40.04	94.01
Stage 9	25.75	-23.37	83.37
Stage 9	25.55	-8.91	72.27
Stage 9	25.35	3.25	60.8
Stage 9	25.15	13.03	48.9
Stage 9	24.95	20.36	36.63
Stage 9	24.75	25.17	24.07
Stage 9	24.55	27.44	11.34
Stage 9	24.35	27.16	-1.41
Stage 9	24.15	24.33	-14.15
Stage 9	23.95	18.98	-26.75
Stage 9	23.75	10.98	-39.97
Stage 9	23.55	0.21	-53.86
Stage 9	23.35	-13.47	-68.42
Stage 9	23.15	14.59	140.31
Stage 9	22.95	39.42	124.16
Stage 9	22.75	60.86	107.19
Stage 9	22.55	78.74	89.41
Stage 9	22.35	92.92	70.87
Stage 9	22.15	103.21	51.49
Stage 9	21.95	109.47	31.27
Stage 9	21.75	111.52	10.26
Stage 9	21.55	109.22	-11.48
Stage 9	21.35	102.45	-33.84
Stage 9	21.15	91.09	-56.83
Stage 9	20.95	75.02	-80.34
Stage 9	20.85	65.19	-98.28
Stage 9	20.65	81.32	80.64
Stage 9	20.45	92.61	56.47
Stage 9	20.25	99.07	32.3
Stage 9	20.05	100.73	8.29
Stage 9	19.85	97.66	-15.33
Stage 9	19.65	90.5	-35.8
Stage 9	19.45	80.02	-52.43
Stage 9	19.25	66.97	-65.23

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	19.05	52.12	-74.24
Stage 9	18.85	36.23	-79.49
Stage 9	18.65	20.03	-80.99
Stage 9	18.45	4.28	-78.74
Stage 9	18.35	-3.3	-75.84
Stage 9	18.15	-17.8	-72.5
Stage 9	17.95	-31.17	-66.81
Stage 9	17.75	-43.12	-59.79
Stage 9	17.55	-53.41	-51.44
Stage 9	17.35	-61.76	-41.72
Stage 9	17.15	-67.87	-30.59
Stage 9	16.95	-71.56	-18.45
Stage 9	16.75	-73.2	-8.18
Stage 9	16.55	-73.13	0.36
Stage 9	16.35	-71.66	7.33
Stage 9	16.15	-69.09	12.86
Stage 9	15.95	-65.67	17.1
Stage 9	15.75	-61.62	20.22
Stage 9	15.55	-57.15	22.36
Stage 9	15.35	-52.42	23.66
Stage 9	15.15	-47.57	24.25
Stage 9	14.95	-42.73	24.2
Stage 9	14.75	-37.99	23.69
Stage 9	14.55	-33.42	22.84
Stage 9	14.35	-29.08	21.73
Stage 9	14.15	-25	20.42
Stage 9	13.95	-21.2	18.98
Stage 9	13.75	-17.71	17.46
Stage 9	13.55	-14.53	15.89
Stage 9	13.35	-11.66	14.33
Stage 9	13.15	-9.11	12.78
Stage 9	12.95	-6.85	11.29
Stage 9	12.75	-4.88	9.86
Stage 9	12.55	-3.17	8.52
Stage 9	12.35	-1.72	7.26
Stage 9	12.15	-0.5	6.1
Stage 9	11.95	0.51	5.04
Stage 9	11.75	1.32	4.08
Stage 9	11.55	1.97	3.21
Stage 9	11.35	2.46	2.45
Stage 9	11.15	2.81	1.77
Stage 9	10.95	3.05	1.19
Stage 9	10.75	3.19	0.69
Stage 9	10.55	3.24	0.27
Stage 9	10.35	3.22	-0.09
Stage 9	10.15	3.15	-0.37
Stage 9	9.95	3.03	-0.6
Stage 9	9.75	2.87	-0.77
Stage 9	9.55	2.7	-0.9
Stage 9	9.35	2.5	-0.99
Stage 9	9.15	2.29	-1.04
Stage 9	8.95	2.08	-1.06
Stage 9	8.75	1.86	-1.07
Stage 9	8.55	1.65	-1.05
Stage 9	8.35	1.45	-1.01
Stage 9	8.15	1.26	-0.96
Stage 9	7.95	1.08	-0.9
Stage 9	7.75	0.92	-0.83
Stage 9	7.55	0.77	-0.76
Stage 9	7.35	0.63	-0.68
Stage 9	7.15	0.51	-0.61
Stage 9	6.95	0.4	-0.54
Stage 9	6.75	0.31	-0.46
Stage 9	6.55	0.23	-0.4
Stage 9	6.35	0.16	-0.33
Stage 9	6.15	0.11	-0.27
Stage 9	5.95	0.07	-0.21
Stage 9	5.75	0.04	-0.15
Stage 9	5.55	0.02	-0.1



Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	5.35	0	-0.06
Stage 9	5.15	0	-0.02

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 10

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	31.35	0	0
Stage 10	31.15	0	0
Stage 10	31.15	0	0
Stage 10	30.95	0	0
Stage 10	30.95	0	0
Stage 10	30.75	0	0
Stage 10	30.75	0	0
Stage 10	30.55	-0.14	-0.68
Stage 10	30.35	-1.08	-4.75
Stage 10	30.15	-3.55	-12.32
Stage 10	29.95	-8.26	-23.55
Stage 10	29.75	-15.97	-38.55
Stage 10	29.55	-27.43	-57.33
Stage 10	29.35	-43.46	-80.13
Stage 10	29.15	-25.72	88.72
Stage 10	28.95	-12.02	68.49
Stage 10	28.75	-2.02	49.99
Stage 10	28.55	4.63	33.25
Stage 10	28.35	8.35	18.58
Stage 10	28.15	9.58	6.16
Stage 10	27.95	8.62	-4.8
Stage 10	27.75	5.35	-16.37
Stage 10	27.55	-0.35	-28.49
Stage 10	27.35	-8.56	-41.05
Stage 10	27.15	-19.37	-54.02
Stage 10	26.95	-32.81	-67.22
Stage 10	26.75	-48.9	-80.47
Stage 10	26.55	-67.6	-93.47
Stage 10	26.35	-88.78	-105.93
Stage 10	26.15	-71.27	87.54
Stage 10	25.95	-56.11	75.84
Stage 10	25.75	-43.39	63.57
Stage 10	25.55	-33.23	50.83
Stage 10	25.35	-25.68	37.7
Stage 10	25.15	-20.85	24.18
Stage 10	24.95	-18.78	10.35
Stage 10	24.75	-19.51	-3.67
Stage 10	24.55	-23.05	-17.7
Stage 10	24.35	-29.36	-31.54
Stage 10	24.15	-38.38	-45.1
Stage 10	23.95	-50.02	-58.17
Stage 10	23.75	-64.3	-71.43
Stage 10	23.55	-81.27	-84.86
Stage 10	23.35	-100.95	-98.36
Stage 10	23.15	-77.41	117.66
Stage 10	22.95	-56.59	104.1
Stage 10	22.75	-38.46	90.64
Stage 10	22.55	-22.98	77.43
Stage 10	22.35	-10.17	64.03
Stage 10	22.15	-0.11	50.3
Stage 10	21.95	7.13	36.23
Stage 10	21.75	11.5	21.82
Stage 10	21.55	12.92	7.12
Stage 10	21.35	11.36	-7.84
Stage 10	21.15	6.73	-23.13
Stage 10	20.95	-1.02	-38.76
Stage 10	20.85	-6.09	-50.72
Stage 10	20.65	34.27	201.83
Stage 10	20.45	71.37	185.46
Stage 10	20.25	105.13	168.81
Stage 10	20.05	135.49	151.82
Stage 10	19.85	162.39	134.5
Stage 10	19.65	185.76	116.86
Stage 10	19.45	205.55	98.96
Stage 10	19.25	221.71	80.77

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	19.05	234.16	62.25
Stage 10	18.85	242.84	43.41
Stage 10	18.65	247.69	24.23
Stage 10	18.45	248.65	4.81
Stage 10	18.35	247.65	-9.97
Stage 10	18.15	242.68	-24.88
Stage 10	17.95	233.66	-45.09
Stage 10	17.75	220.54	-65.62
Stage 10	17.55	203.56	-84.86
Stage 10	17.35	183.33	-101.18
Stage 10	17.15	160.39	-114.67
Stage 10	16.95	135.33	-125.31
Stage 10	16.75	108.71	-133.12
Stage 10	16.55	81.1	-138.05
Stage 10	16.35	53.08	-140.07
Stage 10	16.15	25.24	-139.24
Stage 10	15.95	-1.88	-135.57
Stage 10	15.75	-27.69	-129.05
Stage 10	15.55	-51.62	-119.66
Stage 10	15.35	-73.09	-107.35
Stage 10	15.15	-91.66	-92.87
Stage 10	14.95	-107.36	-78.47
Stage 10	14.75	-120.14	-63.91
Stage 10	14.55	-129.95	-49.04
Stage 10	14.35	-136.69	-33.71
Stage 10	14.15	-140.24	-17.77
Stage 10	13.95	-140.73	-2.44
Stage 10	13.75	-138.68	10.24
Stage 10	13.55	-134.59	20.49
Stage 10	13.35	-128.87	28.59
Stage 10	13.15	-121.92	34.76
Stage 10	12.95	-114.07	39.24
Stage 10	12.75	-105.62	42.26
Stage 10	12.55	-96.81	44.01
Stage 10	12.35	-87.88	44.69
Stage 10	12.15	-79	44.36
Stage 10	11.95	-70.37	43.19
Stage 10	11.75	-62.07	41.47
Stage 10	11.55	-54.2	39.35
Stage 10	11.35	-46.81	36.94
Stage 10	11.15	-39.95	34.33
Stage 10	10.95	-33.63	31.58
Stage 10	10.75	-27.87	28.78
Stage 10	10.55	-22.68	25.98
Stage 10	10.35	-18.03	23.22
Stage 10	10.15	-13.92	20.54
Stage 10	9.95	-10.33	17.98
Stage 10	9.75	-7.22	15.54
Stage 10	9.55	-4.57	13.26
Stage 10	9.35	-2.34	11.14
Stage 10	9.15	-0.5	9.18
Stage 10	8.95	0.98	7.4
Stage 10	8.75	2.13	5.78
Stage 10	8.55	3	4.34
Stage 10	8.35	3.61	3.05
Stage 10	8.15	3.99	1.91
Stage 10	7.95	4.18	0.93
Stage 10	7.75	4.2	0.09
Stage 10	7.55	4.07	-0.61
Stage 10	7.35	3.84	-1.19
Stage 10	7.15	3.51	-1.64
Stage 10	6.95	3.11	-1.97
Stage 10	6.75	2.67	-2.2
Stage 10	6.55	2.21	-2.32
Stage 10	6.35	1.74	-2.35
Stage 10	6.15	1.29	-2.25
Stage 10	5.95	0.88	-2.06
Stage 10	5.75	0.52	-1.77
Stage 10	5.55	0.25	-1.38

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	5.35	0.07	-0.91
Stage 10	5.15	0	-0.33

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 11

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11	31.35	0	0
Stage 11	31.15	0	0
Stage 11	31.15	0	0
Stage 11	30.95	0	0
Stage 11	30.95	0	0
Stage 11	30.75	0	0
Stage 11	30.75	0	0
Stage 11	30.55	-0.16	-0.78
Stage 11	30.35	-1.14	-4.93
Stage 11	30.15	-3.66	-12.58
Stage 11	29.95	-8.43	-23.86
Stage 11	29.75	-16.21	-38.9
Stage 11	29.55	-27.75	-57.7
Stage 11	29.35	-43.85	-80.52
Stage 11	29.15	-26.18	88.36
Stage 11	28.95	-12.55	68.17
Stage 11	28.75	-2.61	49.71
Stage 11	28.55	4	33.02
Stage 11	28.35	7.68	18.43
Stage 11	28.15	8.9	6.1
Stage 11	27.95	7.96	-4.74
Stage 11	27.75	4.72	-16.17
Stage 11	27.55	-0.9	-28.13
Stage 11	27.35	-9.01	-40.52
Stage 11	27.15	-19.66	-53.28
Stage 11	26.95	-32.91	-66.25
Stage 11	26.75	-48.76	-79.24
Stage 11	26.55	-67.16	-91.97
Stage 11	26.35	-87.98	-104.13
Stage 11	26.15	-69.86	90.59
Stage 11	25.95	-54.01	79.24
Stage 11	25.75	-40.55	67.34
Stage 11	25.55	-29.55	54.98
Stage 11	25.35	-21.1	42.25
Stage 11	25.15	-15.27	29.14
Stage 11	24.95	-12.13	15.72
Stage 11	24.75	-11.7	2.11
Stage 11	24.55	-14.01	-11.51
Stage 11	24.35	-19	-24.97
Stage 11	24.15	-26.64	-38.19
Stage 11	23.95	-36.83	-50.95
Stage 11	23.75	-49.62	-63.98
Stage 11	23.55	-65.07	-77.24
Stage 11	23.35	-83.2	-90.66
Stage 11	23.15	-58.17	125.17
Stage 11	22.95	-35.88	111.43
Stage 11	22.75	-16.36	97.63
Stage 11	22.55	0.42	83.88
Stage 11	22.35	14.37	69.75
Stage 11	22.15	25.37	55.03
Stage 11	21.95	33.31	39.69
Stage 11	21.75	38.06	23.72
Stage 11	21.55	39.48	7.11
Stage 11	21.35	37.45	-10.13
Stage 11	21.15	31.83	-28.11
Stage 11	20.95	22.46	-46.85
Stage 11	20.85	16.31	-61.51
Stage 11	20.65	51.44	175.65
Stage 11	20.45	82.43	154.94
Stage 11	20.25	109.11	133.4
Stage 11	20.05	131.3	110.98
Stage 11	19.85	148.84	87.69
Stage 11	19.65	161.55	63.53
Stage 11	19.45	169.26	38.59
Stage 11	19.25	171.84	12.86

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11	19.05	169.1	-13.66
Stage 11	18.85	160.92	-40.89
Stage 11	18.65	147.17	-68.76
Stage 11	18.45	127.76	-97.08
Stage 11	18.35	115.9	-118.6
Stage 11	18.15	135.12	96.13
Stage 11	17.95	148.55	67.11
Stage 11	17.75	156.16	38.05
Stage 11	17.55	158	9.21
Stage 11	17.35	154.17	-19.15
Stage 11	17.15	145.16	-45.05
Stage 11	16.95	131.73	-67.12
Stage 11	16.75	114.67	-85.34
Stage 11	16.55	94.73	-99.66
Stage 11	16.35	72.72	-110.05
Stage 11	16.15	49.4	-116.61
Stage 11	15.95	25.52	-119.39
Stage 11	15.75	1.84	-118.44
Stage 11	15.55	-20.92	-113.78
Stage 11	15.35	-42.01	-105.43
Stage 11	15.15	-60.85	-94.23
Stage 11	14.95	-77.34	-82.46
Stage 11	14.75	-91.34	-69.97
Stage 11	14.55	-102.67	-56.66
Stage 11	14.35	-111.16	-42.46
Stage 11	14.15	-116.62	-27.27
Stage 11	13.95	-119.09	-12.36
Stage 11	13.75	-119.06	0.15
Stage 11	13.55	-116.97	10.47
Stage 11	13.35	-113.21	18.78
Stage 11	13.15	-108.15	25.3
Stage 11	12.95	-102.11	30.21
Stage 11	12.75	-95.36	33.72
Stage 11	12.55	-88.16	36.02
Stage 11	12.35	-80.71	37.27
Stage 11	12.15	-73.18	37.64
Stage 11	11.95	-65.75	37.16
Stage 11	11.75	-58.52	36.12
Stage 11	11.55	-51.59	34.66
Stage 11	11.35	-45.01	32.87
Stage 11	11.15	-38.85	30.84
Stage 11	10.95	-33.12	28.64
Stage 11	10.75	-27.85	26.34
Stage 11	10.55	-23.05	23.99
Stage 11	10.35	-18.72	21.64
Stage 11	10.15	-14.86	19.33
Stage 11	9.95	-11.44	17.08
Stage 11	9.75	-8.46	14.93
Stage 11	9.55	-5.88	12.88
Stage 11	9.35	-3.69	10.96
Stage 11	9.15	-1.85	9.18
Stage 11	8.95	-0.34	7.54
Stage 11	8.75	0.86	6.03
Stage 11	8.55	1.8	4.67
Stage 11	8.35	2.49	3.45
Stage 11	8.15	2.96	2.36
Stage 11	7.95	3.24	1.41
Stage 11	7.75	3.36	0.58
Stage 11	7.55	3.34	-0.12
Stage 11	7.35	3.2	-0.7
Stage 11	7.15	2.96	-1.16
Stage 11	6.95	2.66	-1.52
Stage 11	6.75	2.3	-1.77
Stage 11	6.55	1.92	-1.92
Stage 11	6.35	1.52	-1.98
Stage 11	6.15	1.14	-1.93
Stage 11	5.95	0.78	-1.79
Stage 11	5.75	0.47	-1.56
Stage 11	5.55	0.22	-1.23

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11	5.35	0.06	-0.81
Stage 11	5.15	0	-0.3

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 12

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 12	31.35	0	0
Stage 12	31.15	0	0
Stage 12	31.15	0	0
Stage 12	30.95	0	0
Stage 12	30.95	0	0
Stage 12	30.75	0	0
Stage 12	30.75	0	0
Stage 12	30.55	-0.13	-0.66
Stage 12	30.35	-1.07	-4.69
Stage 12	30.15	-3.52	-12.23
Stage 12	29.95	-8.2	-23.4
Stage 12	29.75	-15.87	-38.34
Stage 12	29.55	-27.27	-57.04
Stage 12	29.35	-43.22	-79.76
Stage 12	29.15	-25.33	89.46
Stage 12	28.95	-11.46	69.35
Stage 12	28.75	-1.27	50.96
Stage 12	28.55	5.6	34.34
Stage 12	28.35	9.56	19.81
Stage 12	28.15	11.07	7.54
Stage 12	27.95	10.41	-3.28
Stage 12	27.75	7.47	-14.69
Stage 12	27.55	2.14	-26.66
Stage 12	27.35	-5.67	-39.07
Stage 12	27.15	-16.05	-51.89
Stage 12	26.95	-29.04	-64.95
Stage 12	26.75	-44.65	-78.07
Stage 12	26.55	-62.85	-90.96
Stage 12	26.35	-83.51	-103.32
Stage 12	26.15	-65.43	90.38
Stage 12	25.95	-49.69	78.71
Stage 12	25.75	-36.4	66.43
Stage 12	25.55	-25.68	53.62
Stage 12	25.35	-17.6	40.38
Stage 12	25.15	-12.27	26.66
Stage 12	24.95	-9.76	12.57
Stage 12	24.75	-10.12	-1.8
Stage 12	24.55	-13.38	-16.28
Stage 12	24.35	-19.51	-30.69
Stage 12	24.15	-28.5	-44.93
Stage 12	23.95	-40.27	-58.83
Stage 12	23.75	-54.88	-73.06
Stage 12	23.55	-72.4	-87.62
Stage 12	23.35	-92.88	-102.42
Stage 12	23.15	-71.39	107.46
Stage 12	22.95	-52.95	92.22
Stage 12	22.75	-37.57	76.88
Stage 12	22.55	-25.26	61.58
Stage 12	22.35	-16.08	45.9
Stage 12	22.15	-10.14	29.67
Stage 12	21.95	-7.56	12.92
Stage 12	21.75	-8.43	-4.36
Stage 12	21.55	-12.85	-22.11
Stage 12	21.35	-20.9	-40.25
Stage 12	21.15	-32.67	-58.83
Stage 12	20.95	-48.23	-77.81
Stage 12	20.85	-57.46	-92.32
Stage 12	20.65	-28.12	146.73
Stage 12	20.45	-2.7	127.06
Stage 12	20.25	18.75	107.25
Stage 12	20.05	36.22	87.35
Stage 12	19.85	49.71	67.47
Stage 12	19.65	59.26	47.74
Stage 12	19.45	64.93	28.36
Stage 12	19.25	66.82	9.46



Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 12	19.05	65.01	-9.06
Stage 12	18.85	59.43	-27.91
Stage 12	18.65	50.01	-47.08
Stage 12	18.45	36.71	-66.51
Stage 12	18.35	28.58	-81.29
Stage 12	18.15	70.63	210.26
Stage 12	17.95	108.64	190.06
Stage 12	17.75	142.55	169.53
Stage 12	17.55	172.29	148.71
Stage 12	17.35	197.82	127.64
Stage 12	17.15	219.07	106.24
Stage 12	16.95	235.97	84.52
Stage 12	16.75	248.47	62.48
Stage 12	16.55	256.5	40.16
Stage 12	16.35	260.01	17.58
Stage 12	16.15	258.95	-5.32
Stage 12	15.95	253.25	-28.53
Stage 12	15.75	242.83	-52.07
Stage 12	15.55	227.97	-74.31
Stage 12	15.35	209.25	-93.63
Stage 12	15.15	187.23	-110.1
Stage 12	14.95	162.48	-123.73
Stage 12	14.75	135.58	-134.51
Stage 12	14.55	107.1	-142.41
Stage 12	14.35	77.62	-147.39
Stage 12	14.15	47.72	-149.52
Stage 12	13.95	17.96	-148.8
Stage 12	13.75	-11.09	-145.23
Stage 12	13.55	-38.84	-138.78
Stage 12	13.35	-64.73	-129.41
Stage 12	13.15	-88.16	-117.18
Stage 12	12.95	-108.58	-102.1
Stage 12	12.75	-125.76	-85.87
Stage 12	12.55	-139.74	-69.92
Stage 12	12.35	-150.56	-54.09
Stage 12	12.15	-158.21	-38.22
Stage 12	11.95	-162.62	-22.08
Stage 12	11.75	-163.69	-5.36
Stage 12	11.55	-161.73	9.82
Stage 12	11.35	-157.29	22.18
Stage 12	11.15	-150.89	32.01
Stage 12	10.95	-142.97	39.58
Stage 12	10.75	-133.94	45.15
Stage 12	10.55	-124.15	48.98
Stage 12	10.35	-113.89	51.29
Stage 12	10.15	-103.42	52.33
Stage 12	9.95	-92.99	52.17
Stage 12	9.75	-82.8	50.94
Stage 12	9.55	-73.03	48.85
Stage 12	9.35	-63.79	46.21
Stage 12	9.15	-55.15	43.2
Stage 12	8.95	-47.16	39.92
Stage 12	8.75	-39.87	36.49
Stage 12	8.55	-33.27	32.98
Stage 12	8.35	-27.38	29.47
Stage 12	8.15	-22.17	26.02
Stage 12	7.95	-17.64	22.68
Stage 12	7.75	-13.74	19.49
Stage 12	7.55	-10.44	16.49
Stage 12	7.35	-7.71	13.69
Stage 12	7.15	-5.48	11.14
Stage 12	6.95	-3.71	8.82
Stage 12	6.75	-2.36	6.77
Stage 12	6.55	-1.36	4.98
Stage 12	6.35	-0.67	3.46
Stage 12	6.15	-0.23	2.2
Stage 12	5.95	0.01	1.2
Stage 12	5.75	0.1	0.46
Stage 12	5.55	0.09	-0.03

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 12	5.35	0.04	-0.27
Stage 12	5.15	0	-0.2

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 13

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 13	31.35	0	0
Stage 13	31.15	0	0
Stage 13	31.15	0	0
Stage 13	30.95	0	0
Stage 13	30.95	0	0
Stage 13	30.75	0	0
Stage 13	30.75	0	0
Stage 13	30.55	-0.14	-0.7
Stage 13	30.35	-1.09	-4.77
Stage 13	30.15	-3.56	-12.33
Stage 13	29.95	-8.27	-23.54
Stage 13	29.75	-15.97	-38.5
Stage 13	29.55	-27.42	-57.24
Stage 13	29.35	-43.41	-79.98
Stage 13	29.15	-25.58	89.15
Stage 13	28.95	-11.78	69.02
Stage 13	28.75	-1.65	50.62
Stage 13	28.55	5.14	33.98
Stage 13	28.35	9.03	19.44
Stage 13	28.15	10.46	7.16
Stage 13	27.95	9.73	-3.66
Stage 13	27.75	6.72	-15.07
Stage 13	27.55	1.31	-27.02
Stage 13	27.35	-6.57	-39.42
Stage 13	27.15	-17.01	-52.21
Stage 13	26.95	-30.06	-65.24
Stage 13	26.75	-45.72	-78.31
Stage 13	26.55	-63.95	-91.14
Stage 13	26.35	-84.64	-103.43
Stage 13	26.15	-66.52	90.61
Stage 13	25.95	-50.71	79.04
Stage 13	25.75	-37.33	66.88
Stage 13	25.55	-26.49	54.21
Stage 13	25.35	-18.26	41.13
Stage 13	25.15	-12.74	27.59
Stage 13	24.95	-10	13.7
Stage 13	24.75	-10.09	-0.45
Stage 13	24.55	-13.03	-14.68
Stage 13	24.35	-18.79	-28.82
Stage 13	24.15	-27.35	-42.77
Stage 13	23.95	-38.62	-56.35
Stage 13	23.75	-52.67	-70.26
Stage 13	23.55	-69.56	-84.47
Stage 13	23.35	-89.34	-98.9
Stage 13	23.15	-66.84	112.53
Stage 13	22.95	-47.3	97.67
Stage 13	22.75	-30.76	82.72
Stage 13	22.55	-17.2	67.8
Stage 13	22.35	-6.7	52.48
Stage 13	22.15	0.61	36.6
Stage 13	21.95	4.64	20.14
Stage 13	21.75	5.27	3.11
Stage 13	21.55	2.38	-14.44
Stage 13	21.35	-4.12	-32.47
Stage 13	21.15	-14.32	-51.04
Stage 13	20.95	-28.35	-70.14
Stage 13	20.85	-36.83	-84.83
Stage 13	20.65	-6.26	152.85
Stage 13	20.45	20.27	132.67
Stage 13	20.25	42.7	112.13
Stage 13	20.05	60.95	91.27
Stage 13	19.85	74.98	70.16
Stage 13	19.65	84.76	48.9
Stage 13	19.45	90.3	27.66
Stage 13	19.25	91.61	6.55

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 13	19.05	88.69	-14.58
Stage 13	18.85	81.4	-36.45
Stage 13	18.65	69.58	-59.1
Stage 13	18.45	53.08	-82.48
Stage 13	18.35	43.02	-100.61
Stage 13	18.15	76.39	166.82
Stage 13	17.95	104.66	141.37
Stage 13	17.75	127.67	115.05
Stage 13	17.55	145.25	87.92
Stage 13	17.35	157.26	60.02
Stage 13	17.15	163.52	31.32
Stage 13	16.95	163.89	1.86
Stage 13	16.75	158.24	-28.27
Stage 13	16.55	146.44	-58.97
Stage 13	16.35	128.43	-90.06
Stage 13	16.15	151.4	114.85
Stage 13	15.95	168.05	83.23
Stage 13	15.75	178.36	51.55
Stage 13	15.55	182.38	20.09
Stage 13	15.35	180.19	-10.92
Stage 13	15.15	172.18	-40.08
Stage 13	14.95	159.1	-65.37
Stage 13	14.75	141.75	-86.76
Stage 13	14.55	120.91	-104.21
Stage 13	14.35	97.37	-117.69
Stage 13	14.15	71.91	-127.3
Stage 13	13.95	45.29	-133.09
Stage 13	13.75	18.27	-135.11
Stage 13	13.55	-8.41	-133.4
Stage 13	13.35	-34	-127.98
Stage 13	13.15	-57.8	-118.99
Stage 13	12.95	-79.1	-106.5
Stage 13	12.75	-97.56	-92.28
Stage 13	12.55	-113.12	-77.83
Stage 13	12.35	-125.74	-63.06
Stage 13	12.15	-135.31	-47.86
Stage 13	11.95	-141.72	-32.08
Stage 13	11.75	-144.81	-15.44
Stage 13	11.55	-144.84	-0.14
Stage 13	11.35	-142.34	12.49
Stage 13	11.15	-137.8	22.7
Stage 13	10.95	-131.65	30.74
Stage 13	10.75	-124.28	36.85
Stage 13	10.55	-116.03	41.25
Stage 13	10.35	-107.2	44.17
Stage 13	10.15	-98.04	45.81
Stage 13	9.95	-88.76	46.37
Stage 13	9.75	-79.59	45.85
Stage 13	9.55	-70.71	44.44
Stage 13	9.35	-62.22	42.45
Stage 13	9.15	-54.21	40.03
Stage 13	8.95	-46.75	37.32
Stage 13	8.75	-39.87	34.39
Stage 13	8.55	-33.6	31.34
Stage 13	8.35	-27.95	28.24
Stage 13	8.15	-22.92	25.16
Stage 13	7.95	-18.49	22.13
Stage 13	7.75	-14.65	19.22
Stage 13	7.55	-11.36	16.44
Stage 13	7.35	-8.59	13.84
Stage 13	7.15	-6.31	11.43
Stage 13	6.95	-4.46	9.23
Stage 13	6.75	-3.01	7.26
Stage 13	6.55	-1.91	5.51
Stage 13	6.35	-1.11	4
Stage 13	6.15	-0.56	2.74
Stage 13	5.95	-0.22	1.7
Stage 13	5.75	-0.04	0.89
Stage 13	5.55	0.02	0.32

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 13	5.35	0.02	-0.01
Stage 13	5.15	0	-0.1

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 14

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 14	31.35	0	0
Stage 14	31.15	0	0
Stage 14	31.15	0	0
Stage 14	30.95	0	0
Stage 14	30.95	0	0
Stage 14	30.75	0	0
Stage 14	30.75	0	0
Stage 14	30.55	-0.14	-0.7
Stage 14	30.35	-1.09	-4.76
Stage 14	30.15	-3.55	-12.32
Stage 14	29.95	-8.25	-23.5
Stage 14	29.75	-15.94	-38.44
Stage 14	29.55	-27.37	-57.14
Stage 14	29.35	-43.34	-79.84
Stage 14	29.15	-25.45	89.46
Stage 14	28.95	-11.57	69.38
Stage 14	28.75	-1.36	51.04
Stage 14	28.55	5.53	34.47
Stage 14	28.35	9.53	20
Stage 14	28.15	11.09	7.79
Stage 14	27.95	10.5	-2.95
Stage 14	27.75	7.65	-14.27
Stage 14	27.55	2.42	-26.14
Stage 14	27.35	-5.27	-38.45
Stage 14	27.15	-15.5	-51.15
Stage 14	26.95	-28.31	-64.09
Stage 14	26.75	-43.73	-77.07
Stage 14	26.55	-61.69	-89.83
Stage 14	26.35	-82.1	-102.05
Stage 14	26.15	-63.66	92.22
Stage 14	25.95	-47.52	80.7
Stage 14	25.75	-33.8	68.57
Stage 14	25.55	-22.62	55.91
Stage 14	25.35	-14.06	42.81
Stage 14	25.15	-8.21	29.22
Stage 14	24.95	-5.16	15.25
Stage 14	24.75	-4.97	0.97
Stage 14	24.55	-7.66	-13.44
Stage 14	24.35	-13.22	-27.8
Stage 14	24.15	-21.63	-42.04
Stage 14	23.95	-32.82	-55.98
Stage 14	23.75	-46.88	-70.31
Stage 14	23.55	-63.89	-85.03
Stage 14	23.35	-83.9	-100.06
Stage 14	23.15	-62.2	108.49
Stage 14	22.95	-43.63	92.84
Stage 14	22.75	-28.24	76.98
Stage 14	22.55	-16.03	61.04
Stage 14	22.35	-7.11	44.59
Stage 14	22.15	-1.62	27.46
Stage 14	21.95	0.31	9.63
Stage 14	21.75	-1.47	-8.87
Stage 14	21.55	-7.07	-28.01
Stage 14	21.35	-16.62	-47.73
Stage 14	21.15	-30.23	-68.08
Stage 14	20.95	-48.04	-89.02
Stage 14	20.85	-58.55	-105.14
Stage 14	20.65	-33.59	124.79
Stage 14	20.45	-13.06	102.68
Stage 14	20.25	2.99	80.23
Stage 14	20.05	14.49	57.52
Stage 14	19.85	21.43	34.67
Stage 14	19.65	23.79	11.83
Stage 14	19.45	21.65	-10.74
Stage 14	19.25	15.07	-32.88

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 14	19.05	4.14	-54.63
Stage 14	18.85	-11.19	-76.65
Stage 14	18.65	-30.95	-98.84
Stage 14	18.45	-55.16	-121.05
Stage 14	18.35	-68.93	-137.68
Stage 14	18.15	-40.46	142.37
Stage 14	17.95	-16.37	120.42
Stage 14	17.75	3.39	98.8
Stage 14	17.55	18.92	77.68
Stage 14	17.35	30.25	56.61
Stage 14	17.15	37.29	35.22
Stage 14	16.95	39.99	13.5
Stage 14	16.75	38.28	-8.54
Stage 14	16.55	32.11	-30.87
Stage 14	16.35	21.42	-53.44
Stage 14	16.15	71.55	250.65
Stage 14	15.95	117.04	227.43
Stage 14	15.75	157.82	203.9
Stage 14	15.55	193.83	180.08
Stage 14	15.35	225.04	156.01
Stage 14	15.15	251.36	131.63
Stage 14	14.95	272.75	106.93
Stage 14	14.75	289.13	81.92
Stage 14	14.55	300.46	56.62
Stage 14	14.35	306.68	31.08
Stage 14	14.15	307.72	5.23
Stage 14	13.95	303.53	-20.94
Stage 14	13.75	294.05	-47.42
Stage 14	13.55	279.53	-72.6
Stage 14	13.35	260.55	-94.86
Stage 14	13.15	237.7	-114.27
Stage 14	12.95	211.53	-130.83
Stage 14	12.75	182.63	-144.53
Stage 14	12.55	151.56	-155.35
Stage 14	12.35	118.91	-163.24
Stage 14	12.15	85.25	-168.28
Stage 14	11.95	51.16	-170.47
Stage 14	11.75	17.2	-169.8
Stage 14	11.55	-16.05	-166.25
Stage 14	11.35	-48	-159.77
Stage 14	11.15	-78.09	-150.43
Stage 14	10.95	-105.74	-138.24
Stage 14	10.75	-130.38	-123.19
Stage 14	10.55	-151.43	-105.25
Stage 14	10.35	-168.4	-84.87
Stage 14	10.15	-181.45	-65.23
Stage 14	9.95	-190.67	-46.13
Stage 14	9.75	-196.15	-27.36
Stage 14	9.55	-197.88	-8.68
Stage 14	9.35	-195.83	10.27
Stage 14	9.15	-190.36	27.33
Stage 14	8.95	-182.16	41
Stage 14	8.75	-171.84	51.63
Stage 14	8.55	-159.92	59.57
Stage 14	8.35	-146.89	65.14
Stage 14	8.15	-133.16	68.65
Stage 14	7.95	-119.09	70.39
Stage 14	7.75	-104.97	70.56
Stage 14	7.55	-91.15	69.15
Stage 14	7.35	-77.85	66.46
Stage 14	7.15	-65.28	62.87
Stage 14	6.95	-53.57	58.56
Stage 14	6.75	-42.83	53.7
Stage 14	6.55	-33.15	48.4
Stage 14	6.35	-24.6	42.73
Stage 14	6.15	-17.25	36.76
Stage 14	5.95	-11.14	30.53
Stage 14	5.75	-6.33	24.08
Stage 14	5.55	-2.84	17.44

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 14	5.35	-0.72	10.6
Stage 14	5.15	0	3.59



### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 15

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 15	31.35	0	0
Stage 15	31.15	0	0
Stage 15	31.15	0	0
Stage 15	30.95	0	0
Stage 15	30.95	0	0
Stage 15	30.75	0	0
Stage 15	30.75	0	0
Stage 15	30.55	-0.14	-0.7
Stage 15	30.35	-1.09	-4.77
Stage 15	30.15	-3.56	-12.32
Stage 15	29.95	-8.26	-23.52
Stage 15	29.75	-15.95	-38.46
Stage 15	29.55	-27.39	-57.17
Stage 15	29.35	-43.36	-79.88
Stage 15	29.15	-25.49	89.38
Stage 15	28.95	-11.63	69.29
Stage 15	28.75	-1.44	50.94
Stage 15	28.55	5.43	34.35
Stage 15	28.35	9.4	19.87
Stage 15	28.15	10.93	7.64
Stage 15	27.95	10.31	-3.12
Stage 15	27.75	7.42	-14.46
Stage 15	27.55	2.15	-26.34
Stage 15	27.35	-5.59	-38.67
Stage 15	27.15	-15.86	-51.39
Stage 15	26.95	-28.73	-64.35
Stage 15	26.75	-44.2	-77.35
Stage 15	26.55	-62.23	-90.12
Stage 15	26.35	-82.69	-102.35
Stage 15	26.15	-64.32	91.89
Stage 15	25.95	-48.24	80.36
Stage 15	25.75	-34.6	68.23
Stage 15	25.55	-23.48	55.58
Stage 15	25.35	-14.99	42.48
Stage 15	25.15	-9.2	28.92
Stage 15	24.95	-6.21	14.97
Stage 15	24.75	-6.06	0.73
Stage 15	24.55	-8.79	-13.63
Stage 15	24.35	-14.37	-27.93
Stage 15	24.15	-22.79	-42.1
Stage 15	23.95	-33.98	-55.94
Stage 15	23.75	-48.02	-70.17
Stage 15	23.55	-64.97	-84.76
Stage 15	23.35	-84.9	-99.65
Stage 15	23.15	-62.98	109.59
Stage 15	22.95	-44.16	94.12
Stage 15	22.75	-28.46	78.47
Stage 15	22.55	-15.91	62.77
Stage 15	22.35	-6.6	46.58
Stage 15	22.15	-0.65	29.72
Stage 15	21.95	1.79	12.21
Stage 15	21.75	0.6	-5.97
Stage 15	21.55	-4.36	-24.76
Stage 15	21.35	-13.18	-44.12
Stage 15	21.15	-26	-64.09
Stage 15	20.95	-42.93	-84.64
Stage 15	20.85	-52.97	-100.47
Stage 15	20.65	-26.76	131.06
Stage 15	20.45	-4.89	109.33
Stage 15	20.25	12.56	87.26
Stage 15	20.05	25.54	64.9
Stage 15	19.85	34.01	42.36
Stage 15	19.65	37.97	19.79
Stage 15	19.45	37.46	-2.57
Stage 15	19.25	32.54	-24.6

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 15	19.05	23.27	-46.34
Stage 15	18.85	9.58	-68.46
Stage 15	18.65	-8.61	-90.91
Stage 15	18.45	-31.32	-113.56
Stage 15	18.35	-44.38	-130.66
Stage 15	18.15	-15.26	145.59
Stage 15	17.95	9.27	122.66
Stage 15	17.75	29.22	99.77
Stage 15	17.55	44.64	77.08
Stage 15	17.35	55.45	54.09
Stage 15	17.15	61.54	30.41
Stage 15	16.95	62.74	6
Stage 15	16.75	58.9	-19.17
Stage 15	16.55	49.89	-45.08
Stage 15	16.35	35.54	-71.73
Stage 15	16.15	76.87	206.67
Stage 15	15.95	112.54	178.34
Stage 15	15.75	142.37	149.16
Stage 15	15.55	166.21	119.18
Stage 15	15.35	183.9	88.44
Stage 15	15.15	195.28	56.91
Stage 15	14.95	200.21	24.65
Stage 15	14.75	198.55	-8.28
Stage 15	14.55	190.2	-41.76
Stage 15	14.35	175.08	-75.63
Stage 15	14.15	200.38	126.54
Stage 15	13.95	218.82	92.17
Stage 15	13.75	230.37	57.77
Stage 15	13.55	235.09	23.6
Stage 15	13.35	233.07	-10.11
Stage 15	13.15	224.47	-42.97
Stage 15	12.95	210.1	-71.85
Stage 15	12.75	190.76	-96.72
Stage 15	12.55	167.25	-117.53
Stage 15	12.35	140.4	-134.27
Stage 15	12.15	110.99	-147.05
Stage 15	11.95	79.81	-155.91
Stage 15	11.75	47.62	-160.94
Stage 15	11.55	15.19	-162.15
Stage 15	11.35	-16.73	-159.6
Stage 15	11.15	-47.42	-153.43
Stage 15	10.95	-76.16	-143.73
Stage 15	10.75	-102.27	-130.56
Stage 15	10.55	-125.07	-113.97
Stage 15	10.35	-143.96	-94.47
Stage 15	10.15	-159.03	-75.33
Stage 15	9.95	-170.31	-56.4
Stage 15	9.75	-177.83	-37.58
Stage 15	9.55	-181.57	-18.74
Stage 15	9.35	-181.48	0.46
Stage 15	9.15	-177.88	18.03
Stage 15	8.95	-171.42	32.29
Stage 15	8.75	-162.71	43.56
Stage 15	8.55	-152.27	52.18
Stage 15	8.35	-140.58	58.43
Stage 15	8.15	-128.06	62.63
Stage 15	7.95	-115.05	65.03
Stage 15	7.75	-101.87	65.89
Stage 15	7.55	-88.83	65.23
Stage 15	7.35	-76.18	63.23
Stage 15	7.15	-64.13	60.27
Stage 15	6.95	-52.82	56.54
Stage 15	6.75	-42.38	52.18
Stage 15	6.55	-32.92	47.31
Stage 15	6.35	-24.52	42.01
Stage 15	6.15	-17.25	36.34
Stage 15	5.95	-11.18	30.35
Stage 15	5.75	-6.37	24.06
Stage 15	5.55	-2.87	17.5

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 15	5.35	-0.73	10.69
Stage 15	5.15	0	3.64

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 16

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 16	31.35	0	0
Stage 16	31.15	0	0
Stage 16	31.15	0	0
Stage 16	30.95	0	0
Stage 16	30.95	0	0
Stage 16	30.75	0	0
Stage 16	30.75	0	0
Stage 16	30.55	-0.14	-0.71
Stage 16	30.35	-1.1	-4.79
Stage 16	30.15	-3.57	-12.36
Stage 16	29.95	-8.29	-23.56
Stage 16	29.75	-15.99	-38.51
Stage 16	29.55	-27.43	-57.22
Stage 16	29.35	-43.42	-79.94
Stage 16	29.15	-25.56	89.33
Stage 16	28.95	-11.71	69.24
Stage 16	28.75	-1.53	50.89
Stage 16	28.55	5.33	34.32
Stage 16	28.35	9.3	19.84
Stage 16	28.15	10.83	7.63
Stage 16	27.95	10.21	-3.11
Stage 16	27.75	7.32	-14.43
Stage 16	27.55	2.06	-26.29
Stage 16	27.35	-5.66	-38.59
Stage 16	27.15	-15.91	-51.28
Stage 16	26.95	-28.75	-64.2
Stage 16	26.75	-44.19	-77.17
Stage 16	26.55	-62.17	-89.89
Stage 16	26.35	-82.58	-102.08
Stage 16	26.15	-64.11	92.34
Stage 16	25.95	-47.94	80.87
Stage 16	25.75	-34.18	68.79
Stage 16	25.55	-22.94	56.19
Stage 16	25.35	-14.31	43.16
Stage 16	25.15	-8.38	29.66
Stage 16	24.95	-5.23	15.77
Stage 16	24.75	-4.91	1.59
Stage 16	24.55	-7.45	-12.71
Stage 16	24.35	-12.84	-26.95
Stage 16	24.15	-21.05	-41.07
Stage 16	23.95	-32.03	-54.87
Stage 16	23.75	-45.84	-69.05
Stage 16	23.55	-62.56	-83.62
Stage 16	23.35	-82.26	-98.5
Stage 16	23.15	-60.11	110.72
Stage 16	22.95	-41.07	95.23
Stage 16	22.75	-25.16	79.54
Stage 16	22.55	-12.41	63.76
Stage 16	22.35	-2.92	47.46
Stage 16	22.15	3.18	30.47
Stage 16	21.95	5.73	12.77
Stage 16	21.75	4.6	-5.64
Stage 16	21.55	-0.34	-24.71
Stage 16	21.35	-9.22	-44.4
Stage 16	21.15	-22.17	-64.76
Stage 16	20.95	-39.33	-85.78
Stage 16	20.85	-49.52	-102
Stage 16	20.65	-24.07	127.25
Stage 16	20.45	-3.1	104.89
Stage 16	20.25	13.32	82.09
Stage 16	20.05	25.11	58.93
Stage 16	19.85	32.21	35.51
Stage 16	19.65	34.61	11.98
Stage 16	19.45	32.32	-11.44
Stage 16	19.25	25.4	-34.58

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 16	19.05	13.9	-57.51
Stage 16	18.85	-2.28	-80.88
Stage 16	18.65	-23.2	-104.63
Stage 16	18.45	-48.93	-128.61
Stage 16	18.35	-63.6	-146.72
Stage 16	18.15	-39.07	122.65
Stage 16	17.95	-19.39	98.38
Stage 16	17.75	-4.55	74.21
Stage 16	17.55	5.52	50.33
Stage 16	17.35	10.77	26.28
Stage 16	17.15	11.11	1.7
Stage 16	16.95	6.44	-23.37
Stage 16	16.75	-3.34	-48.91
Stage 16	16.55	-18.31	-74.84
Stage 16	16.35	-38.52	-101.06
Stage 16	16.15	-1.99	182.69
Stage 16	15.95	29.2	155.93
Stage 16	15.75	55.01	129.04
Stage 16	15.55	75.44	102.15
Stage 16	15.35	90.53	75.44
Stage 16	15.15	100.32	48.97
Stage 16	14.95	104.91	22.92
Stage 16	14.75	104.4	-2.53
Stage 16	14.55	98.83	-27.83
Stage 16	14.35	88.16	-53.37
Stage 16	14.15	131.95	218.95
Stage 16	13.95	170.51	192.78
Stage 16	13.75	203.77	166.3
Stage 16	13.55	231.68	139.54
Stage 16	13.35	254.18	112.54
Stage 16	13.15	271.23	85.22
Stage 16	12.95	282.75	57.59
Stage 16	12.75	288.68	29.66
Stage 16	12.55	288.97	1.44
Stage 16	12.35	283.56	-27.01
Stage 16	12.15	272.88	-53.41
Stage 16	11.95	257.49	-76.94
Stage 16	11.75	237.97	-97.63
Stage 16	11.55	214.88	-115.42
Stage 16	11.35	188.82	-130.3
Stage 16	11.15	160.36	-142.31
Stage 16	10.95	130.07	-151.47
Stage 16	10.75	98.51	-157.78
Stage 16	10.55	66.27	-161.19
Stage 16	10.35	33.94	-161.68
Stage 16	10.15	2.08	-159.31
Stage 16	9.95	-28.74	-154.08
Stage 16	9.75	-57.94	-145.99
Stage 16	9.55	-84.94	-135.01
Stage 16	9.35	-109.16	-121.11
Stage 16	9.15	-130.03	-104.35
Stage 16	8.95	-146.97	-84.72
Stage 16	8.75	-159.66	-63.44
Stage 16	8.55	-168.24	-42.9
Stage 16	8.35	-172.83	-22.93
Stage 16	8.15	-173.49	-3.33
Stage 16	7.95	-170.28	16.09
Stage 16	7.75	-163.17	35.54
Stage 16	7.55	-152.62	52.72
Stage 16	7.35	-139.45	65.88
Stage 16	7.15	-124.35	75.51
Stage 16	6.95	-107.97	81.88
Stage 16	6.75	-90.92	85.24
Stage 16	6.55	-73.77	85.78
Stage 16	6.35	-57.17	82.99
Stage 16	6.15	-41.76	77.05
Stage 16	5.95	-28.05	68.53
Stage 16	5.75	-16.55	57.53
Stage 16	5.55	-7.72	44.13

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 16	5.35	-2.05	28.36
Stage 16	5.15	0	10.24

## Risultati Elementi strutturali - A2+M2+R1

### Design Assumption: A2+M2+R1 Sollecitazione Tir-A1

Stage	Forza (kN/m)
Stage 3	200
Stage 4	201.0913
Stage 5	199.6608
Stage 6	194.6269
Stage 7	195.4405
Stage 8	193.6083
Stage 9	194.0026
Stage 10	193.6156
Stage 11	193.6348
Stage 12	193.8881
Stage 13	193.8228
Stage 14	193.9525
Stage 15	193.9218
Stage 16	193.9245

**Design Assumption: A2+M2+R1 Sollecitazione Tir-B1**

Stage	Forza (kN/m)
Stage 5	200
Stage 6	217.1553
Stage 7	213.3436
Stage 8	212.0928
Stage 9	212.6555
Stage 10	208.2682
Stage 11	209.2091
Stage 12	208.4454
Stage 13	208.6991
Stage 14	208.8742
Stage 15	208.8485
Stage 16	208.9897



**Design Assumption: A2+M2+R1 Sollecitazione Tir-C1**

Stage	Forza (kN/m)
Stage 7	200
Stage 8	235.6917
Stage 9	227.5249
Stage 10	233.1279
Stage 11	232.9877
Stage 12	228.3956
Stage 13	229.593
Stage 14	227.3786
Stage 15	227.906
Stage 16	227.8928

**Design Assumption: A2+M2+R1 Sollecitazione Tir-D1**

Stage	Forza (kN/m)
Stage 9	200
Stage 10	268.7253
Stage 11	256.0159
Stage 12	257.571
Stage 13	256.4471
Stage 14	250.0414
Stage 15	251.3565
Stage 16	249.4725

**Design Assumption: A2+M2+R1 Sollecitazione Tir-E1**

Stage	Forza (kN/m)
Stage 11	240
Stage 12	311.1908
Stage 13	290.2863
Stage 14	301.2222
Stage 15	297.9297
Stage 16	291.9626

**Design Assumption: A2+M2+R1 Sollecitazione Tir-F1**

Stage	Forza (kN/m)
Stage 13	240
Stage 14	332.0321
Stage 15	310.5953
Stage 16	315.0576

**Design Assumption: A2+M2+R1 Sollecitazione Tir-G1**

Stage	Forza (kN/m)
Stage 15	240
Stage 16	302.7754

## Allegati

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

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: Nominal
* Time:martedì 26 marzo 2019 18:12:15
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - SPIGOLO 7 TIRANTI
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -9.15 5.15 31.35 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 5.15 31.35 1 0
SOIL 0_R LeftWall_32 5.15 31.35 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 52 LeftWall_32
ATREST 0.57 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDDL

* 5: Defining structural materials
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 5.15 31.35 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-A1_425 LeftWall_32 29.35 acciaioarmonico_124 9.2539E-06 200 10 0 0
WIRE Tir-B1_535 LeftWall_32 26.35 acciaioarmonico_124 9.639E-06 200 10 0 0
WIRE Tir-C1_635 LeftWall_32 23.35 acciaioarmonico_124 1.0514E-05 200 10 0 0
WIRE Tir-D1_492899 LeftWall_32 20.85 acciaioarmonico_124 1.1014E-05 200 10 0 0
WIRE Tir-E1_596311 LeftWall_32 18.35 acciaioarmonico_124 1.4616E-05 240 10 0 0
WIRE Tir-F1_596312 LeftWall_32 16.35 acciaioarmonico_124 1.5427E-05 240 10 0 0
WIRE Tir-G1_698700 LeftWall_32 14.35 acciaioarmonico_124 1.7268E-05 240 10 0 0

* 6.3: Strips

* (slope contribution)
STRIP LeftWall_32 1 1 1 1 30.85 10.019 45
STRIP LeftWall_32 1 1 2 1 30.85 30.058 45
STRIP LeftWall_32 1 1 3 1 30.85 50.097 45
STRIP LeftWall_32 1 1 4 1 30.85 70.136 45
STRIP LeftWall_32 1 1 5 1 30.85 90.175 45
STRIP LeftWall_32 1 1 6 1 30.85 104.7 45
STRIP LeftWall_32 1 1 7 1 30.85 109.96 45
STRIP LeftWall_32 1 1 8 1 30.85 115.07 45
STRIP LeftWall_32 1 1 9 1 30.85 120.19 45
STRIP LeftWall_32 1 1 10 1 30.85 130.39 45
STRIP LeftWall_32 1 1 11 1 30.85 146.77 45
STRIP LeftWall_32 1 1 12 1 30.85 161.86 45
STRIP LeftWall_32 1 1 13 1 30.85 169.43 45
STRIP LeftWall_32 1 1 14 1 30.85 175.8 45
STRIP LeftWall_32 1 1 15 1 30.85 182.17 45
STRIP LeftWall_32 1 1 16 1 30.85 188.54 45
STRIP LeftWall_32 1 1 17 1 30.85 194.91 45
STRIP LeftWall_32 1 1 18 1 30.85 201.28 45
STRIP LeftWall_32 1 1 19 1 30.85 207.65 45
STRIP LeftWall_32 1 1 20 1 30.85 214.02 45
STRIP LeftWall_32 1 1 21 1 30.85 220.39 45

```

STRIP LeftWall_32	1	1	22	1	30.85	226.76	45
STRIP LeftWall_32	1	1	23	1	30.85	233.13	45
STRIP LeftWall_32	1	1	24	1	30.85	239.5	45
STRIP LeftWall_32	1	1	25	1	30.85	245.87	45
STRIP LeftWall_32	1	1	26	1	30.85	252.24	45
STRIP LeftWall_32	1	1	27	1	30.85	258.61	45
STRIP LeftWall_32	1	1	28	1	30.85	265.16	45
STRIP LeftWall_32	1	1	29	1	30.85	272.08	45
STRIP LeftWall_32	1	1	30	1	30.85	279	45
STRIP LeftWall_32	1	1	31	1	30.85	285.93	45
STRIP LeftWall_32	1	1	32	1	30.85	292.86	45
STRIP LeftWall_32	1	1	33	1	30.85	299.79	45
STRIP LeftWall_32	1	1	34	1	30.85	306.72	45
STRIP LeftWall_32	1	1	35	1	30.85	313.65	45
STRIP LeftWall_32	1	1	36	1	30.85	320.58	45
STRIP LeftWall_32	1	1	37	1	30.85	327.5	45
STRIP LeftWall_32	1	1	38	1	30.85	334.43	45
STRIP LeftWall_32	1	1	39	1	30.85	341.36	45
STRIP LeftWall_32	1	1	40	1	30.85	348.29	45
STRIP LeftWall_32	1	1	41	1	30.85	355.22	45
STRIP LeftWall_32	1	1	42	1	30.85	362.15	45
STRIP LeftWall_32	1	1	43	1	30.85	369.08	45
STRIP LeftWall_32	1	1	44	1	30.85	376	45
STRIP LeftWall_32	1	1	45	1	30.85	382.93	45
STRIP LeftWall_32	1	1	46	1	30.85	389.86	45
STRIP LeftWall_32	1	1	47	1	30.85	396.79	45
STRIP LeftWall_32	1	1	48	1	30.85	403.72	45
STRIP LeftWall_32	1	1	49	1	30.85	410.65	45
STRIP LeftWall_32	2	2	1	1	30.85	10.019	45
STRIP LeftWall_32	2	2	2	1	30.85	30.058	45
STRIP LeftWall_32	2	2	3	1	30.85	50.097	45
STRIP LeftWall_32	2	2	4	1	30.85	70.136	45
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STRIP LeftWall_32	2	2	8	1	30.85	115.07	45
STRIP LeftWall_32	2	2	9	1	30.85	120.19	45
STRIP LeftWall_32	2	2	10	1	30.85	130.39	45
STRIP LeftWall_32	2	2	11	1	30.85	146.77	45
STRIP LeftWall_32	2	2	12	1	30.85	161.86	45
STRIP LeftWall_32	2	2	13	1	30.85	169.43	45
STRIP LeftWall_32	2	2	14	1	30.85	175.8	45
STRIP LeftWall_32	2	2	15	1	30.85	182.17	45
STRIP LeftWall_32	2	2	16	1	30.85	188.54	45
STRIP LeftWall_32	2	2	17	1	30.85	194.91	45
STRIP LeftWall_32	2	2	18	1	30.85	201.28	45
STRIP LeftWall_32	2	2	19	1	30.85	207.65	45
STRIP LeftWall_32	2	2	20	1	30.85	214.02	45
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STRIP LeftWall_32	2	2	25	1	30.85	245.87	45
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STRIP LeftWall_32	2	2	29	1	30.85	272.08	45
STRIP LeftWall_32	2	2	30	1	30.85	279	45
STRIP LeftWall_32	2	2	31	1	30.85	285.93	45
STRIP LeftWall_32	2	2	32	1	30.85	292.86	45
STRIP LeftWall_32	2	2	33	1	30.85	299.79	45
STRIP LeftWall_32	2	2	34	1	30.85	306.72	45
STRIP LeftWall_32	2	2	35	1	30.85	313.65	45
STRIP LeftWall_32	2	2	36	1	30.85	320.58	45
STRIP LeftWall_32	2	2	37	1	30.85	327.5	45
STRIP LeftWall_32	2	2	38	1	30.85	334.43	45
STRIP LeftWall_32	2	2	39	1	30.85	341.36	45
STRIP LeftWall_32	2	2	40	1	30.85	348.29	45
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STRIP LeftWall_32	2	2	43	1	30.85	369.08	45
STRIP LeftWall_32	2	2	44	1	30.85	376	45
STRIP LeftWall_32	2	2	45	1	30.85	382.93	45
STRIP LeftWall_32	2	2	46	1	30.85	389.86	45
STRIP LeftWall_32	2	2	47	1	30.85	396.79	45
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STRIP LeftWall_32	2	2	49	1	30.85	410.65	45
STRIP LeftWall_32	3	3	1	1	30.85	10.019	45
STRIP LeftWall_32	3	3	2	1	30.85	30.058	45
STRIP LeftWall_32	3	3	3	1	30.85	50.097	45
STRIP LeftWall_32	3	3	4	1	30.85	70.136	45
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STRIP LeftWall_32	4	4	40	1	30.85	348.29	45
STRIP LeftWall_32	4	4	41	1	30.85	355.22	45
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STRIP LeftWall_32	4	4	43	1	30.85	369.08	45
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STRIP LeftWall_32	5	5	1	1	30.85	10.019	45
STRIP LeftWall_32	5	5	2	1	30.85	30.058	45
STRIP LeftWall_32	5	5	3	1	30.85	50.097	45



STRIP LeftWall_32	5	5	4	1	30.85	70.136	45
STRIP LeftWall_32	5	5	5	1	30.85	90.175	45
STRIP LeftWall_32	5	5	6	1	30.85	104.7	45
STRIP LeftWall_32	5	5	7	1	30.85	109.96	45
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STRIP LeftWall_32	5	5	9	1	30.85	120.19	45
STRIP LeftWall_32	5	5	10	1	30.85	130.39	45
STRIP LeftWall_32	5	5	11	1	30.85	146.77	45
STRIP LeftWall_32	5	5	12	1	30.85	161.86	45
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STRIP LeftWall_32	5	5	14	1	30.85	175.8	45
STRIP LeftWall_32	5	5	15	1	30.85	182.17	45
STRIP LeftWall_32	5	5	16	1	30.85	188.54	45
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STRIP LeftWall_32	5	5	19	1	30.85	207.65	45
STRIP LeftWall_32	5	5	20	1	30.85	214.02	45
STRIP LeftWall_32	5	5	21	1	30.85	220.39	45
STRIP LeftWall_32	5	5	22	1	30.85	226.76	45
STRIP LeftWall_32	5	5	23	1	30.85	233.13	45
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STRIP LeftWall_32	5	5	29	1	30.85	272.08	45
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STRIP LeftWall_32	5	5	33	1	30.85	299.79	45
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STRIP LeftWall_32	12	12	1	1	30.85	10.019	45
STRIP LeftWall_32	12	12	2	1	30.85	30.058	45
STRIP LeftWall_32	12	12	3	1	30.85	50.097	45
STRIP LeftWall_32	12	12	4	1	30.85	70.136	45
STRIP LeftWall_32	12	12	5	1	30.85	90.175	45
STRIP LeftWall_32	12	12	6	1	30.85	104.7	45
STRIP LeftWall_32	12	12	7	1	30.85	109.96	45
STRIP LeftWall_32	12	12	8	1	30.85	115.07	45
STRIP LeftWall_32	12	12	9	1	30.85	120.19	45
STRIP LeftWall_32	12	12	10	1	30.85	130.39	45
STRIP LeftWall_32	12	12	11	1	30.85	146.77	45
STRIP LeftWall_32	12	12	12	1	30.85	161.86	45
STRIP LeftWall_32	12	12	13	1	30.85	169.43	45
STRIP LeftWall_32	12	12	14	1	30.85	175.8	45
STRIP LeftWall_32	12	12	15	1	30.85	182.17	45
STRIP LeftWall_32	12	12	16	1	30.85	188.54	45

STRIP LeftWall_32	12	12	17	1	30.85	194.91	45
STRIP LeftWall_32	12	12	18	1	30.85	201.28	45
STRIP LeftWall_32	12	12	19	1	30.85	207.65	45
STRIP LeftWall_32	12	12	20	1	30.85	214.02	45
STRIP LeftWall_32	12	12	21	1	30.85	220.39	45
STRIP LeftWall_32	12	12	22	1	30.85	226.76	45
STRIP LeftWall_32	12	12	23	1	30.85	233.13	45
STRIP LeftWall_32	12	12	24	1	30.85	239.5	45
STRIP LeftWall_32	12	12	25	1	30.85	245.87	45
STRIP LeftWall_32	12	12	26	1	30.85	252.24	45
STRIP LeftWall_32	12	12	27	1	30.85	258.61	45
STRIP LeftWall_32	12	12	28	1	30.85	265.16	45
STRIP LeftWall_32	12	12	29	1	30.85	272.08	45
STRIP LeftWall_32	12	12	30	1	30.85	279	45
STRIP LeftWall_32	12	12	31	1	30.85	285.93	45
STRIP LeftWall_32	12	12	32	1	30.85	292.86	45
STRIP LeftWall_32	12	12	33	1	30.85	299.79	45
STRIP LeftWall_32	12	12	34	1	30.85	306.72	45
STRIP LeftWall_32	12	12	35	1	30.85	313.65	45
STRIP LeftWall_32	12	12	36	1	30.85	320.58	45
STRIP LeftWall_32	12	12	37	1	30.85	327.5	45
STRIP LeftWall_32	12	12	38	1	30.85	334.43	45
STRIP LeftWall_32	12	12	39	1	30.85	341.36	45
STRIP LeftWall_32	12	12	40	1	30.85	348.29	45
STRIP LeftWall_32	12	12	41	1	30.85	355.22	45
STRIP LeftWall_32	12	12	42	1	30.85	362.15	45
STRIP LeftWall_32	12	12	43	1	30.85	369.08	45
STRIP LeftWall_32	12	12	44	1	30.85	376	45
STRIP LeftWall_32	12	12	45	1	30.85	382.93	45
STRIP LeftWall_32	12	12	46	1	30.85	389.86	45
STRIP LeftWall_32	12	12	47	1	30.85	396.79	45
STRIP LeftWall_32	12	12	48	1	30.85	403.72	45
STRIP LeftWall_32	12	12	49	1	30.85	410.65	45
STRIP LeftWall_32	13	13	1	1	30.85	10.019	45
STRIP LeftWall_32	13	13	2	1	30.85	30.058	45
STRIP LeftWall_32	13	13	3	1	30.85	50.097	45
STRIP LeftWall_32	13	13	4	1	30.85	70.136	45
STRIP LeftWall_32	13	13	5	1	30.85	90.175	45
STRIP LeftWall_32	13	13	6	1	30.85	104.7	45
STRIP LeftWall_32	13	13	7	1	30.85	109.96	45
STRIP LeftWall_32	13	13	8	1	30.85	115.07	45
STRIP LeftWall_32	13	13	9	1	30.85	120.19	45
STRIP LeftWall_32	13	13	10	1	30.85	130.39	45
STRIP LeftWall_32	13	13	11	1	30.85	146.77	45
STRIP LeftWall_32	13	13	12	1	30.85	161.86	45
STRIP LeftWall_32	13	13	13	1	30.85	169.43	45
STRIP LeftWall_32	13	13	14	1	30.85	175.8	45
STRIP LeftWall_32	13	13	15	1	30.85	182.17	45
STRIP LeftWall_32	13	13	16	1	30.85	188.54	45
STRIP LeftWall_32	13	13	17	1	30.85	194.91	45
STRIP LeftWall_32	13	13	18	1	30.85	201.28	45
STRIP LeftWall_32	13	13	19	1	30.85	207.65	45
STRIP LeftWall_32	13	13	20	1	30.85	214.02	45
STRIP LeftWall_32	13	13	21	1	30.85	220.39	45
STRIP LeftWall_32	13	13	22	1	30.85	226.76	45
STRIP LeftWall_32	13	13	23	1	30.85	233.13	45
STRIP LeftWall_32	13	13	24	1	30.85	239.5	45
STRIP LeftWall_32	13	13	25	1	30.85	245.87	45
STRIP LeftWall_32	13	13	26	1	30.85	252.24	45
STRIP LeftWall_32	13	13	27	1	30.85	258.61	45
STRIP LeftWall_32	13	13	28	1	30.85	265.16	45
STRIP LeftWall_32	13	13	29	1	30.85	272.08	45
STRIP LeftWall_32	13	13	30	1	30.85	279	45
STRIP LeftWall_32	13	13	31	1	30.85	285.93	45
STRIP LeftWall_32	13	13	32	1	30.85	292.86	45
STRIP LeftWall_32	13	13	33	1	30.85	299.79	45
STRIP LeftWall_32	13	13	34	1	30.85	306.72	45
STRIP LeftWall_32	13	13	35	1	30.85	313.65	45
STRIP LeftWall_32	13	13	36	1	30.85	320.58	45
STRIP LeftWall_32	13	13	37	1	30.85	327.5	45
STRIP LeftWall_32	13	13	38	1	30.85	334.43	45
STRIP LeftWall_32	13	13	39	1	30.85	341.36	45
STRIP LeftWall_32	13	13	40	1	30.85	348.29	45
STRIP LeftWall_32	13	13	41	1	30.85	355.22	45
STRIP LeftWall_32	13	13	42	1	30.85	362.15	45
STRIP LeftWall_32	13	13	43	1	30.85	369.08	45
STRIP LeftWall_32	13	13	44	1	30.85	376	45
STRIP LeftWall_32	13	13	45	1	30.85	382.93	45
STRIP LeftWall_32	13	13	46	1	30.85	389.86	45
STRIP LeftWall_32	13	13	47	1	30.85	396.79	45
STRIP LeftWall_32	13	13	48	1	30.85	403.72	45
STRIP LeftWall_32	13	13	49	1	30.85	410.65	45
STRIP LeftWall_32	14	14	1	1	30.85	10.019	45
STRIP LeftWall_32	14	14	2	1	30.85	30.058	45
STRIP LeftWall_32	14	14	3	1	30.85	50.097	45
STRIP LeftWall_32	14	14	4	1	30.85	70.136	45
STRIP LeftWall_32	14	14	5	1	30.85	90.175	45
STRIP LeftWall_32	14	14	6	1	30.85	104.7	45
STRIP LeftWall_32	14	14	7	1	30.85	109.96	45

STRIP LeftWall_32	14	14	8	1	30.85	115.07	45
STRIP LeftWall_32	14	14	9	1	30.85	120.19	45
STRIP LeftWall_32	14	14	10	1	30.85	130.39	45
STRIP LeftWall_32	14	14	11	1	30.85	146.77	45
STRIP LeftWall_32	14	14	12	1	30.85	161.86	45
STRIP LeftWall_32	14	14	13	1	30.85	169.43	45
STRIP LeftWall_32	14	14	14	1	30.85	175.8	45
STRIP LeftWall_32	14	14	15	1	30.85	182.17	45
STRIP LeftWall_32	14	14	16	1	30.85	188.54	45
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STRIP LeftWall_32	14	14	18	1	30.85	201.28	45
STRIP LeftWall_32	14	14	19	1	30.85	207.65	45
STRIP LeftWall_32	14	14	20	1	30.85	214.02	45
STRIP LeftWall_32	14	14	21	1	30.85	220.39	45
STRIP LeftWall_32	14	14	22	1	30.85	226.76	45
STRIP LeftWall_32	14	14	23	1	30.85	233.13	45
STRIP LeftWall_32	14	14	24	1	30.85	239.5	45
STRIP LeftWall_32	14	14	25	1	30.85	245.87	45
STRIP LeftWall_32	14	14	26	1	30.85	252.24	45
STRIP LeftWall_32	14	14	27	1	30.85	258.61	45
STRIP LeftWall_32	14	14	28	1	30.85	265.16	45
STRIP LeftWall_32	14	14	29	1	30.85	272.08	45
STRIP LeftWall_32	14	14	30	1	30.85	279	45
STRIP LeftWall_32	14	14	31	1	30.85	285.93	45
STRIP LeftWall_32	14	14	32	1	30.85	292.86	45
STRIP LeftWall_32	14	14	33	1	30.85	299.79	45
STRIP LeftWall_32	14	14	34	1	30.85	306.72	45
STRIP LeftWall_32	14	14	35	1	30.85	313.65	45
STRIP LeftWall_32	14	14	36	1	30.85	320.58	45
STRIP LeftWall_32	14	14	37	1	30.85	327.5	45
STRIP LeftWall_32	14	14	38	1	30.85	334.43	45
STRIP LeftWall_32	14	14	39	1	30.85	341.36	45
STRIP LeftWall_32	14	14	40	1	30.85	348.29	45
STRIP LeftWall_32	14	14	41	1	30.85	355.22	45
STRIP LeftWall_32	14	14	42	1	30.85	362.15	45
STRIP LeftWall_32	14	14	43	1	30.85	369.08	45
STRIP LeftWall_32	14	14	44	1	30.85	376	45
STRIP LeftWall_32	14	14	45	1	30.85	382.93	45
STRIP LeftWall_32	14	14	46	1	30.85	389.86	45
STRIP LeftWall_32	14	14	47	1	30.85	396.79	45
STRIP LeftWall_32	14	14	48	1	30.85	403.72	45
STRIP LeftWall_32	14	14	49	1	30.85	410.65	45
STRIP LeftWall_32	15	15	1	1	30.85	10.019	45
STRIP LeftWall_32	15	15	2	1	30.85	30.058	45
STRIP LeftWall_32	15	15	3	1	30.85	50.097	45
STRIP LeftWall_32	15	15	4	1	30.85	70.136	45
STRIP LeftWall_32	15	15	5	1	30.85	90.175	45
STRIP LeftWall_32	15	15	6	1	30.85	104.7	45
STRIP LeftWall_32	15	15	7	1	30.85	109.96	45
STRIP LeftWall_32	15	15	8	1	30.85	115.07	45
STRIP LeftWall_32	15	15	9	1	30.85	120.19	45
STRIP LeftWall_32	15	15	10	1	30.85	130.39	45
STRIP LeftWall_32	15	15	11	1	30.85	146.77	45
STRIP LeftWall_32	15	15	12	1	30.85	161.86	45
STRIP LeftWall_32	15	15	13	1	30.85	169.43	45
STRIP LeftWall_32	15	15	14	1	30.85	175.8	45
STRIP LeftWall_32	15	15	15	1	30.85	182.17	45
STRIP LeftWall_32	15	15	16	1	30.85	188.54	45
STRIP LeftWall_32	15	15	17	1	30.85	194.91	45
STRIP LeftWall_32	15	15	18	1	30.85	201.28	45
STRIP LeftWall_32	15	15	19	1	30.85	207.65	45
STRIP LeftWall_32	15	15	20	1	30.85	214.02	45
STRIP LeftWall_32	15	15	21	1	30.85	220.39	45
STRIP LeftWall_32	15	15	22	1	30.85	226.76	45
STRIP LeftWall_32	15	15	23	1	30.85	233.13	45
STRIP LeftWall_32	15	15	24	1	30.85	239.5	45
STRIP LeftWall_32	15	15	25	1	30.85	245.87	45
STRIP LeftWall_32	15	15	26	1	30.85	252.24	45
STRIP LeftWall_32	15	15	27	1	30.85	258.61	45
STRIP LeftWall_32	15	15	28	1	30.85	265.16	45
STRIP LeftWall_32	15	15	29	1	30.85	272.08	45
STRIP LeftWall_32	15	15	30	1	30.85	279	45
STRIP LeftWall_32	15	15	31	1	30.85	285.93	45
STRIP LeftWall_32	15	15	32	1	30.85	292.86	45
STRIP LeftWall_32	15	15	33	1	30.85	299.79	45
STRIP LeftWall_32	15	15	34	1	30.85	306.72	45
STRIP LeftWall_32	15	15	35	1	30.85	313.65	45
STRIP LeftWall_32	15	15	36	1	30.85	320.58	45
STRIP LeftWall_32	15	15	37	1	30.85	327.5	45
STRIP LeftWall_32	15	15	38	1	30.85	334.43	45
STRIP LeftWall_32	15	15	39	1	30.85	341.36	45
STRIP LeftWall_32	15	15	40	1	30.85	348.29	45
STRIP LeftWall_32	15	15	41	1	30.85	355.22	45
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STRIP LeftWall_32	15	15	43	1	30.85	369.08	45
STRIP LeftWall_32	15	15	44	1	30.85	376	45
STRIP LeftWall_32	15	15	45	1	30.85	382.93	45
STRIP LeftWall_32	15	15	46	1	30.85	389.86	45
STRIP LeftWall_32	15	15	47	1	30.85	396.79	45

STRIP LeftWall\_32 15 15 48 1 30.85 403.72 45  
 STRIP LeftWall\_32 15 15 49 1 30.85 410.65 45  
 STRIP LeftWall\_32 16 16 1 1 30.85 10.019 45  
 STRIP LeftWall\_32 16 16 2 1 30.85 30.058 45  
 STRIP LeftWall\_32 16 16 3 1 30.85 50.097 45  
 STRIP LeftWall\_32 16 16 4 1 30.85 70.136 45  
 STRIP LeftWall\_32 16 16 5 1 30.85 90.175 45  
 STRIP LeftWall\_32 16 16 6 1 30.85 104.7 45  
 STRIP LeftWall\_32 16 16 7 1 30.85 109.96 45  
 STRIP LeftWall\_32 16 16 8 1 30.85 115.07 45  
 STRIP LeftWall\_32 16 16 9 1 30.85 120.19 45  
 STRIP LeftWall\_32 16 16 10 1 30.85 130.39 45  
 STRIP LeftWall\_32 16 16 11 1 30.85 146.77 45  
 STRIP LeftWall\_32 16 16 12 1 30.85 161.86 45  
 STRIP LeftWall\_32 16 16 13 1 30.85 169.43 45  
 STRIP LeftWall\_32 16 16 14 1 30.85 175.8 45  
 STRIP LeftWall\_32 16 16 15 1 30.85 182.17 45  
 STRIP LeftWall\_32 16 16 16 1 30.85 188.54 45  
 STRIP LeftWall\_32 16 16 17 1 30.85 194.91 45  
 STRIP LeftWall\_32 16 16 18 1 30.85 201.28 45  
 STRIP LeftWall\_32 16 16 19 1 30.85 207.65 45  
 STRIP LeftWall\_32 16 16 20 1 30.85 214.02 45  
 STRIP LeftWall\_32 16 16 21 1 30.85 220.39 45  
 STRIP LeftWall\_32 16 16 22 1 30.85 226.76 45  
 STRIP LeftWall\_32 16 16 23 1 30.85 233.13 45  
 STRIP LeftWall\_32 16 16 24 1 30.85 239.5 45  
 STRIP LeftWall\_32 16 16 25 1 30.85 245.87 45  
 STRIP LeftWall\_32 16 16 26 1 30.85 252.24 45  
 STRIP LeftWall\_32 16 16 27 1 30.85 258.61 45  
 STRIP LeftWall\_32 16 16 28 1 30.85 265.16 45  
 STRIP LeftWall\_32 16 16 29 1 30.85 272.08 45  
 STRIP LeftWall\_32 16 16 30 1 30.85 279 45  
 STRIP LeftWall\_32 16 16 31 1 30.85 285.93 45  
 STRIP LeftWall\_32 16 16 32 1 30.85 292.86 45  
 STRIP LeftWall\_32 16 16 33 1 30.85 299.79 45  
 STRIP LeftWall\_32 16 16 34 1 30.85 306.72 45  
 STRIP LeftWall\_32 16 16 35 1 30.85 313.65 45  
 STRIP LeftWall\_32 16 16 36 1 30.85 320.58 45  
 STRIP LeftWall\_32 16 16 37 1 30.85 327.5 45  
 STRIP LeftWall\_32 16 16 38 1 30.85 334.43 45  
 STRIP LeftWall\_32 16 16 39 1 30.85 341.36 45  
 STRIP LeftWall\_32 16 16 40 1 30.85 348.29 45  
 STRIP LeftWall\_32 16 16 41 1 30.85 355.22 45  
 STRIP LeftWall\_32 16 16 42 1 30.85 362.15 45  
 STRIP LeftWall\_32 16 16 43 1 30.85 369.08 45  
 STRIP LeftWall\_32 16 16 44 1 30.85 376 45  
 STRIP LeftWall\_32 16 16 45 1 30.85 382.93 45  
 STRIP LeftWall\_32 16 16 46 1 30.85 389.86 45  
 STRIP LeftWall\_32 16 16 47 1 30.85 396.79 45  
 STRIP LeftWall\_32 16 16 48 1 30.85 403.72 45  
 STRIP LeftWall\_32 16 16 49 1 30.85 410.65 45

\* 7: Defining Steps

STEP Stage1\_31  
 CHANGE Morena\_2\_8\_L\_0 U-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KP=5.664 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.219 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=3.266 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-COHE=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-ADHES=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-COHE=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-ADHES=0 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 30.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Berlinese\_67970  
 ENDSTEP

STEP Stage2\_743389  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.24 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=4.133 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 28.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage3\_743578  
 SETWALL LeftWall\_32  
 GEOM 30.85 28.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-Al\_425  
 ENDSTEP

STEP Stage4\_743767

CHANGE Morena\_2\_8\_L\_0 D-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.217 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 25.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage5\_743956  
 SETWALL LeftWall\_32  
 GEOM 30.85 25.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-B1\_535  
 ENDSTEP

STEP Stage6\_744145  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.643 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 22.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage7\_744692  
 SETWALL LeftWall\_32  
 GEOM 30.85 22.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-C1\_635  
 ENDSTEP

STEP Stage8\_744881  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.664 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 20.35  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage9\_745070  
 SETWALL LeftWall\_32  
 GEOM 30.85 20.35  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-D1\_492899  
 ENDSTEP

STEP Stage10\_745259  
 SETWALL LeftWall\_32  
 GEOM 30.85 17.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage11\_745448  
 SETWALL LeftWall\_32  
 GEOM 30.85 17.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-E1\_596311  
 ENDSTEP

STEP Stage12\_745995  
 SETWALL LeftWall\_32  
 GEOM 30.85 15.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage13\_746184  
 SETWALL LeftWall\_32  
 GEOM 30.85 15.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-F1\_596312  
 ENDSTEP

STEP Stage14\_746373  
 SETWALL LeftWall\_32  
 GEOM 30.85 13.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage15\_746562  
 SETWALL LeftWall\_32  
 GEOM 30.85 13.85  
 SURCHARGE 0 0 0 0



WATER -10 0 5.15 0 0  
ADD Tir-Gl\_698700  
ENDSTEP

STEP Stage16\_746751  
SETWALL LeftWall\_32  
GEOM 30.85 12.5  
SURCHARGE 0 0 0 0  
WATER -10 0 5.15 0 0  
ENDSTEP

## Design Assumption : SLE (Rara) - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: SLE (Rara)
* Time:martedì 26 marzo 2019 18:12:23
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - SPIGOLO 7 TIRANTI
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -9.15 5.15 31.35 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 5.15 31.35 1 0
SOIL 0_R LeftWall_32 5.15 31.35 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 52 LeftWall_32
ATREST 0.57 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 5.15 31.35 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-A1_425 LeftWall_32 29.35 acciaioarmonico_124 9.2539E-06 200 10 0 0
WIRE Tir-B1_535 LeftWall_32 26.35 acciaioarmonico_124 9.639E-06 200 10 0 0
WIRE Tir-C1_635 LeftWall_32 23.35 acciaioarmonico_124 1.0514E-05 200 10 0 0
WIRE Tir-D1_492899 LeftWall_32 20.85 acciaioarmonico_124 1.1014E-05 200 10 0 0
WIRE Tir-E1_596311 LeftWall_32 18.35 acciaioarmonico_124 1.4616E-05 240 10 0 0
WIRE Tir-F1_596312 LeftWall_32 16.35 acciaioarmonico_124 1.5427E-05 240 10 0 0
WIRE Tir-G1_698700 LeftWall_32 14.35 acciaioarmonico_124 1.7268E-05 240 10 0 0

* 6.3: Strips

* (slope contribution)
STRIP LeftWall_32 1 1 1 1 30.85 10.019 45
STRIP LeftWall_32 1 1 2 1 30.85 30.058 45
STRIP LeftWall_32 1 1 3 1 30.85 50.097 45
STRIP LeftWall_32 1 1 4 1 30.85 70.136 45
STRIP LeftWall_32 1 1 5 1 30.85 90.175 45
STRIP LeftWall_32 1 1 6 1 30.85 104.7 45
STRIP LeftWall_32 1 1 7 1 30.85 109.96 45
STRIP LeftWall_32 1 1 8 1 30.85 115.07 45
STRIP LeftWall_32 1 1 9 1 30.85 120.19 45
STRIP LeftWall_32 1 1 10 1 30.85 130.39 45
STRIP LeftWall_32 1 1 11 1 30.85 146.77 45
STRIP LeftWall_32 1 1 12 1 30.85 161.86 45
STRIP LeftWall_32 1 1 13 1 30.85 169.43 45
STRIP LeftWall_32 1 1 14 1 30.85 175.8 45
STRIP LeftWall_32 1 1 15 1 30.85 182.17 45
STRIP LeftWall_32 1 1 16 1 30.85 188.54 45
STRIP LeftWall_32 1 1 17 1 30.85 194.91 45
STRIP LeftWall_32 1 1 18 1 30.85 201.28 45
STRIP LeftWall_32 1 1 19 1 30.85 207.65 45
STRIP LeftWall_32 1 1 20 1 30.85 214.02 45
STRIP LeftWall_32 1 1 21 1 30.85 220.39 45
STRIP LeftWall_32 1 1 22 1 30.85 226.76 45
STRIP LeftWall_32 1 1 23 1 30.85 233.13 45
STRIP LeftWall_32 1 1 24 1 30.85 239.5 45
STRIP LeftWall_32 1 1 25 1 30.85 245.87 45

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STRIP LeftWall_32	1	1	26	1	30.85	252.24	45
STRIP LeftWall_32	1	1	27	1	30.85	258.61	45
STRIP LeftWall_32	1	1	28	1	30.85	265.16	45
STRIP LeftWall_32	1	1	29	1	30.85	272.08	45
STRIP LeftWall_32	1	1	30	1	30.85	279.45	45
STRIP LeftWall_32	1	1	31	1	30.85	285.93	45
STRIP LeftWall_32	1	1	32	1	30.85	292.86	45
STRIP LeftWall_32	1	1	33	1	30.85	299.79	45
STRIP LeftWall_32	1	1	34	1	30.85	306.72	45
STRIP LeftWall_32	1	1	35	1	30.85	313.65	45
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STRIP LeftWall_32	1	1	37	1	30.85	327.5	45
STRIP LeftWall_32	1	1	38	1	30.85	334.43	45
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STRIP LeftWall_32	1	1	40	1	30.85	348.29	45
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STRIP LeftWall_32	1	1	43	1	30.85	369.08	45
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STRIP LeftWall_32	2	2	18	1	30.85	201.28	45
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STRIP LeftWall_32	7	7	25	1	30.85	245.87	45
STRIP LeftWall_32	7	7	26	1	30.85	252.24	45
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STRIP LeftWall_32	7	7	28	1	30.85	265.16	45
STRIP LeftWall_32	7	7	29	1	30.85	272.08	45
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STRIP LeftWall_32	7	7	31	1	30.85	285.93	45
STRIP LeftWall_32	7	7	32	1	30.85	292.86	45
STRIP LeftWall_32	7	7	33	1	30.85	299.79	45
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STRIP LeftWall_32	13	13	46	1	30.85	389.86	45
STRIP LeftWall_32	13	13	47	1	30.85	396.79	45
STRIP LeftWall_32	13	13	48	1	30.85	403.72	45
STRIP LeftWall_32	13	13	49	1	30.85	410.65	45
STRIP LeftWall_32	14	14	1	1	30.85	10.019	45
STRIP LeftWall_32	14	14	2	1	30.85	30.058	45
STRIP LeftWall_32	14	14	3	1	30.85	50.097	45
STRIP LeftWall_32	14	14	4	1	30.85	70.136	45
STRIP LeftWall_32	14	14	5	1	30.85	90.175	45
STRIP LeftWall_32	14	14	6	1	30.85	104.7	45
STRIP LeftWall_32	14	14	7	1	30.85	109.96	45
STRIP LeftWall_32	14	14	8	1	30.85	115.07	45
STRIP LeftWall_32	14	14	9	1	30.85	120.19	45
STRIP LeftWall_32	14	14	10	1	30.85	130.39	45
STRIP LeftWall_32	14	14	11	1	30.85	146.77	45

STRIP LeftWall_32	14	14	12	1	30.85	161.86	45
STRIP LeftWall_32	14	14	13	1	30.85	169.43	45
STRIP LeftWall_32	14	14	14	1	30.85	175.8	45
STRIP LeftWall_32	14	14	15	1	30.85	182.17	45
STRIP LeftWall_32	14	14	16	1	30.85	188.54	45
STRIP LeftWall_32	14	14	17	1	30.85	194.91	45
STRIP LeftWall_32	14	14	18	1	30.85	201.28	45
STRIP LeftWall_32	14	14	19	1	30.85	207.65	45
STRIP LeftWall_32	14	14	20	1	30.85	214.02	45
STRIP LeftWall_32	14	14	21	1	30.85	220.39	45
STRIP LeftWall_32	14	14	22	1	30.85	226.76	45
STRIP LeftWall_32	14	14	23	1	30.85	233.13	45
STRIP LeftWall_32	14	14	24	1	30.85	239.5	45
STRIP LeftWall_32	14	14	25	1	30.85	245.87	45
STRIP LeftWall_32	14	14	26	1	30.85	252.24	45
STRIP LeftWall_32	14	14	27	1	30.85	258.61	45
STRIP LeftWall_32	14	14	28	1	30.85	265.16	45
STRIP LeftWall_32	14	14	29	1	30.85	272.08	45
STRIP LeftWall_32	14	14	30	1	30.85	279.45	45
STRIP LeftWall_32	14	14	31	1	30.85	285.93	45
STRIP LeftWall_32	14	14	32	1	30.85	292.86	45
STRIP LeftWall_32	14	14	33	1	30.85	299.79	45
STRIP LeftWall_32	14	14	34	1	30.85	306.72	45
STRIP LeftWall_32	14	14	35	1	30.85	313.65	45
STRIP LeftWall_32	14	14	36	1	30.85	320.58	45
STRIP LeftWall_32	14	14	37	1	30.85	327.5	45
STRIP LeftWall_32	14	14	38	1	30.85	334.43	45
STRIP LeftWall_32	14	14	39	1	30.85	341.36	45
STRIP LeftWall_32	14	14	40	1	30.85	348.29	45
STRIP LeftWall_32	14	14	41	1	30.85	355.22	45
STRIP LeftWall_32	14	14	42	1	30.85	362.15	45
STRIP LeftWall_32	14	14	43	1	30.85	369.08	45
STRIP LeftWall_32	14	14	44	1	30.85	376.45	45
STRIP LeftWall_32	14	14	45	1	30.85	382.93	45
STRIP LeftWall_32	14	14	46	1	30.85	389.86	45
STRIP LeftWall_32	14	14	47	1	30.85	396.79	45
STRIP LeftWall_32	14	14	48	1	30.85	403.72	45
STRIP LeftWall_32	14	14	49	1	30.85	410.65	45
STRIP LeftWall_32	15	15	1	1	30.85	10.019	45
STRIP LeftWall_32	15	15	2	1	30.85	30.058	45
STRIP LeftWall_32	15	15	3	1	30.85	50.097	45
STRIP LeftWall_32	15	15	4	1	30.85	70.136	45
STRIP LeftWall_32	15	15	5	1	30.85	90.175	45
STRIP LeftWall_32	15	15	6	1	30.85	104.7	45
STRIP LeftWall_32	15	15	7	1	30.85	109.96	45
STRIP LeftWall_32	15	15	8	1	30.85	115.07	45
STRIP LeftWall_32	15	15	9	1	30.85	120.19	45
STRIP LeftWall_32	15	15	10	1	30.85	130.39	45
STRIP LeftWall_32	15	15	11	1	30.85	146.77	45
STRIP LeftWall_32	15	15	12	1	30.85	161.86	45
STRIP LeftWall_32	15	15	13	1	30.85	169.43	45
STRIP LeftWall_32	15	15	14	1	30.85	175.8	45
STRIP LeftWall_32	15	15	15	1	30.85	182.17	45
STRIP LeftWall_32	15	15	16	1	30.85	188.54	45
STRIP LeftWall_32	15	15	17	1	30.85	194.91	45
STRIP LeftWall_32	15	15	18	1	30.85	201.28	45
STRIP LeftWall_32	15	15	19	1	30.85	207.65	45
STRIP LeftWall_32	15	15	20	1	30.85	214.02	45
STRIP LeftWall_32	15	15	21	1	30.85	220.39	45
STRIP LeftWall_32	15	15	22	1	30.85	226.76	45
STRIP LeftWall_32	15	15	23	1	30.85	233.13	45
STRIP LeftWall_32	15	15	24	1	30.85	239.5	45
STRIP LeftWall_32	15	15	25	1	30.85	245.87	45
STRIP LeftWall_32	15	15	26	1	30.85	252.24	45
STRIP LeftWall_32	15	15	27	1	30.85	258.61	45
STRIP LeftWall_32	15	15	28	1	30.85	265.16	45
STRIP LeftWall_32	15	15	29	1	30.85	272.08	45
STRIP LeftWall_32	15	15	30	1	30.85	279.45	45
STRIP LeftWall_32	15	15	31	1	30.85	285.93	45
STRIP LeftWall_32	15	15	32	1	30.85	292.86	45
STRIP LeftWall_32	15	15	33	1	30.85	299.79	45
STRIP LeftWall_32	15	15	34	1	30.85	306.72	45
STRIP LeftWall_32	15	15	35	1	30.85	313.65	45
STRIP LeftWall_32	15	15	36	1	30.85	320.58	45
STRIP LeftWall_32	15	15	37	1	30.85	327.5	45
STRIP LeftWall_32	15	15	38	1	30.85	334.43	45
STRIP LeftWall_32	15	15	39	1	30.85	341.36	45
STRIP LeftWall_32	15	15	40	1	30.85	348.29	45
STRIP LeftWall_32	15	15	41	1	30.85	355.22	45
STRIP LeftWall_32	15	15	42	1	30.85	362.15	45
STRIP LeftWall_32	15	15	43	1	30.85	369.08	45
STRIP LeftWall_32	15	15	44	1	30.85	376.45	45
STRIP LeftWall_32	15	15	45	1	30.85	382.93	45
STRIP LeftWall_32	15	15	46	1	30.85	389.86	45
STRIP LeftWall_32	15	15	47	1	30.85	396.79	45
STRIP LeftWall_32	15	15	48	1	30.85	403.72	45
STRIP LeftWall_32	15	15	49	1	30.85	410.65	45
STRIP LeftWall_32	16	16	1	1	30.85	10.019	45
STRIP LeftWall_32	16	16	2	1	30.85	30.058	45

STRIP LeftWall\_32 16 16 3 1 30.85 50.097 45  
 STRIP LeftWall\_32 16 16 4 1 30.85 70.136 45  
 STRIP LeftWall\_32 16 16 5 1 30.85 90.175 45  
 STRIP LeftWall\_32 16 16 6 1 30.85 104.7 45  
 STRIP LeftWall\_32 16 16 7 1 30.85 109.96 45  
 STRIP LeftWall\_32 16 16 8 1 30.85 115.07 45  
 STRIP LeftWall\_32 16 16 9 1 30.85 120.19 45  
 STRIP LeftWall\_32 16 16 10 1 30.85 130.39 45  
 STRIP LeftWall\_32 16 16 11 1 30.85 146.77 45  
 STRIP LeftWall\_32 16 16 12 1 30.85 161.86 45  
 STRIP LeftWall\_32 16 16 13 1 30.85 169.43 45  
 STRIP LeftWall\_32 16 16 14 1 30.85 175.8 45  
 STRIP LeftWall\_32 16 16 15 1 30.85 182.17 45  
 STRIP LeftWall\_32 16 16 16 1 30.85 188.54 45  
 STRIP LeftWall\_32 16 16 17 1 30.85 194.91 45  
 STRIP LeftWall\_32 16 16 18 1 30.85 201.28 45  
 STRIP LeftWall\_32 16 16 19 1 30.85 207.65 45  
 STRIP LeftWall\_32 16 16 20 1 30.85 214.02 45  
 STRIP LeftWall\_32 16 16 21 1 30.85 220.39 45  
 STRIP LeftWall\_32 16 16 22 1 30.85 226.76 45  
 STRIP LeftWall\_32 16 16 23 1 30.85 233.13 45  
 STRIP LeftWall\_32 16 16 24 1 30.85 239.5 45  
 STRIP LeftWall\_32 16 16 25 1 30.85 245.87 45  
 STRIP LeftWall\_32 16 16 26 1 30.85 252.24 45  
 STRIP LeftWall\_32 16 16 27 1 30.85 258.61 45  
 STRIP LeftWall\_32 16 16 28 1 30.85 265.16 45  
 STRIP LeftWall\_32 16 16 29 1 30.85 272.08 45  
 STRIP LeftWall\_32 16 16 30 1 30.85 279 45  
 STRIP LeftWall\_32 16 16 31 1 30.85 285.93 45  
 STRIP LeftWall\_32 16 16 32 1 30.85 292.86 45  
 STRIP LeftWall\_32 16 16 33 1 30.85 299.79 45  
 STRIP LeftWall\_32 16 16 34 1 30.85 306.72 45  
 STRIP LeftWall\_32 16 16 35 1 30.85 313.65 45  
 STRIP LeftWall\_32 16 16 36 1 30.85 320.58 45  
 STRIP LeftWall\_32 16 16 37 1 30.85 327.5 45  
 STRIP LeftWall\_32 16 16 38 1 30.85 334.43 45  
 STRIP LeftWall\_32 16 16 39 1 30.85 341.36 45  
 STRIP LeftWall\_32 16 16 40 1 30.85 348.29 45  
 STRIP LeftWall\_32 16 16 41 1 30.85 355.22 45  
 STRIP LeftWall\_32 16 16 42 1 30.85 362.15 45  
 STRIP LeftWall\_32 16 16 43 1 30.85 369.08 45  
 STRIP LeftWall\_32 16 16 44 1 30.85 376 45  
 STRIP LeftWall\_32 16 16 45 1 30.85 382.93 45  
 STRIP LeftWall\_32 16 16 46 1 30.85 389.86 45  
 STRIP LeftWall\_32 16 16 47 1 30.85 396.79 45  
 STRIP LeftWall\_32 16 16 48 1 30.85 403.72 45  
 STRIP LeftWall\_32 16 16 49 1 30.85 410.65 45

\* 7: Defining Steps

STEP Stage1\_31  
 CHANGE Morena\_2\_8\_L\_0 U-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KP=5.664 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.219 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=3.266 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-COHE=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-ADHES=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-COHE=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-ADHES=0 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 30.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Berlinese\_67970  
 ENDSTEP

STEP Stage2\_743389  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.24 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=4.133 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 28.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage3\_743578  
 SETWALL LeftWall\_32  
 GEOM 30.85 28.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-Al\_425  
 ENDSTEP

STEP Stage4\_743767  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.217 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 25.85

SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage5\_743956  
 SETWALL LeftWall\_32  
 GEOM 30.85 25.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-B1\_535  
 ENDSTEP

STEP Stage6\_744145  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.643 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 22.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage7\_744692  
 SETWALL LeftWall\_32  
 GEOM 30.85 22.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-C1\_635  
 ENDSTEP

STEP Stage8\_744881  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.664 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 20.35  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage9\_745070  
 SETWALL LeftWall\_32  
 GEOM 30.85 20.35  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-D1\_492899  
 ENDSTEP

STEP Stage10\_745259  
 SETWALL LeftWall\_32  
 GEOM 30.85 17.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage11\_745448  
 SETWALL LeftWall\_32  
 GEOM 30.85 17.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-E1\_596311  
 ENDSTEP

STEP Stage12\_745995  
 SETWALL LeftWall\_32  
 GEOM 30.85 15.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage13\_746184  
 SETWALL LeftWall\_32  
 GEOM 30.85 15.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-F1\_596312  
 ENDSTEP

STEP Stage14\_746373  
 SETWALL LeftWall\_32  
 GEOM 30.85 13.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage15\_746562  
 SETWALL LeftWall\_32  
 GEOM 30.85 13.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-G1\_698700  
 ENDSTEP

```
STEP Stage16_746751
SETWALL LeftWall_32
GEOM 30.85 12.5
SURCHARGE 0 0 0 0
WATER -10 0 5.15 0 0
ENDSTEP
```

## Design Assumption : A1+M1+R1 - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A1+M1+R1
* Time:martedì 26 marzo 2019 18:12:31
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - SPIGOLO 7 TIRANTI
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -9.15 5.15 31.35 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 5.15 31.35 1 0
SOIL 0_R LeftWall_32 5.15 31.35 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 52 LeftWall_32
ATREST 0.57 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 5.15 31.35 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-A1_425 LeftWall_32 29.35 acciaioarmonico_124 9.2539E-06 200 10 0 0
WIRE Tir-B1_535 LeftWall_32 26.35 acciaioarmonico_124 9.639E-06 200 10 0 0
WIRE Tir-C1_635 LeftWall_32 23.35 acciaioarmonico_124 1.0514E-05 200 10 0 0
WIRE Tir-D1_492899 LeftWall_32 20.85 acciaioarmonico_124 1.1014E-05 200 10 0 0
WIRE Tir-E1_596311 LeftWall_32 18.35 acciaioarmonico_124 1.4616E-05 240 10 0 0
WIRE Tir-F1_596312 LeftWall_32 16.35 acciaioarmonico_124 1.5427E-05 240 10 0 0
WIRE Tir-G1_698700 LeftWall_32 14.35 acciaioarmonico_124 1.7268E-05 240 10 0 0

* 6.3: Strips

* (slope contribution)
STRIP LeftWall_32 1 1 1 1 30.85 10.019 45
STRIP LeftWall_32 1 1 2 1 30.85 30.058 45
STRIP LeftWall_32 1 1 3 1 30.85 50.097 45
STRIP LeftWall_32 1 1 4 1 30.85 70.136 45
STRIP LeftWall_32 1 1 5 1 30.85 90.175 45
STRIP LeftWall_32 1 1 6 1 30.85 104.7 45
STRIP LeftWall_32 1 1 7 1 30.85 109.96 45
STRIP LeftWall_32 1 1 8 1 30.85 115.07 45
STRIP LeftWall_32 1 1 9 1 30.85 120.19 45
STRIP LeftWall_32 1 1 10 1 30.85 130.39 45
STRIP LeftWall_32 1 1 11 1 30.85 146.77 45
STRIP LeftWall_32 1 1 12 1 30.85 161.86 45
STRIP LeftWall_32 1 1 13 1 30.85 169.43 45
STRIP LeftWall_32 1 1 14 1 30.85 175.8 45
STRIP LeftWall_32 1 1 15 1 30.85 182.17 45
STRIP LeftWall_32 1 1 16 1 30.85 188.54 45
STRIP LeftWall_32 1 1 17 1 30.85 194.91 45
STRIP LeftWall_32 1 1 18 1 30.85 201.28 45
STRIP LeftWall_32 1 1 19 1 30.85 207.65 45
STRIP LeftWall_32 1 1 20 1 30.85 214.02 45
STRIP LeftWall_32 1 1 21 1 30.85 220.39 45
STRIP LeftWall_32 1 1 22 1 30.85 226.76 45
STRIP LeftWall_32 1 1 23 1 30.85 233.13 45
STRIP LeftWall_32 1 1 24 1 30.85 239.5 45
STRIP LeftWall_32 1 1 25 1 30.85 245.87 45

```

STRIP LeftWall_32	1	1	26	1	30.85	252.24	45
STRIP LeftWall_32	1	1	27	1	30.85	258.61	45
STRIP LeftWall_32	1	1	28	1	30.85	265.16	45
STRIP LeftWall_32	1	1	29	1	30.85	272.08	45
STRIP LeftWall_32	1	1	30	1	30.85	279.45	45
STRIP LeftWall_32	1	1	31	1	30.85	285.93	45
STRIP LeftWall_32	1	1	32	1	30.85	292.86	45
STRIP LeftWall_32	1	1	33	1	30.85	299.79	45
STRIP LeftWall_32	1	1	34	1	30.85	306.72	45
STRIP LeftWall_32	1	1	35	1	30.85	313.65	45
STRIP LeftWall_32	1	1	36	1	30.85	320.58	45
STRIP LeftWall_32	1	1	37	1	30.85	327.5	45
STRIP LeftWall_32	1	1	38	1	30.85	334.43	45
STRIP LeftWall_32	1	1	39	1	30.85	341.36	45
STRIP LeftWall_32	1	1	40	1	30.85	348.29	45
STRIP LeftWall_32	1	1	41	1	30.85	355.22	45
STRIP LeftWall_32	1	1	42	1	30.85	362.15	45
STRIP LeftWall_32	1	1	43	1	30.85	369.08	45
STRIP LeftWall_32	1	1	44	1	30.85	376.45	45
STRIP LeftWall_32	1	1	45	1	30.85	382.93	45
STRIP LeftWall_32	1	1	46	1	30.85	389.86	45
STRIP LeftWall_32	1	1	47	1	30.85	396.79	45
STRIP LeftWall_32	1	1	48	1	30.85	403.72	45
STRIP LeftWall_32	1	1	49	1	30.85	410.65	45
STRIP LeftWall_32	2	2	1	1	30.85	10.019	45
STRIP LeftWall_32	2	2	2	1	30.85	30.058	45
STRIP LeftWall_32	2	2	3	1	30.85	50.097	45
STRIP LeftWall_32	2	2	4	1	30.85	70.136	45
STRIP LeftWall_32	2	2	5	1	30.85	90.175	45
STRIP LeftWall_32	2	2	6	1	30.85	104.7	45
STRIP LeftWall_32	2	2	7	1	30.85	109.96	45
STRIP LeftWall_32	2	2	8	1	30.85	115.07	45
STRIP LeftWall_32	2	2	9	1	30.85	120.19	45
STRIP LeftWall_32	2	2	10	1	30.85	130.39	45
STRIP LeftWall_32	2	2	11	1	30.85	146.77	45
STRIP LeftWall_32	2	2	12	1	30.85	161.86	45
STRIP LeftWall_32	2	2	13	1	30.85	169.43	45
STRIP LeftWall_32	2	2	14	1	30.85	175.8	45
STRIP LeftWall_32	2	2	15	1	30.85	182.17	45
STRIP LeftWall_32	2	2	16	1	30.85	188.54	45
STRIP LeftWall_32	2	2	17	1	30.85	194.91	45
STRIP LeftWall_32	2	2	18	1	30.85	201.28	45
STRIP LeftWall_32	2	2	19	1	30.85	207.65	45
STRIP LeftWall_32	2	2	20	1	30.85	214.02	45
STRIP LeftWall_32	2	2	21	1	30.85	220.39	45
STRIP LeftWall_32	2	2	22	1	30.85	226.76	45
STRIP LeftWall_32	2	2	23	1	30.85	233.13	45
STRIP LeftWall_32	2	2	24	1	30.85	239.5	45
STRIP LeftWall_32	2	2	25	1	30.85	245.87	45
STRIP LeftWall_32	2	2	26	1	30.85	252.24	45
STRIP LeftWall_32	2	2	27	1	30.85	258.61	45
STRIP LeftWall_32	2	2	28	1	30.85	265.16	45
STRIP LeftWall_32	2	2	29	1	30.85	272.08	45
STRIP LeftWall_32	2	2	30	1	30.85	279.45	45
STRIP LeftWall_32	2	2	31	1	30.85	285.93	45
STRIP LeftWall_32	2	2	32	1	30.85	292.86	45
STRIP LeftWall_32	2	2	33	1	30.85	299.79	45
STRIP LeftWall_32	2	2	34	1	30.85	306.72	45
STRIP LeftWall_32	2	2	35	1	30.85	313.65	45
STRIP LeftWall_32	2	2	36	1	30.85	320.58	45
STRIP LeftWall_32	2	2	37	1	30.85	327.5	45
STRIP LeftWall_32	2	2	38	1	30.85	334.43	45
STRIP LeftWall_32	2	2	39	1	30.85	341.36	45
STRIP LeftWall_32	2	2	40	1	30.85	348.29	45
STRIP LeftWall_32	2	2	41	1	30.85	355.22	45
STRIP LeftWall_32	2	2	42	1	30.85	362.15	45
STRIP LeftWall_32	2	2	43	1	30.85	369.08	45
STRIP LeftWall_32	2	2	44	1	30.85	376.45	45
STRIP LeftWall_32	2	2	45	1	30.85	382.93	45
STRIP LeftWall_32	2	2	46	1	30.85	389.86	45
STRIP LeftWall_32	2	2	47	1	30.85	396.79	45
STRIP LeftWall_32	2	2	48	1	30.85	403.72	45
STRIP LeftWall_32	2	2	49	1	30.85	410.65	45
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STRIP LeftWall_32	3	3	4	1	30.85	70.136	45
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STRIP LeftWall_32	3	3	16	1	30.85	188.54	45

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STRIP LeftWall_32	3	3	19	1	30.85	207.65	45
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STRIP LeftWall_32	3	3	21	1	30.85	220.39	45
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STRIP LeftWall_32	3	3	28	1	30.85	265.16	45
STRIP LeftWall_32	3	3	29	1	30.85	272.08	45
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STRIP LeftWall_32	3	3	31	1	30.85	285.93	45
STRIP LeftWall_32	3	3	32	1	30.85	292.86	45
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STRIP LeftWall_32	9	9	20	1	30.85	214.02	45
STRIP LeftWall_32	9	9	21	1	30.85	220.39	45
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STRIP LeftWall_32	9	9	29	1	30.85	272.08	45
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STRIP LeftWall_32	15	15	41	1	30.85	355.22	45
STRIP LeftWall_32	15	15	42	1	30.85	362.15	45
STRIP LeftWall_32	15	15	43	1	30.85	369.08	45
STRIP LeftWall_32	15	15	44	1	30.85	376	45
STRIP LeftWall_32	15	15	45	1	30.85	382.93	45
STRIP LeftWall_32	15	15	46	1	30.85	389.86	45
STRIP LeftWall_32	15	15	47	1	30.85	396.79	45
STRIP LeftWall_32	15	15	48	1	30.85	403.72	45
STRIP LeftWall_32	15	15	49	1	30.85	410.65	45
STRIP LeftWall_32	16	16	1	1	30.85	10.019	45
STRIP LeftWall_32	16	16	2	1	30.85	30.058	45

STRIP LeftWall\_32 16 16 3 1 30.85 50.097 45  
 STRIP LeftWall\_32 16 16 4 1 30.85 70.136 45  
 STRIP LeftWall\_32 16 16 5 1 30.85 90.175 45  
 STRIP LeftWall\_32 16 16 6 1 30.85 104.7 45  
 STRIP LeftWall\_32 16 16 7 1 30.85 109.96 45  
 STRIP LeftWall\_32 16 16 8 1 30.85 115.07 45  
 STRIP LeftWall\_32 16 16 9 1 30.85 120.19 45  
 STRIP LeftWall\_32 16 16 10 1 30.85 130.39 45  
 STRIP LeftWall\_32 16 16 11 1 30.85 146.77 45  
 STRIP LeftWall\_32 16 16 12 1 30.85 161.86 45  
 STRIP LeftWall\_32 16 16 13 1 30.85 169.43 45  
 STRIP LeftWall\_32 16 16 14 1 30.85 175.8 45  
 STRIP LeftWall\_32 16 16 15 1 30.85 182.17 45  
 STRIP LeftWall\_32 16 16 16 1 30.85 188.54 45  
 STRIP LeftWall\_32 16 16 17 1 30.85 194.91 45  
 STRIP LeftWall\_32 16 16 18 1 30.85 201.28 45  
 STRIP LeftWall\_32 16 16 19 1 30.85 207.65 45  
 STRIP LeftWall\_32 16 16 20 1 30.85 214.02 45  
 STRIP LeftWall\_32 16 16 21 1 30.85 220.39 45  
 STRIP LeftWall\_32 16 16 22 1 30.85 226.76 45  
 STRIP LeftWall\_32 16 16 23 1 30.85 233.13 45  
 STRIP LeftWall\_32 16 16 24 1 30.85 239.5 45  
 STRIP LeftWall\_32 16 16 25 1 30.85 245.87 45  
 STRIP LeftWall\_32 16 16 26 1 30.85 252.24 45  
 STRIP LeftWall\_32 16 16 27 1 30.85 258.61 45  
 STRIP LeftWall\_32 16 16 28 1 30.85 265.16 45  
 STRIP LeftWall\_32 16 16 29 1 30.85 272.08 45  
 STRIP LeftWall\_32 16 16 30 1 30.85 279 45  
 STRIP LeftWall\_32 16 16 31 1 30.85 285.93 45  
 STRIP LeftWall\_32 16 16 32 1 30.85 292.86 45  
 STRIP LeftWall\_32 16 16 33 1 30.85 299.79 45  
 STRIP LeftWall\_32 16 16 34 1 30.85 306.72 45  
 STRIP LeftWall\_32 16 16 35 1 30.85 313.65 45  
 STRIP LeftWall\_32 16 16 36 1 30.85 320.58 45  
 STRIP LeftWall\_32 16 16 37 1 30.85 327.5 45  
 STRIP LeftWall\_32 16 16 38 1 30.85 334.43 45  
 STRIP LeftWall\_32 16 16 39 1 30.85 341.36 45  
 STRIP LeftWall\_32 16 16 40 1 30.85 348.29 45  
 STRIP LeftWall\_32 16 16 41 1 30.85 355.22 45  
 STRIP LeftWall\_32 16 16 42 1 30.85 362.15 45  
 STRIP LeftWall\_32 16 16 43 1 30.85 369.08 45  
 STRIP LeftWall\_32 16 16 44 1 30.85 376 45  
 STRIP LeftWall\_32 16 16 45 1 30.85 382.93 45  
 STRIP LeftWall\_32 16 16 46 1 30.85 389.86 45  
 STRIP LeftWall\_32 16 16 47 1 30.85 396.79 45  
 STRIP LeftWall\_32 16 16 48 1 30.85 403.72 45  
 STRIP LeftWall\_32 16 16 49 1 30.85 410.65 45

\* 7: Defining Steps

STEP Stage1\_31  
 CHANGE Morena\_2\_8\_L\_0 U-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KP=5.664 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.219 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=3.266 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-COHE=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-ADHES=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-COHE=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-ADHES=0 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 30.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Berlinese\_67970  
 ENDSTEP

STEP Stage2\_743389  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.24 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=4.133 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 28.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage3\_743578  
 SETWALL LeftWall\_32  
 GEOM 30.85 28.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-Al\_425  
 ENDSTEP

STEP Stage4\_743767  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.217 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 25.85

SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage5\_743956  
 SETWALL LeftWall\_32  
 GEOM 30.85 25.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-B1\_535  
 ENDSTEP

STEP Stage6\_744145  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.643 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 22.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage7\_744692  
 SETWALL LeftWall\_32  
 GEOM 30.85 22.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-C1\_635  
 ENDSTEP

STEP Stage8\_744881  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.664 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 20.35  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage9\_745070  
 SETWALL LeftWall\_32  
 GEOM 30.85 20.35  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-D1\_492899  
 ENDSTEP

STEP Stage10\_745259  
 SETWALL LeftWall\_32  
 GEOM 30.85 17.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage11\_745448  
 SETWALL LeftWall\_32  
 GEOM 30.85 17.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-E1\_596311  
 ENDSTEP

STEP Stage12\_745995  
 SETWALL LeftWall\_32  
 GEOM 30.85 15.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage13\_746184  
 SETWALL LeftWall\_32  
 GEOM 30.85 15.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-F1\_596312  
 ENDSTEP

STEP Stage14\_746373  
 SETWALL LeftWall\_32  
 GEOM 30.85 13.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage15\_746562  
 SETWALL LeftWall\_32  
 GEOM 30.85 13.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-G1\_698700  
 ENDSTEP



```
STEP Stage16_746751
SETWALL LeftWall_32
GEOM 30.85 12.5
SURCHARGE 0 0 0 0
WATER -10 0 5.15 0 0
ENDSTEP
```

## Design Assumption : A2+M2+R1 - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A2+M2+R1
* Time:martedì 26 marzo 2019 18:12:40
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - SPIGOLO 7 TIRANTI
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -9.15 5.15 31.35 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 5.15 31.35 1 0
SOIL 0_R LeftWall_32 5.15 31.35 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 52 LeftWall_32
ATREST 0.57 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 5.15 31.35 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-A1_425 LeftWall_32 29.35 acciaioarmonico_124 9.2539E-06 200 10 0 0
WIRE Tir-B1_535 LeftWall_32 26.35 acciaioarmonico_124 9.639E-06 200 10 0 0
WIRE Tir-C1_635 LeftWall_32 23.35 acciaioarmonico_124 1.0514E-05 200 10 0 0
WIRE Tir-D1_492899 LeftWall_32 20.85 acciaioarmonico_124 1.1014E-05 200 10 0 0
WIRE Tir-E1_596311 LeftWall_32 18.35 acciaioarmonico_124 1.4616E-05 240 10 0 0
WIRE Tir-F1_596312 LeftWall_32 16.35 acciaioarmonico_124 1.5427E-05 240 10 0 0
WIRE Tir-G1_698700 LeftWall_32 14.35 acciaioarmonico_124 1.7268E-05 240 10 0 0

* 6.3: Strips

* (slope contribution)
STRIP LeftWall_32 1 1 1 1 30.85 10.019 45
STRIP LeftWall_32 1 1 2 1 30.85 30.058 45
STRIP LeftWall_32 1 1 3 1 30.85 50.097 45
STRIP LeftWall_32 1 1 4 1 30.85 70.136 45
STRIP LeftWall_32 1 1 5 1 30.85 90.175 45
STRIP LeftWall_32 1 1 6 1 30.85 104.7 45
STRIP LeftWall_32 1 1 7 1 30.85 109.96 45
STRIP LeftWall_32 1 1 8 1 30.85 115.07 45
STRIP LeftWall_32 1 1 9 1 30.85 120.19 45
STRIP LeftWall_32 1 1 10 1 30.85 130.39 45
STRIP LeftWall_32 1 1 11 1 30.85 146.77 45
STRIP LeftWall_32 1 1 12 1 30.85 161.86 45
STRIP LeftWall_32 1 1 13 1 30.85 169.43 45
STRIP LeftWall_32 1 1 14 1 30.85 175.8 45
STRIP LeftWall_32 1 1 15 1 30.85 182.17 45
STRIP LeftWall_32 1 1 16 1 30.85 188.54 45
STRIP LeftWall_32 1 1 17 1 30.85 194.91 45
STRIP LeftWall_32 1 1 18 1 30.85 201.28 45
STRIP LeftWall_32 1 1 19 1 30.85 207.65 45
STRIP LeftWall_32 1 1 20 1 30.85 214.02 45
STRIP LeftWall_32 1 1 21 1 30.85 220.39 45
STRIP LeftWall_32 1 1 22 1 30.85 226.76 45
STRIP LeftWall_32 1 1 23 1 30.85 233.13 45
STRIP LeftWall_32 1 1 24 1 30.85 239.5 45
STRIP LeftWall_32 1 1 25 1 30.85 245.87 45

```

STRIP LeftWall_32	1	1	26	1	30.85	252.24	45
STRIP LeftWall_32	1	1	27	1	30.85	258.61	45
STRIP LeftWall_32	1	1	28	1	30.85	265.16	45
STRIP LeftWall_32	1	1	29	1	30.85	272.08	45
STRIP LeftWall_32	1	1	30	1	30.85	279.45	45
STRIP LeftWall_32	1	1	31	1	30.85	285.93	45
STRIP LeftWall_32	1	1	32	1	30.85	292.86	45
STRIP LeftWall_32	1	1	33	1	30.85	299.79	45
STRIP LeftWall_32	1	1	34	1	30.85	306.72	45
STRIP LeftWall_32	1	1	35	1	30.85	313.65	45
STRIP LeftWall_32	1	1	36	1	30.85	320.58	45
STRIP LeftWall_32	1	1	37	1	30.85	327.5	45
STRIP LeftWall_32	1	1	38	1	30.85	334.43	45
STRIP LeftWall_32	1	1	39	1	30.85	341.36	45
STRIP LeftWall_32	1	1	40	1	30.85	348.29	45
STRIP LeftWall_32	1	1	41	1	30.85	355.22	45
STRIP LeftWall_32	1	1	42	1	30.85	362.15	45
STRIP LeftWall_32	1	1	43	1	30.85	369.08	45
STRIP LeftWall_32	1	1	44	1	30.85	376.45	45
STRIP LeftWall_32	1	1	45	1	30.85	382.93	45
STRIP LeftWall_32	1	1	46	1	30.85	389.86	45
STRIP LeftWall_32	1	1	47	1	30.85	396.79	45
STRIP LeftWall_32	1	1	48	1	30.85	403.72	45
STRIP LeftWall_32	1	1	49	1	30.85	410.65	45
STRIP LeftWall_32	2	2	1	1	30.85	10.019	45
STRIP LeftWall_32	2	2	2	1	30.85	30.058	45
STRIP LeftWall_32	2	2	3	1	30.85	50.097	45
STRIP LeftWall_32	2	2	4	1	30.85	70.136	45
STRIP LeftWall_32	2	2	5	1	30.85	90.175	45
STRIP LeftWall_32	2	2	6	1	30.85	104.7	45
STRIP LeftWall_32	2	2	7	1	30.85	109.96	45
STRIP LeftWall_32	2	2	8	1	30.85	115.07	45
STRIP LeftWall_32	2	2	9	1	30.85	120.19	45
STRIP LeftWall_32	2	2	10	1	30.85	130.39	45
STRIP LeftWall_32	2	2	11	1	30.85	146.77	45
STRIP LeftWall_32	2	2	12	1	30.85	161.86	45
STRIP LeftWall_32	2	2	13	1	30.85	169.43	45
STRIP LeftWall_32	2	2	14	1	30.85	175.8	45
STRIP LeftWall_32	2	2	15	1	30.85	182.17	45
STRIP LeftWall_32	2	2	16	1	30.85	188.54	45
STRIP LeftWall_32	2	2	17	1	30.85	194.91	45
STRIP LeftWall_32	2	2	18	1	30.85	201.28	45
STRIP LeftWall_32	2	2	19	1	30.85	207.65	45
STRIP LeftWall_32	2	2	20	1	30.85	214.02	45
STRIP LeftWall_32	2	2	21	1	30.85	220.39	45
STRIP LeftWall_32	2	2	22	1	30.85	226.76	45
STRIP LeftWall_32	2	2	23	1	30.85	233.13	45
STRIP LeftWall_32	2	2	24	1	30.85	239.5	45
STRIP LeftWall_32	2	2	25	1	30.85	245.87	45
STRIP LeftWall_32	2	2	26	1	30.85	252.24	45
STRIP LeftWall_32	2	2	27	1	30.85	258.61	45
STRIP LeftWall_32	2	2	28	1	30.85	265.16	45
STRIP LeftWall_32	2	2	29	1	30.85	272.08	45
STRIP LeftWall_32	2	2	30	1	30.85	279.45	45
STRIP LeftWall_32	2	2	31	1	30.85	285.93	45
STRIP LeftWall_32	2	2	32	1	30.85	292.86	45
STRIP LeftWall_32	2	2	33	1	30.85	299.79	45
STRIP LeftWall_32	2	2	34	1	30.85	306.72	45
STRIP LeftWall_32	2	2	35	1	30.85	313.65	45
STRIP LeftWall_32	2	2	36	1	30.85	320.58	45
STRIP LeftWall_32	2	2	37	1	30.85	327.5	45
STRIP LeftWall_32	2	2	38	1	30.85	334.43	45
STRIP LeftWall_32	2	2	39	1	30.85	341.36	45
STRIP LeftWall_32	2	2	40	1	30.85	348.29	45
STRIP LeftWall_32	2	2	41	1	30.85	355.22	45
STRIP LeftWall_32	2	2	42	1	30.85	362.15	45
STRIP LeftWall_32	2	2	43	1	30.85	369.08	45
STRIP LeftWall_32	2	2	44	1	30.85	376.45	45
STRIP LeftWall_32	2	2	45	1	30.85	382.93	45
STRIP LeftWall_32	2	2	46	1	30.85	389.86	45
STRIP LeftWall_32	2	2	47	1	30.85	396.79	45
STRIP LeftWall_32	2	2	48	1	30.85	403.72	45
STRIP LeftWall_32	2	2	49	1	30.85	410.65	45
STRIP LeftWall_32	3	3	1	1	30.85	10.019	45
STRIP LeftWall_32	3	3	2	1	30.85	30.058	45
STRIP LeftWall_32	3	3	3	1	30.85	50.097	45
STRIP LeftWall_32	3	3	4	1	30.85	70.136	45
STRIP LeftWall_32	3	3	5	1	30.85	90.175	45
STRIP LeftWall_32	3	3	6	1	30.85	104.7	45
STRIP LeftWall_32	3	3	7	1	30.85	109.96	45
STRIP LeftWall_32	3	3	8	1	30.85	115.07	45
STRIP LeftWall_32	3	3	9	1	30.85	120.19	45
STRIP LeftWall_32	3	3	10	1	30.85	130.39	45
STRIP LeftWall_32	3	3	11	1	30.85	146.77	45
STRIP LeftWall_32	3	3	12	1	30.85	161.86	45
STRIP LeftWall_32	3	3	13	1	30.85	169.43	45
STRIP LeftWall_32	3	3	14	1	30.85	175.8	45
STRIP LeftWall_32	3	3	15	1	30.85	182.17	45
STRIP LeftWall_32	3	3	16	1	30.85	188.54	45

STRIP LeftWall_32	3	3	17	1	30.85	194.91	45
STRIP LeftWall_32	3	3	18	1	30.85	201.28	45
STRIP LeftWall_32	3	3	19	1	30.85	207.65	45
STRIP LeftWall_32	3	3	20	1	30.85	214.02	45
STRIP LeftWall_32	3	3	21	1	30.85	220.39	45
STRIP LeftWall_32	3	3	22	1	30.85	226.76	45
STRIP LeftWall_32	3	3	23	1	30.85	233.13	45
STRIP LeftWall_32	3	3	24	1	30.85	239.5	45
STRIP LeftWall_32	3	3	25	1	30.85	245.87	45
STRIP LeftWall_32	3	3	26	1	30.85	252.24	45
STRIP LeftWall_32	3	3	27	1	30.85	258.61	45
STRIP LeftWall_32	3	3	28	1	30.85	265.16	45
STRIP LeftWall_32	3	3	29	1	30.85	272.08	45
STRIP LeftWall_32	3	3	30	1	30.85	279	45
STRIP LeftWall_32	3	3	31	1	30.85	285.93	45
STRIP LeftWall_32	3	3	32	1	30.85	292.86	45
STRIP LeftWall_32	3	3	33	1	30.85	299.79	45
STRIP LeftWall_32	3	3	34	1	30.85	306.72	45
STRIP LeftWall_32	3	3	35	1	30.85	313.65	45
STRIP LeftWall_32	3	3	36	1	30.85	320.58	45
STRIP LeftWall_32	3	3	37	1	30.85	327.5	45
STRIP LeftWall_32	3	3	38	1	30.85	334.43	45
STRIP LeftWall_32	3	3	39	1	30.85	341.36	45
STRIP LeftWall_32	3	3	40	1	30.85	348.29	45
STRIP LeftWall_32	3	3	41	1	30.85	355.22	45
STRIP LeftWall_32	3	3	42	1	30.85	362.15	45
STRIP LeftWall_32	3	3	43	1	30.85	369.08	45
STRIP LeftWall_32	3	3	44	1	30.85	376	45
STRIP LeftWall_32	3	3	45	1	30.85	382.93	45
STRIP LeftWall_32	3	3	46	1	30.85	389.86	45
STRIP LeftWall_32	3	3	47	1	30.85	396.79	45
STRIP LeftWall_32	3	3	48	1	30.85	403.72	45
STRIP LeftWall_32	3	3	49	1	30.85	410.65	45
STRIP LeftWall_32	4	4	1	1	30.85	10.019	45
STRIP LeftWall_32	4	4	2	1	30.85	30.058	45
STRIP LeftWall_32	4	4	3	1	30.85	50.097	45
STRIP LeftWall_32	4	4	4	1	30.85	70.136	45
STRIP LeftWall_32	4	4	5	1	30.85	90.175	45
STRIP LeftWall_32	4	4	6	1	30.85	104.7	45
STRIP LeftWall_32	4	4	7	1	30.85	109.96	45
STRIP LeftWall_32	4	4	8	1	30.85	115.07	45
STRIP LeftWall_32	4	4	9	1	30.85	120.19	45
STRIP LeftWall_32	4	4	10	1	30.85	130.39	45
STRIP LeftWall_32	4	4	11	1	30.85	146.77	45
STRIP LeftWall_32	4	4	12	1	30.85	161.86	45
STRIP LeftWall_32	4	4	13	1	30.85	169.43	45
STRIP LeftWall_32	4	4	14	1	30.85	175.8	45
STRIP LeftWall_32	4	4	15	1	30.85	182.17	45
STRIP LeftWall_32	4	4	16	1	30.85	188.54	45
STRIP LeftWall_32	4	4	17	1	30.85	194.91	45
STRIP LeftWall_32	4	4	18	1	30.85	201.28	45
STRIP LeftWall_32	4	4	19	1	30.85	207.65	45
STRIP LeftWall_32	4	4	20	1	30.85	214.02	45
STRIP LeftWall_32	4	4	21	1	30.85	220.39	45
STRIP LeftWall_32	4	4	22	1	30.85	226.76	45
STRIP LeftWall_32	4	4	23	1	30.85	233.13	45
STRIP LeftWall_32	4	4	24	1	30.85	239.5	45
STRIP LeftWall_32	4	4	25	1	30.85	245.87	45
STRIP LeftWall_32	4	4	26	1	30.85	252.24	45
STRIP LeftWall_32	4	4	27	1	30.85	258.61	45
STRIP LeftWall_32	4	4	28	1	30.85	265.16	45
STRIP LeftWall_32	4	4	29	1	30.85	272.08	45
STRIP LeftWall_32	4	4	30	1	30.85	279	45
STRIP LeftWall_32	4	4	31	1	30.85	285.93	45
STRIP LeftWall_32	4	4	32	1	30.85	292.86	45
STRIP LeftWall_32	4	4	33	1	30.85	299.79	45
STRIP LeftWall_32	4	4	34	1	30.85	306.72	45
STRIP LeftWall_32	4	4	35	1	30.85	313.65	45
STRIP LeftWall_32	4	4	36	1	30.85	320.58	45
STRIP LeftWall_32	4	4	37	1	30.85	327.5	45
STRIP LeftWall_32	4	4	38	1	30.85	334.43	45
STRIP LeftWall_32	4	4	39	1	30.85	341.36	45
STRIP LeftWall_32	4	4	40	1	30.85	348.29	45
STRIP LeftWall_32	4	4	41	1	30.85	355.22	45
STRIP LeftWall_32	4	4	42	1	30.85	362.15	45
STRIP LeftWall_32	4	4	43	1	30.85	369.08	45
STRIP LeftWall_32	4	4	44	1	30.85	376	45
STRIP LeftWall_32	4	4	45	1	30.85	382.93	45
STRIP LeftWall_32	4	4	46	1	30.85	389.86	45
STRIP LeftWall_32	4	4	47	1	30.85	396.79	45
STRIP LeftWall_32	4	4	48	1	30.85	403.72	45
STRIP LeftWall_32	4	4	49	1	30.85	410.65	45
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STRIP LeftWall_32	5	5	3	1	30.85	50.097	45
STRIP LeftWall_32	5	5	4	1	30.85	70.136	45
STRIP LeftWall_32	5	5	5	1	30.85	90.175	45
STRIP LeftWall_32	5	5	6	1	30.85	104.7	45
STRIP LeftWall_32	5	5	7	1	30.85	109.96	45

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STRIP LeftWall_32	5	5	10	1	30.85	130.39	45
STRIP LeftWall_32	5	5	11	1	30.85	146.77	45
STRIP LeftWall_32	5	5	12	1	30.85	161.86	45
STRIP LeftWall_32	5	5	13	1	30.85	169.43	45
STRIP LeftWall_32	5	5	14	1	30.85	175.8	45
STRIP LeftWall_32	5	5	15	1	30.85	182.17	45
STRIP LeftWall_32	5	5	16	1	30.85	188.54	45
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STRIP LeftWall_32	5	5	18	1	30.85	201.28	45
STRIP LeftWall_32	5	5	19	1	30.85	207.65	45
STRIP LeftWall_32	5	5	20	1	30.85	214.02	45
STRIP LeftWall_32	5	5	21	1	30.85	220.39	45
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STRIP LeftWall_32	5	5	23	1	30.85	233.13	45
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STRIP LeftWall_32	5	5	29	1	30.85	272.08	45
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STRIP LeftWall_32	5	5	32	1	30.85	292.86	45
STRIP LeftWall_32	5	5	33	1	30.85	299.79	45
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STRIP LeftWall_32	10	10	28	1	30.85	265.16	45
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STRIP LeftWall_32	10	10	33	1	30.85	299.79
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STRIP LeftWall_32	10	10	48	1	30.85	403.72
STRIP LeftWall_32	10	10	49	1	30.85	410.65
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STRIP LeftWall_32	11	11	7	1	30.85	109.96
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STRIP LeftWall_32	11	11	11	1	30.85	146.77
STRIP LeftWall_32	11	11	12	1	30.85	161.86
STRIP LeftWall_32	11	11	13	1	30.85	169.43
STRIP LeftWall_32	11	11	14	1	30.85	175.8
STRIP LeftWall_32	11	11	15	1	30.85	182.17
STRIP LeftWall_32	11	11	16	1	30.85	188.54
STRIP LeftWall_32	11	11	17	1	30.85	194.91
STRIP LeftWall_32	11	11	18	1	30.85	201.28
STRIP LeftWall_32	11	11	19	1	30.85	207.65
STRIP LeftWall_32	11	11	20	1	30.85	214.02
STRIP LeftWall_32	11	11	21	1	30.85	220.39
STRIP LeftWall_32	11	11	22	1	30.85	226.76
STRIP LeftWall_32	11	11	23	1	30.85	233.13
STRIP LeftWall_32	11	11	24	1	30.85	239.5
STRIP LeftWall_32	11	11	25	1	30.85	245.87
STRIP LeftWall_32	11	11	26	1	30.85	252.24
STRIP LeftWall_32	11	11	27	1	30.85	258.61
STRIP LeftWall_32	11	11	28	1	30.85	265.16
STRIP LeftWall_32	11	11	29	1	30.85	272.08
STRIP LeftWall_32	11	11	30	1	30.85	279.45
STRIP LeftWall_32	11	11	31	1	30.85	285.93
STRIP LeftWall_32	11	11	32	1	30.85	292.86
STRIP LeftWall_32	11	11	33	1	30.85	299.79
STRIP LeftWall_32	11	11	34	1	30.85	306.72
STRIP LeftWall_32	11	11	35	1	30.85	313.65
STRIP LeftWall_32	11	11	36	1	30.85	320.58
STRIP LeftWall_32	11	11	37	1	30.85	327.5
STRIP LeftWall_32	11	11	38	1	30.85	334.43
STRIP LeftWall_32	11	11	39	1	30.85	341.36
STRIP LeftWall_32	11	11	40	1	30.85	348.29
STRIP LeftWall_32	11	11	41	1	30.85	355.22
STRIP LeftWall_32	11	11	42	1	30.85	362.15
STRIP LeftWall_32	11	11	43	1	30.85	369.08
STRIP LeftWall_32	11	11	44	1	30.85	376.45
STRIP LeftWall_32	11	11	45	1	30.85	382.93
STRIP LeftWall_32	11	11	46	1	30.85	389.86
STRIP LeftWall_32	11	11	47	1	30.85	396.79
STRIP LeftWall_32	11	11	48	1	30.85	403.72
STRIP LeftWall_32	11	11	49	1	30.85	410.65
STRIP LeftWall_32	12	12	1	1	30.85	10.019
STRIP LeftWall_32	12	12	2	1	30.85	30.058
STRIP LeftWall_32	12	12	3	1	30.85	50.097
STRIP LeftWall_32	12	12	4	1	30.85	70.136
STRIP LeftWall_32	12	12	5	1	30.85	90.175
STRIP LeftWall_32	12	12	6	1	30.85	104.7
STRIP LeftWall_32	12	12	7	1	30.85	109.96
STRIP LeftWall_32	12	12	8	1	30.85	115.07
STRIP LeftWall_32	12	12	9	1	30.85	120.19
STRIP LeftWall_32	12	12	10	1	30.85	130.39
STRIP LeftWall_32	12	12	11	1	30.85	146.77
STRIP LeftWall_32	12	12	12	1	30.85	161.86
STRIP LeftWall_32	12	12	13	1	30.85	169.43
STRIP LeftWall_32	12	12	14	1	30.85	175.8
STRIP LeftWall_32	12	12	15	1	30.85	182.17
STRIP LeftWall_32	12	12	16	1	30.85	188.54
STRIP LeftWall_32	12	12	17	1	30.85	194.91
STRIP LeftWall_32	12	12	18	1	30.85	201.28
STRIP LeftWall_32	12	12	19	1	30.85	207.65
STRIP LeftWall_32	12	12	20	1	30.85	214.02



STRIP LeftWall_32	12	12	21	1	30.85	220.39	45
STRIP LeftWall_32	12	12	22	1	30.85	226.76	45
STRIP LeftWall_32	12	12	23	1	30.85	233.13	45
STRIP LeftWall_32	12	12	24	1	30.85	239.5	45
STRIP LeftWall_32	12	12	25	1	30.85	245.87	45
STRIP LeftWall_32	12	12	26	1	30.85	252.24	45
STRIP LeftWall_32	12	12	27	1	30.85	258.61	45
STRIP LeftWall_32	12	12	28	1	30.85	265.16	45
STRIP LeftWall_32	12	12	29	1	30.85	272.08	45
STRIP LeftWall_32	12	12	30	1	30.85	279	45
STRIP LeftWall_32	12	12	31	1	30.85	285.93	45
STRIP LeftWall_32	12	12	32	1	30.85	292.86	45
STRIP LeftWall_32	12	12	33	1	30.85	299.79	45
STRIP LeftWall_32	12	12	34	1	30.85	306.72	45
STRIP LeftWall_32	12	12	35	1	30.85	313.65	45
STRIP LeftWall_32	12	12	36	1	30.85	320.58	45
STRIP LeftWall_32	12	12	37	1	30.85	327.5	45
STRIP LeftWall_32	12	12	38	1	30.85	334.43	45
STRIP LeftWall_32	12	12	39	1	30.85	341.36	45
STRIP LeftWall_32	12	12	40	1	30.85	348.29	45
STRIP LeftWall_32	12	12	41	1	30.85	355.22	45
STRIP LeftWall_32	12	12	42	1	30.85	362.15	45
STRIP LeftWall_32	12	12	43	1	30.85	369.08	45
STRIP LeftWall_32	12	12	44	1	30.85	376	45
STRIP LeftWall_32	12	12	45	1	30.85	382.93	45
STRIP LeftWall_32	12	12	46	1	30.85	389.86	45
STRIP LeftWall_32	12	12	47	1	30.85	396.79	45
STRIP LeftWall_32	12	12	48	1	30.85	403.72	45
STRIP LeftWall_32	12	12	49	1	30.85	410.65	45
STRIP LeftWall_32	13	13	1	1	30.85	10.019	45
STRIP LeftWall_32	13	13	2	1	30.85	30.058	45
STRIP LeftWall_32	13	13	3	1	30.85	50.097	45
STRIP LeftWall_32	13	13	4	1	30.85	70.136	45
STRIP LeftWall_32	13	13	5	1	30.85	90.175	45
STRIP LeftWall_32	13	13	6	1	30.85	104.7	45
STRIP LeftWall_32	13	13	7	1	30.85	109.96	45
STRIP LeftWall_32	13	13	8	1	30.85	115.07	45
STRIP LeftWall_32	13	13	9	1	30.85	120.19	45
STRIP LeftWall_32	13	13	10	1	30.85	130.39	45
STRIP LeftWall_32	13	13	11	1	30.85	146.77	45
STRIP LeftWall_32	13	13	12	1	30.85	161.86	45
STRIP LeftWall_32	13	13	13	1	30.85	169.43	45
STRIP LeftWall_32	13	13	14	1	30.85	175.8	45
STRIP LeftWall_32	13	13	15	1	30.85	182.17	45
STRIP LeftWall_32	13	13	16	1	30.85	188.54	45
STRIP LeftWall_32	13	13	17	1	30.85	194.91	45
STRIP LeftWall_32	13	13	18	1	30.85	201.28	45
STRIP LeftWall_32	13	13	19	1	30.85	207.65	45
STRIP LeftWall_32	13	13	20	1	30.85	214.02	45
STRIP LeftWall_32	13	13	21	1	30.85	220.39	45
STRIP LeftWall_32	13	13	22	1	30.85	226.76	45
STRIP LeftWall_32	13	13	23	1	30.85	233.13	45
STRIP LeftWall_32	13	13	24	1	30.85	239.5	45
STRIP LeftWall_32	13	13	25	1	30.85	245.87	45
STRIP LeftWall_32	13	13	26	1	30.85	252.24	45
STRIP LeftWall_32	13	13	27	1	30.85	258.61	45
STRIP LeftWall_32	13	13	28	1	30.85	265.16	45
STRIP LeftWall_32	13	13	29	1	30.85	272.08	45
STRIP LeftWall_32	13	13	30	1	30.85	279	45
STRIP LeftWall_32	13	13	31	1	30.85	285.93	45
STRIP LeftWall_32	13	13	32	1	30.85	292.86	45
STRIP LeftWall_32	13	13	33	1	30.85	299.79	45
STRIP LeftWall_32	13	13	34	1	30.85	306.72	45
STRIP LeftWall_32	13	13	35	1	30.85	313.65	45
STRIP LeftWall_32	13	13	36	1	30.85	320.58	45
STRIP LeftWall_32	13	13	37	1	30.85	327.5	45
STRIP LeftWall_32	13	13	38	1	30.85	334.43	45
STRIP LeftWall_32	13	13	39	1	30.85	341.36	45
STRIP LeftWall_32	13	13	40	1	30.85	348.29	45
STRIP LeftWall_32	13	13	41	1	30.85	355.22	45
STRIP LeftWall_32	13	13	42	1	30.85	362.15	45
STRIP LeftWall_32	13	13	43	1	30.85	369.08	45
STRIP LeftWall_32	13	13	44	1	30.85	376	45
STRIP LeftWall_32	13	13	45	1	30.85	382.93	45
STRIP LeftWall_32	13	13	46	1	30.85	389.86	45
STRIP LeftWall_32	13	13	47	1	30.85	396.79	45
STRIP LeftWall_32	13	13	48	1	30.85	403.72	45
STRIP LeftWall_32	13	13	49	1	30.85	410.65	45
STRIP LeftWall_32	14	14	1	1	30.85	10.019	45
STRIP LeftWall_32	14	14	2	1	30.85	30.058	45
STRIP LeftWall_32	14	14	3	1	30.85	50.097	45
STRIP LeftWall_32	14	14	4	1	30.85	70.136	45
STRIP LeftWall_32	14	14	5	1	30.85	90.175	45
STRIP LeftWall_32	14	14	6	1	30.85	104.7	45
STRIP LeftWall_32	14	14	7	1	30.85	109.96	45
STRIP LeftWall_32	14	14	8	1	30.85	115.07	45
STRIP LeftWall_32	14	14	9	1	30.85	120.19	45
STRIP LeftWall_32	14	14	10	1	30.85	130.39	45
STRIP LeftWall_32	14	14	11	1	30.85	146.77	45

STRIP LeftWall_32	14	14	12	1	30.85	161.86	45
STRIP LeftWall_32	14	14	13	1	30.85	169.43	45
STRIP LeftWall_32	14	14	14	1	30.85	175.8	45
STRIP LeftWall_32	14	14	15	1	30.85	182.17	45
STRIP LeftWall_32	14	14	16	1	30.85	188.54	45
STRIP LeftWall_32	14	14	17	1	30.85	194.91	45
STRIP LeftWall_32	14	14	18	1	30.85	201.28	45
STRIP LeftWall_32	14	14	19	1	30.85	207.65	45
STRIP LeftWall_32	14	14	20	1	30.85	214.02	45
STRIP LeftWall_32	14	14	21	1	30.85	220.39	45
STRIP LeftWall_32	14	14	22	1	30.85	226.76	45
STRIP LeftWall_32	14	14	23	1	30.85	233.13	45
STRIP LeftWall_32	14	14	24	1	30.85	239.5	45
STRIP LeftWall_32	14	14	25	1	30.85	245.87	45
STRIP LeftWall_32	14	14	26	1	30.85	252.24	45
STRIP LeftWall_32	14	14	27	1	30.85	258.61	45
STRIP LeftWall_32	14	14	28	1	30.85	265.16	45
STRIP LeftWall_32	14	14	29	1	30.85	272.08	45
STRIP LeftWall_32	14	14	30	1	30.85	279.45	45
STRIP LeftWall_32	14	14	31	1	30.85	285.93	45
STRIP LeftWall_32	14	14	32	1	30.85	292.86	45
STRIP LeftWall_32	14	14	33	1	30.85	299.79	45
STRIP LeftWall_32	14	14	34	1	30.85	306.72	45
STRIP LeftWall_32	14	14	35	1	30.85	313.65	45
STRIP LeftWall_32	14	14	36	1	30.85	320.58	45
STRIP LeftWall_32	14	14	37	1	30.85	327.5	45
STRIP LeftWall_32	14	14	38	1	30.85	334.43	45
STRIP LeftWall_32	14	14	39	1	30.85	341.36	45
STRIP LeftWall_32	14	14	40	1	30.85	348.29	45
STRIP LeftWall_32	14	14	41	1	30.85	355.22	45
STRIP LeftWall_32	14	14	42	1	30.85	362.15	45
STRIP LeftWall_32	14	14	43	1	30.85	369.08	45
STRIP LeftWall_32	14	14	44	1	30.85	376.45	45
STRIP LeftWall_32	14	14	45	1	30.85	382.93	45
STRIP LeftWall_32	14	14	46	1	30.85	389.86	45
STRIP LeftWall_32	14	14	47	1	30.85	396.79	45
STRIP LeftWall_32	14	14	48	1	30.85	403.72	45
STRIP LeftWall_32	14	14	49	1	30.85	410.65	45
STRIP LeftWall_32	15	15	1	1	30.85	10.019	45
STRIP LeftWall_32	15	15	2	1	30.85	30.058	45
STRIP LeftWall_32	15	15	3	1	30.85	50.097	45
STRIP LeftWall_32	15	15	4	1	30.85	70.136	45
STRIP LeftWall_32	15	15	5	1	30.85	90.175	45
STRIP LeftWall_32	15	15	6	1	30.85	104.7	45
STRIP LeftWall_32	15	15	7	1	30.85	109.96	45
STRIP LeftWall_32	15	15	8	1	30.85	115.07	45
STRIP LeftWall_32	15	15	9	1	30.85	120.19	45
STRIP LeftWall_32	15	15	10	1	30.85	130.39	45
STRIP LeftWall_32	15	15	11	1	30.85	146.77	45
STRIP LeftWall_32	15	15	12	1	30.85	161.86	45
STRIP LeftWall_32	15	15	13	1	30.85	169.43	45
STRIP LeftWall_32	15	15	14	1	30.85	175.8	45
STRIP LeftWall_32	15	15	15	1	30.85	182.17	45
STRIP LeftWall_32	15	15	16	1	30.85	188.54	45
STRIP LeftWall_32	15	15	17	1	30.85	194.91	45
STRIP LeftWall_32	15	15	18	1	30.85	201.28	45
STRIP LeftWall_32	15	15	19	1	30.85	207.65	45
STRIP LeftWall_32	15	15	20	1	30.85	214.02	45
STRIP LeftWall_32	15	15	21	1	30.85	220.39	45
STRIP LeftWall_32	15	15	22	1	30.85	226.76	45
STRIP LeftWall_32	15	15	23	1	30.85	233.13	45
STRIP LeftWall_32	15	15	24	1	30.85	239.5	45
STRIP LeftWall_32	15	15	25	1	30.85	245.87	45
STRIP LeftWall_32	15	15	26	1	30.85	252.24	45
STRIP LeftWall_32	15	15	27	1	30.85	258.61	45
STRIP LeftWall_32	15	15	28	1	30.85	265.16	45
STRIP LeftWall_32	15	15	29	1	30.85	272.08	45
STRIP LeftWall_32	15	15	30	1	30.85	279.45	45
STRIP LeftWall_32	15	15	31	1	30.85	285.93	45
STRIP LeftWall_32	15	15	32	1	30.85	292.86	45
STRIP LeftWall_32	15	15	33	1	30.85	299.79	45
STRIP LeftWall_32	15	15	34	1	30.85	306.72	45
STRIP LeftWall_32	15	15	35	1	30.85	313.65	45
STRIP LeftWall_32	15	15	36	1	30.85	320.58	45
STRIP LeftWall_32	15	15	37	1	30.85	327.5	45
STRIP LeftWall_32	15	15	38	1	30.85	334.43	45
STRIP LeftWall_32	15	15	39	1	30.85	341.36	45
STRIP LeftWall_32	15	15	40	1	30.85	348.29	45
STRIP LeftWall_32	15	15	41	1	30.85	355.22	45
STRIP LeftWall_32	15	15	42	1	30.85	362.15	45
STRIP LeftWall_32	15	15	43	1	30.85	369.08	45
STRIP LeftWall_32	15	15	44	1	30.85	376.45	45
STRIP LeftWall_32	15	15	45	1	30.85	382.93	45
STRIP LeftWall_32	15	15	46	1	30.85	389.86	45
STRIP LeftWall_32	15	15	47	1	30.85	396.79	45
STRIP LeftWall_32	15	15	48	1	30.85	403.72	45
STRIP LeftWall_32	15	15	49	1	30.85	410.65	45
STRIP LeftWall_32	16	16	1	1	30.85	10.019	45
STRIP LeftWall_32	16	16	2	1	30.85	30.058	45

STRIP LeftWall\_32 16 16 3 1 30.85 50.097 45  
 STRIP LeftWall\_32 16 16 4 1 30.85 70.136 45  
 STRIP LeftWall\_32 16 16 5 1 30.85 90.175 45  
 STRIP LeftWall\_32 16 16 6 1 30.85 104.7 45  
 STRIP LeftWall\_32 16 16 7 1 30.85 109.96 45  
 STRIP LeftWall\_32 16 16 8 1 30.85 115.07 45  
 STRIP LeftWall\_32 16 16 9 1 30.85 120.19 45  
 STRIP LeftWall\_32 16 16 10 1 30.85 130.39 45  
 STRIP LeftWall\_32 16 16 11 1 30.85 146.77 45  
 STRIP LeftWall\_32 16 16 12 1 30.85 161.86 45  
 STRIP LeftWall\_32 16 16 13 1 30.85 169.43 45  
 STRIP LeftWall\_32 16 16 14 1 30.85 175.8 45  
 STRIP LeftWall\_32 16 16 15 1 30.85 182.17 45  
 STRIP LeftWall\_32 16 16 16 1 30.85 188.54 45  
 STRIP LeftWall\_32 16 16 17 1 30.85 194.91 45  
 STRIP LeftWall\_32 16 16 18 1 30.85 201.28 45  
 STRIP LeftWall\_32 16 16 19 1 30.85 207.65 45  
 STRIP LeftWall\_32 16 16 20 1 30.85 214.02 45  
 STRIP LeftWall\_32 16 16 21 1 30.85 220.39 45  
 STRIP LeftWall\_32 16 16 22 1 30.85 226.76 45  
 STRIP LeftWall\_32 16 16 23 1 30.85 233.13 45  
 STRIP LeftWall\_32 16 16 24 1 30.85 239.5 45  
 STRIP LeftWall\_32 16 16 25 1 30.85 245.87 45  
 STRIP LeftWall\_32 16 16 26 1 30.85 252.24 45  
 STRIP LeftWall\_32 16 16 27 1 30.85 258.61 45  
 STRIP LeftWall\_32 16 16 28 1 30.85 265.16 45  
 STRIP LeftWall\_32 16 16 29 1 30.85 272.08 45  
 STRIP LeftWall\_32 16 16 30 1 30.85 279 45  
 STRIP LeftWall\_32 16 16 31 1 30.85 285.93 45  
 STRIP LeftWall\_32 16 16 32 1 30.85 292.86 45  
 STRIP LeftWall\_32 16 16 33 1 30.85 299.79 45  
 STRIP LeftWall\_32 16 16 34 1 30.85 306.72 45  
 STRIP LeftWall\_32 16 16 35 1 30.85 313.65 45  
 STRIP LeftWall\_32 16 16 36 1 30.85 320.58 45  
 STRIP LeftWall\_32 16 16 37 1 30.85 327.5 45  
 STRIP LeftWall\_32 16 16 38 1 30.85 334.43 45  
 STRIP LeftWall\_32 16 16 39 1 30.85 341.36 45  
 STRIP LeftWall\_32 16 16 40 1 30.85 348.29 45  
 STRIP LeftWall\_32 16 16 41 1 30.85 355.22 45  
 STRIP LeftWall\_32 16 16 42 1 30.85 362.15 45  
 STRIP LeftWall\_32 16 16 43 1 30.85 369.08 45  
 STRIP LeftWall\_32 16 16 44 1 30.85 376 45  
 STRIP LeftWall\_32 16 16 45 1 30.85 382.93 45  
 STRIP LeftWall\_32 16 16 46 1 30.85 389.86 45  
 STRIP LeftWall\_32 16 16 47 1 30.85 396.79 45  
 STRIP LeftWall\_32 16 16 48 1 30.85 403.72 45  
 STRIP LeftWall\_32 16 16 49 1 30.85 410.65 45

\* 7: Defining Steps

STEP Stage1\_31  
 CHANGE Morena\_2\_8\_L\_0 U-FRICT=27.453 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-FRICT=27.453 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KA=0.311 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KP=3.954 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.275 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=2.353 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-COHE=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-ADHES=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-COHE=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-ADHES=0 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 30.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Berlinese\_67970  
 ENDSTEP

STEP Stage2\_743389  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.304 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=2.958 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 28.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage3\_743578  
 SETWALL LeftWall\_32  
 GEOM 30.85 28.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-Al\_425  
 ENDSTEP

STEP Stage4\_743767  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.311 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=3.672 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 25.85

SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage5\_743956  
 SETWALL LeftWall\_32  
 GEOM 30.85 25.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-B1\_535  
 ENDSTEP

STEP Stage6\_744145  
 CHANGE Morena\_2\_8\_L\_0 D-KP=3.942 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 22.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage7\_744692  
 SETWALL LeftWall\_32  
 GEOM 30.85 22.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-C1\_635  
 ENDSTEP

STEP Stage8\_744881  
 CHANGE Morena\_2\_8\_L\_0 D-KP=3.954 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 30.85 20.35  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage9\_745070  
 SETWALL LeftWall\_32  
 GEOM 30.85 20.35  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-D1\_492899  
 ENDSTEP

STEP Stage10\_745259  
 SETWALL LeftWall\_32  
 GEOM 30.85 17.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage11\_745448  
 SETWALL LeftWall\_32  
 GEOM 30.85 17.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-E1\_596311  
 ENDSTEP

STEP Stage12\_745995  
 SETWALL LeftWall\_32  
 GEOM 30.85 15.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage13\_746184  
 SETWALL LeftWall\_32  
 GEOM 30.85 15.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-F1\_596312  
 ENDSTEP

STEP Stage14\_746373  
 SETWALL LeftWall\_32  
 GEOM 30.85 13.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ENDSTEP

STEP Stage15\_746562  
 SETWALL LeftWall\_32  
 GEOM 30.85 13.85  
 SURCHARGE 0 0 0 0  
 WATER -10 0 5.15 0 0  
 ADD Tir-G1\_698700  
 ENDSTEP

```
STEP Stage16_746751
SETWALL LeftWall_32
GEOM 30.85 12.5
SURCHARGE 0 0 0 0
WATER -10 0 5.15 0 0
ENDSTEP
```

## 11.2 PARATIA DEFINITIVA - LATO MONTE - 4 ORDINI DI TIRANTI

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### *Report di Calcolo*

Nome Progetto: PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+175,76 LATO MONTE

Autore: Ing. Renato Vaira

Jobname: D:\Documenti\\_Lavori\A832 - Tirano\Paratia Imbocco Bormio\PK 6+175,76 monte.pplus

Data: 26/03/2019 18:31:05

Design Section: Base Design Section

## Descrizione del Software

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

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

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

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

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

La schematizzazione in elementi finiti avviene in questo modo:

- si analizza un problema piano (nel piano Y-Z): i gradi di libertà nodali attivi sono lo spostamento laterale e la rotazione fuori piano: gli spostamenti verticali sono automaticamente vincolati (di conseguenza le azioni assiali nelle pareti verticali non sono calcolate);
- la parete flessibile di sostegno vera e propria è schematizzata da una serie di elementi finiti BEAM verticali;
- il terreno, che spinge contro la parete (da monte e da valle) e che reagisce in modo complesso alle deformazioni della parete, è simulato attraverso un doppio letto di molle elasto-plastiche connesse agli stessi nodi della parete;
- i tiranti, i puntoni, le solette, gli appoggi cedevoli o fissi, sono schematizzati tramite molle puntuali convergenti in alcuni punti (nodi) della parete ove convergono parimenti elementi BEAM ed elementi terreno.

## Descrizione della Stratigrafia e degli Strati di Terreno

Tipo : HORIZONTAL

Quota : 40 m

OCR : 1

Strato di Terreno	Terreno	$\gamma$ dry	$\gamma$ sat	$\phi'$	$\phi$	$c_v$	$\phi_p$	$c'$	Su	Modulo	Elastico	Eu	Evc	Eur	Ah	Av	exp	Pa	Rur/Rvc	Rvc	Ku	Kvc	Kur	
		kN/m <sup>3</sup>	kN/m <sup>3</sup>	°	°	°	°	kPa	kPa			kPa	kPa	kPa				kPa		kPa	kN/m <sup>3</sup>	kN/m <sup>3</sup>	kN/m <sup>3</sup>	
1	Morena	20	22	33				0	Constant			21000	33600											



## Descrizione Pareti

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Muro di sinistra

Sezione : Berlinese

Area equivalente : 0.0272491018831865 m

Inerzia equivalente : 0.0001 m<sup>4</sup>/m

Materiale calcestruzzo : C32/40

Tipo sezione : Tangent

Spaziatura : 0.4 m

Diametro : 0.24 m

Efficacia : 0.9

Materiale acciaio : S355

Sezione : CHS177.8\*10

Tipo sezione : O

Spaziatura : 0.4 m

Spessore : 0.01 m

Diametro : 0.1778 m

## ***Fasi di Calcolo***

Stage 1

Scavo

Muro di sinistra

Lato monte : 23.35 m

Lato valle : 23.35 m

Linea di scavo di sinistra (Irregolare)

(-45;30)

(-30.84;27.64)

(-25.56;26)

(-20.14;25.9)

(-17.12;25.55)

(-11.6;24.8)

(-10.15;23.35)

(-9.15;23.35)

Linea di scavo di destra (Irregolare)

(-9.15;23.35)

(-1;23.35)

(1.15;23.03)

(15.68;21.91)

(22.8;20.75)

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Sezione : Berlinese

Stage 2

Scavo

Muro di sinistra

Lato monte : 23.35 m

Lato valle : 21.45 m

Linea di scavo di sinistra (Irregolare)

(-45;30)

(-30.84;27.64)

(-25.56;26)

(-20.14;25.9)

(-17.12;25.55)

(-11.6;24.8)

(-10.15;23.35)

(-9.15;23.35)

Linea di scavo di destra (Irregolare)

(-9.15;21.45)

(18.5;21.45)

(22.8;20.75)

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Sezione : Berlinese

### Stage 3

#### Scavo

##### Muro di sinistra

Lato monte : 23.35 m

Lato valle : 21.45 m

##### Linea di scavo di sinistra (Irregolare)

(-45;30)

(-30.84;27.64)

(-25.56;26)

(-20.14;25.9)

(-17.12;25.55)

(-11.6;24.8)

(-10.15;23.35)

(-9.15;23.35)

##### Linea di scavo di destra (Irregolare)

(-9.15;21.45)

(18.5;21.45)

(22.8;20.75)

#### Elementi strutturali

##### Paratia : Berlinese

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Sezione : Berlinese

##### Tirante : Tir-D2

X : -9.15 m

Z : 21.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

##### Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 4

Scavo

Muro di sinistra

Lato monte : 23.35 m

Lato valle : 18.45 m

Linea di scavo di sinistra (Irregolare)

(-45;30)

(-30.84;27.64)

(-25.56;26)

(-20.14;25.9)

(-17.12;25.55)

(-11.6;24.8)

(-10.15;23.35)

(-9.15;23.35)

Linea di scavo di destra (Orizzontale)

18.45 m

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Sezione : Berlinese

Tirante : Tir-D2

X : -9.15 m

Z : 21.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 5

Scavo

Muro di sinistra

Lato monte : 23.35 m

Lato valle : 18.45 m

Linea di scavo di sinistra (Irregolare)

(-45;30)

(-30.84;27.64)

(-25.56;26)

(-20.14;25.9)

(-17.12;25.55)

(-11.6;24.8)

(-10.15;23.35)

(-9.15;23.35)

Linea di scavo di destra (Orizzontale)

18.45 m

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Sezione : Berlinese

Tirante : Tir-D2

X : -9.15 m

Z : 21.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-E2

X : -9.15 m

Z : 18.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 6

Scavo

Muro di sinistra

Lato monte : 23.35 m

Lato valle : 15.45 m

Linea di scavo di sinistra (Irregolare)

(-45;30)

(-30.84;27.64)

(-25.56;26)

(-20.14;25.9)

(-17.12;25.55)

(-11.6;24.8)

(-10.15;23.35)

(-9.15;23.35)

Linea di scavo di destra (Orizzontale)

15.45 m

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Sezione : Berlinese

Tirante : Tir-D2

X : -9.15 m

Z : 21.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-E2

X : -9.15 m

Z : 18.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m



Lunghezza libera : 13 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 7

Scavo

Muro di sinistra

Lato monte : 23.35 m

Lato valle : 15.45 m

Linea di scavo di sinistra (Irregolare)

(-45;30)

(-30.84;27.64)

(-25.56;26)

(-20.14;25.9)

(-17.12;25.55)

(-11.6;24.8)

(-10.15;23.35)

(-9.15;23.35)

Linea di scavo di destra (Orizzontale)

15.45 m

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Sezione : Berlinese

Tirante : Tir-D2

X : -9.15 m

Z : 21.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-E2

X : -9.15 m

Z : 18.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-F2  
 X : -9.15 m  
 Z : 15.95 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 12 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Stage 8

Scavo

Muro di sinistra

Lato monte : 23.35 m

Lato valle : 12.95 m

Linea di scavo di sinistra (Irregolare)

(-45;30)

(-30.84;27.64)

(-25.56;26)

(-20.14;25.9)

(-17.12;25.55)

(-11.6;24.8)

(-10.15;23.35)

(-9.15;23.35)

Linea di scavo di destra (Orizzontale)

12.95 m

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Sezione : Berlinese

Tirante : Tir-D2

X : -9.15 m

Z : 21.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-E2

X : -9.15 m

Z : 18.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-F2  
 X : -9.15 m  
 Z : 15.95 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 12 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Stage 9

Scavo

Muro di sinistra

Lato monte : 23.35 m

Lato valle : 12.95 m

Linea di scavo di sinistra (Irregolare)

(-45;30)

(-30.84;27.64)

(-25.56;26)

(-20.14;25.9)

(-17.12;25.55)

(-11.6;24.8)

(-10.15;23.35)

(-9.15;23.35)

Linea di scavo di destra (Orizzontale)

12.95 m

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Sezione : Berlinese

Tirante : Tir-D2

X : -9.15 m

Z : 21.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-E2

X : -9.15 m

Z : 18.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-F2  
 X : -9.15 m  
 Z : 15.95 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 12 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-G2  
 X : -9.15 m  
 Z : 13.45 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 10 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Stage 10

Scavo

Muro di sinistra

Lato monte : 23.35 m

Lato valle : 11.8 m

Linea di scavo di sinistra (Irregolare)

(-45;30)

(-30.84;27.64)

(-25.56;26)

(-20.14;25.9)

(-17.12;25.55)

(-11.6;24.8)

(-10.15;23.35)

(-9.15;23.35)

Linea di scavo di destra (Irregolare)

(-9.15;11.8)

(6.8;11.8)

(9.2;9.4)

(18;9.4)

(20.4;11.8)

(22.8;11.8)

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Sezione : Berlinese

Tirante : Tir-D2

X : -9.15 m

Z : 21.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275



**Tirante : Tir-E2**

X : -9.15 m  
 Z : 18.95 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 13 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

**Trave di Ripartizione : Default Waler**

Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

**Tirante : Tir-F2**

X : -9.15 m  
 Z : 15.95 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 12 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

**Trave di Ripartizione : Default Waler**

Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

**Tirante : Tir-G2**

X : -9.15 m  
 Z : 13.45 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 10 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 11-S

Scavo

Muro di sinistra

Lato monte : 23.35 m

Lato valle : 11.8 m

Linea di scavo di sinistra (Irregolare)

(-45;30)

(-30.84;27.64)

(-25.56;26)

(-20.14;25.9)

(-17.12;25.55)

(-11.6;24.8)

(-10.15;23.35)

(-9.15;23.35)

Linea di scavo di destra (Irregolare)

(-9.15;11.8)

(6.8;11.8)

(9.2;9.4)

(18;9.4)

(20.4;11.8)

(22.8;11.8)

Elementi strutturali

Paratia : Berlinese

X : -9.15 m

Quota in alto : 23.95 m

Quota di fondo : 6.75 m

Sezione : Berlinese

Tirante : Tir-D2

X : -9.15 m

Z : 21.95 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 10 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

**Tirante : Tir-E2**

X : -9.15 m  
 Z : 18.95 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 13 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

**Trave di Ripartizione : Default Waler**

Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

**Tirante : Tir-F2**

X : -9.15 m  
 Z : 15.95 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 12 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

**Trave di Ripartizione : Default Waler**

Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

**Tirante : Tir-G2**

X : -9.15 m  
 Z : 13.45 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 10 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 10 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

## Descrizione Coefficienti Design Assumption

### Coefficienti A

Nome	Carichi	Carichi	Carichi	Carichi	Carico	Pressio	Pressio	Carichi	Carichi	Carichi	Carichi	Carichi	Carichi
	Permanenti Sfavorevoli (F_dead_load_unfavour)	Permanenti Favorevoli (F_dead_load_d_favour)	Variabili Sfavorevoli (F_live_load_unfavour)	Variabili Favorevoli (F_live_load_d_favour)	Sismico (F_seism_load)	ni Acqua Lato (F_WaterDR)	ni Acqua Valle (F_WaterRes)	Permanenti Destabilizzanti (F_UPL_GDStab)	Permanenti Stabilizzanti (F_UPL_GStab)	Variabili Destabilizzanti (F_UPL_QDStab)	Permanenti Destabilizzanti (F_HYD_GDStab)	Permanenti Stabilizzanti (F_HYD_GStab)	Variabili Destabilizzanti (F_HYD_QDStab)
Simbolo	$\gamma_G$	$\gamma_G$	$\gamma_Q$	$\gamma_Q$	$\gamma_{QE}$	$\gamma_G$	$\gamma_G$	$\gamma_{Gdst}$	$\gamma_{Gstb}$	$\gamma_{Qdst}$	$\gamma_{Gdst}$	$\gamma_{Gstb}$	$\gamma_{Qdst}$
Nominal	1	1	1	1	1	1	1	1	1	1	1	1	1
SLE (Rara)	1	1	1	1	0	1	1	1	1	1	1	1	1
A1+M1+R1	1.3	1	1.5	1	0	1.3	1	1	1	1	1.3	0.9	1
A2+M2+R1	1	1	1.3	1	0	1	1	1	1	1	1.3	0.9	1
SISMICA STR	1	1	1	1	1	1	1	1	1	1	1	1	1
SISMICA GEO	1	1	1	1	1	1	1	1	1	1	1.3	0.9	1

### Coefficienti M

Nome	Parziale su $\tan(\phi')$ (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	$\gamma_\phi$	$\gamma_c$	$\gamma_{cu}$	$\gamma_{qu}$	$\gamma_\gamma$
Nominal	1	1	1	1	1
SLE (Rara)	1	1	1	1	1
A1+M1+R1	1	1	1	1	1
A2+M2+R1	1.25	1.25	1.4	1	1
SISMICA STR	1	1	1	1	1
SISMICA GEO	1.25	1.25	1.4	1	1

### Coefficienti R

Nome	Parziale resistenza terreno (es. Kp) (F_Soil_Res_walls)	Parziale resistenza Tiranti permanenti (F_Anch_P)	Parziale resistenza Tiranti temporanei (F_Anch_T)	Parziale elementi strutturali (F_wall)
Simbolo	$\gamma_{Re}$	$\gamma_{ap}$	$\gamma_{at}$	
Nominal	1	1	1	1
SLE (Rara)	1	1	1	1
A1+M1+R1	1	1.2	1.1	1
A2+M2+R1	1	1.2	1.1	1
SISMICA STR	1	1.2	1.1	1
SISMICA GEO	1	1.2	1.1	1

## Risultati SLE (Rara)

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 1

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento			Muro: LEFT
Stage	Z (m)	Spostamento (mm)	
Stage 1	23.95	0	
Stage 1	23.75	0	
Stage 1	23.55	0	
Stage 1	23.35	0	
Stage 1	23.15	0	
Stage 1	22.95	0	
Stage 1	22.75	0	
Stage 1	22.55	0	
Stage 1	22.35	0	
Stage 1	22.15	0	
Stage 1	21.95	0	
Stage 1	21.75	0	
Stage 1	21.55	0	
Stage 1	21.35	0	
Stage 1	21.15	0	
Stage 1	20.95	0	
Stage 1	20.75	0	
Stage 1	20.55	0	
Stage 1	20.35	0	
Stage 1	20.15	0	
Stage 1	19.95	0	
Stage 1	19.75	0	
Stage 1	19.55	0	
Stage 1	19.35	0	
Stage 1	19.15	0	
Stage 1	18.95	0	
Stage 1	18.75	0	
Stage 1	18.55	0	
Stage 1	18.35	0	
Stage 1	18.15	0	
Stage 1	17.95	0	
Stage 1	17.75	0	
Stage 1	17.55	0	
Stage 1	17.35	0	
Stage 1	17.15	0	
Stage 1	16.95	0	
Stage 1	16.75	0	
Stage 1	16.55	0	
Stage 1	16.35	0	
Stage 1	16.15	0	
Stage 1	15.95	0	
Stage 1	15.75	0	
Stage 1	15.55	0	
Stage 1	15.35	0	
Stage 1	15.15	0	
Stage 1	14.95	0	
Stage 1	14.75	0	
Stage 1	14.55	0	
Stage 1	14.35	0	
Stage 1	14.15	0	
Stage 1	13.95	0	
Stage 1	13.75	0	
Stage 1	13.55	0	
Stage 1	13.45	0	
Stage 1	13.25	0	
Stage 1	13.05	0	
Stage 1	12.85	0	
Stage 1	12.65	0	
Stage 1	12.45	0	
Stage 1	12.25	0	
Stage 1	12.05	0	
Stage 1	11.85	0	

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 1	11.65	0
Stage 1	11.45	0
Stage 1	11.25	0
Stage 1	11.05	0
Stage 1	10.85	0
Stage 1	10.65	0
Stage 1	10.45	0
Stage 1	10.25	0
Stage 1	10.05	0
Stage 1	9.85	0
Stage 1	9.65	0
Stage 1	9.45	0
Stage 1	9.25	0
Stage 1	9.05	0
Stage 1	8.85	0
Stage 1	8.65	0
Stage 1	8.45	0
Stage 1	8.25	0
Stage 1	8.05	0
Stage 1	7.85	0
Stage 1	7.65	0
Stage 1	7.45	0
Stage 1	7.25	0
Stage 1	7.05	0
Stage 1	6.85	0
Stage 1	6.75	0



**Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 1**

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	23.95	0	0
Stage 1	23.75	0	0
Stage 1	23.75	0	0
Stage 1	23.55	0	0
Stage 1	23.55	0	0
Stage 1	23.35	0	0
Stage 1	23.35	0	0
Stage 1	23.15	0	0
Stage 1	22.95	0	0
Stage 1	22.75	0	0
Stage 1	22.55	0	0
Stage 1	22.35	0	0
Stage 1	22.15	0	0
Stage 1	21.95	0	0
Stage 1	21.75	0	0
Stage 1	21.55	0	0
Stage 1	21.35	0	0
Stage 1	21.15	0	0
Stage 1	20.95	0	0
Stage 1	20.75	0	0
Stage 1	20.55	0	0
Stage 1	20.35	0	0
Stage 1	20.15	0	0
Stage 1	19.95	0	0
Stage 1	19.75	0	0
Stage 1	19.55	0	0
Stage 1	19.35	0	0
Stage 1	19.15	0	0
Stage 1	18.95	0	0
Stage 1	18.75	0	0
Stage 1	18.55	0	0
Stage 1	18.35	0	0
Stage 1	18.15	0	0
Stage 1	17.95	0	0
Stage 1	17.75	0	0
Stage 1	17.55	0	0
Stage 1	17.35	0	0
Stage 1	17.15	0	0
Stage 1	16.95	0	0
Stage 1	16.75	0	0
Stage 1	16.55	0	0
Stage 1	16.35	0	0
Stage 1	16.15	0	0
Stage 1	15.95	0	0
Stage 1	15.75	0	0
Stage 1	15.55	0	0
Stage 1	15.35	0	0
Stage 1	15.15	0	0
Stage 1	14.95	0	0
Stage 1	14.75	0	0
Stage 1	14.55	0	0
Stage 1	14.35	0	0
Stage 1	14.15	0	0
Stage 1	13.95	0	0
Stage 1	13.75	0	0
Stage 1	13.55	0	0
Stage 1	13.45	0	0
Stage 1	13.25	0	0
Stage 1	13.05	0	0
Stage 1	12.85	0	0
Stage 1	12.65	0	0
Stage 1	12.45	0	0
Stage 1	12.25	0	0
Stage 1	12.05	0	0
Stage 1	11.85	0	0

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	11.65	0	0
Stage 1	11.45	0	0
Stage 1	11.25	0	0
Stage 1	11.05	0	0
Stage 1	10.85	0	0
Stage 1	10.65	0	0
Stage 1	10.45	0	0
Stage 1	10.25	0	0
Stage 1	10.05	0	0
Stage 1	9.85	0	0
Stage 1	9.65	0	0
Stage 1	9.45	0	0
Stage 1	9.25	0	0
Stage 1	9.05	0	0
Stage 1	8.85	0	0
Stage 1	8.65	0	0
Stage 1	8.45	0	0
Stage 1	8.25	0	0
Stage 1	8.05	0	0
Stage 1	7.85	0	0
Stage 1	7.65	0	0
Stage 1	7.45	0	0
Stage 1	7.25	0	0
Stage 1	7.05	0	0
Stage 1	6.85	0	0
Stage 1	6.75	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 2

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 2	23.95 3.98
Stage 2	23.75 3.75
Stage 2	23.55 3.51
Stage 2	23.35 3.28
Stage 2	23.15 3.05
Stage 2	22.95 2.81
Stage 2	22.75 2.58
Stage 2	22.55 2.35
Stage 2	22.35 2.11
Stage 2	22.15 1.88
Stage 2	21.95 1.66
Stage 2	21.75 1.43
Stage 2	21.55 1.22
Stage 2	21.35 1.01
Stage 2	21.15 0.82
Stage 2	20.95 0.64
Stage 2	20.75 0.49
Stage 2	20.55 0.35
Stage 2	20.35 0.24
Stage 2	20.15 0.15
Stage 2	19.95 0.07
Stage 2	19.75 0.02
Stage 2	19.55 -0.03
Stage 2	19.35 -0.06
Stage 2	19.15 -0.08
Stage 2	18.95 -0.09
Stage 2	18.75 -0.09
Stage 2	18.55 -0.09
Stage 2	18.35 -0.09
Stage 2	18.15 -0.08
Stage 2	17.95 -0.07
Stage 2	17.75 -0.06
Stage 2	17.55 -0.05
Stage 2	17.35 -0.05
Stage 2	17.15 -0.04
Stage 2	16.95 -0.03
Stage 2	16.75 -0.02
Stage 2	16.55 -0.02
Stage 2	16.35 -0.01
Stage 2	16.15 -0.01
Stage 2	15.95 0
Stage 2	15.75 0
Stage 2	15.55 0
Stage 2	15.35 0
Stage 2	15.15 0
Stage 2	14.95 0
Stage 2	14.75 0
Stage 2	14.55 0
Stage 2	14.35 0
Stage 2	14.15 0
Stage 2	13.95 0
Stage 2	13.75 0
Stage 2	13.55 0
Stage 2	13.45 0
Stage 2	13.25 0
Stage 2	13.05 0
Stage 2	12.85 0
Stage 2	12.65 0
Stage 2	12.45 0
Stage 2	12.25 0
Stage 2	12.05 0
Stage 2	11.85 0
Stage 2	11.65 0
Stage 2	11.45 0
Stage 2	11.25 0

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento			Muro: LEFT
Stage	Z (m)	Spostamento (mm)	
Stage 2	11.05	0	
Stage 2	10.85	0	
Stage 2	10.65	0	
Stage 2	10.45	0	
Stage 2	10.25	0	
Stage 2	10.05	0	
Stage 2	9.85	0	
Stage 2	9.65	0	
Stage 2	9.45	0	
Stage 2	9.25	0	
Stage 2	9.05	0	
Stage 2	8.85	0	
Stage 2	8.65	0	
Stage 2	8.45	0	
Stage 2	8.25	0	
Stage 2	8.05	0	
Stage 2	7.85	0	
Stage 2	7.65	0	
Stage 2	7.45	0	
Stage 2	7.25	0	
Stage 2	7.05	0	
Stage 2	6.85	0	
Stage 2	6.75	0	

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 2

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	23.95	0	0
Stage 2	23.75	0	0
Stage 2	23.75	0	0
Stage 2	23.55	0	0
Stage 2	23.55	0	0
Stage 2	23.35	0	0
Stage 2	23.35	0	0
Stage 2	23.15	0	0
Stage 2	23.15	0	0
Stage 2	22.95	-0.04	-0.2
Stage 2	22.75	-0.16	-0.6
Stage 2	22.55	-0.4	-1.2
Stage 2	22.35	-0.81	-2.03
Stage 2	22.15	-1.42	-3.07
Stage 2	21.95	-2.29	-4.34
Stage 2	21.75	-3.46	-5.85
Stage 2	21.55	-4.98	-7.61
Stage 2	21.35	-6.9	-9.61
Stage 2	21.15	-8.9	-10
Stage 2	20.95	-10.37	-7.35
Stage 2	20.75	-10.99	-3.06
Stage 2	20.55	-10.95	0.19
Stage 2	20.35	-10.44	2.54
Stage 2	20.15	-9.61	4.14
Stage 2	19.95	-8.59	5.11
Stage 2	19.75	-7.48	5.55
Stage 2	19.55	-6.36	5.59
Stage 2	19.35	-5.28	5.38
Stage 2	19.15	-4.28	5.02
Stage 2	18.95	-3.37	4.56
Stage 2	18.75	-2.56	4.04
Stage 2	18.55	-1.86	3.49
Stage 2	18.35	-1.28	2.94
Stage 2	18.15	-0.79	2.42
Stage 2	17.95	-0.4	1.94
Stage 2	17.75	-0.1	1.5
Stage 2	17.55	0.12	1.12
Stage 2	17.35	0.28	0.8
Stage 2	17.15	0.39	0.53
Stage 2	16.95	0.45	0.31
Stage 2	16.75	0.48	0.13
Stage 2	16.55	0.48	0
Stage 2	16.35	0.45	-0.1
Stage 2	16.15	0.42	-0.17
Stage 2	15.95	0.38	-0.21
Stage 2	15.75	0.33	-0.24
Stage 2	15.55	0.28	-0.24
Stage 2	15.35	0.24	-0.23
Stage 2	15.15	0.19	-0.22
Stage 2	14.95	0.15	-0.2
Stage 2	14.75	0.12	-0.18
Stage 2	14.55	0.08	-0.16
Stage 2	14.35	0.06	-0.13
Stage 2	14.15	0.04	-0.11
Stage 2	13.95	0.02	-0.09
Stage 2	13.75	0.01	-0.07
Stage 2	13.55	0	-0.05
Stage 2	13.45	-0.01	-0.04
Stage 2	13.25	-0.01	-0.03
Stage 2	13.05	-0.02	-0.02
Stage 2	12.85	-0.02	-0.01
Stage 2	12.65	-0.02	0
Stage 2	12.45	-0.02	0
Stage 2	12.25	-0.02	0.01
Stage 2	12.05	-0.02	0.01

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	11.85	-0.01	0.01
Stage 2	11.65	-0.01	0.01
Stage 2	11.45	-0.01	0.01
Stage 2	11.25	-0.01	0.01
Stage 2	11.05	-0.01	0.01
Stage 2	10.85	-0.01	0.01
Stage 2	10.65	0	0.01
Stage 2	10.45	0	0.01
Stage 2	10.25	0	0
Stage 2	10.05	0	0
Stage 2	9.85	0	0
Stage 2	9.65	0	0
Stage 2	9.45	0	0
Stage 2	9.25	0	0
Stage 2	9.05	0	0
Stage 2	8.85	0	0
Stage 2	8.65	0	0
Stage 2	8.45	0	0
Stage 2	8.25	0	0
Stage 2	8.05	0	0
Stage 2	7.85	0	0
Stage 2	7.65	0	0
Stage 2	7.45	0	0
Stage 2	7.25	0	0
Stage 2	7.05	0	0
Stage 2	6.85	0	0
Stage 2	6.75	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 3

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 3	23.95 -3.96
Stage 3	23.75 -3.92
Stage 3	23.55 -3.89
Stage 3	23.35 -3.85
Stage 3	23.15 -3.81
Stage 3	22.95 -3.77
Stage 3	22.75 -3.72
Stage 3	22.55 -3.67
Stage 3	22.35 -3.6
Stage 3	22.15 -3.49
Stage 3	21.95 -3.32
Stage 3	21.75 -3.07
Stage 3	21.55 -2.75
Stage 3	21.35 -2.4
Stage 3	21.15 -2.05
Stage 3	20.95 -1.7
Stage 3	20.75 -1.38
Stage 3	20.55 -1.08
Stage 3	20.35 -0.82
Stage 3	20.15 -0.6
Stage 3	19.95 -0.41
Stage 3	19.75 -0.26
Stage 3	19.55 -0.14
Stage 3	19.35 -0.04
Stage 3	19.15 0.03
Stage 3	18.95 0.07
Stage 3	18.75 0.1
Stage 3	18.55 0.12
Stage 3	18.35 0.13
Stage 3	18.15 0.13
Stage 3	17.95 0.12
Stage 3	17.75 0.11
Stage 3	17.55 0.1
Stage 3	17.35 0.08
Stage 3	17.15 0.07
Stage 3	16.95 0.06
Stage 3	16.75 0.05
Stage 3	16.55 0.03
Stage 3	16.35 0.03
Stage 3	16.15 0.02
Stage 3	15.95 0.01
Stage 3	15.75 0.01
Stage 3	15.55 0
Stage 3	15.35 0
Stage 3	15.15 0
Stage 3	14.95 0
Stage 3	14.75 -0.01
Stage 3	14.55 -0.01
Stage 3	14.35 -0.01
Stage 3	14.15 -0.01
Stage 3	13.95 -0.01
Stage 3	13.75 0
Stage 3	13.55 0
Stage 3	13.45 0
Stage 3	13.25 0
Stage 3	13.05 0
Stage 3	12.85 0
Stage 3	12.65 0
Stage 3	12.45 0
Stage 3	12.25 0
Stage 3	12.05 0
Stage 3	11.85 0
Stage 3	11.65 0
Stage 3	11.45 0
Stage 3	11.25 0

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento			Muro: LEFT
Stage	Z (m)	Spostamento (mm)	
Stage 3	11.05	0	
Stage 3	10.85	0	
Stage 3	10.65	0	
Stage 3	10.45	0	
Stage 3	10.25	0	
Stage 3	10.05	0	
Stage 3	9.85	0	
Stage 3	9.65	0	
Stage 3	9.45	0	
Stage 3	9.25	0	
Stage 3	9.05	0	
Stage 3	8.85	0	
Stage 3	8.65	0	
Stage 3	8.45	0	
Stage 3	8.25	0	
Stage 3	8.05	0	
Stage 3	7.85	0	
Stage 3	7.65	0	
Stage 3	7.45	0	
Stage 3	7.25	0	
Stage 3	7.05	0	
Stage 3	6.85	0	
Stage 3	6.75	0	



**Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 3**

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	23.95	0	0
Stage 3	23.75	0	0
Stage 3	23.75	0	0
Stage 3	23.55	0	0
Stage 3	23.55	0	0
Stage 3	23.35	0	0
Stage 3	23.35	0	0
Stage 3	23.15	0	0
Stage 3	23.15	0	0
Stage 3	22.95	-0.91	-4.55
Stage 3	22.75	-3.67	-13.78
Stage 3	22.55	-9.24	-27.85
Stage 3	22.35	-18.62	-46.9
Stage 3	22.15	-31.95	-66.67
Stage 3	21.95	-49.11	-85.81
Stage 3	21.75	-30.54	92.84
Stage 3	21.55	-15.43	75.59
Stage 3	21.35	-3.51	59.59
Stage 3	21.15	5.45	44.77
Stage 3	20.95	11.58	30.67
Stage 3	20.75	15.55	19.87
Stage 3	20.55	17.79	11.17
Stage 3	20.35	18.66	4.37
Stage 3	20.15	18.51	-0.78
Stage 3	19.95	17.6	-4.51
Stage 3	19.75	16.19	-7.08
Stage 3	19.55	14.45	-8.68
Stage 3	19.35	12.55	-9.51
Stage 3	19.15	10.61	-9.72
Stage 3	18.95	8.73	-9.41
Stage 3	18.75	6.98	-8.75
Stage 3	18.55	5.4	-7.88
Stage 3	18.35	4.02	-6.89
Stage 3	18.15	2.85	-5.87
Stage 3	17.95	1.87	-4.86
Stage 3	17.75	1.09	-3.92
Stage 3	17.55	0.48	-3.06
Stage 3	17.35	0.02	-2.3
Stage 3	17.15	-0.31	-1.66
Stage 3	16.95	-0.54	-1.11
Stage 3	16.75	-0.67	-0.67
Stage 3	16.55	-0.74	-0.33
Stage 3	16.35	-0.75	-0.06
Stage 3	16.15	-0.72	0.13
Stage 3	15.95	-0.67	0.26
Stage 3	15.75	-0.61	0.34
Stage 3	15.55	-0.53	0.38
Stage 3	15.35	-0.45	0.39
Stage 3	15.15	-0.37	0.38
Stage 3	14.95	-0.3	0.36
Stage 3	14.75	-0.24	0.33
Stage 3	14.55	-0.18	0.29
Stage 3	14.35	-0.13	0.25
Stage 3	14.15	-0.09	0.21
Stage 3	13.95	-0.05	0.17
Stage 3	13.75	-0.03	0.14
Stage 3	13.55	-0.01	0.1
Stage 3	13.45	0	0.08
Stage 3	13.25	0.02	0.07
Stage 3	13.05	0.02	0.04
Stage 3	12.85	0.03	0.03
Stage 3	12.65	0.03	0.01
Stage 3	12.45	0.03	0
Stage 3	12.25	0.03	-0.01
Stage 3	12.05	0.03	-0.01

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	11.85	0.03	-0.01
Stage 3	11.65	0.02	-0.02
Stage 3	11.45	0.02	-0.02
Stage 3	11.25	0.02	-0.02
Stage 3	11.05	0.01	-0.02
Stage 3	10.85	0.01	-0.01
Stage 3	10.65	0.01	-0.01
Stage 3	10.45	0.01	-0.01
Stage 3	10.25	0	-0.01
Stage 3	10.05	0	-0.01
Stage 3	9.85	0	-0.01
Stage 3	9.65	0	0
Stage 3	9.45	0	0
Stage 3	9.25	0	0
Stage 3	9.05	0	0
Stage 3	8.85	0	0
Stage 3	8.65	0	0
Stage 3	8.45	0	0
Stage 3	8.25	0	0
Stage 3	8.05	0	0
Stage 3	7.85	0	0
Stage 3	7.65	0	0
Stage 3	7.45	0	0
Stage 3	7.25	0	0
Stage 3	7.05	0	0
Stage 3	6.85	0	0
Stage 3	6.75	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 4

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 4	23.95 -7.12
Stage 4	23.75 -6.7
Stage 4	23.55 -6.28
Stage 4	23.35 -5.85
Stage 4	23.15 -5.43
Stage 4	22.95 -5
Stage 4	22.75 -4.58
Stage 4	22.55 -4.14
Stage 4	22.35 -3.69
Stage 4	22.15 -3.2
Stage 4	21.95 -2.64
Stage 4	21.75 -2
Stage 4	21.55 -1.31
Stage 4	21.35 -0.58
Stage 4	21.15 0.15
Stage 4	20.95 0.85
Stage 4	20.75 1.52
Stage 4	20.55 2.14
Stage 4	20.35 2.69
Stage 4	20.15 3.16
Stage 4	19.95 3.56
Stage 4	19.75 3.87
Stage 4	19.55 4.1
Stage 4	19.35 4.24
Stage 4	19.15 4.3
Stage 4	18.95 4.27
Stage 4	18.75 4.17
Stage 4	18.55 4
Stage 4	18.35 3.77
Stage 4	18.15 3.49
Stage 4	17.95 3.18
Stage 4	17.75 2.85
Stage 4	17.55 2.51
Stage 4	17.35 2.17
Stage 4	17.15 1.85
Stage 4	16.95 1.54
Stage 4	16.75 1.27
Stage 4	16.55 1.01
Stage 4	16.35 0.79
Stage 4	16.15 0.59
Stage 4	15.95 0.42
Stage 4	15.75 0.28
Stage 4	15.55 0.16
Stage 4	15.35 0.06
Stage 4	15.15 -0.02
Stage 4	14.95 -0.08
Stage 4	14.75 -0.13
Stage 4	14.55 -0.16
Stage 4	14.35 -0.18
Stage 4	14.15 -0.19
Stage 4	13.95 -0.19
Stage 4	13.75 -0.19
Stage 4	13.55 -0.18
Stage 4	13.45 -0.18
Stage 4	13.25 -0.17
Stage 4	13.05 -0.15
Stage 4	12.85 -0.14
Stage 4	12.65 -0.12
Stage 4	12.45 -0.11
Stage 4	12.25 -0.09
Stage 4	12.05 -0.08
Stage 4	11.85 -0.07
Stage 4	11.65 -0.05
Stage 4	11.45 -0.04
Stage 4	11.25 -0.03

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 4	11.05	-0.03
Stage 4	10.85	-0.02
Stage 4	10.65	-0.01
Stage 4	10.45	-0.01
Stage 4	10.25	0
Stage 4	10.05	0
Stage 4	9.85	0
Stage 4	9.65	0
Stage 4	9.45	0.01
Stage 4	9.25	0.01
Stage 4	9.05	0.01
Stage 4	8.85	0.01
Stage 4	8.65	0.01
Stage 4	8.45	0.01
Stage 4	8.25	0.01
Stage 4	8.05	0.01
Stage 4	7.85	0.01
Stage 4	7.65	0.01
Stage 4	7.45	0
Stage 4	7.25	0
Stage 4	7.05	0
Stage 4	6.85	0
Stage 4	6.75	0

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 4

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	23.95	0	0
Stage 4	23.75	0	0
Stage 4	23.75	0	0
Stage 4	23.55	0	0
Stage 4	23.55	0	0
Stage 4	23.35	0	0
Stage 4	23.35	0	0
Stage 4	23.15	0	0
Stage 4	23.15	0	0
Stage 4	22.95	-0.91	-4.55
Stage 4	22.75	-3.67	-13.78
Stage 4	22.55	-9.24	-27.85
Stage 4	22.35	-18.62	-46.9
Stage 4	22.15	-31.97	-66.77
Stage 4	21.95	-49.04	-85.35
Stage 4	21.75	-29.84	95.99
Stage 4	21.55	-13.69	80.76
Stage 4	21.35	-0.19	67.5
Stage 4	21.15	11.02	56.03
Stage 4	20.95	20.18	45.8
Stage 4	20.75	27.53	36.76
Stage 4	20.55	33.3	28.84
Stage 4	20.35	37.68	21.91
Stage 4	20.15	40.84	15.82
Stage 4	19.95	42.92	10.4
Stage 4	19.75	44.01	5.46
Stage 4	19.55	44.18	0.82
Stage 4	19.35	43.44	-3.71
Stage 4	19.15	41.77	-8.31
Stage 4	18.95	39.15	-13.11
Stage 4	18.75	35.51	-18.21
Stage 4	18.55	30.74	-23.85
Stage 4	18.35	24.7	-30.22
Stage 4	18.15	17.66	-35.19
Stage 4	17.95	10.33	-36.63
Stage 4	17.75	3.41	-34.61
Stage 4	17.55	-2.43	-29.19
Stage 4	17.35	-6.86	-22.19
Stage 4	17.15	-10.09	-16.13
Stage 4	16.95	-12.29	-10.98
Stage 4	16.75	-13.62	-6.68
Stage 4	16.55	-14.26	-3.18
Stage 4	16.35	-14.33	-0.38
Stage 4	16.15	-13.98	1.79
Stage 4	15.95	-13.3	3.4
Stage 4	15.75	-12.39	4.54
Stage 4	15.55	-11.33	5.29
Stage 4	15.35	-10.19	5.7
Stage 4	15.15	-9.02	5.85
Stage 4	14.95	-7.87	5.78
Stage 4	14.75	-6.75	5.57
Stage 4	14.55	-5.7	5.26
Stage 4	14.35	-4.72	4.87
Stage 4	14.15	-3.84	4.44
Stage 4	13.95	-3.04	3.98
Stage 4	13.75	-2.34	3.51
Stage 4	13.55	-1.73	3.05
Stage 4	13.45	-1.45	2.72
Stage 4	13.25	-0.97	2.4
Stage 4	13.05	-0.57	2.01
Stage 4	12.85	-0.24	1.64
Stage 4	12.65	0.02	1.31
Stage 4	12.45	0.22	1.02
Stage 4	12.25	0.38	0.77
Stage 4	12.05	0.49	0.55

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	11.85	0.56	0.36
Stage 4	11.65	0.6	0.21
Stage 4	11.45	0.62	0.08
Stage 4	11.25	0.61	-0.02
Stage 4	11.05	0.6	-0.1
Stage 4	10.85	0.56	-0.15
Stage 4	10.65	0.53	-0.2
Stage 4	10.45	0.48	-0.22
Stage 4	10.25	0.43	-0.24
Stage 4	10.05	0.38	-0.25
Stage 4	9.85	0.33	-0.25
Stage 4	9.65	0.29	-0.24
Stage 4	9.45	0.24	-0.22
Stage 4	9.25	0.2	-0.21
Stage 4	9.05	0.16	-0.19
Stage 4	8.85	0.13	-0.17
Stage 4	8.65	0.1	-0.14
Stage 4	8.45	0.08	-0.12
Stage 4	8.25	0.06	-0.1
Stage 4	8.05	0.04	-0.08
Stage 4	7.85	0.03	-0.07
Stage 4	7.65	0.02	-0.05
Stage 4	7.45	0.01	-0.04
Stage 4	7.25	0	-0.02
Stage 4	7.05	0	-0.01
Stage 4	6.85	0	-0.01
Stage 4	6.75	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 5

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 5	23.95 -4.41
Stage 5	23.75 -4.32
Stage 5	23.55 -4.22
Stage 5	23.35 -4.12
Stage 5	23.15 -4.02
Stage 5	22.95 -3.92
Stage 5	22.75 -3.82
Stage 5	22.55 -3.71
Stage 5	22.35 -3.6
Stage 5	22.15 -3.45
Stage 5	21.95 -3.24
Stage 5	21.75 -2.97
Stage 5	21.55 -2.66
Stage 5	21.35 -2.33
Stage 5	21.15 -2.01
Stage 5	20.95 -1.73
Stage 5	20.75 -1.51
Stage 5	20.55 -1.34
Stage 5	20.35 -1.23
Stage 5	20.15 -1.19
Stage 5	19.95 -1.21
Stage 5	19.75 -1.27
Stage 5	19.55 -1.36
Stage 5	19.35 -1.46
Stage 5	19.15 -1.54
Stage 5	18.95 -1.56
Stage 5	18.75 -1.51
Stage 5	18.55 -1.39
Stage 5	18.35 -1.24
Stage 5	18.15 -1.08
Stage 5	17.95 -0.92
Stage 5	17.75 -0.76
Stage 5	17.55 -0.61
Stage 5	17.35 -0.48
Stage 5	17.15 -0.37
Stage 5	16.95 -0.26
Stage 5	16.75 -0.18
Stage 5	16.55 -0.1
Stage 5	16.35 -0.05
Stage 5	16.15 0
Stage 5	15.95 0.04
Stage 5	15.75 0.06
Stage 5	15.55 0.08
Stage 5	15.35 0.09
Stage 5	15.15 0.09
Stage 5	14.95 0.09
Stage 5	14.75 0.09
Stage 5	14.55 0.08
Stage 5	14.35 0.07
Stage 5	14.15 0.07
Stage 5	13.95 0.06
Stage 5	13.75 0.05
Stage 5	13.55 0.04
Stage 5	13.45 0.03
Stage 5	13.25 0.02
Stage 5	13.05 0.01
Stage 5	12.85 0.01
Stage 5	12.65 0
Stage 5	12.45 0
Stage 5	12.25 -0.01
Stage 5	12.05 -0.01
Stage 5	11.85 -0.01
Stage 5	11.65 -0.01
Stage 5	11.45 -0.01
Stage 5	11.25 -0.01

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento		
Stage	Z (m)	Muro: LEFT Spostamento (mm)
Stage 5	11.05	-0.01
Stage 5	10.85	-0.01
Stage 5	10.65	-0.01
Stage 5	10.45	-0.01
Stage 5	10.25	-0.01
Stage 5	10.05	-0.01
Stage 5	9.85	-0.01
Stage 5	9.65	-0.01
Stage 5	9.45	-0.01
Stage 5	9.25	0
Stage 5	9.05	0
Stage 5	8.85	0
Stage 5	8.65	0
Stage 5	8.45	0
Stage 5	8.25	0
Stage 5	8.05	0
Stage 5	7.85	0
Stage 5	7.65	0
Stage 5	7.45	0
Stage 5	7.25	0
Stage 5	7.05	0
Stage 5	6.85	0
Stage 5	6.75	0



### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 5

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	23.95	0	0
Stage 5	23.75	0	0
Stage 5	23.75	0	0
Stage 5	23.55	0	0
Stage 5	23.55	0	0
Stage 5	23.35	0	0
Stage 5	23.35	0	0
Stage 5	23.15	0	0
Stage 5	23.15	0	0
Stage 5	22.95	-0.38	-1.88
Stage 5	22.75	-2.19	-9.05
Stage 5	22.55	-6.52	-21.68
Stage 5	22.35	-14.51	-39.92
Stage 5	22.15	-26.43	-59.61
Stage 5	21.95	-42.16	-78.66
Stage 5	21.75	-22.1	100.3
Stage 5	21.55	-5.46	83.23
Stage 5	21.35	8.03	67.42
Stage 5	21.15	18.55	52.64
Stage 5	20.95	26.22	38.31
Stage 5	20.75	31.09	24.4
Stage 5	20.55	33.26	10.83
Stage 5	20.35	32.76	-2.5
Stage 5	20.15	29.62	-15.72
Stage 5	19.95	23.82	-28.97
Stage 5	19.75	15.35	-42.38
Stage 5	19.55	4.13	-56.06
Stage 5	19.35	-9.89	-70.1
Stage 5	19.15	-26.8	-84.56
Stage 5	18.95	-46.69	-99.47
Stage 5	18.75	-30.25	82.21
Stage 5	18.55	-16.93	66.6
Stage 5	18.35	-6.79	50.7
Stage 5	18.15	0.14	34.63
Stage 5	17.95	4.12	19.9
Stage 5	17.75	6.11	9.97
Stage 5	17.55	7.08	4.84
Stage 5	17.35	7.62	2.67
Stage 5	17.15	7.8	0.9
Stage 5	16.95	7.7	-0.5
Stage 5	16.75	7.38	-1.58
Stage 5	16.55	6.9	-2.39
Stage 5	16.35	6.31	-2.95
Stage 5	16.15	5.65	-3.29
Stage 5	15.95	4.96	-3.45
Stage 5	15.75	4.27	-3.47
Stage 5	15.55	3.6	-3.37
Stage 5	15.35	2.96	-3.19
Stage 5	15.15	2.37	-2.96
Stage 5	14.95	1.82	-2.71
Stage 5	14.75	1.34	-2.42
Stage 5	14.55	0.92	-2.12
Stage 5	14.35	0.55	-1.8
Stage 5	14.15	0.25	-1.5
Stage 5	13.95	0.01	-1.21
Stage 5	13.75	-0.18	-0.95
Stage 5	13.55	-0.32	-0.71
Stage 5	13.45	-0.37	-0.55
Stage 5	13.25	-0.45	-0.4
Stage 5	13.05	-0.5	-0.23
Stage 5	12.85	-0.52	-0.09
Stage 5	12.65	-0.51	0.02
Stage 5	12.45	-0.49	0.11
Stage 5	12.25	-0.46	0.17
Stage 5	12.05	-0.41	0.22

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	11.85	-0.37	0.24
Stage 5	11.65	-0.31	0.26
Stage 5	11.45	-0.26	0.26
Stage 5	11.25	-0.21	0.25
Stage 5	11.05	-0.17	0.23
Stage 5	10.85	-0.13	0.21
Stage 5	10.65	-0.09	0.18
Stage 5	10.45	-0.06	0.15
Stage 5	10.25	-0.03	0.13
Stage 5	10.05	-0.01	0.11
Stage 5	9.85	0	0.08
Stage 5	9.65	0.02	0.06
Stage 5	9.45	0.03	0.05
Stage 5	9.25	0.03	0.03
Stage 5	9.05	0.04	0.02
Stage 5	8.85	0.04	0
Stage 5	8.65	0.04	-0.01
Stage 5	8.45	0.03	-0.01
Stage 5	8.25	0.03	-0.02
Stage 5	8.05	0.02	-0.02
Stage 5	7.85	0.02	-0.03
Stage 5	7.65	0.01	-0.03
Stage 5	7.45	0.01	-0.02
Stage 5	7.25	0.01	-0.02
Stage 5	7.05	0	-0.02
Stage 5	6.85	0	-0.01
Stage 5	6.75	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 6

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 6	23.95 -5.97
Stage 6	23.75 -5.79
Stage 6	23.55 -5.6
Stage 6	23.35 -5.42
Stage 6	23.15 -5.24
Stage 6	22.95 -5.05
Stage 6	22.75 -4.87
Stage 6	22.55 -4.68
Stage 6	22.35 -4.47
Stage 6	22.15 -4.22
Stage 6	21.95 -3.92
Stage 6	21.75 -3.53
Stage 6	21.55 -3.09
Stage 6	21.35 -2.62
Stage 6	21.15 -2.15
Stage 6	20.95 -1.68
Stage 6	20.75 -1.24
Stage 6	20.55 -0.83
Stage 6	20.35 -0.45
Stage 6	20.15 -0.1
Stage 6	19.95 0.24
Stage 6	19.75 0.57
Stage 6	19.55 0.92
Stage 6	19.35 1.31
Stage 6	19.15 1.76
Stage 6	18.95 2.31
Stage 6	18.75 2.98
Stage 6	18.55 3.74
Stage 6	18.35 4.56
Stage 6	18.15 5.4
Stage 6	17.95 6.23
Stage 6	17.75 7.04
Stage 6	17.55 7.79
Stage 6	17.35 8.47
Stage 6	17.15 9.07
Stage 6	16.95 9.56
Stage 6	16.75 9.94
Stage 6	16.55 10.2
Stage 6	16.35 10.33
Stage 6	16.15 10.34
Stage 6	15.95 10.22
Stage 6	15.75 9.98
Stage 6	15.55 9.63
Stage 6	15.35 9.17
Stage 6	15.15 8.63
Stage 6	14.95 8.02
Stage 6	14.75 7.35
Stage 6	14.55 6.66
Stage 6	14.35 5.95
Stage 6	14.15 5.25
Stage 6	13.95 4.58
Stage 6	13.75 3.93
Stage 6	13.55 3.33
Stage 6	13.45 3.04
Stage 6	13.25 2.51
Stage 6	13.05 2.02
Stage 6	12.85 1.59
Stage 6	12.65 1.2
Stage 6	12.45 0.87
Stage 6	12.25 0.58
Stage 6	12.05 0.33
Stage 6	11.85 0.13
Stage 6	11.65 -0.04
Stage 6	11.45 -0.17
Stage 6	11.25 -0.28

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 6	11.05	-0.36
Stage 6	10.85	-0.41
Stage 6	10.65	-0.45
Stage 6	10.45	-0.47
Stage 6	10.25	-0.48
Stage 6	10.05	-0.47
Stage 6	9.85	-0.46
Stage 6	9.65	-0.44
Stage 6	9.45	-0.41
Stage 6	9.25	-0.38
Stage 6	9.05	-0.35
Stage 6	8.85	-0.31
Stage 6	8.65	-0.27
Stage 6	8.45	-0.24
Stage 6	8.25	-0.2
Stage 6	8.05	-0.16
Stage 6	7.85	-0.12
Stage 6	7.65	-0.08
Stage 6	7.45	-0.05
Stage 6	7.25	-0.01
Stage 6	7.05	0.03
Stage 6	6.85	0.07
Stage 6	6.75	0.09

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 6

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	23.95	0	0
Stage 6	23.75	0	0
Stage 6	23.75	0	0
Stage 6	23.55	0	0
Stage 6	23.55	0	0
Stage 6	23.35	0	0
Stage 6	23.35	0	0
Stage 6	23.15	0	0
Stage 6	23.15	0	0
Stage 6	22.95	-0.66	-3.32
Stage 6	22.75	-3.03	-11.82
Stage 6	22.55	-8.16	-25.68
Stage 6	22.35	-17.11	-44.73
Stage 6	22.15	-30.14	-65.13
Stage 6	21.95	-47.09	-84.78
Stage 6	21.75	-28.65	92.22
Stage 6	21.55	-13.71	74.67
Stage 6	21.35	-2.02	58.47
Stage 6	21.15	6.66	43.42
Stage 6	20.95	12.46	28.97
Stage 6	20.75	15.48	15.11
Stage 6	20.55	15.85	1.86
Stage 6	20.35	13.68	-10.88
Stage 6	20.15	9.04	-23.19
Stage 6	19.95	2.01	-35.16
Stage 6	19.75	-7.37	-46.87
Stage 6	19.55	-19.04	-58.38
Stage 6	19.35	-32.99	-69.73
Stage 6	19.15	-49.18	-80.95
Stage 6	18.95	-67.57	-91.98
Stage 6	18.75	-46.94	103.16
Stage 6	18.55	-28.38	92.82
Stage 6	18.35	-11.79	82.95
Stage 6	18.15	2.93	73.6
Stage 6	17.95	15.89	64.79
Stage 6	17.75	27.19	56.5
Stage 6	17.55	36.93	48.7
Stage 6	17.35	45.19	41.32
Stage 6	17.15	52.05	34.27
Stage 6	16.95	57.5	27.28
Stage 6	16.75	61.52	20.07
Stage 6	16.55	64.05	12.64
Stage 6	16.35	65.04	4.99
Stage 6	16.15	64.47	-2.88
Stage 6	15.95	62.28	-10.95
Stage 6	15.75	58.43	-19.23
Stage 6	15.55	52.82	-28.04
Stage 6	15.35	45.29	-37.7
Stage 6	15.15	36.08	-46.05
Stage 6	14.95	25.89	-50.91
Stage 6	14.75	15.42	-52.35
Stage 6	14.55	5.34	-50.43
Stage 6	14.35	-3.7	-45.2
Stage 6	14.15	-11.04	-36.68
Stage 6	13.95	-16.65	-28.04
Stage 6	13.75	-20.75	-20.51
Stage 6	13.55	-23.55	-14.02
Stage 6	13.45	-24.54	-9.89
Stage 6	13.25	-25.76	-6.11
Stage 6	13.05	-26.15	-1.95
Stage 6	12.85	-25.87	1.41
Stage 6	12.65	-25.06	4.06
Stage 6	12.45	-23.84	6.08
Stage 6	12.25	-22.33	7.55
Stage 6	12.05	-20.63	8.54

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	11.85	-18.8	9.12
Stage 6	11.65	-16.93	9.37
Stage 6	11.45	-15.06	9.32
Stage 6	11.25	-13.25	9.07
Stage 6	11.05	-11.52	8.66
Stage 6	10.85	-9.89	8.15
Stage 6	10.65	-8.38	7.55
Stage 6	10.45	-7	6.9
Stage 6	10.25	-5.75	6.22
Stage 6	10.05	-4.65	5.53
Stage 6	9.85	-3.68	4.85
Stage 6	9.65	-2.84	4.19
Stage 6	9.45	-2.13	3.55
Stage 6	9.25	-1.54	2.96
Stage 6	9.05	-1.06	2.41
Stage 6	8.85	-0.67	1.91
Stage 6	8.65	-0.38	1.46
Stage 6	8.45	-0.17	1.06
Stage 6	8.25	-0.03	0.72
Stage 6	8.05	0.06	0.44
Stage 6	7.85	0.1	0.21
Stage 6	7.65	0.11	0.03
Stage 6	7.45	0.09	-0.09
Stage 6	7.25	0.06	-0.15
Stage 6	7.05	0.03	-0.16
Stage 6	6.85	0	-0.12
Stage 6	6.75	0	-0.03

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 7

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 7	23.95 -5.42
Stage 7	23.75 -5.25
Stage 7	23.55 -5.08
Stage 7	23.35 -4.9
Stage 7	23.15 -4.73
Stage 7	22.95 -4.55
Stage 7	22.75 -4.38
Stage 7	22.55 -4.2
Stage 7	22.35 -4
Stage 7	22.15 -3.77
Stage 7	21.95 -3.48
Stage 7	21.75 -3.12
Stage 7	21.55 -2.71
Stage 7	21.35 -2.27
Stage 7	21.15 -1.85
Stage 7	20.95 -1.45
Stage 7	20.75 -1.09
Stage 7	20.55 -0.77
Stage 7	20.35 -0.51
Stage 7	20.15 -0.3
Stage 7	19.95 -0.13
Stage 7	19.75 0
Stage 7	19.55 0.12
Stage 7	19.35 0.25
Stage 7	19.15 0.4
Stage 7	18.95 0.61
Stage 7	18.75 0.9
Stage 7	18.55 1.25
Stage 7	18.35 1.62
Stage 7	18.15 1.99
Stage 7	17.95 2.33
Stage 7	17.75 2.61
Stage 7	17.55 2.84
Stage 7	17.35 2.99
Stage 7	17.15 3.07
Stage 7	16.95 3.07
Stage 7	16.75 3.01
Stage 7	16.55 2.9
Stage 7	16.35 2.76
Stage 7	16.15 2.6
Stage 7	15.95 2.48
Stage 7	15.75 2.4
Stage 7	15.55 2.35
Stage 7	15.35 2.32
Stage 7	15.15 2.27
Stage 7	14.95 2.2
Stage 7	14.75 2.11
Stage 7	14.55 2
Stage 7	14.35 1.86
Stage 7	14.15 1.72
Stage 7	13.95 1.56
Stage 7	13.75 1.4
Stage 7	13.55 1.24
Stage 7	13.45 1.17
Stage 7	13.25 1.01
Stage 7	13.05 0.87
Stage 7	12.85 0.73
Stage 7	12.65 0.6
Stage 7	12.45 0.49
Stage 7	12.25 0.38
Stage 7	12.05 0.29
Stage 7	11.85 0.2
Stage 7	11.65 0.13
Stage 7	11.45 0.06
Stage 7	11.25 0.01

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento		
Stage	Z (m)	Muro: LEFT Spostamento (mm)
Stage 7	11.05	-0.04
Stage 7	10.85	-0.07
Stage 7	10.65	-0.1
Stage 7	10.45	-0.12
Stage 7	10.25	-0.14
Stage 7	10.05	-0.15
Stage 7	9.85	-0.16
Stage 7	9.65	-0.16
Stage 7	9.45	-0.16
Stage 7	9.25	-0.16
Stage 7	9.05	-0.15
Stage 7	8.85	-0.14
Stage 7	8.65	-0.13
Stage 7	8.45	-0.12
Stage 7	8.25	-0.11
Stage 7	8.05	-0.1
Stage 7	7.85	-0.08
Stage 7	7.65	-0.07
Stage 7	7.45	-0.05
Stage 7	7.25	-0.04
Stage 7	7.05	-0.03
Stage 7	6.85	-0.01
Stage 7	6.75	-0.01



### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 7

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	23.95	0	0
Stage 7	23.75	0	0
Stage 7	23.75	0	0
Stage 7	23.55	0	0
Stage 7	23.55	0	0
Stage 7	23.35	0	0
Stage 7	23.35	0	0
Stage 7	23.15	0	0
Stage 7	23.15	0	0
Stage 7	22.95	-0.54	-2.72
Stage 7	22.75	-2.67	-10.64
Stage 7	22.55	-7.45	-23.92
Stage 7	22.35	-15.94	-42.41
Stage 7	22.15	-28.39	-62.26
Stage 7	21.95	-44.66	-81.38
Stage 7	21.75	-25.26	97.04
Stage 7	21.55	-9.26	79.98
Stage 7	21.35	3.59	64.23
Stage 7	21.15	13.5	49.59
Stage 7	20.95	20.6	35.49
Stage 7	20.75	24.98	21.91
Stage 7	20.55	26.75	8.84
Stage 7	20.35	25.98	-3.83
Stage 7	20.15	22.74	-16.21
Stage 7	19.95	17.06	-28.41
Stage 7	19.75	8.95	-40.55
Stage 7	19.55	-1.6	-52.73
Stage 7	19.35	-14.6	-65.02
Stage 7	19.15	-30.1	-77.48
Stage 7	18.95	-48.12	-90.12
Stage 7	18.75	-28.3	99.11
Stage 7	18.55	-11.03	86.33
Stage 7	18.35	3.68	73.54
Stage 7	18.15	15.82	60.75
Stage 7	17.95	25.41	47.93
Stage 7	17.75	32.42	35.06
Stage 7	17.55	36.83	22.05
Stage 7	17.35	38.6	8.85
Stage 7	17.15	37.68	-4.64
Stage 7	16.95	33.94	-18.68
Stage 7	16.75	27.24	-33.5
Stage 7	16.55	17.43	-49.06
Stage 7	16.35	4.37	-65.29
Stage 7	16.15	-12.04	-82.06
Stage 7	15.95	-31.88	-99.21
Stage 7	15.75	-15.81	80.38
Stage 7	15.55	-3.28	62.65
Stage 7	15.35	5.61	44.45
Stage 7	15.15	10.79	25.87
Stage 7	14.95	12.61	9.12
Stage 7	14.75	11.97	-3.18
Stage 7	14.55	9.76	-11.05
Stage 7	14.35	6.86	-14.53
Stage 7	14.15	4.13	-13.65
Stage 7	13.95	1.8	-11.62
Stage 7	13.75	-0.14	-9.72
Stage 7	13.55	-1.73	-7.95
Stage 7	13.45	-2.41	-6.74
Stage 7	13.25	-3.52	-5.59
Stage 7	13.05	-4.37	-4.22
Stage 7	12.85	-4.97	-3
Stage 7	12.65	-5.36	-1.95
Stage 7	12.45	-5.57	-1.04
Stage 7	12.25	-5.62	-0.29
Stage 7	12.05	-5.56	0.33

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	11.85	-5.39	0.82
Stage 7	11.65	-5.16	1.18
Stage 7	11.45	-4.87	1.41
Stage 7	11.25	-4.56	1.59
Stage 7	11.05	-4.21	1.72
Stage 7	10.85	-3.85	1.8
Stage 7	10.65	-3.49	1.83
Stage 7	10.45	-3.12	1.83
Stage 7	10.25	-2.76	1.79
Stage 7	10.05	-2.42	1.73
Stage 7	9.85	-2.09	1.64
Stage 7	9.65	-1.78	1.54
Stage 7	9.45	-1.5	1.42
Stage 7	9.25	-1.24	1.29
Stage 7	9.05	-1.01	1.16
Stage 7	8.85	-0.8	1.03
Stage 7	8.65	-0.62	0.89
Stage 7	8.45	-0.47	0.76
Stage 7	8.25	-0.34	0.64
Stage 7	8.05	-0.24	0.52
Stage 7	7.85	-0.16	0.41
Stage 7	7.65	-0.09	0.31
Stage 7	7.45	-0.05	0.22
Stage 7	7.25	-0.02	0.14
Stage 7	7.05	-0.01	0.08
Stage 7	6.85	0	0.03
Stage 7	6.75	0	0.01

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 8

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 8	23.95 -5.17
Stage 8	23.75 -5.04
Stage 8	23.55 -4.91
Stage 8	23.35 -4.78
Stage 8	23.15 -4.66
Stage 8	22.95 -4.53
Stage 8	22.75 -4.4
Stage 8	22.55 -4.26
Stage 8	22.35 -4.11
Stage 8	22.15 -3.93
Stage 8	21.95 -3.69
Stage 8	21.75 -3.37
Stage 8	21.55 -3
Stage 8	21.35 -2.62
Stage 8	21.15 -2.23
Stage 8	20.95 -1.88
Stage 8	20.75 -1.55
Stage 8	20.55 -1.27
Stage 8	20.35 -1.04
Stage 8	20.15 -0.85
Stage 8	19.95 -0.69
Stage 8	19.75 -0.56
Stage 8	19.55 -0.43
Stage 8	19.35 -0.28
Stage 8	19.15 -0.09
Stage 8	18.95 0.19
Stage 8	18.75 0.57
Stage 8	18.55 1.03
Stage 8	18.35 1.55
Stage 8	18.15 2.09
Stage 8	17.95 2.65
Stage 8	17.75 3.2
Stage 8	17.55 3.73
Stage 8	17.35 4.24
Stage 8	17.15 4.73
Stage 8	16.95 5.2
Stage 8	16.75 5.66
Stage 8	16.55 6.13
Stage 8	16.35 6.62
Stage 8	16.15 7.16
Stage 8	15.95 7.78
Stage 8	15.75 8.5
Stage 8	15.55 9.28
Stage 8	15.35 10.1
Stage 8	15.15 10.9
Stage 8	14.95 11.67
Stage 8	14.75 12.37
Stage 8	14.55 12.98
Stage 8	14.35 13.48
Stage 8	14.15 13.86
Stage 8	13.95 14.09
Stage 8	13.75 14.19
Stage 8	13.55 14.13
Stage 8	13.45 14.04
Stage 8	13.25 13.76
Stage 8	13.05 13.33
Stage 8	12.85 12.77
Stage 8	12.65 12.1
Stage 8	12.45 11.33
Stage 8	12.25 10.48
Stage 8	12.05 9.58
Stage 8	11.85 8.65
Stage 8	11.65 7.72
Stage 8	11.45 6.8
Stage 8	11.25 5.91

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento		
Stage	Z (m)	Muro: LEFT Spostamento (mm)
Stage 8	11.05	5.07
Stage 8	10.85	4.28
Stage 8	10.65	3.56
Stage 8	10.45	2.9
Stage 8	10.25	2.3
Stage 8	10.05	1.77
Stage 8	9.85	1.3
Stage 8	9.65	0.89
Stage 8	9.45	0.54
Stage 8	9.25	0.23
Stage 8	9.05	-0.03
Stage 8	8.85	-0.25
Stage 8	8.65	-0.43
Stage 8	8.45	-0.58
Stage 8	8.25	-0.72
Stage 8	8.05	-0.83
Stage 8	7.85	-0.93
Stage 8	7.65	-1.01
Stage 8	7.45	-1.09
Stage 8	7.25	-1.17
Stage 8	7.05	-1.24
Stage 8	6.85	-1.31
Stage 8	6.75	-1.34

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 8

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	23.95	0	0
Stage 8	23.75	0	0
Stage 8	23.75	0	0
Stage 8	23.55	0	0
Stage 8	23.55	0	0
Stage 8	23.35	0	0
Stage 8	23.35	0	0
Stage 8	23.15	0	0
Stage 8	23.15	0	0
Stage 8	22.95	-0.53	-2.64
Stage 8	22.75	-2.63	-10.53
Stage 8	22.55	-7.4	-23.84
Stage 8	22.35	-15.88	-42.4
Stage 8	22.15	-28.36	-62.37
Stage 8	21.95	-44.69	-81.66
Stage 8	21.75	-25.46	96.11
Stage 8	21.55	-9.71	78.78
Stage 8	21.35	2.83	62.71
Stage 8	21.15	12.37	47.69
Stage 8	20.95	19.01	33.2
Stage 8	20.75	22.85	19.21
Stage 8	20.55	23.98	5.64
Stage 8	20.35	22.47	-7.57
Stage 8	20.15	18.37	-20.51
Stage 8	19.95	11.7	-33.31
Stage 8	19.75	2.49	-46.06
Stage 8	19.55	-9.28	-58.85
Stage 8	19.35	-23.63	-71.74
Stage 8	19.15	-40.58	-84.77
Stage 8	18.95	-60.17	-97.94
Stage 8	18.75	-42.2	89.87
Stage 8	18.55	-26.85	76.72
Stage 8	18.35	-14.11	63.69
Stage 8	18.15	-3.95	50.81
Stage 8	17.95	3.67	38.11
Stage 8	17.75	8.79	25.58
Stage 8	17.55	11.43	13.21
Stage 8	17.35	11.62	0.97
Stage 8	17.15	9.39	-11.17
Stage 8	16.95	4.71	-23.42
Stage 8	16.75	-2.48	-35.95
Stage 8	16.55	-12.21	-48.66
Stage 8	16.35	-24.49	-61.4
Stage 8	16.15	-39.29	-74
Stage 8	15.95	-56.54	-86.23
Stage 8	15.75	-34.15	111.97
Stage 8	15.55	-13.98	100.83
Stage 8	15.35	4.04	90.1
Stage 8	15.15	20	79.82
Stage 8	14.95	34	70
Stage 8	14.75	46.13	60.62
Stage 8	14.55	56.34	51.06
Stage 8	14.35	64.6	41.29
Stage 8	14.15	70.86	31.3
Stage 8	13.95	75.08	21.12
Stage 8	13.75	77.23	10.73
Stage 8	13.55	77.26	0.13
Stage 8	13.45	76.46	-7.99
Stage 8	13.25	73.22	-16.18
Stage 8	13.05	67.76	-27.32
Stage 8	12.85	59.96	-39
Stage 8	12.65	50.07	-49.45
Stage 8	12.45	38.76	-56.55
Stage 8	12.25	26.68	-60.37
Stage 8	12.05	14.48	-61.02

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	11.85	2.77	-58.54
Stage 8	11.65	-7.82	-52.95
Stage 8	11.45	-16.67	-44.27
Stage 8	11.25	-23.36	-33.44
Stage 8	11.05	-28.15	-23.96
Stage 8	10.85	-31.31	-15.79
Stage 8	10.65	-33.08	-8.84
Stage 8	10.45	-33.68	-3.02
Stage 8	10.25	-33.33	1.76
Stage 8	10.05	-32.21	5.59
Stage 8	9.85	-30.5	8.59
Stage 8	9.65	-28.33	10.84
Stage 8	9.45	-25.84	12.43
Stage 8	9.25	-23.15	13.45
Stage 8	9.05	-20.36	13.98
Stage 8	8.85	-17.54	14.07
Stage 8	8.65	-14.8	13.75
Stage 8	8.45	-12.17	13.13
Stage 8	8.25	-9.71	12.28
Stage 8	8.05	-7.47	11.23
Stage 8	7.85	-5.47	10
Stage 8	7.65	-3.74	8.64
Stage 8	7.45	-2.31	7.14
Stage 8	7.25	-1.21	5.53
Stage 8	7.05	-0.44	3.81
Stage 8	6.85	-0.05	1.97
Stage 8	6.75	0	0.5

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 9

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 9	23.95 -5.35
Stage 9	23.75 -5.19
Stage 9	23.55 -5.04
Stage 9	23.35 -4.88
Stage 9	23.15 -4.72
Stage 9	22.95 -4.57
Stage 9	22.75 -4.41
Stage 9	22.55 -4.25
Stage 9	22.35 -4.07
Stage 9	22.15 -3.86
Stage 9	21.95 -3.59
Stage 9	21.75 -3.24
Stage 9	21.55 -2.85
Stage 9	21.35 -2.43
Stage 9	21.15 -2.02
Stage 9	20.95 -1.63
Stage 9	20.75 -1.28
Stage 9	20.55 -0.98
Stage 9	20.35 -0.72
Stage 9	20.15 -0.52
Stage 9	19.95 -0.35
Stage 9	19.75 -0.2
Stage 9	19.55 -0.07
Stage 9	19.35 0.08
Stage 9	19.15 0.26
Stage 9	18.95 0.51
Stage 9	18.75 0.85
Stage 9	18.55 1.27
Stage 9	18.35 1.72
Stage 9	18.15 2.18
Stage 9	17.95 2.62
Stage 9	17.75 3.04
Stage 9	17.55 3.41
Stage 9	17.35 3.73
Stage 9	17.15 4
Stage 9	16.95 4.21
Stage 9	16.75 4.38
Stage 9	16.55 4.52
Stage 9	16.35 4.65
Stage 9	16.15 4.79
Stage 9	15.95 4.97
Stage 9	15.75 5.21
Stage 9	15.55 5.48
Stage 9	15.35 5.77
Stage 9	15.15 6.03
Stage 9	14.95 6.25
Stage 9	14.75 6.41
Stage 9	14.55 6.5
Stage 9	14.35 6.53
Stage 9	14.15 6.49
Stage 9	13.95 6.39
Stage 9	13.75 6.26
Stage 9	13.55 6.11
Stage 9	13.45 6.05
Stage 9	13.25 5.93
Stage 9	13.05 5.83
Stage 9	12.85 5.7
Stage 9	12.65 5.54
Stage 9	12.45 5.34
Stage 9	12.25 5.08
Stage 9	12.05 4.78
Stage 9	11.85 4.44
Stage 9	11.65 4.08
Stage 9	11.45 3.7
Stage 9	11.25 3.31

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 9	11.05	2.93
Stage 9	10.85	2.56
Stage 9	10.65	2.2
Stage 9	10.45	1.87
Stage 9	10.25	1.56
Stage 9	10.05	1.27
Stage 9	9.85	1.01
Stage 9	9.65	0.77
Stage 9	9.45	0.56
Stage 9	9.25	0.37
Stage 9	9.05	0.2
Stage 9	8.85	0.05
Stage 9	8.65	-0.09
Stage 9	8.45	-0.2
Stage 9	8.25	-0.31
Stage 9	8.05	-0.41
Stage 9	7.85	-0.49
Stage 9	7.65	-0.58
Stage 9	7.45	-0.65
Stage 9	7.25	-0.73
Stage 9	7.05	-0.8
Stage 9	6.85	-0.88
Stage 9	6.75	-0.91



### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 9

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	23.95	0	0
Stage 9	23.75	0	0
Stage 9	23.75	0	0
Stage 9	23.55	0	0
Stage 9	23.55	0	0
Stage 9	23.35	0	0
Stage 9	23.35	0	0
Stage 9	23.15	0	0
Stage 9	23.15	0	0
Stage 9	22.95	-0.54	-2.71
Stage 9	22.75	-2.67	-10.64
Stage 9	22.55	-7.46	-23.97
Stage 9	22.35	-15.97	-42.51
Stage 9	22.15	-28.45	-62.43
Stage 9	21.95	-44.78	-81.64
Stage 9	21.75	-25.49	96.45
Stage 9	21.55	-9.64	79.25
Stage 9	21.35	3.03	63.35
Stage 9	21.15	12.74	48.54
Stage 9	20.95	19.59	34.28
Stage 9	20.75	23.7	20.55
Stage 9	20.55	25.16	7.27
Stage 9	20.35	24.03	-5.62
Stage 9	20.15	20.39	-18.23
Stage 9	19.95	14.25	-30.66
Stage 9	19.75	5.65	-43.04
Stage 9	19.55	-5.44	-55.44
Stage 9	19.35	-19.03	-67.94
Stage 9	19.15	-35.15	-80.58
Stage 9	18.95	-53.82	-93.37
Stage 9	18.75	-34.71	95.53
Stage 9	18.55	-18.18	82.69
Stage 9	18.35	-4.19	69.92
Stage 9	18.15	7.25	57.23
Stage 9	17.95	16.18	44.61
Stage 9	17.75	22.59	32.06
Stage 9	17.55	26.49	19.51
Stage 9	17.35	27.88	6.93
Stage 9	17.15	26.72	-5.76
Stage 9	16.95	22.96	-18.8
Stage 9	16.75	16.49	-32.39
Stage 9	16.55	7.19	-46.48
Stage 9	16.35	-5	-60.95
Stage 9	16.15	-20.13	-75.68
Stage 9	15.95	-38.23	-90.48
Stage 9	15.75	-18.66	97.85
Stage 9	15.55	-2.03	83.15
Stage 9	15.35	11.64	68.33
Stage 9	15.15	22.31	53.38
Stage 9	14.95	29.97	38.3
Stage 9	14.75	34.59	23.07
Stage 9	14.55	36	7.08
Stage 9	14.35	34.07	-9.68
Stage 9	14.15	28.63	-27.18
Stage 9	13.95	19.57	-45.32
Stage 9	13.75	6.76	-64.02
Stage 9	13.55	-9.87	-83.18
Stage 9	13.45	-19.65	-97.78
Stage 9	13.25	-2.75	84.51
Stage 9	13.05	10.24	64.93
Stage 9	12.85	19.27	45.15
Stage 9	12.65	24.25	24.9
Stage 9	12.45	25.34	5.45
Stage 9	12.25	23.4	-9.66
Stage 9	12.05	19.31	-20.48

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	11.85	13.9	-27.05
Stage 9	11.65	8.02	-29.4
Stage 9	11.45	2.5	-27.57
Stage 9	11.25	-2.01	-22.59
Stage 9	11.05	-5.62	-18.02
Stage 9	10.85	-8.39	-13.88
Stage 9	10.65	-10.43	-10.18
Stage 9	10.45	-11.82	-6.92
Stage 9	10.25	-12.63	-4.08
Stage 9	10.05	-12.96	-1.64
Stage 9	9.85	-12.88	0.41
Stage 9	9.65	-12.45	2.11
Stage 9	9.45	-11.76	3.47
Stage 9	9.25	-10.86	4.52
Stage 9	9.05	-9.8	5.26
Stage 9	8.85	-8.66	5.72
Stage 9	8.65	-7.47	5.92
Stage 9	8.45	-6.28	5.96
Stage 9	8.25	-5.12	5.82
Stage 9	8.05	-4.01	5.53
Stage 9	7.85	-2.99	5.1
Stage 9	7.65	-2.09	4.54
Stage 9	7.45	-1.31	3.87
Stage 9	7.25	-0.7	3.08
Stage 9	7.05	-0.26	2.18
Stage 9	6.85	-0.03	1.16
Stage 9	6.75	0	0.3

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 10

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 10	23.95 -5.26
Stage 10	23.75 -5.11
Stage 10	23.55 -4.96
Stage 10	23.35 -4.82
Stage 10	23.15 -4.67
Stage 10	22.95 -4.52
Stage 10	22.75 -4.37
Stage 10	22.55 -4.21
Stage 10	22.35 -4.04
Stage 10	22.15 -3.84
Stage 10	21.95 -3.58
Stage 10	21.75 -3.24
Stage 10	21.55 -2.85
Stage 10	21.35 -2.45
Stage 10	21.15 -2.05
Stage 10	20.95 -1.67
Stage 10	20.75 -1.34
Stage 10	20.55 -1.04
Stage 10	20.35 -0.8
Stage 10	20.15 -0.61
Stage 10	19.95 -0.45
Stage 10	19.75 -0.33
Stage 10	19.55 -0.21
Stage 10	19.35 -0.09
Stage 10	19.15 0.08
Stage 10	18.95 0.31
Stage 10	18.75 0.64
Stage 10	18.55 1.03
Stage 10	18.35 1.46
Stage 10	18.15 1.91
Stage 10	17.95 2.34
Stage 10	17.75 2.75
Stage 10	17.55 3.12
Stage 10	17.35 3.45
Stage 10	17.15 3.73
Stage 10	16.95 3.97
Stage 10	16.75 4.18
Stage 10	16.55 4.37
Stage 10	16.35 4.56
Stage 10	16.15 4.77
Stage 10	15.95 5.05
Stage 10	15.75 5.41
Stage 10	15.55 5.83
Stage 10	15.35 6.28
Stage 10	15.15 6.73
Stage 10	14.95 7.17
Stage 10	14.75 7.57
Stage 10	14.55 7.94
Stage 10	14.35 8.27
Stage 10	14.15 8.57
Stage 10	13.95 8.83
Stage 10	13.75 9.08
Stage 10	13.55 9.35
Stage 10	13.45 9.49
Stage 10	13.25 9.81
Stage 10	13.05 10.14
Stage 10	12.85 10.45
Stage 10	12.65 10.7
Stage 10	12.45 10.87
Stage 10	12.25 10.93
Stage 10	12.05 10.89
Stage 10	11.85 10.72
Stage 10	11.65 10.44
Stage 10	11.45 10.04
Stage 10	11.25 9.53

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 10	11.05	8.94
Stage 10	10.85	8.28
Stage 10	10.65	7.58
Stage 10	10.45	6.84
Stage 10	10.25	6.1
Stage 10	10.05	5.37
Stage 10	9.85	4.65
Stage 10	9.65	3.97
Stage 10	9.45	3.32
Stage 10	9.25	2.72
Stage 10	9.05	2.15
Stage 10	8.85	1.62
Stage 10	8.65	1.14
Stage 10	8.45	0.68
Stage 10	8.25	0.26
Stage 10	8.05	-0.13
Stage 10	7.85	-0.51
Stage 10	7.65	-0.87
Stage 10	7.45	-1.21
Stage 10	7.25	-1.55
Stage 10	7.05	-1.88
Stage 10	6.85	-2.21
Stage 10	6.75	-2.38

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 10

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	23.95	0	0
Stage 10	23.75	0	0
Stage 10	23.75	0	0
Stage 10	23.55	0	0
Stage 10	23.55	0	0
Stage 10	23.35	0	0
Stage 10	23.35	0	0
Stage 10	23.15	0	0
Stage 10	23.15	0	0
Stage 10	22.95	-0.53	-2.65
Stage 10	22.75	-2.64	-10.53
Stage 10	22.55	-7.4	-23.81
Stage 10	22.35	-15.86	-42.32
Stage 10	22.15	-28.3	-62.21
Stage 10	21.95	-44.58	-81.4
Stage 10	21.75	-25.24	96.72
Stage 10	21.55	-9.34	79.52
Stage 10	21.35	3.39	63.62
Stage 10	21.15	13.14	48.78
Stage 10	20.95	20.04	34.49
Stage 10	20.75	24.19	20.72
Stage 10	20.55	25.66	7.38
Stage 10	20.35	24.55	-5.58
Stage 10	20.15	20.89	-18.27
Stage 10	19.95	14.73	-30.81
Stage 10	19.75	6.07	-43.3
Stage 10	19.55	-5.1	-55.84
Stage 10	19.35	-18.8	-68.49
Stage 10	19.15	-35.06	-81.31
Stage 10	18.95	-53.92	-94.3
Stage 10	18.75	-35.13	93.92
Stage 10	18.55	-18.96	80.85
Stage 10	18.35	-5.4	67.82
Stage 10	18.15	5.57	54.85
Stage 10	17.95	13.96	41.95
Stage 10	17.75	19.78	29.1
Stage 10	17.55	23.03	16.25
Stage 10	17.35	23.7	3.35
Stage 10	17.15	21.78	-9.64
Stage 10	16.95	17.18	-22.96
Stage 10	16.75	9.82	-36.82
Stage 10	16.55	-0.41	-51.13
Stage 10	16.35	-13.56	-65.77
Stage 10	16.15	-29.68	-80.6
Stage 10	15.95	-48.76	-95.41
Stage 10	15.75	-30.12	93.2
Stage 10	15.55	-14.37	78.73
Stage 10	15.35	-1.52	64.27
Stage 10	15.15	8.46	49.87
Stage 10	14.95	15.57	35.55
Stage 10	14.75	19.83	21.31
Stage 10	14.55	21.15	6.58
Stage 10	14.35	19.42	-8.62
Stage 10	14.15	14.57	-24.23
Stage 10	13.95	6.55	-40.13
Stage 10	13.75	-4.69	-56.2
Stage 10	13.55	-19.15	-72.31
Stage 10	13.45	-27.58	-84.3
Stage 10	13.25	-5.56	110.11
Stage 10	13.05	13.38	94.71
Stage 10	12.85	29.3	79.59
Stage 10	12.65	42.17	64.36
Stage 10	12.45	51.96	48.96
Stage 10	12.25	58.62	33.3
Stage 10	12.05	62.08	17.28

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	11.85	62.24	0.79
Stage 10	11.65	58.97	-16.32
Stage 10	11.45	52.82	-30.76
Stage 10	11.25	44.53	-41.47
Stage 10	11.05	34.82	-48.57
Stage 10	10.85	24.39	-52.15
Stage 10	10.65	13.93	-52.29
Stage 10	10.45	4.12	-49.06
Stage 10	10.25	-4.38	-42.49
Stage 10	10.05	-10.9	-32.59
Stage 10	9.85	-15.6	-23.48
Stage 10	9.65	-18.71	-15.55
Stage 10	9.45	-20.46	-8.75
Stage 10	9.25	-21.06	-3.04
Stage 10	9.05	-20.73	1.66
Stage 10	8.85	-19.65	5.41
Stage 10	8.65	-18	8.27
Stage 10	8.45	-15.92	10.39
Stage 10	8.25	-13.56	11.81
Stage 10	8.05	-11.04	12.57
Stage 10	7.85	-8.5	12.7
Stage 10	7.65	-6.08	12.11
Stage 10	7.45	-3.91	10.85
Stage 10	7.25	-2.12	8.97
Stage 10	7.05	-0.81	6.54
Stage 10	6.85	-0.09	3.58
Stage 10	6.75	0	0.94

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 11-S

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 11-S	23.95 -5.26
Stage 11-S	23.75 -5.11
Stage 11-S	23.55 -4.96
Stage 11-S	23.35 -4.82
Stage 11-S	23.15 -4.67
Stage 11-S	22.95 -4.52
Stage 11-S	22.75 -4.37
Stage 11-S	22.55 -4.21
Stage 11-S	22.35 -4.04
Stage 11-S	22.15 -3.84
Stage 11-S	21.95 -3.58
Stage 11-S	21.75 -3.24
Stage 11-S	21.55 -2.85
Stage 11-S	21.35 -2.45
Stage 11-S	21.15 -2.05
Stage 11-S	20.95 -1.67
Stage 11-S	20.75 -1.34
Stage 11-S	20.55 -1.04
Stage 11-S	20.35 -0.8
Stage 11-S	20.15 -0.61
Stage 11-S	19.95 -0.45
Stage 11-S	19.75 -0.33
Stage 11-S	19.55 -0.21
Stage 11-S	19.35 -0.09
Stage 11-S	19.15 0.08
Stage 11-S	18.95 0.31
Stage 11-S	18.75 0.64
Stage 11-S	18.55 1.03
Stage 11-S	18.35 1.46
Stage 11-S	18.15 1.91
Stage 11-S	17.95 2.34
Stage 11-S	17.75 2.75
Stage 11-S	17.55 3.12
Stage 11-S	17.35 3.45
Stage 11-S	17.15 3.73
Stage 11-S	16.95 3.97
Stage 11-S	16.75 4.18
Stage 11-S	16.55 4.37
Stage 11-S	16.35 4.56
Stage 11-S	16.15 4.77
Stage 11-S	15.95 5.05
Stage 11-S	15.75 5.41
Stage 11-S	15.55 5.83
Stage 11-S	15.35 6.28
Stage 11-S	15.15 6.73
Stage 11-S	14.95 7.17
Stage 11-S	14.75 7.57
Stage 11-S	14.55 7.94
Stage 11-S	14.35 8.27
Stage 11-S	14.15 8.57
Stage 11-S	13.95 8.83
Stage 11-S	13.75 9.08
Stage 11-S	13.55 9.35
Stage 11-S	13.45 9.49
Stage 11-S	13.25 9.81
Stage 11-S	13.05 10.14
Stage 11-S	12.85 10.45
Stage 11-S	12.65 10.7
Stage 11-S	12.45 10.87
Stage 11-S	12.25 10.93
Stage 11-S	12.05 10.89
Stage 11-S	11.85 10.72
Stage 11-S	11.65 10.44
Stage 11-S	11.45 10.04
Stage 11-S	11.25 9.53

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 11-S	11.05	8.94
Stage 11-S	10.85	8.28
Stage 11-S	10.65	7.58
Stage 11-S	10.45	6.84
Stage 11-S	10.25	6.1
Stage 11-S	10.05	5.37
Stage 11-S	9.85	4.65
Stage 11-S	9.65	3.97
Stage 11-S	9.45	3.32
Stage 11-S	9.25	2.72
Stage 11-S	9.05	2.15
Stage 11-S	8.85	1.62
Stage 11-S	8.65	1.14
Stage 11-S	8.45	0.68
Stage 11-S	8.25	0.26
Stage 11-S	8.05	-0.13
Stage 11-S	7.85	-0.51
Stage 11-S	7.65	-0.87
Stage 11-S	7.45	-1.21
Stage 11-S	7.25	-1.55
Stage 11-S	7.05	-1.88
Stage 11-S	6.85	-2.21
Stage 11-S	6.75	-2.38



### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 11-S

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	23.95	0	0
Stage 11-S	23.75	0	0
Stage 11-S	23.75	0	0
Stage 11-S	23.55	0	0
Stage 11-S	23.55	0	0
Stage 11-S	23.35	0	0
Stage 11-S	23.35	0	0
Stage 11-S	23.15	0	0
Stage 11-S	23.15	0	0
Stage 11-S	22.95	-0.53	-2.65
Stage 11-S	22.75	-2.64	-10.53
Stage 11-S	22.55	-7.4	-23.81
Stage 11-S	22.35	-15.86	-42.32
Stage 11-S	22.15	-28.3	-62.21
Stage 11-S	21.95	-44.58	-81.4
Stage 11-S	21.75	-25.24	96.72
Stage 11-S	21.55	-9.34	79.52
Stage 11-S	21.35	3.39	63.62
Stage 11-S	21.15	13.14	48.78
Stage 11-S	20.95	20.04	34.49
Stage 11-S	20.75	24.19	20.72
Stage 11-S	20.55	25.66	7.38
Stage 11-S	20.35	24.55	-5.58
Stage 11-S	20.15	20.89	-18.27
Stage 11-S	19.95	14.73	-30.81
Stage 11-S	19.75	6.07	-43.3
Stage 11-S	19.55	-5.1	-55.84
Stage 11-S	19.35	-18.8	-68.49
Stage 11-S	19.15	-35.06	-81.31
Stage 11-S	18.95	-53.92	-94.3
Stage 11-S	18.75	-35.13	93.92
Stage 11-S	18.55	-18.96	80.85
Stage 11-S	18.35	-5.4	67.82
Stage 11-S	18.15	5.57	54.85
Stage 11-S	17.95	13.96	41.95
Stage 11-S	17.75	19.78	29.1
Stage 11-S	17.55	23.03	16.25
Stage 11-S	17.35	23.7	3.35
Stage 11-S	17.15	21.78	-9.64
Stage 11-S	16.95	17.18	-22.96
Stage 11-S	16.75	9.82	-36.82
Stage 11-S	16.55	-0.41	-51.13
Stage 11-S	16.35	-13.56	-65.77
Stage 11-S	16.15	-29.68	-80.6
Stage 11-S	15.95	-48.76	-95.41
Stage 11-S	15.75	-30.12	93.2
Stage 11-S	15.55	-14.37	78.73
Stage 11-S	15.35	-1.52	64.27
Stage 11-S	15.15	8.46	49.87
Stage 11-S	14.95	15.57	35.55
Stage 11-S	14.75	19.83	21.31
Stage 11-S	14.55	21.15	6.58
Stage 11-S	14.35	19.42	-8.62
Stage 11-S	14.15	14.57	-24.23
Stage 11-S	13.95	6.55	-40.13
Stage 11-S	13.75	-4.69	-56.2
Stage 11-S	13.55	-19.15	-72.31
Stage 11-S	13.45	-27.58	-84.3
Stage 11-S	13.25	-5.56	110.11
Stage 11-S	13.05	13.38	94.71
Stage 11-S	12.85	29.3	79.59
Stage 11-S	12.65	42.17	64.36
Stage 11-S	12.45	51.96	48.96
Stage 11-S	12.25	58.62	33.3
Stage 11-S	12.05	62.08	17.28

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	11.85	62.24	0.79
Stage 11-S	11.65	58.97	-16.32
Stage 11-S	11.45	52.82	-30.76
Stage 11-S	11.25	44.53	-41.47
Stage 11-S	11.05	34.82	-48.57
Stage 11-S	10.85	24.39	-52.15
Stage 11-S	10.65	13.93	-52.29
Stage 11-S	10.45	4.12	-49.06
Stage 11-S	10.25	-4.38	-42.49
Stage 11-S	10.05	-10.9	-32.59
Stage 11-S	9.85	-15.6	-23.48
Stage 11-S	9.65	-18.71	-15.55
Stage 11-S	9.45	-20.46	-8.75
Stage 11-S	9.25	-21.06	-3.04
Stage 11-S	9.05	-20.73	1.66
Stage 11-S	8.85	-19.65	5.41
Stage 11-S	8.65	-18	8.27
Stage 11-S	8.45	-15.92	10.39
Stage 11-S	8.25	-13.56	11.81
Stage 11-S	8.05	-11.04	12.57
Stage 11-S	7.85	-8.5	12.7
Stage 11-S	7.65	-6.08	12.11
Stage 11-S	7.45	-3.91	10.85
Stage 11-S	7.25	-2.12	8.97
Stage 11-S	7.05	-0.81	6.54
Stage 11-S	6.85	-0.09	3.58
Stage 11-S	6.75	0	0.94

## Risultati Elementi strutturali - SLE (Rara)

### Design Assumption: SLE (Rara) Sollecitazione Tir-D2

Stage	Forza (kN/m)
Stage 3	200
Stage 4	201.4372
Stage 5	200.167
Stage 6	198.7419
Stage 7	199.6634
Stage 8	199.2289
Stage 9	199.4425
Stage 10	199.4624
Stage 11-S	199.4624

**Design Assumption: SLE (Rara) Sollecitazione Tir-E2**

Stage	Forza (kN/m)
Stage 5	200
Stage 6	209.0488
Stage 7	205.0762
Stage 8	204.0864
Stage 9	204.8432
Stage 10	204.3743
Stage 11-S	204.3743

**Design Assumption: SLE (Rara) Sollecitazione Tir-F2**

Stage	Forza (kN/m)
Stage 7	200
Stage 8	213.0875
Stage 9	206.1424
Stage 10	206.3482
Stage 11-S	206.3482

**Design Assumption: SLE (Rara) Sollecitazione Tir-G2**

Stage	Forza (kN/m)
Stage 9	200
Stage 10	209.4717
Stage 11-S	209.4717

## Risultati A1+M1+R1

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 1

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	23.95	0	0
Stage 1	23.75	0	0
Stage 1	23.75	0	0
Stage 1	23.55	0	0
Stage 1	23.55	0	0
Stage 1	23.35	0	0
Stage 1	23.35	0	0
Stage 1	23.15	0	0
Stage 1	22.95	0	0
Stage 1	22.75	0	0
Stage 1	22.55	0	0
Stage 1	22.35	0	0
Stage 1	22.15	0	0
Stage 1	21.95	0	0
Stage 1	21.75	0	0
Stage 1	21.55	0	0
Stage 1	21.35	0	0
Stage 1	21.15	0	0
Stage 1	20.95	0	0
Stage 1	20.75	0	0
Stage 1	20.55	0	0
Stage 1	20.35	0	0
Stage 1	20.15	0	0
Stage 1	19.95	0	0
Stage 1	19.75	0	0
Stage 1	19.55	0	0
Stage 1	19.35	0	0
Stage 1	19.15	0	0
Stage 1	18.95	0	0
Stage 1	18.75	0	0
Stage 1	18.55	0	0
Stage 1	18.35	0	0
Stage 1	18.15	0	0
Stage 1	17.95	0	0
Stage 1	17.75	0	0
Stage 1	17.55	0	0
Stage 1	17.35	0	0
Stage 1	17.15	0	0
Stage 1	16.95	0	0
Stage 1	16.75	0	0
Stage 1	16.55	0	0
Stage 1	16.35	0	0
Stage 1	16.15	0	0
Stage 1	15.95	0	0
Stage 1	15.75	0	0
Stage 1	15.55	0	0
Stage 1	15.35	0	0
Stage 1	15.15	0	0
Stage 1	14.95	0	0
Stage 1	14.75	0	0
Stage 1	14.55	0	0
Stage 1	14.35	0	0
Stage 1	14.15	0	0
Stage 1	13.95	0	0
Stage 1	13.75	0	0
Stage 1	13.55	0	0
Stage 1	13.45	0	0
Stage 1	13.25	0	0
Stage 1	13.05	0	0
Stage 1	12.85	0	0
Stage 1	12.65	0	0
Stage 1	12.45	0	0

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	12.25	0	0
Stage 1	12.05	0	0
Stage 1	11.85	0	0
Stage 1	11.65	0	0
Stage 1	11.45	0	0
Stage 1	11.25	0	0
Stage 1	11.05	0	0
Stage 1	10.85	0	0
Stage 1	10.65	0	0
Stage 1	10.45	0	0
Stage 1	10.25	0	0
Stage 1	10.05	0	0
Stage 1	9.85	0	0
Stage 1	9.65	0	0
Stage 1	9.45	0	0
Stage 1	9.25	0	0
Stage 1	9.05	0	0
Stage 1	8.85	0	0
Stage 1	8.65	0	0
Stage 1	8.45	0	0
Stage 1	8.25	0	0
Stage 1	8.05	0	0
Stage 1	7.85	0	0
Stage 1	7.65	0	0
Stage 1	7.45	0	0
Stage 1	7.25	0	0
Stage 1	7.05	0	0
Stage 1	6.85	0	0
Stage 1	6.75	0	0



### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 2

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	23.95	0	0
Stage 2	23.75	0	0
Stage 2	23.75	0	0
Stage 2	23.55	0	0
Stage 2	23.55	0	0
Stage 2	23.35	0	0
Stage 2	23.35	0	0
Stage 2	23.15	0	0
Stage 2	23.15	0	0
Stage 2	22.95	-0.05	-0.26
Stage 2	22.75	-0.21	-0.77
Stage 2	22.55	-0.52	-1.57
Stage 2	22.35	-1.05	-2.64
Stage 2	22.15	-1.85	-3.99
Stage 2	21.95	-2.97	-5.64
Stage 2	21.75	-4.5	-7.61
Stage 2	21.55	-6.48	-9.9
Stage 2	21.35	-8.97	-12.5
Stage 2	21.15	-11.57	-13
Stage 2	20.95	-13.49	-9.56
Stage 2	20.75	-14.28	-3.98
Stage 2	20.55	-14.23	0.25
Stage 2	20.35	-13.57	3.31
Stage 2	20.15	-12.49	5.39
Stage 2	19.95	-11.16	6.65
Stage 2	19.75	-9.72	7.22
Stage 2	19.55	-8.27	7.27
Stage 2	19.35	-6.87	6.99
Stage 2	19.15	-5.56	6.52
Stage 2	18.95	-4.38	5.92
Stage 2	18.75	-3.33	5.25
Stage 2	18.55	-2.42	4.53
Stage 2	18.35	-1.66	3.82
Stage 2	18.15	-1.03	3.15
Stage 2	17.95	-0.52	2.52
Stage 2	17.75	-0.13	1.96
Stage 2	17.55	0.16	1.46
Stage 2	17.35	0.37	1.04
Stage 2	17.15	0.5	0.69
Stage 2	16.95	0.58	0.4
Stage 2	16.75	0.62	0.17
Stage 2	16.55	0.62	0
Stage 2	16.35	0.59	-0.13
Stage 2	16.15	0.55	-0.22
Stage 2	15.95	0.49	-0.28
Stage 2	15.75	0.43	-0.31
Stage 2	15.55	0.37	-0.31
Stage 2	15.35	0.31	-0.31
Stage 2	15.15	0.25	-0.29
Stage 2	14.95	0.2	-0.26
Stage 2	14.75	0.15	-0.23
Stage 2	14.55	0.11	-0.2
Stage 2	14.35	0.08	-0.17
Stage 2	14.15	0.05	-0.14
Stage 2	13.95	0.03	-0.11
Stage 2	13.75	0.01	-0.09
Stage 2	13.55	-0.01	-0.06
Stage 2	13.45	-0.01	-0.05
Stage 2	13.25	-0.02	-0.04
Stage 2	13.05	-0.02	-0.02
Stage 2	12.85	-0.02	-0.01
Stage 2	12.65	-0.03	0
Stage 2	12.45	-0.02	0
Stage 2	12.25	-0.02	0.01
Stage 2	12.05	-0.02	0.01

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	11.85	-0.02	0.01
Stage 2	11.65	-0.02	0.01
Stage 2	11.45	-0.01	0.01
Stage 2	11.25	-0.01	0.01
Stage 2	11.05	-0.01	0.01
Stage 2	10.85	-0.01	0.01
Stage 2	10.65	-0.01	0.01
Stage 2	10.45	0	0.01
Stage 2	10.25	0	0.01
Stage 2	10.05	0	0.01
Stage 2	9.85	0	0
Stage 2	9.65	0	0
Stage 2	9.45	0	0
Stage 2	9.25	0	0
Stage 2	9.05	0	0
Stage 2	8.85	0	0
Stage 2	8.65	0	0
Stage 2	8.45	0	0
Stage 2	8.25	0	0
Stage 2	8.05	0	0
Stage 2	7.85	0	0
Stage 2	7.65	0	0
Stage 2	7.45	0	0
Stage 2	7.25	0	0
Stage 2	7.05	0	0
Stage 2	6.85	0	0
Stage 2	6.75	0	0

**Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 3**

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	23.95	0	0
Stage 3	23.75	0	0
Stage 3	23.75	0	0
Stage 3	23.55	0	0
Stage 3	23.55	0	0
Stage 3	23.35	0	0
Stage 3	23.35	0	0
Stage 3	23.15	0	0
Stage 3	23.15	0	0
Stage 3	22.95	-1.18	-5.92
Stage 3	22.75	-4.77	-17.92
Stage 3	22.55	-12.01	-36.2
Stage 3	22.35	-24.2	-60.97
Stage 3	22.15	-41.54	-86.67
Stage 3	21.95	-63.84	-111.55
Stage 3	21.75	-39.71	120.69
Stage 3	21.55	-20.05	98.27
Stage 3	21.35	-4.56	77.47
Stage 3	21.15	7.08	58.2
Stage 3	20.95	15.05	39.87
Stage 3	20.75	20.22	25.84
Stage 3	20.55	23.13	14.53
Stage 3	20.35	24.26	5.67
Stage 3	20.15	24.06	-1.01
Stage 3	19.95	22.88	-5.86
Stage 3	19.75	21.05	-9.2
Stage 3	19.55	18.79	-11.28
Stage 3	19.35	16.32	-12.36
Stage 3	19.15	13.79	-12.63
Stage 3	18.95	11.34	-12.23
Stage 3	18.75	9.07	-11.38
Stage 3	18.55	7.02	-10.25
Stage 3	18.35	5.23	-8.96
Stage 3	18.15	3.7	-7.63
Stage 3	17.95	2.44	-6.32
Stage 3	17.75	1.42	-5.1
Stage 3	17.55	0.62	-3.98
Stage 3	17.35	0.02	-3
Stage 3	17.15	-0.41	-2.15
Stage 3	16.95	-0.7	-1.45
Stage 3	16.75	-0.87	-0.88
Stage 3	16.55	-0.96	-0.43
Stage 3	16.35	-0.98	-0.08
Stage 3	16.15	-0.94	0.16
Stage 3	15.95	-0.88	0.33
Stage 3	15.75	-0.79	0.44
Stage 3	15.55	-0.69	0.5
Stage 3	15.35	-0.59	0.51
Stage 3	15.15	-0.49	0.5
Stage 3	14.95	-0.39	0.47
Stage 3	14.75	-0.31	0.42
Stage 3	14.55	-0.23	0.38
Stage 3	14.35	-0.17	0.32
Stage 3	14.15	-0.11	0.27
Stage 3	13.95	-0.07	0.22
Stage 3	13.75	-0.03	0.18
Stage 3	13.55	-0.01	0.14
Stage 3	13.45	0	0.11
Stage 3	13.25	0.02	0.08
Stage 3	13.05	0.03	0.06
Stage 3	12.85	0.04	0.03
Stage 3	12.65	0.04	0.02
Stage 3	12.45	0.04	0
Stage 3	12.25	0.04	-0.01
Stage 3	12.05	0.04	-0.01

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	11.85	0.04	-0.02
Stage 3	11.65	0.03	-0.02
Stage 3	11.45	0.03	-0.02
Stage 3	11.25	0.02	-0.02
Stage 3	11.05	0.02	-0.02
Stage 3	10.85	0.01	-0.02
Stage 3	10.65	0.01	-0.02
Stage 3	10.45	0.01	-0.01
Stage 3	10.25	0.01	-0.01
Stage 3	10.05	0	-0.01
Stage 3	9.85	0	-0.01
Stage 3	9.65	0	-0.01
Stage 3	9.45	0	0
Stage 3	9.25	0	0
Stage 3	9.05	0	0
Stage 3	8.85	0	0
Stage 3	8.65	0	0
Stage 3	8.45	0	0
Stage 3	8.25	0	0
Stage 3	8.05	0	0
Stage 3	7.85	0	0
Stage 3	7.65	0	0
Stage 3	7.45	0	0
Stage 3	7.25	0	0
Stage 3	7.05	0	0
Stage 3	6.85	0	0
Stage 3	6.75	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 4

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	23.95	0	0
Stage 4	23.75	0	0
Stage 4	23.75	0	0
Stage 4	23.55	0	0
Stage 4	23.55	0	0
Stage 4	23.35	0	0
Stage 4	23.35	0	0
Stage 4	23.15	0	0
Stage 4	23.15	0	0
Stage 4	22.95	-1.18	-5.92
Stage 4	22.75	-4.77	-17.92
Stage 4	22.55	-12.01	-36.2
Stage 4	22.35	-24.2	-60.97
Stage 4	22.15	-41.56	-86.8
Stage 4	21.95	-63.75	-110.95
Stage 4	21.75	-38.79	124.79
Stage 4	21.55	-17.8	104.99
Stage 4	21.35	-0.25	87.75
Stage 4	21.15	14.32	72.84
Stage 4	20.95	26.23	59.53
Stage 4	20.75	35.79	47.79
Stage 4	20.55	43.29	37.49
Stage 4	20.35	48.98	28.48
Stage 4	20.15	53.1	20.57
Stage 4	19.95	55.8	13.51
Stage 4	19.75	57.22	7.09
Stage 4	19.55	57.43	1.07
Stage 4	19.35	56.47	-4.82
Stage 4	19.15	54.31	-10.81
Stage 4	18.95	50.9	-17.05
Stage 4	18.75	46.16	-23.67
Stage 4	18.55	39.96	-31
Stage 4	18.35	32.11	-39.28
Stage 4	18.15	22.96	-45.75
Stage 4	17.95	13.43	-47.62
Stage 4	17.75	4.43	-45
Stage 4	17.55	-3.16	-37.94
Stage 4	17.35	-8.92	-28.84
Stage 4	17.15	-13.12	-20.97
Stage 4	16.95	-15.97	-14.27
Stage 4	16.75	-17.71	-8.69
Stage 4	16.55	-18.54	-4.13
Stage 4	16.35	-18.63	-0.49
Stage 4	16.15	-18.17	2.32
Stage 4	15.95	-17.29	4.42
Stage 4	15.75	-16.1	5.91
Stage 4	15.55	-14.73	6.87
Stage 4	15.35	-13.25	7.41
Stage 4	15.15	-11.73	7.6
Stage 4	14.95	-10.23	7.52
Stage 4	14.75	-8.78	7.25
Stage 4	14.55	-7.41	6.84
Stage 4	14.35	-6.14	6.33
Stage 4	14.15	-4.99	5.77
Stage 4	13.95	-3.95	5.17
Stage 4	13.75	-3.04	4.57
Stage 4	13.55	-2.24	3.97
Stage 4	13.45	-1.89	3.54
Stage 4	13.25	-1.27	3.13
Stage 4	13.05	-0.74	2.61
Stage 4	12.85	-0.32	2.13
Stage 4	12.65	0.02	1.71
Stage 4	12.45	0.29	1.33
Stage 4	12.25	0.49	1
Stage 4	12.05	0.63	0.71

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	11.85	0.73	0.47
Stage 4	11.65	0.78	0.27
Stage 4	11.45	0.8	0.11
Stage 4	11.25	0.8	-0.02
Stage 4	11.05	0.77	-0.12
Stage 4	10.85	0.73	-0.2
Stage 4	10.65	0.68	-0.26
Stage 4	10.45	0.62	-0.29
Stage 4	10.25	0.56	-0.31
Stage 4	10.05	0.5	-0.32
Stage 4	9.85	0.43	-0.32
Stage 4	9.65	0.37	-0.31
Stage 4	9.45	0.32	-0.29
Stage 4	9.25	0.26	-0.27
Stage 4	9.05	0.21	-0.24
Stage 4	8.85	0.17	-0.21
Stage 4	8.65	0.13	-0.19
Stage 4	8.45	0.1	-0.16
Stage 4	8.25	0.07	-0.13
Stage 4	8.05	0.05	-0.11
Stage 4	7.85	0.04	-0.09
Stage 4	7.65	0.02	-0.07
Stage 4	7.45	0.01	-0.05
Stage 4	7.25	0.01	-0.03
Stage 4	7.05	0	-0.02
Stage 4	6.85	0	-0.01
Stage 4	6.75	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 5

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	23.95	0	0
Stage 5	23.75	0	0
Stage 5	23.75	0	0
Stage 5	23.55	0	0
Stage 5	23.55	0	0
Stage 5	23.35	0	0
Stage 5	23.35	0	0
Stage 5	23.15	0	0
Stage 5	23.15	0	0
Stage 5	22.95	-0.49	-2.45
Stage 5	22.75	-2.84	-11.77
Stage 5	22.55	-8.48	-28.19
Stage 5	22.35	-18.86	-51.9
Stage 5	22.15	-34.36	-77.5
Stage 5	21.95	-54.81	-102.26
Stage 5	21.75	-28.73	130.38
Stage 5	21.55	-7.09	108.2
Stage 5	21.35	10.43	87.64
Stage 5	21.15	24.12	68.43
Stage 5	20.95	34.08	49.8
Stage 5	20.75	40.42	31.71
Stage 5	20.55	43.24	14.08
Stage 5	20.35	42.59	-3.25
Stage 5	20.15	38.5	-20.44
Stage 5	19.95	30.97	-37.67
Stage 5	19.75	19.95	-55.1
Stage 5	19.55	5.37	-72.88
Stage 5	19.35	-12.85	-91.13
Stage 5	19.15	-34.84	-109.93
Stage 5	18.95	-60.7	-129.31
Stage 5	18.75	-39.32	106.88
Stage 5	18.55	-22.01	86.58
Stage 5	18.35	-8.83	65.91
Stage 5	18.15	0.18	45.02
Stage 5	17.95	5.35	25.87
Stage 5	17.75	7.95	12.96
Stage 5	17.55	9.21	6.29
Stage 5	17.35	9.9	3.47
Stage 5	17.15	10.13	1.17
Stage 5	16.95	10	-0.65
Stage 5	16.75	9.59	-2.06
Stage 5	16.55	8.97	-3.1
Stage 5	16.35	8.21	-3.83
Stage 5	16.15	7.35	-4.28
Stage 5	15.95	6.45	-4.49
Stage 5	15.75	5.55	-4.51
Stage 5	15.55	4.68	-4.38
Stage 5	15.35	3.85	-4.14
Stage 5	15.15	3.08	-3.85
Stage 5	14.95	2.37	-3.53
Stage 5	14.75	1.74	-3.15
Stage 5	14.55	1.19	-2.75
Stage 5	14.35	0.72	-2.35
Stage 5	14.15	0.33	-1.95
Stage 5	13.95	0.02	-1.58
Stage 5	13.75	-0.23	-1.23
Stage 5	13.55	-0.41	-0.92
Stage 5	13.45	-0.48	-0.71
Stage 5	13.25	-0.59	-0.52
Stage 5	13.05	-0.65	-0.3
Stage 5	12.85	-0.67	-0.12
Stage 5	12.65	-0.67	0.03
Stage 5	12.45	-0.64	0.14
Stage 5	12.25	-0.59	0.22
Stage 5	12.05	-0.54	0.28

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	11.85	-0.48	0.32
Stage 5	11.65	-0.41	0.33
Stage 5	11.45	-0.34	0.33
Stage 5	11.25	-0.28	0.32
Stage 5	11.05	-0.22	0.3
Stage 5	10.85	-0.16	0.27
Stage 5	10.65	-0.12	0.24
Stage 5	10.45	-0.08	0.2
Stage 5	10.25	-0.04	0.17
Stage 5	10.05	-0.02	0.14
Stage 5	9.85	0.01	0.11
Stage 5	9.65	0.02	0.08
Stage 5	9.45	0.04	0.06
Stage 5	9.25	0.04	0.04
Stage 5	9.05	0.05	0.02
Stage 5	8.85	0.05	0.01
Stage 5	8.65	0.05	-0.01
Stage 5	8.45	0.04	-0.02
Stage 5	8.25	0.04	-0.03
Stage 5	8.05	0.03	-0.03
Stage 5	7.85	0.03	-0.03
Stage 5	7.65	0.02	-0.03
Stage 5	7.45	0.01	-0.03
Stage 5	7.25	0.01	-0.03
Stage 5	7.05	0	-0.02
Stage 5	6.85	0	-0.01
Stage 5	6.75	0	0



### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 6

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	23.95	0	0
Stage 6	23.75	0	0
Stage 6	23.75	0	0
Stage 6	23.55	0	0
Stage 6	23.55	0	0
Stage 6	23.35	0	0
Stage 6	23.35	0	0
Stage 6	23.15	0	0
Stage 6	23.15	0	0
Stage 6	22.95	-0.86	-4.31
Stage 6	22.75	-3.93	-15.37
Stage 6	22.55	-10.61	-33.38
Stage 6	22.35	-22.24	-58.15
Stage 6	22.15	-39.18	-84.67
Stage 6	21.95	-61.22	-110.22
Stage 6	21.75	-37.24	119.88
Stage 6	21.55	-17.83	97.07
Stage 6	21.35	-2.63	76.01
Stage 6	21.15	8.66	56.45
Stage 6	20.95	16.19	37.66
Stage 6	20.75	20.12	19.65
Stage 6	20.55	20.61	2.41
Stage 6	20.35	17.78	-14.14
Stage 6	20.15	11.75	-30.14
Stage 6	19.95	2.61	-45.7
Stage 6	19.75	-9.58	-60.93
Stage 6	19.55	-24.76	-75.9
Stage 6	19.35	-42.89	-90.65
Stage 6	19.15	-63.93	-105.23
Stage 6	18.95	-87.85	-119.58
Stage 6	18.75	-61.02	134.11
Stage 6	18.55	-36.89	120.66
Stage 6	18.35	-15.32	107.83
Stage 6	18.15	3.81	95.68
Stage 6	17.95	20.66	84.23
Stage 6	17.75	35.35	73.45
Stage 6	17.55	48.01	63.31
Stage 6	17.35	58.75	53.71
Stage 6	17.15	67.66	44.55
Stage 6	16.95	74.76	35.46
Stage 6	16.75	79.97	26.09
Stage 6	16.55	83.26	16.43
Stage 6	16.35	84.56	6.48
Stage 6	16.15	83.81	-3.75
Stage 6	15.95	80.96	-14.24
Stage 6	15.75	75.96	-24.99
Stage 6	15.55	68.67	-36.45
Stage 6	15.35	58.87	-49
Stage 6	15.15	46.9	-59.86
Stage 6	14.95	33.66	-66.19
Stage 6	14.75	20.05	-68.06
Stage 6	14.55	6.94	-65.56
Stage 6	14.35	-4.82	-58.76
Stage 6	14.15	-14.35	-47.68
Stage 6	13.95	-21.64	-36.46
Stage 6	13.75	-26.97	-26.66
Stage 6	13.55	-30.62	-18.22
Stage 6	13.45	-31.9	-12.86
Stage 6	13.25	-33.49	-7.95
Stage 6	13.05	-34	-2.54
Stage 6	12.85	-33.63	1.84
Stage 6	12.65	-32.58	5.28
Stage 6	12.45	-31	7.91
Stage 6	12.25	-29.03	9.81
Stage 6	12.05	-26.81	11.1

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	11.85	-24.44	11.86
Stage 6	11.65	-22.01	12.18
Stage 6	11.45	-19.58	12.12
Stage 6	11.25	-17.22	11.79
Stage 6	11.05	-14.97	11.26
Stage 6	10.85	-12.85	10.59
Stage 6	10.65	-10.89	9.81
Stage 6	10.45	-9.1	8.97
Stage 6	10.25	-7.48	8.08
Stage 6	10.05	-6.04	7.19
Stage 6	9.85	-4.78	6.3
Stage 6	9.65	-3.69	5.44
Stage 6	9.45	-2.77	4.62
Stage 6	9.25	-2	3.85
Stage 6	9.05	-1.37	3.13
Stage 6	8.85	-0.88	2.48
Stage 6	8.65	-0.5	1.9
Stage 6	8.45	-0.22	1.38
Stage 6	8.25	-0.03	0.94
Stage 6	8.05	0.08	0.57
Stage 6	7.85	0.13	0.27
Stage 6	7.65	0.14	0.04
Stage 6	7.45	0.12	-0.12
Stage 6	7.25	0.08	-0.2
Stage 6	7.05	0.03	-0.21
Stage 6	6.85	0	-0.15
Stage 6	6.75	0	-0.05

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 7

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	23.95	0	0
Stage 7	23.75	0	0
Stage 7	23.75	0	0
Stage 7	23.55	0	0
Stage 7	23.55	0	0
Stage 7	23.35	0	0
Stage 7	23.35	0	0
Stage 7	23.15	0	0
Stage 7	23.15	0	0
Stage 7	22.95	-0.71	-3.53
Stage 7	22.75	-3.47	-13.83
Stage 7	22.55	-9.69	-31.1
Stage 7	22.35	-20.72	-55.14
Stage 7	22.15	-36.91	-80.94
Stage 7	21.95	-58.06	-105.79
Stage 7	21.75	-32.83	126.15
Stage 7	21.55	-12.04	103.98
Stage 7	21.35	4.66	83.5
Stage 7	21.15	17.55	64.46
Stage 7	20.95	26.78	46.13
Stage 7	20.75	32.48	28.48
Stage 7	20.55	34.77	11.49
Stage 7	20.35	33.78	-4.98
Stage 7	20.15	29.56	-21.07
Stage 7	19.95	22.18	-36.93
Stage 7	19.75	11.63	-52.72
Stage 7	19.55	-2.08	-68.55
Stage 7	19.35	-18.98	-84.53
Stage 7	19.15	-39.13	-100.73
Stage 7	18.95	-62.56	-117.16
Stage 7	18.75	-36.79	128.85
Stage 7	18.55	-14.34	112.23
Stage 7	18.35	4.78	95.6
Stage 7	18.15	20.57	78.97
Stage 7	17.95	33.03	62.31
Stage 7	17.75	42.15	45.57
Stage 7	17.55	47.88	28.67
Stage 7	17.35	50.19	11.51
Stage 7	17.15	48.98	-6.03
Stage 7	16.95	44.12	-24.28
Stage 7	16.75	35.41	-43.55
Stage 7	16.55	22.66	-63.78
Stage 7	16.35	5.68	-84.87
Stage 7	16.15	-15.65	-106.67
Stage 7	15.95	-41.44	-128.97
Stage 7	15.75	-20.55	104.49
Stage 7	15.55	-4.26	81.45
Stage 7	15.35	7.3	57.78
Stage 7	15.15	14.02	33.63
Stage 7	14.95	16.39	11.85
Stage 7	14.75	15.57	-4.14
Stage 7	14.55	12.69	-14.37
Stage 7	14.35	8.92	-18.89
Stage 7	14.15	5.37	-17.74
Stage 7	13.95	2.34	-15.11
Stage 7	13.75	-0.18	-12.64
Stage 7	13.55	-2.25	-10.34
Stage 7	13.45	-3.13	-8.77
Stage 7	13.25	-4.58	-7.27
Stage 7	13.05	-5.68	-5.48
Stage 7	12.85	-6.46	-3.9
Stage 7	12.65	-6.96	-2.53
Stage 7	12.45	-7.23	-1.36
Stage 7	12.25	-7.31	-0.38
Stage 7	12.05	-7.22	0.43

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	11.85	-7.01	1.07
Stage 7	11.65	-6.7	1.54
Stage 7	11.45	-6.33	1.84
Stage 7	11.25	-5.92	2.06
Stage 7	11.05	-5.48	2.23
Stage 7	10.85	-5.01	2.33
Stage 7	10.65	-4.53	2.38
Stage 7	10.45	-4.06	2.37
Stage 7	10.25	-3.59	2.33
Stage 7	10.05	-3.14	2.25
Stage 7	9.85	-2.72	2.13
Stage 7	9.65	-2.32	2
Stage 7	9.45	-1.95	1.85
Stage 7	9.25	-1.61	1.68
Stage 7	9.05	-1.31	1.51
Stage 7	8.85	-1.04	1.34
Stage 7	8.65	-0.81	1.16
Stage 7	8.45	-0.61	0.99
Stage 7	8.25	-0.44	0.83
Stage 7	8.05	-0.31	0.68
Stage 7	7.85	-0.2	0.53
Stage 7	7.65	-0.12	0.4
Stage 7	7.45	-0.07	0.28
Stage 7	7.25	-0.03	0.18
Stage 7	7.05	-0.01	0.1
Stage 7	6.85	0	0.04
Stage 7	6.75	0	0.01

**Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 8**

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	23.95	0	0
Stage 8	23.75	0	0
Stage 8	23.75	0	0
Stage 8	23.55	0	0
Stage 8	23.55	0	0
Stage 8	23.35	0	0
Stage 8	23.35	0	0
Stage 8	23.15	0	0
Stage 8	23.15	0	0
Stage 8	22.95	-0.69	-3.43
Stage 8	22.75	-3.42	-13.69
Stage 8	22.55	-9.62	-30.99
Stage 8	22.35	-20.65	-55.12
Stage 8	22.15	-36.86	-81.08
Stage 8	21.95	-58.09	-106.16
Stage 8	21.75	-33.1	124.94
Stage 8	21.55	-12.62	102.41
Stage 8	21.35	3.68	81.52
Stage 8	21.15	16.08	62
Stage 8	20.95	24.72	43.16
Stage 8	20.75	29.71	24.97
Stage 8	20.55	31.18	7.33
Stage 8	20.35	29.21	-9.84
Stage 8	20.15	23.87	-26.67
Stage 8	19.95	15.21	-43.3
Stage 8	19.75	3.24	-59.88
Stage 8	19.55	-12.06	-76.51
Stage 8	19.35	-30.72	-93.27
Stage 8	19.15	-52.76	-110.21
Stage 8	18.95	-78.22	-127.32
Stage 8	18.75	-54.86	116.83
Stage 8	18.55	-34.91	99.74
Stage 8	18.35	-18.35	82.8
Stage 8	18.15	-5.14	66.06
Stage 8	17.95	4.77	49.55
Stage 8	17.75	11.42	33.26
Stage 8	17.55	14.86	17.18
Stage 8	17.35	15.11	1.26
Stage 8	17.15	12.21	-14.52
Stage 8	16.95	6.12	-30.45
Stage 8	16.75	-3.23	-46.74
Stage 8	16.55	-15.88	-63.25
Stage 8	16.35	-31.84	-79.82
Stage 8	16.15	-51.08	-96.2
Stage 8	15.95	-73.5	-112.1
Stage 8	15.75	-44.39	145.56
Stage 8	15.55	-18.18	131.08
Stage 8	15.35	5.25	117.13
Stage 8	15.15	26	103.77
Stage 8	14.95	44.2	91
Stage 8	14.75	59.97	78.8
Stage 8	14.55	73.24	66.38
Stage 8	14.35	83.98	53.68
Stage 8	14.15	92.12	40.69
Stage 8	13.95	97.61	27.46
Stage 8	13.75	100.4	13.95
Stage 8	13.55	100.43	0.17
Stage 8	13.45	99.39	-10.38
Stage 8	13.25	95.19	-21.04
Stage 8	13.05	88.08	-35.51
Stage 8	12.85	77.94	-50.7
Stage 8	12.65	65.09	-64.29
Stage 8	12.45	50.38	-73.51
Stage 8	12.25	34.69	-78.49
Stage 8	12.05	18.82	-79.33

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	11.85	3.6	-76.1
Stage 8	11.65	-10.17	-68.84
Stage 8	11.45	-21.68	-57.55
Stage 8	11.25	-30.37	-43.47
Stage 8	11.05	-36.6	-31.15
Stage 8	10.85	-40.71	-20.53
Stage 8	10.65	-43	-11.49
Stage 8	10.45	-43.79	-3.93
Stage 8	10.25	-43.33	2.28
Stage 8	10.05	-41.88	7.27
Stage 8	9.85	-39.65	11.17
Stage 8	9.65	-36.83	14.09
Stage 8	9.45	-33.6	16.16
Stage 8	9.25	-30.1	17.48
Stage 8	9.05	-26.47	18.17
Stage 8	8.85	-22.81	18.3
Stage 8	8.65	-19.23	17.87
Stage 8	8.45	-15.82	17.07
Stage 8	8.25	-12.63	15.97
Stage 8	8.05	-9.71	14.59
Stage 8	7.85	-7.11	13
Stage 8	7.65	-4.86	11.23
Stage 8	7.45	-3	9.28
Stage 8	7.25	-1.57	7.19
Stage 8	7.05	-0.58	4.95
Stage 8	6.85	-0.07	2.56
Stage 8	6.75	0	0.65

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 9

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	23.95	0	0
Stage 9	23.75	0	0
Stage 9	23.75	0	0
Stage 9	23.55	0	0
Stage 9	23.55	0	0
Stage 9	23.35	0	0
Stage 9	23.35	0	0
Stage 9	23.15	0	0
Stage 9	23.15	0	0
Stage 9	22.95	-0.71	-3.53
Stage 9	22.75	-3.47	-13.84
Stage 9	22.55	-9.7	-31.15
Stage 9	22.35	-20.76	-55.26
Stage 9	22.15	-36.99	-81.16
Stage 9	21.95	-58.22	-106.14
Stage 9	21.75	-33.14	125.38
Stage 9	21.55	-12.53	103.03
Stage 9	21.35	3.94	82.36
Stage 9	21.15	16.56	63.1
Stage 9	20.95	25.47	44.56
Stage 9	20.75	30.81	26.71
Stage 9	20.55	32.7	9.45
Stage 9	20.35	31.24	-7.31
Stage 9	20.15	26.5	-23.7
Stage 9	19.95	18.53	-39.86
Stage 9	19.75	7.34	-55.95
Stage 9	19.55	-7.08	-72.07
Stage 9	19.35	-24.74	-88.32
Stage 9	19.15	-45.69	-104.76
Stage 9	18.95	-69.97	-121.38
Stage 9	18.75	-45.13	124.18
Stage 9	18.55	-23.63	107.5
Stage 9	18.35	-5.45	90.89
Stage 9	18.15	9.43	74.39
Stage 9	17.95	21.03	58
Stage 9	17.75	29.36	41.68
Stage 9	17.55	34.44	25.37
Stage 9	17.35	36.24	9.01
Stage 9	17.15	34.74	-7.49
Stage 9	16.95	29.85	-24.44
Stage 9	16.75	21.43	-42.11
Stage 9	16.55	9.35	-60.42
Stage 9	16.35	-6.5	-79.23
Stage 9	16.15	-26.18	-98.38
Stage 9	15.95	-49.7	-117.62
Stage 9	15.75	-24.26	127.2
Stage 9	15.55	-2.64	108.1
Stage 9	15.35	15.13	88.83
Stage 9	15.15	29.01	69.39
Stage 9	14.95	38.96	49.79
Stage 9	14.75	44.96	29.99
Stage 9	14.55	46.8	9.2
Stage 9	14.35	44.29	-12.59
Stage 9	14.15	37.22	-35.33
Stage 9	13.95	25.44	-58.91
Stage 9	13.75	8.79	-83.22
Stage 9	13.55	-12.83	-108.13
Stage 9	13.45	-25.55	-127.12
Stage 9	13.25	-3.57	109.86
Stage 9	13.05	13.31	84.41
Stage 9	12.85	25.05	58.7
Stage 9	12.65	31.52	32.37
Stage 9	12.45	32.94	7.09
Stage 9	12.25	30.43	-12.56
Stage 9	12.05	25.1	-26.63

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	11.85	18.07	-35.16
Stage 9	11.65	10.42	-38.21
Stage 9	11.45	3.25	-35.85
Stage 9	11.25	-2.62	-29.37
Stage 9	11.05	-7.3	-23.42
Stage 9	10.85	-10.91	-18.05
Stage 9	10.65	-13.56	-13.24
Stage 9	10.45	-15.36	-9
Stage 9	10.25	-16.42	-5.3
Stage 9	10.05	-16.85	-2.13
Stage 9	9.85	-16.74	0.54
Stage 9	9.65	-16.19	2.74
Stage 9	9.45	-15.29	4.51
Stage 9	9.25	-14.11	5.88
Stage 9	9.05	-12.74	6.84
Stage 9	8.85	-11.26	7.43
Stage 9	8.65	-9.72	7.7
Stage 9	8.45	-8.17	7.75
Stage 9	8.25	-6.65	7.57
Stage 9	8.05	-5.22	7.18
Stage 9	7.85	-3.89	6.63
Stage 9	7.65	-2.71	5.91
Stage 9	7.45	-1.71	5.03
Stage 9	7.25	-0.91	4
Stage 9	7.05	-0.34	2.83
Stage 9	6.85	-0.04	1.5
Stage 9	6.75	0	0.39



### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 10

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	23.95	0	0
Stage 10	23.75	0	0
Stage 10	23.75	0	0
Stage 10	23.55	0	0
Stage 10	23.55	0	0
Stage 10	23.35	0	0
Stage 10	23.35	0	0
Stage 10	23.15	0	0
Stage 10	23.15	0	0
Stage 10	22.95	-0.69	-3.45
Stage 10	22.75	-3.43	-13.69
Stage 10	22.55	-9.62	-30.95
Stage 10	22.35	-20.62	-55.01
Stage 10	22.15	-36.8	-80.87
Stage 10	21.95	-57.96	-105.82
Stage 10	21.75	-32.81	125.73
Stage 10	21.55	-12.14	103.38
Stage 10	21.35	4.4	82.7
Stage 10	21.15	17.09	63.42
Stage 10	20.95	26.05	44.84
Stage 10	20.75	31.44	26.93
Stage 10	20.55	33.36	9.59
Stage 10	20.35	31.91	-7.25
Stage 10	20.15	27.16	-23.75
Stage 10	19.95	19.15	-40.05
Stage 10	19.75	7.89	-56.29
Stage 10	19.55	-6.63	-72.59
Stage 10	19.35	-24.44	-89.04
Stage 10	19.15	-45.58	-105.71
Stage 10	18.95	-70.09	-122.59
Stage 10	18.75	-45.67	122.1
Stage 10	18.55	-24.65	105.11
Stage 10	18.35	-7.02	88.17
Stage 10	18.15	7.24	71.31
Stage 10	17.95	18.15	54.54
Stage 10	17.75	25.72	37.83
Stage 10	17.55	29.94	21.12
Stage 10	17.35	30.81	4.36
Stage 10	17.15	28.31	-12.53
Stage 10	16.95	22.34	-29.85
Stage 10	16.75	12.76	-47.86
Stage 10	16.55	-0.53	-66.46
Stage 10	16.35	-17.63	-85.5
Stage 10	16.15	-38.58	-104.78
Stage 10	15.95	-63.39	-124.04
Stage 10	15.75	-39.16	121.17
Stage 10	15.55	-18.69	102.35
Stage 10	15.35	-1.97	83.56
Stage 10	15.15	10.99	64.84
Stage 10	14.95	20.24	46.22
Stage 10	14.75	25.78	27.71
Stage 10	14.55	27.49	8.56
Stage 10	14.35	25.25	-11.21
Stage 10	14.15	18.95	-31.5
Stage 10	13.95	8.51	-52.17
Stage 10	13.75	-6.1	-73.06
Stage 10	13.55	-24.9	-94
Stage 10	13.45	-35.86	-109.59
Stage 10	13.25	-7.23	143.14
Stage 10	13.05	17.4	123.13
Stage 10	12.85	38.09	103.47
Stage 10	12.65	54.82	83.66
Stage 10	12.45	67.55	63.64
Stage 10	12.25	76.21	43.29
Stage 10	12.05	80.7	22.47

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	11.85	80.91	1.03
Stage 10	11.65	76.67	-21.21
Stage 10	11.45	68.67	-39.98
Stage 10	11.25	57.89	-53.91
Stage 10	11.05	45.26	-63.13
Stage 10	10.85	31.7	-67.79
Stage 10	10.65	18.11	-67.98
Stage 10	10.45	5.35	-63.78
Stage 10	10.25	-5.69	-55.24
Stage 10	10.05	-14.17	-42.37
Stage 10	9.85	-20.27	-30.53
Stage 10	9.65	-24.32	-20.22
Stage 10	9.45	-26.59	-11.38
Stage 10	9.25	-27.38	-3.95
Stage 10	9.05	-26.95	2.16
Stage 10	8.85	-25.55	7.03
Stage 10	8.65	-23.39	10.75
Stage 10	8.45	-20.69	13.51
Stage 10	8.25	-17.62	15.35
Stage 10	8.05	-14.36	16.34
Stage 10	7.85	-11.05	16.51
Stage 10	7.65	-7.91	15.75
Stage 10	7.45	-5.09	14.1
Stage 10	7.25	-2.75	11.66
Stage 10	7.05	-1.05	8.51
Stage 10	6.85	-0.12	4.65
Stage 10	6.75	0	1.23

**Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 11-S**

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	23.95	0	0
Stage 11-S	23.75	0	0
Stage 11-S	23.75	0	0
Stage 11-S	23.55	0	0
Stage 11-S	23.55	0	0
Stage 11-S	23.35	0	0
Stage 11-S	23.35	0	0
Stage 11-S	23.15	0	0
Stage 11-S	23.15	0	0
Stage 11-S	22.95	-0.69	-3.45
Stage 11-S	22.75	-3.43	-13.69
Stage 11-S	22.55	-9.62	-30.95
Stage 11-S	22.35	-20.62	-55.01
Stage 11-S	22.15	-36.8	-80.87
Stage 11-S	21.95	-57.96	-105.82
Stage 11-S	21.75	-32.81	125.73
Stage 11-S	21.55	-12.14	103.38
Stage 11-S	21.35	4.4	82.7
Stage 11-S	21.15	17.09	63.42
Stage 11-S	20.95	26.05	44.84
Stage 11-S	20.75	31.44	26.93
Stage 11-S	20.55	33.36	9.59
Stage 11-S	20.35	31.91	-7.25
Stage 11-S	20.15	27.16	-23.75
Stage 11-S	19.95	19.15	-40.05
Stage 11-S	19.75	7.89	-56.29
Stage 11-S	19.55	-6.63	-72.59
Stage 11-S	19.35	-24.44	-89.04
Stage 11-S	19.15	-45.58	-105.71
Stage 11-S	18.95	-70.09	-122.59
Stage 11-S	18.75	-45.67	122.1
Stage 11-S	18.55	-24.65	105.11
Stage 11-S	18.35	-7.02	88.17
Stage 11-S	18.15	7.24	71.31
Stage 11-S	17.95	18.15	54.54
Stage 11-S	17.75	25.72	37.83
Stage 11-S	17.55	29.94	21.12
Stage 11-S	17.35	30.81	4.36
Stage 11-S	17.15	28.31	-12.53
Stage 11-S	16.95	22.34	-29.85
Stage 11-S	16.75	12.76	-47.86
Stage 11-S	16.55	-0.53	-66.46
Stage 11-S	16.35	-17.63	-85.5
Stage 11-S	16.15	-38.58	-104.78
Stage 11-S	15.95	-63.39	-124.04
Stage 11-S	15.75	-39.16	121.17
Stage 11-S	15.55	-18.69	102.35
Stage 11-S	15.35	-1.97	83.56
Stage 11-S	15.15	10.99	64.84
Stage 11-S	14.95	20.24	46.22
Stage 11-S	14.75	25.78	27.71
Stage 11-S	14.55	27.49	8.56
Stage 11-S	14.35	25.25	-11.21
Stage 11-S	14.15	18.95	-31.5
Stage 11-S	13.95	8.51	-52.17
Stage 11-S	13.75	-6.1	-73.06
Stage 11-S	13.55	-24.9	-94
Stage 11-S	13.45	-35.86	-109.59
Stage 11-S	13.25	-7.23	143.14
Stage 11-S	13.05	17.4	123.13
Stage 11-S	12.85	38.09	103.47
Stage 11-S	12.65	54.82	83.66
Stage 11-S	12.45	67.55	63.64
Stage 11-S	12.25	76.21	43.29
Stage 11-S	12.05	80.7	22.47

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	11.85	80.91	1.03
Stage 11-S	11.65	76.67	-21.21
Stage 11-S	11.45	68.67	-39.98
Stage 11-S	11.25	57.89	-53.91
Stage 11-S	11.05	45.26	-63.13
Stage 11-S	10.85	31.7	-67.79
Stage 11-S	10.65	18.11	-67.98
Stage 11-S	10.45	5.35	-63.78
Stage 11-S	10.25	-5.69	-55.24
Stage 11-S	10.05	-14.17	-42.37
Stage 11-S	9.85	-20.27	-30.53
Stage 11-S	9.65	-24.32	-20.22
Stage 11-S	9.45	-26.59	-11.38
Stage 11-S	9.25	-27.38	-3.95
Stage 11-S	9.05	-26.95	2.16
Stage 11-S	8.85	-25.55	7.03
Stage 11-S	8.65	-23.39	10.75
Stage 11-S	8.45	-20.69	13.51
Stage 11-S	8.25	-17.62	15.35
Stage 11-S	8.05	-14.36	16.34
Stage 11-S	7.85	-11.05	16.51
Stage 11-S	7.65	-7.91	15.75
Stage 11-S	7.45	-5.09	14.1
Stage 11-S	7.25	-2.75	11.66
Stage 11-S	7.05	-1.05	8.51
Stage 11-S	6.85	-0.12	4.65
Stage 11-S	6.75	0	1.23

## Risultati Elementi strutturali - A1+M1+R1

### Design Assumption: A1+M1+R1 Sollecitazione Tir-D2

Stage	Forza (kN/m)
Stage 3	260
Stage 4	261.86836
Stage 5	260.2171
Stage 6	258.36447
Stage 7	259.56242
Stage 8	258.99757
Stage 9	259.27525
Stage 10	259.30112
Stage 11-S	259.30112

**Design Assumption: A1+M1+R1 Sollecitazione Tir-E2**

Stage	Forza (kN/m)
Stage 5	260
Stage 6	271.76344
Stage 7	266.59906
Stage 8	265.31232
Stage 9	266.29616
Stage 10	265.68659
Stage 11-S	265.68659

**Design Assumption: A1+M1+R1 Sollecitazione Tir-F2**

Stage	Forza (kN/m)
Stage 7	260
Stage 8	277.01375
Stage 9	267.98512
Stage 10	268.25266
Stage 11-S	268.25266

**Design Assumption: A1+M1+R1 Sollecitazione Tir-G2**

Stage	Forza (kN/m)
Stage 9	260
Stage 10	272.31321
Stage 11-S	272.31321



## Risultati A2+M2+R1

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	23.95	0	0
Stage 1	23.75	0	0
Stage 1	23.75	0	0
Stage 1	23.55	0	0
Stage 1	23.55	0	0
Stage 1	23.35	0	0
Stage 1	23.35	0	0
Stage 1	23.15	0	0
Stage 1	22.95	0	0
Stage 1	22.75	0	0
Stage 1	22.55	0	0
Stage 1	22.35	0	0
Stage 1	22.15	0	0
Stage 1	21.95	0	0
Stage 1	21.75	0	0
Stage 1	21.55	0	0
Stage 1	21.35	0	0
Stage 1	21.15	0	0
Stage 1	20.95	0	0
Stage 1	20.75	0	0
Stage 1	20.55	0	0
Stage 1	20.35	0	0
Stage 1	20.15	0	0
Stage 1	19.95	0	0
Stage 1	19.75	0	0
Stage 1	19.55	0	0
Stage 1	19.35	0	0
Stage 1	19.15	0	0
Stage 1	18.95	0	0
Stage 1	18.75	0	0
Stage 1	18.55	0	0
Stage 1	18.35	0	0
Stage 1	18.15	0	0
Stage 1	17.95	0	0
Stage 1	17.75	0	0
Stage 1	17.55	0	0
Stage 1	17.35	0	0
Stage 1	17.15	0	0
Stage 1	16.95	0	0
Stage 1	16.75	0	0
Stage 1	16.55	0	0
Stage 1	16.35	0	0
Stage 1	16.15	0	0
Stage 1	15.95	0	0
Stage 1	15.75	0	0
Stage 1	15.55	0	0
Stage 1	15.35	0	0
Stage 1	15.15	0	0
Stage 1	14.95	0	0
Stage 1	14.75	0	0
Stage 1	14.55	0	0
Stage 1	14.35	0	0
Stage 1	14.15	0	0
Stage 1	13.95	0	0
Stage 1	13.75	0	0
Stage 1	13.55	0	0
Stage 1	13.45	0	0
Stage 1	13.25	0	0
Stage 1	13.05	0	0
Stage 1	12.85	0	0
Stage 1	12.65	0	0
Stage 1	12.45	0	0

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	12.25	0	0
Stage 1	12.05	0	0
Stage 1	11.85	0	0
Stage 1	11.65	0	0
Stage 1	11.45	0	0
Stage 1	11.25	0	0
Stage 1	11.05	0	0
Stage 1	10.85	0	0
Stage 1	10.65	0	0
Stage 1	10.45	0	0
Stage 1	10.25	0	0
Stage 1	10.05	0	0
Stage 1	9.85	0	0
Stage 1	9.65	0	0
Stage 1	9.45	0	0
Stage 1	9.25	0	0
Stage 1	9.05	0	0
Stage 1	8.85	0	0
Stage 1	8.65	0	0
Stage 1	8.45	0	0
Stage 1	8.25	0	0
Stage 1	8.05	0	0
Stage 1	7.85	0	0
Stage 1	7.65	0	0
Stage 1	7.45	0	0
Stage 1	7.25	0	0
Stage 1	7.05	0	0
Stage 1	6.85	0	0
Stage 1	6.75	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	23.95	0	0
Stage 2	23.75	0	0
Stage 2	23.75	0	0
Stage 2	23.55	0	0
Stage 2	23.55	0	0
Stage 2	23.35	0	0
Stage 2	23.35	0	0
Stage 2	23.15	0	0
Stage 2	23.15	0	0
Stage 2	22.95	-0.05	-0.25
Stage 2	22.75	-0.2	-0.76
Stage 2	22.55	-0.51	-1.53
Stage 2	22.35	-1.02	-2.58
Stage 2	22.15	-1.8	-3.9
Stage 2	21.95	-2.9	-5.51
Stage 2	21.75	-4.39	-7.43
Stage 2	21.55	-6.32	-9.66
Stage 2	21.35	-8.76	-12.2
Stage 2	21.15	-11.46	-13.46
Stage 2	20.95	-13.82	-11.83
Stage 2	20.75	-15.39	-7.83
Stage 2	20.55	-15.87	-2.41
Stage 2	20.35	-15.54	1.64
Stage 2	20.15	-14.64	4.53
Stage 2	19.95	-13.35	6.44
Stage 2	19.75	-11.83	7.58
Stage 2	19.55	-10.23	8.02
Stage 2	19.35	-8.64	7.94
Stage 2	19.15	-7.12	7.57
Stage 2	18.95	-5.72	7
Stage 2	18.75	-4.46	6.32
Stage 2	18.55	-3.35	5.55
Stage 2	18.35	-2.4	4.76
Stage 2	18.15	-1.6	3.98
Stage 2	17.95	-0.95	3.25
Stage 2	17.75	-0.43	2.58
Stage 2	17.55	-0.04	1.98
Stage 2	17.35	0.25	1.46
Stage 2	17.15	0.46	1.02
Stage 2	16.95	0.59	0.65
Stage 2	16.75	0.66	0.36
Stage 2	16.55	0.68	0.12
Stage 2	16.35	0.67	-0.05
Stage 2	16.15	0.64	-0.18
Stage 2	15.95	0.59	-0.26
Stage 2	15.75	0.52	-0.32
Stage 2	15.55	0.45	-0.34
Stage 2	15.35	0.38	-0.34
Stage 2	15.15	0.32	-0.33
Stage 2	14.95	0.26	-0.31
Stage 2	14.75	0.2	-0.28
Stage 2	14.55	0.15	-0.25
Stage 2	14.35	0.11	-0.21
Stage 2	14.15	0.07	-0.18
Stage 2	13.95	0.05	-0.15
Stage 2	13.75	0.02	-0.12
Stage 2	13.55	0	-0.09
Stage 2	13.45	0	-0.07
Stage 2	13.25	-0.01	-0.06
Stage 2	13.05	-0.02	-0.04
Stage 2	12.85	-0.03	-0.02
Stage 2	12.65	-0.03	-0.01
Stage 2	12.45	-0.03	0
Stage 2	12.25	-0.03	0
Stage 2	12.05	-0.03	0.01

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	11.85	-0.02	0.01
Stage 2	11.65	-0.02	0.01
Stage 2	11.45	-0.02	0.01
Stage 2	11.25	-0.01	0.01
Stage 2	11.05	-0.01	0.01
Stage 2	10.85	-0.01	0.01
Stage 2	10.65	-0.01	0.01
Stage 2	10.45	-0.01	0.01
Stage 2	10.25	0	0.01
Stage 2	10.05	0	0.01
Stage 2	9.85	0	0.01
Stage 2	9.65	0	0
Stage 2	9.45	0	0
Stage 2	9.25	0	0
Stage 2	9.05	0	0
Stage 2	8.85	0	0
Stage 2	8.65	0	0
Stage 2	8.45	0	0
Stage 2	8.25	0	0
Stage 2	8.05	0	0
Stage 2	7.85	0	0
Stage 2	7.65	0	0
Stage 2	7.45	0	0
Stage 2	7.25	0	0
Stage 2	7.05	0	0
Stage 2	6.85	0	0
Stage 2	6.75	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	23.95	0	0
Stage 3	23.75	0	0
Stage 3	23.75	0	0
Stage 3	23.55	0	0
Stage 3	23.55	0	0
Stage 3	23.35	0	0
Stage 3	23.35	0	0
Stage 3	23.15	0	0
Stage 3	23.15	0	0
Stage 3	22.95	-0.64	-3.18
Stage 3	22.75	-2.56	-9.62
Stage 3	22.55	-6.45	-19.44
Stage 3	22.35	-13	-32.74
Stage 3	22.15	-22.92	-49.6
Stage 3	21.95	-36.92	-70.05
Stage 3	21.75	-16.29	103.18
Stage 3	21.55	0	81.41
Stage 3	21.35	12.33	61.68
Stage 3	21.15	21.15	44.1
Stage 3	20.95	26.89	28.71
Stage 3	20.75	29.89	15.01
Stage 3	20.55	30.78	4.44
Stage 3	20.35	30.1	-3.44
Stage 3	20.15	28.29	-9.04
Stage 3	19.95	25.74	-12.75
Stage 3	19.75	22.76	-14.91
Stage 3	19.55	19.58	-15.88
Stage 3	19.35	16.41	-15.84
Stage 3	19.15	13.39	-15.12
Stage 3	18.95	10.6	-13.95
Stage 3	18.75	8.11	-12.47
Stage 3	18.55	5.94	-10.84
Stage 3	18.35	4.11	-9.17
Stage 3	18.15	2.6	-7.55
Stage 3	17.95	1.39	-6.03
Stage 3	17.75	0.46	-4.67
Stage 3	17.55	-0.24	-3.47
Stage 3	17.35	-0.73	-2.45
Stage 3	17.15	-1.05	-1.6
Stage 3	16.95	-1.23	-0.92
Stage 3	16.75	-1.31	-0.38
Stage 3	16.55	-1.3	0.02
Stage 3	16.35	-1.24	0.32
Stage 3	16.15	-1.14	0.51
Stage 3	15.95	-1.01	0.63
Stage 3	15.75	-0.88	0.68
Stage 3	15.55	-0.74	0.69
Stage 3	15.35	-0.61	0.66
Stage 3	15.15	-0.48	0.61
Stage 3	14.95	-0.37	0.55
Stage 3	14.75	-0.28	0.48
Stage 3	14.55	-0.19	0.41
Stage 3	14.35	-0.13	0.34
Stage 3	14.15	-0.07	0.28
Stage 3	13.95	-0.03	0.22
Stage 3	13.75	0.01	0.16
Stage 3	13.55	0.03	0.12
Stage 3	13.45	0.04	0.09
Stage 3	13.25	0.05	0.06
Stage 3	13.05	0.06	0.03
Stage 3	12.85	0.06	0.01
Stage 3	12.65	0.06	0
Stage 3	12.45	0.06	-0.02
Stage 3	12.25	0.05	-0.02
Stage 3	12.05	0.05	-0.03

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	11.85	0.04	-0.03
Stage 3	11.65	0.03	-0.03
Stage 3	11.45	0.03	-0.03
Stage 3	11.25	0.02	-0.03
Stage 3	11.05	0.02	-0.03
Stage 3	10.85	0.01	-0.02
Stage 3	10.65	0.01	-0.02
Stage 3	10.45	0.01	-0.02
Stage 3	10.25	0	-0.01
Stage 3	10.05	0	-0.01
Stage 3	9.85	0	-0.01
Stage 3	9.65	0	0
Stage 3	9.45	0	0
Stage 3	9.25	0	0
Stage 3	9.05	0	0
Stage 3	8.85	0	0
Stage 3	8.65	0	0
Stage 3	8.45	0	0
Stage 3	8.25	0	0
Stage 3	8.05	0	0
Stage 3	7.85	0	0
Stage 3	7.65	0	0
Stage 3	7.45	0	0
Stage 3	7.25	0	0
Stage 3	7.05	0	0
Stage 3	6.85	0	0
Stage 3	6.75	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	23.95	0	0
Stage 4	23.75	0	0
Stage 4	23.75	0	0
Stage 4	23.55	0	0
Stage 4	23.55	0	0
Stage 4	23.35	0	0
Stage 4	23.35	0	0
Stage 4	23.15	0	0
Stage 4	23.15	0	0
Stage 4	22.95	-0.64	-3.18
Stage 4	22.75	-2.56	-9.62
Stage 4	22.55	-6.45	-19.44
Stage 4	22.35	-13	-32.74
Stage 4	22.15	-22.92	-49.6
Stage 4	21.95	-36.9	-69.92
Stage 4	21.75	-15.78	105.61
Stage 4	21.55	1.38	85.76
Stage 4	21.35	15.15	68.86
Stage 4	21.15	26.12	54.87
Stage 4	20.95	34.86	43.71
Stage 4	20.75	41.84	34.86
Stage 4	20.55	47.35	27.59
Stage 4	20.35	51.7	21.72
Stage 4	20.15	55.1	17.03
Stage 4	19.95	57.58	12.38
Stage 4	19.75	59.07	7.45
Stage 4	19.55	59.51	2.21
Stage 4	19.35	58.84	-3.34
Stage 4	19.15	57.01	-9.18
Stage 4	18.95	53.95	-15.28
Stage 4	18.75	49.62	-21.65
Stage 4	18.55	43.96	-28.32
Stage 4	18.35	36.9	-35.28
Stage 4	18.15	28.71	-40.95
Stage 4	17.95	19.97	-43.71
Stage 4	17.75	11.25	-43.57
Stage 4	17.55	3.13	-40.63
Stage 4	17.35	-4.04	-35.84
Stage 4	17.15	-9.89	-29.22
Stage 4	16.95	-14.13	-21.22
Stage 4	16.75	-17.01	-14.42
Stage 4	16.55	-18.77	-8.76
Stage 4	16.35	-19.59	-4.13
Stage 4	16.15	-19.68	-0.44
Stage 4	15.95	-19.19	2.43
Stage 4	15.75	-18.28	4.58
Stage 4	15.55	-17.06	6.1
Stage 4	15.35	-15.64	7.11
Stage 4	15.15	-14.1	7.69
Stage 4	14.95	-12.51	7.92
Stage 4	14.75	-10.94	7.87
Stage 4	14.55	-9.42	7.61
Stage 4	14.35	-7.98	7.2
Stage 4	14.15	-6.64	6.69
Stage 4	13.95	-5.42	6.11
Stage 4	13.75	-4.32	5.49
Stage 4	13.55	-3.35	4.86
Stage 4	13.45	-2.91	4.4
Stage 4	13.25	-2.12	3.94
Stage 4	13.05	-1.45	3.36
Stage 4	12.85	-0.89	2.81
Stage 4	12.65	-0.42	2.31
Stage 4	12.45	-0.05	1.86
Stage 4	12.25	0.24	1.46
Stage 4	12.05	0.46	1.11

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	11.85	0.62	0.8
Stage 4	11.65	0.73	0.54
Stage 4	11.45	0.8	0.33
Stage 4	11.25	0.83	0.15
Stage 4	11.05	0.83	0.01
Stage 4	10.85	0.81	-0.11
Stage 4	10.65	0.77	-0.19
Stage 4	10.45	0.72	-0.25
Stage 4	10.25	0.66	-0.29
Stage 4	10.05	0.6	-0.32
Stage 4	9.85	0.53	-0.33
Stage 4	9.65	0.46	-0.33
Stage 4	9.45	0.4	-0.32
Stage 4	9.25	0.34	-0.31
Stage 4	9.05	0.28	-0.28
Stage 4	8.85	0.23	-0.26
Stage 4	8.65	0.18	-0.23
Stage 4	8.45	0.14	-0.2
Stage 4	8.25	0.11	-0.18
Stage 4	8.05	0.08	-0.15
Stage 4	7.85	0.05	-0.12
Stage 4	7.65	0.03	-0.1
Stage 4	7.45	0.02	-0.07
Stage 4	7.25	0.01	-0.05
Stage 4	7.05	0	-0.03
Stage 4	6.85	0	-0.02
Stage 4	6.75	0	0



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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	23.95	0	0
Stage 5	23.75	0	0
Stage 5	23.75	0	0
Stage 5	23.55	0	0
Stage 5	23.55	0	0
Stage 5	23.35	0	0
Stage 5	23.35	0	0
Stage 5	23.15	0	0
Stage 5	23.15	0	0
Stage 5	22.95	-0.12	-0.62
Stage 5	22.75	-1.15	-5.12
Stage 5	22.55	-3.87	-13.63
Stage 5	22.35	-9.12	-26.25
Stage 5	22.15	-17.73	-43.06
Stage 5	21.95	-30.44	-63.51
Stage 5	21.75	-8.58	109.26
Stage 5	21.55	8.91	87.46
Stage 5	21.35	22.48	67.88
Stage 5	21.15	32.58	50.47
Stage 5	20.95	39.6	35.13
Stage 5	20.75	43.87	21.31
Stage 5	20.55	45.52	8.28
Stage 5	20.35	44.69	-4.16
Stage 5	20.15	41.45	-16.22
Stage 5	19.95	35.69	-28.8
Stage 5	19.75	27.3	-41.96
Stage 5	19.55	16.15	-55.75
Stage 5	19.35	2.11	-70.19
Stage 5	19.15	-14.93	-85.2
Stage 5	18.95	-35.07	-100.7
Stage 5	18.75	-18.99	80.41
Stage 5	18.55	-6.11	64.38
Stage 5	18.35	3.55	48.32
Stage 5	18.15	10.04	32.46
Stage 5	17.95	13.45	17.05
Stage 5	17.75	14.3	4.22
Stage 5	17.55	13.45	-4.26
Stage 5	17.35	11.58	-9.35
Stage 5	17.15	9.35	-11.13
Stage 5	16.95	7.32	-10.14
Stage 5	16.75	5.51	-9.08
Stage 5	16.55	3.91	-7.99
Stage 5	16.35	2.53	-6.9
Stage 5	16.15	1.36	-5.85
Stage 5	15.95	0.39	-4.86
Stage 5	15.75	-0.4	-3.94
Stage 5	15.55	-1.02	-3.09
Stage 5	15.35	-1.49	-2.33
Stage 5	15.15	-1.82	-1.67
Stage 5	14.95	-2.05	-1.13
Stage 5	14.75	-2.19	-0.7
Stage 5	14.55	-2.25	-0.32
Stage 5	14.35	-2.25	0
Stage 5	14.15	-2.2	0.27
Stage 5	13.95	-2.1	0.5
Stage 5	13.75	-1.96	0.67
Stage 5	13.55	-1.8	0.8
Stage 5	13.45	-1.72	0.86
Stage 5	13.25	-1.54	0.91
Stage 5	13.05	-1.35	0.93
Stage 5	12.85	-1.16	0.93
Stage 5	12.65	-0.98	0.91
Stage 5	12.45	-0.81	0.86
Stage 5	12.25	-0.65	0.8
Stage 5	12.05	-0.5	0.73

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	11.85	-0.37	0.66
Stage 5	11.65	-0.25	0.58
Stage 5	11.45	-0.15	0.5
Stage 5	11.25	-0.07	0.42
Stage 5	11.05	0	0.35
Stage 5	10.85	0.06	0.28
Stage 5	10.65	0.1	0.21
Stage 5	10.45	0.13	0.15
Stage 5	10.25	0.15	0.1
Stage 5	10.05	0.16	0.06
Stage 5	9.85	0.17	0.02
Stage 5	9.65	0.16	0
Stage 5	9.45	0.16	-0.03
Stage 5	9.25	0.15	-0.05
Stage 5	9.05	0.14	-0.06
Stage 5	8.85	0.12	-0.07
Stage 5	8.65	0.11	-0.08
Stage 5	8.45	0.09	-0.08
Stage 5	8.25	0.08	-0.08
Stage 5	8.05	0.06	-0.08
Stage 5	7.85	0.04	-0.07
Stage 5	7.65	0.03	-0.07
Stage 5	7.45	0.02	-0.06
Stage 5	7.25	0.01	-0.05
Stage 5	7.05	0	-0.03
Stage 5	6.85	0	-0.02
Stage 5	6.75	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	23.95	0	0
Stage 6	23.75	0	0
Stage 6	23.75	0	0
Stage 6	23.55	0	0
Stage 6	23.55	0	0
Stage 6	23.35	0	0
Stage 6	23.35	0	0
Stage 6	23.15	0	0
Stage 6	23.15	0	0
Stage 6	22.95	-0.64	-3.18
Stage 6	22.75	-2.56	-9.62
Stage 6	22.55	-6.45	-19.44
Stage 6	22.35	-13	-32.74
Stage 6	22.15	-22.92	-49.6
Stage 6	21.95	-36.92	-70.05
Stage 6	21.75	-17.2	98.63
Stage 6	21.55	-2.02	75.89
Stage 6	21.35	9.08	55.48
Stage 6	21.15	16.55	37.37
Stage 6	20.95	20.85	21.5
Stage 6	20.75	22.34	7.45
Stage 6	20.55	21.26	-5.41
Stage 6	20.35	17.81	-17.24
Stage 6	20.15	12.17	-28.17
Stage 6	19.95	4.36	-39.08
Stage 6	19.75	-5.63	-49.96
Stage 6	19.55	-17.79	-60.77
Stage 6	19.35	-32.09	-71.5
Stage 6	19.15	-48.48	-81.99
Stage 6	18.95	-66.9	-92.07
Stage 6	18.75	-45.03	109.36
Stage 6	18.55	-24.88	100.71
Stage 6	18.35	-6.26	93.1
Stage 6	18.15	10.91	85.85
Stage 6	17.95	26.57	78.35
Stage 6	17.75	40.69	70.57
Stage 6	17.55	53.19	62.51
Stage 6	17.35	64.03	54.17
Stage 6	17.15	73.13	45.54
Stage 6	16.95	80.46	36.66
Stage 6	16.75	85.97	27.51
Stage 6	16.55	89.58	18.08
Stage 6	16.35	91.25	8.36
Stage 6	16.15	90.93	-1.63
Stage 6	15.95	88.55	-11.87
Stage 6	15.75	84.08	-22.37
Stage 6	15.55	77.45	-33.16
Stage 6	15.35	68.6	-44.22
Stage 6	15.15	57.81	-53.98
Stage 6	14.95	45.64	-60.83
Stage 6	14.75	32.69	-64.77
Stage 6	14.55	19.52	-65.82
Stage 6	14.35	6.72	-63.99
Stage 6	14.15	-5.13	-59.28
Stage 6	13.95	-15.59	-52.32
Stage 6	13.75	-24.35	-43.78
Stage 6	13.55	-31.07	-33.62
Stage 6	13.45	-33.68	-26.02
Stage 6	13.25	-37.47	-18.99
Stage 6	13.05	-39.68	-11.06
Stage 6	12.85	-40.58	-4.47
Stage 6	12.65	-40.4	0.91
Stage 6	12.45	-39.36	5.19
Stage 6	12.25	-37.66	8.49
Stage 6	12.05	-35.47	10.94

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	11.85	-32.94	12.65
Stage 6	11.65	-30.19	13.73
Stage 6	11.45	-27.34	14.27
Stage 6	11.25	-24.47	14.37
Stage 6	11.05	-21.64	14.11
Stage 6	10.85	-18.93	13.57
Stage 6	10.65	-16.36	12.84
Stage 6	10.45	-13.97	11.97
Stage 6	10.25	-11.77	11
Stage 6	10.05	-9.77	9.97
Stage 6	9.85	-7.99	8.92
Stage 6	9.65	-6.41	7.86
Stage 6	9.45	-5.05	6.83
Stage 6	9.25	-3.88	5.84
Stage 6	9.05	-2.9	4.91
Stage 6	8.85	-2.09	4.03
Stage 6	8.65	-1.44	3.24
Stage 6	8.45	-0.94	2.52
Stage 6	8.25	-0.56	1.89
Stage 6	8.05	-0.3	1.34
Stage 6	7.85	-0.12	0.88
Stage 6	7.65	-0.02	0.51
Stage 6	7.45	0.03	0.23
Stage 6	7.25	0.03	0.03
Stage 6	7.05	0.02	-0.07
Stage 6	6.85	0	-0.09
Stage 6	6.75	0	-0.03

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 7

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	23.95	0	0
Stage 7	23.75	0	0
Stage 7	23.75	0	0
Stage 7	23.55	0	0
Stage 7	23.55	0	0
Stage 7	23.35	0	0
Stage 7	23.35	0	0
Stage 7	23.15	0	0
Stage 7	23.15	0	0
Stage 7	22.95	-0.5	-2.5
Stage 7	22.75	-2.16	-8.28
Stage 7	22.55	-5.65	-17.47
Stage 7	22.35	-11.68	-30.16
Stage 7	22.15	-20.97	-46.44
Stage 7	21.95	-34.24	-66.34
Stage 7	21.75	-13.46	103.89
Stage 7	21.55	2.86	81.62
Stage 7	21.35	15.19	61.64
Stage 7	21.15	23.97	43.91
Stage 7	20.95	29.64	28.33
Stage 7	20.75	32.54	14.5
Stage 7	20.55	32.89	1.76
Stage 7	20.35	30.88	-10.07
Stage 7	20.15	26.64	-21.16
Stage 7	19.95	20.16	-32.4
Stage 7	19.75	11.4	-43.82
Stage 7	19.55	0.32	-55.41
Stage 7	19.35	-13.12	-67.18
Stage 7	19.15	-28.92	-79.02
Stage 7	18.95	-47.09	-90.81
Stage 7	18.75	-26.3	103.95
Stage 7	18.55	-7.74	92.78
Stage 7	18.35	8.7	82.19
Stage 7	18.15	22.99	71.45
Stage 7	17.95	34.98	59.93
Stage 7	17.75	44.49	47.58
Stage 7	17.55	51.37	34.38
Stage 7	17.35	55.43	20.3
Stage 7	17.15	56.5	5.36
Stage 7	16.95	54.42	-10.39
Stage 7	16.75	49.04	-26.93
Stage 7	16.55	40.19	-44.22
Stage 7	16.35	27.76	-62.19
Stage 7	16.15	11.61	-80.72
Stage 7	15.95	-8.32	-99.67
Stage 7	15.75	7.29	78.08
Stage 7	15.55	19.05	58.78
Stage 7	15.35	26.96	39.55
Stage 7	15.15	31.09	20.64
Stage 7	14.95	31.55	2.28
Stage 7	14.75	28.94	-13.02
Stage 7	14.55	24.08	-24.32
Stage 7	14.35	17.76	-31.61
Stage 7	14.15	10.78	-34.89
Stage 7	13.95	3.8	-34.87
Stage 7	13.75	-2.64	-32.24
Stage 7	13.55	-8.06	-27.06
Stage 7	13.45	-10.31	-22.53
Stage 7	13.25	-13.96	-18.26
Stage 7	13.05	-16.62	-13.28
Stage 7	12.85	-18.41	-8.97
Stage 7	12.65	-19.47	-5.29
Stage 7	12.45	-19.91	-2.21
Stage 7	12.25	-19.84	0.33
Stage 7	12.05	-19.37	2.37

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	11.85	-18.58	3.97
Stage 7	11.65	-17.55	5.15
Stage 7	11.45	-16.35	5.96
Stage 7	11.25	-15.07	6.44
Stage 7	11.05	-13.73	6.7
Stage 7	10.85	-12.37	6.79
Stage 7	10.65	-11.02	6.73
Stage 7	10.45	-9.72	6.54
Stage 7	10.25	-8.47	6.25
Stage 7	10.05	-7.29	5.88
Stage 7	9.85	-6.2	5.46
Stage 7	9.65	-5.2	5
Stage 7	9.45	-4.3	4.51
Stage 7	9.25	-3.49	4.02
Stage 7	9.05	-2.79	3.53
Stage 7	8.85	-2.18	3.06
Stage 7	8.65	-1.66	2.6
Stage 7	8.45	-1.22	2.17
Stage 7	8.25	-0.87	1.77
Stage 7	8.05	-0.59	1.4
Stage 7	7.85	-0.38	1.07
Stage 7	7.65	-0.22	0.78
Stage 7	7.45	-0.11	0.53
Stage 7	7.25	-0.05	0.33
Stage 7	7.05	-0.01	0.17
Stage 7	6.85	0	0.06
Stage 7	6.75	0	0.01

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 8

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	23.95	0	0
Stage 8	23.75	0	0
Stage 8	23.75	0	0
Stage 8	23.55	0	0
Stage 8	23.55	0	0
Stage 8	23.35	0	0
Stage 8	23.35	0	0
Stage 8	23.15	0	0
Stage 8	23.15	0	0
Stage 8	22.95	-0.49	-2.45
Stage 8	22.75	-2.14	-8.26
Stage 8	22.55	-5.66	-17.57
Stage 8	22.35	-11.75	-30.46
Stage 8	22.15	-21.15	-47.01
Stage 8	21.95	-34.6	-67.27
Stage 8	21.75	-14.29	101.55
Stage 8	21.55	1.46	78.78
Stage 8	21.35	13.12	58.26
Stage 8	21.15	21.11	39.96
Stage 8	20.95	25.87	23.8
Stage 8	20.75	27.72	9.27
Stage 8	20.55	26.86	-4.33
Stage 8	20.35	23.44	-17.1
Stage 8	20.15	17.6	-29.16
Stage 8	19.95	9.33	-41.4
Stage 8	19.75	-1.44	-53.82
Stage 8	19.55	-14.72	-66.4
Stage 8	19.35	-30.55	-79.13
Stage 8	19.15	-48.92	-91.87
Stage 8	18.95	-69.81	-104.45
Stage 8	18.75	-52.19	88.08
Stage 8	18.55	-36.9	76.43
Stage 8	18.35	-23.79	65.58
Stage 8	18.15	-12.81	54.87
Stage 8	17.95	-4.07	43.73
Stage 8	17.75	2.37	32.16
Stage 8	17.55	6.41	20.22
Stage 8	17.35	8.01	7.98
Stage 8	17.15	7.11	-4.47
Stage 8	16.95	3.71	-17
Stage 8	16.75	-2.18	-29.48
Stage 8	16.55	-10.54	-41.79
Stage 8	16.35	-21.29	-53.76
Stage 8	16.15	-34.33	-65.17
Stage 8	15.95	-49.48	-75.78
Stage 8	15.75	-22.5	134.93
Stage 8	15.55	2.33	124.14
Stage 8	15.35	24.95	113.08
Stage 8	15.15	45.3	101.74
Stage 8	14.95	63.33	90.15
Stage 8	14.75	78.99	78.3
Stage 8	14.55	92.22	66.17
Stage 8	14.35	102.98	53.77
Stage 8	14.15	111.19	41.09
Stage 8	13.95	116.83	28.16
Stage 8	13.75	119.82	14.98
Stage 8	13.55	120.12	1.52
Stage 8	13.45	119.25	-8.79
Stage 8	13.25	115.41	-19.19
Stage 8	13.05	108.74	-33.32
Stage 8	12.85	99.2	-47.7
Stage 8	12.65	87.05	-60.77
Stage 8	12.45	72.86	-70.95
Stage 8	12.25	57.21	-78.24
Stage 8	12.05	40.68	-82.63

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	11.85	23.86	-84.1
Stage 8	11.65	7.33	-82.67
Stage 8	11.45	-8.34	-78.36
Stage 8	11.25	-22.57	-71.15
Stage 8	11.05	-34.78	-61.03
Stage 8	10.85	-44.69	-49.57
Stage 8	10.65	-52.06	-36.85
Stage 8	10.45	-56.65	-22.91
Stage 8	10.25	-58.86	-11.1
Stage 8	10.05	-59.11	-1.24
Stage 8	9.85	-57.75	6.82
Stage 8	9.65	-55.1	13.25
Stage 8	9.45	-51.45	18.22
Stage 8	9.25	-47.08	21.89
Stage 8	9.05	-42.19	24.41
Stage 8	8.85	-37.01	25.91
Stage 8	8.65	-31.71	26.52
Stage 8	8.45	-26.45	26.27
Stage 8	8.25	-21.4	25.28
Stage 8	8.05	-16.66	23.69
Stage 8	7.85	-12.34	21.59
Stage 8	7.65	-8.54	19.02
Stage 8	7.45	-5.33	16.02
Stage 8	7.25	-2.81	12.62
Stage 8	7.05	-1.05	8.82
Stage 8	6.85	-0.12	4.63
Stage 8	6.75	0	1.19



### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 9

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	23.95	0	0
Stage 9	23.75	0	0
Stage 9	23.75	0	0
Stage 9	23.55	0	0
Stage 9	23.55	0	0
Stage 9	23.35	0	0
Stage 9	23.35	0	0
Stage 9	23.15	0	0
Stage 9	23.15	0	0
Stage 9	22.95	-0.5	-2.5
Stage 9	22.75	-2.17	-8.34
Stage 9	22.55	-5.69	-17.63
Stage 9	22.35	-11.79	-30.48
Stage 9	22.15	-21.18	-46.97
Stage 9	21.95	-34.61	-67.13
Stage 9	21.75	-14.19	102.1
Stage 9	21.55	1.71	79.48
Stage 9	21.35	13.54	59.15
Stage 9	21.15	21.75	41.07
Stage 9	20.95	26.78	25.16
Stage 9	20.75	28.96	10.9
Stage 9	20.55	28.48	-2.4
Stage 9	20.35	25.51	-14.84
Stage 9	20.15	20.2	-26.56
Stage 9	19.95	12.51	-38.44
Stage 9	19.75	2.41	-50.49
Stage 9	19.55	-10.13	-62.7
Stage 9	19.35	-25.14	-75.05
Stage 9	19.15	-42.62	-87.43
Stage 9	18.95	-62.55	-99.66
Stage 9	18.75	-43.77	93.91
Stage 9	18.55	-27.27	82.53
Stage 9	18.35	-12.89	71.88
Stage 9	18.15	-0.63	61.29
Stage 9	17.95	9.4	50.16
Stage 9	17.75	17.1	38.5
Stage 9	17.55	22.36	26.3
Stage 9	17.35	25.09	13.63
Stage 9	17.15	25.19	0.53
Stage 9	16.95	22.62	-12.87
Stage 9	16.75	17.32	-26.51
Stage 9	16.55	9.26	-40.28
Stage 9	16.35	-1.55	-54.05
Stage 9	16.15	-15.08	-67.66
Stage 9	15.95	-31.26	-80.89
Stage 9	15.75	-7.45	119.03
Stage 9	15.55	13.48	104.68
Stage 9	15.35	31.39	89.54
Stage 9	15.15	46.11	73.58
Stage 9	14.95	57.47	56.82
Stage 9	14.75	65.32	39.25
Stage 9	14.55	69.5	20.86
Stage 9	14.35	69.83	1.68
Stage 9	14.15	66.18	-18.25
Stage 9	13.95	58.41	-38.84
Stage 9	13.75	46.41	-60
Stage 9	13.55	30.08	-81.66
Stage 9	13.45	20.27	-98.16
Stage 9	13.25	36.71	82.21
Stage 9	13.05	48.71	60.02
Stage 9	12.85	56.3	37.92
Stage 9	12.65	59.52	16.11
Stage 9	12.45	58.48	-5.2
Stage 9	12.25	53.59	-24.43
Stage 9	12.05	45.68	-39.57

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	11.85	35.56	-50.61
Stage 9	11.65	24.04	-57.59
Stage 9	11.45	11.93	-60.54
Stage 9	11.25	0.03	-59.53
Stage 9	11.05	-10.9	-54.62
Stage 9	10.85	-20.39	-47.44
Stage 9	10.65	-28.02	-38.17
Stage 9	10.45	-33.41	-26.95
Stage 9	10.25	-36.85	-17.2
Stage 9	10.05	-38.62	-8.84
Stage 9	9.85	-38.98	-1.79
Stage 9	9.65	-38.16	4.06
Stage 9	9.45	-36.41	8.78
Stage 9	9.25	-33.91	12.48
Stage 9	9.05	-30.87	15.21
Stage 9	8.85	-27.45	17.08
Stage 9	8.65	-23.82	18.17
Stage 9	8.45	-20.11	18.56
Stage 9	8.25	-16.45	18.32
Stage 9	8.05	-12.93	17.56
Stage 9	7.85	-9.67	16.31
Stage 9	7.65	-6.75	14.61
Stage 9	7.45	-4.25	12.49
Stage 9	7.25	-2.26	9.97
Stage 9	7.05	-0.85	7.05
Stage 9	6.85	-0.1	3.75
Stage 9	6.75	0	0.97

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 10

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	23.95	0	0
Stage 10	23.75	0	0
Stage 10	23.75	0	0
Stage 10	23.55	0	0
Stage 10	23.55	0	0
Stage 10	23.35	0	0
Stage 10	23.35	0	0
Stage 10	23.15	0	0
Stage 10	23.15	0	0
Stage 10	22.95	-0.48	-2.42
Stage 10	22.75	-2.12	-8.2
Stage 10	22.55	-5.61	-17.43
Stage 10	22.35	-11.66	-30.24
Stage 10	22.15	-21	-46.69
Stage 10	21.95	-34.36	-66.82
Stage 10	21.75	-13.87	102.45
Stage 10	21.55	2.1	79.84
Stage 10	21.35	14	59.5
Stage 10	21.15	22.28	41.41
Stage 10	20.95	27.37	25.46
Stage 10	20.75	29.61	11.17
Stage 10	20.55	29.17	-2.2
Stage 10	20.35	26.22	-14.72
Stage 10	20.15	20.91	-26.54
Stage 10	19.95	13.21	-38.53
Stage 10	19.75	3.07	-50.71
Stage 10	19.55	-9.55	-63.08
Stage 10	19.35	-24.67	-75.61
Stage 10	19.15	-42.31	-88.18
Stage 10	18.95	-62.44	-100.65
Stage 10	18.75	-44.02	92.07
Stage 10	18.55	-27.94	80.4
Stage 10	18.35	-14.05	69.45
Stage 10	18.15	-2.34	58.54
Stage 10	17.95	7.07	47.06
Stage 10	17.75	14.07	35.02
Stage 10	17.55	18.56	22.45
Stage 10	17.35	20.44	9.38
Stage 10	17.15	19.62	-4.1
Stage 10	16.95	16.04	-17.89
Stage 10	16.75	9.66	-31.89
Stage 10	16.55	0.46	-46
Stage 10	16.35	-11.55	-60.06
Stage 10	16.15	-26.33	-73.9
Stage 10	15.95	-43.78	-87.27
Stage 10	15.75	-21.29	112.49
Stage 10	15.55	-1.64	98.23
Stage 10	15.35	15.02	83.32
Stage 10	15.15	28.58	67.77
Stage 10	14.95	38.91	51.64
Stage 10	14.75	45.89	34.94
Stage 10	14.55	49.43	17.7
Stage 10	14.35	49.43	-0.02
Stage 10	14.15	45.8	-18.13
Stage 10	13.95	38.5	-36.51
Stage 10	13.75	27.49	-55.03
Stage 10	13.55	12.78	-73.58
Stage 10	13.45	4.04	-87.37
Stage 10	13.25	25.4	106.79
Stage 10	13.05	43.2	89.02
Stage 10	12.85	57.59	71.91
Stage 10	12.65	68.7	55.56
Stage 10	12.45	76.7	40.03
Stage 10	12.25	81.67	24.84
Stage 10	12.05	83.55	9.38

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	11.85	82.28	-6.32
Stage 10	11.65	77.82	-22.3
Stage 10	11.45	70.59	-36.17
Stage 10	11.25	61.16	-47.15
Stage 10	11.05	50.12	-55.22
Stage 10	10.85	38.04	-60.38
Stage 10	10.65	25.51	-62.64
Stage 10	10.45	13.11	-62.01
Stage 10	10.25	1.42	-58.48
Stage 10	10.05	-9.15	-52.82
Stage 10	9.85	-18.31	-45.78
Stage 10	9.65	-25.78	-37.35
Stage 10	9.45	-31.28	-27.5
Stage 10	9.25	-34.51	-16.19
Stage 10	9.05	-35.59	-5.39
Stage 10	8.85	-34.89	3.49
Stage 10	8.65	-32.79	10.53
Stage 10	8.45	-29.62	15.86
Stage 10	8.25	-25.69	19.65
Stage 10	8.05	-21.27	22.07
Stage 10	7.85	-16.64	23.17
Stage 10	7.65	-12.06	22.89
Stage 10	7.45	-7.84	21.08
Stage 10	7.25	-4.29	17.78
Stage 10	7.05	-1.65	13.17
Stage 10	6.85	-0.19	7.3
Stage 10	6.75	0	1.94

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 11-S

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	23.95	0	0
Stage 11-S	23.75	0	0
Stage 11-S	23.75	0	0
Stage 11-S	23.55	0	0
Stage 11-S	23.55	0	0
Stage 11-S	23.35	0	0
Stage 11-S	23.35	0	0
Stage 11-S	23.15	0	0
Stage 11-S	23.15	0	0
Stage 11-S	22.95	-0.48	-2.42
Stage 11-S	22.75	-2.12	-8.2
Stage 11-S	22.55	-5.61	-17.43
Stage 11-S	22.35	-11.66	-30.24
Stage 11-S	22.15	-21	-46.69
Stage 11-S	21.95	-34.36	-66.82
Stage 11-S	21.75	-13.87	102.45
Stage 11-S	21.55	2.1	79.84
Stage 11-S	21.35	14	59.5
Stage 11-S	21.15	22.28	41.41
Stage 11-S	20.95	27.37	25.46
Stage 11-S	20.75	29.61	11.17
Stage 11-S	20.55	29.17	-2.2
Stage 11-S	20.35	26.22	-14.72
Stage 11-S	20.15	20.91	-26.54
Stage 11-S	19.95	13.21	-38.53
Stage 11-S	19.75	3.07	-50.71
Stage 11-S	19.55	-9.55	-63.08
Stage 11-S	19.35	-24.67	-75.61
Stage 11-S	19.15	-42.31	-88.18
Stage 11-S	18.95	-62.44	-100.65
Stage 11-S	18.75	-44.02	92.07
Stage 11-S	18.55	-27.94	80.4
Stage 11-S	18.35	-14.05	69.45
Stage 11-S	18.15	-2.34	58.54
Stage 11-S	17.95	7.07	47.06
Stage 11-S	17.75	14.07	35.02
Stage 11-S	17.55	18.56	22.45
Stage 11-S	17.35	20.44	9.38
Stage 11-S	17.15	19.62	-4.1
Stage 11-S	16.95	16.04	-17.89
Stage 11-S	16.75	9.66	-31.89
Stage 11-S	16.55	0.46	-46
Stage 11-S	16.35	-11.55	-60.06
Stage 11-S	16.15	-26.33	-73.9
Stage 11-S	15.95	-43.78	-87.27
Stage 11-S	15.75	-21.29	112.49
Stage 11-S	15.55	-1.64	98.23
Stage 11-S	15.35	15.02	83.32
Stage 11-S	15.15	28.58	67.77
Stage 11-S	14.95	38.91	51.64
Stage 11-S	14.75	45.89	34.94
Stage 11-S	14.55	49.43	17.7
Stage 11-S	14.35	49.43	-0.02
Stage 11-S	14.15	45.8	-18.13
Stage 11-S	13.95	38.5	-36.51
Stage 11-S	13.75	27.49	-55.03
Stage 11-S	13.55	12.78	-73.58
Stage 11-S	13.45	4.04	-87.37
Stage 11-S	13.25	25.4	106.79
Stage 11-S	13.05	43.2	89.02
Stage 11-S	12.85	57.59	71.91
Stage 11-S	12.65	68.7	55.56
Stage 11-S	12.45	76.7	40.03
Stage 11-S	12.25	81.67	24.84
Stage 11-S	12.05	83.55	9.38

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	11.85	82.28	-6.32
Stage 11-S	11.65	77.82	-22.3
Stage 11-S	11.45	70.59	-36.17
Stage 11-S	11.25	61.16	-47.15
Stage 11-S	11.05	50.12	-55.22
Stage 11-S	10.85	38.04	-60.38
Stage 11-S	10.65	25.51	-62.64
Stage 11-S	10.45	13.11	-62.01
Stage 11-S	10.25	1.42	-58.48
Stage 11-S	10.05	-9.15	-52.82
Stage 11-S	9.85	-18.31	-45.78
Stage 11-S	9.65	-25.78	-37.35
Stage 11-S	9.45	-31.28	-27.5
Stage 11-S	9.25	-34.51	-16.19
Stage 11-S	9.05	-35.59	-5.39
Stage 11-S	8.85	-34.89	3.49
Stage 11-S	8.65	-32.79	10.53
Stage 11-S	8.45	-29.62	15.86
Stage 11-S	8.25	-25.69	19.65
Stage 11-S	8.05	-21.27	22.07
Stage 11-S	7.85	-16.64	23.17
Stage 11-S	7.65	-12.06	22.89
Stage 11-S	7.45	-7.84	21.08
Stage 11-S	7.25	-4.29	17.78
Stage 11-S	7.05	-1.65	13.17
Stage 11-S	6.85	-0.19	7.3
Stage 11-S	6.75	0	1.94

## Risultati Elementi strutturali - A2+M2+R1

### Design Assumption: A2+M2+R1 Sollecitazione Tir-D2

Stage	Forza (kN/m)
Stage 3	200
Stage 4	201.2847
Stage 5	199.6892
Stage 6	196.0913
Stage 7	197.1322
Stage 8	196.1604
Stage 9	196.4418
Stage 10	196.4772
Stage 11-S	196.4772

**Design Assumption: A2+M2+R1 Sollecitazione Tir-E2**

Stage	Forza (kN/m)
Stage 5	200
Stage 6	214.1662
Stage 7	209.5156
Stage 8	207.9178
Stage 9	208.6689
Stage 10	208.0551
Stage 11-S	208.0551



**Design Assumption: A2+M2+R1 Sollecitazione Tir-F2**

Stage	Forza (kN/m)
Stage 7	200
Stage 8	224.6271
Stage 9	216.7791
Stage 10	216.6663
Stage 11-S	216.6663

**Design Assumption: A2+M2+R1 Sollecitazione Tir-G2**

Stage	Forza (kN/m)
Stage 9	200
Stage 10	211.0506
Stage 11-S	211.0506

## Risultati SISMICA STR

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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	23.95	0	0
Stage 1	23.75	0	0
Stage 1	23.75	0	0
Stage 1	23.55	0	0
Stage 1	23.55	0	0
Stage 1	23.35	0	0
Stage 1	23.35	0	0
Stage 1	23.15	0	0
Stage 1	22.95	0	0
Stage 1	22.75	0	0
Stage 1	22.55	0	0
Stage 1	22.35	0	0
Stage 1	22.15	0	0
Stage 1	21.95	0	0
Stage 1	21.75	0	0
Stage 1	21.55	0	0
Stage 1	21.35	0	0
Stage 1	21.15	0	0
Stage 1	20.95	0	0
Stage 1	20.75	0	0
Stage 1	20.55	0	0
Stage 1	20.35	0	0
Stage 1	20.15	0	0
Stage 1	19.95	0	0
Stage 1	19.75	0	0
Stage 1	19.55	0	0
Stage 1	19.35	0	0
Stage 1	19.15	0	0
Stage 1	18.95	0	0
Stage 1	18.75	0	0
Stage 1	18.55	0	0
Stage 1	18.35	0	0
Stage 1	18.15	0	0
Stage 1	17.95	0	0
Stage 1	17.75	0	0
Stage 1	17.55	0	0
Stage 1	17.35	0	0
Stage 1	17.15	0	0
Stage 1	16.95	0	0
Stage 1	16.75	0	0
Stage 1	16.55	0	0
Stage 1	16.35	0	0
Stage 1	16.15	0	0
Stage 1	15.95	0	0
Stage 1	15.75	0	0
Stage 1	15.55	0	0
Stage 1	15.35	0	0
Stage 1	15.15	0	0
Stage 1	14.95	0	0
Stage 1	14.75	0	0
Stage 1	14.55	0	0
Stage 1	14.35	0	0
Stage 1	14.15	0	0
Stage 1	13.95	0	0
Stage 1	13.75	0	0
Stage 1	13.55	0	0
Stage 1	13.45	0	0
Stage 1	13.25	0	0
Stage 1	13.05	0	0
Stage 1	12.85	0	0
Stage 1	12.65	0	0
Stage 1	12.45	0	0

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	12.25	0	0
Stage 1	12.05	0	0
Stage 1	11.85	0	0
Stage 1	11.65	0	0
Stage 1	11.45	0	0
Stage 1	11.25	0	0
Stage 1	11.05	0	0
Stage 1	10.85	0	0
Stage 1	10.65	0	0
Stage 1	10.45	0	0
Stage 1	10.25	0	0
Stage 1	10.05	0	0
Stage 1	9.85	0	0
Stage 1	9.65	0	0
Stage 1	9.45	0	0
Stage 1	9.25	0	0
Stage 1	9.05	0	0
Stage 1	8.85	0	0
Stage 1	8.65	0	0
Stage 1	8.45	0	0
Stage 1	8.25	0	0
Stage 1	8.05	0	0
Stage 1	7.85	0	0
Stage 1	7.65	0	0
Stage 1	7.45	0	0
Stage 1	7.25	0	0
Stage 1	7.05	0	0
Stage 1	6.85	0	0
Stage 1	6.75	0	0

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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	23.95	0	0
Stage 2	23.75	0	0
Stage 2	23.75	0	0
Stage 2	23.55	0	0
Stage 2	23.55	0	0
Stage 2	23.35	0	0
Stage 2	23.35	0	0
Stage 2	23.15	0	0
Stage 2	23.15	0	0
Stage 2	22.95	-0.04	-0.2
Stage 2	22.75	-0.16	-0.6
Stage 2	22.55	-0.4	-1.2
Stage 2	22.35	-0.81	-2.03
Stage 2	22.15	-1.42	-3.07
Stage 2	21.95	-2.29	-4.34
Stage 2	21.75	-3.46	-5.85
Stage 2	21.55	-4.98	-7.61
Stage 2	21.35	-6.9	-9.61
Stage 2	21.15	-8.9	-10
Stage 2	20.95	-10.37	-7.35
Stage 2	20.75	-10.99	-3.06
Stage 2	20.55	-10.95	0.19
Stage 2	20.35	-10.44	2.54
Stage 2	20.15	-9.61	4.14
Stage 2	19.95	-8.59	5.11
Stage 2	19.75	-7.48	5.55
Stage 2	19.55	-6.36	5.59
Stage 2	19.35	-5.28	5.38
Stage 2	19.15	-4.28	5.02
Stage 2	18.95	-3.37	4.56
Stage 2	18.75	-2.56	4.04
Stage 2	18.55	-1.86	3.49
Stage 2	18.35	-1.28	2.94
Stage 2	18.15	-0.79	2.42
Stage 2	17.95	-0.4	1.94
Stage 2	17.75	-0.1	1.5
Stage 2	17.55	0.12	1.12
Stage 2	17.35	0.28	0.8
Stage 2	17.15	0.39	0.53
Stage 2	16.95	0.45	0.31
Stage 2	16.75	0.48	0.13
Stage 2	16.55	0.48	0
Stage 2	16.35	0.45	-0.1
Stage 2	16.15	0.42	-0.17
Stage 2	15.95	0.38	-0.21
Stage 2	15.75	0.33	-0.24
Stage 2	15.55	0.28	-0.24
Stage 2	15.35	0.24	-0.23
Stage 2	15.15	0.19	-0.22
Stage 2	14.95	0.15	-0.2
Stage 2	14.75	0.12	-0.18
Stage 2	14.55	0.08	-0.16
Stage 2	14.35	0.06	-0.13
Stage 2	14.15	0.04	-0.11
Stage 2	13.95	0.02	-0.09
Stage 2	13.75	0.01	-0.07
Stage 2	13.55	0	-0.05
Stage 2	13.45	-0.01	-0.04
Stage 2	13.25	-0.01	-0.03
Stage 2	13.05	-0.02	-0.02
Stage 2	12.85	-0.02	-0.01
Stage 2	12.65	-0.02	0
Stage 2	12.45	-0.02	0
Stage 2	12.25	-0.02	0.01
Stage 2	12.05	-0.02	0.01

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	11.85	-0.01	0.01
Stage 2	11.65	-0.01	0.01
Stage 2	11.45	-0.01	0.01
Stage 2	11.25	-0.01	0.01
Stage 2	11.05	-0.01	0.01
Stage 2	10.85	-0.01	0.01
Stage 2	10.65	0	0.01
Stage 2	10.45	0	0.01
Stage 2	10.25	0	0
Stage 2	10.05	0	0
Stage 2	9.85	0	0
Stage 2	9.65	0	0
Stage 2	9.45	0	0
Stage 2	9.25	0	0
Stage 2	9.05	0	0
Stage 2	8.85	0	0
Stage 2	8.65	0	0
Stage 2	8.45	0	0
Stage 2	8.25	0	0
Stage 2	8.05	0	0
Stage 2	7.85	0	0
Stage 2	7.65	0	0
Stage 2	7.45	0	0
Stage 2	7.25	0	0
Stage 2	7.05	0	0
Stage 2	6.85	0	0
Stage 2	6.75	0	0

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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	23.95	0	0
Stage 3	23.75	0	0
Stage 3	23.75	0	0
Stage 3	23.55	0	0
Stage 3	23.55	0	0
Stage 3	23.35	0	0
Stage 3	23.35	0	0
Stage 3	23.15	0	0
Stage 3	23.15	0	0
Stage 3	22.95	-0.91	-4.55
Stage 3	22.75	-3.67	-13.78
Stage 3	22.55	-9.24	-27.85
Stage 3	22.35	-18.62	-46.9
Stage 3	22.15	-31.95	-66.67
Stage 3	21.95	-49.11	-85.81
Stage 3	21.75	-30.54	92.84
Stage 3	21.55	-15.43	75.59
Stage 3	21.35	-3.51	59.59
Stage 3	21.15	5.45	44.77
Stage 3	20.95	11.58	30.67
Stage 3	20.75	15.55	19.87
Stage 3	20.55	17.79	11.17
Stage 3	20.35	18.66	4.37
Stage 3	20.15	18.51	-0.78
Stage 3	19.95	17.6	-4.51
Stage 3	19.75	16.19	-7.08
Stage 3	19.55	14.45	-8.68
Stage 3	19.35	12.55	-9.51
Stage 3	19.15	10.61	-9.72
Stage 3	18.95	8.73	-9.41
Stage 3	18.75	6.98	-8.75
Stage 3	18.55	5.4	-7.88
Stage 3	18.35	4.02	-6.89
Stage 3	18.15	2.85	-5.87
Stage 3	17.95	1.87	-4.86
Stage 3	17.75	1.09	-3.92
Stage 3	17.55	0.48	-3.06
Stage 3	17.35	0.02	-2.3
Stage 3	17.15	-0.31	-1.66
Stage 3	16.95	-0.54	-1.11
Stage 3	16.75	-0.67	-0.67
Stage 3	16.55	-0.74	-0.33
Stage 3	16.35	-0.75	-0.06
Stage 3	16.15	-0.72	0.13
Stage 3	15.95	-0.67	0.26
Stage 3	15.75	-0.61	0.34
Stage 3	15.55	-0.53	0.38
Stage 3	15.35	-0.45	0.39
Stage 3	15.15	-0.37	0.38
Stage 3	14.95	-0.3	0.36
Stage 3	14.75	-0.24	0.33
Stage 3	14.55	-0.18	0.29
Stage 3	14.35	-0.13	0.25
Stage 3	14.15	-0.09	0.21
Stage 3	13.95	-0.05	0.17
Stage 3	13.75	-0.03	0.14
Stage 3	13.55	-0.01	0.1
Stage 3	13.45	0	0.08
Stage 3	13.25	0.02	0.07
Stage 3	13.05	0.02	0.04
Stage 3	12.85	0.03	0.03
Stage 3	12.65	0.03	0.01
Stage 3	12.45	0.03	0
Stage 3	12.25	0.03	-0.01
Stage 3	12.05	0.03	-0.01

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	11.85	0.03	-0.01
Stage 3	11.65	0.02	-0.02
Stage 3	11.45	0.02	-0.02
Stage 3	11.25	0.02	-0.02
Stage 3	11.05	0.01	-0.02
Stage 3	10.85	0.01	-0.01
Stage 3	10.65	0.01	-0.01
Stage 3	10.45	0.01	-0.01
Stage 3	10.25	0	-0.01
Stage 3	10.05	0	-0.01
Stage 3	9.85	0	-0.01
Stage 3	9.65	0	0
Stage 3	9.45	0	0
Stage 3	9.25	0	0
Stage 3	9.05	0	0
Stage 3	8.85	0	0
Stage 3	8.65	0	0
Stage 3	8.45	0	0
Stage 3	8.25	0	0
Stage 3	8.05	0	0
Stage 3	7.85	0	0
Stage 3	7.65	0	0
Stage 3	7.45	0	0
Stage 3	7.25	0	0
Stage 3	7.05	0	0
Stage 3	6.85	0	0
Stage 3	6.75	0	0



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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	23.95	0	0
Stage 4	23.75	0	0
Stage 4	23.75	0	0
Stage 4	23.55	0	0
Stage 4	23.55	0	0
Stage 4	23.35	0	0
Stage 4	23.35	0	0
Stage 4	23.15	0	0
Stage 4	23.15	0	0
Stage 4	22.95	-0.91	-4.55
Stage 4	22.75	-3.67	-13.78
Stage 4	22.55	-9.24	-27.85
Stage 4	22.35	-18.62	-46.9
Stage 4	22.15	-31.97	-66.77
Stage 4	21.95	-49.04	-85.35
Stage 4	21.75	-29.84	95.99
Stage 4	21.55	-13.69	80.76
Stage 4	21.35	-0.19	67.5
Stage 4	21.15	11.02	56.03
Stage 4	20.95	20.18	45.8
Stage 4	20.75	27.53	36.76
Stage 4	20.55	33.3	28.84
Stage 4	20.35	37.68	21.91
Stage 4	20.15	40.84	15.82
Stage 4	19.95	42.92	10.4
Stage 4	19.75	44.01	5.46
Stage 4	19.55	44.18	0.82
Stage 4	19.35	43.44	-3.71
Stage 4	19.15	41.77	-8.31
Stage 4	18.95	39.15	-13.11
Stage 4	18.75	35.51	-18.21
Stage 4	18.55	30.74	-23.85
Stage 4	18.35	24.7	-30.22
Stage 4	18.15	17.66	-35.19
Stage 4	17.95	10.33	-36.63
Stage 4	17.75	3.41	-34.61
Stage 4	17.55	-2.43	-29.19
Stage 4	17.35	-6.86	-22.19
Stage 4	17.15	-10.09	-16.13
Stage 4	16.95	-12.29	-10.98
Stage 4	16.75	-13.62	-6.68
Stage 4	16.55	-14.26	-3.18
Stage 4	16.35	-14.33	-0.38
Stage 4	16.15	-13.98	1.79
Stage 4	15.95	-13.3	3.4
Stage 4	15.75	-12.39	4.54
Stage 4	15.55	-11.33	5.29
Stage 4	15.35	-10.19	5.7
Stage 4	15.15	-9.02	5.85
Stage 4	14.95	-7.87	5.78
Stage 4	14.75	-6.75	5.57
Stage 4	14.55	-5.7	5.26
Stage 4	14.35	-4.72	4.87
Stage 4	14.15	-3.84	4.44
Stage 4	13.95	-3.04	3.98
Stage 4	13.75	-2.34	3.51
Stage 4	13.55	-1.73	3.05
Stage 4	13.45	-1.45	2.72
Stage 4	13.25	-0.97	2.4
Stage 4	13.05	-0.57	2.01
Stage 4	12.85	-0.24	1.64
Stage 4	12.65	0.02	1.31
Stage 4	12.45	0.22	1.02
Stage 4	12.25	0.38	0.77
Stage 4	12.05	0.49	0.55

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	11.85	0.56	0.36
Stage 4	11.65	0.6	0.21
Stage 4	11.45	0.62	0.08
Stage 4	11.25	0.61	-0.02
Stage 4	11.05	0.6	-0.1
Stage 4	10.85	0.56	-0.15
Stage 4	10.65	0.53	-0.2
Stage 4	10.45	0.48	-0.22
Stage 4	10.25	0.43	-0.24
Stage 4	10.05	0.38	-0.25
Stage 4	9.85	0.33	-0.25
Stage 4	9.65	0.29	-0.24
Stage 4	9.45	0.24	-0.22
Stage 4	9.25	0.2	-0.21
Stage 4	9.05	0.16	-0.19
Stage 4	8.85	0.13	-0.17
Stage 4	8.65	0.1	-0.14
Stage 4	8.45	0.08	-0.12
Stage 4	8.25	0.06	-0.1
Stage 4	8.05	0.04	-0.08
Stage 4	7.85	0.03	-0.07
Stage 4	7.65	0.02	-0.05
Stage 4	7.45	0.01	-0.04
Stage 4	7.25	0	-0.02
Stage 4	7.05	0	-0.01
Stage 4	6.85	0	-0.01
Stage 4	6.75	0	0

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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	23.95	0	0
Stage 5	23.75	0	0
Stage 5	23.75	0	0
Stage 5	23.55	0	0
Stage 5	23.55	0	0
Stage 5	23.35	0	0
Stage 5	23.35	0	0
Stage 5	23.15	0	0
Stage 5	23.15	0	0
Stage 5	22.95	-0.38	-1.88
Stage 5	22.75	-2.19	-9.05
Stage 5	22.55	-6.52	-21.68
Stage 5	22.35	-14.51	-39.92
Stage 5	22.15	-26.43	-59.61
Stage 5	21.95	-42.16	-78.66
Stage 5	21.75	-22.1	100.3
Stage 5	21.55	-5.46	83.23
Stage 5	21.35	8.03	67.42
Stage 5	21.15	18.55	52.64
Stage 5	20.95	26.22	38.31
Stage 5	20.75	31.09	24.4
Stage 5	20.55	33.26	10.83
Stage 5	20.35	32.76	-2.5
Stage 5	20.15	29.62	-15.72
Stage 5	19.95	23.82	-28.97
Stage 5	19.75	15.35	-42.38
Stage 5	19.55	4.13	-56.06
Stage 5	19.35	-9.89	-70.1
Stage 5	19.15	-26.8	-84.56
Stage 5	18.95	-46.69	-99.47
Stage 5	18.75	-30.25	82.21
Stage 5	18.55	-16.93	66.6
Stage 5	18.35	-6.79	50.7
Stage 5	18.15	0.14	34.63
Stage 5	17.95	4.12	19.9
Stage 5	17.75	6.11	9.97
Stage 5	17.55	7.08	4.84
Stage 5	17.35	7.62	2.67
Stage 5	17.15	7.8	0.9
Stage 5	16.95	7.7	-0.5
Stage 5	16.75	7.38	-1.58
Stage 5	16.55	6.9	-2.39
Stage 5	16.35	6.31	-2.95
Stage 5	16.15	5.65	-3.29
Stage 5	15.95	4.96	-3.45
Stage 5	15.75	4.27	-3.47
Stage 5	15.55	3.6	-3.37
Stage 5	15.35	2.96	-3.19
Stage 5	15.15	2.37	-2.96
Stage 5	14.95	1.82	-2.71
Stage 5	14.75	1.34	-2.42
Stage 5	14.55	0.92	-2.12
Stage 5	14.35	0.55	-1.8
Stage 5	14.15	0.25	-1.5
Stage 5	13.95	0.01	-1.21
Stage 5	13.75	-0.18	-0.95
Stage 5	13.55	-0.32	-0.71
Stage 5	13.45	-0.37	-0.55
Stage 5	13.25	-0.45	-0.4
Stage 5	13.05	-0.5	-0.23
Stage 5	12.85	-0.52	-0.09
Stage 5	12.65	-0.51	0.02
Stage 5	12.45	-0.49	0.11
Stage 5	12.25	-0.46	0.17
Stage 5	12.05	-0.41	0.22

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	11.85	-0.37	0.24
Stage 5	11.65	-0.31	0.26
Stage 5	11.45	-0.26	0.26
Stage 5	11.25	-0.21	0.25
Stage 5	11.05	-0.17	0.23
Stage 5	10.85	-0.13	0.21
Stage 5	10.65	-0.09	0.18
Stage 5	10.45	-0.06	0.15
Stage 5	10.25	-0.03	0.13
Stage 5	10.05	-0.01	0.11
Stage 5	9.85	0	0.08
Stage 5	9.65	0.02	0.06
Stage 5	9.45	0.03	0.05
Stage 5	9.25	0.03	0.03
Stage 5	9.05	0.04	0.02
Stage 5	8.85	0.04	0
Stage 5	8.65	0.04	-0.01
Stage 5	8.45	0.03	-0.01
Stage 5	8.25	0.03	-0.02
Stage 5	8.05	0.02	-0.02
Stage 5	7.85	0.02	-0.03
Stage 5	7.65	0.01	-0.03
Stage 5	7.45	0.01	-0.02
Stage 5	7.25	0.01	-0.02
Stage 5	7.05	0	-0.02
Stage 5	6.85	0	-0.01
Stage 5	6.75	0	0

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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	23.95	0	0
Stage 6	23.75	0	0
Stage 6	23.75	0	0
Stage 6	23.55	0	0
Stage 6	23.55	0	0
Stage 6	23.35	0	0
Stage 6	23.35	0	0
Stage 6	23.15	0	0
Stage 6	23.15	0	0
Stage 6	22.95	-0.66	-3.32
Stage 6	22.75	-3.03	-11.82
Stage 6	22.55	-8.16	-25.68
Stage 6	22.35	-17.11	-44.73
Stage 6	22.15	-30.14	-65.13
Stage 6	21.95	-47.09	-84.78
Stage 6	21.75	-28.65	92.22
Stage 6	21.55	-13.71	74.67
Stage 6	21.35	-2.02	58.47
Stage 6	21.15	6.66	43.42
Stage 6	20.95	12.46	28.97
Stage 6	20.75	15.48	15.11
Stage 6	20.55	15.85	1.86
Stage 6	20.35	13.68	-10.88
Stage 6	20.15	9.04	-23.19
Stage 6	19.95	2.01	-35.16
Stage 6	19.75	-7.37	-46.87
Stage 6	19.55	-19.04	-58.38
Stage 6	19.35	-32.99	-69.73
Stage 6	19.15	-49.18	-80.95
Stage 6	18.95	-67.57	-91.98
Stage 6	18.75	-46.94	103.16
Stage 6	18.55	-28.38	92.82
Stage 6	18.35	-11.79	82.95
Stage 6	18.15	2.93	73.6
Stage 6	17.95	15.89	64.79
Stage 6	17.75	27.19	56.5
Stage 6	17.55	36.93	48.7
Stage 6	17.35	45.19	41.32
Stage 6	17.15	52.05	34.27
Stage 6	16.95	57.5	27.28
Stage 6	16.75	61.52	20.07
Stage 6	16.55	64.05	12.64
Stage 6	16.35	65.04	4.99
Stage 6	16.15	64.47	-2.88
Stage 6	15.95	62.28	-10.95
Stage 6	15.75	58.43	-19.23
Stage 6	15.55	52.82	-28.04
Stage 6	15.35	45.29	-37.7
Stage 6	15.15	36.08	-46.05
Stage 6	14.95	25.89	-50.91
Stage 6	14.75	15.42	-52.35
Stage 6	14.55	5.34	-50.43
Stage 6	14.35	-3.7	-45.2
Stage 6	14.15	-11.04	-36.68
Stage 6	13.95	-16.65	-28.04
Stage 6	13.75	-20.75	-20.51
Stage 6	13.55	-23.55	-14.02
Stage 6	13.45	-24.54	-9.89
Stage 6	13.25	-25.76	-6.11
Stage 6	13.05	-26.15	-1.95
Stage 6	12.85	-25.87	1.41
Stage 6	12.65	-25.06	4.06
Stage 6	12.45	-23.84	6.08
Stage 6	12.25	-22.33	7.55
Stage 6	12.05	-20.63	8.54

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	11.85	-18.8	9.12
Stage 6	11.65	-16.93	9.37
Stage 6	11.45	-15.06	9.32
Stage 6	11.25	-13.25	9.07
Stage 6	11.05	-11.52	8.66
Stage 6	10.85	-9.89	8.15
Stage 6	10.65	-8.38	7.55
Stage 6	10.45	-7	6.9
Stage 6	10.25	-5.75	6.22
Stage 6	10.05	-4.65	5.53
Stage 6	9.85	-3.68	4.85
Stage 6	9.65	-2.84	4.19
Stage 6	9.45	-2.13	3.55
Stage 6	9.25	-1.54	2.96
Stage 6	9.05	-1.06	2.41
Stage 6	8.85	-0.67	1.91
Stage 6	8.65	-0.38	1.46
Stage 6	8.45	-0.17	1.06
Stage 6	8.25	-0.03	0.72
Stage 6	8.05	0.06	0.44
Stage 6	7.85	0.1	0.21
Stage 6	7.65	0.11	0.03
Stage 6	7.45	0.09	-0.09
Stage 6	7.25	0.06	-0.15
Stage 6	7.05	0.03	-0.16
Stage 6	6.85	0	-0.12
Stage 6	6.75	0	-0.03

### Tabella Risultati Paratia SISMICA STR - Left Wall - Stage: Stage 7

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	23.95	0	0
Stage 7	23.75	0	0
Stage 7	23.75	0	0
Stage 7	23.55	0	0
Stage 7	23.55	0	0
Stage 7	23.35	0	0
Stage 7	23.35	0	0
Stage 7	23.15	0	0
Stage 7	23.15	0	0
Stage 7	22.95	-0.54	-2.72
Stage 7	22.75	-2.67	-10.64
Stage 7	22.55	-7.45	-23.92
Stage 7	22.35	-15.94	-42.41
Stage 7	22.15	-28.39	-62.26
Stage 7	21.95	-44.66	-81.38
Stage 7	21.75	-25.26	97.04
Stage 7	21.55	-9.26	79.98
Stage 7	21.35	3.59	64.23
Stage 7	21.15	13.5	49.59
Stage 7	20.95	20.6	35.49
Stage 7	20.75	24.98	21.91
Stage 7	20.55	26.75	8.84
Stage 7	20.35	25.98	-3.83
Stage 7	20.15	22.74	-16.21
Stage 7	19.95	17.06	-28.41
Stage 7	19.75	8.95	-40.55
Stage 7	19.55	-1.6	-52.73
Stage 7	19.35	-14.6	-65.02
Stage 7	19.15	-30.1	-77.48
Stage 7	18.95	-48.12	-90.12
Stage 7	18.75	-28.3	99.11
Stage 7	18.55	-11.03	86.33
Stage 7	18.35	3.68	73.54
Stage 7	18.15	15.82	60.75
Stage 7	17.95	25.41	47.93
Stage 7	17.75	32.42	35.06
Stage 7	17.55	36.83	22.05
Stage 7	17.35	38.6	8.85
Stage 7	17.15	37.68	-4.64
Stage 7	16.95	33.94	-18.68
Stage 7	16.75	27.24	-33.5
Stage 7	16.55	17.43	-49.06
Stage 7	16.35	4.37	-65.29
Stage 7	16.15	-12.04	-82.06
Stage 7	15.95	-31.88	-99.21
Stage 7	15.75	-15.81	80.38
Stage 7	15.55	-3.28	62.65
Stage 7	15.35	5.61	44.45
Stage 7	15.15	10.79	25.87
Stage 7	14.95	12.61	9.12
Stage 7	14.75	11.97	-3.18
Stage 7	14.55	9.76	-11.05
Stage 7	14.35	6.86	-14.53
Stage 7	14.15	4.13	-13.65
Stage 7	13.95	1.8	-11.62
Stage 7	13.75	-0.14	-9.72
Stage 7	13.55	-1.73	-7.95
Stage 7	13.45	-2.41	-6.74
Stage 7	13.25	-3.52	-5.59
Stage 7	13.05	-4.37	-4.22
Stage 7	12.85	-4.97	-3
Stage 7	12.65	-5.36	-1.95
Stage 7	12.45	-5.57	-1.04
Stage 7	12.25	-5.62	-0.29
Stage 7	12.05	-5.56	0.33

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	11.85	-5.39	0.82
Stage 7	11.65	-5.16	1.18
Stage 7	11.45	-4.87	1.41
Stage 7	11.25	-4.56	1.59
Stage 7	11.05	-4.21	1.72
Stage 7	10.85	-3.85	1.8
Stage 7	10.65	-3.49	1.83
Stage 7	10.45	-3.12	1.83
Stage 7	10.25	-2.76	1.79
Stage 7	10.05	-2.42	1.73
Stage 7	9.85	-2.09	1.64
Stage 7	9.65	-1.78	1.54
Stage 7	9.45	-1.5	1.42
Stage 7	9.25	-1.24	1.29
Stage 7	9.05	-1.01	1.16
Stage 7	8.85	-0.8	1.03
Stage 7	8.65	-0.62	0.89
Stage 7	8.45	-0.47	0.76
Stage 7	8.25	-0.34	0.64
Stage 7	8.05	-0.24	0.52
Stage 7	7.85	-0.16	0.41
Stage 7	7.65	-0.09	0.31
Stage 7	7.45	-0.05	0.22
Stage 7	7.25	-0.02	0.14
Stage 7	7.05	-0.01	0.08
Stage 7	6.85	0	0.03
Stage 7	6.75	0	0.01



### Tabella Risultati Paratia SISMICA STR - Left Wall - Stage: Stage 8

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	23.95	0	0
Stage 8	23.75	0	0
Stage 8	23.75	0	0
Stage 8	23.55	0	0
Stage 8	23.55	0	0
Stage 8	23.35	0	0
Stage 8	23.35	0	0
Stage 8	23.15	0	0
Stage 8	23.15	0	0
Stage 8	22.95	-0.53	-2.64
Stage 8	22.75	-2.63	-10.53
Stage 8	22.55	-7.4	-23.84
Stage 8	22.35	-15.88	-42.4
Stage 8	22.15	-28.36	-62.37
Stage 8	21.95	-44.69	-81.66
Stage 8	21.75	-25.46	96.11
Stage 8	21.55	-9.71	78.78
Stage 8	21.35	2.83	62.71
Stage 8	21.15	12.37	47.69
Stage 8	20.95	19.01	33.2
Stage 8	20.75	22.85	19.21
Stage 8	20.55	23.98	5.64
Stage 8	20.35	22.47	-7.57
Stage 8	20.15	18.37	-20.51
Stage 8	19.95	11.7	-33.31
Stage 8	19.75	2.49	-46.06
Stage 8	19.55	-9.28	-58.85
Stage 8	19.35	-23.63	-71.74
Stage 8	19.15	-40.58	-84.77
Stage 8	18.95	-60.17	-97.94
Stage 8	18.75	-42.2	89.87
Stage 8	18.55	-26.85	76.72
Stage 8	18.35	-14.11	63.69
Stage 8	18.15	-3.95	50.81
Stage 8	17.95	3.67	38.11
Stage 8	17.75	8.79	25.58
Stage 8	17.55	11.43	13.21
Stage 8	17.35	11.62	0.97
Stage 8	17.15	9.39	-11.17
Stage 8	16.95	4.71	-23.42
Stage 8	16.75	-2.48	-35.95
Stage 8	16.55	-12.21	-48.66
Stage 8	16.35	-24.49	-61.4
Stage 8	16.15	-39.29	-74
Stage 8	15.95	-56.54	-86.23
Stage 8	15.75	-34.15	111.97
Stage 8	15.55	-13.98	100.83
Stage 8	15.35	4.04	90.1
Stage 8	15.15	20	79.82
Stage 8	14.95	34	70
Stage 8	14.75	46.13	60.62
Stage 8	14.55	56.34	51.06
Stage 8	14.35	64.6	41.29
Stage 8	14.15	70.86	31.3
Stage 8	13.95	75.08	21.12
Stage 8	13.75	77.23	10.73
Stage 8	13.55	77.26	0.13
Stage 8	13.45	76.46	-7.99
Stage 8	13.25	73.22	-16.18
Stage 8	13.05	67.76	-27.32
Stage 8	12.85	59.96	-39
Stage 8	12.65	50.07	-49.45
Stage 8	12.45	38.76	-56.55
Stage 8	12.25	26.68	-60.37
Stage 8	12.05	14.48	-61.02

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	11.85	2.77	-58.54
Stage 8	11.65	-7.82	-52.95
Stage 8	11.45	-16.67	-44.27
Stage 8	11.25	-23.36	-33.44
Stage 8	11.05	-28.15	-23.96
Stage 8	10.85	-31.31	-15.79
Stage 8	10.65	-33.08	-8.84
Stage 8	10.45	-33.68	-3.02
Stage 8	10.25	-33.33	1.76
Stage 8	10.05	-32.21	5.59
Stage 8	9.85	-30.5	8.59
Stage 8	9.65	-28.33	10.84
Stage 8	9.45	-25.84	12.43
Stage 8	9.25	-23.15	13.45
Stage 8	9.05	-20.36	13.98
Stage 8	8.85	-17.54	14.07
Stage 8	8.65	-14.8	13.75
Stage 8	8.45	-12.17	13.13
Stage 8	8.25	-9.71	12.28
Stage 8	8.05	-7.47	11.23
Stage 8	7.85	-5.47	10
Stage 8	7.65	-3.74	8.64
Stage 8	7.45	-2.31	7.14
Stage 8	7.25	-1.21	5.53
Stage 8	7.05	-0.44	3.81
Stage 8	6.85	-0.05	1.97
Stage 8	6.75	0	0.5

**Tabella Risultati Paratia SISMICA STR - Left Wall - Stage: Stage 9**

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	23.95	0	0
Stage 9	23.75	0	0
Stage 9	23.75	0	0
Stage 9	23.55	0	0
Stage 9	23.55	0	0
Stage 9	23.35	0	0
Stage 9	23.35	0	0
Stage 9	23.15	0	0
Stage 9	23.15	0	0
Stage 9	22.95	-0.54	-2.71
Stage 9	22.75	-2.67	-10.64
Stage 9	22.55	-7.46	-23.97
Stage 9	22.35	-15.97	-42.51
Stage 9	22.15	-28.45	-62.43
Stage 9	21.95	-44.78	-81.64
Stage 9	21.75	-25.49	96.45
Stage 9	21.55	-9.64	79.25
Stage 9	21.35	3.03	63.35
Stage 9	21.15	12.74	48.54
Stage 9	20.95	19.59	34.28
Stage 9	20.75	23.7	20.55
Stage 9	20.55	25.16	7.27
Stage 9	20.35	24.03	-5.62
Stage 9	20.15	20.39	-18.23
Stage 9	19.95	14.25	-30.66
Stage 9	19.75	5.65	-43.04
Stage 9	19.55	-5.44	-55.44
Stage 9	19.35	-19.03	-67.94
Stage 9	19.15	-35.15	-80.58
Stage 9	18.95	-53.82	-93.37
Stage 9	18.75	-34.71	95.53
Stage 9	18.55	-18.18	82.69
Stage 9	18.35	-4.19	69.92
Stage 9	18.15	7.25	57.23
Stage 9	17.95	16.18	44.61
Stage 9	17.75	22.59	32.06
Stage 9	17.55	26.49	19.51
Stage 9	17.35	27.88	6.93
Stage 9	17.15	26.72	-5.76
Stage 9	16.95	22.96	-18.8
Stage 9	16.75	16.49	-32.39
Stage 9	16.55	7.19	-46.48
Stage 9	16.35	-5	-60.95
Stage 9	16.15	-20.13	-75.68
Stage 9	15.95	-38.23	-90.48
Stage 9	15.75	-18.66	97.85
Stage 9	15.55	-2.03	83.15
Stage 9	15.35	11.64	68.33
Stage 9	15.15	22.31	53.38
Stage 9	14.95	29.97	38.3
Stage 9	14.75	34.59	23.07
Stage 9	14.55	36	7.08
Stage 9	14.35	34.07	-9.68
Stage 9	14.15	28.63	-27.18
Stage 9	13.95	19.57	-45.32
Stage 9	13.75	6.76	-64.02
Stage 9	13.55	-9.87	-83.18
Stage 9	13.45	-19.65	-97.78
Stage 9	13.25	-2.75	84.51
Stage 9	13.05	10.24	64.93
Stage 9	12.85	19.27	45.15
Stage 9	12.65	24.25	24.9
Stage 9	12.45	25.34	5.45
Stage 9	12.25	23.4	-9.66
Stage 9	12.05	19.31	-20.48

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	11.85	13.9	-27.05
Stage 9	11.65	8.02	-29.4
Stage 9	11.45	2.5	-27.57
Stage 9	11.25	-2.01	-22.59
Stage 9	11.05	-5.62	-18.02
Stage 9	10.85	-8.39	-13.88
Stage 9	10.65	-10.43	-10.18
Stage 9	10.45	-11.82	-6.92
Stage 9	10.25	-12.63	-4.08
Stage 9	10.05	-12.96	-1.64
Stage 9	9.85	-12.88	0.41
Stage 9	9.65	-12.45	2.11
Stage 9	9.45	-11.76	3.47
Stage 9	9.25	-10.86	4.52
Stage 9	9.05	-9.8	5.26
Stage 9	8.85	-8.66	5.72
Stage 9	8.65	-7.47	5.92
Stage 9	8.45	-6.28	5.96
Stage 9	8.25	-5.12	5.82
Stage 9	8.05	-4.01	5.53
Stage 9	7.85	-2.99	5.1
Stage 9	7.65	-2.09	4.54
Stage 9	7.45	-1.31	3.87
Stage 9	7.25	-0.7	3.08
Stage 9	7.05	-0.26	2.18
Stage 9	6.85	-0.03	1.16
Stage 9	6.75	0	0.3

### Tabella Risultati Paratia SISMICA STR - Left Wall - Stage: Stage 10

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	23.95	0	0
Stage 10	23.75	0	0
Stage 10	23.75	0	0
Stage 10	23.55	0	0
Stage 10	23.55	0	0
Stage 10	23.35	0	0
Stage 10	23.35	0	0
Stage 10	23.15	0	0
Stage 10	23.15	0	0
Stage 10	22.95	-0.53	-2.65
Stage 10	22.75	-2.64	-10.53
Stage 10	22.55	-7.4	-23.81
Stage 10	22.35	-15.86	-42.32
Stage 10	22.15	-28.3	-62.21
Stage 10	21.95	-44.58	-81.4
Stage 10	21.75	-25.24	96.72
Stage 10	21.55	-9.34	79.52
Stage 10	21.35	3.39	63.62
Stage 10	21.15	13.14	48.78
Stage 10	20.95	20.04	34.49
Stage 10	20.75	24.19	20.72
Stage 10	20.55	25.66	7.38
Stage 10	20.35	24.55	-5.58
Stage 10	20.15	20.89	-18.27
Stage 10	19.95	14.73	-30.81
Stage 10	19.75	6.07	-43.3
Stage 10	19.55	-5.1	-55.84
Stage 10	19.35	-18.8	-68.49
Stage 10	19.15	-35.06	-81.31
Stage 10	18.95	-53.92	-94.3
Stage 10	18.75	-35.13	93.92
Stage 10	18.55	-18.96	80.85
Stage 10	18.35	-5.4	67.82
Stage 10	18.15	5.57	54.85
Stage 10	17.95	13.96	41.95
Stage 10	17.75	19.78	29.1
Stage 10	17.55	23.03	16.25
Stage 10	17.35	23.7	3.35
Stage 10	17.15	21.78	-9.64
Stage 10	16.95	17.18	-22.96
Stage 10	16.75	9.82	-36.82
Stage 10	16.55	-0.41	-51.13
Stage 10	16.35	-13.56	-65.77
Stage 10	16.15	-29.68	-80.6
Stage 10	15.95	-48.76	-95.41
Stage 10	15.75	-30.12	93.2
Stage 10	15.55	-14.37	78.73
Stage 10	15.35	-1.52	64.27
Stage 10	15.15	8.46	49.87
Stage 10	14.95	15.57	35.55
Stage 10	14.75	19.83	21.31
Stage 10	14.55	21.15	6.58
Stage 10	14.35	19.42	-8.62
Stage 10	14.15	14.57	-24.23
Stage 10	13.95	6.55	-40.13
Stage 10	13.75	-4.69	-56.2
Stage 10	13.55	-19.15	-72.31
Stage 10	13.45	-27.58	-84.3
Stage 10	13.25	-5.56	110.11
Stage 10	13.05	13.38	94.71
Stage 10	12.85	29.3	79.59
Stage 10	12.65	42.17	64.36
Stage 10	12.45	51.96	48.96
Stage 10	12.25	58.62	33.3
Stage 10	12.05	62.08	17.28

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	11.85	62.24	0.79
Stage 10	11.65	58.97	-16.32
Stage 10	11.45	52.82	-30.76
Stage 10	11.25	44.53	-41.47
Stage 10	11.05	34.82	-48.57
Stage 10	10.85	24.39	-52.15
Stage 10	10.65	13.93	-52.29
Stage 10	10.45	4.12	-49.06
Stage 10	10.25	-4.38	-42.49
Stage 10	10.05	-10.9	-32.59
Stage 10	9.85	-15.6	-23.48
Stage 10	9.65	-18.71	-15.55
Stage 10	9.45	-20.46	-8.75
Stage 10	9.25	-21.06	-3.04
Stage 10	9.05	-20.73	1.66
Stage 10	8.85	-19.65	5.41
Stage 10	8.65	-18	8.27
Stage 10	8.45	-15.92	10.39
Stage 10	8.25	-13.56	11.81
Stage 10	8.05	-11.04	12.57
Stage 10	7.85	-8.5	12.7
Stage 10	7.65	-6.08	12.11
Stage 10	7.45	-3.91	10.85
Stage 10	7.25	-2.12	8.97
Stage 10	7.05	-0.81	6.54
Stage 10	6.85	-0.09	3.58
Stage 10	6.75	0	0.94

### Tabella Risultati Paratia SISMICA STR - Left Wall - Stage: Stage 11-S

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	23.95	0	-0.02
Stage 11-S	23.75	0	-0.02
Stage 11-S	23.55	-0.02	-0.07
Stage 11-S	23.35	-0.04	-0.12
Stage 11-S	23.15	-0.08	-0.17
Stage 11-S	22.95	-0.38	-1.49
Stage 11-S	22.75	-1.76	-6.91
Stage 11-S	22.55	-5.08	-16.59
Stage 11-S	22.35	-11.22	-30.69
Stage 11-S	22.15	-21.08	-49.32
Stage 11-S	21.95	-35.58	-72.53
Stage 11-S	21.75	-12.99	112.99
Stage 11-S	21.55	5.37	91.77
Stage 11-S	21.35	19.82	72.25
Stage 11-S	21.15	30.66	54.2
Stage 11-S	20.95	38.07	37.04
Stage 11-S	20.75	42.21	20.73
Stage 11-S	20.55	43.24	5.13
Stage 11-S	20.35	41.27	-9.84
Stage 11-S	20.15	36.4	-24.34
Stage 11-S	19.95	28.7	-38.51
Stage 11-S	19.75	18.2	-52.5
Stage 11-S	19.55	4.91	-66.42
Stage 11-S	19.35	-11.16	-80.37
Stage 11-S	19.15	-30.05	-94.43
Stage 11-S	18.95	-51.76	-108.6
Stage 11-S	18.75	-32.02	98.72
Stage 11-S	18.55	-15.11	84.53
Stage 11-S	18.35	-1.03	70.41
Stage 11-S	18.15	10.24	56.37
Stage 11-S	17.95	18.72	42.4
Stage 11-S	17.75	24.42	28.48
Stage 11-S	17.55	27.33	14.54
Stage 11-S	17.35	27.44	0.55
Stage 11-S	17.15	24.72	-13.58
Stage 11-S	16.95	19.11	-28.07
Stage 11-S	16.75	10.48	-43.14
Stage 11-S	16.55	-1.26	-58.72
Stage 11-S	16.35	-16.2	-74.67
Stage 11-S	16.15	-34.37	-90.87
Stage 11-S	15.95	-55.79	-107.08
Stage 11-S	15.75	-35.62	100.82
Stage 11-S	15.55	-18.65	84.89
Stage 11-S	15.35	-4.85	68.97
Stage 11-S	15.15	5.77	53.11
Stage 11-S	14.95	13.23	37.33
Stage 11-S	14.75	17.57	21.66
Stage 11-S	14.55	18.67	5.51
Stage 11-S	14.35	16.45	-11.09
Stage 11-S	14.15	10.84	-28.06
Stage 11-S	13.95	1.78	-45.28
Stage 11-S	13.75	-10.74	-62.63
Stage 11-S	13.55	-26.74	-79.97
Stage 11-S	13.45	-36.02	-92.82
Stage 11-S	13.25	-11.09	124.65
Stage 11-S	13.05	10.56	108.23
Stage 11-S	12.85	29	92.18
Stage 11-S	12.65	44.22	76.14
Stage 11-S	12.45	56.23	60.03
Stage 11-S	12.25	64.99	43.78
Stage 11-S	12.05	70.44	27.26
Stage 11-S	11.85	72.51	10.34
Stage 11-S	11.65	71.08	-7.12
Stage 11-S	11.45	66.62	-22.32
Stage 11-S	11.25	59.74	-34.38

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	11.05	51.06	-43.43
Stage 11-S	10.85	41.13	-49.62
Stage 11-S	10.65	30.52	-53.05
Stage 11-S	10.45	19.76	-53.82
Stage 11-S	10.25	9.36	-52
Stage 11-S	10.05	-0.17	-47.63
Stage 11-S	9.85	-8.32	-40.75
Stage 11-S	9.65	-14.59	-31.35
Stage 11-S	9.45	-18.79	-20.99
Stage 11-S	9.25	-21.21	-12.11
Stage 11-S	9.05	-22.14	-4.66
Stage 11-S	8.85	-21.85	1.45
Stage 11-S	8.65	-20.6	6.27
Stage 11-S	8.45	-18.61	9.95
Stage 11-S	8.25	-16.1	12.55
Stage 11-S	8.05	-13.27	14.12
Stage 11-S	7.85	-10.33	14.71
Stage 11-S	7.65	-7.46	14.36
Stage 11-S	7.45	-4.84	13.1
Stage 11-S	7.25	-2.64	11
Stage 11-S	7.05	-1.02	8.12
Stage 11-S	6.85	-0.12	4.49
Stage 11-S	6.75	0	1.19



## Risultati Elementi strutturali - SISMICA STR

### Design Assumption: SISMICA STR Sollecitazione Tir-D2

Stage	Forza (kN/m)
Stage 3	200
Stage 4	201.4372
Stage 5	200.167
Stage 6	198.7419
Stage 7	199.6634
Stage 8	199.2289
Stage 9	199.4425
Stage 10	199.4624
Stage 11-S	211.5358

**Design Assumption: SISMICA STR Sollecitazione Tir-E2**

Stage	Forza (kN/m)
Stage 5	200
Stage 6	209.0488
Stage 7	205.0762
Stage 8	204.0864
Stage 9	204.8432
Stage 10	204.3743
Stage 11-S	224.9343

**Design Assumption: SISMICA STR Sollecitazione Tir-F2**

Stage	Forza (kN/m)
Stage 7	200
Stage 8	213.0875
Stage 9	206.1424
Stage 10	206.3482
Stage 11-S	227.3896

**Design Assumption: SISMICA STR Sollecitazione Tir-G2**

Stage	Forza (kN/m)
Stage 9	200
Stage 10	209.4717
Stage 11-S	233.7479

## Risultati SISMICA GEO

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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	23.95	0	0
Stage 1	23.75	0	0
Stage 1	23.75	0	0
Stage 1	23.55	0	0
Stage 1	23.55	0	0
Stage 1	23.35	0	0
Stage 1	23.35	0	0
Stage 1	23.15	0	0
Stage 1	22.95	0	0
Stage 1	22.75	0	0
Stage 1	22.55	0	0
Stage 1	22.35	0	0
Stage 1	22.15	0	0
Stage 1	21.95	0	0
Stage 1	21.75	0	0
Stage 1	21.55	0	0
Stage 1	21.35	0	0
Stage 1	21.15	0	0
Stage 1	20.95	0	0
Stage 1	20.75	0	0
Stage 1	20.55	0	0
Stage 1	20.35	0	0
Stage 1	20.15	0	0
Stage 1	19.95	0	0
Stage 1	19.75	0	0
Stage 1	19.55	0	0
Stage 1	19.35	0	0
Stage 1	19.15	0	0
Stage 1	18.95	0	0
Stage 1	18.75	0	0
Stage 1	18.55	0	0
Stage 1	18.35	0	0
Stage 1	18.15	0	0
Stage 1	17.95	0	0
Stage 1	17.75	0	0
Stage 1	17.55	0	0
Stage 1	17.35	0	0
Stage 1	17.15	0	0
Stage 1	16.95	0	0
Stage 1	16.75	0	0
Stage 1	16.55	0	0
Stage 1	16.35	0	0
Stage 1	16.15	0	0
Stage 1	15.95	0	0
Stage 1	15.75	0	0
Stage 1	15.55	0	0
Stage 1	15.35	0	0
Stage 1	15.15	0	0
Stage 1	14.95	0	0
Stage 1	14.75	0	0
Stage 1	14.55	0	0
Stage 1	14.35	0	0
Stage 1	14.15	0	0
Stage 1	13.95	0	0
Stage 1	13.75	0	0
Stage 1	13.55	0	0
Stage 1	13.45	0	0
Stage 1	13.25	0	0
Stage 1	13.05	0	0
Stage 1	12.85	0	0
Stage 1	12.65	0	0
Stage 1	12.45	0	0

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	12.25	0	0
Stage 1	12.05	0	0
Stage 1	11.85	0	0
Stage 1	11.65	0	0
Stage 1	11.45	0	0
Stage 1	11.25	0	0
Stage 1	11.05	0	0
Stage 1	10.85	0	0
Stage 1	10.65	0	0
Stage 1	10.45	0	0
Stage 1	10.25	0	0
Stage 1	10.05	0	0
Stage 1	9.85	0	0
Stage 1	9.65	0	0
Stage 1	9.45	0	0
Stage 1	9.25	0	0
Stage 1	9.05	0	0
Stage 1	8.85	0	0
Stage 1	8.65	0	0
Stage 1	8.45	0	0
Stage 1	8.25	0	0
Stage 1	8.05	0	0
Stage 1	7.85	0	0
Stage 1	7.65	0	0
Stage 1	7.45	0	0
Stage 1	7.25	0	0
Stage 1	7.05	0	0
Stage 1	6.85	0	0
Stage 1	6.75	0	0

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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	23.95	0	0
Stage 2	23.75	0	0
Stage 2	23.75	0	0
Stage 2	23.55	0	0
Stage 2	23.55	0	0
Stage 2	23.35	0	0
Stage 2	23.35	0	0
Stage 2	23.15	0	0
Stage 2	23.15	0	0
Stage 2	22.95	-0.05	-0.25
Stage 2	22.75	-0.2	-0.76
Stage 2	22.55	-0.51	-1.53
Stage 2	22.35	-1.02	-2.58
Stage 2	22.15	-1.8	-3.9
Stage 2	21.95	-2.9	-5.51
Stage 2	21.75	-4.39	-7.43
Stage 2	21.55	-6.32	-9.66
Stage 2	21.35	-8.76	-12.2
Stage 2	21.15	-11.46	-13.46
Stage 2	20.95	-13.82	-11.83
Stage 2	20.75	-15.39	-7.83
Stage 2	20.55	-15.87	-2.41
Stage 2	20.35	-15.54	1.64
Stage 2	20.15	-14.64	4.53
Stage 2	19.95	-13.35	6.44
Stage 2	19.75	-11.83	7.58
Stage 2	19.55	-10.23	8.02
Stage 2	19.35	-8.64	7.94
Stage 2	19.15	-7.12	7.57
Stage 2	18.95	-5.72	7
Stage 2	18.75	-4.46	6.32
Stage 2	18.55	-3.35	5.55
Stage 2	18.35	-2.4	4.76
Stage 2	18.15	-1.6	3.98
Stage 2	17.95	-0.95	3.25
Stage 2	17.75	-0.43	2.58
Stage 2	17.55	-0.04	1.98
Stage 2	17.35	0.25	1.46
Stage 2	17.15	0.46	1.02
Stage 2	16.95	0.59	0.65
Stage 2	16.75	0.66	0.36
Stage 2	16.55	0.68	0.12
Stage 2	16.35	0.67	-0.05
Stage 2	16.15	0.64	-0.18
Stage 2	15.95	0.59	-0.26
Stage 2	15.75	0.52	-0.32
Stage 2	15.55	0.45	-0.34
Stage 2	15.35	0.38	-0.34
Stage 2	15.15	0.32	-0.33
Stage 2	14.95	0.26	-0.31
Stage 2	14.75	0.2	-0.28
Stage 2	14.55	0.15	-0.25
Stage 2	14.35	0.11	-0.21
Stage 2	14.15	0.07	-0.18
Stage 2	13.95	0.05	-0.15
Stage 2	13.75	0.02	-0.12
Stage 2	13.55	0	-0.09
Stage 2	13.45	0	-0.07
Stage 2	13.25	-0.01	-0.06
Stage 2	13.05	-0.02	-0.04
Stage 2	12.85	-0.03	-0.02
Stage 2	12.65	-0.03	-0.01
Stage 2	12.45	-0.03	0
Stage 2	12.25	-0.03	0
Stage 2	12.05	-0.03	0.01

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	11.85	-0.02	0.01
Stage 2	11.65	-0.02	0.01
Stage 2	11.45	-0.02	0.01
Stage 2	11.25	-0.01	0.01
Stage 2	11.05	-0.01	0.01
Stage 2	10.85	-0.01	0.01
Stage 2	10.65	-0.01	0.01
Stage 2	10.45	-0.01	0.01
Stage 2	10.25	0	0.01
Stage 2	10.05	0	0.01
Stage 2	9.85	0	0.01
Stage 2	9.65	0	0
Stage 2	9.45	0	0
Stage 2	9.25	0	0
Stage 2	9.05	0	0
Stage 2	8.85	0	0
Stage 2	8.65	0	0
Stage 2	8.45	0	0
Stage 2	8.25	0	0
Stage 2	8.05	0	0
Stage 2	7.85	0	0
Stage 2	7.65	0	0
Stage 2	7.45	0	0
Stage 2	7.25	0	0
Stage 2	7.05	0	0
Stage 2	6.85	0	0
Stage 2	6.75	0	0



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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	23.95	0	0
Stage 3	23.75	0	0
Stage 3	23.75	0	0
Stage 3	23.55	0	0
Stage 3	23.55	0	0
Stage 3	23.35	0	0
Stage 3	23.35	0	0
Stage 3	23.15	0	0
Stage 3	23.15	0	0
Stage 3	22.95	-0.64	-3.18
Stage 3	22.75	-2.56	-9.62
Stage 3	22.55	-6.45	-19.44
Stage 3	22.35	-13	-32.74
Stage 3	22.15	-22.92	-49.6
Stage 3	21.95	-36.92	-70.05
Stage 3	21.75	-16.29	103.18
Stage 3	21.55	0	81.41
Stage 3	21.35	12.33	61.68
Stage 3	21.15	21.15	44.1
Stage 3	20.95	26.89	28.71
Stage 3	20.75	29.89	15.01
Stage 3	20.55	30.78	4.44
Stage 3	20.35	30.1	-3.44
Stage 3	20.15	28.29	-9.04
Stage 3	19.95	25.74	-12.75
Stage 3	19.75	22.76	-14.91
Stage 3	19.55	19.58	-15.88
Stage 3	19.35	16.41	-15.84
Stage 3	19.15	13.39	-15.12
Stage 3	18.95	10.6	-13.95
Stage 3	18.75	8.11	-12.47
Stage 3	18.55	5.94	-10.84
Stage 3	18.35	4.11	-9.17
Stage 3	18.15	2.6	-7.55
Stage 3	17.95	1.39	-6.03
Stage 3	17.75	0.46	-4.67
Stage 3	17.55	-0.24	-3.47
Stage 3	17.35	-0.73	-2.45
Stage 3	17.15	-1.05	-1.6
Stage 3	16.95	-1.23	-0.92
Stage 3	16.75	-1.31	-0.38
Stage 3	16.55	-1.3	0.02
Stage 3	16.35	-1.24	0.32
Stage 3	16.15	-1.14	0.51
Stage 3	15.95	-1.01	0.63
Stage 3	15.75	-0.88	0.68
Stage 3	15.55	-0.74	0.69
Stage 3	15.35	-0.61	0.66
Stage 3	15.15	-0.48	0.61
Stage 3	14.95	-0.37	0.55
Stage 3	14.75	-0.28	0.48
Stage 3	14.55	-0.19	0.41
Stage 3	14.35	-0.13	0.34
Stage 3	14.15	-0.07	0.28
Stage 3	13.95	-0.03	0.22
Stage 3	13.75	0.01	0.16
Stage 3	13.55	0.03	0.12
Stage 3	13.45	0.04	0.09
Stage 3	13.25	0.05	0.06
Stage 3	13.05	0.06	0.03
Stage 3	12.85	0.06	0.01
Stage 3	12.65	0.06	0
Stage 3	12.45	0.06	-0.02
Stage 3	12.25	0.05	-0.02
Stage 3	12.05	0.05	-0.03

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	11.85	0.04	-0.03
Stage 3	11.65	0.03	-0.03
Stage 3	11.45	0.03	-0.03
Stage 3	11.25	0.02	-0.03
Stage 3	11.05	0.02	-0.03
Stage 3	10.85	0.01	-0.02
Stage 3	10.65	0.01	-0.02
Stage 3	10.45	0.01	-0.02
Stage 3	10.25	0	-0.01
Stage 3	10.05	0	-0.01
Stage 3	9.85	0	-0.01
Stage 3	9.65	0	0
Stage 3	9.45	0	0
Stage 3	9.25	0	0
Stage 3	9.05	0	0
Stage 3	8.85	0	0
Stage 3	8.65	0	0
Stage 3	8.45	0	0
Stage 3	8.25	0	0
Stage 3	8.05	0	0
Stage 3	7.85	0	0
Stage 3	7.65	0	0
Stage 3	7.45	0	0
Stage 3	7.25	0	0
Stage 3	7.05	0	0
Stage 3	6.85	0	0
Stage 3	6.75	0	0

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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	23.95	0	0
Stage 4	23.75	0	0
Stage 4	23.75	0	0
Stage 4	23.55	0	0
Stage 4	23.55	0	0
Stage 4	23.35	0	0
Stage 4	23.35	0	0
Stage 4	23.15	0	0
Stage 4	23.15	0	0
Stage 4	22.95	-0.64	-3.18
Stage 4	22.75	-2.56	-9.62
Stage 4	22.55	-6.45	-19.44
Stage 4	22.35	-13	-32.74
Stage 4	22.15	-22.92	-49.6
Stage 4	21.95	-36.9	-69.92
Stage 4	21.75	-15.78	105.61
Stage 4	21.55	1.38	85.76
Stage 4	21.35	15.15	68.86
Stage 4	21.15	26.12	54.87
Stage 4	20.95	34.86	43.71
Stage 4	20.75	41.84	34.86
Stage 4	20.55	47.35	27.59
Stage 4	20.35	51.7	21.72
Stage 4	20.15	55.1	17.03
Stage 4	19.95	57.58	12.38
Stage 4	19.75	59.07	7.45
Stage 4	19.55	59.51	2.21
Stage 4	19.35	58.84	-3.34
Stage 4	19.15	57.01	-9.18
Stage 4	18.95	53.95	-15.28
Stage 4	18.75	49.62	-21.65
Stage 4	18.55	43.96	-28.32
Stage 4	18.35	36.9	-35.28
Stage 4	18.15	28.71	-40.95
Stage 4	17.95	19.97	-43.71
Stage 4	17.75	11.25	-43.57
Stage 4	17.55	3.13	-40.63
Stage 4	17.35	-4.04	-35.84
Stage 4	17.15	-9.89	-29.22
Stage 4	16.95	-14.13	-21.22
Stage 4	16.75	-17.01	-14.42
Stage 4	16.55	-18.77	-8.76
Stage 4	16.35	-19.59	-4.13
Stage 4	16.15	-19.68	-0.44
Stage 4	15.95	-19.19	2.43
Stage 4	15.75	-18.28	4.58
Stage 4	15.55	-17.06	6.1
Stage 4	15.35	-15.64	7.11
Stage 4	15.15	-14.1	7.69
Stage 4	14.95	-12.51	7.92
Stage 4	14.75	-10.94	7.87
Stage 4	14.55	-9.42	7.61
Stage 4	14.35	-7.98	7.2
Stage 4	14.15	-6.64	6.69
Stage 4	13.95	-5.42	6.11
Stage 4	13.75	-4.32	5.49
Stage 4	13.55	-3.35	4.86
Stage 4	13.45	-2.91	4.4
Stage 4	13.25	-2.12	3.94
Stage 4	13.05	-1.45	3.36
Stage 4	12.85	-0.89	2.81
Stage 4	12.65	-0.42	2.31
Stage 4	12.45	-0.05	1.86
Stage 4	12.25	0.24	1.46
Stage 4	12.05	0.46	1.11

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	11.85	0.62	0.8
Stage 4	11.65	0.73	0.54
Stage 4	11.45	0.8	0.33
Stage 4	11.25	0.83	0.15
Stage 4	11.05	0.83	0.01
Stage 4	10.85	0.81	-0.11
Stage 4	10.65	0.77	-0.19
Stage 4	10.45	0.72	-0.25
Stage 4	10.25	0.66	-0.29
Stage 4	10.05	0.6	-0.32
Stage 4	9.85	0.53	-0.33
Stage 4	9.65	0.46	-0.33
Stage 4	9.45	0.4	-0.32
Stage 4	9.25	0.34	-0.31
Stage 4	9.05	0.28	-0.28
Stage 4	8.85	0.23	-0.26
Stage 4	8.65	0.18	-0.23
Stage 4	8.45	0.14	-0.2
Stage 4	8.25	0.11	-0.18
Stage 4	8.05	0.08	-0.15
Stage 4	7.85	0.05	-0.12
Stage 4	7.65	0.03	-0.1
Stage 4	7.45	0.02	-0.07
Stage 4	7.25	0.01	-0.05
Stage 4	7.05	0	-0.03
Stage 4	6.85	0	-0.02
Stage 4	6.75	0	0

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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	23.95	0	0
Stage 5	23.75	0	0
Stage 5	23.75	0	0
Stage 5	23.55	0	0
Stage 5	23.55	0	0
Stage 5	23.35	0	0
Stage 5	23.35	0	0
Stage 5	23.15	0	0
Stage 5	23.15	0	0
Stage 5	22.95	-0.12	-0.62
Stage 5	22.75	-1.15	-5.12
Stage 5	22.55	-3.87	-13.63
Stage 5	22.35	-9.12	-26.25
Stage 5	22.15	-17.73	-43.06
Stage 5	21.95	-30.44	-63.51
Stage 5	21.75	-8.58	109.26
Stage 5	21.55	8.91	87.46
Stage 5	21.35	22.48	67.88
Stage 5	21.15	32.58	50.47
Stage 5	20.95	39.6	35.13
Stage 5	20.75	43.87	21.31
Stage 5	20.55	45.52	8.28
Stage 5	20.35	44.69	-4.16
Stage 5	20.15	41.45	-16.22
Stage 5	19.95	35.69	-28.8
Stage 5	19.75	27.3	-41.96
Stage 5	19.55	16.15	-55.75
Stage 5	19.35	2.11	-70.19
Stage 5	19.15	-14.93	-85.2
Stage 5	18.95	-35.07	-100.7
Stage 5	18.75	-18.99	80.41
Stage 5	18.55	-6.11	64.38
Stage 5	18.35	3.55	48.32
Stage 5	18.15	10.04	32.46
Stage 5	17.95	13.45	17.05
Stage 5	17.75	14.3	4.22
Stage 5	17.55	13.45	-4.26
Stage 5	17.35	11.58	-9.35
Stage 5	17.15	9.35	-11.13
Stage 5	16.95	7.32	-10.14
Stage 5	16.75	5.51	-9.08
Stage 5	16.55	3.91	-7.99
Stage 5	16.35	2.53	-6.9
Stage 5	16.15	1.36	-5.85
Stage 5	15.95	0.39	-4.86
Stage 5	15.75	-0.4	-3.94
Stage 5	15.55	-1.02	-3.09
Stage 5	15.35	-1.49	-2.33
Stage 5	15.15	-1.82	-1.67
Stage 5	14.95	-2.05	-1.13
Stage 5	14.75	-2.19	-0.7
Stage 5	14.55	-2.25	-0.32
Stage 5	14.35	-2.25	0
Stage 5	14.15	-2.2	0.27
Stage 5	13.95	-2.1	0.5
Stage 5	13.75	-1.96	0.67
Stage 5	13.55	-1.8	0.8
Stage 5	13.45	-1.72	0.86
Stage 5	13.25	-1.54	0.91
Stage 5	13.05	-1.35	0.93
Stage 5	12.85	-1.16	0.93
Stage 5	12.65	-0.98	0.91
Stage 5	12.45	-0.81	0.86
Stage 5	12.25	-0.65	0.8
Stage 5	12.05	-0.5	0.73

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	11.85	-0.37	0.66
Stage 5	11.65	-0.25	0.58
Stage 5	11.45	-0.15	0.5
Stage 5	11.25	-0.07	0.42
Stage 5	11.05	0	0.35
Stage 5	10.85	0.06	0.28
Stage 5	10.65	0.1	0.21
Stage 5	10.45	0.13	0.15
Stage 5	10.25	0.15	0.1
Stage 5	10.05	0.16	0.06
Stage 5	9.85	0.17	0.02
Stage 5	9.65	0.16	0
Stage 5	9.45	0.16	-0.03
Stage 5	9.25	0.15	-0.05
Stage 5	9.05	0.14	-0.06
Stage 5	8.85	0.12	-0.07
Stage 5	8.65	0.11	-0.08
Stage 5	8.45	0.09	-0.08
Stage 5	8.25	0.08	-0.08
Stage 5	8.05	0.06	-0.08
Stage 5	7.85	0.04	-0.07
Stage 5	7.65	0.03	-0.07
Stage 5	7.45	0.02	-0.06
Stage 5	7.25	0.01	-0.05
Stage 5	7.05	0	-0.03
Stage 5	6.85	0	-0.02
Stage 5	6.75	0	0

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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	23.95	0	0
Stage 6	23.75	0	0
Stage 6	23.75	0	0
Stage 6	23.55	0	0
Stage 6	23.55	0	0
Stage 6	23.35	0	0
Stage 6	23.35	0	0
Stage 6	23.15	0	0
Stage 6	23.15	0	0
Stage 6	22.95	-0.64	-3.18
Stage 6	22.75	-2.56	-9.62
Stage 6	22.55	-6.45	-19.44
Stage 6	22.35	-13	-32.74
Stage 6	22.15	-22.92	-49.6
Stage 6	21.95	-36.92	-70.05
Stage 6	21.75	-17.2	98.63
Stage 6	21.55	-2.02	75.89
Stage 6	21.35	9.08	55.48
Stage 6	21.15	16.55	37.37
Stage 6	20.95	20.85	21.5
Stage 6	20.75	22.34	7.45
Stage 6	20.55	21.26	-5.41
Stage 6	20.35	17.81	-17.24
Stage 6	20.15	12.17	-28.17
Stage 6	19.95	4.36	-39.08
Stage 6	19.75	-5.63	-49.96
Stage 6	19.55	-17.79	-60.77
Stage 6	19.35	-32.09	-71.5
Stage 6	19.15	-48.48	-81.99
Stage 6	18.95	-66.9	-92.07
Stage 6	18.75	-45.03	109.36
Stage 6	18.55	-24.88	100.71
Stage 6	18.35	-6.26	93.1
Stage 6	18.15	10.91	85.85
Stage 6	17.95	26.57	78.35
Stage 6	17.75	40.69	70.57
Stage 6	17.55	53.19	62.51
Stage 6	17.35	64.03	54.17
Stage 6	17.15	73.13	45.54
Stage 6	16.95	80.46	36.66
Stage 6	16.75	85.97	27.51
Stage 6	16.55	89.58	18.08
Stage 6	16.35	91.25	8.36
Stage 6	16.15	90.93	-1.63
Stage 6	15.95	88.55	-11.87
Stage 6	15.75	84.08	-22.37
Stage 6	15.55	77.45	-33.16
Stage 6	15.35	68.6	-44.22
Stage 6	15.15	57.81	-53.98
Stage 6	14.95	45.64	-60.83
Stage 6	14.75	32.69	-64.77
Stage 6	14.55	19.52	-65.82
Stage 6	14.35	6.72	-63.99
Stage 6	14.15	-5.13	-59.28
Stage 6	13.95	-15.59	-52.32
Stage 6	13.75	-24.35	-43.78
Stage 6	13.55	-31.07	-33.62
Stage 6	13.45	-33.68	-26.02
Stage 6	13.25	-37.47	-18.99
Stage 6	13.05	-39.68	-11.06
Stage 6	12.85	-40.58	-4.47
Stage 6	12.65	-40.4	0.91
Stage 6	12.45	-39.36	5.19
Stage 6	12.25	-37.66	8.49
Stage 6	12.05	-35.47	10.94

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	11.85	-32.94	12.65
Stage 6	11.65	-30.19	13.73
Stage 6	11.45	-27.34	14.27
Stage 6	11.25	-24.47	14.37
Stage 6	11.05	-21.64	14.11
Stage 6	10.85	-18.93	13.57
Stage 6	10.65	-16.36	12.84
Stage 6	10.45	-13.97	11.97
Stage 6	10.25	-11.77	11
Stage 6	10.05	-9.77	9.97
Stage 6	9.85	-7.99	8.92
Stage 6	9.65	-6.41	7.86
Stage 6	9.45	-5.05	6.83
Stage 6	9.25	-3.88	5.84
Stage 6	9.05	-2.9	4.91
Stage 6	8.85	-2.09	4.03
Stage 6	8.65	-1.44	3.24
Stage 6	8.45	-0.94	2.52
Stage 6	8.25	-0.56	1.89
Stage 6	8.05	-0.3	1.34
Stage 6	7.85	-0.12	0.88
Stage 6	7.65	-0.02	0.51
Stage 6	7.45	0.03	0.23
Stage 6	7.25	0.03	0.03
Stage 6	7.05	0.02	-0.07
Stage 6	6.85	0	-0.09
Stage 6	6.75	0	-0.03



### Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 7

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	23.95	0	0
Stage 7	23.75	0	0
Stage 7	23.75	0	0
Stage 7	23.55	0	0
Stage 7	23.55	0	0
Stage 7	23.35	0	0
Stage 7	23.35	0	0
Stage 7	23.15	0	0
Stage 7	23.15	0	0
Stage 7	22.95	-0.5	-2.5
Stage 7	22.75	-2.16	-8.28
Stage 7	22.55	-5.65	-17.47
Stage 7	22.35	-11.68	-30.16
Stage 7	22.15	-20.97	-46.44
Stage 7	21.95	-34.24	-66.34
Stage 7	21.75	-13.46	103.89
Stage 7	21.55	2.86	81.62
Stage 7	21.35	15.19	61.64
Stage 7	21.15	23.97	43.91
Stage 7	20.95	29.64	28.33
Stage 7	20.75	32.54	14.5
Stage 7	20.55	32.89	1.76
Stage 7	20.35	30.88	-10.07
Stage 7	20.15	26.64	-21.16
Stage 7	19.95	20.16	-32.4
Stage 7	19.75	11.4	-43.82
Stage 7	19.55	0.32	-55.41
Stage 7	19.35	-13.12	-67.18
Stage 7	19.15	-28.92	-79.02
Stage 7	18.95	-47.09	-90.81
Stage 7	18.75	-26.3	103.95
Stage 7	18.55	-7.74	92.78
Stage 7	18.35	8.7	82.19
Stage 7	18.15	22.99	71.45
Stage 7	17.95	34.98	59.93
Stage 7	17.75	44.49	47.58
Stage 7	17.55	51.37	34.38
Stage 7	17.35	55.43	20.3
Stage 7	17.15	56.5	5.36
Stage 7	16.95	54.42	-10.39
Stage 7	16.75	49.04	-26.93
Stage 7	16.55	40.19	-44.22
Stage 7	16.35	27.76	-62.19
Stage 7	16.15	11.61	-80.72
Stage 7	15.95	-8.32	-99.67
Stage 7	15.75	7.29	78.08
Stage 7	15.55	19.05	58.78
Stage 7	15.35	26.96	39.55
Stage 7	15.15	31.09	20.64
Stage 7	14.95	31.55	2.28
Stage 7	14.75	28.94	-13.02
Stage 7	14.55	24.08	-24.32
Stage 7	14.35	17.76	-31.61
Stage 7	14.15	10.78	-34.89
Stage 7	13.95	3.8	-34.87
Stage 7	13.75	-2.64	-32.24
Stage 7	13.55	-8.06	-27.06
Stage 7	13.45	-10.31	-22.53
Stage 7	13.25	-13.96	-18.26
Stage 7	13.05	-16.62	-13.28
Stage 7	12.85	-18.41	-8.97
Stage 7	12.65	-19.47	-5.29
Stage 7	12.45	-19.91	-2.21
Stage 7	12.25	-19.84	0.33
Stage 7	12.05	-19.37	2.37

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	11.85	-18.58	3.97
Stage 7	11.65	-17.55	5.15
Stage 7	11.45	-16.35	5.96
Stage 7	11.25	-15.07	6.44
Stage 7	11.05	-13.73	6.7
Stage 7	10.85	-12.37	6.79
Stage 7	10.65	-11.02	6.73
Stage 7	10.45	-9.72	6.54
Stage 7	10.25	-8.47	6.25
Stage 7	10.05	-7.29	5.88
Stage 7	9.85	-6.2	5.46
Stage 7	9.65	-5.2	5
Stage 7	9.45	-4.3	4.51
Stage 7	9.25	-3.49	4.02
Stage 7	9.05	-2.79	3.53
Stage 7	8.85	-2.18	3.06
Stage 7	8.65	-1.66	2.6
Stage 7	8.45	-1.22	2.17
Stage 7	8.25	-0.87	1.77
Stage 7	8.05	-0.59	1.4
Stage 7	7.85	-0.38	1.07
Stage 7	7.65	-0.22	0.78
Stage 7	7.45	-0.11	0.53
Stage 7	7.25	-0.05	0.33
Stage 7	7.05	-0.01	0.17
Stage 7	6.85	0	0.06
Stage 7	6.75	0	0.01

### Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 8

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	23.95	0	0
Stage 8	23.75	0	0
Stage 8	23.75	0	0
Stage 8	23.55	0	0
Stage 8	23.55	0	0
Stage 8	23.35	0	0
Stage 8	23.35	0	0
Stage 8	23.15	0	0
Stage 8	23.15	0	0
Stage 8	22.95	-0.49	-2.45
Stage 8	22.75	-2.14	-8.26
Stage 8	22.55	-5.66	-17.57
Stage 8	22.35	-11.75	-30.46
Stage 8	22.15	-21.15	-47.01
Stage 8	21.95	-34.6	-67.27
Stage 8	21.75	-14.29	101.55
Stage 8	21.55	1.46	78.78
Stage 8	21.35	13.12	58.26
Stage 8	21.15	21.11	39.96
Stage 8	20.95	25.87	23.8
Stage 8	20.75	27.72	9.27
Stage 8	20.55	26.86	-4.33
Stage 8	20.35	23.44	-17.1
Stage 8	20.15	17.6	-29.16
Stage 8	19.95	9.33	-41.4
Stage 8	19.75	-1.44	-53.82
Stage 8	19.55	-14.72	-66.4
Stage 8	19.35	-30.55	-79.13
Stage 8	19.15	-48.92	-91.87
Stage 8	18.95	-69.81	-104.45
Stage 8	18.75	-52.19	88.08
Stage 8	18.55	-36.9	76.43
Stage 8	18.35	-23.79	65.58
Stage 8	18.15	-12.81	54.87
Stage 8	17.95	-4.07	43.73
Stage 8	17.75	2.37	32.16
Stage 8	17.55	6.41	20.22
Stage 8	17.35	8.01	7.98
Stage 8	17.15	7.11	-4.47
Stage 8	16.95	3.71	-17
Stage 8	16.75	-2.18	-29.48
Stage 8	16.55	-10.54	-41.79
Stage 8	16.35	-21.29	-53.76
Stage 8	16.15	-34.33	-65.17
Stage 8	15.95	-49.48	-75.78
Stage 8	15.75	-22.5	134.93
Stage 8	15.55	2.33	124.14
Stage 8	15.35	24.95	113.08
Stage 8	15.15	45.3	101.74
Stage 8	14.95	63.33	90.15
Stage 8	14.75	78.99	78.3
Stage 8	14.55	92.22	66.17
Stage 8	14.35	102.98	53.77
Stage 8	14.15	111.19	41.09
Stage 8	13.95	116.83	28.16
Stage 8	13.75	119.82	14.98
Stage 8	13.55	120.12	1.52
Stage 8	13.45	119.25	-8.79
Stage 8	13.25	115.41	-19.19
Stage 8	13.05	108.74	-33.32
Stage 8	12.85	99.2	-47.7
Stage 8	12.65	87.05	-60.77
Stage 8	12.45	72.86	-70.95
Stage 8	12.25	57.21	-78.24
Stage 8	12.05	40.68	-82.63

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	11.85	23.86	-84.1
Stage 8	11.65	7.33	-82.67
Stage 8	11.45	-8.34	-78.36
Stage 8	11.25	-22.57	-71.15
Stage 8	11.05	-34.78	-61.03
Stage 8	10.85	-44.69	-49.57
Stage 8	10.65	-52.06	-36.85
Stage 8	10.45	-56.65	-22.91
Stage 8	10.25	-58.86	-11.1
Stage 8	10.05	-59.11	-1.24
Stage 8	9.85	-57.75	6.82
Stage 8	9.65	-55.1	13.25
Stage 8	9.45	-51.45	18.22
Stage 8	9.25	-47.08	21.89
Stage 8	9.05	-42.19	24.41
Stage 8	8.85	-37.01	25.91
Stage 8	8.65	-31.71	26.52
Stage 8	8.45	-26.45	26.27
Stage 8	8.25	-21.4	25.28
Stage 8	8.05	-16.66	23.69
Stage 8	7.85	-12.34	21.59
Stage 8	7.65	-8.54	19.02
Stage 8	7.45	-5.33	16.02
Stage 8	7.25	-2.81	12.62
Stage 8	7.05	-1.05	8.82
Stage 8	6.85	-0.12	4.63
Stage 8	6.75	0	1.19

### Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 9

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	23.95	0	0
Stage 9	23.75	0	0
Stage 9	23.75	0	0
Stage 9	23.55	0	0
Stage 9	23.55	0	0
Stage 9	23.35	0	0
Stage 9	23.35	0	0
Stage 9	23.15	0	0
Stage 9	23.15	0	0
Stage 9	22.95	-0.5	-2.5
Stage 9	22.75	-2.17	-8.34
Stage 9	22.55	-5.69	-17.63
Stage 9	22.35	-11.79	-30.48
Stage 9	22.15	-21.18	-46.97
Stage 9	21.95	-34.61	-67.13
Stage 9	21.75	-14.19	102.1
Stage 9	21.55	1.71	79.48
Stage 9	21.35	13.54	59.15
Stage 9	21.15	21.75	41.07
Stage 9	20.95	26.78	25.16
Stage 9	20.75	28.96	10.9
Stage 9	20.55	28.48	-2.4
Stage 9	20.35	25.51	-14.84
Stage 9	20.15	20.2	-26.56
Stage 9	19.95	12.51	-38.44
Stage 9	19.75	2.41	-50.49
Stage 9	19.55	-10.13	-62.7
Stage 9	19.35	-25.14	-75.05
Stage 9	19.15	-42.62	-87.43
Stage 9	18.95	-62.55	-99.66
Stage 9	18.75	-43.77	93.91
Stage 9	18.55	-27.27	82.53
Stage 9	18.35	-12.89	71.88
Stage 9	18.15	-0.63	61.29
Stage 9	17.95	9.4	50.16
Stage 9	17.75	17.1	38.5
Stage 9	17.55	22.36	26.3
Stage 9	17.35	25.09	13.63
Stage 9	17.15	25.19	0.53
Stage 9	16.95	22.62	-12.87
Stage 9	16.75	17.32	-26.51
Stage 9	16.55	9.26	-40.28
Stage 9	16.35	-1.55	-54.05
Stage 9	16.15	-15.08	-67.66
Stage 9	15.95	-31.26	-80.89
Stage 9	15.75	-7.45	119.03
Stage 9	15.55	13.48	104.68
Stage 9	15.35	31.39	89.54
Stage 9	15.15	46.11	73.58
Stage 9	14.95	57.47	56.82
Stage 9	14.75	65.32	39.25
Stage 9	14.55	69.5	20.86
Stage 9	14.35	69.83	1.68
Stage 9	14.15	66.18	-18.25
Stage 9	13.95	58.41	-38.84
Stage 9	13.75	46.41	-60
Stage 9	13.55	30.08	-81.66
Stage 9	13.45	20.27	-98.16
Stage 9	13.25	36.71	82.21
Stage 9	13.05	48.71	60.02
Stage 9	12.85	56.3	37.92
Stage 9	12.65	59.52	16.11
Stage 9	12.45	58.48	-5.2
Stage 9	12.25	53.59	-24.43
Stage 9	12.05	45.68	-39.57

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	11.85	35.56	-50.61
Stage 9	11.65	24.04	-57.59
Stage 9	11.45	11.93	-60.54
Stage 9	11.25	0.03	-59.53
Stage 9	11.05	-10.9	-54.62
Stage 9	10.85	-20.39	-47.44
Stage 9	10.65	-28.02	-38.17
Stage 9	10.45	-33.41	-26.95
Stage 9	10.25	-36.85	-17.2
Stage 9	10.05	-38.62	-8.84
Stage 9	9.85	-38.98	-1.79
Stage 9	9.65	-38.16	4.06
Stage 9	9.45	-36.41	8.78
Stage 9	9.25	-33.91	12.48
Stage 9	9.05	-30.87	15.21
Stage 9	8.85	-27.45	17.08
Stage 9	8.65	-23.82	18.17
Stage 9	8.45	-20.11	18.56
Stage 9	8.25	-16.45	18.32
Stage 9	8.05	-12.93	17.56
Stage 9	7.85	-9.67	16.31
Stage 9	7.65	-6.75	14.61
Stage 9	7.45	-4.25	12.49
Stage 9	7.25	-2.26	9.97
Stage 9	7.05	-0.85	7.05
Stage 9	6.85	-0.1	3.75
Stage 9	6.75	0	0.97

### Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 10

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	23.95	0	0
Stage 10	23.75	0	0
Stage 10	23.75	0	0
Stage 10	23.55	0	0
Stage 10	23.55	0	0
Stage 10	23.35	0	0
Stage 10	23.35	0	0
Stage 10	23.15	0	0
Stage 10	23.15	0	0
Stage 10	22.95	-0.48	-2.42
Stage 10	22.75	-2.12	-8.2
Stage 10	22.55	-5.61	-17.43
Stage 10	22.35	-11.66	-30.24
Stage 10	22.15	-21	-46.69
Stage 10	21.95	-34.36	-66.82
Stage 10	21.75	-13.87	102.45
Stage 10	21.55	2.1	79.84
Stage 10	21.35	14	59.5
Stage 10	21.15	22.28	41.41
Stage 10	20.95	27.37	25.46
Stage 10	20.75	29.61	11.17
Stage 10	20.55	29.17	-2.2
Stage 10	20.35	26.22	-14.72
Stage 10	20.15	20.91	-26.54
Stage 10	19.95	13.21	-38.53
Stage 10	19.75	3.07	-50.71
Stage 10	19.55	-9.55	-63.08
Stage 10	19.35	-24.67	-75.61
Stage 10	19.15	-42.31	-88.18
Stage 10	18.95	-62.44	-100.65
Stage 10	18.75	-44.02	92.07
Stage 10	18.55	-27.94	80.4
Stage 10	18.35	-14.05	69.45
Stage 10	18.15	-2.34	58.54
Stage 10	17.95	7.07	47.06
Stage 10	17.75	14.07	35.02
Stage 10	17.55	18.56	22.45
Stage 10	17.35	20.44	9.38
Stage 10	17.15	19.62	-4.1
Stage 10	16.95	16.04	-17.89
Stage 10	16.75	9.66	-31.89
Stage 10	16.55	0.46	-46
Stage 10	16.35	-11.55	-60.06
Stage 10	16.15	-26.33	-73.9
Stage 10	15.95	-43.78	-87.27
Stage 10	15.75	-21.29	112.49
Stage 10	15.55	-1.64	98.23
Stage 10	15.35	15.02	83.32
Stage 10	15.15	28.58	67.77
Stage 10	14.95	38.91	51.64
Stage 10	14.75	45.89	34.94
Stage 10	14.55	49.43	17.7
Stage 10	14.35	49.43	-0.02
Stage 10	14.15	45.8	-18.13
Stage 10	13.95	38.5	-36.51
Stage 10	13.75	27.49	-55.03
Stage 10	13.55	12.78	-73.58
Stage 10	13.45	4.04	-87.37
Stage 10	13.25	25.4	106.79
Stage 10	13.05	43.2	89.02
Stage 10	12.85	57.59	71.91
Stage 10	12.65	68.7	55.56
Stage 10	12.45	76.7	40.03
Stage 10	12.25	81.67	24.84
Stage 10	12.05	83.55	9.38

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	11.85	82.28	-6.32
Stage 10	11.65	77.82	-22.3
Stage 10	11.45	70.59	-36.17
Stage 10	11.25	61.16	-47.15
Stage 10	11.05	50.12	-55.22
Stage 10	10.85	38.04	-60.38
Stage 10	10.65	25.51	-62.64
Stage 10	10.45	13.11	-62.01
Stage 10	10.25	1.42	-58.48
Stage 10	10.05	-9.15	-52.82
Stage 10	9.85	-18.31	-45.78
Stage 10	9.65	-25.78	-37.35
Stage 10	9.45	-31.28	-27.5
Stage 10	9.25	-34.51	-16.19
Stage 10	9.05	-35.59	-5.39
Stage 10	8.85	-34.89	3.49
Stage 10	8.65	-32.79	10.53
Stage 10	8.45	-29.62	15.86
Stage 10	8.25	-25.69	19.65
Stage 10	8.05	-21.27	22.07
Stage 10	7.85	-16.64	23.17
Stage 10	7.65	-12.06	22.89
Stage 10	7.45	-7.84	21.08
Stage 10	7.25	-4.29	17.78
Stage 10	7.05	-1.65	13.17
Stage 10	6.85	-0.19	7.3
Stage 10	6.75	0	1.94



### Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 11-S

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	23.95	0	-0.02
Stage 11-S	23.75	0	-0.02
Stage 11-S	23.55	-0.02	-0.07
Stage 11-S	23.35	-0.04	-0.12
Stage 11-S	23.15	-0.08	-0.17
Stage 11-S	22.95	-0.6	-2.6
Stage 11-S	22.75	-2.13	-7.64
Stage 11-S	22.55	-5.21	-15.42
Stage 11-S	22.35	-10.42	-26.03
Stage 11-S	22.15	-18.33	-39.55
Stage 11-S	21.95	-29.53	-56.02
Stage 11-S	21.75	-4.22	126.54
Stage 11-S	21.55	16.46	103.43
Stage 11-S	21.35	31.99	77.63
Stage 11-S	21.15	42.9	54.57
Stage 11-S	20.95	49.73	34.13
Stage 11-S	20.75	52.88	15.76
Stage 11-S	20.55	52.62	-1.29
Stage 11-S	20.35	49.19	-17.15
Stage 11-S	20.15	42.79	-32
Stage 11-S	19.95	33.44	-46.77
Stage 11-S	19.75	21.13	-61.53
Stage 11-S	19.55	5.88	-76.28
Stage 11-S	19.35	-12.34	-91.06
Stage 11-S	19.15	-33.49	-105.77
Stage 11-S	18.95	-57.55	-120.28
Stage 11-S	18.75	-39.31	91.16
Stage 11-S	18.55	-23.79	77.6
Stage 11-S	18.35	-10.83	64.8
Stage 11-S	18.15	-0.42	52.08
Stage 11-S	17.95	7.35	38.84
Stage 11-S	17.75	12.37	25.08
Stage 11-S	17.55	14.53	10.82
Stage 11-S	17.35	13.75	-3.89
Stage 11-S	17.15	9.96	-18.97
Stage 11-S	16.95	3.1	-34.29
Stage 11-S	16.75	-6.85	-49.75
Stage 11-S	16.55	-19.89	-65.2
Stage 11-S	16.35	-35.99	-80.48
Stage 11-S	16.15	-55.06	-95.36
Stage 11-S	15.95	-76.97	-109.55
Stage 11-S	15.75	-53.95	115.09
Stage 11-S	15.55	-33.83	100.61
Stage 11-S	15.35	-16.65	85.89
Stage 11-S	15.15	-2.48	70.82
Stage 11-S	14.95	8.6	55.43
Stage 11-S	14.75	16.54	39.69
Stage 11-S	14.55	21.26	23.58
Stage 11-S	14.35	22.68	7.11
Stage 11-S	14.15	20.73	-9.73
Stage 11-S	13.95	15.35	-26.89
Stage 11-S	13.75	6.47	-44.4
Stage 11-S	13.55	-5.98	-62.28
Stage 11-S	13.45	-13.58	-75.96
Stage 11-S	13.25	20.35	169.62
Stage 11-S	13.05	50.52	150.86
Stage 11-S	12.85	76.87	131.77
Stage 11-S	12.65	99.33	112.32
Stage 11-S	12.45	117.83	92.51
Stage 11-S	12.25	132.3	72.33
Stage 11-S	12.05	142.66	51.82
Stage 11-S	11.85	148.86	30.98
Stage 11-S	11.65	150.82	9.78
Stage 11-S	11.45	148.87	-9.75
Stage 11-S	11.25	143.48	-26.92

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	11.05	135.14	-41.72
Stage 11-S	10.85	124.31	-54.13
Stage 11-S	10.65	111.47	-64.19
Stage 11-S	10.45	97.09	-71.89
Stage 11-S	10.25	81.65	-77.24
Stage 11-S	10.05	65.6	-80.21
Stage 11-S	9.85	49.45	-80.8
Stage 11-S	9.65	33.64	-79.03
Stage 11-S	9.45	18.66	-74.9
Stage 11-S	9.25	4.98	-68.41
Stage 11-S	9.05	-6.93	-59.55
Stage 11-S	8.85	-16.59	-48.3
Stage 11-S	8.65	-23.53	-34.69
Stage 11-S	8.45	-27.37	-19.21
Stage 11-S	8.25	-28.12	-3.76
Stage 11-S	8.05	-26.23	9.44
Stage 11-S	7.85	-22.45	18.91
Stage 11-S	7.65	-17.51	24.72
Stage 11-S	7.45	-12.12	26.91
Stage 11-S	7.25	-7.01	25.55
Stage 11-S	7.05	-2.85	20.82
Stage 11-S	6.85	-0.35	12.5
Stage 11-S	6.75	0	3.49

## Risultati Elementi strutturali - SISMICA GEO

### Design Assumption: SISMICA GEO Sollecitazione Tir-D2

Stage	Forza (kN/m)
Stage 3	200
Stage 4	201.2847
Stage 5	199.6892
Stage 6	196.0913
Stage 7	197.1322
Stage 8	196.1604
Stage 9	196.4418
Stage 10	196.4772
Stage 11-S	205.4706

**Design Assumption: SISMICA GEO Sollecitazione Tir-E2**

Stage	Forza (kN/m)
Stage 5	200
Stage 6	214.1662
Stage 7	209.5156
Stage 8	207.9178
Stage 9	208.6689
Stage 10	208.0551
Stage 11-S	229.0688

**Design Assumption: SISMICA GEO Sollecitazione Tir-F2**

Stage	Forza (kN/m)
Stage 7	200
Stage 8	224.6271
Stage 9	216.7791
Stage 10	216.6663
Stage 11-S	242.4813

**Design Assumption: SISMICA GEO Sollecitazione Tir-G2**

Stage	Forza (kN/m)
Stage 9	200
Stage 10	211.0506
Stage 11-S	263.3914

## Allegati

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

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* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: Nominal
* Time:martedì 26 marzo 2019 18:29:27
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+175,76 LATO MONTE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -9.15 6.75 23.95 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 6.75 23.95 1 0
SOIL 0_R LeftWall_32 6.75 23.95 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 35 LeftWall_32
ATREST 0.534 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 6.75 23.95 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D2_492899 LeftWall_32 21.95 acciaioarmonico_124 1.1014E-05 200 10 0 0
WIRE Tir-E2_596311 LeftWall_32 18.95 acciaioarmonico_124 1.2171E-05 200 10 0 0
WIRE Tir-F2_596312 LeftWall_32 15.95 acciaioarmonico_124 1.2846E-05 200 10 0 0
WIRE Tir-G2_698700 LeftWall_32 13.45 acciaioarmonico_124 1.4325E-05 200 10 0 0

* 6.3: Strips

* (slope contribution)
STRIP LeftWall_32 1 1 1 1 23.35 10 45
STRIP LeftWall_32 1 1 2 1 23.35 27.386 45
STRIP LeftWall_32 1 1 3 1 23.35 31.853 45
STRIP LeftWall_32 1 1 4 1 23.35 34.571 45
STRIP LeftWall_32 1 1 5 1 23.35 37.288 45
STRIP LeftWall_32 1 1 6 1 23.35 40.005 45
STRIP LeftWall_32 1 1 7 1 23.35 42.723 45
STRIP LeftWall_32 1 1 8 1 23.35 45.228 45
STRIP LeftWall_32 1 1 9 1 23.35 47.546 45
STRIP LeftWall_32 1 1 10 1 23.35 49.864 45
STRIP LeftWall_32 1 1 11 1 23.35 51.188 45
STRIP LeftWall_32 1 1 12 1 23.35 51.557 45
STRIP LeftWall_32 1 1 13 1 23.35 51.926 45
STRIP LeftWall_32 1 1 14 1 23.35 52.295 45
STRIP LeftWall_32 1 1 15 1 23.35 52.664 45
STRIP LeftWall_32 1 1 16 1 23.35 54.05 45
STRIP LeftWall_32 1 1 17 1 23.35 59.771 45
STRIP LeftWall_32 1 1 18 1 23.35 65.983 45
STRIP LeftWall_32 1 1 19 1 23.35 72.195 45
STRIP LeftWall_32 1 1 20 1 23.35 78.408 45
STRIP LeftWall_32 1 1 21 1 23.35 84.481 45
STRIP LeftWall_32 1 1 22 1 23.35 88.5 45
STRIP LeftWall_32 1 1 23 1 23.35 91.833 45
STRIP LeftWall_32 1 1 24 1 23.35 95.167 45

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STRIP LeftWall_32	1	1	25	1	23.35	98.5	45
STRIP LeftWall_32	1	1	26	1	23.35	101.83	45
STRIP LeftWall_32	1	1	27	1	23.35	105.17	45
STRIP LeftWall_32	1	1	28	1	23.35	108.5	45
STRIP LeftWall_32	1	1	29	1	23.35	111.83	45
STRIP LeftWall_32	1	1	30	1	23.35	115.17	45
STRIP LeftWall_32	1	1	31	1	23.35	118.5	45
STRIP LeftWall_32	1	1	32	1	23.35	121.83	45
STRIP LeftWall_32	1	1	33	1	23.35	125.17	45
STRIP LeftWall_32	1	1	34	1	23.35	128.5	45
STRIP LeftWall_32	2	2	1	1	23.35	10	45
STRIP LeftWall_32	2	2	2	1	23.35	27.386	45
STRIP LeftWall_32	2	2	3	1	23.35	31.853	45
STRIP LeftWall_32	2	2	4	1	23.35	34.571	45
STRIP LeftWall_32	2	2	5	1	23.35	37.288	45
STRIP LeftWall_32	2	2	6	1	23.35	40.005	45
STRIP LeftWall_32	2	2	7	1	23.35	42.723	45
STRIP LeftWall_32	2	2	8	1	23.35	45.228	45
STRIP LeftWall_32	2	2	9	1	23.35	47.546	45
STRIP LeftWall_32	2	2	10	1	23.35	49.864	45
STRIP LeftWall_32	2	2	11	1	23.35	51.188	45
STRIP LeftWall_32	2	2	12	1	23.35	51.557	45
STRIP LeftWall_32	2	2	13	1	23.35	51.926	45
STRIP LeftWall_32	2	2	14	1	23.35	52.295	45
STRIP LeftWall_32	2	2	15	1	23.35	52.664	45
STRIP LeftWall_32	2	2	16	1	23.35	54.05	45
STRIP LeftWall_32	2	2	17	1	23.35	59.771	45
STRIP LeftWall_32	2	2	18	1	23.35	65.983	45
STRIP LeftWall_32	2	2	19	1	23.35	72.195	45
STRIP LeftWall_32	2	2	20	1	23.35	78.408	45
STRIP LeftWall_32	2	2	21	1	23.35	84.481	45
STRIP LeftWall_32	2	2	22	1	23.35	88.5	45
STRIP LeftWall_32	2	2	23	1	23.35	91.833	45
STRIP LeftWall_32	2	2	24	1	23.35	95.167	45
STRIP LeftWall_32	2	2	25	1	23.35	98.5	45
STRIP LeftWall_32	2	2	26	1	23.35	101.83	45
STRIP LeftWall_32	2	2	27	1	23.35	105.17	45
STRIP LeftWall_32	2	2	28	1	23.35	108.5	45
STRIP LeftWall_32	2	2	29	1	23.35	111.83	45
STRIP LeftWall_32	2	2	30	1	23.35	115.17	45
STRIP LeftWall_32	2	2	31	1	23.35	118.5	45
STRIP LeftWall_32	2	2	32	1	23.35	121.83	45
STRIP LeftWall_32	2	2	33	1	23.35	125.17	45
STRIP LeftWall_32	2	2	34	1	23.35	128.5	45
STRIP LeftWall_32	3	3	1	1	23.35	10	45
STRIP LeftWall_32	3	3	2	1	23.35	27.386	45
STRIP LeftWall_32	3	3	3	1	23.35	31.853	45
STRIP LeftWall_32	3	3	4	1	23.35	34.571	45
STRIP LeftWall_32	3	3	5	1	23.35	37.288	45
STRIP LeftWall_32	3	3	6	1	23.35	40.005	45
STRIP LeftWall_32	3	3	7	1	23.35	42.723	45
STRIP LeftWall_32	3	3	8	1	23.35	45.228	45
STRIP LeftWall_32	3	3	9	1	23.35	47.546	45
STRIP LeftWall_32	3	3	10	1	23.35	49.864	45
STRIP LeftWall_32	3	3	11	1	23.35	51.188	45
STRIP LeftWall_32	3	3	12	1	23.35	51.557	45
STRIP LeftWall_32	3	3	13	1	23.35	51.926	45
STRIP LeftWall_32	3	3	14	1	23.35	52.295	45
STRIP LeftWall_32	3	3	15	1	23.35	52.664	45
STRIP LeftWall_32	3	3	16	1	23.35	54.05	45
STRIP LeftWall_32	3	3	17	1	23.35	59.771	45
STRIP LeftWall_32	3	3	18	1	23.35	65.983	45
STRIP LeftWall_32	3	3	19	1	23.35	72.195	45
STRIP LeftWall_32	3	3	20	1	23.35	78.408	45
STRIP LeftWall_32	3	3	21	1	23.35	84.481	45
STRIP LeftWall_32	3	3	22	1	23.35	88.5	45
STRIP LeftWall_32	3	3	23	1	23.35	91.833	45
STRIP LeftWall_32	3	3	24	1	23.35	95.167	45
STRIP LeftWall_32	3	3	25	1	23.35	98.5	45
STRIP LeftWall_32	3	3	26	1	23.35	101.83	45
STRIP LeftWall_32	3	3	27	1	23.35	105.17	45
STRIP LeftWall_32	3	3	28	1	23.35	108.5	45
STRIP LeftWall_32	3	3	29	1	23.35	111.83	45
STRIP LeftWall_32	3	3	30	1	23.35	115.17	45
STRIP LeftWall_32	3	3	31	1	23.35	118.5	45
STRIP LeftWall_32	3	3	32	1	23.35	121.83	45
STRIP LeftWall_32	3	3	33	1	23.35	125.17	45
STRIP LeftWall_32	3	3	34	1	23.35	128.5	45
STRIP LeftWall_32	4	4	1	1	23.35	10	45
STRIP LeftWall_32	4	4	2	1	23.35	27.386	45
STRIP LeftWall_32	4	4	3	1	23.35	31.853	45
STRIP LeftWall_32	4	4	4	1	23.35	34.571	45
STRIP LeftWall_32	4	4	5	1	23.35	37.288	45
STRIP LeftWall_32	4	4	6	1	23.35	40.005	45
STRIP LeftWall_32	4	4	7	1	23.35	42.723	45
STRIP LeftWall_32	4	4	8	1	23.35	45.228	45
STRIP LeftWall_32	4	4	9	1	23.35	47.546	45
STRIP LeftWall_32	4	4	10	1	23.35	49.864	45
STRIP LeftWall_32	4	4	11	1	23.35	51.188	45



STRIP LeftWall_32	4	4	12	1	23.35	51.557	45
STRIP LeftWall_32	4	4	13	1	23.35	51.926	45
STRIP LeftWall_32	4	4	14	1	23.35	52.295	45
STRIP LeftWall_32	4	4	15	1	23.35	52.664	45
STRIP LeftWall_32	4	4	16	1	23.35	54.05	45
STRIP LeftWall_32	4	4	17	1	23.35	59.771	45
STRIP LeftWall_32	4	4	18	1	23.35	65.983	45
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STRIP LeftWall_32	4	4	21	1	23.35	84.481	45
STRIP LeftWall_32	4	4	22	1	23.35	88.5	45
STRIP LeftWall_32	4	4	23	1	23.35	91.833	45
STRIP LeftWall_32	4	4	24	1	23.35	95.167	45
STRIP LeftWall_32	4	4	25	1	23.35	98.5	45
STRIP LeftWall_32	4	4	26	1	23.35	101.83	45
STRIP LeftWall_32	4	4	27	1	23.35	105.17	45
STRIP LeftWall_32	4	4	28	1	23.35	108.5	45
STRIP LeftWall_32	4	4	29	1	23.35	111.83	45
STRIP LeftWall_32	4	4	30	1	23.35	115.17	45
STRIP LeftWall_32	4	4	31	1	23.35	118.5	45
STRIP LeftWall_32	4	4	32	1	23.35	121.83	45
STRIP LeftWall_32	4	4	33	1	23.35	125.17	45
STRIP LeftWall_32	4	4	34	1	23.35	128.5	45
STRIP LeftWall_32	5	5	1	1	23.35	10	45
STRIP LeftWall_32	5	5	2	1	23.35	27.386	45
STRIP LeftWall_32	5	5	3	1	23.35	31.853	45
STRIP LeftWall_32	5	5	4	1	23.35	34.571	45
STRIP LeftWall_32	5	5	5	1	23.35	37.288	45
STRIP LeftWall_32	5	5	6	1	23.35	40.005	45
STRIP LeftWall_32	5	5	7	1	23.35	42.723	45
STRIP LeftWall_32	5	5	8	1	23.35	45.228	45
STRIP LeftWall_32	5	5	9	1	23.35	47.546	45
STRIP LeftWall_32	5	5	10	1	23.35	49.864	45
STRIP LeftWall_32	5	5	11	1	23.35	51.188	45
STRIP LeftWall_32	5	5	12	1	23.35	51.557	45
STRIP LeftWall_32	5	5	13	1	23.35	51.926	45
STRIP LeftWall_32	5	5	14	1	23.35	52.295	45
STRIP LeftWall_32	5	5	15	1	23.35	52.664	45
STRIP LeftWall_32	5	5	16	1	23.35	54.05	45
STRIP LeftWall_32	5	5	17	1	23.35	59.771	45
STRIP LeftWall_32	5	5	18	1	23.35	65.983	45
STRIP LeftWall_32	5	5	19	1	23.35	72.195	45
STRIP LeftWall_32	5	5	20	1	23.35	78.408	45
STRIP LeftWall_32	5	5	21	1	23.35	84.481	45
STRIP LeftWall_32	5	5	22	1	23.35	88.5	45
STRIP LeftWall_32	5	5	23	1	23.35	91.833	45
STRIP LeftWall_32	5	5	24	1	23.35	95.167	45
STRIP LeftWall_32	5	5	25	1	23.35	98.5	45
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STRIP LeftWall_32	5	5	27	1	23.35	105.17	45
STRIP LeftWall_32	5	5	28	1	23.35	108.5	45
STRIP LeftWall_32	5	5	29	1	23.35	111.83	45
STRIP LeftWall_32	5	5	30	1	23.35	115.17	45
STRIP LeftWall_32	5	5	31	1	23.35	118.5	45
STRIP LeftWall_32	5	5	32	1	23.35	121.83	45
STRIP LeftWall_32	5	5	33	1	23.35	125.17	45
STRIP LeftWall_32	5	5	34	1	23.35	128.5	45
STRIP LeftWall_32	6	6	1	1	23.35	10	45
STRIP LeftWall_32	6	6	2	1	23.35	27.386	45
STRIP LeftWall_32	6	6	3	1	23.35	31.853	45
STRIP LeftWall_32	6	6	4	1	23.35	34.571	45
STRIP LeftWall_32	6	6	5	1	23.35	37.288	45
STRIP LeftWall_32	6	6	6	1	23.35	40.005	45
STRIP LeftWall_32	6	6	7	1	23.35	42.723	45
STRIP LeftWall_32	6	6	8	1	23.35	45.228	45
STRIP LeftWall_32	6	6	9	1	23.35	47.546	45
STRIP LeftWall_32	6	6	10	1	23.35	49.864	45
STRIP LeftWall_32	6	6	11	1	23.35	51.188	45
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STRIP LeftWall_32	6	6	14	1	23.35	52.295	45
STRIP LeftWall_32	6	6	15	1	23.35	52.664	45
STRIP LeftWall_32	6	6	16	1	23.35	54.05	45
STRIP LeftWall_32	6	6	17	1	23.35	59.771	45
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STRIP LeftWall_32	6	6	20	1	23.35	78.408	45
STRIP LeftWall_32	6	6	21	1	23.35	84.481	45
STRIP LeftWall_32	6	6	22	1	23.35	88.5	45
STRIP LeftWall_32	6	6	23	1	23.35	91.833	45
STRIP LeftWall_32	6	6	24	1	23.35	95.167	45
STRIP LeftWall_32	6	6	25	1	23.35	98.5	45
STRIP LeftWall_32	6	6	26	1	23.35	101.83	45
STRIP LeftWall_32	6	6	27	1	23.35	105.17	45
STRIP LeftWall_32	6	6	28	1	23.35	108.5	45
STRIP LeftWall_32	6	6	29	1	23.35	111.83	45
STRIP LeftWall_32	6	6	30	1	23.35	115.17	45
STRIP LeftWall_32	6	6	31	1	23.35	118.5	45
STRIP LeftWall_32	6	6	32	1	23.35	121.83	45

STRIP LeftWall_32	6	6	33	1	23.35	125.17	45
STRIP LeftWall_32	6	6	34	1	23.35	128.5	45
STRIP LeftWall_32	7	7	1	1	23.35	10	45
STRIP LeftWall_32	7	7	2	1	23.35	27.386	45
STRIP LeftWall_32	7	7	3	1	23.35	31.853	45
STRIP LeftWall_32	7	7	4	1	23.35	34.571	45
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STRIP LeftWall_32	7	7	6	1	23.35	40.005	45
STRIP LeftWall_32	7	7	7	1	23.35	42.723	45
STRIP LeftWall_32	7	7	8	1	23.35	45.228	45
STRIP LeftWall_32	7	7	9	1	23.35	47.546	45
STRIP LeftWall_32	7	7	10	1	23.35	49.864	45
STRIP LeftWall_32	7	7	11	1	23.35	51.188	45
STRIP LeftWall_32	7	7	12	1	23.35	51.557	45
STRIP LeftWall_32	7	7	13	1	23.35	51.926	45
STRIP LeftWall_32	7	7	14	1	23.35	52.295	45
STRIP LeftWall_32	7	7	15	1	23.35	52.664	45
STRIP LeftWall_32	7	7	16	1	23.35	54.05	45
STRIP LeftWall_32	7	7	17	1	23.35	59.771	45
STRIP LeftWall_32	7	7	18	1	23.35	65.983	45
STRIP LeftWall_32	7	7	19	1	23.35	72.195	45
STRIP LeftWall_32	7	7	20	1	23.35	78.408	45
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STRIP LeftWall_32	7	7	22	1	23.35	88.5	45
STRIP LeftWall_32	7	7	23	1	23.35	91.833	45
STRIP LeftWall_32	7	7	24	1	23.35	95.167	45
STRIP LeftWall_32	7	7	25	1	23.35	98.5	45
STRIP LeftWall_32	7	7	26	1	23.35	101.83	45
STRIP LeftWall_32	7	7	27	1	23.35	105.17	45
STRIP LeftWall_32	7	7	28	1	23.35	108.5	45
STRIP LeftWall_32	7	7	29	1	23.35	111.83	45
STRIP LeftWall_32	7	7	30	1	23.35	115.17	45
STRIP LeftWall_32	7	7	31	1	23.35	118.5	45
STRIP LeftWall_32	7	7	32	1	23.35	121.83	45
STRIP LeftWall_32	7	7	33	1	23.35	125.17	45
STRIP LeftWall_32	7	7	34	1	23.35	128.5	45
STRIP LeftWall_32	8	8	1	1	23.35	10	45
STRIP LeftWall_32	8	8	2	1	23.35	27.386	45
STRIP LeftWall_32	8	8	3	1	23.35	31.853	45
STRIP LeftWall_32	8	8	4	1	23.35	34.571	45
STRIP LeftWall_32	8	8	5	1	23.35	37.288	45
STRIP LeftWall_32	8	8	6	1	23.35	40.005	45
STRIP LeftWall_32	8	8	7	1	23.35	42.723	45
STRIP LeftWall_32	8	8	8	1	23.35	45.228	45
STRIP LeftWall_32	8	8	9	1	23.35	47.546	45
STRIP LeftWall_32	8	8	10	1	23.35	49.864	45
STRIP LeftWall_32	8	8	11	1	23.35	51.188	45
STRIP LeftWall_32	8	8	12	1	23.35	51.557	45
STRIP LeftWall_32	8	8	13	1	23.35	51.926	45
STRIP LeftWall_32	8	8	14	1	23.35	52.295	45
STRIP LeftWall_32	8	8	15	1	23.35	52.664	45
STRIP LeftWall_32	8	8	16	1	23.35	54.05	45
STRIP LeftWall_32	8	8	17	1	23.35	59.771	45
STRIP LeftWall_32	8	8	18	1	23.35	65.983	45
STRIP LeftWall_32	8	8	19	1	23.35	72.195	45
STRIP LeftWall_32	8	8	20	1	23.35	78.408	45
STRIP LeftWall_32	8	8	21	1	23.35	84.481	45
STRIP LeftWall_32	8	8	22	1	23.35	88.5	45
STRIP LeftWall_32	8	8	23	1	23.35	91.833	45
STRIP LeftWall_32	8	8	24	1	23.35	95.167	45
STRIP LeftWall_32	8	8	25	1	23.35	98.5	45
STRIP LeftWall_32	8	8	26	1	23.35	101.83	45
STRIP LeftWall_32	8	8	27	1	23.35	105.17	45
STRIP LeftWall_32	8	8	28	1	23.35	108.5	45
STRIP LeftWall_32	8	8	29	1	23.35	111.83	45
STRIP LeftWall_32	8	8	30	1	23.35	115.17	45
STRIP LeftWall_32	8	8	31	1	23.35	118.5	45
STRIP LeftWall_32	8	8	32	1	23.35	121.83	45
STRIP LeftWall_32	8	8	33	1	23.35	125.17	45
STRIP LeftWall_32	8	8	34	1	23.35	128.5	45
STRIP LeftWall_32	9	9	1	1	23.35	10	45
STRIP LeftWall_32	9	9	2	1	23.35	27.386	45
STRIP LeftWall_32	9	9	3	1	23.35	31.853	45
STRIP LeftWall_32	9	9	4	1	23.35	34.571	45
STRIP LeftWall_32	9	9	5	1	23.35	37.288	45
STRIP LeftWall_32	9	9	6	1	23.35	40.005	45
STRIP LeftWall_32	9	9	7	1	23.35	42.723	45
STRIP LeftWall_32	9	9	8	1	23.35	45.228	45
STRIP LeftWall_32	9	9	9	1	23.35	47.546	45
STRIP LeftWall_32	9	9	10	1	23.35	49.864	45
STRIP LeftWall_32	9	9	11	1	23.35	51.188	45
STRIP LeftWall_32	9	9	12	1	23.35	51.557	45
STRIP LeftWall_32	9	9	13	1	23.35	51.926	45
STRIP LeftWall_32	9	9	14	1	23.35	52.295	45
STRIP LeftWall_32	9	9	15	1	23.35	52.664	45
STRIP LeftWall_32	9	9	16	1	23.35	54.05	45
STRIP LeftWall_32	9	9	17	1	23.35	59.771	45
STRIP LeftWall_32	9	9	18	1	23.35	65.983	45
STRIP LeftWall_32	9	9	19	1	23.35	72.195	45

STRIP LeftWall\_32 9 9 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 9 9 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 9 9 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 9 9 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 9 9 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 9 9 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 9 9 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 9 9 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 9 9 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 9 9 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 9 9 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 9 9 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 9 9 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 9 9 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 9 9 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 10 10 1 1 23.35 10 45  
 STRIP LeftWall\_32 10 10 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 10 10 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 10 10 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 10 10 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 10 10 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 10 10 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 10 10 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 10 10 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 10 10 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 10 10 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 10 10 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 10 10 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 10 10 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 10 10 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 10 10 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 10 10 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 10 10 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 10 10 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 10 10 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 10 10 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 10 10 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 10 10 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 10 10 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 10 10 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 10 10 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 10 10 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 10 10 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 10 10 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 10 10 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 10 10 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 10 10 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 10 10 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 10 10 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 11 11 1 1 23.35 10 45  
 STRIP LeftWall\_32 11 11 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 11 11 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 11 11 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 11 11 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 11 11 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 11 11 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 11 11 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 11 11 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 11 11 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 11 11 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 11 11 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 11 11 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 11 11 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 11 11 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 11 11 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 11 11 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 11 11 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 11 11 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 11 11 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 11 11 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 11 11 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 11 11 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 11 11 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 11 11 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 11 11 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 11 11 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 11 11 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 11 11 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 11 11 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 11 11 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 11 11 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 11 11 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 11 11 34 1 23.35 128.5 45

\* 7: Defining Steps

STEP Stage1\_31  
 CHANGE Morena\_2\_8\_L\_0 U-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KA=0.245 LeftWall\_32

```

CHANGE Morena_2_8_L_0 U-KP=5.664 LeftWall_32
CHANGE Morena_2_8_L_0 D-KA=0.245 LeftWall_32
CHANGE Morena_2_8_L_0 D-KP=5.181 LeftWall_32
CHANGE Morena_2_8_L_0 U-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 U-ADHES=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM 23.35 23.35
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Berlinese_67970
ENDSTEP

STEP Stage2_749506
CHANGE Morena_2_8_L_0 D-KP=5.664 LeftWall_32
SETWALL LeftWall_32
GEOM 23.35 21.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage3_749695
SETWALL LeftWall_32
GEOM 23.35 21.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-D2_492899
ENDSTEP

STEP Stage4_749884
SETWALL LeftWall_32
GEOM 23.35 18.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage5_750073
SETWALL LeftWall_32
GEOM 23.35 18.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-E2_596311
ENDSTEP

STEP Stage6_750262
SETWALL LeftWall_32
GEOM 23.35 15.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage7_750451
SETWALL LeftWall_32
GEOM 23.35 15.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-F2_596312
ENDSTEP

STEP Stage8_750640
SETWALL LeftWall_32
GEOM 23.35 12.95
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage9_750829
SETWALL LeftWall_32
GEOM 23.35 12.95
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-G2_698700
ENDSTEP

STEP Stage10_751018
SETWALL LeftWall_32
GEOM 23.35 11.8
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage11-S_751207
SETWALL LeftWall_32
GEOM 23.35 11.8
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
CHANGE Morena_2_8_L_0 U-KAED=0.33028 LeftWall_32
CHANGE Morena_2_8_L_0 U-KAEW=0.38851 LeftWall_32

```

```

CHANGE Morena_2_8_L_0 U-KPED=5.5799 LeftWall_32
CHANGE Morena_2_8_L_0 U-KPEW=5.2464 LeftWall_32
CHANGE Morena_2_8_L_0 D-KAED=0.30313 LeftWall_32
CHANGE Morena_2_8_L_0 D-KAEW=0.36432 LeftWall_32
CHANGE Morena_2_8_L_0 D-KPED=4.9103 LeftWall_32
CHANGE Morena_2_8_L_0 D-KPEW=4.5658 LeftWall_32
EQK 0.1172 0.0586 -0.0586 0 0.67 0 0.67 1 0
WOOD 52.971 52.971 6.75 23.95
* Include pressure contribution from wall: LeftWall_32
* Include wall contribution
DLOAD step LeftWall_32 6.75 0.24591 23.95 0.24591
ENDSTEP
  
```

## Design Assumption : SLE (Rara) - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: SLE (Rara)
* Time:martedì 26 marzo 2019 18:29:31
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+175,76 LATO MONTE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -9.15 6.75 23.95 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 6.75 23.95 1 0
SOIL 0_R LeftWall_32 6.75 23.95 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 35 LeftWall_32
ATREST 0.534 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 6.75 23.95 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D2_492899 LeftWall_32 21.95 acciaioarmonico_124 1.1014E-05 200 10 0 0
WIRE Tir-E2_596311 LeftWall_32 18.95 acciaioarmonico_124 1.2171E-05 200 10 0 0
WIRE Tir-F2_596312 LeftWall_32 15.95 acciaioarmonico_124 1.2846E-05 200 10 0 0
WIRE Tir-G2_698700 LeftWall_32 13.45 acciaioarmonico_124 1.4325E-05 200 10 0 0

* 6.3: Strips

* (slope contribution)
STRIP LeftWall_32 1 1 1 1 23.35 10 45
STRIP LeftWall_32 1 1 2 1 23.35 27.386 45
STRIP LeftWall_32 1 1 3 1 23.35 31.853 45
STRIP LeftWall_32 1 1 4 1 23.35 34.571 45
STRIP LeftWall_32 1 1 5 1 23.35 37.288 45
STRIP LeftWall_32 1 1 6 1 23.35 40.005 45
STRIP LeftWall_32 1 1 7 1 23.35 42.723 45
STRIP LeftWall_32 1 1 8 1 23.35 45.228 45
STRIP LeftWall_32 1 1 9 1 23.35 47.546 45
STRIP LeftWall_32 1 1 10 1 23.35 49.864 45
STRIP LeftWall_32 1 1 11 1 23.35 51.188 45
STRIP LeftWall_32 1 1 12 1 23.35 51.557 45
STRIP LeftWall_32 1 1 13 1 23.35 51.926 45
STRIP LeftWall_32 1 1 14 1 23.35 52.295 45
STRIP LeftWall_32 1 1 15 1 23.35 52.664 45
STRIP LeftWall_32 1 1 16 1 23.35 54.05 45
STRIP LeftWall_32 1 1 17 1 23.35 59.771 45
STRIP LeftWall_32 1 1 18 1 23.35 65.983 45
STRIP LeftWall_32 1 1 19 1 23.35 72.195 45
STRIP LeftWall_32 1 1 20 1 23.35 78.408 45
STRIP LeftWall_32 1 1 21 1 23.35 84.481 45
STRIP LeftWall_32 1 1 22 1 23.35 88.5 45
STRIP LeftWall_32 1 1 23 1 23.35 91.833 45
STRIP LeftWall_32 1 1 24 1 23.35 95.167 45
STRIP LeftWall_32 1 1 25 1 23.35 98.5 45
STRIP LeftWall_32 1 1 26 1 23.35 101.83 45
STRIP LeftWall_32 1 1 27 1 23.35 105.17 45
STRIP LeftWall_32 1 1 28 1 23.35 108.5 45

```

STRIP LeftWall_32	1	1	29	1	23.35	111.83	45
STRIP LeftWall_32	1	1	30	1	23.35	115.17	45
STRIP LeftWall_32	1	1	31	1	23.35	118.5	45
STRIP LeftWall_32	1	1	32	1	23.35	121.83	45
STRIP LeftWall_32	1	1	33	1	23.35	125.17	45
STRIP LeftWall_32	1	1	34	1	23.35	128.5	45
STRIP LeftWall_32	2	2	1	1	23.35	10	45
STRIP LeftWall_32	2	2	2	1	23.35	27.386	45
STRIP LeftWall_32	2	2	3	1	23.35	31.853	45
STRIP LeftWall_32	2	2	4	1	23.35	34.571	45
STRIP LeftWall_32	2	2	5	1	23.35	37.288	45
STRIP LeftWall_32	2	2	6	1	23.35	40.005	45
STRIP LeftWall_32	2	2	7	1	23.35	42.723	45
STRIP LeftWall_32	2	2	8	1	23.35	45.228	45
STRIP LeftWall_32	2	2	9	1	23.35	47.546	45
STRIP LeftWall_32	2	2	10	1	23.35	49.864	45
STRIP LeftWall_32	2	2	11	1	23.35	51.188	45
STRIP LeftWall_32	2	2	12	1	23.35	51.557	45
STRIP LeftWall_32	2	2	13	1	23.35	51.926	45
STRIP LeftWall_32	2	2	14	1	23.35	52.295	45
STRIP LeftWall_32	2	2	15	1	23.35	52.664	45
STRIP LeftWall_32	2	2	16	1	23.35	54.05	45
STRIP LeftWall_32	2	2	17	1	23.35	59.771	45
STRIP LeftWall_32	2	2	18	1	23.35	65.983	45
STRIP LeftWall_32	2	2	19	1	23.35	72.195	45
STRIP LeftWall_32	2	2	20	1	23.35	78.408	45
STRIP LeftWall_32	2	2	21	1	23.35	84.481	45
STRIP LeftWall_32	2	2	22	1	23.35	88.5	45
STRIP LeftWall_32	2	2	23	1	23.35	91.833	45
STRIP LeftWall_32	2	2	24	1	23.35	95.167	45
STRIP LeftWall_32	2	2	25	1	23.35	98.5	45
STRIP LeftWall_32	2	2	26	1	23.35	101.83	45
STRIP LeftWall_32	2	2	27	1	23.35	105.17	45
STRIP LeftWall_32	2	2	28	1	23.35	108.5	45
STRIP LeftWall_32	2	2	29	1	23.35	111.83	45
STRIP LeftWall_32	2	2	30	1	23.35	115.17	45
STRIP LeftWall_32	2	2	31	1	23.35	118.5	45
STRIP LeftWall_32	2	2	32	1	23.35	121.83	45
STRIP LeftWall_32	2	2	33	1	23.35	125.17	45
STRIP LeftWall_32	2	2	34	1	23.35	128.5	45
STRIP LeftWall_32	3	3	1	1	23.35	10	45
STRIP LeftWall_32	3	3	2	1	23.35	27.386	45
STRIP LeftWall_32	3	3	3	1	23.35	31.853	45
STRIP LeftWall_32	3	3	4	1	23.35	34.571	45
STRIP LeftWall_32	3	3	5	1	23.35	37.288	45
STRIP LeftWall_32	3	3	6	1	23.35	40.005	45
STRIP LeftWall_32	3	3	7	1	23.35	42.723	45
STRIP LeftWall_32	3	3	8	1	23.35	45.228	45
STRIP LeftWall_32	3	3	9	1	23.35	47.546	45
STRIP LeftWall_32	3	3	10	1	23.35	49.864	45
STRIP LeftWall_32	3	3	11	1	23.35	51.188	45
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STRIP LeftWall_32	3	3	15	1	23.35	52.664	45
STRIP LeftWall_32	3	3	16	1	23.35	54.05	45
STRIP LeftWall_32	3	3	17	1	23.35	59.771	45
STRIP LeftWall_32	3	3	18	1	23.35	65.983	45
STRIP LeftWall_32	3	3	19	1	23.35	72.195	45
STRIP LeftWall_32	3	3	20	1	23.35	78.408	45
STRIP LeftWall_32	3	3	21	1	23.35	84.481	45
STRIP LeftWall_32	3	3	22	1	23.35	88.5	45
STRIP LeftWall_32	3	3	23	1	23.35	91.833	45
STRIP LeftWall_32	3	3	24	1	23.35	95.167	45
STRIP LeftWall_32	3	3	25	1	23.35	98.5	45
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STRIP LeftWall_32	3	3	27	1	23.35	105.17	45
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STRIP LeftWall_32	3	3	31	1	23.35	118.5	45
STRIP LeftWall_32	3	3	32	1	23.35	121.83	45
STRIP LeftWall_32	3	3	33	1	23.35	125.17	45
STRIP LeftWall_32	3	3	34	1	23.35	128.5	45
STRIP LeftWall_32	4	4	1	1	23.35	10	45
STRIP LeftWall_32	4	4	2	1	23.35	27.386	45
STRIP LeftWall_32	4	4	3	1	23.35	31.853	45
STRIP LeftWall_32	4	4	4	1	23.35	34.571	45
STRIP LeftWall_32	4	4	5	1	23.35	37.288	45
STRIP LeftWall_32	4	4	6	1	23.35	40.005	45
STRIP LeftWall_32	4	4	7	1	23.35	42.723	45
STRIP LeftWall_32	4	4	8	1	23.35	45.228	45
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STRIP LeftWall_32	4	4	14	1	23.35	52.295	45
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STRIP LeftWall_32	5	5	2	1	23.35	27.386	45
STRIP LeftWall_32	5	5	3	1	23.35	31.853	45
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STRIP LeftWall_32	6	6	19	1	23.35	72.195	45
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STRIP LeftWall_32	6	6	22	1	23.35	88.5	45
STRIP LeftWall_32	6	6	23	1	23.35	91.833	45
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STRIP LeftWall_32	6	6	31	1	23.35	118.5	45
STRIP LeftWall_32	6	6	32	1	23.35	121.83	45
STRIP LeftWall_32	6	6	33	1	23.35	125.17	45
STRIP LeftWall_32	6	6	34	1	23.35	128.5	45
STRIP LeftWall_32	7	7	1	1	23.35	10	45
STRIP LeftWall_32	7	7	2	1	23.35	27.386	45



STRIP LeftWall_32	7	7	3	1	23.35	31.853	45
STRIP LeftWall_32	7	7	4	1	23.35	34.571	45
STRIP LeftWall_32	7	7	5	1	23.35	37.288	45
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STRIP LeftWall_32	7	7	8	1	23.35	45.228	45
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STRIP LeftWall_32	7	7	19	1	23.35	72.195	45
STRIP LeftWall_32	7	7	20	1	23.35	78.408	45
STRIP LeftWall_32	7	7	21	1	23.35	84.481	45
STRIP LeftWall_32	7	7	22	1	23.35	88.5	45
STRIP LeftWall_32	7	7	23	1	23.35	91.833	45
STRIP LeftWall_32	7	7	24	1	23.35	95.167	45
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STRIP LeftWall_32	7	7	28	1	23.35	108.5	45
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STRIP LeftWall_32	7	7	31	1	23.35	118.5	45
STRIP LeftWall_32	7	7	32	1	23.35	121.83	45
STRIP LeftWall_32	7	7	33	1	23.35	125.17	45
STRIP LeftWall_32	7	7	34	1	23.35	128.5	45
STRIP LeftWall_32	8	8	1	1	23.35	10	45
STRIP LeftWall_32	8	8	2	1	23.35	27.386	45
STRIP LeftWall_32	8	8	3	1	23.35	31.853	45
STRIP LeftWall_32	8	8	4	1	23.35	34.571	45
STRIP LeftWall_32	8	8	5	1	23.35	37.288	45
STRIP LeftWall_32	8	8	6	1	23.35	40.005	45
STRIP LeftWall_32	8	8	7	1	23.35	42.723	45
STRIP LeftWall_32	8	8	8	1	23.35	45.228	45
STRIP LeftWall_32	8	8	9	1	23.35	47.546	45
STRIP LeftWall_32	8	8	10	1	23.35	49.864	45
STRIP LeftWall_32	8	8	11	1	23.35	51.188	45
STRIP LeftWall_32	8	8	12	1	23.35	51.557	45
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STRIP LeftWall_32	8	8	16	1	23.35	54.05	45
STRIP LeftWall_32	8	8	17	1	23.35	59.771	45
STRIP LeftWall_32	8	8	18	1	23.35	65.983	45
STRIP LeftWall_32	8	8	19	1	23.35	72.195	45
STRIP LeftWall_32	8	8	20	1	23.35	78.408	45
STRIP LeftWall_32	8	8	21	1	23.35	84.481	45
STRIP LeftWall_32	8	8	22	1	23.35	88.5	45
STRIP LeftWall_32	8	8	23	1	23.35	91.833	45
STRIP LeftWall_32	8	8	24	1	23.35	95.167	45
STRIP LeftWall_32	8	8	25	1	23.35	98.5	45
STRIP LeftWall_32	8	8	26	1	23.35	101.83	45
STRIP LeftWall_32	8	8	27	1	23.35	105.17	45
STRIP LeftWall_32	8	8	28	1	23.35	108.5	45
STRIP LeftWall_32	8	8	29	1	23.35	111.83	45
STRIP LeftWall_32	8	8	30	1	23.35	115.17	45
STRIP LeftWall_32	8	8	31	1	23.35	118.5	45
STRIP LeftWall_32	8	8	32	1	23.35	121.83	45
STRIP LeftWall_32	8	8	33	1	23.35	125.17	45
STRIP LeftWall_32	8	8	34	1	23.35	128.5	45
STRIP LeftWall_32	9	9	1	1	23.35	10	45
STRIP LeftWall_32	9	9	2	1	23.35	27.386	45
STRIP LeftWall_32	9	9	3	1	23.35	31.853	45
STRIP LeftWall_32	9	9	4	1	23.35	34.571	45
STRIP LeftWall_32	9	9	5	1	23.35	37.288	45
STRIP LeftWall_32	9	9	6	1	23.35	40.005	45
STRIP LeftWall_32	9	9	7	1	23.35	42.723	45
STRIP LeftWall_32	9	9	8	1	23.35	45.228	45
STRIP LeftWall_32	9	9	9	1	23.35	47.546	45
STRIP LeftWall_32	9	9	10	1	23.35	49.864	45
STRIP LeftWall_32	9	9	11	1	23.35	51.188	45
STRIP LeftWall_32	9	9	12	1	23.35	51.557	45
STRIP LeftWall_32	9	9	13	1	23.35	51.926	45
STRIP LeftWall_32	9	9	14	1	23.35	52.295	45
STRIP LeftWall_32	9	9	15	1	23.35	52.664	45
STRIP LeftWall_32	9	9	16	1	23.35	54.05	45
STRIP LeftWall_32	9	9	17	1	23.35	59.771	45
STRIP LeftWall_32	9	9	18	1	23.35	65.983	45
STRIP LeftWall_32	9	9	19	1	23.35	72.195	45
STRIP LeftWall_32	9	9	20	1	23.35	78.408	45
STRIP LeftWall_32	9	9	21	1	23.35	84.481	45
STRIP LeftWall_32	9	9	22	1	23.35	88.5	45
STRIP LeftWall_32	9	9	23	1	23.35	91.833	45

STRIP LeftWall\_32 9 9 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 9 9 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 9 9 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 9 9 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 9 9 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 9 9 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 9 9 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 9 9 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 9 9 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 9 9 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 9 9 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 10 10 1 1 23.35 10 45  
 STRIP LeftWall\_32 10 10 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 10 10 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 10 10 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 10 10 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 10 10 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 10 10 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 10 10 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 10 10 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 10 10 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 10 10 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 10 10 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 10 10 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 10 10 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 10 10 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 10 10 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 10 10 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 10 10 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 10 10 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 10 10 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 10 10 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 10 10 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 10 10 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 10 10 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 10 10 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 10 10 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 10 10 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 10 10 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 10 10 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 10 10 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 10 10 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 10 10 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 10 10 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 10 10 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 11 11 1 1 23.35 10 45  
 STRIP LeftWall\_32 11 11 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 11 11 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 11 11 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 11 11 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 11 11 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 11 11 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 11 11 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 11 11 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 11 11 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 11 11 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 11 11 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 11 11 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 11 11 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 11 11 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 11 11 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 11 11 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 11 11 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 11 11 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 11 11 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 11 11 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 11 11 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 11 11 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 11 11 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 11 11 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 11 11 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 11 11 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 11 11 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 11 11 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 11 11 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 11 11 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 11 11 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 11 11 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 11 11 34 1 23.35 128.5 45

\* 7: Defining Steps

STEP Stage1\_31

CHANGE Morena\_2\_8\_L\_0 U-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KP=5.664 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.181 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-COHE=0 LeftWall\_32

```
CHANGE Morena_2_8_L_0 U-ADHES=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM 23.35 23.35
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Berlinese_67970
ENDSTEP
```

```
STEP Stage2_749506
CHANGE Morena_2_8_L_0 D-KP=5.664 LeftWall_32
SETWALL LeftWall_32
GEOM 23.35 21.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

```
STEP Stage3_749695
SETWALL LeftWall_32
GEOM 23.35 21.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-D2_492899
ENDSTEP
```

```
STEP Stage4_749884
SETWALL LeftWall_32
GEOM 23.35 18.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

```
STEP Stage5_750073
SETWALL LeftWall_32
GEOM 23.35 18.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-E2_596311
ENDSTEP
```

```
STEP Stage6_750262
SETWALL LeftWall_32
GEOM 23.35 15.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

```
STEP Stage7_750451
SETWALL LeftWall_32
GEOM 23.35 15.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-F2_596312
ENDSTEP
```

```
STEP Stage8_750640
SETWALL LeftWall_32
GEOM 23.35 12.95
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

```
STEP Stage9_750829
SETWALL LeftWall_32
GEOM 23.35 12.95
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-G2_698700
ENDSTEP
```

```
STEP Stage10_751018
SETWALL LeftWall_32
GEOM 23.35 11.8
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

```
STEP Stage11-S_751207
SETWALL LeftWall_32
GEOM 23.35 11.8
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

## Design Assumption : A1+M1+R1 - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A1+M1+R1
* Time:martedì 26 marzo 2019 18:29:34
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+175,76 LATO MONTE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -9.15 6.75 23.95 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 6.75 23.95 1 0
SOIL 0_R LeftWall_32 6.75 23.95 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 35 LeftWall_32
ATREST 0.534 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 6.75 23.95 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D2_492899 LeftWall_32 21.95 acciaioarmonico_124 1.1014E-05 200 10 0 0
WIRE Tir-E2_596311 LeftWall_32 18.95 acciaioarmonico_124 1.2171E-05 200 10 0 0
WIRE Tir-F2_596312 LeftWall_32 15.95 acciaioarmonico_124 1.2846E-05 200 10 0 0
WIRE Tir-G2_698700 LeftWall_32 13.45 acciaioarmonico_124 1.4325E-05 200 10 0 0

* 6.3: Strips

* (slope contribution)
STRIP LeftWall_32 1 1 1 1 23.35 10 45
STRIP LeftWall_32 1 1 2 1 23.35 27.386 45
STRIP LeftWall_32 1 1 3 1 23.35 31.853 45
STRIP LeftWall_32 1 1 4 1 23.35 34.571 45
STRIP LeftWall_32 1 1 5 1 23.35 37.288 45
STRIP LeftWall_32 1 1 6 1 23.35 40.005 45
STRIP LeftWall_32 1 1 7 1 23.35 42.723 45
STRIP LeftWall_32 1 1 8 1 23.35 45.228 45
STRIP LeftWall_32 1 1 9 1 23.35 47.546 45
STRIP LeftWall_32 1 1 10 1 23.35 49.864 45
STRIP LeftWall_32 1 1 11 1 23.35 51.188 45
STRIP LeftWall_32 1 1 12 1 23.35 51.557 45
STRIP LeftWall_32 1 1 13 1 23.35 51.926 45
STRIP LeftWall_32 1 1 14 1 23.35 52.295 45
STRIP LeftWall_32 1 1 15 1 23.35 52.664 45
STRIP LeftWall_32 1 1 16 1 23.35 54.05 45
STRIP LeftWall_32 1 1 17 1 23.35 59.771 45
STRIP LeftWall_32 1 1 18 1 23.35 65.983 45
STRIP LeftWall_32 1 1 19 1 23.35 72.195 45
STRIP LeftWall_32 1 1 20 1 23.35 78.408 45
STRIP LeftWall_32 1 1 21 1 23.35 84.481 45
STRIP LeftWall_32 1 1 22 1 23.35 88.5 45
STRIP LeftWall_32 1 1 23 1 23.35 91.833 45
STRIP LeftWall_32 1 1 24 1 23.35 95.167 45
STRIP LeftWall_32 1 1 25 1 23.35 98.5 45
STRIP LeftWall_32 1 1 26 1 23.35 101.83 45
STRIP LeftWall_32 1 1 27 1 23.35 105.17 45
STRIP LeftWall_32 1 1 28 1 23.35 108.5 45

```

STRIP LeftWall_32	1	1	29	1	23.35	111.83	45
STRIP LeftWall_32	1	1	30	1	23.35	115.17	45
STRIP LeftWall_32	1	1	31	1	23.35	118.5	45
STRIP LeftWall_32	1	1	32	1	23.35	121.83	45
STRIP LeftWall_32	1	1	33	1	23.35	125.17	45
STRIP LeftWall_32	1	1	34	1	23.35	128.5	45
STRIP LeftWall_32	2	2	1	1	23.35	10	45
STRIP LeftWall_32	2	2	2	1	23.35	27.386	45
STRIP LeftWall_32	2	2	3	1	23.35	31.853	45
STRIP LeftWall_32	2	2	4	1	23.35	34.571	45
STRIP LeftWall_32	2	2	5	1	23.35	37.288	45
STRIP LeftWall_32	2	2	6	1	23.35	40.005	45
STRIP LeftWall_32	2	2	7	1	23.35	42.723	45
STRIP LeftWall_32	2	2	8	1	23.35	45.228	45
STRIP LeftWall_32	2	2	9	1	23.35	47.546	45
STRIP LeftWall_32	2	2	10	1	23.35	49.864	45
STRIP LeftWall_32	2	2	11	1	23.35	51.188	45
STRIP LeftWall_32	2	2	12	1	23.35	51.557	45
STRIP LeftWall_32	2	2	13	1	23.35	51.926	45
STRIP LeftWall_32	2	2	14	1	23.35	52.295	45
STRIP LeftWall_32	2	2	15	1	23.35	52.664	45
STRIP LeftWall_32	2	2	16	1	23.35	54.05	45
STRIP LeftWall_32	2	2	17	1	23.35	59.771	45
STRIP LeftWall_32	2	2	18	1	23.35	65.983	45
STRIP LeftWall_32	2	2	19	1	23.35	72.195	45
STRIP LeftWall_32	2	2	20	1	23.35	78.408	45
STRIP LeftWall_32	2	2	21	1	23.35	84.481	45
STRIP LeftWall_32	2	2	22	1	23.35	88.5	45
STRIP LeftWall_32	2	2	23	1	23.35	91.833	45
STRIP LeftWall_32	2	2	24	1	23.35	95.167	45
STRIP LeftWall_32	2	2	25	1	23.35	98.5	45
STRIP LeftWall_32	2	2	26	1	23.35	101.83	45
STRIP LeftWall_32	2	2	27	1	23.35	105.17	45
STRIP LeftWall_32	2	2	28	1	23.35	108.5	45
STRIP LeftWall_32	2	2	29	1	23.35	111.83	45
STRIP LeftWall_32	2	2	30	1	23.35	115.17	45
STRIP LeftWall_32	2	2	31	1	23.35	118.5	45
STRIP LeftWall_32	2	2	32	1	23.35	121.83	45
STRIP LeftWall_32	2	2	33	1	23.35	125.17	45
STRIP LeftWall_32	2	2	34	1	23.35	128.5	45
STRIP LeftWall_32	3	3	1	1	23.35	10	45
STRIP LeftWall_32	3	3	2	1	23.35	27.386	45
STRIP LeftWall_32	3	3	3	1	23.35	31.853	45
STRIP LeftWall_32	3	3	4	1	23.35	34.571	45
STRIP LeftWall_32	3	3	5	1	23.35	37.288	45
STRIP LeftWall_32	3	3	6	1	23.35	40.005	45
STRIP LeftWall_32	3	3	7	1	23.35	42.723	45
STRIP LeftWall_32	3	3	8	1	23.35	45.228	45
STRIP LeftWall_32	3	3	9	1	23.35	47.546	45
STRIP LeftWall_32	3	3	10	1	23.35	49.864	45
STRIP LeftWall_32	3	3	11	1	23.35	51.188	45
STRIP LeftWall_32	3	3	12	1	23.35	51.557	45
STRIP LeftWall_32	3	3	13	1	23.35	51.926	45
STRIP LeftWall_32	3	3	14	1	23.35	52.295	45
STRIP LeftWall_32	3	3	15	1	23.35	52.664	45
STRIP LeftWall_32	3	3	16	1	23.35	54.05	45
STRIP LeftWall_32	3	3	17	1	23.35	59.771	45
STRIP LeftWall_32	3	3	18	1	23.35	65.983	45
STRIP LeftWall_32	3	3	19	1	23.35	72.195	45
STRIP LeftWall_32	3	3	20	1	23.35	78.408	45
STRIP LeftWall_32	3	3	21	1	23.35	84.481	45
STRIP LeftWall_32	3	3	22	1	23.35	88.5	45
STRIP LeftWall_32	3	3	23	1	23.35	91.833	45
STRIP LeftWall_32	3	3	24	1	23.35	95.167	45
STRIP LeftWall_32	3	3	25	1	23.35	98.5	45
STRIP LeftWall_32	3	3	26	1	23.35	101.83	45
STRIP LeftWall_32	3	3	27	1	23.35	105.17	45
STRIP LeftWall_32	3	3	28	1	23.35	108.5	45
STRIP LeftWall_32	3	3	29	1	23.35	111.83	45
STRIP LeftWall_32	3	3	30	1	23.35	115.17	45
STRIP LeftWall_32	3	3	31	1	23.35	118.5	45
STRIP LeftWall_32	3	3	32	1	23.35	121.83	45
STRIP LeftWall_32	3	3	33	1	23.35	125.17	45
STRIP LeftWall_32	3	3	34	1	23.35	128.5	45
STRIP LeftWall_32	4	4	1	1	23.35	10	45
STRIP LeftWall_32	4	4	2	1	23.35	27.386	45
STRIP LeftWall_32	4	4	3	1	23.35	31.853	45
STRIP LeftWall_32	4	4	4	1	23.35	34.571	45
STRIP LeftWall_32	4	4	5	1	23.35	37.288	45
STRIP LeftWall_32	4	4	6	1	23.35	40.005	45
STRIP LeftWall_32	4	4	7	1	23.35	42.723	45
STRIP LeftWall_32	4	4	8	1	23.35	45.228	45
STRIP LeftWall_32	4	4	9	1	23.35	47.546	45
STRIP LeftWall_32	4	4	10	1	23.35	49.864	45
STRIP LeftWall_32	4	4	11	1	23.35	51.188	45
STRIP LeftWall_32	4	4	12	1	23.35	51.557	45
STRIP LeftWall_32	4	4	13	1	23.35	51.926	45
STRIP LeftWall_32	4	4	14	1	23.35	52.295	45
STRIP LeftWall_32	4	4	15	1	23.35	52.664	45

STRIP LeftWall_32	4	4	16	1	23.35	54.05	45
STRIP LeftWall_32	4	4	17	1	23.35	59.771	45
STRIP LeftWall_32	4	4	18	1	23.35	65.983	45
STRIP LeftWall_32	4	4	19	1	23.35	72.195	45
STRIP LeftWall_32	4	4	20	1	23.35	78.408	45
STRIP LeftWall_32	4	4	21	1	23.35	84.481	45
STRIP LeftWall_32	4	4	22	1	23.35	88.5	45
STRIP LeftWall_32	4	4	23	1	23.35	91.833	45
STRIP LeftWall_32	4	4	24	1	23.35	95.167	45
STRIP LeftWall_32	4	4	25	1	23.35	98.5	45
STRIP LeftWall_32	4	4	26	1	23.35	101.83	45
STRIP LeftWall_32	4	4	27	1	23.35	105.17	45
STRIP LeftWall_32	4	4	28	1	23.35	108.5	45
STRIP LeftWall_32	4	4	29	1	23.35	111.83	45
STRIP LeftWall_32	4	4	30	1	23.35	115.17	45
STRIP LeftWall_32	4	4	31	1	23.35	118.5	45
STRIP LeftWall_32	4	4	32	1	23.35	121.83	45
STRIP LeftWall_32	4	4	33	1	23.35	125.17	45
STRIP LeftWall_32	4	4	34	1	23.35	128.5	45
STRIP LeftWall_32	5	5	1	1	23.35	10	45
STRIP LeftWall_32	5	5	2	1	23.35	27.386	45
STRIP LeftWall_32	5	5	3	1	23.35	31.853	45
STRIP LeftWall_32	5	5	4	1	23.35	34.571	45
STRIP LeftWall_32	5	5	5	1	23.35	37.288	45
STRIP LeftWall_32	5	5	6	1	23.35	40.005	45
STRIP LeftWall_32	5	5	7	1	23.35	42.723	45
STRIP LeftWall_32	5	5	8	1	23.35	45.228	45
STRIP LeftWall_32	5	5	9	1	23.35	47.546	45
STRIP LeftWall_32	5	5	10	1	23.35	49.864	45
STRIP LeftWall_32	5	5	11	1	23.35	51.188	45
STRIP LeftWall_32	5	5	12	1	23.35	51.557	45
STRIP LeftWall_32	5	5	13	1	23.35	51.926	45
STRIP LeftWall_32	5	5	14	1	23.35	52.295	45
STRIP LeftWall_32	5	5	15	1	23.35	52.664	45
STRIP LeftWall_32	5	5	16	1	23.35	54.05	45
STRIP LeftWall_32	5	5	17	1	23.35	59.771	45
STRIP LeftWall_32	5	5	18	1	23.35	65.983	45
STRIP LeftWall_32	5	5	19	1	23.35	72.195	45
STRIP LeftWall_32	5	5	20	1	23.35	78.408	45
STRIP LeftWall_32	5	5	21	1	23.35	84.481	45
STRIP LeftWall_32	5	5	22	1	23.35	88.5	45
STRIP LeftWall_32	5	5	23	1	23.35	91.833	45
STRIP LeftWall_32	5	5	24	1	23.35	95.167	45
STRIP LeftWall_32	5	5	25	1	23.35	98.5	45
STRIP LeftWall_32	5	5	26	1	23.35	101.83	45
STRIP LeftWall_32	5	5	27	1	23.35	105.17	45
STRIP LeftWall_32	5	5	28	1	23.35	108.5	45
STRIP LeftWall_32	5	5	29	1	23.35	111.83	45
STRIP LeftWall_32	5	5	30	1	23.35	115.17	45
STRIP LeftWall_32	5	5	31	1	23.35	118.5	45
STRIP LeftWall_32	5	5	32	1	23.35	121.83	45
STRIP LeftWall_32	5	5	33	1	23.35	125.17	45
STRIP LeftWall_32	5	5	34	1	23.35	128.5	45
STRIP LeftWall_32	6	6	1	1	23.35	10	45
STRIP LeftWall_32	6	6	2	1	23.35	27.386	45
STRIP LeftWall_32	6	6	3	1	23.35	31.853	45
STRIP LeftWall_32	6	6	4	1	23.35	34.571	45
STRIP LeftWall_32	6	6	5	1	23.35	37.288	45
STRIP LeftWall_32	6	6	6	1	23.35	40.005	45
STRIP LeftWall_32	6	6	7	1	23.35	42.723	45
STRIP LeftWall_32	6	6	8	1	23.35	45.228	45
STRIP LeftWall_32	6	6	9	1	23.35	47.546	45
STRIP LeftWall_32	6	6	10	1	23.35	49.864	45
STRIP LeftWall_32	6	6	11	1	23.35	51.188	45
STRIP LeftWall_32	6	6	12	1	23.35	51.557	45
STRIP LeftWall_32	6	6	13	1	23.35	51.926	45
STRIP LeftWall_32	6	6	14	1	23.35	52.295	45
STRIP LeftWall_32	6	6	15	1	23.35	52.664	45
STRIP LeftWall_32	6	6	16	1	23.35	54.05	45
STRIP LeftWall_32	6	6	17	1	23.35	59.771	45
STRIP LeftWall_32	6	6	18	1	23.35	65.983	45
STRIP LeftWall_32	6	6	19	1	23.35	72.195	45
STRIP LeftWall_32	6	6	20	1	23.35	78.408	45
STRIP LeftWall_32	6	6	21	1	23.35	84.481	45
STRIP LeftWall_32	6	6	22	1	23.35	88.5	45
STRIP LeftWall_32	6	6	23	1	23.35	91.833	45
STRIP LeftWall_32	6	6	24	1	23.35	95.167	45
STRIP LeftWall_32	6	6	25	1	23.35	98.5	45
STRIP LeftWall_32	6	6	26	1	23.35	101.83	45
STRIP LeftWall_32	6	6	27	1	23.35	105.17	45
STRIP LeftWall_32	6	6	28	1	23.35	108.5	45
STRIP LeftWall_32	6	6	29	1	23.35	111.83	45
STRIP LeftWall_32	6	6	30	1	23.35	115.17	45
STRIP LeftWall_32	6	6	31	1	23.35	118.5	45
STRIP LeftWall_32	6	6	32	1	23.35	121.83	45
STRIP LeftWall_32	6	6	33	1	23.35	125.17	45
STRIP LeftWall_32	6	6	34	1	23.35	128.5	45
STRIP LeftWall_32	7	7	1	1	23.35	10	45
STRIP LeftWall_32	7	7	2	1	23.35	27.386	45

STRIP LeftWall_32	7	7	3	1	23.35	31.853	45
STRIP LeftWall_32	7	7	4	1	23.35	34.571	45
STRIP LeftWall_32	7	7	5	1	23.35	37.288	45
STRIP LeftWall_32	7	7	6	1	23.35	40.005	45
STRIP LeftWall_32	7	7	7	1	23.35	42.723	45
STRIP LeftWall_32	7	7	8	1	23.35	45.228	45
STRIP LeftWall_32	7	7	9	1	23.35	47.546	45
STRIP LeftWall_32	7	7	10	1	23.35	49.864	45
STRIP LeftWall_32	7	7	11	1	23.35	51.188	45
STRIP LeftWall_32	7	7	12	1	23.35	51.557	45
STRIP LeftWall_32	7	7	13	1	23.35	51.926	45
STRIP LeftWall_32	7	7	14	1	23.35	52.295	45
STRIP LeftWall_32	7	7	15	1	23.35	52.664	45
STRIP LeftWall_32	7	7	16	1	23.35	54.05	45
STRIP LeftWall_32	7	7	17	1	23.35	59.771	45
STRIP LeftWall_32	7	7	18	1	23.35	65.983	45
STRIP LeftWall_32	7	7	19	1	23.35	72.195	45
STRIP LeftWall_32	7	7	20	1	23.35	78.408	45
STRIP LeftWall_32	7	7	21	1	23.35	84.481	45
STRIP LeftWall_32	7	7	22	1	23.35	88.5	45
STRIP LeftWall_32	7	7	23	1	23.35	91.833	45
STRIP LeftWall_32	7	7	24	1	23.35	95.167	45
STRIP LeftWall_32	7	7	25	1	23.35	98.5	45
STRIP LeftWall_32	7	7	26	1	23.35	101.83	45
STRIP LeftWall_32	7	7	27	1	23.35	105.17	45
STRIP LeftWall_32	7	7	28	1	23.35	108.5	45
STRIP LeftWall_32	7	7	29	1	23.35	111.83	45
STRIP LeftWall_32	7	7	30	1	23.35	115.17	45
STRIP LeftWall_32	7	7	31	1	23.35	118.5	45
STRIP LeftWall_32	7	7	32	1	23.35	121.83	45
STRIP LeftWall_32	7	7	33	1	23.35	125.17	45
STRIP LeftWall_32	7	7	34	1	23.35	128.5	45
STRIP LeftWall_32	8	8	1	1	23.35	10	45
STRIP LeftWall_32	8	8	2	1	23.35	27.386	45
STRIP LeftWall_32	8	8	3	1	23.35	31.853	45
STRIP LeftWall_32	8	8	4	1	23.35	34.571	45
STRIP LeftWall_32	8	8	5	1	23.35	37.288	45
STRIP LeftWall_32	8	8	6	1	23.35	40.005	45
STRIP LeftWall_32	8	8	7	1	23.35	42.723	45
STRIP LeftWall_32	8	8	8	1	23.35	45.228	45
STRIP LeftWall_32	8	8	9	1	23.35	47.546	45
STRIP LeftWall_32	8	8	10	1	23.35	49.864	45
STRIP LeftWall_32	8	8	11	1	23.35	51.188	45
STRIP LeftWall_32	8	8	12	1	23.35	51.557	45
STRIP LeftWall_32	8	8	13	1	23.35	51.926	45
STRIP LeftWall_32	8	8	14	1	23.35	52.295	45
STRIP LeftWall_32	8	8	15	1	23.35	52.664	45
STRIP LeftWall_32	8	8	16	1	23.35	54.05	45
STRIP LeftWall_32	8	8	17	1	23.35	59.771	45
STRIP LeftWall_32	8	8	18	1	23.35	65.983	45
STRIP LeftWall_32	8	8	19	1	23.35	72.195	45
STRIP LeftWall_32	8	8	20	1	23.35	78.408	45
STRIP LeftWall_32	8	8	21	1	23.35	84.481	45
STRIP LeftWall_32	8	8	22	1	23.35	88.5	45
STRIP LeftWall_32	8	8	23	1	23.35	91.833	45
STRIP LeftWall_32	8	8	24	1	23.35	95.167	45
STRIP LeftWall_32	8	8	25	1	23.35	98.5	45
STRIP LeftWall_32	8	8	26	1	23.35	101.83	45
STRIP LeftWall_32	8	8	27	1	23.35	105.17	45
STRIP LeftWall_32	8	8	28	1	23.35	108.5	45
STRIP LeftWall_32	8	8	29	1	23.35	111.83	45
STRIP LeftWall_32	8	8	30	1	23.35	115.17	45
STRIP LeftWall_32	8	8	31	1	23.35	118.5	45
STRIP LeftWall_32	8	8	32	1	23.35	121.83	45
STRIP LeftWall_32	8	8	33	1	23.35	125.17	45
STRIP LeftWall_32	8	8	34	1	23.35	128.5	45
STRIP LeftWall_32	9	9	1	1	23.35	10	45
STRIP LeftWall_32	9	9	2	1	23.35	27.386	45
STRIP LeftWall_32	9	9	3	1	23.35	31.853	45
STRIP LeftWall_32	9	9	4	1	23.35	34.571	45
STRIP LeftWall_32	9	9	5	1	23.35	37.288	45
STRIP LeftWall_32	9	9	6	1	23.35	40.005	45
STRIP LeftWall_32	9	9	7	1	23.35	42.723	45
STRIP LeftWall_32	9	9	8	1	23.35	45.228	45
STRIP LeftWall_32	9	9	9	1	23.35	47.546	45
STRIP LeftWall_32	9	9	10	1	23.35	49.864	45
STRIP LeftWall_32	9	9	11	1	23.35	51.188	45
STRIP LeftWall_32	9	9	12	1	23.35	51.557	45
STRIP LeftWall_32	9	9	13	1	23.35	51.926	45
STRIP LeftWall_32	9	9	14	1	23.35	52.295	45
STRIP LeftWall_32	9	9	15	1	23.35	52.664	45
STRIP LeftWall_32	9	9	16	1	23.35	54.05	45
STRIP LeftWall_32	9	9	17	1	23.35	59.771	45
STRIP LeftWall_32	9	9	18	1	23.35	65.983	45
STRIP LeftWall_32	9	9	19	1	23.35	72.195	45
STRIP LeftWall_32	9	9	20	1	23.35	78.408	45
STRIP LeftWall_32	9	9	21	1	23.35	84.481	45
STRIP LeftWall_32	9	9	22	1	23.35	88.5	45
STRIP LeftWall_32	9	9	23	1	23.35	91.833	45

STRIP LeftWall\_32 9 9 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 9 9 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 9 9 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 9 9 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 9 9 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 9 9 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 9 9 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 9 9 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 9 9 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 9 9 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 9 9 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 10 10 1 1 23.35 10 45  
 STRIP LeftWall\_32 10 10 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 10 10 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 10 10 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 10 10 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 10 10 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 10 10 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 10 10 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 10 10 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 10 10 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 10 10 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 10 10 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 10 10 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 10 10 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 10 10 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 10 10 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 10 10 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 10 10 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 10 10 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 10 10 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 10 10 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 10 10 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 10 10 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 10 10 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 10 10 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 10 10 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 10 10 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 10 10 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 10 10 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 10 10 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 10 10 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 10 10 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 10 10 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 10 10 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 11 11 1 1 23.35 10 45  
 STRIP LeftWall\_32 11 11 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 11 11 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 11 11 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 11 11 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 11 11 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 11 11 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 11 11 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 11 11 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 11 11 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 11 11 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 11 11 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 11 11 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 11 11 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 11 11 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 11 11 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 11 11 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 11 11 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 11 11 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 11 11 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 11 11 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 11 11 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 11 11 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 11 11 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 11 11 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 11 11 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 11 11 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 11 11 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 11 11 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 11 11 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 11 11 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 11 11 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 11 11 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 11 11 34 1 23.35 128.5 45

\* 7: Defining Steps

STEP Stage1\_31

CHANGE Morena\_2\_8\_L\_0 U-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KP=5.664 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.181 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-COHE=0 LeftWall\_32



```
CHANGE Morena_2_8_L_0 U-ADHES=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM 23.35 23.35
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Berlinese_67970
ENDSTEP
```

```
STEP Stage2_749506
CHANGE Morena_2_8_L_0 D-KP=5.664 LeftWall_32
SETWALL LeftWall_32
GEOM 23.35 21.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

```
STEP Stage3_749695
SETWALL LeftWall_32
GEOM 23.35 21.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-D2_492899
ENDSTEP
```

```
STEP Stage4_749884
SETWALL LeftWall_32
GEOM 23.35 18.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

```
STEP Stage5_750073
SETWALL LeftWall_32
GEOM 23.35 18.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-E2_596311
ENDSTEP
```

```
STEP Stage6_750262
SETWALL LeftWall_32
GEOM 23.35 15.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

```
STEP Stage7_750451
SETWALL LeftWall_32
GEOM 23.35 15.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-F2_596312
ENDSTEP
```

```
STEP Stage8_750640
SETWALL LeftWall_32
GEOM 23.35 12.95
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

```
STEP Stage9_750829
SETWALL LeftWall_32
GEOM 23.35 12.95
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-G2_698700
ENDSTEP
```

```
STEP Stage10_751018
SETWALL LeftWall_32
GEOM 23.35 11.8
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

```
STEP Stage11-S_751207
SETWALL LeftWall_32
GEOM 23.35 11.8
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP
```

## Design Assumption : A2+M2+R1 - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A2+M2+R1
* Time:martedì 26 marzo 2019 18:29:38
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+175,76 LATO MONTE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -9.15 6.75 23.95 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 6.75 23.95 1 0
SOIL 0_R LeftWall_32 6.75 23.95 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 35 LeftWall_32
ATREST 0.534 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 6.75 23.95 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D2_492899 LeftWall_32 21.95 acciaioarmonico_124 1.1014E-05 200 10 0 0
WIRE Tir-E2_596311 LeftWall_32 18.95 acciaioarmonico_124 1.2171E-05 200 10 0 0
WIRE Tir-F2_596312 LeftWall_32 15.95 acciaioarmonico_124 1.2846E-05 200 10 0 0
WIRE Tir-G2_698700 LeftWall_32 13.45 acciaioarmonico_124 1.4325E-05 200 10 0 0

* 6.3: Strips

* (slope contribution)
STRIP LeftWall_32 1 1 1 1 23.35 10 45
STRIP LeftWall_32 1 1 2 1 23.35 27.386 45
STRIP LeftWall_32 1 1 3 1 23.35 31.853 45
STRIP LeftWall_32 1 1 4 1 23.35 34.571 45
STRIP LeftWall_32 1 1 5 1 23.35 37.288 45
STRIP LeftWall_32 1 1 6 1 23.35 40.005 45
STRIP LeftWall_32 1 1 7 1 23.35 42.723 45
STRIP LeftWall_32 1 1 8 1 23.35 45.228 45
STRIP LeftWall_32 1 1 9 1 23.35 47.546 45
STRIP LeftWall_32 1 1 10 1 23.35 49.864 45
STRIP LeftWall_32 1 1 11 1 23.35 51.188 45
STRIP LeftWall_32 1 1 12 1 23.35 51.557 45
STRIP LeftWall_32 1 1 13 1 23.35 51.926 45
STRIP LeftWall_32 1 1 14 1 23.35 52.295 45
STRIP LeftWall_32 1 1 15 1 23.35 52.664 45
STRIP LeftWall_32 1 1 16 1 23.35 54.05 45
STRIP LeftWall_32 1 1 17 1 23.35 59.771 45
STRIP LeftWall_32 1 1 18 1 23.35 65.983 45
STRIP LeftWall_32 1 1 19 1 23.35 72.195 45
STRIP LeftWall_32 1 1 20 1 23.35 78.408 45
STRIP LeftWall_32 1 1 21 1 23.35 84.481 45
STRIP LeftWall_32 1 1 22 1 23.35 88.5 45
STRIP LeftWall_32 1 1 23 1 23.35 91.833 45
STRIP LeftWall_32 1 1 24 1 23.35 95.167 45
STRIP LeftWall_32 1 1 25 1 23.35 98.5 45
STRIP LeftWall_32 1 1 26 1 23.35 101.83 45
STRIP LeftWall_32 1 1 27 1 23.35 105.17 45
STRIP LeftWall_32 1 1 28 1 23.35 108.5 45

```

STRIP LeftWall_32	1	1	29	1	23.35	111.83	45
STRIP LeftWall_32	1	1	30	1	23.35	115.17	45
STRIP LeftWall_32	1	1	31	1	23.35	118.5	45
STRIP LeftWall_32	1	1	32	1	23.35	121.83	45
STRIP LeftWall_32	1	1	33	1	23.35	125.17	45
STRIP LeftWall_32	1	1	34	1	23.35	128.5	45
STRIP LeftWall_32	2	2	1	1	23.35	10	45
STRIP LeftWall_32	2	2	2	1	23.35	27.386	45
STRIP LeftWall_32	2	2	3	1	23.35	31.853	45
STRIP LeftWall_32	2	2	4	1	23.35	34.571	45
STRIP LeftWall_32	2	2	5	1	23.35	37.288	45
STRIP LeftWall_32	2	2	6	1	23.35	40.005	45
STRIP LeftWall_32	2	2	7	1	23.35	42.723	45
STRIP LeftWall_32	2	2	8	1	23.35	45.228	45
STRIP LeftWall_32	2	2	9	1	23.35	47.546	45
STRIP LeftWall_32	2	2	10	1	23.35	49.864	45
STRIP LeftWall_32	2	2	11	1	23.35	51.188	45
STRIP LeftWall_32	2	2	12	1	23.35	51.557	45
STRIP LeftWall_32	2	2	13	1	23.35	51.926	45
STRIP LeftWall_32	2	2	14	1	23.35	52.295	45
STRIP LeftWall_32	2	2	15	1	23.35	52.664	45
STRIP LeftWall_32	2	2	16	1	23.35	54.05	45
STRIP LeftWall_32	2	2	17	1	23.35	59.771	45
STRIP LeftWall_32	2	2	18	1	23.35	65.983	45
STRIP LeftWall_32	2	2	19	1	23.35	72.195	45
STRIP LeftWall_32	2	2	20	1	23.35	78.408	45
STRIP LeftWall_32	2	2	21	1	23.35	84.481	45
STRIP LeftWall_32	2	2	22	1	23.35	88.5	45
STRIP LeftWall_32	2	2	23	1	23.35	91.833	45
STRIP LeftWall_32	2	2	24	1	23.35	95.167	45
STRIP LeftWall_32	2	2	25	1	23.35	98.5	45
STRIP LeftWall_32	2	2	26	1	23.35	101.83	45
STRIP LeftWall_32	2	2	27	1	23.35	105.17	45
STRIP LeftWall_32	2	2	28	1	23.35	108.5	45
STRIP LeftWall_32	2	2	29	1	23.35	111.83	45
STRIP LeftWall_32	2	2	30	1	23.35	115.17	45
STRIP LeftWall_32	2	2	31	1	23.35	118.5	45
STRIP LeftWall_32	2	2	32	1	23.35	121.83	45
STRIP LeftWall_32	2	2	33	1	23.35	125.17	45
STRIP LeftWall_32	2	2	34	1	23.35	128.5	45
STRIP LeftWall_32	3	3	1	1	23.35	10	45
STRIP LeftWall_32	3	3	2	1	23.35	27.386	45
STRIP LeftWall_32	3	3	3	1	23.35	31.853	45
STRIP LeftWall_32	3	3	4	1	23.35	34.571	45
STRIP LeftWall_32	3	3	5	1	23.35	37.288	45
STRIP LeftWall_32	3	3	6	1	23.35	40.005	45
STRIP LeftWall_32	3	3	7	1	23.35	42.723	45
STRIP LeftWall_32	3	3	8	1	23.35	45.228	45
STRIP LeftWall_32	3	3	9	1	23.35	47.546	45
STRIP LeftWall_32	3	3	10	1	23.35	49.864	45
STRIP LeftWall_32	3	3	11	1	23.35	51.188	45
STRIP LeftWall_32	3	3	12	1	23.35	51.557	45
STRIP LeftWall_32	3	3	13	1	23.35	51.926	45
STRIP LeftWall_32	3	3	14	1	23.35	52.295	45
STRIP LeftWall_32	3	3	15	1	23.35	52.664	45
STRIP LeftWall_32	3	3	16	1	23.35	54.05	45
STRIP LeftWall_32	3	3	17	1	23.35	59.771	45
STRIP LeftWall_32	3	3	18	1	23.35	65.983	45
STRIP LeftWall_32	3	3	19	1	23.35	72.195	45
STRIP LeftWall_32	3	3	20	1	23.35	78.408	45
STRIP LeftWall_32	3	3	21	1	23.35	84.481	45
STRIP LeftWall_32	3	3	22	1	23.35	88.5	45
STRIP LeftWall_32	3	3	23	1	23.35	91.833	45
STRIP LeftWall_32	3	3	24	1	23.35	95.167	45
STRIP LeftWall_32	3	3	25	1	23.35	98.5	45
STRIP LeftWall_32	3	3	26	1	23.35	101.83	45
STRIP LeftWall_32	3	3	27	1	23.35	105.17	45
STRIP LeftWall_32	3	3	28	1	23.35	108.5	45
STRIP LeftWall_32	3	3	29	1	23.35	111.83	45
STRIP LeftWall_32	3	3	30	1	23.35	115.17	45
STRIP LeftWall_32	3	3	31	1	23.35	118.5	45
STRIP LeftWall_32	3	3	32	1	23.35	121.83	45
STRIP LeftWall_32	3	3	33	1	23.35	125.17	45
STRIP LeftWall_32	3	3	34	1	23.35	128.5	45
STRIP LeftWall_32	4	4	1	1	23.35	10	45
STRIP LeftWall_32	4	4	2	1	23.35	27.386	45
STRIP LeftWall_32	4	4	3	1	23.35	31.853	45
STRIP LeftWall_32	4	4	4	1	23.35	34.571	45
STRIP LeftWall_32	4	4	5	1	23.35	37.288	45
STRIP LeftWall_32	4	4	6	1	23.35	40.005	45
STRIP LeftWall_32	4	4	7	1	23.35	42.723	45
STRIP LeftWall_32	4	4	8	1	23.35	45.228	45
STRIP LeftWall_32	4	4	9	1	23.35	47.546	45
STRIP LeftWall_32	4	4	10	1	23.35	49.864	45
STRIP LeftWall_32	4	4	11	1	23.35	51.188	45
STRIP LeftWall_32	4	4	12	1	23.35	51.557	45
STRIP LeftWall_32	4	4	13	1	23.35	51.926	45
STRIP LeftWall_32	4	4	14	1	23.35	52.295	45
STRIP LeftWall_32	4	4	15	1	23.35	52.664	45

STRIP LeftWall_32	4	4	16	1	23.35	54.05	45
STRIP LeftWall_32	4	4	17	1	23.35	59.771	45
STRIP LeftWall_32	4	4	18	1	23.35	65.983	45
STRIP LeftWall_32	4	4	19	1	23.35	72.195	45
STRIP LeftWall_32	4	4	20	1	23.35	78.408	45
STRIP LeftWall_32	4	4	21	1	23.35	84.481	45
STRIP LeftWall_32	4	4	22	1	23.35	88.5	45
STRIP LeftWall_32	4	4	23	1	23.35	91.833	45
STRIP LeftWall_32	4	4	24	1	23.35	95.167	45
STRIP LeftWall_32	4	4	25	1	23.35	98.5	45
STRIP LeftWall_32	4	4	26	1	23.35	101.83	45
STRIP LeftWall_32	4	4	27	1	23.35	105.17	45
STRIP LeftWall_32	4	4	28	1	23.35	108.5	45
STRIP LeftWall_32	4	4	29	1	23.35	111.83	45
STRIP LeftWall_32	4	4	30	1	23.35	115.17	45
STRIP LeftWall_32	4	4	31	1	23.35	118.5	45
STRIP LeftWall_32	4	4	32	1	23.35	121.83	45
STRIP LeftWall_32	4	4	33	1	23.35	125.17	45
STRIP LeftWall_32	4	4	34	1	23.35	128.5	45
STRIP LeftWall_32	5	5	1	1	23.35	10	45
STRIP LeftWall_32	5	5	2	1	23.35	27.386	45
STRIP LeftWall_32	5	5	3	1	23.35	31.853	45
STRIP LeftWall_32	5	5	4	1	23.35	34.571	45
STRIP LeftWall_32	5	5	5	1	23.35	37.288	45
STRIP LeftWall_32	5	5	6	1	23.35	40.005	45
STRIP LeftWall_32	5	5	7	1	23.35	42.723	45
STRIP LeftWall_32	5	5	8	1	23.35	45.228	45
STRIP LeftWall_32	5	5	9	1	23.35	47.546	45
STRIP LeftWall_32	5	5	10	1	23.35	49.864	45
STRIP LeftWall_32	5	5	11	1	23.35	51.188	45
STRIP LeftWall_32	5	5	12	1	23.35	51.557	45
STRIP LeftWall_32	5	5	13	1	23.35	51.926	45
STRIP LeftWall_32	5	5	14	1	23.35	52.295	45
STRIP LeftWall_32	5	5	15	1	23.35	52.664	45
STRIP LeftWall_32	5	5	16	1	23.35	54.05	45
STRIP LeftWall_32	5	5	17	1	23.35	59.771	45
STRIP LeftWall_32	5	5	18	1	23.35	65.983	45
STRIP LeftWall_32	5	5	19	1	23.35	72.195	45
STRIP LeftWall_32	5	5	20	1	23.35	78.408	45
STRIP LeftWall_32	5	5	21	1	23.35	84.481	45
STRIP LeftWall_32	5	5	22	1	23.35	88.5	45
STRIP LeftWall_32	5	5	23	1	23.35	91.833	45
STRIP LeftWall_32	5	5	24	1	23.35	95.167	45
STRIP LeftWall_32	5	5	25	1	23.35	98.5	45
STRIP LeftWall_32	5	5	26	1	23.35	101.83	45
STRIP LeftWall_32	5	5	27	1	23.35	105.17	45
STRIP LeftWall_32	5	5	28	1	23.35	108.5	45
STRIP LeftWall_32	5	5	29	1	23.35	111.83	45
STRIP LeftWall_32	5	5	30	1	23.35	115.17	45
STRIP LeftWall_32	5	5	31	1	23.35	118.5	45
STRIP LeftWall_32	5	5	32	1	23.35	121.83	45
STRIP LeftWall_32	5	5	33	1	23.35	125.17	45
STRIP LeftWall_32	5	5	34	1	23.35	128.5	45
STRIP LeftWall_32	6	6	1	1	23.35	10	45
STRIP LeftWall_32	6	6	2	1	23.35	27.386	45
STRIP LeftWall_32	6	6	3	1	23.35	31.853	45
STRIP LeftWall_32	6	6	4	1	23.35	34.571	45
STRIP LeftWall_32	6	6	5	1	23.35	37.288	45
STRIP LeftWall_32	6	6	6	1	23.35	40.005	45
STRIP LeftWall_32	6	6	7	1	23.35	42.723	45
STRIP LeftWall_32	6	6	8	1	23.35	45.228	45
STRIP LeftWall_32	6	6	9	1	23.35	47.546	45
STRIP LeftWall_32	6	6	10	1	23.35	49.864	45
STRIP LeftWall_32	6	6	11	1	23.35	51.188	45
STRIP LeftWall_32	6	6	12	1	23.35	51.557	45
STRIP LeftWall_32	6	6	13	1	23.35	51.926	45
STRIP LeftWall_32	6	6	14	1	23.35	52.295	45
STRIP LeftWall_32	6	6	15	1	23.35	52.664	45
STRIP LeftWall_32	6	6	16	1	23.35	54.05	45
STRIP LeftWall_32	6	6	17	1	23.35	59.771	45
STRIP LeftWall_32	6	6	18	1	23.35	65.983	45
STRIP LeftWall_32	6	6	19	1	23.35	72.195	45
STRIP LeftWall_32	6	6	20	1	23.35	78.408	45
STRIP LeftWall_32	6	6	21	1	23.35	84.481	45
STRIP LeftWall_32	6	6	22	1	23.35	88.5	45
STRIP LeftWall_32	6	6	23	1	23.35	91.833	45
STRIP LeftWall_32	6	6	24	1	23.35	95.167	45
STRIP LeftWall_32	6	6	25	1	23.35	98.5	45
STRIP LeftWall_32	6	6	26	1	23.35	101.83	45
STRIP LeftWall_32	6	6	27	1	23.35	105.17	45
STRIP LeftWall_32	6	6	28	1	23.35	108.5	45
STRIP LeftWall_32	6	6	29	1	23.35	111.83	45
STRIP LeftWall_32	6	6	30	1	23.35	115.17	45
STRIP LeftWall_32	6	6	31	1	23.35	118.5	45
STRIP LeftWall_32	6	6	32	1	23.35	121.83	45
STRIP LeftWall_32	6	6	33	1	23.35	125.17	45
STRIP LeftWall_32	6	6	34	1	23.35	128.5	45
STRIP LeftWall_32	7	7	1	1	23.35	10	45
STRIP LeftWall_32	7	7	2	1	23.35	27.386	45

STRIP LeftWall_32	7	7	3	1	23.35	31.853	45
STRIP LeftWall_32	7	7	4	1	23.35	34.571	45
STRIP LeftWall_32	7	7	5	1	23.35	37.288	45
STRIP LeftWall_32	7	7	6	1	23.35	40.005	45
STRIP LeftWall_32	7	7	7	1	23.35	42.723	45
STRIP LeftWall_32	7	7	8	1	23.35	45.228	45
STRIP LeftWall_32	7	7	9	1	23.35	47.546	45
STRIP LeftWall_32	7	7	10	1	23.35	49.864	45
STRIP LeftWall_32	7	7	11	1	23.35	51.188	45
STRIP LeftWall_32	7	7	12	1	23.35	51.557	45
STRIP LeftWall_32	7	7	13	1	23.35	51.926	45
STRIP LeftWall_32	7	7	14	1	23.35	52.295	45
STRIP LeftWall_32	7	7	15	1	23.35	52.664	45
STRIP LeftWall_32	7	7	16	1	23.35	54.05	45
STRIP LeftWall_32	7	7	17	1	23.35	59.771	45
STRIP LeftWall_32	7	7	18	1	23.35	65.983	45
STRIP LeftWall_32	7	7	19	1	23.35	72.195	45
STRIP LeftWall_32	7	7	20	1	23.35	78.408	45
STRIP LeftWall_32	7	7	21	1	23.35	84.481	45
STRIP LeftWall_32	7	7	22	1	23.35	88.5	45
STRIP LeftWall_32	7	7	23	1	23.35	91.833	45
STRIP LeftWall_32	7	7	24	1	23.35	95.167	45
STRIP LeftWall_32	7	7	25	1	23.35	98.5	45
STRIP LeftWall_32	7	7	26	1	23.35	101.83	45
STRIP LeftWall_32	7	7	27	1	23.35	105.17	45
STRIP LeftWall_32	7	7	28	1	23.35	108.5	45
STRIP LeftWall_32	7	7	29	1	23.35	111.83	45
STRIP LeftWall_32	7	7	30	1	23.35	115.17	45
STRIP LeftWall_32	7	7	31	1	23.35	118.5	45
STRIP LeftWall_32	7	7	32	1	23.35	121.83	45
STRIP LeftWall_32	7	7	33	1	23.35	125.17	45
STRIP LeftWall_32	7	7	34	1	23.35	128.5	45
STRIP LeftWall_32	8	8	1	1	23.35	10	45
STRIP LeftWall_32	8	8	2	1	23.35	27.386	45
STRIP LeftWall_32	8	8	3	1	23.35	31.853	45
STRIP LeftWall_32	8	8	4	1	23.35	34.571	45
STRIP LeftWall_32	8	8	5	1	23.35	37.288	45
STRIP LeftWall_32	8	8	6	1	23.35	40.005	45
STRIP LeftWall_32	8	8	7	1	23.35	42.723	45
STRIP LeftWall_32	8	8	8	1	23.35	45.228	45
STRIP LeftWall_32	8	8	9	1	23.35	47.546	45
STRIP LeftWall_32	8	8	10	1	23.35	49.864	45
STRIP LeftWall_32	8	8	11	1	23.35	51.188	45
STRIP LeftWall_32	8	8	12	1	23.35	51.557	45
STRIP LeftWall_32	8	8	13	1	23.35	51.926	45
STRIP LeftWall_32	8	8	14	1	23.35	52.295	45
STRIP LeftWall_32	8	8	15	1	23.35	52.664	45
STRIP LeftWall_32	8	8	16	1	23.35	54.05	45
STRIP LeftWall_32	8	8	17	1	23.35	59.771	45
STRIP LeftWall_32	8	8	18	1	23.35	65.983	45
STRIP LeftWall_32	8	8	19	1	23.35	72.195	45
STRIP LeftWall_32	8	8	20	1	23.35	78.408	45
STRIP LeftWall_32	8	8	21	1	23.35	84.481	45
STRIP LeftWall_32	8	8	22	1	23.35	88.5	45
STRIP LeftWall_32	8	8	23	1	23.35	91.833	45
STRIP LeftWall_32	8	8	24	1	23.35	95.167	45
STRIP LeftWall_32	8	8	25	1	23.35	98.5	45
STRIP LeftWall_32	8	8	26	1	23.35	101.83	45
STRIP LeftWall_32	8	8	27	1	23.35	105.17	45
STRIP LeftWall_32	8	8	28	1	23.35	108.5	45
STRIP LeftWall_32	8	8	29	1	23.35	111.83	45
STRIP LeftWall_32	8	8	30	1	23.35	115.17	45
STRIP LeftWall_32	8	8	31	1	23.35	118.5	45
STRIP LeftWall_32	8	8	32	1	23.35	121.83	45
STRIP LeftWall_32	8	8	33	1	23.35	125.17	45
STRIP LeftWall_32	8	8	34	1	23.35	128.5	45
STRIP LeftWall_32	9	9	1	1	23.35	10	45
STRIP LeftWall_32	9	9	2	1	23.35	27.386	45
STRIP LeftWall_32	9	9	3	1	23.35	31.853	45
STRIP LeftWall_32	9	9	4	1	23.35	34.571	45
STRIP LeftWall_32	9	9	5	1	23.35	37.288	45
STRIP LeftWall_32	9	9	6	1	23.35	40.005	45
STRIP LeftWall_32	9	9	7	1	23.35	42.723	45
STRIP LeftWall_32	9	9	8	1	23.35	45.228	45
STRIP LeftWall_32	9	9	9	1	23.35	47.546	45
STRIP LeftWall_32	9	9	10	1	23.35	49.864	45
STRIP LeftWall_32	9	9	11	1	23.35	51.188	45
STRIP LeftWall_32	9	9	12	1	23.35	51.557	45
STRIP LeftWall_32	9	9	13	1	23.35	51.926	45
STRIP LeftWall_32	9	9	14	1	23.35	52.295	45
STRIP LeftWall_32	9	9	15	1	23.35	52.664	45
STRIP LeftWall_32	9	9	16	1	23.35	54.05	45
STRIP LeftWall_32	9	9	17	1	23.35	59.771	45
STRIP LeftWall_32	9	9	18	1	23.35	65.983	45
STRIP LeftWall_32	9	9	19	1	23.35	72.195	45
STRIP LeftWall_32	9	9	20	1	23.35	78.408	45
STRIP LeftWall_32	9	9	21	1	23.35	84.481	45
STRIP LeftWall_32	9	9	22	1	23.35	88.5	45
STRIP LeftWall_32	9	9	23	1	23.35	91.833	45

STRIP LeftWall\_32 9 9 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 9 9 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 9 9 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 9 9 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 9 9 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 9 9 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 9 9 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 9 9 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 9 9 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 9 9 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 9 9 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 10 10 1 1 23.35 10 45  
 STRIP LeftWall\_32 10 10 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 10 10 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 10 10 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 10 10 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 10 10 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 10 10 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 10 10 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 10 10 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 10 10 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 10 10 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 10 10 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 10 10 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 10 10 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 10 10 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 10 10 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 10 10 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 10 10 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 10 10 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 10 10 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 10 10 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 10 10 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 10 10 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 10 10 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 10 10 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 10 10 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 10 10 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 10 10 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 10 10 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 10 10 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 10 10 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 10 10 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 10 10 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 10 10 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 11 11 1 1 23.35 10 45  
 STRIP LeftWall\_32 11 11 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 11 11 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 11 11 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 11 11 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 11 11 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 11 11 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 11 11 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 11 11 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 11 11 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 11 11 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 11 11 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 11 11 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 11 11 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 11 11 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 11 11 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 11 11 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 11 11 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 11 11 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 11 11 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 11 11 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 11 11 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 11 11 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 11 11 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 11 11 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 11 11 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 11 11 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 11 11 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 11 11 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 11 11 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 11 11 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 11 11 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 11 11 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 11 11 34 1 23.35 128.5 45

\* 7: Defining Steps

STEP Stage1\_31

CHANGE Morena\_2\_8\_L\_0 U-FRICT=27.453 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-FRICT=27.453 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KA=0.311 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KP=3.954 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.311 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=3.649 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-COHE=0 LeftWall\_32

CHANGE Morena\_2\_8\_L\_0 U-ADHES=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-COHE=0 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-ADHES=0 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 23.35 23.35  
 SURCHARGE 0 0 0 0  
 WATER -10 0 6.75 0 0  
 ADD Berlinese\_67970  
 ENDSTEP

STEP Stage2\_749506  
 CHANGE Morena\_2\_8\_L\_0 D-KP=3.954 LeftWall\_32  
 SETWALL LeftWall\_32  
 GEOM 23.35 21.45  
 SURCHARGE 0 0 0 0  
 WATER -10 0 6.75 0 0  
 ENDSTEP

STEP Stage3\_749695  
 SETWALL LeftWall\_32  
 GEOM 23.35 21.45  
 SURCHARGE 0 0 0 0  
 WATER -10 0 6.75 0 0  
 ADD Tir-D2\_492899  
 ENDSTEP

STEP Stage4\_749884  
 SETWALL LeftWall\_32  
 GEOM 23.35 18.45  
 SURCHARGE 0 0 0 0  
 WATER -10 0 6.75 0 0  
 ENDSTEP

STEP Stage5\_750073  
 SETWALL LeftWall\_32  
 GEOM 23.35 18.45  
 SURCHARGE 0 0 0 0  
 WATER -10 0 6.75 0 0  
 ADD Tir-E2\_596311  
 ENDSTEP

STEP Stage6\_750262  
 SETWALL LeftWall\_32  
 GEOM 23.35 15.45  
 SURCHARGE 0 0 0 0  
 WATER -10 0 6.75 0 0  
 ENDSTEP

STEP Stage7\_750451  
 SETWALL LeftWall\_32  
 GEOM 23.35 15.45  
 SURCHARGE 0 0 0 0  
 WATER -10 0 6.75 0 0  
 ADD Tir-F2\_596312  
 ENDSTEP

STEP Stage8\_750640  
 SETWALL LeftWall\_32  
 GEOM 23.35 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 6.75 0 0  
 ENDSTEP

STEP Stage9\_750829  
 SETWALL LeftWall\_32  
 GEOM 23.35 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 6.75 0 0  
 ADD Tir-G2\_698700  
 ENDSTEP

STEP Stage10\_751018  
 SETWALL LeftWall\_32  
 GEOM 23.35 11.8  
 SURCHARGE 0 0 0 0  
 WATER -10 0 6.75 0 0  
 ENDSTEP

STEP Stage11-S\_751207  
 SETWALL LeftWall\_32  
 GEOM 23.35 11.8  
 SURCHARGE 0 0 0 0  
 WATER -10 0 6.75 0 0  
 ENDSTEP

## Design Assumption : SISMICA STR - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: SISMICA STR
* Time:martedì 26 marzo 2019 18:29:41
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+175,76 LATO MONTE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -9.15 6.75 23.95 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 6.75 23.95 1 0
SOIL 0_R LeftWall_32 6.75 23.95 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 35 LeftWall_32
ATREST 0.534 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 6.75 23.95 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D2_492899 LeftWall_32 21.95 acciaioarmonico_124 1.1014E-05 200 10 0 0
WIRE Tir-E2_596311 LeftWall_32 18.95 acciaioarmonico_124 1.2171E-05 200 10 0 0
WIRE Tir-F2_596312 LeftWall_32 15.95 acciaioarmonico_124 1.2846E-05 200 10 0 0
WIRE Tir-G2_698700 LeftWall_32 13.45 acciaioarmonico_124 1.4325E-05 200 10 0 0

* 6.3: Strips

* (slope contribution)
STRIP LeftWall_32 1 1 1 1 23.35 10 45
STRIP LeftWall_32 1 1 2 1 23.35 27.386 45
STRIP LeftWall_32 1 1 3 1 23.35 31.853 45
STRIP LeftWall_32 1 1 4 1 23.35 34.571 45
STRIP LeftWall_32 1 1 5 1 23.35 37.288 45
STRIP LeftWall_32 1 1 6 1 23.35 40.005 45
STRIP LeftWall_32 1 1 7 1 23.35 42.723 45
STRIP LeftWall_32 1 1 8 1 23.35 45.228 45
STRIP LeftWall_32 1 1 9 1 23.35 47.546 45
STRIP LeftWall_32 1 1 10 1 23.35 49.864 45
STRIP LeftWall_32 1 1 11 1 23.35 51.188 45
STRIP LeftWall_32 1 1 12 1 23.35 51.557 45
STRIP LeftWall_32 1 1 13 1 23.35 51.926 45
STRIP LeftWall_32 1 1 14 1 23.35 52.295 45
STRIP LeftWall_32 1 1 15 1 23.35 52.664 45
STRIP LeftWall_32 1 1 16 1 23.35 54.05 45
STRIP LeftWall_32 1 1 17 1 23.35 59.771 45
STRIP LeftWall_32 1 1 18 1 23.35 65.983 45
STRIP LeftWall_32 1 1 19 1 23.35 72.195 45
STRIP LeftWall_32 1 1 20 1 23.35 78.408 45
STRIP LeftWall_32 1 1 21 1 23.35 84.481 45
STRIP LeftWall_32 1 1 22 1 23.35 88.5 45
STRIP LeftWall_32 1 1 23 1 23.35 91.833 45
STRIP LeftWall_32 1 1 24 1 23.35 95.167 45
STRIP LeftWall_32 1 1 25 1 23.35 98.5 45
STRIP LeftWall_32 1 1 26 1 23.35 101.83 45
STRIP LeftWall_32 1 1 27 1 23.35 105.17 45
STRIP LeftWall_32 1 1 28 1 23.35 108.5 45

```



STRIP LeftWall_32	1	1	29	1	23.35	111.83	45
STRIP LeftWall_32	1	1	30	1	23.35	115.17	45
STRIP LeftWall_32	1	1	31	1	23.35	118.5	45
STRIP LeftWall_32	1	1	32	1	23.35	121.83	45
STRIP LeftWall_32	1	1	33	1	23.35	125.17	45
STRIP LeftWall_32	1	1	34	1	23.35	128.5	45
STRIP LeftWall_32	2	2	1	1	23.35	10	45
STRIP LeftWall_32	2	2	2	1	23.35	27.386	45
STRIP LeftWall_32	2	2	3	1	23.35	31.853	45
STRIP LeftWall_32	2	2	4	1	23.35	34.571	45
STRIP LeftWall_32	2	2	5	1	23.35	37.288	45
STRIP LeftWall_32	2	2	6	1	23.35	40.005	45
STRIP LeftWall_32	2	2	7	1	23.35	42.723	45
STRIP LeftWall_32	2	2	8	1	23.35	45.228	45
STRIP LeftWall_32	2	2	9	1	23.35	47.546	45
STRIP LeftWall_32	2	2	10	1	23.35	49.864	45
STRIP LeftWall_32	2	2	11	1	23.35	51.188	45
STRIP LeftWall_32	2	2	12	1	23.35	51.557	45
STRIP LeftWall_32	2	2	13	1	23.35	51.926	45
STRIP LeftWall_32	2	2	14	1	23.35	52.295	45
STRIP LeftWall_32	2	2	15	1	23.35	52.664	45
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STRIP LeftWall_32	2	2	17	1	23.35	59.771	45
STRIP LeftWall_32	2	2	18	1	23.35	65.983	45
STRIP LeftWall_32	2	2	19	1	23.35	72.195	45
STRIP LeftWall_32	2	2	20	1	23.35	78.408	45
STRIP LeftWall_32	2	2	21	1	23.35	84.481	45
STRIP LeftWall_32	2	2	22	1	23.35	88.5	45
STRIP LeftWall_32	2	2	23	1	23.35	91.833	45
STRIP LeftWall_32	2	2	24	1	23.35	95.167	45
STRIP LeftWall_32	2	2	25	1	23.35	98.5	45
STRIP LeftWall_32	2	2	26	1	23.35	101.83	45
STRIP LeftWall_32	2	2	27	1	23.35	105.17	45
STRIP LeftWall_32	2	2	28	1	23.35	108.5	45
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STRIP LeftWall_32	2	2	30	1	23.35	115.17	45
STRIP LeftWall_32	2	2	31	1	23.35	118.5	45
STRIP LeftWall_32	2	2	32	1	23.35	121.83	45
STRIP LeftWall_32	2	2	33	1	23.35	125.17	45
STRIP LeftWall_32	2	2	34	1	23.35	128.5	45
STRIP LeftWall_32	3	3	1	1	23.35	10	45
STRIP LeftWall_32	3	3	2	1	23.35	27.386	45
STRIP LeftWall_32	3	3	3	1	23.35	31.853	45
STRIP LeftWall_32	3	3	4	1	23.35	34.571	45
STRIP LeftWall_32	3	3	5	1	23.35	37.288	45
STRIP LeftWall_32	3	3	6	1	23.35	40.005	45
STRIP LeftWall_32	3	3	7	1	23.35	42.723	45
STRIP LeftWall_32	3	3	8	1	23.35	45.228	45
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STRIP LeftWall_32	3	3	16	1	23.35	54.05	45
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STRIP LeftWall_32	3	3	19	1	23.35	72.195	45
STRIP LeftWall_32	3	3	20	1	23.35	78.408	45
STRIP LeftWall_32	3	3	21	1	23.35	84.481	45
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STRIP LeftWall_32	3	3	23	1	23.35	91.833	45
STRIP LeftWall_32	3	3	24	1	23.35	95.167	45
STRIP LeftWall_32	3	3	25	1	23.35	98.5	45
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STRIP LeftWall_32	3	3	27	1	23.35	105.17	45
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STRIP LeftWall_32	3	3	31	1	23.35	118.5	45
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STRIP LeftWall_32	3	3	33	1	23.35	125.17	45
STRIP LeftWall_32	3	3	34	1	23.35	128.5	45
STRIP LeftWall_32	4	4	1	1	23.35	10	45
STRIP LeftWall_32	4	4	2	1	23.35	27.386	45
STRIP LeftWall_32	4	4	3	1	23.35	31.853	45
STRIP LeftWall_32	4	4	4	1	23.35	34.571	45
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STRIP LeftWall_32	6	6	32	1	23.35	121.83	45
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STRIP LeftWall_32	7	7	3	1	23.35	31.853	45
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STRIP LeftWall_32	7	7	34	1	23.35	128.5	45
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STRIP LeftWall_32	8	8	3	1	23.35	31.853	45
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STRIP LeftWall_32	8	8	8	1	23.35	45.228	45
STRIP LeftWall_32	8	8	9	1	23.35	47.546	45
STRIP LeftWall_32	8	8	10	1	23.35	49.864	45
STRIP LeftWall_32	8	8	11	1	23.35	51.188	45
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STRIP LeftWall_32	8	8	28	1	23.35	108.5	45
STRIP LeftWall_32	8	8	29	1	23.35	111.83	45
STRIP LeftWall_32	8	8	30	1	23.35	115.17	45
STRIP LeftWall_32	8	8	31	1	23.35	118.5	45
STRIP LeftWall_32	8	8	32	1	23.35	121.83	45
STRIP LeftWall_32	8	8	33	1	23.35	125.17	45
STRIP LeftWall_32	8	8	34	1	23.35	128.5	45
STRIP LeftWall_32	9	9	1	1	23.35	10	45
STRIP LeftWall_32	9	9	2	1	23.35	27.386	45
STRIP LeftWall_32	9	9	3	1	23.35	31.853	45
STRIP LeftWall_32	9	9	4	1	23.35	34.571	45
STRIP LeftWall_32	9	9	5	1	23.35	37.288	45
STRIP LeftWall_32	9	9	6	1	23.35	40.005	45
STRIP LeftWall_32	9	9	7	1	23.35	42.723	45
STRIP LeftWall_32	9	9	8	1	23.35	45.228	45
STRIP LeftWall_32	9	9	9	1	23.35	47.546	45
STRIP LeftWall_32	9	9	10	1	23.35	49.864	45
STRIP LeftWall_32	9	9	11	1	23.35	51.188	45
STRIP LeftWall_32	9	9	12	1	23.35	51.557	45
STRIP LeftWall_32	9	9	13	1	23.35	51.926	45
STRIP LeftWall_32	9	9	14	1	23.35	52.295	45
STRIP LeftWall_32	9	9	15	1	23.35	52.664	45
STRIP LeftWall_32	9	9	16	1	23.35	54.05	45
STRIP LeftWall_32	9	9	17	1	23.35	59.771	45
STRIP LeftWall_32	9	9	18	1	23.35	65.983	45
STRIP LeftWall_32	9	9	19	1	23.35	72.195	45
STRIP LeftWall_32	9	9	20	1	23.35	78.408	45
STRIP LeftWall_32	9	9	21	1	23.35	84.481	45
STRIP LeftWall_32	9	9	22	1	23.35	88.5	45
STRIP LeftWall_32	9	9	23	1	23.35	91.833	45

STRIP LeftWall\_32 9 9 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 9 9 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 9 9 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 9 9 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 9 9 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 9 9 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 9 9 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 9 9 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 9 9 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 9 9 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 9 9 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 10 10 1 1 23.35 10 45  
 STRIP LeftWall\_32 10 10 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 10 10 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 10 10 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 10 10 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 10 10 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 10 10 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 10 10 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 10 10 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 10 10 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 10 10 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 10 10 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 10 10 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 10 10 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 10 10 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 10 10 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 10 10 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 10 10 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 10 10 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 10 10 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 10 10 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 10 10 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 10 10 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 10 10 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 10 10 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 10 10 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 10 10 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 10 10 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 10 10 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 10 10 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 10 10 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 10 10 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 10 10 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 10 10 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 11 11 1 1 23.35 10 45  
 STRIP LeftWall\_32 11 11 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 11 11 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 11 11 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 11 11 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 11 11 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 11 11 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 11 11 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 11 11 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 11 11 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 11 11 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 11 11 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 11 11 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 11 11 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 11 11 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 11 11 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 11 11 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 11 11 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 11 11 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 11 11 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 11 11 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 11 11 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 11 11 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 11 11 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 11 11 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 11 11 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 11 11 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 11 11 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 11 11 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 11 11 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 11 11 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 11 11 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 11 11 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 11 11 34 1 23.35 128.5 45

\* 7: Defining Steps

STEP Stage1\_31

CHANGE Morena\_2\_8\_L\_0 U-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-FRICT=33 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KP=5.664 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.245 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=5.181 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-COHE=0 LeftWall\_32

```

CHANGE Morena_2_8_L_0 U-ADHES=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM 23.35 23.35
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Berlinese_67970
ENDSTEP

STEP Stage2_749506
CHANGE Morena_2_8_L_0 D-KP=5.664 LeftWall_32
SETWALL LeftWall_32
GEOM 23.35 21.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage3_749695
SETWALL LeftWall_32
GEOM 23.35 21.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-D2_492899
ENDSTEP

STEP Stage4_749884
SETWALL LeftWall_32
GEOM 23.35 18.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage5_750073
SETWALL LeftWall_32
GEOM 23.35 18.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-E2_596311
ENDSTEP

STEP Stage6_750262
SETWALL LeftWall_32
GEOM 23.35 15.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage7_750451
SETWALL LeftWall_32
GEOM 23.35 15.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-F2_596312
ENDSTEP

STEP Stage8_750640
SETWALL LeftWall_32
GEOM 23.35 12.95
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage9_750829
SETWALL LeftWall_32
GEOM 23.35 12.95
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-G2_698700
ENDSTEP

STEP Stage10_751018
SETWALL LeftWall_32
GEOM 23.35 11.8
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage11-S_751207
SETWALL LeftWall_32
GEOM 23.35 11.8
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
CHANGE Morena_2_8_L_0 U-KAED=0.33028 LeftWall_32
CHANGE Morena_2_8_L_0 U-KAEW=0.38851 LeftWall_32
CHANGE Morena_2_8_L_0 U-KPED=5.5799 LeftWall_32
CHANGE Morena_2_8_L_0 U-KPEW=5.2464 LeftWall_32
CHANGE Morena_2_8_L_0 D-KAED=0.30313 LeftWall_32
CHANGE Morena_2_8_L_0 D-KAEW=0.36432 LeftWall_32

```

```
CHANGE Morena_2_8_L_0 D-KPED=4.9103 LeftWall_32
CHANGE Morena_2_8_L_0 D-KPEW=4.5658 LeftWall_32
EQK 0.1172 0.0586 -0.0586 0 0.67 0 0.67 1 0
WOOD 52.971 52.971 6.75 23.95
* Include pressure contribution from wall: LeftWall_32
* Include wall contribution
DLOAD step LeftWall_32 6.75 0.24591 23.95 0.24591
ENDSTEP
```

## Design Assumption : SISMICA GEO - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: SISMICA GEO
* Time:martedì 26 marzo 2019 18:29:44
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+175,76 LATO MONTE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -9.15 6.75 23.95 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 6.75 23.95 1 0
SOIL 0_R LeftWall_32 6.75 23.95 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 35 LeftWall_32
ATREST 0.534 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 6.75 23.95 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D2_492899 LeftWall_32 21.95 acciaioarmonico_124 1.1014E-05 200 10 0 0
WIRE Tir-E2_596311 LeftWall_32 18.95 acciaioarmonico_124 1.2171E-05 200 10 0 0
WIRE Tir-F2_596312 LeftWall_32 15.95 acciaioarmonico_124 1.2846E-05 200 10 0 0
WIRE Tir-G2_698700 LeftWall_32 13.45 acciaioarmonico_124 1.4325E-05 200 10 0 0

* 6.3: Strips

* (slope contribution)
STRIP LeftWall_32 1 1 1 1 23.35 10 45
STRIP LeftWall_32 1 1 2 1 23.35 27.386 45
STRIP LeftWall_32 1 1 3 1 23.35 31.853 45
STRIP LeftWall_32 1 1 4 1 23.35 34.571 45
STRIP LeftWall_32 1 1 5 1 23.35 37.288 45
STRIP LeftWall_32 1 1 6 1 23.35 40.005 45
STRIP LeftWall_32 1 1 7 1 23.35 42.723 45
STRIP LeftWall_32 1 1 8 1 23.35 45.228 45
STRIP LeftWall_32 1 1 9 1 23.35 47.546 45
STRIP LeftWall_32 1 1 10 1 23.35 49.864 45
STRIP LeftWall_32 1 1 11 1 23.35 51.188 45
STRIP LeftWall_32 1 1 12 1 23.35 51.557 45
STRIP LeftWall_32 1 1 13 1 23.35 51.926 45
STRIP LeftWall_32 1 1 14 1 23.35 52.295 45
STRIP LeftWall_32 1 1 15 1 23.35 52.664 45
STRIP LeftWall_32 1 1 16 1 23.35 54.05 45
STRIP LeftWall_32 1 1 17 1 23.35 59.771 45
STRIP LeftWall_32 1 1 18 1 23.35 65.983 45
STRIP LeftWall_32 1 1 19 1 23.35 72.195 45
STRIP LeftWall_32 1 1 20 1 23.35 78.408 45
STRIP LeftWall_32 1 1 21 1 23.35 84.481 45
STRIP LeftWall_32 1 1 22 1 23.35 88.5 45
STRIP LeftWall_32 1 1 23 1 23.35 91.833 45
STRIP LeftWall_32 1 1 24 1 23.35 95.167 45
STRIP LeftWall_32 1 1 25 1 23.35 98.5 45
STRIP LeftWall_32 1 1 26 1 23.35 101.83 45
STRIP LeftWall_32 1 1 27 1 23.35 105.17 45
STRIP LeftWall_32 1 1 28 1 23.35 108.5 45

```

STRIP LeftWall_32	1	1	29	1	23.35	111.83	45
STRIP LeftWall_32	1	1	30	1	23.35	115.17	45
STRIP LeftWall_32	1	1	31	1	23.35	118.5	45
STRIP LeftWall_32	1	1	32	1	23.35	121.83	45
STRIP LeftWall_32	1	1	33	1	23.35	125.17	45
STRIP LeftWall_32	1	1	34	1	23.35	128.5	45
STRIP LeftWall_32	2	2	1	1	23.35	10	45
STRIP LeftWall_32	2	2	2	1	23.35	27.386	45
STRIP LeftWall_32	2	2	3	1	23.35	31.853	45
STRIP LeftWall_32	2	2	4	1	23.35	34.571	45
STRIP LeftWall_32	2	2	5	1	23.35	37.288	45
STRIP LeftWall_32	2	2	6	1	23.35	40.005	45
STRIP LeftWall_32	2	2	7	1	23.35	42.723	45
STRIP LeftWall_32	2	2	8	1	23.35	45.228	45
STRIP LeftWall_32	2	2	9	1	23.35	47.546	45
STRIP LeftWall_32	2	2	10	1	23.35	49.864	45
STRIP LeftWall_32	2	2	11	1	23.35	51.188	45
STRIP LeftWall_32	2	2	12	1	23.35	51.557	45
STRIP LeftWall_32	2	2	13	1	23.35	51.926	45
STRIP LeftWall_32	2	2	14	1	23.35	52.295	45
STRIP LeftWall_32	2	2	15	1	23.35	52.664	45
STRIP LeftWall_32	2	2	16	1	23.35	54.05	45
STRIP LeftWall_32	2	2	17	1	23.35	59.771	45
STRIP LeftWall_32	2	2	18	1	23.35	65.983	45
STRIP LeftWall_32	2	2	19	1	23.35	72.195	45
STRIP LeftWall_32	2	2	20	1	23.35	78.408	45
STRIP LeftWall_32	2	2	21	1	23.35	84.481	45
STRIP LeftWall_32	2	2	22	1	23.35	88.5	45
STRIP LeftWall_32	2	2	23	1	23.35	91.833	45
STRIP LeftWall_32	2	2	24	1	23.35	95.167	45
STRIP LeftWall_32	2	2	25	1	23.35	98.5	45
STRIP LeftWall_32	2	2	26	1	23.35	101.83	45
STRIP LeftWall_32	2	2	27	1	23.35	105.17	45
STRIP LeftWall_32	2	2	28	1	23.35	108.5	45
STRIP LeftWall_32	2	2	29	1	23.35	111.83	45
STRIP LeftWall_32	2	2	30	1	23.35	115.17	45
STRIP LeftWall_32	2	2	31	1	23.35	118.5	45
STRIP LeftWall_32	2	2	32	1	23.35	121.83	45
STRIP LeftWall_32	2	2	33	1	23.35	125.17	45
STRIP LeftWall_32	2	2	34	1	23.35	128.5	45
STRIP LeftWall_32	3	3	1	1	23.35	10	45
STRIP LeftWall_32	3	3	2	1	23.35	27.386	45
STRIP LeftWall_32	3	3	3	1	23.35	31.853	45
STRIP LeftWall_32	3	3	4	1	23.35	34.571	45
STRIP LeftWall_32	3	3	5	1	23.35	37.288	45
STRIP LeftWall_32	3	3	6	1	23.35	40.005	45
STRIP LeftWall_32	3	3	7	1	23.35	42.723	45
STRIP LeftWall_32	3	3	8	1	23.35	45.228	45
STRIP LeftWall_32	3	3	9	1	23.35	47.546	45
STRIP LeftWall_32	3	3	10	1	23.35	49.864	45
STRIP LeftWall_32	3	3	11	1	23.35	51.188	45
STRIP LeftWall_32	3	3	12	1	23.35	51.557	45
STRIP LeftWall_32	3	3	13	1	23.35	51.926	45
STRIP LeftWall_32	3	3	14	1	23.35	52.295	45
STRIP LeftWall_32	3	3	15	1	23.35	52.664	45
STRIP LeftWall_32	3	3	16	1	23.35	54.05	45
STRIP LeftWall_32	3	3	17	1	23.35	59.771	45
STRIP LeftWall_32	3	3	18	1	23.35	65.983	45
STRIP LeftWall_32	3	3	19	1	23.35	72.195	45
STRIP LeftWall_32	3	3	20	1	23.35	78.408	45
STRIP LeftWall_32	3	3	21	1	23.35	84.481	45
STRIP LeftWall_32	3	3	22	1	23.35	88.5	45
STRIP LeftWall_32	3	3	23	1	23.35	91.833	45
STRIP LeftWall_32	3	3	24	1	23.35	95.167	45
STRIP LeftWall_32	3	3	25	1	23.35	98.5	45
STRIP LeftWall_32	3	3	26	1	23.35	101.83	45
STRIP LeftWall_32	3	3	27	1	23.35	105.17	45
STRIP LeftWall_32	3	3	28	1	23.35	108.5	45
STRIP LeftWall_32	3	3	29	1	23.35	111.83	45
STRIP LeftWall_32	3	3	30	1	23.35	115.17	45
STRIP LeftWall_32	3	3	31	1	23.35	118.5	45
STRIP LeftWall_32	3	3	32	1	23.35	121.83	45
STRIP LeftWall_32	3	3	33	1	23.35	125.17	45
STRIP LeftWall_32	3	3	34	1	23.35	128.5	45
STRIP LeftWall_32	4	4	1	1	23.35	10	45
STRIP LeftWall_32	4	4	2	1	23.35	27.386	45
STRIP LeftWall_32	4	4	3	1	23.35	31.853	45
STRIP LeftWall_32	4	4	4	1	23.35	34.571	45
STRIP LeftWall_32	4	4	5	1	23.35	37.288	45
STRIP LeftWall_32	4	4	6	1	23.35	40.005	45
STRIP LeftWall_32	4	4	7	1	23.35	42.723	45
STRIP LeftWall_32	4	4	8	1	23.35	45.228	45
STRIP LeftWall_32	4	4	9	1	23.35	47.546	45
STRIP LeftWall_32	4	4	10	1	23.35	49.864	45
STRIP LeftWall_32	4	4	11	1	23.35	51.188	45
STRIP LeftWall_32	4	4	12	1	23.35	51.557	45
STRIP LeftWall_32	4	4	13	1	23.35	51.926	45
STRIP LeftWall_32	4	4	14	1	23.35	52.295	45
STRIP LeftWall_32	4	4	15	1	23.35	52.664	45



STRIP LeftWall_32	4	4	16	1	23.35	54.05	45
STRIP LeftWall_32	4	4	17	1	23.35	59.771	45
STRIP LeftWall_32	4	4	18	1	23.35	65.983	45
STRIP LeftWall_32	4	4	19	1	23.35	72.195	45
STRIP LeftWall_32	4	4	20	1	23.35	78.408	45
STRIP LeftWall_32	4	4	21	1	23.35	84.481	45
STRIP LeftWall_32	4	4	22	1	23.35	88.5	45
STRIP LeftWall_32	4	4	23	1	23.35	91.833	45
STRIP LeftWall_32	4	4	24	1	23.35	95.167	45
STRIP LeftWall_32	4	4	25	1	23.35	98.5	45
STRIP LeftWall_32	4	4	26	1	23.35	101.83	45
STRIP LeftWall_32	4	4	27	1	23.35	105.17	45
STRIP LeftWall_32	4	4	28	1	23.35	108.5	45
STRIP LeftWall_32	4	4	29	1	23.35	111.83	45
STRIP LeftWall_32	4	4	30	1	23.35	115.17	45
STRIP LeftWall_32	4	4	31	1	23.35	118.5	45
STRIP LeftWall_32	4	4	32	1	23.35	121.83	45
STRIP LeftWall_32	4	4	33	1	23.35	125.17	45
STRIP LeftWall_32	4	4	34	1	23.35	128.5	45
STRIP LeftWall_32	5	5	1	1	23.35	10	45
STRIP LeftWall_32	5	5	2	1	23.35	27.386	45
STRIP LeftWall_32	5	5	3	1	23.35	31.853	45
STRIP LeftWall_32	5	5	4	1	23.35	34.571	45
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STRIP LeftWall_32	5	5	6	1	23.35	40.005	45
STRIP LeftWall_32	5	5	7	1	23.35	42.723	45
STRIP LeftWall_32	5	5	8	1	23.35	45.228	45
STRIP LeftWall_32	5	5	9	1	23.35	47.546	45
STRIP LeftWall_32	5	5	10	1	23.35	49.864	45
STRIP LeftWall_32	5	5	11	1	23.35	51.188	45
STRIP LeftWall_32	5	5	12	1	23.35	51.557	45
STRIP LeftWall_32	5	5	13	1	23.35	51.926	45
STRIP LeftWall_32	5	5	14	1	23.35	52.295	45
STRIP LeftWall_32	5	5	15	1	23.35	52.664	45
STRIP LeftWall_32	5	5	16	1	23.35	54.05	45
STRIP LeftWall_32	5	5	17	1	23.35	59.771	45
STRIP LeftWall_32	5	5	18	1	23.35	65.983	45
STRIP LeftWall_32	5	5	19	1	23.35	72.195	45
STRIP LeftWall_32	5	5	20	1	23.35	78.408	45
STRIP LeftWall_32	5	5	21	1	23.35	84.481	45
STRIP LeftWall_32	5	5	22	1	23.35	88.5	45
STRIP LeftWall_32	5	5	23	1	23.35	91.833	45
STRIP LeftWall_32	5	5	24	1	23.35	95.167	45
STRIP LeftWall_32	5	5	25	1	23.35	98.5	45
STRIP LeftWall_32	5	5	26	1	23.35	101.83	45
STRIP LeftWall_32	5	5	27	1	23.35	105.17	45
STRIP LeftWall_32	5	5	28	1	23.35	108.5	45
STRIP LeftWall_32	5	5	29	1	23.35	111.83	45
STRIP LeftWall_32	5	5	30	1	23.35	115.17	45
STRIP LeftWall_32	5	5	31	1	23.35	118.5	45
STRIP LeftWall_32	5	5	32	1	23.35	121.83	45
STRIP LeftWall_32	5	5	33	1	23.35	125.17	45
STRIP LeftWall_32	5	5	34	1	23.35	128.5	45
STRIP LeftWall_32	6	6	1	1	23.35	10	45
STRIP LeftWall_32	6	6	2	1	23.35	27.386	45
STRIP LeftWall_32	6	6	3	1	23.35	31.853	45
STRIP LeftWall_32	6	6	4	1	23.35	34.571	45
STRIP LeftWall_32	6	6	5	1	23.35	37.288	45
STRIP LeftWall_32	6	6	6	1	23.35	40.005	45
STRIP LeftWall_32	6	6	7	1	23.35	42.723	45
STRIP LeftWall_32	6	6	8	1	23.35	45.228	45
STRIP LeftWall_32	6	6	9	1	23.35	47.546	45
STRIP LeftWall_32	6	6	10	1	23.35	49.864	45
STRIP LeftWall_32	6	6	11	1	23.35	51.188	45
STRIP LeftWall_32	6	6	12	1	23.35	51.557	45
STRIP LeftWall_32	6	6	13	1	23.35	51.926	45
STRIP LeftWall_32	6	6	14	1	23.35	52.295	45
STRIP LeftWall_32	6	6	15	1	23.35	52.664	45
STRIP LeftWall_32	6	6	16	1	23.35	54.05	45
STRIP LeftWall_32	6	6	17	1	23.35	59.771	45
STRIP LeftWall_32	6	6	18	1	23.35	65.983	45
STRIP LeftWall_32	6	6	19	1	23.35	72.195	45
STRIP LeftWall_32	6	6	20	1	23.35	78.408	45
STRIP LeftWall_32	6	6	21	1	23.35	84.481	45
STRIP LeftWall_32	6	6	22	1	23.35	88.5	45
STRIP LeftWall_32	6	6	23	1	23.35	91.833	45
STRIP LeftWall_32	6	6	24	1	23.35	95.167	45
STRIP LeftWall_32	6	6	25	1	23.35	98.5	45
STRIP LeftWall_32	6	6	26	1	23.35	101.83	45
STRIP LeftWall_32	6	6	27	1	23.35	105.17	45
STRIP LeftWall_32	6	6	28	1	23.35	108.5	45
STRIP LeftWall_32	6	6	29	1	23.35	111.83	45
STRIP LeftWall_32	6	6	30	1	23.35	115.17	45
STRIP LeftWall_32	6	6	31	1	23.35	118.5	45
STRIP LeftWall_32	6	6	32	1	23.35	121.83	45
STRIP LeftWall_32	6	6	33	1	23.35	125.17	45
STRIP LeftWall_32	6	6	34	1	23.35	128.5	45
STRIP LeftWall_32	7	7	1	1	23.35	10	45
STRIP LeftWall_32	7	7	2	1	23.35	27.386	45

STRIP LeftWall_32	7	7	3	1	23.35	31.853	45
STRIP LeftWall_32	7	7	4	1	23.35	34.571	45
STRIP LeftWall_32	7	7	5	1	23.35	37.288	45
STRIP LeftWall_32	7	7	6	1	23.35	40.005	45
STRIP LeftWall_32	7	7	7	1	23.35	42.723	45
STRIP LeftWall_32	7	7	8	1	23.35	45.228	45
STRIP LeftWall_32	7	7	9	1	23.35	47.546	45
STRIP LeftWall_32	7	7	10	1	23.35	49.864	45
STRIP LeftWall_32	7	7	11	1	23.35	51.188	45
STRIP LeftWall_32	7	7	12	1	23.35	51.557	45
STRIP LeftWall_32	7	7	13	1	23.35	51.926	45
STRIP LeftWall_32	7	7	14	1	23.35	52.295	45
STRIP LeftWall_32	7	7	15	1	23.35	52.664	45
STRIP LeftWall_32	7	7	16	1	23.35	54.05	45
STRIP LeftWall_32	7	7	17	1	23.35	59.771	45
STRIP LeftWall_32	7	7	18	1	23.35	65.983	45
STRIP LeftWall_32	7	7	19	1	23.35	72.195	45
STRIP LeftWall_32	7	7	20	1	23.35	78.408	45
STRIP LeftWall_32	7	7	21	1	23.35	84.481	45
STRIP LeftWall_32	7	7	22	1	23.35	88.5	45
STRIP LeftWall_32	7	7	23	1	23.35	91.833	45
STRIP LeftWall_32	7	7	24	1	23.35	95.167	45
STRIP LeftWall_32	7	7	25	1	23.35	98.5	45
STRIP LeftWall_32	7	7	26	1	23.35	101.83	45
STRIP LeftWall_32	7	7	27	1	23.35	105.17	45
STRIP LeftWall_32	7	7	28	1	23.35	108.5	45
STRIP LeftWall_32	7	7	29	1	23.35	111.83	45
STRIP LeftWall_32	7	7	30	1	23.35	115.17	45
STRIP LeftWall_32	7	7	31	1	23.35	118.5	45
STRIP LeftWall_32	7	7	32	1	23.35	121.83	45
STRIP LeftWall_32	7	7	33	1	23.35	125.17	45
STRIP LeftWall_32	7	7	34	1	23.35	128.5	45
STRIP LeftWall_32	8	8	1	1	23.35	10	45
STRIP LeftWall_32	8	8	2	1	23.35	27.386	45
STRIP LeftWall_32	8	8	3	1	23.35	31.853	45
STRIP LeftWall_32	8	8	4	1	23.35	34.571	45
STRIP LeftWall_32	8	8	5	1	23.35	37.288	45
STRIP LeftWall_32	8	8	6	1	23.35	40.005	45
STRIP LeftWall_32	8	8	7	1	23.35	42.723	45
STRIP LeftWall_32	8	8	8	1	23.35	45.228	45
STRIP LeftWall_32	8	8	9	1	23.35	47.546	45
STRIP LeftWall_32	8	8	10	1	23.35	49.864	45
STRIP LeftWall_32	8	8	11	1	23.35	51.188	45
STRIP LeftWall_32	8	8	12	1	23.35	51.557	45
STRIP LeftWall_32	8	8	13	1	23.35	51.926	45
STRIP LeftWall_32	8	8	14	1	23.35	52.295	45
STRIP LeftWall_32	8	8	15	1	23.35	52.664	45
STRIP LeftWall_32	8	8	16	1	23.35	54.05	45
STRIP LeftWall_32	8	8	17	1	23.35	59.771	45
STRIP LeftWall_32	8	8	18	1	23.35	65.983	45
STRIP LeftWall_32	8	8	19	1	23.35	72.195	45
STRIP LeftWall_32	8	8	20	1	23.35	78.408	45
STRIP LeftWall_32	8	8	21	1	23.35	84.481	45
STRIP LeftWall_32	8	8	22	1	23.35	88.5	45
STRIP LeftWall_32	8	8	23	1	23.35	91.833	45
STRIP LeftWall_32	8	8	24	1	23.35	95.167	45
STRIP LeftWall_32	8	8	25	1	23.35	98.5	45
STRIP LeftWall_32	8	8	26	1	23.35	101.83	45
STRIP LeftWall_32	8	8	27	1	23.35	105.17	45
STRIP LeftWall_32	8	8	28	1	23.35	108.5	45
STRIP LeftWall_32	8	8	29	1	23.35	111.83	45
STRIP LeftWall_32	8	8	30	1	23.35	115.17	45
STRIP LeftWall_32	8	8	31	1	23.35	118.5	45
STRIP LeftWall_32	8	8	32	1	23.35	121.83	45
STRIP LeftWall_32	8	8	33	1	23.35	125.17	45
STRIP LeftWall_32	8	8	34	1	23.35	128.5	45
STRIP LeftWall_32	9	9	1	1	23.35	10	45
STRIP LeftWall_32	9	9	2	1	23.35	27.386	45
STRIP LeftWall_32	9	9	3	1	23.35	31.853	45
STRIP LeftWall_32	9	9	4	1	23.35	34.571	45
STRIP LeftWall_32	9	9	5	1	23.35	37.288	45
STRIP LeftWall_32	9	9	6	1	23.35	40.005	45
STRIP LeftWall_32	9	9	7	1	23.35	42.723	45
STRIP LeftWall_32	9	9	8	1	23.35	45.228	45
STRIP LeftWall_32	9	9	9	1	23.35	47.546	45
STRIP LeftWall_32	9	9	10	1	23.35	49.864	45
STRIP LeftWall_32	9	9	11	1	23.35	51.188	45
STRIP LeftWall_32	9	9	12	1	23.35	51.557	45
STRIP LeftWall_32	9	9	13	1	23.35	51.926	45
STRIP LeftWall_32	9	9	14	1	23.35	52.295	45
STRIP LeftWall_32	9	9	15	1	23.35	52.664	45
STRIP LeftWall_32	9	9	16	1	23.35	54.05	45
STRIP LeftWall_32	9	9	17	1	23.35	59.771	45
STRIP LeftWall_32	9	9	18	1	23.35	65.983	45
STRIP LeftWall_32	9	9	19	1	23.35	72.195	45
STRIP LeftWall_32	9	9	20	1	23.35	78.408	45
STRIP LeftWall_32	9	9	21	1	23.35	84.481	45
STRIP LeftWall_32	9	9	22	1	23.35	88.5	45
STRIP LeftWall_32	9	9	23	1	23.35	91.833	45

STRIP LeftWall\_32 9 9 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 9 9 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 9 9 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 9 9 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 9 9 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 9 9 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 9 9 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 9 9 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 9 9 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 9 9 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 9 9 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 10 10 1 1 23.35 10 45  
 STRIP LeftWall\_32 10 10 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 10 10 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 10 10 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 10 10 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 10 10 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 10 10 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 10 10 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 10 10 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 10 10 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 10 10 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 10 10 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 10 10 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 10 10 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 10 10 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 10 10 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 10 10 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 10 10 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 10 10 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 10 10 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 10 10 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 10 10 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 10 10 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 10 10 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 10 10 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 10 10 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 10 10 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 10 10 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 10 10 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 10 10 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 10 10 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 10 10 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 10 10 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 10 10 34 1 23.35 128.5 45  
 STRIP LeftWall\_32 11 11 1 1 23.35 10 45  
 STRIP LeftWall\_32 11 11 2 1 23.35 27.386 45  
 STRIP LeftWall\_32 11 11 3 1 23.35 31.853 45  
 STRIP LeftWall\_32 11 11 4 1 23.35 34.571 45  
 STRIP LeftWall\_32 11 11 5 1 23.35 37.288 45  
 STRIP LeftWall\_32 11 11 6 1 23.35 40.005 45  
 STRIP LeftWall\_32 11 11 7 1 23.35 42.723 45  
 STRIP LeftWall\_32 11 11 8 1 23.35 45.228 45  
 STRIP LeftWall\_32 11 11 9 1 23.35 47.546 45  
 STRIP LeftWall\_32 11 11 10 1 23.35 49.864 45  
 STRIP LeftWall\_32 11 11 11 1 23.35 51.188 45  
 STRIP LeftWall\_32 11 11 12 1 23.35 51.557 45  
 STRIP LeftWall\_32 11 11 13 1 23.35 51.926 45  
 STRIP LeftWall\_32 11 11 14 1 23.35 52.295 45  
 STRIP LeftWall\_32 11 11 15 1 23.35 52.664 45  
 STRIP LeftWall\_32 11 11 16 1 23.35 54.05 45  
 STRIP LeftWall\_32 11 11 17 1 23.35 59.771 45  
 STRIP LeftWall\_32 11 11 18 1 23.35 65.983 45  
 STRIP LeftWall\_32 11 11 19 1 23.35 72.195 45  
 STRIP LeftWall\_32 11 11 20 1 23.35 78.408 45  
 STRIP LeftWall\_32 11 11 21 1 23.35 84.481 45  
 STRIP LeftWall\_32 11 11 22 1 23.35 88.5 45  
 STRIP LeftWall\_32 11 11 23 1 23.35 91.833 45  
 STRIP LeftWall\_32 11 11 24 1 23.35 95.167 45  
 STRIP LeftWall\_32 11 11 25 1 23.35 98.5 45  
 STRIP LeftWall\_32 11 11 26 1 23.35 101.83 45  
 STRIP LeftWall\_32 11 11 27 1 23.35 105.17 45  
 STRIP LeftWall\_32 11 11 28 1 23.35 108.5 45  
 STRIP LeftWall\_32 11 11 29 1 23.35 111.83 45  
 STRIP LeftWall\_32 11 11 30 1 23.35 115.17 45  
 STRIP LeftWall\_32 11 11 31 1 23.35 118.5 45  
 STRIP LeftWall\_32 11 11 32 1 23.35 121.83 45  
 STRIP LeftWall\_32 11 11 33 1 23.35 125.17 45  
 STRIP LeftWall\_32 11 11 34 1 23.35 128.5 45

\* 7: Defining Steps

STEP Stage1\_31

CHANGE Morena\_2\_8\_L\_0 U-FRICT=27.453 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-FRICT=27.453 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KA=0.311 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KP=3.954 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KA=0.311 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KP=3.649 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-COHE=0 LeftWall\_32

```

CHANGE Morena_2_8_L_0 U-ADHES=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM 23.35 23.35
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Berlinese_67970
ENDSTEP

STEP Stage2_749506
CHANGE Morena_2_8_L_0 D-KP=3.954 LeftWall_32
SETWALL LeftWall_32
GEOM 23.35 21.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage3_749695
SETWALL LeftWall_32
GEOM 23.35 21.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-D2_492899
ENDSTEP

STEP Stage4_749884
SETWALL LeftWall_32
GEOM 23.35 18.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage5_750073
SETWALL LeftWall_32
GEOM 23.35 18.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-E2_596311
ENDSTEP

STEP Stage6_750262
SETWALL LeftWall_32
GEOM 23.35 15.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage7_750451
SETWALL LeftWall_32
GEOM 23.35 15.45
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-F2_596312
ENDSTEP

STEP Stage8_750640
SETWALL LeftWall_32
GEOM 23.35 12.95
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage9_750829
SETWALL LeftWall_32
GEOM 23.35 12.95
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ADD Tir-G2_698700
ENDSTEP

STEP Stage10_751018
SETWALL LeftWall_32
GEOM 23.35 11.8
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
ENDSTEP

STEP Stage11-S_751207
SETWALL LeftWall_32
GEOM 23.35 11.8
SURCHARGE 0 0 0 0
WATER -10 0 6.75 0 0
CHANGE Morena_2_8_L_0 U-KAED=0.4118 LeftWall_32
CHANGE Morena_2_8_L_0 U-KAEW=0.4806 LeftWall_32
CHANGE Morena_2_8_L_0 U-KPED=3.8597 LeftWall_32
CHANGE Morena_2_8_L_0 U-KPEW=3.5929 LeftWall_32
CHANGE Morena_2_8_L_0 D-KAED=0.37656 LeftWall_32
CHANGE Morena_2_8_L_0 D-KAEW=0.44999 LeftWall_32

```

```
CHANGE Morena_2_8_L_0 D-KPED=3.39 LeftWall_32
CHANGE Morena_2_8_L_0 D-KPEW=3.1142 LeftWall_32
EQK 0.1172 0.0586 -0.0586 0 0.67 0 0.67 1 0
WOOD 52.971 52.971 6.75 23.95
* Include pressure contribution from wall: LeftWall_32
* Include wall contribution
DLOAD step LeftWall_32 6.75 0.24591 23.95 0.24591
ENDSTEP
```

### 11.3 PARATIA DEFINITIVA LATO VALLE - 4 ORDINI DI TIRANTI

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## *Report di Calcolo*

Nome Progetto: PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+205,70 LATO VALLE

Autore: Ing. Renato Vaira

Jobname: D:\Documenti\\_Lavori\A832 - Tirano\Paratia Imbocco Bormio\PK 6+205,70 valle.pplus

Data: 26/03/2019 18:36:29

Design Section: Base Design Section

## Descrizione del Software

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

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

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

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

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

La schematizzazione in elementi finiti avviene in questo modo:

- si analizza un problema piano (nel piano Y-Z): i gradi di libertà nodali attivi sono lo spostamento laterale e la rotazione fuori piano: gli spostamenti verticali sono automaticamente vincolati (di conseguenza le azioni assiali nelle pareti verticali non sono calcolate);
- la parete flessibile di sostegno vera e propria è schematizzata da una serie di elementi finiti BEAM verticali;
- il terreno, che spinge contro la parete (da monte e da valle) e che reagisce in modo complesso alle deformazioni della parete, è simulato attraverso un doppio letto di molle elasto-plastiche connesse agli stessi nodi della parete;
- i tiranti, i puntoni, le solette, gli appoggi cedevoli o fissi, sono schematizzati tramite molle puntuali convergenti in alcuni punti (nodi) della parete ove convergono parimenti elementi BEAM ed elementi terreno.

## Descrizione della Stratigrafia e degli Strati di Terreno

Tipo : HORIZONTAL

Quota : 30 m

OCR : 1

Strato di Terreno	Terreno	$\gamma$ dry	$\gamma$ sat	$\phi'$	$\phi$	$c_v$	$\phi_p$	$c'$	Su	Modulo	Elastico	Eu	Evc	Eur	Ah	Av	exp	Pa	Rur/Rvc	Rvc	Ku	Kvc	Kur	
		kN/m <sup>3</sup>	kN/m <sup>3</sup>	°	°	°	°	kPa	kPa			kPa	kPa	kPa				kPa		kPa	kN/m <sup>3</sup>	kN/m <sup>3</sup>	kN/m <sup>3</sup>	
1	Morena	20	22	33				0	Constant			21000	33600											



## Descrizione Pareti

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Muro di sinistra

Sezione : Berlinese

Area equivalente : 0.0272491018831865 m

Inerzia equivalente : 0.0001 m<sup>4</sup>/m

Materiale calcestruzzo : C32/40

Tipo sezione : Tangent

Spaziatura : 0.4 m

Diametro : 0.24 m

Efficacia : 0.9

Materiale acciaio : S355

Sezione : CHS177.8\*10

Tipo sezione : O

Spaziatura : 0.4 m

Spessore : 0.01 m

Diametro : 0.1778 m

## ***Fasi di Calcolo***

Stage 1

Scavo

Muro di sinistra

Lato monte : 21.05 m

Lato valle : 21.05 m

Linea di scavo di sinistra (Irregolare)

(-45;18.93)

(-33.45;20.15)

(-28.55;20.58)

(-21.78;20.86)

(-18.64;21.56)

(-16.15;21.05)

(-15.15;21.05)

Linea di scavo di destra (Orizzontale)

21.05 m

Elementi strutturali

Paratia : Berlinese

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Sezione : Berlinese

## Stage 2

### Scavo

#### Muro di sinistra

Lato monte : 21.05 m

Lato valle : 18.95 m

#### Linea di scavo di sinistra (Irregolare)

(-45;18.93)

(-33.45;20.15)

(-28.55;20.58)

(-21.78;20.86)

(-18.64;21.56)

(-16.15;21.05)

(-15.15;21.05)

#### Linea di scavo di destra (Orizzontale)

18.95 m

### Elementi strutturali

Paratia : Berlinese

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Sezione : Berlinese

### Stage 3

#### Scavo

##### Muro di sinistra

Lato monte : 21.05 m

Lato valle : 18.95 m

##### Linea di scavo di sinistra (Irregolare)

(-45;18.93)

(-33.45;20.15)

(-28.55;20.58)

(-21.78;20.86)

(-18.64;21.56)

(-16.15;21.05)

(-15.15;21.05)

##### Linea di scavo di destra (Orizzontale)

18.95 m

#### Elementi strutturali

##### Paratia : Berlinese

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Sezione : Berlinese

##### Tirante : Tir-D4

X : -15.15 m

Z : 19.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

##### Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

#### Stage 4

#### Scavo

##### Muro di sinistra

Lato monte : 21.05 m

Lato valle : 15.95 m

##### Linea di scavo di sinistra (Irregolare)

(-45;18.93)

(-33.45;20.15)

(-28.55;20.58)

(-21.78;20.86)

(-18.64;21.56)

(-16.15;21.05)

(-15.15;21.05)

##### Linea di scavo di destra (Orizzontale)

15.95 m

#### Elementi strutturali

##### Paratia : Berlinese

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Sezione : Berlinese

##### Tirante : Tir-D4

X : -15.15 m

Z : 19.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

##### Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 5

Scavo

Muro di sinistra

Lato monte : 21.05 m

Lato valle : 15.95 m

Linea di scavo di sinistra (Irregolare)

(-45;18.93)

(-33.45;20.15)

(-28.55;20.58)

(-21.78;20.86)

(-18.64;21.56)

(-16.15;21.05)

(-15.15;21.05)

Linea di scavo di destra (Orizzontale)

15.95 m

Elementi strutturali

Paratia : Berlinese

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Sezione : Berlinese

Tirante : Tir-D4

X : -15.15 m

Z : 19.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-E4

X : -15.15 m

Z : 16.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 6

Scavo

Muro di sinistra

Lato monte : 21.05 m

Lato valle : 12.95 m

Linea di scavo di sinistra (Irregolare)

(-45;18.93)

(-33.45;20.15)

(-28.55;20.58)

(-21.78;20.86)

(-18.64;21.56)

(-16.15;21.05)

(-15.15;21.05)

Linea di scavo di destra (Orizzontale)

12.95 m

Elementi strutturali

Paratia : Berlinese

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Sezione : Berlinese

Tirante : Tir-D4

X : -15.15 m

Z : 19.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-E4

X : -15.15 m

Z : 16.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m



Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 7

Scavo

Muro di sinistra

Lato monte : 21.05 m

Lato valle : 12.95 m

Linea di scavo di sinistra (Irregolare)

(-45;18.93)

(-33.45;20.15)

(-28.55;20.58)

(-21.78;20.86)

(-18.64;21.56)

(-16.15;21.05)

(-15.15;21.05)

Linea di scavo di destra (Orizzontale)

12.95 m

Elementi strutturali

Paratia : Berlinese

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Sezione : Berlinese

Tirante : Tir-D4

X : -15.15 m

Z : 19.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-E4

X : -15.15 m

Z : 16.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 13 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-F4

X : -15.15 m

Z : 13.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 12 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Stage 8

Scavo

Muro di sinistra

Lato monte : 21.05 m

Lato valle : 9.95 m

Linea di scavo di sinistra (Irregolare)

(-45;18.93)

(-33.45;20.15)

(-28.55;20.58)

(-21.78;20.86)

(-18.64;21.56)

(-16.15;21.05)

(-15.15;21.05)

Linea di scavo di destra (Irregolare)

(-15.15;9.95)

(-6.75;9.95)

(-4.5;12.2)

(9.15;12.2)

Elementi strutturali

Paratia : Berlinese

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Sezione : Berlinese

Tirante : Tir-D4

X : -15.15 m

Z : 19.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-E4

X : -15.15 m

Z : 16.45 m

Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 13 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 20 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-F4  
 X : -15.15 m  
 Z : 13.45 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 12 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 20 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Stage 9

Scavo

Muro di sinistra

Lato monte : 21.05 m

Lato valle : 9.95 m

Linea di scavo di sinistra (Irregolare)

(-45;18.93)

(-33.45;20.15)

(-28.55;20.58)

(-21.78;20.86)

(-18.64;21.56)

(-16.15;21.05)

(-15.15;21.05)

Linea di scavo di destra (Irregolare)

(-15.15;9.95)

(-6.75;9.95)

(-4.5;12.2)

(9.15;12.2)

Elementi strutturali

Paratia : Berlinese

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Sezione : Berlinese

Tirante : Tir-D4

X : -15.15 m

Z : 19.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-E4

X : -15.15 m

Z : 16.45 m

Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 13 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 20 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-F4  
 X : -15.15 m  
 Z : 13.45 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 12 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 20 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-G4  
 X : -15.15 m  
 Z : 10.45 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 10 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 20 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A

Materiali : S275



Stage 10

Scavo

Muro di sinistra

Lato monte : 21.05 m

Lato valle : 8.6 m

Linea di scavo di sinistra (Irregolare)

(-45;18.93)

(-33.45;20.15)

(-28.55;20.58)

(-21.78;20.86)

(-18.64;21.56)

(-16.15;21.05)

(-15.15;21.05)

Linea di scavo di destra (Irregolare)

(-15.15;8.6)

(-8.1;8.6)

(-4.5;12.2)

(9.15;12.2)

Elementi strutturali

Paratia : Berlinese

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Sezione : Berlinese

Tirante : Tir-D4

X : -15.15 m

Z : 19.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

Tirante : Tir-E4

X : -15.15 m

Z : 16.45 m

Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 13 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 20 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-F4  
 X : -15.15 m  
 Z : 13.45 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 12 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 20 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-G4  
 X : -15.15 m  
 Z : 10.45 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 10 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 20 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A

Materiali : S275

## Stage 11-S

### Scavo

#### Muro di sinistra

Lato monte : 21.05 m

Lato valle : 8.6 m

#### Linea di scavo di sinistra (Irregolare)

(-45;18.93)

(-33.45;20.15)

(-28.55;20.58)

(-21.78;20.86)

(-18.64;21.56)

(-16.15;21.05)

(-15.15;21.05)

#### Linea di scavo di destra (Irregolare)

(-15.15;8.6)

(-8.1;8.6)

(-4.5;12.2)

(9.15;12.2)

### Elementi strutturali

#### Paratia : Berlinese

X : -15.15 m

Quota in alto : 21.65 m

Quota di fondo : 3.45 m

Sezione : Berlinese

#### Tirante : Tir-D4

X : -15.15 m

Z : 19.45 m

Lunghezza bulbo : 12 m

Diametro bulbo : 0.16 m

Lunghezza libera : 15 m

Spaziatura orizzontale : 2.4 m

Precarico : 480 kN

Angolo : 20 °

Sezione : 4 strands

Tipo di barre : Barre trefoli

Numero di barre : 4

Diametro : 0.01331 m

Area : 0.000556 m<sup>2</sup>

#### Trave di Ripartizione : Default Waler

Sezione : Waler Section 2 steel

HE 220A

Materiale : S275

#### Tirante : Tir-E4

X : -15.15 m

Z : 16.45 m

Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 13 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 20 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-F4  
 X : -15.15 m  
 Z : 13.45 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 12 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 20 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A  
 Materiale : S275

Tirante : Tir-G4  
 X : -15.15 m  
 Z : 10.45 m  
 Lunghezza bulbo : 12 m  
 Diametro bulbo : 0.16 m  
 Lunghezza libera : 10 m  
 Spaziatura orizzontale : 2.4 m  
 Precarico : 480 kN  
 Angolo : 20 °  
 Sezione : 4 strands  
 Tipo di barre : Barre trefoli  
 Numero di barre : 4  
 Diametro : 0.01331 m  
 Area : 0.000556 m<sup>2</sup>

Trave di Ripartizione : Default Waler  
 Sezione : Waler Section 2 steel  
 HE 220A

Materiali : S275

## Descrizione Coefficienti Design Assumption

### Coefficienti A

Nome	Carichi	Carichi	Carichi	Carichi	Carico	Pressio	Pressio	Carichi	Carichi	Carichi	Carichi	Carichi	Carichi
	Permanenti Sfavorevoli (F_dead_load_unfavour)	Permanenti Favorevoli (F_dead_load_d_favour)	Variabili Sfavorevoli (F_live_load_unfavour)	Variabili Favorevoli (F_live_load_d_favour)	Sismico (F_seism_load)	ni Acqua Lato (F_WaterDR)	ni Acqua Valle (F_WaterRes)	Permanenti Destabilizzanti (F_UPL_GDStab)	Permanenti Stabilizzanti (F_UPL_GStab)	Variabili Destabilizzanti (F_UPL_QDStab)	Permanenti Destabilizzanti (F_HYD_GDStab)	Permanenti Stabilizzanti (F_HYD_GStab)	Variabili Destabilizzanti (F_HYD_QDStab)
Simbolo	$\gamma_G$	$\gamma_G$	$\gamma_Q$	$\gamma_Q$	$\gamma_{QE}$	$\gamma_G$	$\gamma_G$	$\gamma_{Gdst}$	$\gamma_{Gstb}$	$\gamma_{Qdst}$	$\gamma_{Gdst}$	$\gamma_{Gstb}$	$\gamma_{Qdst}$
Nominal	1	1	1	1	1	1	1	1	1	1	1	1	1
SLE (Rara)	1	1	1	1	0	1	1	1	1	1	1	1	1
A1+M1+R1	1.3	1	1.5	1	0	1.3	1	1	1	1	1.3	0.9	1
A2+M2+R1	1	1	1.3	1	0	1	1	1	1	1	1.3	0.9	1
SISMICA STR	1	1	1	1	1	1	1	1	1	1	1	1	1
SISMICA GEO	1	1	1	1	1	1	1	1	1	1	1.3	0.9	1

### Coefficienti M

Nome	Parziale su $\tan(\phi')$ (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	$\gamma_\phi$	$\gamma_c$	$\gamma_{cu}$	$\gamma_{qu}$	$\gamma_\gamma$
Nominal	1	1	1	1	1
SLE (Rara)	1	1	1	1	1
A1+M1+R1	1	1	1	1	1
A2+M2+R1	1.25	1.25	1.4	1	1
SISMICA STR	1	1	1	1	1
SISMICA GEO	1.25	1.25	1.4	1	1

### Coefficienti R

Nome	Parziale resistenza terreno (es. Kp) (F_Soil_Res_walls)	Parziale resistenza Tiranti permanenti (F_Anch_P)	Parziale resistenza Tiranti temporanei (F_Anch_T)	Parziale elementi strutturali (F_wall)
Simbolo	$\gamma_{Re}$	$\gamma_{ap}$	$\gamma_{at}$	
Nominal	1	1	1	1
SLE (Rara)	1	1	1	1
A1+M1+R1	1	1.2	1.1	1
A2+M2+R1	1	1.2	1.1	1
SISMICA STR	1	1.2	1.1	1
SISMICA GEO	1	1.2	1.1	1

## Risultati SLE (Rara)

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 1

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento			Muro: LEFT
Stage	Z (m)	Spostamento (mm)	
Stage 1	21.65	0	
Stage 1	21.45	0	
Stage 1	21.25	0	
Stage 1	21.05	0	
Stage 1	20.85	0	
Stage 1	20.65	0	
Stage 1	20.45	0	
Stage 1	20.25	0	
Stage 1	20.05	0	
Stage 1	19.85	0	
Stage 1	19.65	0	
Stage 1	19.45	0	
Stage 1	19.25	0	
Stage 1	19.05	0	
Stage 1	18.85	0	
Stage 1	18.65	0	
Stage 1	18.45	0	
Stage 1	18.25	0	
Stage 1	18.05	0	
Stage 1	17.85	0	
Stage 1	17.65	0	
Stage 1	17.45	0	
Stage 1	17.25	0	
Stage 1	17.05	0	
Stage 1	16.85	0	
Stage 1	16.65	0	
Stage 1	16.45	0	
Stage 1	16.25	0	
Stage 1	16.05	0	
Stage 1	15.85	0	
Stage 1	15.65	0	
Stage 1	15.45	0	
Stage 1	15.25	0	
Stage 1	15.05	0	
Stage 1	14.85	0	
Stage 1	14.65	0	
Stage 1	14.45	0	
Stage 1	14.25	0	
Stage 1	14.05	0	
Stage 1	13.85	0	
Stage 1	13.65	0	
Stage 1	13.45	0	
Stage 1	13.25	0	
Stage 1	13.05	0	
Stage 1	12.85	0	
Stage 1	12.65	0	
Stage 1	12.45	0	
Stage 1	12.25	0	
Stage 1	12.05	0	
Stage 1	11.85	0	
Stage 1	11.65	0	
Stage 1	11.45	0	
Stage 1	11.25	0	
Stage 1	11.05	0	
Stage 1	10.85	0	
Stage 1	10.65	0	
Stage 1	10.45	0	
Stage 1	10.25	0	
Stage 1	10.05	0	
Stage 1	9.85	0	
Stage 1	9.65	0	
Stage 1	9.45	0	



Design Assumption: SLE (Rara) Tipo Risultato: Spostamento			Muro: LEFT
Stage	Z (m)	Spostamento (mm)	
Stage 1	9.25	0	
Stage 1	9.05	0	
Stage 1	8.85	0	
Stage 1	8.65	0	
Stage 1	8.45	0	
Stage 1	8.25	0	
Stage 1	8.05	0	
Stage 1	7.85	0	
Stage 1	7.65	0	
Stage 1	7.45	0	
Stage 1	7.25	0	
Stage 1	7.05	0	
Stage 1	6.85	0	
Stage 1	6.65	0	
Stage 1	6.45	0	
Stage 1	6.25	0	
Stage 1	6.05	0	
Stage 1	5.85	0	
Stage 1	5.65	0	
Stage 1	5.45	0	
Stage 1	5.25	0	
Stage 1	5.05	0	
Stage 1	4.85	0	
Stage 1	4.65	0	
Stage 1	4.45	0	
Stage 1	4.25	0	
Stage 1	4.05	0	
Stage 1	3.85	0	
Stage 1	3.65	0	
Stage 1	3.45	0	

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 1

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	21.65	0	0
Stage 1	21.45	0	0
Stage 1	21.25	0	0
Stage 1	21.05	0	0
Stage 1	20.85	0	0
Stage 1	20.65	0	0
Stage 1	20.45	0	0
Stage 1	20.25	0	0
Stage 1	20.05	0	0
Stage 1	19.85	0	0
Stage 1	19.65	0	0
Stage 1	19.45	0	0
Stage 1	19.25	0	0
Stage 1	19.05	0	0
Stage 1	18.85	0	0
Stage 1	18.65	0	0
Stage 1	18.45	0	0
Stage 1	18.25	0	0
Stage 1	18.05	0	0
Stage 1	17.85	0	0
Stage 1	17.65	0	0
Stage 1	17.45	0	0
Stage 1	17.25	0	0
Stage 1	17.05	0	0
Stage 1	16.85	0	0
Stage 1	16.65	0	0
Stage 1	16.45	0	0
Stage 1	16.25	0	0
Stage 1	16.05	0	0
Stage 1	15.85	0	0
Stage 1	15.65	0	0
Stage 1	15.45	0	0
Stage 1	15.25	0	0
Stage 1	15.05	0	0
Stage 1	14.85	0	0
Stage 1	14.65	0	0
Stage 1	14.45	0	0
Stage 1	14.25	0	0
Stage 1	14.05	0	0
Stage 1	13.85	0	0
Stage 1	13.65	0	0
Stage 1	13.45	0	0
Stage 1	13.25	0	0
Stage 1	13.05	0	0
Stage 1	12.85	0	0
Stage 1	12.65	0	0
Stage 1	12.45	0	0
Stage 1	12.25	0	0
Stage 1	12.05	0	0
Stage 1	11.85	0	0
Stage 1	11.65	0	0
Stage 1	11.45	0	0
Stage 1	11.25	0	0
Stage 1	11.05	0	0
Stage 1	10.85	0	0
Stage 1	10.65	0	0
Stage 1	10.45	0	0
Stage 1	10.25	0	0
Stage 1	10.05	0	0
Stage 1	9.85	0	0
Stage 1	9.65	0	0
Stage 1	9.45	0	0
Stage 1	9.25	0	0
Stage 1	9.05	0	0
Stage 1	8.85	0	0

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	8.65	0	0
Stage 1	8.45	0	0
Stage 1	8.25	0	0
Stage 1	8.05	0	0
Stage 1	7.85	0	0
Stage 1	7.65	0	0
Stage 1	7.45	0	0
Stage 1	7.25	0	0
Stage 1	7.05	0	0
Stage 1	6.85	0	0
Stage 1	6.65	0	0
Stage 1	6.45	0	0
Stage 1	6.25	0	0
Stage 1	6.05	0	0
Stage 1	5.85	0	0
Stage 1	5.65	0	0
Stage 1	5.45	0	0
Stage 1	5.25	0	0
Stage 1	5.05	0	0
Stage 1	4.85	0	0
Stage 1	4.65	0	0
Stage 1	4.45	0	0
Stage 1	4.25	0	0
Stage 1	4.05	0	0
Stage 1	3.85	0	0
Stage 1	3.65	0	0
Stage 1	3.45	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 2

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 2	21.65 5.23
Stage 2	21.45 4.94
Stage 2	21.25 4.65
Stage 2	21.05 4.36
Stage 2	20.85 4.07
Stage 2	20.65 3.78
Stage 2	20.45 3.49
Stage 2	20.25 3.2
Stage 2	20.05 2.91
Stage 2	19.85 2.62
Stage 2	19.65 2.33
Stage 2	19.45 2.05
Stage 2	19.25 1.78
Stage 2	19.05 1.51
Stage 2	18.85 1.26
Stage 2	18.65 1.02
Stage 2	18.45 0.81
Stage 2	18.25 0.62
Stage 2	18.05 0.45
Stage 2	17.85 0.31
Stage 2	17.65 0.2
Stage 2	17.45 0.1
Stage 2	17.25 0.03
Stage 2	17.05 -0.03
Stage 2	16.85 -0.07
Stage 2	16.65 -0.09
Stage 2	16.45 -0.11
Stage 2	16.25 -0.12
Stage 2	16.05 -0.12
Stage 2	15.85 -0.11
Stage 2	15.65 -0.11
Stage 2	15.45 -0.1
Stage 2	15.25 -0.09
Stage 2	15.05 -0.07
Stage 2	14.85 -0.06
Stage 2	14.65 -0.05
Stage 2	14.45 -0.04
Stage 2	14.25 -0.03
Stage 2	14.05 -0.03
Stage 2	13.85 -0.02
Stage 2	13.65 -0.01
Stage 2	13.45 -0.01
Stage 2	13.25 0
Stage 2	13.05 0
Stage 2	12.85 0
Stage 2	12.65 0
Stage 2	12.45 0
Stage 2	12.25 0
Stage 2	12.05 0
Stage 2	11.85 0
Stage 2	11.65 0
Stage 2	11.45 0
Stage 2	11.25 0
Stage 2	11.05 0
Stage 2	10.85 0
Stage 2	10.65 0
Stage 2	10.45 0
Stage 2	10.25 0
Stage 2	10.05 0
Stage 2	9.85 0
Stage 2	9.65 0
Stage 2	9.45 0
Stage 2	9.25 0
Stage 2	9.05 0
Stage 2	8.85 0

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento			Muro: LEFT
Stage	Z (m)	Spostamento (mm)	
Stage 2	8.65	0	
Stage 2	8.45	0	
Stage 2	8.25	0	
Stage 2	8.05	0	
Stage 2	7.85	0	
Stage 2	7.65	0	
Stage 2	7.45	0	
Stage 2	7.25	0	
Stage 2	7.05	0	
Stage 2	6.85	0	
Stage 2	6.65	0	
Stage 2	6.45	0	
Stage 2	6.25	0	
Stage 2	6.05	0	
Stage 2	5.85	0	
Stage 2	5.65	0	
Stage 2	5.45	0	
Stage 2	5.25	0	
Stage 2	5.05	0	
Stage 2	4.85	0	
Stage 2	4.65	0	
Stage 2	4.45	0	
Stage 2	4.25	0	
Stage 2	4.05	0	
Stage 2	3.85	0	
Stage 2	3.65	0	
Stage 2	3.45	0	

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 2

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	21.65	0	0
Stage 2	21.45	0	0
Stage 2	21.45	0	0
Stage 2	21.25	0	0
Stage 2	21.25	0	0
Stage 2	21.05	0	0
Stage 2	21.05	0	0
Stage 2	20.85	0	0
Stage 2	20.85	0	0
Stage 2	20.65	-0.04	-0.2
Stage 2	20.45	-0.16	-0.59
Stage 2	20.25	-0.39	-1.18
Stage 2	20.05	-0.79	-1.97
Stage 2	19.85	-1.38	-2.95
Stage 2	19.65	-2.2	-4.13
Stage 2	19.45	-3.31	-5.51
Stage 2	19.25	-4.72	-7.08
Stage 2	19.05	-6.49	-8.86
Stage 2	18.85	-8.66	-10.82
Stage 2	18.65	-10.8	-10.72
Stage 2	18.45	-12.21	-7.05
Stage 2	18.25	-12.92	-3.55
Stage 2	18.05	-12.96	-0.2
Stage 2	17.85	-12.46	2.54
Stage 2	17.65	-11.57	4.44
Stage 2	17.45	-10.44	5.63
Stage 2	17.25	-9.19	6.26
Stage 2	17.05	-7.9	6.47
Stage 2	16.85	-6.63	6.35
Stage 2	16.65	-5.43	5.99
Stage 2	16.45	-4.33	5.49
Stage 2	16.25	-3.35	4.91
Stage 2	16.05	-2.49	4.29
Stage 2	15.85	-1.76	3.66
Stage 2	15.65	-1.15	3.05
Stage 2	15.45	-0.65	2.48
Stage 2	15.25	-0.26	1.96
Stage 2	15.05	0.04	1.5
Stage 2	14.85	0.26	1.1
Stage 2	14.65	0.41	0.76
Stage 2	14.45	0.51	0.48
Stage 2	14.25	0.56	0.26
Stage 2	14.05	0.58	0.08
Stage 2	13.85	0.56	-0.05
Stage 2	13.65	0.53	-0.15
Stage 2	13.45	0.49	-0.22
Stage 2	13.25	0.44	-0.26
Stage 2	13.05	0.38	-0.28
Stage 2	12.85	0.33	-0.28
Stage 2	12.65	0.27	-0.28
Stage 2	12.45	0.22	-0.26
Stage 2	12.25	0.17	-0.23
Stage 2	12.05	0.13	-0.21
Stage 2	11.85	0.1	-0.18
Stage 2	11.65	0.07	-0.15
Stage 2	11.45	0.04	-0.12
Stage 2	11.25	0.02	-0.1
Stage 2	11.05	0.01	-0.08
Stage 2	10.85	-0.01	-0.06
Stage 2	10.65	-0.01	-0.04
Stage 2	10.45	-0.02	-0.03
Stage 2	10.25	-0.02	-0.02
Stage 2	10.05	-0.02	-0.01
Stage 2	9.85	-0.02	0
Stage 2	9.65	-0.02	0.01

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	9.45	-0.02	0.01
Stage 2	9.25	-0.02	0.01
Stage 2	9.05	-0.02	0.01
Stage 2	8.85	-0.01	0.01
Stage 2	8.65	-0.01	0.01
Stage 2	8.45	-0.01	0.01
Stage 2	8.25	-0.01	0.01
Stage 2	8.05	-0.01	0.01
Stage 2	7.85	0	0.01
Stage 2	7.65	0	0.01
Stage 2	7.45	0	0.01
Stage 2	7.25	0	0
Stage 2	7.05	0	0
Stage 2	6.85	0	0
Stage 2	6.65	0	0
Stage 2	6.45	0	0
Stage 2	6.25	0	0
Stage 2	6.05	0	0
Stage 2	5.85	0	0
Stage 2	5.65	0	0
Stage 2	5.45	0	0
Stage 2	5.25	0	0
Stage 2	5.05	0	0
Stage 2	4.85	0	0
Stage 2	4.65	0	0
Stage 2	4.45	0	0
Stage 2	4.25	0	0
Stage 2	4.05	0	0
Stage 2	3.85	0	0
Stage 2	3.65	0	0
Stage 2	3.45	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 3

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 3	21.65 -0.46
Stage 3	21.45 -0.69
Stage 3	21.25 -0.92
Stage 3	21.05 -1.15
Stage 3	20.85 -1.38
Stage 3	20.65 -1.61
Stage 3	20.45 -1.84
Stage 3	20.25 -2.06
Stage 3	20.05 -2.27
Stage 3	19.85 -2.44
Stage 3	19.65 -2.55
Stage 3	19.45 -2.58
Stage 3	19.25 -2.51
Stage 3	19.05 -2.36
Stage 3	18.85 -2.15
Stage 3	18.65 -1.91
Stage 3	18.45 -1.65
Stage 3	18.25 -1.4
Stage 3	18.05 -1.16
Stage 3	17.85 -0.93
Stage 3	17.65 -0.73
Stage 3	17.45 -0.56
Stage 3	17.25 -0.4
Stage 3	17.05 -0.28
Stage 3	16.85 -0.17
Stage 3	16.65 -0.09
Stage 3	16.45 -0.03
Stage 3	16.25 0.02
Stage 3	16.05 0.05
Stage 3	15.85 0.07
Stage 3	15.65 0.08
Stage 3	15.45 0.09
Stage 3	15.25 0.09
Stage 3	15.05 0.08
Stage 3	14.85 0.08
Stage 3	14.65 0.07
Stage 3	14.45 0.06
Stage 3	14.25 0.05
Stage 3	14.05 0.04
Stage 3	13.85 0.03
Stage 3	13.65 0.03
Stage 3	13.45 0.02
Stage 3	13.25 0.01
Stage 3	13.05 0.01
Stage 3	12.85 0.01
Stage 3	12.65 0
Stage 3	12.45 0
Stage 3	12.25 0
Stage 3	12.05 0
Stage 3	11.85 0
Stage 3	11.65 0
Stage 3	11.45 0
Stage 3	11.25 0
Stage 3	11.05 0
Stage 3	10.85 0
Stage 3	10.65 0
Stage 3	10.45 0
Stage 3	10.25 0
Stage 3	10.05 0
Stage 3	9.85 0
Stage 3	9.65 0
Stage 3	9.45 0
Stage 3	9.25 0
Stage 3	9.05 0
Stage 3	8.85 0



Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 3	8.65	0
Stage 3	8.45	0
Stage 3	8.25	0
Stage 3	8.05	0
Stage 3	7.85	0
Stage 3	7.65	0
Stage 3	7.45	0
Stage 3	7.25	0
Stage 3	7.05	0
Stage 3	6.85	0
Stage 3	6.65	0
Stage 3	6.45	0
Stage 3	6.25	0
Stage 3	6.05	0
Stage 3	5.85	0
Stage 3	5.65	0
Stage 3	5.45	0
Stage 3	5.25	0
Stage 3	5.05	0
Stage 3	4.85	0
Stage 3	4.65	0
Stage 3	4.45	0
Stage 3	4.25	0
Stage 3	4.05	0
Stage 3	3.85	0
Stage 3	3.65	0
Stage 3	3.45	0

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 3

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	21.65	0	0
Stage 3	21.45	0	0
Stage 3	21.45	0	0
Stage 3	21.25	0	0
Stage 3	21.25	0	0
Stage 3	21.05	0	0
Stage 3	21.05	0	0
Stage 3	20.85	0	0
Stage 3	20.85	0	0
Stage 3	20.65	-0.83	-4.13
Stage 3	20.45	-3.31	-12.4
Stage 3	20.25	-8.26	-24.79
Stage 3	20.05	-16.34	-40.36
Stage 3	19.85	-27.52	-55.94
Stage 3	19.65	-41.82	-71.46
Stage 3	19.45	-59.17	-86.78
Stage 3	19.25	-41.92	86.28
Stage 3	19.05	-27.5	72.09
Stage 3	18.85	-15.74	58.8
Stage 3	18.65	-6.41	46.63
Stage 3	18.45	0.73	35.7
Stage 3	18.25	5.93	26.01
Stage 3	18.05	9.46	17.63
Stage 3	17.85	11.65	10.97
Stage 3	17.65	12.78	5.65
Stage 3	17.45	13.08	1.52
Stage 3	17.25	12.77	-1.56
Stage 3	17.05	12.02	-3.75
Stage 3	16.85	10.97	-5.24
Stage 3	16.65	9.74	-6.15
Stage 3	16.45	8.42	-6.62
Stage 3	16.25	7.09	-6.64
Stage 3	16.05	5.82	-6.35
Stage 3	15.85	4.65	-5.86
Stage 3	15.65	3.6	-5.24
Stage 3	15.45	2.69	-4.57
Stage 3	15.25	1.91	-3.88
Stage 3	15.05	1.27	-3.21
Stage 3	14.85	0.75	-2.59
Stage 3	14.65	0.35	-2.03
Stage 3	14.45	0.04	-1.53
Stage 3	14.25	-0.18	-1.11
Stage 3	14.05	-0.33	-0.75
Stage 3	13.85	-0.42	-0.47
Stage 3	13.65	-0.47	-0.24
Stage 3	13.45	-0.48	-0.07
Stage 3	13.25	-0.47	0.06
Stage 3	13.05	-0.44	0.15
Stage 3	12.85	-0.4	0.2
Stage 3	12.65	-0.36	0.24
Stage 3	12.45	-0.31	0.25
Stage 3	12.25	-0.26	0.24
Stage 3	12.05	-0.21	0.23
Stage 3	11.85	-0.17	0.21
Stage 3	11.65	-0.13	0.19
Stage 3	11.45	-0.1	0.17
Stage 3	11.25	-0.07	0.14
Stage 3	11.05	-0.05	0.12
Stage 3	10.85	-0.03	0.09
Stage 3	10.65	-0.01	0.07
Stage 3	10.45	0	0.06
Stage 3	10.25	0.01	0.04
Stage 3	10.05	0.01	0.03
Stage 3	9.85	0.02	0.02
Stage 3	9.65	0.02	0.01

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	9.45	0.02	0
Stage 3	9.25	0.02	0
Stage 3	9.05	0.02	-0.01
Stage 3	8.85	0.02	-0.01
Stage 3	8.65	0.01	-0.01
Stage 3	8.45	0.01	-0.01
Stage 3	8.25	0.01	-0.01
Stage 3	8.05	0.01	-0.01
Stage 3	7.85	0.01	-0.01
Stage 3	7.65	0.01	-0.01
Stage 3	7.45	0	-0.01
Stage 3	7.25	0	-0.01
Stage 3	7.05	0	0
Stage 3	6.85	0	0
Stage 3	6.65	0	0
Stage 3	6.45	0	0
Stage 3	6.25	0	0
Stage 3	6.05	0	0
Stage 3	5.85	0	0
Stage 3	5.65	0	0
Stage 3	5.45	0	0
Stage 3	5.25	0	0
Stage 3	5.05	0	0
Stage 3	4.85	0	0
Stage 3	4.65	0	0
Stage 3	4.45	0	0
Stage 3	4.25	0	0
Stage 3	4.05	0	0
Stage 3	3.85	0	0
Stage 3	3.65	0	0
Stage 3	3.45	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 4

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 4	21.65 -2.22
Stage 4	21.45 -2.26
Stage 4	21.25 -2.3
Stage 4	21.05 -2.33
Stage 4	20.85 -2.37
Stage 4	20.65 -2.41
Stage 4	20.45 -2.45
Stage 4	20.25 -2.48
Stage 4	20.05 -2.49
Stage 4	19.85 -2.47
Stage 4	19.65 -2.4
Stage 4	19.45 -2.24
Stage 4	19.25 -1.97
Stage 4	19.05 -1.62
Stage 4	18.85 -1.22
Stage 4	18.65 -0.79
Stage 4	18.45 -0.34
Stage 4	18.25 0.09
Stage 4	18.05 0.51
Stage 4	17.85 0.89
Stage 4	17.65 1.24
Stage 4	17.45 1.54
Stage 4	17.25 1.79
Stage 4	17.05 1.98
Stage 4	16.85 2.12
Stage 4	16.65 2.2
Stage 4	16.45 2.22
Stage 4	16.25 2.2
Stage 4	16.05 2.12
Stage 4	15.85 2.01
Stage 4	15.65 1.87
Stage 4	15.45 1.7
Stage 4	15.25 1.52
Stage 4	15.05 1.34
Stage 4	14.85 1.16
Stage 4	14.65 0.99
Stage 4	14.45 0.83
Stage 4	14.25 0.68
Stage 4	14.05 0.54
Stage 4	13.85 0.42
Stage 4	13.65 0.31
Stage 4	13.45 0.22
Stage 4	13.25 0.14
Stage 4	13.05 0.08
Stage 4	12.85 0.03
Stage 4	12.65 -0.02
Stage 4	12.45 -0.05
Stage 4	12.25 -0.07
Stage 4	12.05 -0.09
Stage 4	11.85 -0.1
Stage 4	11.65 -0.11
Stage 4	11.45 -0.11
Stage 4	11.25 -0.11
Stage 4	11.05 -0.1
Stage 4	10.85 -0.1
Stage 4	10.65 -0.09
Stage 4	10.45 -0.08
Stage 4	10.25 -0.07
Stage 4	10.05 -0.06
Stage 4	9.85 -0.06
Stage 4	9.65 -0.05
Stage 4	9.45 -0.04
Stage 4	9.25 -0.03
Stage 4	9.05 -0.03
Stage 4	8.85 -0.02

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento			Muro: LEFT
Stage	Z (m)	Spostamento (mm)	
Stage 4	8.65	-0.02	
Stage 4	8.45	-0.01	
Stage 4	8.25	-0.01	
Stage 4	8.05	-0.01	
Stage 4	7.85	0	
Stage 4	7.65	0	
Stage 4	7.45	0	
Stage 4	7.25	0	
Stage 4	7.05	0	
Stage 4	6.85	0	
Stage 4	6.65	0	
Stage 4	6.45	0	
Stage 4	6.25	0	
Stage 4	6.05	0	
Stage 4	5.85	0	
Stage 4	5.65	0	
Stage 4	5.45	0	
Stage 4	5.25	0	
Stage 4	5.05	0	
Stage 4	4.85	0	
Stage 4	4.65	0	
Stage 4	4.45	0	
Stage 4	4.25	0	
Stage 4	4.05	0	
Stage 4	3.85	0	
Stage 4	3.65	0	
Stage 4	3.45	0	

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 4

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	21.65	0	0
Stage 4	21.45	0	0
Stage 4	21.45	0	0
Stage 4	21.25	0	0
Stage 4	21.25	0	0
Stage 4	21.05	0	0
Stage 4	21.05	0	0
Stage 4	20.85	0	0
Stage 4	20.85	0	0
Stage 4	20.65	-0.83	-4.13
Stage 4	20.45	-3.31	-12.4
Stage 4	20.25	-8.26	-24.79
Stage 4	20.05	-16.43	-40.83
Stage 4	19.85	-27.77	-56.68
Stage 4	19.65	-42.22	-72.24
Stage 4	19.45	-59.67	-87.27
Stage 4	19.25	-42.25	87.07
Stage 4	19.05	-27.48	73.87
Stage 4	18.85	-15.1	61.92
Stage 4	18.65	-4.83	51.33
Stage 4	18.45	3.6	42.15
Stage 4	18.25	10.47	34.35
Stage 4	18.05	16.04	27.86
Stage 4	17.85	20.49	22.23
Stage 4	17.65	23.92	17.15
Stage 4	17.45	26.42	12.53
Stage 4	17.25	28.08	8.26
Stage 4	17.05	28.92	4.23
Stage 4	16.85	28.98	0.3
Stage 4	16.65	28.22	-3.83
Stage 4	16.45	26.58	-8.16
Stage 4	16.25	24.04	-12.69
Stage 4	16.05	20.56	-17.41
Stage 4	15.85	16.09	-22.33
Stage 4	15.65	10.99	-25.5
Stage 4	15.45	6.05	-24.74
Stage 4	15.25	2.02	-20.12
Stage 4	15.05	-1.15	-15.87
Stage 4	14.85	-3.58	-12.11
Stage 4	14.65	-5.34	-8.84
Stage 4	14.45	-6.55	-6.05
Stage 4	14.25	-7.3	-3.72
Stage 4	14.05	-7.66	-1.8
Stage 4	13.85	-7.71	-0.27
Stage 4	13.65	-7.53	0.91
Stage 4	13.45	-7.17	1.8
Stage 4	13.25	-6.68	2.43
Stage 4	13.05	-6.12	2.84
Stage 4	12.85	-5.5	3.07
Stage 4	12.65	-4.87	3.15
Stage 4	12.45	-4.25	3.12
Stage 4	12.25	-3.64	3.01
Stage 4	12.05	-3.07	2.85
Stage 4	11.85	-2.55	2.64
Stage 4	11.65	-2.07	2.4
Stage 4	11.45	-1.64	2.15
Stage 4	11.25	-1.26	1.9
Stage 4	11.05	-0.92	1.65
Stage 4	10.85	-0.64	1.41
Stage 4	10.65	-0.4	1.19
Stage 4	10.45	-0.21	0.98
Stage 4	10.25	-0.05	0.8
Stage 4	10.05	0.08	0.63
Stage 4	9.85	0.17	0.48
Stage 4	9.65	0.24	0.35

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	9.45	0.29	0.24
Stage 4	9.25	0.32	0.15
Stage 4	9.05	0.34	0.08
Stage 4	8.85	0.34	0.01
Stage 4	8.65	0.33	-0.03
Stage 4	8.45	0.32	-0.07
Stage 4	8.25	0.3	-0.1
Stage 4	8.05	0.28	-0.12
Stage 4	7.85	0.25	-0.13
Stage 4	7.65	0.22	-0.13
Stage 4	7.45	0.2	-0.13
Stage 4	7.25	0.17	-0.13
Stage 4	7.05	0.15	-0.13
Stage 4	6.85	0.12	-0.12
Stage 4	6.65	0.1	-0.11
Stage 4	6.45	0.08	-0.1
Stage 4	6.25	0.07	-0.08
Stage 4	6.05	0.05	-0.07
Stage 4	5.85	0.04	-0.06
Stage 4	5.65	0.03	-0.05
Stage 4	5.45	0.02	-0.04
Stage 4	5.25	0.01	-0.03
Stage 4	5.05	0.01	-0.02
Stage 4	4.85	0	-0.02
Stage 4	4.65	0	-0.01
Stage 4	4.45	0	-0.01
Stage 4	4.25	0	0
Stage 4	4.05	0	0
Stage 4	3.85	0	0
Stage 4	3.65	0	0
Stage 4	3.45	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 5

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento		Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	21.65	0.59
Stage 5	21.45	0.21
Stage 5	21.25	-0.18
Stage 5	21.05	-0.56
Stage 5	20.85	-0.95
Stage 5	20.65	-1.33
Stage 5	20.45	-1.71
Stage 5	20.25	-2.09
Stage 5	20.05	-2.46
Stage 5	19.85	-2.8
Stage 5	19.65	-3.1
Stage 5	19.45	-3.32
Stage 5	19.25	-3.46
Stage 5	19.05	-3.52
Stage 5	18.85	-3.55
Stage 5	18.65	-3.56
Stage 5	18.45	-3.58
Stage 5	18.25	-3.6
Stage 5	18.05	-3.65
Stage 5	17.85	-3.73
Stage 5	17.65	-3.83
Stage 5	17.45	-3.94
Stage 5	17.25	-4.07
Stage 5	17.05	-4.18
Stage 5	16.85	-4.27
Stage 5	16.65	-4.31
Stage 5	16.45	-4.26
Stage 5	16.25	-4.11
Stage 5	16.05	-3.88
Stage 5	15.85	-3.58
Stage 5	15.65	-3.26
Stage 5	15.45	-2.91
Stage 5	15.25	-2.57
Stage 5	15.05	-2.23
Stage 5	14.85	-1.9
Stage 5	14.65	-1.6
Stage 5	14.45	-1.32
Stage 5	14.25	-1.07
Stage 5	14.05	-0.84
Stage 5	13.85	-0.64
Stage 5	13.65	-0.47
Stage 5	13.45	-0.32
Stage 5	13.25	-0.2
Stage 5	13.05	-0.1
Stage 5	12.85	-0.02
Stage 5	12.65	0.05
Stage 5	12.45	0.09
Stage 5	12.25	0.13
Stage 5	12.05	0.15
Stage 5	11.85	0.16
Stage 5	11.65	0.17
Stage 5	11.45	0.16
Stage 5	11.25	0.16
Stage 5	11.05	0.15
Stage 5	10.85	0.14
Stage 5	10.65	0.12
Stage 5	10.45	0.11
Stage 5	10.25	0.1
Stage 5	10.05	0.08
Stage 5	9.85	0.07
Stage 5	9.65	0.06
Stage 5	9.45	0.05
Stage 5	9.25	0.04
Stage 5	9.05	0.03
Stage 5	8.85	0.02



Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 5	8.65	0.01
Stage 5	8.45	0.01
Stage 5	8.25	0
Stage 5	8.05	0
Stage 5	7.85	0
Stage 5	7.65	-0.01
Stage 5	7.45	-0.01
Stage 5	7.25	-0.01
Stage 5	7.05	-0.01
Stage 5	6.85	-0.01
Stage 5	6.65	-0.01
Stage 5	6.45	-0.01
Stage 5	6.25	-0.01
Stage 5	6.05	-0.01
Stage 5	5.85	-0.01
Stage 5	5.65	-0.01
Stage 5	5.45	-0.01
Stage 5	5.25	0
Stage 5	5.05	0
Stage 5	4.85	0
Stage 5	4.65	0
Stage 5	4.45	0
Stage 5	4.25	0
Stage 5	4.05	0
Stage 5	3.85	0
Stage 5	3.65	0
Stage 5	3.45	0

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 5

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	21.65	0	0
Stage 5	21.45	0	0
Stage 5	21.45	0	0
Stage 5	21.25	0	0
Stage 5	21.25	0	0
Stage 5	21.05	0	0
Stage 5	21.05	0	0
Stage 5	20.85	0	0
Stage 5	20.85	0	0
Stage 5	20.65	-0.31	-1.53
Stage 5	20.45	-1.87	-7.83
Stage 5	20.25	-5.65	-18.88
Stage 5	20.05	-12.49	-34.22
Stage 5	19.85	-22.49	-50
Stage 5	19.65	-35.68	-65.94
Stage 5	19.45	-52.06	-81.87
Stage 5	19.25	-34.27	88.94
Stage 5	19.05	-19.53	73.68
Stage 5	18.85	-7.72	59.06
Stage 5	18.65	1.32	45.19
Stage 5	18.45	7.73	32.09
Stage 5	18.25	11.68	19.72
Stage 5	18.05	13.28	8
Stage 5	17.85	12.58	-3.5
Stage 5	17.65	9.56	-15.09
Stage 5	17.45	4.2	-26.82
Stage 5	17.25	-3.55	-38.76
Stage 5	17.05	-13.75	-50.96
Stage 5	16.85	-26.44	-63.47
Stage 5	16.65	-41.72	-76.39
Stage 5	16.45	-59.64	-89.62
Stage 5	16.25	-42.67	84.86
Stage 5	16.05	-28.4	71.34
Stage 5	15.85	-16.82	57.9
Stage 5	15.65	-7.91	44.57
Stage 5	15.45	-1.41	32.47
Stage 5	15.25	3.68	25.48
Stage 5	15.05	7.57	19.42
Stage 5	14.85	10.4	14.16
Stage 5	14.65	12.34	9.68
Stage 5	14.45	13.52	5.92
Stage 5	14.25	14.08	2.82
Stage 5	14.05	14.15	0.32
Stage 5	13.85	13.82	-1.64
Stage 5	13.65	13.19	-3.14
Stage 5	13.45	12.35	-4.23
Stage 5	13.25	11.35	-4.98
Stage 5	13.05	10.26	-5.44
Stage 5	12.85	9.13	-5.66
Stage 5	12.65	7.99	-5.7
Stage 5	12.45	6.87	-5.59
Stage 5	12.25	5.8	-5.33
Stage 5	12.05	4.81	-4.97
Stage 5	11.85	3.9	-4.55
Stage 5	11.65	3.08	-4.09
Stage 5	11.45	2.36	-3.61
Stage 5	11.25	1.73	-3.14
Stage 5	11.05	1.2	-2.68
Stage 5	10.85	0.75	-2.25
Stage 5	10.65	0.38	-1.85
Stage 5	10.45	0.08	-1.48
Stage 5	10.25	-0.15	-1.16
Stage 5	10.05	-0.32	-0.87
Stage 5	9.85	-0.45	-0.63
Stage 5	9.65	-0.53	-0.42

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	9.45	-0.58	-0.24
Stage 5	9.25	-0.6	-0.1
Stage 5	9.05	-0.6	0.01
Stage 5	8.85	-0.58	0.1
Stage 5	8.65	-0.55	0.16
Stage 5	8.45	-0.51	0.21
Stage 5	8.25	-0.46	0.23
Stage 5	8.05	-0.41	0.25
Stage 5	7.85	-0.36	0.25
Stage 5	7.65	-0.31	0.24
Stage 5	7.45	-0.27	0.23
Stage 5	7.25	-0.22	0.22
Stage 5	7.05	-0.18	0.2
Stage 5	6.85	-0.15	0.18
Stage 5	6.65	-0.12	0.16
Stage 5	6.45	-0.09	0.14
Stage 5	6.25	-0.06	0.12
Stage 5	6.05	-0.05	0.1
Stage 5	5.85	-0.03	0.08
Stage 5	5.65	-0.02	0.06
Stage 5	5.45	-0.01	0.05
Stage 5	5.25	0	0.03
Stage 5	5.05	0	0.02
Stage 5	4.85	0.01	0.01
Stage 5	4.65	0.01	0
Stage 5	4.45	0.01	0
Stage 5	4.25	0	-0.01
Stage 5	4.05	0	-0.01
Stage 5	3.85	0	-0.01
Stage 5	3.65	0	-0.01
Stage 5	3.45	0	0

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 6

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 6	21.65 -0.3
Stage 6	21.45 -0.64
Stage 6	21.25 -0.98
Stage 6	21.05 -1.32
Stage 6	20.85 -1.67
Stage 6	20.65 -2.01
Stage 6	20.45 -2.35
Stage 6	20.25 -2.68
Stage 6	20.05 -3
Stage 6	19.85 -3.29
Stage 6	19.65 -3.53
Stage 6	19.45 -3.7
Stage 6	19.25 -3.77
Stage 6	19.05 -3.76
Stage 6	18.85 -3.69
Stage 6	18.65 -3.6
Stage 6	18.45 -3.5
Stage 6	18.25 -3.39
Stage 6	18.05 -3.28
Stage 6	17.85 -3.18
Stage 6	17.65 -3.08
Stage 6	17.45 -2.97
Stage 6	17.25 -2.84
Stage 6	17.05 -2.67
Stage 6	16.85 -2.45
Stage 6	16.65 -2.15
Stage 6	16.45 -1.74
Stage 6	16.25 -1.2
Stage 6	16.05 -0.56
Stage 6	15.85 0.15
Stage 6	15.65 0.9
Stage 6	15.45 1.66
Stage 6	15.25 2.41
Stage 6	15.05 3.12
Stage 6	14.85 3.78
Stage 6	14.65 4.37
Stage 6	14.45 4.89
Stage 6	14.25 5.31
Stage 6	14.05 5.64
Stage 6	13.85 5.87
Stage 6	13.65 6
Stage 6	13.45 6.03
Stage 6	13.25 5.95
Stage 6	13.05 5.79
Stage 6	12.85 5.55
Stage 6	12.65 5.24
Stage 6	12.45 4.88
Stage 6	12.25 4.48
Stage 6	12.05 4.06
Stage 6	11.85 3.63
Stage 6	11.65 3.2
Stage 6	11.45 2.79
Stage 6	11.25 2.4
Stage 6	11.05 2.03
Stage 6	10.85 1.69
Stage 6	10.65 1.37
Stage 6	10.45 1.09
Stage 6	10.25 0.84
Stage 6	10.05 0.62
Stage 6	9.85 0.43
Stage 6	9.65 0.27
Stage 6	9.45 0.13
Stage 6	9.25 0.02
Stage 6	9.05 -0.07
Stage 6	8.85 -0.15

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 6	8.65	-0.2
Stage 6	8.45	-0.24
Stage 6	8.25	-0.27
Stage 6	8.05	-0.29
Stage 6	7.85	-0.29
Stage 6	7.65	-0.29
Stage 6	7.45	-0.29
Stage 6	7.25	-0.28
Stage 6	7.05	-0.26
Stage 6	6.85	-0.25
Stage 6	6.65	-0.23
Stage 6	6.45	-0.21
Stage 6	6.25	-0.19
Stage 6	6.05	-0.17
Stage 6	5.85	-0.14
Stage 6	5.65	-0.12
Stage 6	5.45	-0.1
Stage 6	5.25	-0.08
Stage 6	5.05	-0.06
Stage 6	4.85	-0.05
Stage 6	4.65	-0.03
Stage 6	4.45	-0.01
Stage 6	4.25	0.01
Stage 6	4.05	0.02
Stage 6	3.85	0.04
Stage 6	3.65	0.06
Stage 6	3.45	0.07

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 6

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	21.65	0	0
Stage 6	21.45	0	0
Stage 6	21.45	0	0
Stage 6	21.25	0	0
Stage 6	21.25	0	0
Stage 6	21.05	0	0
Stage 6	21.05	0	0
Stage 6	20.85	0	0
Stage 6	20.85	0	0
Stage 6	20.65	-0.47	-2.36
Stage 6	20.45	-2.36	-9.43
Stage 6	20.25	-6.6	-21.2
Stage 6	20.05	-14.04	-37.21
Stage 6	19.85	-24.72	-53.41
Stage 6	19.65	-38.66	-69.69
Stage 6	19.45	-55.85	-85.94
Stage 6	19.25	-39.07	83.89
Stage 6	19.05	-25.39	68.41
Stage 6	18.85	-14.66	53.63
Stage 6	18.65	-6.73	39.66
Stage 6	18.45	-1.42	26.53
Stage 6	18.25	1.43	14.25
Stage 6	18.05	1.98	2.77
Stage 6	17.85	0.32	-8.31
Stage 6	17.65	-3.53	-19.26
Stage 6	17.45	-9.56	-30.14
Stage 6	17.25	-17.75	-40.96
Stage 6	17.05	-28.1	-51.75
Stage 6	16.85	-40.61	-62.53
Stage 6	16.65	-55.28	-73.36
Stage 6	16.45	-72.1	-84.11
Stage 6	16.25	-52.39	98.55
Stage 6	16.05	-34.72	88.36
Stage 6	15.85	-18.97	78.73
Stage 6	15.65	-5.06	69.59
Stage 6	15.45	7.14	60.96
Stage 6	15.25	17.7	52.83
Stage 6	15.05	26.74	45.2
Stage 6	14.85	34.34	38.01
Stage 6	14.65	40.58	31.2
Stage 6	14.45	45.52	24.68
Stage 6	14.25	49.16	18.19
Stage 6	14.05	51.46	11.5
Stage 6	13.85	52.38	4.61
Stage 6	13.65	51.88	-2.48
Stage 6	13.45	49.93	-9.76
Stage 6	13.25	46.48	-17.24
Stage 6	13.05	41.5	-24.91
Stage 6	12.85	34.94	-32.82
Stage 6	12.65	27.12	-39.1
Stage 6	12.45	18.81	-41.54
Stage 6	12.25	10.77	-40.18
Stage 6	12.05	3.76	-35.07
Stage 6	11.85	-1.95	-28.52
Stage 6	11.65	-6.47	-22.62
Stage 6	11.45	-9.94	-17.37
Stage 6	11.25	-12.5	-12.78
Stage 6	11.05	-14.26	-8.81
Stage 6	10.85	-15.35	-5.43
Stage 6	10.65	-15.87	-2.61
Stage 6	10.45	-15.93	-0.28
Stage 6	10.25	-15.61	1.58
Stage 6	10.05	-15	3.04
Stage 6	9.85	-14.18	4.13
Stage 6	9.65	-13.19	4.91

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	9.45	-12.11	5.41
Stage 6	9.25	-10.97	5.69
Stage 6	9.05	-9.82	5.77
Stage 6	8.85	-8.68	5.68
Stage 6	8.65	-7.59	5.48
Stage 6	8.45	-6.55	5.21
Stage 6	8.25	-5.57	4.87
Stage 6	8.05	-4.67	4.5
Stage 6	7.85	-3.85	4.1
Stage 6	7.65	-3.11	3.69
Stage 6	7.45	-2.46	3.27
Stage 6	7.25	-1.89	2.86
Stage 6	7.05	-1.39	2.47
Stage 6	6.85	-0.97	2.09
Stage 6	6.65	-0.62	1.74
Stage 6	6.45	-0.34	1.42
Stage 6	6.25	-0.12	1.12
Stage 6	6.05	0.05	0.85
Stage 6	5.85	0.17	0.61
Stage 6	5.65	0.26	0.4
Stage 6	5.45	0.3	0.23
Stage 6	5.25	0.32	0.08
Stage 6	5.05	0.31	-0.05
Stage 6	4.85	0.28	-0.14
Stage 6	4.65	0.24	-0.21
Stage 6	4.45	0.19	-0.25
Stage 6	4.25	0.14	-0.26
Stage 6	4.05	0.08	-0.25
Stage 6	3.85	0.04	-0.21
Stage 6	3.65	0.01	-0.15
Stage 6	3.45	0	-0.06

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 7

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 7	21.65 0.16
Stage 7	21.45 -0.18
Stage 7	21.25 -0.52
Stage 7	21.05 -0.87
Stage 7	20.85 -1.21
Stage 7	20.65 -1.55
Stage 7	20.45 -1.9
Stage 7	20.25 -2.23
Stage 7	20.05 -2.56
Stage 7	19.85 -2.86
Stage 7	19.65 -3.11
Stage 7	19.45 -3.29
Stage 7	19.25 -3.37
Stage 7	19.05 -3.39
Stage 7	18.85 -3.37
Stage 7	18.65 -3.33
Stage 7	18.45 -3.28
Stage 7	18.25 -3.25
Stage 7	18.05 -3.25
Stage 7	17.85 -3.27
Stage 7	17.65 -3.31
Stage 7	17.45 -3.37
Stage 7	17.25 -3.44
Stage 7	17.05 -3.51
Stage 7	16.85 -3.56
Stage 7	16.65 -3.56
Stage 7	16.45 -3.49
Stage 7	16.25 -3.33
Stage 7	16.05 -3.1
Stage 7	15.85 -2.84
Stage 7	15.65 -2.57
Stage 7	15.45 -2.31
Stage 7	15.25 -2.08
Stage 7	15.05 -1.9
Stage 7	14.85 -1.76
Stage 7	14.65 -1.68
Stage 7	14.45 -1.65
Stage 7	14.25 -1.66
Stage 7	14.05 -1.7
Stage 7	13.85 -1.75
Stage 7	13.65 -1.78
Stage 7	13.45 -1.76
Stage 7	13.25 -1.67
Stage 7	13.05 -1.53
Stage 7	12.85 -1.36
Stage 7	12.65 -1.18
Stage 7	12.45 -1
Stage 7	12.25 -0.83
Stage 7	12.05 -0.68
Stage 7	11.85 -0.53
Stage 7	11.65 -0.41
Stage 7	11.45 -0.29
Stage 7	11.25 -0.2
Stage 7	11.05 -0.12
Stage 7	10.85 -0.05
Stage 7	10.65 0
Stage 7	10.45 0.05
Stage 7	10.25 0.08
Stage 7	10.05 0.1
Stage 7	9.85 0.11
Stage 7	9.65 0.12
Stage 7	9.45 0.12
Stage 7	9.25 0.12
Stage 7	9.05 0.12
Stage 7	8.85 0.11



Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 7	8.65	0.1
Stage 7	8.45	0.08
Stage 7	8.25	0.07
Stage 7	8.05	0.06
Stage 7	7.85	0.05
Stage 7	7.65	0.04
Stage 7	7.45	0.02
Stage 7	7.25	0.01
Stage 7	7.05	0.01
Stage 7	6.85	0
Stage 7	6.65	-0.01
Stage 7	6.45	-0.01
Stage 7	6.25	-0.02
Stage 7	6.05	-0.02
Stage 7	5.85	-0.02
Stage 7	5.65	-0.02
Stage 7	5.45	-0.03
Stage 7	5.25	-0.03
Stage 7	5.05	-0.02
Stage 7	4.85	-0.02
Stage 7	4.65	-0.02
Stage 7	4.45	-0.02
Stage 7	4.25	-0.02
Stage 7	4.05	-0.02
Stage 7	3.85	-0.02
Stage 7	3.65	-0.01
Stage 7	3.45	-0.01

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 7

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	21.65	0	0
Stage 7	21.45	0	0
Stage 7	21.45	0	0
Stage 7	21.25	0	0
Stage 7	21.25	0	0
Stage 7	21.05	0	0
Stage 7	21.05	0	0
Stage 7	20.85	0	0
Stage 7	20.85	0	0
Stage 7	20.65	-0.37	-1.84
Stage 7	20.45	-2.04	-8.38
Stage 7	20.25	-5.97	-19.65
Stage 7	20.05	-13	-35.14
Stage 7	19.85	-23.17	-50.83
Stage 7	19.65	-36.49	-66.62
Stage 7	19.45	-52.97	-82.38
Stage 7	19.25	-35.23	88.71
Stage 7	19.05	-20.49	73.67
Stage 7	18.85	-8.63	59.31
Stage 7	18.65	0.51	45.71
Stage 7	18.45	7.09	32.9
Stage 7	18.25	11.26	20.87
Stage 7	18.05	13.17	9.55
Stage 7	17.85	12.88	-1.49
Stage 7	17.65	10.37	-12.54
Stage 7	17.45	5.63	-23.68
Stage 7	17.25	-1.36	-34.96
Stage 7	17.05	-10.65	-46.44
Stage 7	16.85	-22.28	-58.18
Stage 7	16.65	-36.34	-70.28
Stage 7	16.45	-52.87	-82.65
Stage 7	16.25	-34	94.34
Stage 7	16.05	-17.66	81.71
Stage 7	15.85	-3.83	69.16
Stage 7	15.65	7.49	56.59
Stage 7	15.45	16.29	43.98
Stage 7	15.25	22.55	31.31
Stage 7	15.05	26.26	18.53
Stage 7	14.85	27.37	5.59
Stage 7	14.65	25.86	-7.57
Stage 7	14.45	21.66	-20.99
Stage 7	14.25	14.71	-34.76
Stage 7	14.05	4.91	-49
Stage 7	13.85	-7.83	-63.68
Stage 7	13.65	-23.57	-78.73
Stage 7	13.45	-42.39	-94.09
Stage 7	13.25	-26.73	78.29
Stage 7	13.05	-14.21	62.63
Stage 7	12.85	-4.82	46.94
Stage 7	12.65	1.41	31.14
Stage 7	12.45	4.91	17.49
Stage 7	12.25	6.61	8.51
Stage 7	12.05	7.46	4.22
Stage 7	11.85	7.93	2.35
Stage 7	11.65	8.08	0.78
Stage 7	11.45	7.98	-0.49
Stage 7	11.25	7.68	-1.51
Stage 7	11.05	7.23	-2.27
Stage 7	10.85	6.67	-2.8
Stage 7	10.65	6.04	-3.13
Stage 7	10.45	5.38	-3.3
Stage 7	10.25	4.71	-3.35
Stage 7	10.05	4.06	-3.28
Stage 7	9.85	3.43	-3.15
Stage 7	9.65	2.84	-2.95

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	9.45	2.3	-2.72
Stage 7	9.25	1.8	-2.46
Stage 7	9.05	1.36	-2.22
Stage 7	8.85	0.96	-1.99
Stage 7	8.65	0.61	-1.75
Stage 7	8.45	0.31	-1.5
Stage 7	8.25	0.06	-1.26
Stage 7	8.05	-0.14	-1.03
Stage 7	7.85	-0.31	-0.81
Stage 7	7.65	-0.43	-0.61
Stage 7	7.45	-0.52	-0.44
Stage 7	7.25	-0.57	-0.28
Stage 7	7.05	-0.6	-0.14
Stage 7	6.85	-0.61	-0.03
Stage 7	6.65	-0.59	0.07
Stage 7	6.45	-0.56	0.14
Stage 7	6.25	-0.52	0.2
Stage 7	6.05	-0.48	0.24
Stage 7	5.85	-0.42	0.26
Stage 7	5.65	-0.37	0.28
Stage 7	5.45	-0.31	0.28
Stage 7	5.25	-0.26	0.27
Stage 7	5.05	-0.21	0.26
Stage 7	4.85	-0.16	0.24
Stage 7	4.65	-0.12	0.21
Stage 7	4.45	-0.08	0.18
Stage 7	4.25	-0.05	0.14
Stage 7	4.05	-0.03	0.11
Stage 7	3.85	-0.01	0.08
Stage 7	3.65	0	0.05
Stage 7	3.45	0	0.02

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 8

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 8	21.65 0.43
Stage 8	21.45 0.04
Stage 8	21.25 -0.35
Stage 8	21.05 -0.74
Stage 8	20.85 -1.13
Stage 8	20.65 -1.52
Stage 8	20.45 -1.9
Stage 8	20.25 -2.29
Stage 8	20.05 -2.66
Stage 8	19.85 -3
Stage 8	19.65 -3.3
Stage 8	19.45 -3.53
Stage 8	19.25 -3.66
Stage 8	19.05 -3.72
Stage 8	18.85 -3.74
Stage 8	18.65 -3.75
Stage 8	18.45 -3.75
Stage 8	18.25 -3.75
Stage 8	18.05 -3.78
Stage 8	17.85 -3.82
Stage 8	17.65 -3.88
Stage 8	17.45 -3.96
Stage 8	17.25 -4.03
Stage 8	17.05 -4.08
Stage 8	16.85 -4.1
Stage 8	16.65 -4.05
Stage 8	16.45 -3.91
Stage 8	16.25 -3.65
Stage 8	16.05 -3.3
Stage 8	15.85 -2.88
Stage 8	15.65 -2.42
Stage 8	15.45 -1.93
Stage 8	15.25 -1.43
Stage 8	15.05 -0.92
Stage 8	14.85 -0.42
Stage 8	14.65 0.09
Stage 8	14.45 0.59
Stage 8	14.25 1.12
Stage 8	14.05 1.67
Stage 8	13.85 2.28
Stage 8	13.65 2.95
Stage 8	13.45 3.73
Stage 8	13.25 4.62
Stage 8	13.05 5.6
Stage 8	12.85 6.64
Stage 8	12.65 7.68
Stage 8	12.45 8.71
Stage 8	12.25 9.68
Stage 8	12.05 10.58
Stage 8	11.85 11.39
Stage 8	11.65 12.07
Stage 8	11.45 12.63
Stage 8	11.25 13.04
Stage 8	11.05 13.3
Stage 8	10.85 13.4
Stage 8	10.65 13.34
Stage 8	10.45 13.13
Stage 8	10.25 12.76
Stage 8	10.05 12.27
Stage 8	9.85 11.65
Stage 8	9.65 10.92
Stage 8	9.45 10.12
Stage 8	9.25 9.27
Stage 8	9.05 8.38
Stage 8	8.85 7.49

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 8	8.65	6.61
Stage 8	8.45	5.76
Stage 8	8.25	4.96
Stage 8	8.05	4.2
Stage 8	7.85	3.5
Stage 8	7.65	2.87
Stage 8	7.45	2.29
Stage 8	7.25	1.78
Stage 8	7.05	1.33
Stage 8	6.85	0.94
Stage 8	6.65	0.6
Stage 8	6.45	0.31
Stage 8	6.25	0.07
Stage 8	6.05	-0.13
Stage 8	5.85	-0.29
Stage 8	5.65	-0.43
Stage 8	5.45	-0.53
Stage 8	5.25	-0.61
Stage 8	5.05	-0.68
Stage 8	4.85	-0.72
Stage 8	4.65	-0.76
Stage 8	4.45	-0.79
Stage 8	4.25	-0.81
Stage 8	4.05	-0.83
Stage 8	3.85	-0.85
Stage 8	3.65	-0.86
Stage 8	3.45	-0.88

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 8

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	21.65	0	0
Stage 8	21.45	0	0
Stage 8	21.45	0	0
Stage 8	21.25	0	0
Stage 8	21.25	0	0
Stage 8	21.05	0	0
Stage 8	21.05	0	0
Stage 8	20.85	0	0
Stage 8	20.85	0	0
Stage 8	20.65	-0.35	-1.75
Stage 8	20.45	-2	-8.26
Stage 8	20.25	-5.91	-19.53
Stage 8	20.05	-12.92	-35.08
Stage 8	19.85	-23.1	-50.87
Stage 8	19.65	-36.46	-66.81
Stage 8	19.45	-53.01	-82.76
Stage 8	19.25	-35.49	87.62
Stage 8	19.05	-21.03	72.29
Stage 8	18.85	-9.51	57.59
Stage 8	18.65	-0.79	43.61
Stage 8	18.45	5.29	30.41
Stage 8	18.25	8.88	17.95
Stage 8	18.05	10.11	6.16
Stage 8	17.85	9.04	-5.38
Stage 8	17.65	5.64	-16.99
Stage 8	17.45	-0.1	-28.72
Stage 8	17.25	-8.22	-40.6
Stage 8	17.05	-18.76	-52.67
Stage 8	16.85	-31.76	-64.99
Stage 8	16.65	-47.28	-77.64
Stage 8	16.45	-65.38	-90.5
Stage 8	16.25	-48.35	85.18
Stage 8	16.05	-33.9	72.22
Stage 8	15.85	-22.01	59.47
Stage 8	15.65	-12.64	46.86
Stage 8	15.45	-5.76	34.4
Stage 8	15.25	-1.33	22.12
Stage 8	15.05	0.67	10.01
Stage 8	14.85	0.28	-1.94
Stage 8	14.65	-2.47	-13.73
Stage 8	14.45	-7.54	-25.35
Stage 8	14.25	-14.9	-36.83
Stage 8	14.05	-24.55	-48.23
Stage 8	13.85	-36.44	-59.46
Stage 8	13.65	-50.52	-70.41
Stage 8	13.45	-66.71	-80.94
Stage 8	13.25	-44.87	109.18
Stage 8	13.05	-24.88	99.95
Stage 8	12.85	-6.58	91.54
Stage 8	12.65	10.12	83.47
Stage 8	12.45	25.16	75.21
Stage 8	12.25	38.51	66.75
Stage 8	12.05	50.13	58.09
Stage 8	11.85	59.97	49.23
Stage 8	11.65	68.01	40.18
Stage 8	11.45	74.19	30.93
Stage 8	11.25	78.49	21.48
Stage 8	11.05	80.86	11.84
Stage 8	10.85	81.26	2
Stage 8	10.65	79.65	-8.04
Stage 8	10.45	76	-18.27
Stage 8	10.25	70.25	-28.7
Stage 8	10.05	62.39	-39.33
Stage 8	9.85	52.36	-50.15
Stage 8	9.65	40.58	-58.91

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	9.45	27.91	-63.33
Stage 8	9.25	15.23	-63.42
Stage 8	9.05	3.32	-59.52
Stage 8	8.85	-7.15	-52.36
Stage 8	8.65	-15.53	-41.92
Stage 8	8.45	-21.91	-31.89
Stage 8	8.25	-26.53	-23.12
Stage 8	8.05	-29.64	-15.55
Stage 8	7.85	-31.47	-9.12
Stage 8	7.65	-32.21	-3.73
Stage 8	7.45	-32.07	0.7
Stage 8	7.25	-31.22	4.26
Stage 8	7.05	-29.81	7.05
Stage 8	6.85	-27.98	9.15
Stage 8	6.65	-25.85	10.66
Stage 8	6.45	-23.52	11.65
Stage 8	6.25	-21.08	12.2
Stage 8	6.05	-18.61	12.38
Stage 8	5.85	-16.16	12.21
Stage 8	5.65	-13.81	11.79
Stage 8	5.45	-11.57	11.18
Stage 8	5.25	-9.49	10.43
Stage 8	5.05	-7.57	9.56
Stage 8	4.85	-5.85	8.6
Stage 8	4.65	-4.34	7.58
Stage 8	4.45	-3.04	6.5
Stage 8	4.25	-1.96	5.39
Stage 8	4.05	-1.11	4.24
Stage 8	3.85	-0.5	3.06
Stage 8	3.65	-0.13	1.86
Stage 8	3.45	0	0.63

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 9

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 9	21.65 0.25
Stage 9	21.45 -0.11
Stage 9	21.25 -0.48
Stage 9	21.05 -0.85
Stage 9	20.85 -1.21
Stage 9	20.65 -1.58
Stage 9	20.45 -1.95
Stage 9	20.25 -2.31
Stage 9	20.05 -2.65
Stage 9	19.85 -2.98
Stage 9	19.65 -3.25
Stage 9	19.45 -3.45
Stage 9	19.25 -3.56
Stage 9	19.05 -3.6
Stage 9	18.85 -3.6
Stage 9	18.65 -3.57
Stage 9	18.45 -3.54
Stage 9	18.25 -3.53
Stage 9	18.05 -3.53
Stage 9	17.85 -3.55
Stage 9	17.65 -3.59
Stage 9	17.45 -3.64
Stage 9	17.25 -3.69
Stage 9	17.05 -3.73
Stage 9	16.85 -3.74
Stage 9	16.65 -3.69
Stage 9	16.45 -3.55
Stage 9	16.25 -3.31
Stage 9	16.05 -2.98
Stage 9	15.85 -2.6
Stage 9	15.65 -2.18
Stage 9	15.45 -1.76
Stage 9	15.25 -1.35
Stage 9	15.05 -0.95
Stage 9	14.85 -0.58
Stage 9	14.65 -0.23
Stage 9	14.45 0.09
Stage 9	14.25 0.4
Stage 9	14.05 0.7
Stage 9	13.85 1.02
Stage 9	13.65 1.37
Stage 9	13.45 1.79
Stage 9	13.25 2.28
Stage 9	13.05 2.84
Stage 9	12.85 3.4
Stage 9	12.65 3.96
Stage 9	12.45 4.47
Stage 9	12.25 4.92
Stage 9	12.05 5.29
Stage 9	11.85 5.57
Stage 9	11.65 5.74
Stage 9	11.45 5.82
Stage 9	11.25 5.8
Stage 9	11.05 5.7
Stage 9	10.85 5.54
Stage 9	10.65 5.34
Stage 9	10.45 5.13
Stage 9	10.25 4.95
Stage 9	10.05 4.77
Stage 9	9.85 4.58
Stage 9	9.65 4.37
Stage 9	9.45 4.12
Stage 9	9.25 3.85
Stage 9	9.05 3.56
Stage 9	8.85 3.25



Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 9	8.65	2.94
Stage 9	8.45	2.62
Stage 9	8.25	2.31
Stage 9	8.05	2.02
Stage 9	7.85	1.73
Stage 9	7.65	1.47
Stage 9	7.45	1.22
Stage 9	7.25	1
Stage 9	7.05	0.79
Stage 9	6.85	0.61
Stage 9	6.65	0.45
Stage 9	6.45	0.3
Stage 9	6.25	0.18
Stage 9	6.05	0.07
Stage 9	5.85	-0.03
Stage 9	5.65	-0.11
Stage 9	5.45	-0.18
Stage 9	5.25	-0.24
Stage 9	5.05	-0.29
Stage 9	4.85	-0.33
Stage 9	4.65	-0.37
Stage 9	4.45	-0.41
Stage 9	4.25	-0.44
Stage 9	4.05	-0.47
Stage 9	3.85	-0.5
Stage 9	3.65	-0.53
Stage 9	3.45	-0.55

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 9

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	21.65	0	0
Stage 9	21.45	0	0
Stage 9	21.45	0	0
Stage 9	21.25	0	0
Stage 9	21.25	0	0
Stage 9	21.05	0	0
Stage 9	21.05	0	0
Stage 9	20.85	0	0
Stage 9	20.85	0	0
Stage 9	20.65	-0.37	-1.84
Stage 9	20.45	-2.05	-8.41
Stage 9	20.25	-6	-19.73
Stage 9	20.05	-13.06	-35.3
Stage 9	19.85	-23.27	-51.09
Stage 9	19.65	-36.67	-67
Stage 9	19.45	-53.25	-82.9
Stage 9	19.25	-35.71	87.7
Stage 9	19.05	-21.22	72.47
Stage 9	18.85	-9.64	57.89
Stage 9	18.65	-0.83	44.07
Stage 9	18.45	5.38	31.05
Stage 9	18.25	9.14	18.8
Stage 9	18.05	10.59	7.24
Stage 9	17.85	9.78	-4.05
Stage 9	17.65	6.7	-15.38
Stage 9	17.45	1.34	-26.8
Stage 9	17.25	-6.33	-38.36
Stage 9	17.05	-16.35	-50.1
Stage 9	16.85	-28.76	-62.06
Stage 9	16.65	-43.63	-74.34
Stage 9	16.45	-60.99	-86.84
Stage 9	16.25	-43	89.95
Stage 9	16.05	-27.53	77.35
Stage 9	15.85	-14.55	64.92
Stage 9	15.65	-4.03	52.6
Stage 9	15.45	4.05	40.38
Stage 9	15.25	9.7	28.27
Stage 9	15.05	12.95	16.24
Stage 9	14.85	13.8	4.27
Stage 9	14.65	12.27	-7.69
Stage 9	14.45	8.34	-19.63
Stage 9	14.25	2.02	-31.62
Stage 9	14.05	-6.74	-43.77
Stage 9	13.85	-17.94	-55.99
Stage 9	13.65	-31.58	-68.22
Stage 9	13.45	-47.65	-80.37
Stage 9	13.25	-26.96	103.48
Stage 9	13.05	-8.59	91.86
Stage 9	12.85	7.54	80.63
Stage 9	12.65	21.39	69.26
Stage 9	12.45	32.83	57.2
Stage 9	12.25	41.71	44.42
Stage 9	12.05	47.89	30.9
Stage 9	11.85	51.22	16.65
Stage 9	11.65	51.56	1.66
Stage 9	11.45	48.75	-14.05
Stage 9	11.25	42.66	-30.44
Stage 9	11.05	33.16	-47.47
Stage 9	10.85	20.15	-65.05
Stage 9	10.65	3.53	-83.1
Stage 9	10.45	-16.76	-101.49
Stage 9	10.25	-3.19	67.86
Stage 9	10.05	6.66	49.26
Stage 9	9.85	12.82	30.79
Stage 9	9.65	15.35	12.66

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	9.45	14.65	-3.51
Stage 9	9.25	11.78	-14.34
Stage 9	9.05	7.75	-20.14
Stage 9	8.85	3.43	-21.61
Stage 9	8.65	-0.32	-18.76
Stage 9	8.45	-3.38	-15.31
Stage 9	8.25	-5.82	-12.17
Stage 9	8.05	-7.69	-9.34
Stage 9	7.85	-9.05	-6.81
Stage 9	7.65	-9.97	-4.59
Stage 9	7.45	-10.5	-2.66
Stage 9	7.25	-10.7	-1.01
Stage 9	7.05	-10.63	0.38
Stage 9	6.85	-10.32	1.53
Stage 9	6.65	-9.83	2.45
Stage 9	6.45	-9.2	3.17
Stage 9	6.25	-8.45	3.71
Stage 9	6.05	-7.64	4.05
Stage 9	5.85	-6.8	4.22
Stage 9	5.65	-5.94	4.28
Stage 9	5.45	-5.1	4.24
Stage 9	5.25	-4.27	4.12
Stage 9	5.05	-3.49	3.93
Stage 9	4.85	-2.75	3.67
Stage 9	4.65	-2.08	3.35
Stage 9	4.45	-1.49	2.97
Stage 9	4.25	-0.98	2.54
Stage 9	4.05	-0.57	2.07
Stage 9	3.85	-0.26	1.54
Stage 9	3.65	-0.07	0.96
Stage 9	3.45	0	0.34

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 10

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 10	21.65 0.32
Stage 10	21.45 -0.06
Stage 10	21.25 -0.43
Stage 10	21.05 -0.8
Stage 10	20.85 -1.17
Stage 10	20.65 -1.54
Stage 10	20.45 -1.91
Stage 10	20.25 -2.28
Stage 10	20.05 -2.63
Stage 10	19.85 -2.96
Stage 10	19.65 -3.24
Stage 10	19.45 -3.44
Stage 10	19.25 -3.56
Stage 10	19.05 -3.6
Stage 10	18.85 -3.61
Stage 10	18.65 -3.59
Stage 10	18.45 -3.57
Stage 10	18.25 -3.56
Stage 10	18.05 -3.57
Stage 10	17.85 -3.6
Stage 10	17.65 -3.66
Stage 10	17.45 -3.72
Stage 10	17.25 -3.79
Stage 10	17.05 -3.84
Stage 10	16.85 -3.86
Stage 10	16.65 -3.83
Stage 10	16.45 -3.71
Stage 10	16.25 -3.48
Stage 10	16.05 -3.17
Stage 10	15.85 -2.8
Stage 10	15.65 -2.41
Stage 10	15.45 -2
Stage 10	15.25 -1.6
Stage 10	15.05 -1.21
Stage 10	14.85 -0.84
Stage 10	14.65 -0.49
Stage 10	14.45 -0.16
Stage 10	14.25 0.16
Stage 10	14.05 0.49
Stage 10	13.85 0.85
Stage 10	13.65 1.25
Stage 10	13.45 1.73
Stage 10	13.25 2.3
Stage 10	13.05 2.95
Stage 10	12.85 3.63
Stage 10	12.65 4.32
Stage 10	12.45 4.99
Stage 10	12.25 5.62
Stage 10	12.05 6.19
Stage 10	11.85 6.69
Stage 10	11.65 7.13
Stage 10	11.45 7.49
Stage 10	11.25 7.78
Stage 10	11.05 8.01
Stage 10	10.85 8.2
Stage 10	10.65 8.37
Stage 10	10.45 8.56
Stage 10	10.25 8.77
Stage 10	10.05 9
Stage 10	9.85 9.2
Stage 10	9.65 9.35
Stage 10	9.45 9.44
Stage 10	9.25 9.45
Stage 10	9.05 9.37
Stage 10	8.85 9.19

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 10	8.65	8.91
Stage 10	8.45	8.54
Stage 10	8.25	8.08
Stage 10	8.05	7.56
Stage 10	7.85	6.98
Stage 10	7.65	6.37
Stage 10	7.45	5.74
Stage 10	7.25	5.11
Stage 10	7.05	4.49
Stage 10	6.85	3.89
Stage 10	6.65	3.32
Stage 10	6.45	2.78
Stage 10	6.25	2.28
Stage 10	6.05	1.82
Stage 10	5.85	1.4
Stage 10	5.65	1.02
Stage 10	5.45	0.67
Stage 10	5.25	0.35
Stage 10	5.05	0.05
Stage 10	4.85	-0.22
Stage 10	4.65	-0.47
Stage 10	4.45	-0.71
Stage 10	4.25	-0.93
Stage 10	4.05	-1.15
Stage 10	3.85	-1.36
Stage 10	3.65	-1.58
Stage 10	3.45	-1.79

**Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 10**

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	21.65	0	0
Stage 10	21.45	0	0
Stage 10	21.45	0	0
Stage 10	21.25	0	0
Stage 10	21.25	0	0
Stage 10	21.05	0	0
Stage 10	21.05	0	0
Stage 10	20.85	0	0
Stage 10	20.85	0	0
Stage 10	20.65	-0.36	-1.79
Stage 10	20.45	-2.03	-8.33
Stage 10	20.25	-5.95	-19.61
Stage 10	20.05	-12.98	-35.15
Stage 10	19.85	-23.16	-50.91
Stage 10	19.65	-36.52	-66.81
Stage 10	19.45	-53.06	-82.69
Stage 10	19.25	-35.47	87.93
Stage 10	19.05	-20.93	72.71
Stage 10	18.85	-9.31	58.13
Stage 10	18.65	-0.45	44.29
Stage 10	18.45	5.8	31.25
Stage 10	18.25	9.6	18.98
Stage 10	18.05	11.07	7.38
Stage 10	17.85	10.28	-3.96
Stage 10	17.65	7.21	-15.34
Stage 10	17.45	1.85	-26.83
Stage 10	17.25	-5.85	-38.47
Stage 10	17.05	-15.91	-50.31
Stage 10	16.85	-28.38	-62.38
Stage 10	16.65	-43.34	-74.79
Stage 10	16.45	-60.83	-87.43
Stage 10	16.25	-43.05	88.86
Stage 10	16.05	-27.84	76.08
Stage 10	15.85	-15.15	63.46
Stage 10	15.65	-4.96	50.92
Stage 10	15.45	2.73	38.48
Stage 10	15.25	7.96	26.12
Stage 10	15.05	10.73	13.84
Stage 10	14.85	11.05	1.6
Stage 10	14.65	8.92	-10.62
Stage 10	14.45	4.36	-22.82
Stage 10	14.25	-2.65	-35.07
Stage 10	14.05	-12.14	-47.45
Stage 10	13.85	-24.12	-59.88
Stage 10	13.65	-38.58	-72.29
Stage 10	13.45	-55.49	-84.55
Stage 10	13.25	-35.67	99.1
Stage 10	13.05	-18.17	87.5
Stage 10	12.85	-2.89	76.38
Stage 10	12.65	10.16	65.25
Stage 10	12.45	20.87	53.56
Stage 10	12.25	29.13	41.3
Stage 10	12.05	34.83	28.5
Stage 10	11.85	37.86	15.16
Stage 10	11.65	38.12	1.32
Stage 10	11.45	35.53	-12.98
Stage 10	11.25	29.99	-27.67
Stage 10	11.05	21.46	-42.69
Stage 10	10.85	9.87	-57.92
Stage 10	10.65	-4.78	-73.26
Stage 10	10.45	-22.49	-88.56
Stage 10	10.25	-3.95	92.73
Stage 10	10.05	11.66	78.03
Stage 10	9.85	24.44	63.88
Stage 10	9.65	34.51	50.36

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	9.45	42.02	37.54
Stage 10	9.25	47.1	25.43
Stage 10	9.05	49.83	13.66
Stage 10	8.85	50.12	1.43
Stage 10	8.65	47.86	-11.32
Stage 10	8.45	42.92	-24.7
Stage 10	8.25	35.83	-35.41
Stage 10	8.05	27.35	-42.4
Stage 10	7.85	18.2	-45.76
Stage 10	7.65	9.1	-45.53
Stage 10	7.45	0.74	-41.77
Stage 10	7.25	-6.16	-34.49
Stage 10	7.05	-11.4	-26.24
Stage 10	6.85	-15.2	-18.97
Stage 10	6.65	-17.73	-12.66
Stage 10	6.45	-19.18	-7.26
Stage 10	6.25	-19.73	-2.72
Stage 10	6.05	-19.52	1.02
Stage 10	5.85	-18.72	4.02
Stage 10	5.65	-17.44	6.4
Stage 10	5.45	-15.8	8.21
Stage 10	5.25	-13.9	9.5
Stage 10	5.05	-11.83	10.32
Stage 10	4.85	-9.69	10.73
Stage 10	4.65	-7.56	10.63
Stage 10	4.45	-5.55	10.06
Stage 10	4.25	-3.74	9.04
Stage 10	4.05	-2.21	7.64
Stage 10	3.85	-1.04	5.89
Stage 10	3.65	-0.28	3.8
Stage 10	3.45	0	1.38

### Tabella Spostamento SLE (Rara) - LEFT Stage: Stage 11-S

Design Assumption: SLE (Rara) Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m) Spostamento (mm)
Stage 11-S	21.65 0.32
Stage 11-S	21.45 -0.06
Stage 11-S	21.25 -0.43
Stage 11-S	21.05 -0.8
Stage 11-S	20.85 -1.17
Stage 11-S	20.65 -1.54
Stage 11-S	20.45 -1.91
Stage 11-S	20.25 -2.28
Stage 11-S	20.05 -2.63
Stage 11-S	19.85 -2.96
Stage 11-S	19.65 -3.24
Stage 11-S	19.45 -3.44
Stage 11-S	19.25 -3.56
Stage 11-S	19.05 -3.6
Stage 11-S	18.85 -3.61
Stage 11-S	18.65 -3.59
Stage 11-S	18.45 -3.57
Stage 11-S	18.25 -3.56
Stage 11-S	18.05 -3.57
Stage 11-S	17.85 -3.6
Stage 11-S	17.65 -3.66
Stage 11-S	17.45 -3.72
Stage 11-S	17.25 -3.79
Stage 11-S	17.05 -3.84
Stage 11-S	16.85 -3.86
Stage 11-S	16.65 -3.83
Stage 11-S	16.45 -3.71
Stage 11-S	16.25 -3.48
Stage 11-S	16.05 -3.17
Stage 11-S	15.85 -2.8
Stage 11-S	15.65 -2.41
Stage 11-S	15.45 -2
Stage 11-S	15.25 -1.6
Stage 11-S	15.05 -1.21
Stage 11-S	14.85 -0.84
Stage 11-S	14.65 -0.49
Stage 11-S	14.45 -0.16
Stage 11-S	14.25 0.16
Stage 11-S	14.05 0.49
Stage 11-S	13.85 0.85
Stage 11-S	13.65 1.25
Stage 11-S	13.45 1.73
Stage 11-S	13.25 2.3
Stage 11-S	13.05 2.95
Stage 11-S	12.85 3.63
Stage 11-S	12.65 4.32
Stage 11-S	12.45 4.99
Stage 11-S	12.25 5.62
Stage 11-S	12.05 6.19
Stage 11-S	11.85 6.69
Stage 11-S	11.65 7.13
Stage 11-S	11.45 7.49
Stage 11-S	11.25 7.78
Stage 11-S	11.05 8.01
Stage 11-S	10.85 8.2
Stage 11-S	10.65 8.37
Stage 11-S	10.45 8.56
Stage 11-S	10.25 8.77
Stage 11-S	10.05 9
Stage 11-S	9.85 9.2
Stage 11-S	9.65 9.35
Stage 11-S	9.45 9.44
Stage 11-S	9.25 9.45
Stage 11-S	9.05 9.37
Stage 11-S	8.85 9.19



Design Assumption: SLE (Rara) Tipo Risultato: Spostamento Muro: LEFT		
Stage	Z (m)	Spostamento (mm)
Stage 11-S	8.65	8.91
Stage 11-S	8.45	8.54
Stage 11-S	8.25	8.08
Stage 11-S	8.05	7.56
Stage 11-S	7.85	6.98
Stage 11-S	7.65	6.37
Stage 11-S	7.45	5.74
Stage 11-S	7.25	5.11
Stage 11-S	7.05	4.49
Stage 11-S	6.85	3.89
Stage 11-S	6.65	3.32
Stage 11-S	6.45	2.78
Stage 11-S	6.25	2.29
Stage 11-S	6.05	1.83
Stage 11-S	5.85	1.4
Stage 11-S	5.65	1.02
Stage 11-S	5.45	0.67
Stage 11-S	5.25	0.35
Stage 11-S	5.05	0.05
Stage 11-S	4.85	-0.22
Stage 11-S	4.65	-0.47
Stage 11-S	4.45	-0.71
Stage 11-S	4.25	-0.93
Stage 11-S	4.05	-1.15
Stage 11-S	3.85	-1.36
Stage 11-S	3.65	-1.57
Stage 11-S	3.45	-1.79

### Tabella Risultati Paratia SLE (Rara) - Left Wall - Stage: Stage 11-S

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	21.65	0	0
Stage 11-S	21.45	0	0
Stage 11-S	21.45	0	0
Stage 11-S	21.25	0	0
Stage 11-S	21.25	0	0
Stage 11-S	21.05	0	0
Stage 11-S	21.05	0	0
Stage 11-S	20.85	0	0
Stage 11-S	20.85	0	0
Stage 11-S	20.65	-0.36	-1.79
Stage 11-S	20.45	-2.03	-8.33
Stage 11-S	20.25	-5.95	-19.61
Stage 11-S	20.05	-12.98	-35.15
Stage 11-S	19.85	-23.16	-50.91
Stage 11-S	19.65	-36.52	-66.81
Stage 11-S	19.45	-53.06	-82.69
Stage 11-S	19.25	-35.47	87.93
Stage 11-S	19.05	-20.93	72.71
Stage 11-S	18.85	-9.31	58.13
Stage 11-S	18.65	-0.45	44.29
Stage 11-S	18.45	5.8	31.25
Stage 11-S	18.25	9.6	18.98
Stage 11-S	18.05	11.07	7.38
Stage 11-S	17.85	10.28	-3.96
Stage 11-S	17.65	7.21	-15.34
Stage 11-S	17.45	1.85	-26.83
Stage 11-S	17.25	-5.85	-38.47
Stage 11-S	17.05	-15.91	-50.31
Stage 11-S	16.85	-28.38	-62.38
Stage 11-S	16.65	-43.34	-74.79
Stage 11-S	16.45	-60.83	-87.43
Stage 11-S	16.25	-43.05	88.86
Stage 11-S	16.05	-27.84	76.08
Stage 11-S	15.85	-15.15	63.46
Stage 11-S	15.65	-4.96	50.92
Stage 11-S	15.45	2.73	38.48
Stage 11-S	15.25	7.96	26.12
Stage 11-S	15.05	10.73	13.84
Stage 11-S	14.85	11.05	1.6
Stage 11-S	14.65	8.92	-10.62
Stage 11-S	14.45	4.36	-22.82
Stage 11-S	14.25	-2.65	-35.07
Stage 11-S	14.05	-12.14	-47.45
Stage 11-S	13.85	-24.12	-59.88
Stage 11-S	13.65	-38.58	-72.29
Stage 11-S	13.45	-55.49	-84.55
Stage 11-S	13.25	-35.67	99.1
Stage 11-S	13.05	-18.17	87.5
Stage 11-S	12.85	-2.89	76.38
Stage 11-S	12.65	10.16	65.25
Stage 11-S	12.45	20.87	53.56
Stage 11-S	12.25	29.13	41.3
Stage 11-S	12.05	34.83	28.49
Stage 11-S	11.85	37.86	15.16
Stage 11-S	11.65	38.12	1.32
Stage 11-S	11.45	35.53	-12.98
Stage 11-S	11.25	29.99	-27.67
Stage 11-S	11.05	21.45	-42.69
Stage 11-S	10.85	9.87	-57.92
Stage 11-S	10.65	-4.78	-73.26
Stage 11-S	10.45	-22.49	-88.56
Stage 11-S	10.25	-3.95	92.73
Stage 11-S	10.05	11.66	78.03
Stage 11-S	9.85	24.43	63.87
Stage 11-S	9.65	34.51	50.36

Design Assumption: SLE (Rara) Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	9.45	42.01	37.54
Stage 11-S	9.25	47.1	25.43
Stage 11-S	9.05	49.83	13.66
Stage 11-S	8.85	50.12	1.43
Stage 11-S	8.65	47.85	-11.32
Stage 11-S	8.45	42.91	-24.7
Stage 11-S	8.25	35.83	-35.41
Stage 11-S	8.05	27.35	-42.4
Stage 11-S	7.85	18.2	-45.76
Stage 11-S	7.65	9.09	-45.53
Stage 11-S	7.45	0.74	-41.77
Stage 11-S	7.25	-6.16	-34.49
Stage 11-S	7.05	-11.41	-26.24
Stage 11-S	6.85	-15.2	-18.97
Stage 11-S	6.65	-17.73	-12.66
Stage 11-S	6.45	-19.18	-7.26
Stage 11-S	6.25	-19.73	-2.72
Stage 11-S	6.05	-19.52	1.03
Stage 11-S	5.85	-18.72	4.03
Stage 11-S	5.65	-17.43	6.41
Stage 11-S	5.45	-15.79	8.22
Stage 11-S	5.25	-13.89	9.52
Stage 11-S	5.05	-11.82	10.34
Stage 11-S	4.85	-9.68	10.71
Stage 11-S	4.65	-7.55	10.62
Stage 11-S	4.45	-5.54	10.05
Stage 11-S	4.25	-3.74	9.03
Stage 11-S	4.05	-2.21	7.63
Stage 11-S	3.85	-1.03	5.88
Stage 11-S	3.65	-0.28	3.8
Stage 11-S	3.45	0	1.38

## Risultati Elementi strutturali - SLE (Rara)

### Design Assumption: SLE (Rara) Sollecitazione Tir-D4

Stage	Forza (kN/m)
Stage 3	200
Stage 4	200.7006
Stage 5	198.5092
Stage 6	197.7519
Stage 7	198.5821
Stage 8	198.0972
Stage 9	198.2473
Stage 10	198.2652
Stage 11-S	198.2652

**Design Assumption: SLE (Rara) Sollecitazione Tir-E4**

Stage	Forza (kN/m)
Stage 5	200
Stage 6	205.6287
Stage 7	201.7221
Stage 8	200.792
Stage 9	201.5865
Stage 10	201.233
Stage 11-S	201.233

**Design Assumption: SLE (Rara) Sollecitazione Tir-F4**

Stage	Forza (kN/m)
Stage 7	200
Stage 8	212.9252
Stage 9	208.3536
Stage 10	208.2153
Stage 11-S	208.2152

**Design Assumption: SLE (Rara) Sollecitazione Tir-G4**

Stage	Forza (kN/m)
Stage 9	200
Stage 10	208.9863
Stage 11-S	208.9862

## Risultati A1+M1+R1

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 1

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	21.65	0	0
Stage 1	21.45	0	0
Stage 1	21.25	0	0
Stage 1	21.05	0	0
Stage 1	20.85	0	0
Stage 1	20.65	0	0
Stage 1	20.45	0	0
Stage 1	20.25	0	0
Stage 1	20.05	0	0
Stage 1	19.85	0	0
Stage 1	19.65	0	0
Stage 1	19.45	0	0
Stage 1	19.25	0	0
Stage 1	19.05	0	0
Stage 1	18.85	0	0
Stage 1	18.65	0	0
Stage 1	18.45	0	0
Stage 1	18.25	0	0
Stage 1	18.05	0	0
Stage 1	17.85	0	0
Stage 1	17.65	0	0
Stage 1	17.45	0	0
Stage 1	17.25	0	0
Stage 1	17.05	0	0
Stage 1	16.85	0	0
Stage 1	16.65	0	0
Stage 1	16.45	0	0
Stage 1	16.25	0	0
Stage 1	16.05	0	0
Stage 1	15.85	0	0
Stage 1	15.65	0	0
Stage 1	15.45	0	0
Stage 1	15.25	0	0
Stage 1	15.05	0	0
Stage 1	14.85	0	0
Stage 1	14.65	0	0
Stage 1	14.45	0	0
Stage 1	14.25	0	0
Stage 1	14.05	0	0
Stage 1	13.85	0	0
Stage 1	13.65	0	0
Stage 1	13.45	0	0
Stage 1	13.25	0	0
Stage 1	13.05	0	0
Stage 1	12.85	0	0
Stage 1	12.65	0	0
Stage 1	12.45	0	0
Stage 1	12.25	0	0
Stage 1	12.05	0	0
Stage 1	11.85	0	0
Stage 1	11.65	0	0
Stage 1	11.45	0	0
Stage 1	11.25	0	0
Stage 1	11.05	0	0
Stage 1	10.85	0	0
Stage 1	10.65	0	0
Stage 1	10.45	0	0
Stage 1	10.25	0	0
Stage 1	10.05	0	0
Stage 1	9.85	0	0
Stage 1	9.65	0	0
Stage 1	9.45	0	0



Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	9.25	0	0
Stage 1	9.05	0	0
Stage 1	8.85	0	0
Stage 1	8.65	0	0
Stage 1	8.45	0	0
Stage 1	8.25	0	0
Stage 1	8.05	0	0
Stage 1	7.85	0	0
Stage 1	7.65	0	0
Stage 1	7.45	0	0
Stage 1	7.25	0	0
Stage 1	7.05	0	0
Stage 1	6.85	0	0
Stage 1	6.65	0	0
Stage 1	6.45	0	0
Stage 1	6.25	0	0
Stage 1	6.05	0	0
Stage 1	5.85	0	0
Stage 1	5.65	0	0
Stage 1	5.45	0	0
Stage 1	5.25	0	0
Stage 1	5.05	0	0
Stage 1	4.85	0	0
Stage 1	4.65	0	0
Stage 1	4.45	0	0
Stage 1	4.25	0	0
Stage 1	4.05	0	0
Stage 1	3.85	0	0
Stage 1	3.65	0	0
Stage 1	3.45	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 2

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	21.65	0	0
Stage 2	21.45	0	0
Stage 2	21.45	0	0
Stage 2	21.25	0	0
Stage 2	21.25	0	0
Stage 2	21.05	0	0
Stage 2	21.05	0	0
Stage 2	20.85	0	0
Stage 2	20.85	0	0
Stage 2	20.65	-0.05	-0.26
Stage 2	20.45	-0.2	-0.77
Stage 2	20.25	-0.51	-1.54
Stage 2	20.05	-1.02	-2.56
Stage 2	19.85	-1.79	-3.84
Stage 2	19.65	-2.87	-5.37
Stage 2	19.45	-4.3	-7.16
Stage 2	19.25	-6.14	-9.21
Stage 2	19.05	-8.44	-11.51
Stage 2	18.85	-11.26	-14.07
Stage 2	18.65	-14.05	-13.94
Stage 2	18.45	-15.88	-9.16
Stage 2	18.25	-16.8	-4.62
Stage 2	18.05	-16.85	-0.26
Stage 2	17.85	-16.19	3.31
Stage 2	17.65	-15.04	5.77
Stage 2	17.45	-13.57	7.32
Stage 2	17.25	-11.95	8.14
Stage 2	17.05	-10.26	8.41
Stage 2	16.85	-8.61	8.25
Stage 2	16.65	-7.06	7.78
Stage 2	16.45	-5.63	7.14
Stage 2	16.25	-4.35	6.38
Stage 2	16.05	-3.24	5.57
Stage 2	15.85	-2.29	4.76
Stage 2	15.65	-1.5	3.96
Stage 2	15.45	-0.85	3.22
Stage 2	15.25	-0.34	2.55
Stage 2	15.05	0.05	1.95
Stage 2	14.85	0.34	1.43
Stage 2	14.65	0.53	0.99
Stage 2	14.45	0.66	0.63
Stage 2	14.25	0.73	0.33
Stage 2	14.05	0.75	0.1
Stage 2	13.85	0.73	-0.07
Stage 2	13.65	0.69	-0.2
Stage 2	13.45	0.64	-0.28
Stage 2	13.25	0.57	-0.34
Stage 2	13.05	0.5	-0.36
Stage 2	12.85	0.42	-0.37
Stage 2	12.65	0.35	-0.36
Stage 2	12.45	0.29	-0.33
Stage 2	12.25	0.22	-0.3
Stage 2	12.05	0.17	-0.27
Stage 2	11.85	0.12	-0.23
Stage 2	11.65	0.08	-0.2
Stage 2	11.45	0.05	-0.16
Stage 2	11.25	0.03	-0.13
Stage 2	11.05	0.01	-0.1
Stage 2	10.85	-0.01	-0.07
Stage 2	10.65	-0.02	-0.05
Stage 2	10.45	-0.03	-0.03
Stage 2	10.25	-0.03	-0.02
Stage 2	10.05	-0.03	-0.01
Stage 2	9.85	-0.03	0
Stage 2	9.65	-0.03	0.01

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	9.45	-0.03	0.01
Stage 2	9.25	-0.02	0.01
Stage 2	9.05	-0.02	0.02
Stage 2	8.85	-0.02	0.02
Stage 2	8.65	-0.02	0.02
Stage 2	8.45	-0.01	0.01
Stage 2	8.25	-0.01	0.01
Stage 2	8.05	-0.01	0.01
Stage 2	7.85	-0.01	0.01
Stage 2	7.65	0	0.01
Stage 2	7.45	0	0.01
Stage 2	7.25	0	0.01
Stage 2	7.05	0	0
Stage 2	6.85	0	0
Stage 2	6.65	0	0
Stage 2	6.45	0	0
Stage 2	6.25	0	0
Stage 2	6.05	0	0
Stage 2	5.85	0	0
Stage 2	5.65	0	0
Stage 2	5.45	0	0
Stage 2	5.25	0	0
Stage 2	5.05	0	0
Stage 2	4.85	0	0
Stage 2	4.65	0	0
Stage 2	4.45	0	0
Stage 2	4.25	0	0
Stage 2	4.05	0	0
Stage 2	3.85	0	0
Stage 2	3.65	0	0
Stage 2	3.45	0	0

**Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 3**

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	21.65	0	0
Stage 3	21.45	0	0
Stage 3	21.45	0	0
Stage 3	21.25	0	0
Stage 3	21.25	0	0
Stage 3	21.05	0	0
Stage 3	21.05	0	0
Stage 3	20.85	0	0
Stage 3	20.85	0	0
Stage 3	20.65	-1.07	-5.37
Stage 3	20.45	-4.3	-16.11
Stage 3	20.25	-10.74	-32.23
Stage 3	20.05	-21.24	-52.46
Stage 3	19.85	-35.78	-72.73
Stage 3	19.65	-54.36	-92.9
Stage 3	19.45	-76.92	-112.81
Stage 3	19.25	-54.49	112.16
Stage 3	19.05	-35.75	93.72
Stage 3	18.85	-20.46	76.44
Stage 3	18.65	-8.34	60.61
Stage 3	18.45	0.95	46.41
Stage 3	18.25	7.71	33.81
Stage 3	18.05	12.29	22.92
Stage 3	17.85	15.15	14.26
Stage 3	17.65	16.61	7.34
Stage 3	17.45	17.01	1.98
Stage 3	17.25	16.6	-2.03
Stage 3	17.05	15.63	-4.88
Stage 3	16.85	14.27	-6.81
Stage 3	16.65	12.67	-8
Stage 3	16.45	10.95	-8.6
Stage 3	16.25	9.22	-8.64
Stage 3	16.05	7.57	-8.25
Stage 3	15.85	6.04	-7.61
Stage 3	15.65	4.68	-6.81
Stage 3	15.45	3.49	-5.94
Stage 3	15.25	2.49	-5.04
Stage 3	15.05	1.65	-4.18
Stage 3	14.85	0.98	-3.37
Stage 3	14.65	0.45	-2.63
Stage 3	14.45	0.05	-1.99
Stage 3	14.25	-0.23	-1.44
Stage 3	14.05	-0.43	-0.98
Stage 3	13.85	-0.55	-0.6
Stage 3	13.65	-0.61	-0.31
Stage 3	13.45	-0.63	-0.08
Stage 3	13.25	-0.61	0.08
Stage 3	13.05	-0.58	0.19
Stage 3	12.85	-0.52	0.26
Stage 3	12.65	-0.46	0.31
Stage 3	12.45	-0.4	0.32
Stage 3	12.25	-0.33	0.32
Stage 3	12.05	-0.27	0.3
Stage 3	11.85	-0.22	0.28
Stage 3	11.65	-0.17	0.25
Stage 3	11.45	-0.13	0.22
Stage 3	11.25	-0.09	0.18
Stage 3	11.05	-0.06	0.15
Stage 3	10.85	-0.03	0.12
Stage 3	10.65	-0.01	0.1
Stage 3	10.45	0	0.07
Stage 3	10.25	0.01	0.05
Stage 3	10.05	0.02	0.04
Stage 3	9.85	0.02	0.02
Stage 3	9.65	0.03	0.01

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	9.45	0.03	0
Stage 3	9.25	0.03	0
Stage 3	9.05	0.02	-0.01
Stage 3	8.85	0.02	-0.01
Stage 3	8.65	0.02	-0.01
Stage 3	8.45	0.02	-0.01
Stage 3	8.25	0.01	-0.01
Stage 3	8.05	0.01	-0.01
Stage 3	7.85	0.01	-0.01
Stage 3	7.65	0.01	-0.01
Stage 3	7.45	0.01	-0.01
Stage 3	7.25	0	-0.01
Stage 3	7.05	0	-0.01
Stage 3	6.85	0	-0.01
Stage 3	6.65	0	0
Stage 3	6.45	0	0
Stage 3	6.25	0	0
Stage 3	6.05	0	0
Stage 3	5.85	0	0
Stage 3	5.65	0	0
Stage 3	5.45	0	0
Stage 3	5.25	0	0
Stage 3	5.05	0	0
Stage 3	4.85	0	0
Stage 3	4.65	0	0
Stage 3	4.45	0	0
Stage 3	4.25	0	0
Stage 3	4.05	0	0
Stage 3	3.85	0	0
Stage 3	3.65	0	0
Stage 3	3.45	0	0

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 4

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	21.65	0	0
Stage 4	21.45	0	0
Stage 4	21.45	0	0
Stage 4	21.25	0	0
Stage 4	21.25	0	0
Stage 4	21.05	0	0
Stage 4	21.05	0	0
Stage 4	20.85	0	0
Stage 4	20.85	0	0
Stage 4	20.65	-1.07	-5.37
Stage 4	20.45	-4.3	-16.11
Stage 4	20.25	-10.74	-32.23
Stage 4	20.05	-21.36	-53.08
Stage 4	19.85	-36.1	-73.68
Stage 4	19.65	-54.88	-93.91
Stage 4	19.45	-77.57	-113.45
Stage 4	19.25	-54.93	113.19
Stage 4	19.05	-35.72	96.03
Stage 4	18.85	-19.63	80.49
Stage 4	18.65	-6.28	66.73
Stage 4	18.45	4.68	54.8
Stage 4	18.25	13.61	44.66
Stage 4	18.05	20.85	36.21
Stage 4	17.85	26.63	28.9
Stage 4	17.65	31.09	22.3
Stage 4	17.45	34.35	16.29
Stage 4	17.25	36.5	10.74
Stage 4	17.05	37.6	5.5
Stage 4	16.85	37.68	0.39
Stage 4	16.65	36.68	-4.99
Stage 4	16.45	34.56	-10.61
Stage 4	16.25	31.26	-16.5
Stage 4	16.05	26.73	-22.64
Stage 4	15.85	20.92	-29.03
Stage 4	15.65	14.29	-33.15
Stage 4	15.45	7.86	-32.16
Stage 4	15.25	2.63	-26.16
Stage 4	15.05	-1.5	-20.64
Stage 4	14.85	-4.65	-15.75
Stage 4	14.65	-6.95	-11.5
Stage 4	14.45	-8.52	-7.87
Stage 4	14.25	-9.49	-4.83
Stage 4	14.05	-9.96	-2.35
Stage 4	13.85	-10.03	-0.36
Stage 4	13.65	-9.79	1.19
Stage 4	13.45	-9.32	2.34
Stage 4	13.25	-8.69	3.16
Stage 4	13.05	-7.95	3.69
Stage 4	12.85	-7.15	3.99
Stage 4	12.65	-6.33	4.1
Stage 4	12.45	-5.52	4.06
Stage 4	12.25	-4.74	3.92
Stage 4	12.05	-4	3.7
Stage 4	11.85	-3.31	3.43
Stage 4	11.65	-2.69	3.12
Stage 4	11.45	-2.13	2.8
Stage 4	11.25	-1.63	2.47
Stage 4	11.05	-1.2	2.15
Stage 4	10.85	-0.83	1.84
Stage 4	10.65	-0.53	1.55
Stage 4	10.45	-0.27	1.28
Stage 4	10.25	-0.06	1.03
Stage 4	10.05	0.1	0.82
Stage 4	9.85	0.23	0.62
Stage 4	9.65	0.32	0.46

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	9.45	0.38	0.32
Stage 4	9.25	0.42	0.2
Stage 4	9.05	0.44	0.1
Stage 4	8.85	0.44	0.02
Stage 4	8.65	0.43	-0.04
Stage 4	8.45	0.41	-0.09
Stage 4	8.25	0.39	-0.13
Stage 4	8.05	0.36	-0.15
Stage 4	7.85	0.33	-0.17
Stage 4	7.65	0.29	-0.17
Stage 4	7.45	0.26	-0.17
Stage 4	7.25	0.22	-0.17
Stage 4	7.05	0.19	-0.16
Stage 4	6.85	0.16	-0.15
Stage 4	6.65	0.13	-0.14
Stage 4	6.45	0.11	-0.12
Stage 4	6.25	0.08	-0.11
Stage 4	6.05	0.07	-0.09
Stage 4	5.85	0.05	-0.08
Stage 4	5.65	0.04	-0.07
Stage 4	5.45	0.03	-0.05
Stage 4	5.25	0.02	-0.04
Stage 4	5.05	0.01	-0.03
Stage 4	4.85	0.01	-0.02
Stage 4	4.65	0	-0.02
Stage 4	4.45	0	-0.01
Stage 4	4.25	0	0
Stage 4	4.05	0	0
Stage 4	3.85	0	0
Stage 4	3.65	0	0
Stage 4	3.45	0	0

**Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 5**

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	21.65	0	0
Stage 5	21.45	0	0
Stage 5	21.45	0	0
Stage 5	21.25	0	0
Stage 5	21.25	0	0
Stage 5	21.05	0	0
Stage 5	21.05	0	0
Stage 5	20.85	0	0
Stage 5	20.85	0	0
Stage 5	20.65	-0.4	-1.99
Stage 5	20.45	-2.43	-10.18
Stage 5	20.25	-7.34	-24.55
Stage 5	20.05	-16.24	-44.49
Stage 5	19.85	-29.24	-65.01
Stage 5	19.65	-46.39	-85.72
Stage 5	19.45	-67.67	-106.44
Stage 5	19.25	-44.55	115.62
Stage 5	19.05	-25.39	95.78
Stage 5	18.85	-10.04	76.78
Stage 5	18.65	1.71	58.75
Stage 5	18.45	10.06	41.72
Stage 5	18.25	15.18	25.64
Stage 5	18.05	17.26	10.4
Stage 5	17.85	16.35	-4.55
Stage 5	17.65	12.43	-19.61
Stage 5	17.45	5.46	-34.86
Stage 5	17.25	-4.62	-50.39
Stage 5	17.05	-17.87	-66.25
Stage 5	16.85	-34.37	-82.51
Stage 5	16.65	-54.23	-99.31
Stage 5	16.45	-77.53	-116.5
Stage 5	16.25	-55.47	110.32
Stage 5	16.05	-36.92	92.74
Stage 5	15.85	-21.87	75.27
Stage 5	15.65	-10.28	57.95
Stage 5	15.45	-1.84	42.22
Stage 5	15.25	4.79	33.13
Stage 5	15.05	9.84	25.24
Stage 5	14.85	13.52	18.41
Stage 5	14.65	16.04	12.58
Stage 5	14.45	17.58	7.69
Stage 5	14.25	18.31	3.67
Stage 5	14.05	18.39	0.42
Stage 5	13.85	17.97	-2.14
Stage 5	13.65	17.15	-4.08
Stage 5	13.45	16.05	-5.5
Stage 5	13.25	14.75	-6.47
Stage 5	13.05	13.34	-7.07
Stage 5	12.85	11.87	-7.36
Stage 5	12.65	10.38	-7.42
Stage 5	12.45	8.93	-7.26
Stage 5	12.25	7.55	-6.93
Stage 5	12.05	6.25	-6.46
Stage 5	11.85	5.07	-5.91
Stage 5	11.65	4.01	-5.31
Stage 5	11.45	3.07	-4.7
Stage 5	11.25	2.25	-4.08
Stage 5	11.05	1.56	-3.49
Stage 5	10.85	0.97	-2.92
Stage 5	10.65	0.49	-2.4
Stage 5	10.45	0.11	-1.93
Stage 5	10.25	-0.2	-1.51
Stage 5	10.05	-0.42	-1.13
Stage 5	9.85	-0.58	-0.81
Stage 5	9.65	-0.69	-0.54



Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	9.45	-0.76	-0.32
Stage 5	9.25	-0.78	-0.13
Stage 5	9.05	-0.78	0.01
Stage 5	8.85	-0.75	0.13
Stage 5	8.65	-0.71	0.21
Stage 5	8.45	-0.66	0.27
Stage 5	8.25	-0.6	0.3
Stage 5	8.05	-0.53	0.32
Stage 5	7.85	-0.47	0.32
Stage 5	7.65	-0.41	0.32
Stage 5	7.45	-0.35	0.3
Stage 5	7.25	-0.29	0.28
Stage 5	7.05	-0.24	0.26
Stage 5	6.85	-0.19	0.23
Stage 5	6.65	-0.15	0.2
Stage 5	6.45	-0.11	0.18
Stage 5	6.25	-0.08	0.15
Stage 5	6.05	-0.06	0.13
Stage 5	5.85	-0.04	0.1
Stage 5	5.65	-0.02	0.08
Stage 5	5.45	-0.01	0.06
Stage 5	5.25	0	0.04
Stage 5	5.05	0	0.03
Stage 5	4.85	0.01	0.02
Stage 5	4.65	0.01	0.01
Stage 5	4.45	0.01	0
Stage 5	4.25	0.01	-0.01
Stage 5	4.05	0	-0.01
Stage 5	3.85	0	-0.01
Stage 5	3.65	0	-0.01
Stage 5	3.45	0	0

**Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 6**

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	21.65	0	0
Stage 6	21.45	0	0
Stage 6	21.45	0	0
Stage 6	21.25	0	0
Stage 6	21.25	0	0
Stage 6	21.05	0	0
Stage 6	21.05	0	0
Stage 6	20.85	0	0
Stage 6	20.85	0	0
Stage 6	20.65	-0.61	-3.06
Stage 6	20.45	-3.06	-12.25
Stage 6	20.25	-8.58	-27.57
Stage 6	20.05	-18.25	-48.38
Stage 6	19.85	-32.14	-69.43
Stage 6	19.65	-50.26	-90.6
Stage 6	19.45	-72.6	-111.72
Stage 6	19.25	-50.79	109.06
Stage 6	19.05	-33	88.93
Stage 6	18.85	-19.06	69.72
Stage 6	18.65	-8.75	51.55
Stage 6	18.45	-1.85	34.49
Stage 6	18.25	1.85	18.52
Stage 6	18.05	2.57	3.6
Stage 6	17.85	0.41	-10.8
Stage 6	17.65	-4.59	-25.04
Stage 6	17.45	-12.43	-39.18
Stage 6	17.25	-23.08	-53.25
Stage 6	17.05	-36.54	-67.28
Stage 6	16.85	-52.79	-81.28
Stage 6	16.65	-71.86	-95.36
Stage 6	16.45	-93.73	-109.34
Stage 6	16.25	-68.11	128.12
Stage 6	16.05	-45.13	114.87
Stage 6	15.85	-24.66	102.35
Stage 6	15.65	-6.57	90.46
Stage 6	15.45	9.28	79.24
Stage 6	15.25	23.01	68.68
Stage 6	15.05	34.77	58.76
Stage 6	14.85	44.65	49.41
Stage 6	14.65	52.76	40.55
Stage 6	14.45	59.18	32.09
Stage 6	14.25	63.9	23.64
Stage 6	14.05	66.89	14.94
Stage 6	13.85	68.09	5.99
Stage 6	13.65	67.45	-3.22
Stage 6	13.45	64.91	-12.69
Stage 6	13.25	60.43	-22.41
Stage 6	13.05	53.95	-32.39
Stage 6	12.85	45.42	-42.66
Stage 6	12.65	35.25	-50.84
Stage 6	12.45	24.45	-54.01
Stage 6	12.25	14	-52.23
Stage 6	12.05	4.89	-45.59
Stage 6	11.85	-2.53	-37.07
Stage 6	11.65	-8.41	-29.4
Stage 6	11.45	-12.93	-22.59
Stage 6	11.25	-16.25	-16.62
Stage 6	11.05	-18.54	-11.46
Stage 6	10.85	-19.95	-7.06
Stage 6	10.65	-20.63	-3.39
Stage 6	10.45	-20.7	-0.37
Stage 6	10.25	-20.29	2.06
Stage 6	10.05	-19.5	3.95
Stage 6	9.85	-18.43	5.37
Stage 6	9.65	-17.15	6.38

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	9.45	-15.75	7.04
Stage 6	9.25	-14.27	7.4
Stage 6	9.05	-12.77	7.51
Stage 6	8.85	-11.29	7.38
Stage 6	8.65	-9.86	7.13
Stage 6	8.45	-8.51	6.77
Stage 6	8.25	-7.24	6.34
Stage 6	8.05	-6.07	5.85
Stage 6	7.85	-5.01	5.33
Stage 6	7.65	-4.05	4.79
Stage 6	7.45	-3.2	4.26
Stage 6	7.25	-2.45	3.72
Stage 6	7.05	-1.81	3.21
Stage 6	6.85	-1.26	2.72
Stage 6	6.65	-0.81	2.26
Stage 6	6.45	-0.44	1.84
Stage 6	6.25	-0.15	1.45
Stage 6	6.05	0.07	1.1
Stage 6	5.85	0.23	0.8
Stage 6	5.65	0.33	0.52
Stage 6	5.45	0.39	0.29
Stage 6	5.25	0.41	0.1
Stage 6	5.05	0.4	-0.06
Stage 6	4.85	0.36	-0.18
Stage 6	4.65	0.31	-0.27
Stage 6	4.45	0.24	-0.32
Stage 6	4.25	0.18	-0.34
Stage 6	4.05	0.11	-0.33
Stage 6	3.85	0.05	-0.28
Stage 6	3.65	0.02	-0.2
Stage 6	3.45	0	-0.08

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 7

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	21.65	0	0
Stage 7	21.45	0	0
Stage 7	21.45	0	0
Stage 7	21.25	0	0
Stage 7	21.25	0	0
Stage 7	21.05	0	0
Stage 7	21.05	0	0
Stage 7	20.85	0	0
Stage 7	20.85	0	0
Stage 7	20.65	-0.48	-2.39
Stage 7	20.45	-2.66	-10.9
Stage 7	20.25	-7.77	-25.54
Stage 7	20.05	-16.9	-45.69
Stage 7	19.85	-30.12	-66.08
Stage 7	19.65	-47.44	-86.61
Stage 7	19.45	-68.86	-107.09
Stage 7	19.25	-45.8	115.32
Stage 7	19.05	-26.64	95.77
Stage 7	18.85	-11.22	77.1
Stage 7	18.65	0.66	59.42
Stage 7	18.45	9.22	42.77
Stage 7	18.25	14.64	27.13
Stage 7	18.05	17.13	12.41
Stage 7	17.85	16.74	-1.93
Stage 7	17.65	13.48	-16.3
Stage 7	17.45	7.32	-30.78
Stage 7	17.25	-1.77	-45.45
Stage 7	17.05	-13.84	-60.38
Stage 7	16.85	-28.97	-75.63
Stage 7	16.65	-47.24	-91.36
Stage 7	16.45	-68.73	-107.44
Stage 7	16.25	-44.2	122.64
Stage 7	16.05	-22.96	106.22
Stage 7	15.85	-4.97	89.91
Stage 7	15.65	9.74	73.56
Stage 7	15.45	21.17	57.18
Stage 7	15.25	29.31	40.7
Stage 7	15.05	34.13	24.09
Stage 7	14.85	35.59	7.27
Stage 7	14.65	33.62	-9.84
Stage 7	14.45	28.16	-27.29
Stage 7	14.25	19.12	-45.19
Stage 7	14.05	6.38	-63.71
Stage 7	13.85	-10.17	-82.78
Stage 7	13.65	-30.64	-102.35
Stage 7	13.45	-55.11	-122.31
Stage 7	13.25	-34.75	101.78
Stage 7	13.05	-18.47	81.42
Stage 7	12.85	-6.26	61.03
Stage 7	12.65	1.84	40.49
Stage 7	12.45	6.38	22.74
Stage 7	12.25	8.6	11.07
Stage 7	12.05	9.69	5.49
Stage 7	11.85	10.3	3.05
Stage 7	11.65	10.51	1.02
Stage 7	11.45	10.38	-0.64
Stage 7	11.25	9.99	-1.96
Stage 7	11.05	9.4	-2.95
Stage 7	10.85	8.67	-3.63
Stage 7	10.65	7.86	-4.07
Stage 7	10.45	7	-4.29
Stage 7	10.25	6.13	-4.35
Stage 7	10.05	5.28	-4.27
Stage 7	9.85	4.46	-4.09
Stage 7	9.65	3.69	-3.84

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	9.45	2.98	-3.53
Stage 7	9.25	2.34	-3.2
Stage 7	9.05	1.77	-2.88
Stage 7	8.85	1.25	-2.58
Stage 7	8.65	0.8	-2.27
Stage 7	8.45	0.41	-1.95
Stage 7	8.25	0.08	-1.64
Stage 7	8.05	-0.19	-1.34
Stage 7	7.85	-0.4	-1.06
Stage 7	7.65	-0.56	-0.8
Stage 7	7.45	-0.67	-0.57
Stage 7	7.25	-0.74	-0.36
Stage 7	7.05	-0.78	-0.18
Stage 7	6.85	-0.79	-0.03
Stage 7	6.65	-0.77	0.09
Stage 7	6.45	-0.73	0.19
Stage 7	6.25	-0.68	0.26
Stage 7	6.05	-0.62	0.31
Stage 7	5.85	-0.55	0.34
Stage 7	5.65	-0.48	0.36
Stage 7	5.45	-0.41	0.36
Stage 7	5.25	-0.33	0.35
Stage 7	5.05	-0.27	0.33
Stage 7	4.85	-0.21	0.31
Stage 7	4.65	-0.15	0.27
Stage 7	4.45	-0.11	0.23
Stage 7	4.25	-0.07	0.19
Stage 7	4.05	-0.04	0.15
Stage 7	3.85	-0.02	0.11
Stage 7	3.65	0	0.07
Stage 7	3.45	0	0.02

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 8

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	21.65	0	0
Stage 8	21.45	0	0
Stage 8	21.45	0	0
Stage 8	21.25	0	0
Stage 8	21.25	0	0
Stage 8	21.05	0	0
Stage 8	21.05	0	0
Stage 8	20.85	0	0
Stage 8	20.85	0	0
Stage 8	20.65	-0.45	-2.27
Stage 8	20.45	-2.6	-10.74
Stage 8	20.25	-7.68	-25.39
Stage 8	20.05	-16.8	-45.61
Stage 8	19.85	-30.03	-66.13
Stage 8	19.65	-47.4	-86.85
Stage 8	19.45	-68.92	-107.59
Stage 8	19.25	-46.14	113.9
Stage 8	19.05	-27.34	93.98
Stage 8	18.85	-12.37	74.86
Stage 8	18.65	-1.03	56.69
Stage 8	18.45	6.88	39.53
Stage 8	18.25	11.54	23.34
Stage 8	18.05	13.15	8.01
Stage 8	17.85	11.75	-7
Stage 8	17.65	7.33	-22.09
Stage 8	17.45	-0.14	-37.33
Stage 8	17.25	-10.69	-52.78
Stage 8	17.05	-24.39	-68.48
Stage 8	16.85	-41.28	-84.49
Stage 8	16.65	-61.47	-100.93
Stage 8	16.45	-85	-117.66
Stage 8	16.25	-62.85	110.73
Stage 8	16.05	-44.08	93.89
Stage 8	15.85	-28.61	77.31
Stage 8	15.65	-16.43	60.91
Stage 8	15.45	-7.49	44.72
Stage 8	15.25	-1.73	28.76
Stage 8	15.05	0.87	13.01
Stage 8	14.85	0.36	-2.52
Stage 8	14.65	-3.21	-17.85
Stage 8	14.45	-9.8	-32.95
Stage 8	14.25	-19.37	-47.88
Stage 8	14.05	-31.91	-62.7
Stage 8	13.85	-47.37	-77.3
Stage 8	13.65	-65.68	-91.53
Stage 8	13.45	-86.72	-105.22
Stage 8	13.25	-58.33	141.94
Stage 8	13.05	-32.35	129.93
Stage 8	12.85	-8.55	119
Stage 8	12.65	13.16	108.52
Stage 8	12.45	32.71	97.77
Stage 8	12.25	50.06	86.77
Stage 8	12.05	65.17	75.51
Stage 8	11.85	77.97	64
Stage 8	11.65	88.41	52.23
Stage 8	11.45	96.45	40.21
Stage 8	11.25	102.04	27.93
Stage 8	11.05	105.12	15.39
Stage 8	10.85	105.64	2.6
Stage 8	10.65	103.54	-10.45
Stage 8	10.45	98.79	-23.75
Stage 8	10.25	91.33	-37.31
Stage 8	10.05	81.11	-51.13
Stage 8	9.85	68.07	-65.2
Stage 8	9.65	52.75	-76.58

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	9.45	36.28	-82.33
Stage 8	9.25	19.8	-82.44
Stage 8	9.05	4.32	-77.37
Stage 8	8.85	-9.29	-68.07
Stage 8	8.65	-20.19	-54.49
Stage 8	8.45	-28.48	-41.45
Stage 8	8.25	-34.49	-30.05
Stage 8	8.05	-38.54	-20.22
Stage 8	7.85	-40.91	-11.85
Stage 8	7.65	-41.88	-4.85
Stage 8	7.45	-41.7	0.91
Stage 8	7.25	-40.59	5.54
Stage 8	7.05	-38.76	9.16
Stage 8	6.85	-36.38	11.9
Stage 8	6.65	-33.61	13.86
Stage 8	6.45	-30.58	15.14
Stage 8	6.25	-27.4	15.86
Stage 8	6.05	-24.19	16.09
Stage 8	5.85	-21.01	15.87
Stage 8	5.65	-17.95	15.32
Stage 8	5.45	-15.04	14.53
Stage 8	5.25	-12.33	13.56
Stage 8	5.05	-9.85	12.43
Stage 8	4.85	-7.61	11.19
Stage 8	4.65	-5.64	9.85
Stage 8	4.45	-3.95	8.46
Stage 8	4.25	-2.55	7.01
Stage 8	4.05	-1.44	5.51
Stage 8	3.85	-0.65	3.98
Stage 8	3.65	-0.16	2.42
Stage 8	3.45	0	0.82

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 9

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	21.65	0	0
Stage 9	21.45	0	0
Stage 9	21.45	0	0
Stage 9	21.25	0	0
Stage 9	21.25	0	0
Stage 9	21.05	0	0
Stage 9	21.05	0	0
Stage 9	20.85	0	0
Stage 9	20.85	0	0
Stage 9	20.65	-0.48	-2.39
Stage 9	20.45	-2.67	-10.94
Stage 9	20.25	-7.8	-25.65
Stage 9	20.05	-16.97	-45.89
Stage 9	19.85	-30.26	-66.41
Stage 9	19.65	-47.68	-87.1
Stage 9	19.45	-69.23	-107.77
Stage 9	19.25	-46.43	114.01
Stage 9	19.05	-27.59	94.21
Stage 9	18.85	-12.53	75.26
Stage 9	18.65	-1.08	57.29
Stage 9	18.45	7	40.36
Stage 9	18.25	11.89	24.44
Stage 9	18.05	13.77	9.41
Stage 9	17.85	12.71	-5.27
Stage 9	17.65	8.72	-19.99
Stage 9	17.45	1.75	-34.84
Stage 9	17.25	-8.23	-49.87
Stage 9	17.05	-21.25	-65.13
Stage 9	16.85	-37.39	-80.67
Stage 9	16.65	-56.71	-96.64
Stage 9	16.45	-79.29	-112.89
Stage 9	16.25	-55.9	116.94
Stage 9	16.05	-35.79	100.55
Stage 9	15.85	-18.91	84.4
Stage 9	15.65	-5.24	68.38
Stage 9	15.45	5.26	52.5
Stage 9	15.25	12.61	36.75
Stage 9	15.05	16.83	21.12
Stage 9	14.85	17.94	5.55
Stage 9	14.65	15.95	-9.99
Stage 9	14.45	10.84	-25.51
Stage 9	14.25	2.62	-41.11
Stage 9	14.05	-8.76	-56.9
Stage 9	13.85	-23.32	-72.79
Stage 9	13.65	-41.05	-88.69
Stage 9	13.45	-61.95	-104.48
Stage 9	13.25	-35.05	134.52
Stage 9	13.05	-11.16	119.41
Stage 9	12.85	9.8	104.81
Stage 9	12.65	27.81	90.04
Stage 9	12.45	42.68	74.36
Stage 9	12.25	54.23	57.74
Stage 9	12.05	62.26	40.17
Stage 9	11.85	66.59	21.64
Stage 9	11.65	67.02	2.16
Stage 9	11.45	63.37	-18.26
Stage 9	11.25	55.46	-39.57
Stage 9	11.05	43.11	-61.71
Stage 9	10.85	26.2	-84.57
Stage 9	10.65	4.59	-108.03
Stage 9	10.45	-21.79	-131.94
Stage 9	10.25	-4.15	88.22
Stage 9	10.05	8.66	64.04
Stage 9	9.85	16.66	40.03
Stage 9	9.65	19.95	16.46



Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	9.45	19.04	-4.56
Stage 9	9.25	15.32	-18.64
Stage 9	9.05	10.08	-26.18
Stage 9	8.85	4.46	-28.1
Stage 9	8.65	-0.42	-24.39
Stage 9	8.45	-4.4	-19.91
Stage 9	8.25	-7.56	-15.82
Stage 9	8.05	-9.99	-12.14
Stage 9	7.85	-11.76	-8.86
Stage 9	7.65	-12.96	-5.97
Stage 9	7.45	-13.65	-3.46
Stage 9	7.25	-13.91	-1.32
Stage 9	7.05	-13.81	0.49
Stage 9	6.85	-13.42	1.98
Stage 9	6.65	-12.78	3.19
Stage 9	6.45	-11.95	4.12
Stage 9	6.25	-10.99	4.82
Stage 9	6.05	-9.94	5.27
Stage 9	5.85	-8.84	5.48
Stage 9	5.65	-7.73	5.56
Stage 9	5.45	-6.62	5.52
Stage 9	5.25	-5.55	5.36
Stage 9	5.05	-4.53	5.11
Stage 9	4.85	-3.58	4.77
Stage 9	4.65	-2.71	4.35
Stage 9	4.45	-1.94	3.86
Stage 9	4.25	-1.27	3.31
Stage 9	4.05	-0.74	2.69
Stage 9	3.85	-0.34	2
Stage 9	3.65	-0.09	1.25
Stage 9	3.45	0	0.44

### Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 10

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	21.65	0	0
Stage 10	21.45	0	0
Stage 10	21.45	0	0
Stage 10	21.25	0	0
Stage 10	21.25	0	0
Stage 10	21.05	0	0
Stage 10	21.05	0	0
Stage 10	20.85	0	0
Stage 10	20.85	0	0
Stage 10	20.65	-0.47	-2.33
Stage 10	20.45	-2.63	-10.83
Stage 10	20.25	-7.73	-25.49
Stage 10	20.05	-16.87	-45.7
Stage 10	19.85	-30.11	-66.19
Stage 10	19.65	-47.48	-86.85
Stage 10	19.45	-68.98	-107.5
Stage 10	19.25	-46.12	114.31
Stage 10	19.05	-27.21	94.52
Stage 10	18.85	-12.1	75.57
Stage 10	18.65	-0.58	57.58
Stage 10	18.45	7.54	40.63
Stage 10	18.25	12.48	24.67
Stage 10	18.05	14.4	9.6
Stage 10	17.85	13.37	-5.14
Stage 10	17.65	9.38	-19.94
Stage 10	17.45	2.4	-34.88
Stage 10	17.25	-7.6	-50.01
Stage 10	17.05	-20.68	-65.4
Stage 10	16.85	-36.9	-81.09
Stage 10	16.65	-56.34	-97.23
Stage 10	16.45	-79.08	-113.66
Stage 10	16.25	-55.97	115.52
Stage 10	16.05	-36.19	98.9
Stage 10	15.85	-19.69	82.5
Stage 10	15.65	-6.45	66.2
Stage 10	15.45	3.55	50.02
Stage 10	15.25	10.35	33.96
Stage 10	15.05	13.94	17.99
Stage 10	14.85	14.36	2.09
Stage 10	14.65	11.6	-13.8
Stage 10	14.45	5.67	-29.66
Stage 10	14.25	-3.45	-45.59
Stage 10	14.05	-15.79	-61.68
Stage 10	13.85	-31.36	-77.85
Stage 10	13.65	-50.15	-93.97
Stage 10	13.45	-72.14	-109.92
Stage 10	13.25	-46.37	128.83
Stage 10	13.05	-23.62	113.75
Stage 10	12.85	-3.76	99.3
Stage 10	12.65	13.2	84.82
Stage 10	12.45	27.13	69.62
Stage 10	12.25	37.87	53.69
Stage 10	12.05	45.28	37.04
Stage 10	11.85	49.22	19.7
Stage 10	11.65	49.56	1.71
Stage 10	11.45	46.18	-16.87
Stage 10	11.25	38.99	-35.97
Stage 10	11.05	27.89	-55.49
Stage 10	10.85	12.83	-75.3
Stage 10	10.65	-6.22	-95.24
Stage 10	10.45	-29.24	-115.13
Stage 10	10.25	-5.13	120.55
Stage 10	10.05	15.16	101.44
Stage 10	9.85	31.77	83.04
Stage 10	9.65	44.86	65.47

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	9.45	54.62	48.8
Stage 10	9.25	61.23	33.06
Stage 10	9.05	64.78	17.75
Stage 10	8.85	65.16	1.86
Stage 10	8.65	62.21	-14.72
Stage 10	8.45	55.79	-32.11
Stage 10	8.25	46.58	-46.03
Stage 10	8.05	35.56	-55.12
Stage 10	7.85	23.66	-59.48
Stage 10	7.65	11.83	-59.19
Stage 10	7.45	0.97	-54.3
Stage 10	7.25	-8	-44.84
Stage 10	7.05	-14.82	-34.11
Stage 10	6.85	-19.76	-24.67
Stage 10	6.65	-23.05	-16.46
Stage 10	6.45	-24.94	-9.44
Stage 10	6.25	-25.65	-3.54
Stage 10	6.05	-25.38	1.33
Stage 10	5.85	-24.34	5.23
Stage 10	5.65	-22.67	8.32
Stage 10	5.45	-20.54	10.67
Stage 10	5.25	-18.07	12.36
Stage 10	5.05	-15.38	13.41
Stage 10	4.85	-12.59	13.95
Stage 10	4.65	-9.83	13.82
Stage 10	4.45	-7.21	13.08
Stage 10	4.25	-4.86	11.75
Stage 10	4.05	-2.88	9.93
Stage 10	3.85	-1.35	7.65
Stage 10	3.65	-0.36	4.94
Stage 10	3.45	0	1.79

**Tabella Risultati Paratia A1+M1+R1 - Left Wall - Stage: Stage 11-S**

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	21.65	0	0
Stage 11-S	21.45	0	0
Stage 11-S	21.45	0	0
Stage 11-S	21.25	0	0
Stage 11-S	21.25	0	0
Stage 11-S	21.05	0	0
Stage 11-S	21.05	0	0
Stage 11-S	20.85	0	0
Stage 11-S	20.85	0	0
Stage 11-S	20.65	-0.47	-2.33
Stage 11-S	20.45	-2.63	-10.83
Stage 11-S	20.25	-7.73	-25.49
Stage 11-S	20.05	-16.87	-45.7
Stage 11-S	19.85	-30.11	-66.19
Stage 11-S	19.65	-47.48	-86.85
Stage 11-S	19.45	-68.98	-107.5
Stage 11-S	19.25	-46.12	114.31
Stage 11-S	19.05	-27.21	94.52
Stage 11-S	18.85	-12.1	75.57
Stage 11-S	18.65	-0.58	57.58
Stage 11-S	18.45	7.54	40.63
Stage 11-S	18.25	12.48	24.67
Stage 11-S	18.05	14.4	9.6
Stage 11-S	17.85	13.37	-5.14
Stage 11-S	17.65	9.38	-19.94
Stage 11-S	17.45	2.4	-34.88
Stage 11-S	17.25	-7.6	-50.01
Stage 11-S	17.05	-20.68	-65.4
Stage 11-S	16.85	-36.9	-81.09
Stage 11-S	16.65	-56.34	-97.23
Stage 11-S	16.45	-79.08	-113.66
Stage 11-S	16.25	-55.97	115.52
Stage 11-S	16.05	-36.19	98.9
Stage 11-S	15.85	-19.69	82.5
Stage 11-S	15.65	-6.45	66.2
Stage 11-S	15.45	3.55	50.02
Stage 11-S	15.25	10.35	33.96
Stage 11-S	15.05	13.94	17.99
Stage 11-S	14.85	14.36	2.09
Stage 11-S	14.65	11.6	-13.8
Stage 11-S	14.45	5.67	-29.66
Stage 11-S	14.25	-3.45	-45.59
Stage 11-S	14.05	-15.79	-61.68
Stage 11-S	13.85	-31.36	-77.85
Stage 11-S	13.65	-50.15	-93.97
Stage 11-S	13.45	-72.14	-109.92
Stage 11-S	13.25	-46.37	128.83
Stage 11-S	13.05	-23.62	113.75
Stage 11-S	12.85	-3.76	99.3
Stage 11-S	12.65	13.2	84.82
Stage 11-S	12.45	27.13	69.62
Stage 11-S	12.25	37.87	53.69
Stage 11-S	12.05	45.28	37.04
Stage 11-S	11.85	49.22	19.7
Stage 11-S	11.65	49.56	1.71
Stage 11-S	11.45	46.18	-16.87
Stage 11-S	11.25	38.99	-35.97
Stage 11-S	11.05	27.89	-55.49
Stage 11-S	10.85	12.83	-75.3
Stage 11-S	10.65	-6.22	-95.24
Stage 11-S	10.45	-29.24	-115.13
Stage 11-S	10.25	-5.13	120.55
Stage 11-S	10.05	15.16	101.44
Stage 11-S	9.85	31.76	83.04
Stage 11-S	9.65	44.86	65.46

Design Assumption: A1+M1+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	9.45	54.62	48.8
Stage 11-S	9.25	61.23	33.06
Stage 11-S	9.05	64.78	17.75
Stage 11-S	8.85	65.15	1.86
Stage 11-S	8.65	62.21	-14.72
Stage 11-S	8.45	55.79	-32.11
Stage 11-S	8.25	46.58	-46.03
Stage 11-S	8.05	35.56	-55.12
Stage 11-S	7.85	23.66	-59.48
Stage 11-S	7.65	11.82	-59.19
Stage 11-S	7.45	0.96	-54.3
Stage 11-S	7.25	-8.01	-44.83
Stage 11-S	7.05	-14.83	-34.11
Stage 11-S	6.85	-19.76	-24.66
Stage 11-S	6.65	-23.05	-16.46
Stage 11-S	6.45	-24.94	-9.44
Stage 11-S	6.25	-25.65	-3.53
Stage 11-S	6.05	-25.38	1.33
Stage 11-S	5.85	-24.33	5.24
Stage 11-S	5.65	-22.66	8.33
Stage 11-S	5.45	-20.53	10.69
Stage 11-S	5.25	-18.05	12.37
Stage 11-S	5.05	-15.36	13.44
Stage 11-S	4.85	-12.58	13.92
Stage 11-S	4.65	-9.82	13.8
Stage 11-S	4.45	-7.21	13.06
Stage 11-S	4.25	-4.86	11.74
Stage 11-S	4.05	-2.87	9.92
Stage 11-S	3.85	-1.35	7.65
Stage 11-S	3.65	-0.36	4.94
Stage 11-S	3.45	0	1.79

## Risultati Elementi strutturali - A1+M1+R1

### Design Assumption: A1+M1+R1 Sollecitazione Tir-D4

Stage	Forza (kN/m)
Stage 3	260
Stage 4	260.91078
Stage 5	258.06196
Stage 6	257.07747
Stage 7	258.15673
Stage 8	257.52636
Stage 9	257.72149
Stage 10	257.74476
Stage 11-S	257.74476

**Design Assumption: A1+M1+R1 Sollecitazione Tir-E4**

Stage	Forza (kN/m)
Stage 5	260
Stage 6	267.31731
Stage 7	262.23873
Stage 8	261.0296
Stage 9	262.06245
Stage 10	261.6029
Stage 11-S	261.6029

**Design Assumption: A1+M1+R1 Sollecitazione Tir-F4**

Stage	Forza (kN/m)
Stage 7	260
Stage 8	276.80276
Stage 9	270.85968
Stage 10	270.67989
Stage 11-S	270.67976



**Design Assumption: A1+M1+R1 Sollecitazione Tir-G4**

Stage	Forza (kN/m)
Stage 9	260
Stage 10	271.68219
Stage 11-S	271.68206

## Risultati A2+M2+R1

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	21.65	0	0
Stage 1	21.45	0	0
Stage 1	21.25	0	0
Stage 1	21.05	0	0
Stage 1	20.85	0	0
Stage 1	20.65	0	0
Stage 1	20.45	0	0
Stage 1	20.25	0	0
Stage 1	20.05	0	0
Stage 1	19.85	0	0
Stage 1	19.65	0	0
Stage 1	19.45	0	0
Stage 1	19.25	0	0
Stage 1	19.05	0	0
Stage 1	18.85	0	0
Stage 1	18.65	0	0
Stage 1	18.45	0	0
Stage 1	18.25	0	0
Stage 1	18.05	0	0
Stage 1	17.85	0	0
Stage 1	17.65	0	0
Stage 1	17.45	0	0
Stage 1	17.25	0	0
Stage 1	17.05	0	0
Stage 1	16.85	0	0
Stage 1	16.65	0	0
Stage 1	16.45	0	0
Stage 1	16.25	0	0
Stage 1	16.05	0	0
Stage 1	15.85	0	0
Stage 1	15.65	0	0
Stage 1	15.45	0	0
Stage 1	15.25	0	0
Stage 1	15.05	0	0
Stage 1	14.85	0	0
Stage 1	14.65	0	0
Stage 1	14.45	0	0
Stage 1	14.25	0	0
Stage 1	14.05	0	0
Stage 1	13.85	0	0
Stage 1	13.65	0	0
Stage 1	13.45	0	0
Stage 1	13.25	0	0
Stage 1	13.05	0	0
Stage 1	12.85	0	0
Stage 1	12.65	0	0
Stage 1	12.45	0	0
Stage 1	12.25	0	0
Stage 1	12.05	0	0
Stage 1	11.85	0	0
Stage 1	11.65	0	0
Stage 1	11.45	0	0
Stage 1	11.25	0	0
Stage 1	11.05	0	0
Stage 1	10.85	0	0
Stage 1	10.65	0	0
Stage 1	10.45	0	0
Stage 1	10.25	0	0
Stage 1	10.05	0	0
Stage 1	9.85	0	0
Stage 1	9.65	0	0
Stage 1	9.45	0	0

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	9.25	0	0
Stage 1	9.05	0	0
Stage 1	8.85	0	0
Stage 1	8.65	0	0
Stage 1	8.45	0	0
Stage 1	8.25	0	0
Stage 1	8.05	0	0
Stage 1	7.85	0	0
Stage 1	7.65	0	0
Stage 1	7.45	0	0
Stage 1	7.25	0	0
Stage 1	7.05	0	0
Stage 1	6.85	0	0
Stage 1	6.65	0	0
Stage 1	6.45	0	0
Stage 1	6.25	0	0
Stage 1	6.05	0	0
Stage 1	5.85	0	0
Stage 1	5.65	0	0
Stage 1	5.45	0	0
Stage 1	5.25	0	0
Stage 1	5.05	0	0
Stage 1	4.85	0	0
Stage 1	4.65	0	0
Stage 1	4.45	0	0
Stage 1	4.25	0	0
Stage 1	4.05	0	0
Stage 1	3.85	0	0
Stage 1	3.65	0	0
Stage 1	3.45	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	21.65	0	0
Stage 2	21.45	0	0
Stage 2	21.45	0	0
Stage 2	21.25	0	0
Stage 2	21.25	0	0
Stage 2	21.05	0	0
Stage 2	21.05	0	0
Stage 2	20.85	0	0
Stage 2	20.85	0	0
Stage 2	20.65	-0.05	-0.25
Stage 2	20.45	-0.2	-0.75
Stage 2	20.25	-0.5	-1.5
Stage 2	20.05	-1	-2.5
Stage 2	19.85	-1.75	-3.76
Stage 2	19.65	-2.8	-5.26
Stage 2	19.45	-4.21	-7.01
Stage 2	19.25	-6.01	-9.01
Stage 2	19.05	-8.26	-11.27
Stage 2	18.85	-11.02	-13.77
Stage 2	18.65	-14.01	-14.94
Stage 2	18.45	-16.65	-13.2
Stage 2	18.25	-18.37	-8.62
Stage 2	18.05	-19.28	-4.54
Stage 2	17.85	-19.46	-0.9
Stage 2	17.65	-18.98	2.37
Stage 2	17.45	-17.91	5.34
Stage 2	17.25	-16.41	7.52
Stage 2	17.05	-14.65	8.8
Stage 2	16.85	-12.76	9.44
Stage 2	16.65	-10.85	9.56
Stage 2	16.45	-9	9.24
Stage 2	16.25	-7.28	8.6
Stage 2	16.05	-5.72	7.79
Stage 2	15.85	-4.34	6.88
Stage 2	15.65	-3.16	5.94
Stage 2	15.45	-2.15	5.01
Stage 2	15.25	-1.33	4.13
Stage 2	15.05	-0.67	3.31
Stage 2	14.85	-0.15	2.58
Stage 2	14.65	0.23	1.93
Stage 2	14.45	0.51	1.38
Stage 2	14.25	0.7	0.92
Stage 2	14.05	0.8	0.54
Stage 2	13.85	0.85	0.24
Stage 2	13.65	0.86	0.01
Stage 2	13.45	0.82	-0.16
Stage 2	13.25	0.77	-0.28
Stage 2	13.05	0.7	-0.36
Stage 2	12.85	0.62	-0.4
Stage 2	12.65	0.53	-0.42
Stage 2	12.45	0.45	-0.42
Stage 2	12.25	0.37	-0.4
Stage 2	12.05	0.29	-0.37
Stage 2	11.85	0.23	-0.33
Stage 2	11.65	0.17	-0.29
Stage 2	11.45	0.12	-0.25
Stage 2	11.25	0.08	-0.21
Stage 2	11.05	0.05	-0.17
Stage 2	10.85	0.02	-0.13
Stage 2	10.65	0	-0.1
Stage 2	10.45	-0.02	-0.07
Stage 2	10.25	-0.03	-0.05
Stage 2	10.05	-0.03	-0.03
Stage 2	9.85	-0.04	-0.02
Stage 2	9.65	-0.04	-0.01

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	9.45	-0.04	0
Stage 2	9.25	-0.03	0.01
Stage 2	9.05	-0.03	0.01
Stage 2	8.85	-0.03	0.02
Stage 2	8.65	-0.02	0.02
Stage 2	8.45	-0.02	0.02
Stage 2	8.25	-0.02	0.02
Stage 2	8.05	-0.01	0.02
Stage 2	7.85	-0.01	0.01
Stage 2	7.65	-0.01	0.01
Stage 2	7.45	-0.01	0.01
Stage 2	7.25	0	0.01
Stage 2	7.05	0	0.01
Stage 2	6.85	0	0.01
Stage 2	6.65	0	0
Stage 2	6.45	0	0
Stage 2	6.25	0	0
Stage 2	6.05	0	0
Stage 2	5.85	0	0
Stage 2	5.65	0	0
Stage 2	5.45	0	0
Stage 2	5.25	0	0
Stage 2	5.05	0	0
Stage 2	4.85	0	0
Stage 2	4.65	0	0
Stage 2	4.45	0	0
Stage 2	4.25	0	0
Stage 2	4.05	0	0
Stage 2	3.85	0	0
Stage 2	3.65	0	0
Stage 2	3.45	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	21.65	0	0
Stage 3	21.45	0	0
Stage 3	21.45	0	0
Stage 3	21.25	0	0
Stage 3	21.25	0	0
Stage 3	21.05	0	0
Stage 3	21.05	0	0
Stage 3	20.85	0	0
Stage 3	20.85	0	0
Stage 3	20.65	-0.58	-2.91
Stage 3	20.45	-2.33	-8.73
Stage 3	20.25	-5.82	-17.47
Stage 3	20.05	-11.64	-29.11
Stage 3	19.85	-20.38	-43.67
Stage 3	19.65	-32.61	-61.14
Stage 3	19.45	-48.7	-80.45
Stage 3	19.25	-30.84	89.26
Stage 3	19.05	-16.38	72.32
Stage 3	18.85	-5.03	56.77
Stage 3	18.65	3.53	42.79
Stage 3	18.45	9.63	30.48
Stage 3	18.25	13.58	19.75
Stage 3	18.05	15.68	10.48
Stage 3	17.85	16.32	3.24
Stage 3	17.65	15.96	-1.82
Stage 3	17.45	14.95	-5.03
Stage 3	17.25	13.55	-7
Stage 3	17.05	11.93	-8.09
Stage 3	16.85	10.23	-8.52
Stage 3	16.65	8.54	-8.45
Stage 3	16.45	6.94	-8.03
Stage 3	16.25	5.46	-7.39
Stage 3	16.05	4.14	-6.58
Stage 3	15.85	3	-5.7
Stage 3	15.65	2.04	-4.8
Stage 3	15.45	1.25	-3.93
Stage 3	15.25	0.63	-3.12
Stage 3	15.05	0.15	-2.39
Stage 3	14.85	-0.2	-1.76
Stage 3	14.65	-0.44	-1.21
Stage 3	14.45	-0.6	-0.77
Stage 3	14.25	-0.68	-0.41
Stage 3	14.05	-0.7	-0.13
Stage 3	13.85	-0.69	0.08
Stage 3	13.65	-0.64	0.22
Stage 3	13.45	-0.58	0.32
Stage 3	13.25	-0.51	0.37
Stage 3	13.05	-0.43	0.39
Stage 3	12.85	-0.35	0.38
Stage 3	12.65	-0.28	0.35
Stage 3	12.45	-0.22	0.32
Stage 3	12.25	-0.16	0.28
Stage 3	12.05	-0.11	0.24
Stage 3	11.85	-0.07	0.2
Stage 3	11.65	-0.04	0.16
Stage 3	11.45	-0.01	0.13
Stage 3	11.25	0.01	0.1
Stage 3	11.05	0.02	0.07
Stage 3	10.85	0.03	0.05
Stage 3	10.65	0.04	0.03
Stage 3	10.45	0.04	0.01
Stage 3	10.25	0.04	0
Stage 3	10.05	0.04	-0.01
Stage 3	9.85	0.03	-0.01
Stage 3	9.65	0.03	-0.02

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	9.45	0.03	-0.02
Stage 3	9.25	0.02	-0.02
Stage 3	9.05	0.02	-0.02
Stage 3	8.85	0.01	-0.02
Stage 3	8.65	0.01	-0.02
Stage 3	8.45	0.01	-0.01
Stage 3	8.25	0	-0.01
Stage 3	8.05	0	-0.01
Stage 3	7.85	0	-0.01
Stage 3	7.65	0	-0.01
Stage 3	7.45	0	0
Stage 3	7.25	0	0
Stage 3	7.05	0	0
Stage 3	6.85	0	0
Stage 3	6.65	0	0
Stage 3	6.45	0	0
Stage 3	6.25	0	0
Stage 3	6.05	0	0
Stage 3	5.85	0	0
Stage 3	5.65	0	0
Stage 3	5.45	0	0
Stage 3	5.25	0	0
Stage 3	5.05	0	0
Stage 3	4.85	0	0
Stage 3	4.65	0	0
Stage 3	4.45	0	0
Stage 3	4.25	0	0
Stage 3	4.05	0	0
Stage 3	3.85	0	0
Stage 3	3.65	0	0
Stage 3	3.45	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	21.65	0	0
Stage 4	21.45	0	0
Stage 4	21.45	0	0
Stage 4	21.25	0	0
Stage 4	21.25	0	0
Stage 4	21.05	0	0
Stage 4	21.05	0	0
Stage 4	20.85	0	0
Stage 4	20.85	0	0
Stage 4	20.65	-0.58	-2.91
Stage 4	20.45	-2.33	-8.73
Stage 4	20.25	-5.82	-17.47
Stage 4	20.05	-11.64	-29.11
Stage 4	19.85	-20.38	-43.67
Stage 4	19.65	-32.61	-61.14
Stage 4	19.45	-48.68	-80.36
Stage 4	19.25	-30.49	90.93
Stage 4	19.05	-15.42	75.34
Stage 4	18.85	-3.07	61.78
Stage 4	18.65	6.99	50.3
Stage 4	18.45	15.16	40.85
Stage 4	18.25	21.83	33.34
Stage 4	18.05	27.36	27.64
Stage 4	17.85	32.07	23.56
Stage 4	17.65	35.98	19.55
Stage 4	17.45	39.04	15.29
Stage 4	17.25	41.19	10.79
Stage 4	17.05	42.4	6.03
Stage 4	16.85	42.6	1.02
Stage 4	16.65	41.76	-4.24
Stage 4	16.45	39.81	-9.75
Stage 4	16.25	36.71	-15.51
Stage 4	16.05	32.4	-21.52
Stage 4	15.85	26.85	-27.78
Stage 4	15.65	20.31	-32.7
Stage 4	15.45	13.36	-34.72
Stage 4	15.25	6.6	-33.82
Stage 4	15.05	0.59	-30.01
Stage 4	14.85	-4.29	-24.42
Stage 4	14.65	-8.08	-18.98
Stage 4	14.45	-10.82	-13.69
Stage 4	14.25	-12.65	-9.12
Stage 4	14.05	-13.71	-5.32
Stage 4	13.85	-14.16	-2.23
Stage 4	13.65	-14.11	0.24
Stage 4	13.45	-13.68	2.14
Stage 4	13.25	-12.97	3.55
Stage 4	13.05	-12.06	4.54
Stage 4	12.85	-11.03	5.18
Stage 4	12.65	-9.92	5.53
Stage 4	12.45	-8.79	5.65
Stage 4	12.25	-7.67	5.59
Stage 4	12.05	-6.59	5.39
Stage 4	11.85	-5.58	5.09
Stage 4	11.65	-4.63	4.71
Stage 4	11.45	-3.77	4.3
Stage 4	11.25	-3	3.86
Stage 4	11.05	-2.32	3.41
Stage 4	10.85	-1.72	2.97
Stage 4	10.65	-1.21	2.55
Stage 4	10.45	-0.78	2.16
Stage 4	10.25	-0.42	1.79
Stage 4	10.05	-0.13	1.46
Stage 4	9.85	0.1	1.16
Stage 4	9.65	0.28	0.89



Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	9.45	0.41	0.66
Stage 4	9.25	0.5	0.47
Stage 4	9.05	0.56	0.3
Stage 4	8.85	0.59	0.16
Stage 4	8.65	0.6	0.05
Stage 4	8.45	0.6	-0.04
Stage 4	8.25	0.57	-0.11
Stage 4	8.05	0.54	-0.16
Stage 4	7.85	0.5	-0.2
Stage 4	7.65	0.46	-0.22
Stage 4	7.45	0.41	-0.23
Stage 4	7.25	0.36	-0.24
Stage 4	7.05	0.32	-0.23
Stage 4	6.85	0.27	-0.22
Stage 4	6.65	0.23	-0.21
Stage 4	6.45	0.19	-0.19
Stage 4	6.25	0.16	-0.17
Stage 4	6.05	0.13	-0.15
Stage 4	5.85	0.1	-0.14
Stage 4	5.65	0.08	-0.12
Stage 4	5.45	0.06	-0.1
Stage 4	5.25	0.04	-0.08
Stage 4	5.05	0.03	-0.06
Stage 4	4.85	0.02	-0.05
Stage 4	4.65	0.01	-0.04
Stage 4	4.45	0.01	-0.03
Stage 4	4.25	0	-0.02
Stage 4	4.05	0	-0.01
Stage 4	3.85	0	0
Stage 4	3.65	0	0
Stage 4	3.45	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	21.65	0	0
Stage 5	21.45	0	0
Stage 5	21.45	0	0
Stage 5	21.25	0	0
Stage 5	21.25	0	0
Stage 5	21.05	0	0
Stage 5	21.05	0	0
Stage 5	20.85	0	0
Stage 5	20.85	0	0
Stage 5	20.65	-0.07	-0.35
Stage 5	20.45	-0.92	-4.25
Stage 5	20.25	-3.26	-11.68
Stage 5	20.05	-7.79	-22.66
Stage 5	19.85	-15.23	-37.19
Stage 5	19.65	-26.16	-54.66
Stage 5	19.45	-41.11	-74.73
Stage 5	19.25	-22.56	92.71
Stage 5	19.05	-7.58	74.92
Stage 5	18.85	4.11	58.46
Stage 5	18.65	12.78	43.36
Stage 5	18.45	18.7	29.57
Stage 5	18.25	22.1	16.99
Stage 5	18.05	23.19	5.48
Stage 5	17.85	22.17	-5.13
Stage 5	17.65	19	-15.86
Stage 5	17.45	13.6	-26.96
Stage 5	17.25	5.88	-38.6
Stage 5	17.05	-4.29	-50.85
Stage 5	16.85	-17.02	-63.65
Stage 5	16.65	-32.4	-76.92
Stage 5	16.45	-50.52	-90.62
Stage 5	16.25	-33.85	83.35
Stage 5	16.05	-20	69.27
Stage 5	15.85	-8.95	55.22
Stage 5	15.65	-0.66	41.45
Stage 5	15.45	4.97	28.16
Stage 5	15.25	8.32	16.74
Stage 5	15.05	10.21	9.47
Stage 5	14.85	11.25	5.22
Stage 5	14.65	11.65	2.01
Stage 5	14.45	11.61	-0.23
Stage 5	14.25	11.22	-1.93
Stage 5	14.05	10.58	-3.21
Stage 5	13.85	9.75	-4.13
Stage 5	13.65	8.81	-4.72
Stage 5	13.45	7.8	-5.02
Stage 5	13.25	6.79	-5.1
Stage 5	13.05	5.79	-4.99
Stage 5	12.85	4.84	-4.75
Stage 5	12.65	3.95	-4.42
Stage 5	12.45	3.14	-4.05
Stage 5	12.25	2.41	-3.66
Stage 5	12.05	1.76	-3.24
Stage 5	11.85	1.2	-2.81
Stage 5	11.65	0.72	-2.39
Stage 5	11.45	0.33	-1.98
Stage 5	11.25	0.01	-1.6
Stage 5	11.05	-0.24	-1.26
Stage 5	10.85	-0.43	-0.95
Stage 5	10.65	-0.57	-0.67
Stage 5	10.45	-0.66	-0.44
Stage 5	10.25	-0.71	-0.24
Stage 5	10.05	-0.72	-0.08
Stage 5	9.85	-0.71	0.05
Stage 5	9.65	-0.68	0.16

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	9.45	-0.63	0.23
Stage 5	9.25	-0.57	0.29
Stage 5	9.05	-0.51	0.32
Stage 5	8.85	-0.44	0.33
Stage 5	8.65	-0.38	0.33
Stage 5	8.45	-0.31	0.32
Stage 5	8.25	-0.25	0.3
Stage 5	8.05	-0.2	0.27
Stage 5	7.85	-0.15	0.24
Stage 5	7.65	-0.11	0.21
Stage 5	7.45	-0.07	0.18
Stage 5	7.25	-0.04	0.15
Stage 5	7.05	-0.02	0.13
Stage 5	6.85	0	0.1
Stage 5	6.65	0.02	0.08
Stage 5	6.45	0.03	0.06
Stage 5	6.25	0.04	0.04
Stage 5	6.05	0.04	0.02
Stage 5	5.85	0.04	0.01
Stage 5	5.65	0.04	0
Stage 5	5.45	0.04	-0.01
Stage 5	5.25	0.04	-0.02
Stage 5	5.05	0.03	-0.02
Stage 5	4.85	0.03	-0.03
Stage 5	4.65	0.02	-0.03
Stage 5	4.45	0.02	-0.03
Stage 5	4.25	0.01	-0.03
Stage 5	4.05	0.01	-0.02
Stage 5	3.85	0	-0.02
Stage 5	3.65	0	-0.01
Stage 5	3.45	0	0

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

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	21.65	0	0
Stage 6	21.45	0	0
Stage 6	21.45	0	0
Stage 6	21.25	0	0
Stage 6	21.25	0	0
Stage 6	21.05	0	0
Stage 6	21.05	0	0
Stage 6	20.85	0	0
Stage 6	20.85	0	0
Stage 6	20.65	-0.42	-2.08
Stage 6	20.45	-1.93	-7.59
Stage 6	20.25	-5.2	-16.32
Stage 6	20.05	-10.79	-27.97
Stage 6	19.85	-19.3	-42.53
Stage 6	19.65	-31.3	-59.99
Stage 6	19.45	-47.37	-80.37
Stage 6	19.25	-30.42	84.73
Stage 6	19.05	-17.14	66.44
Stage 6	18.85	-7.22	49.58
Stage 6	18.65	-0.38	34.19
Stage 6	18.45	3.66	20.24
Stage 6	18.25	5.19	7.64
Stage 6	18.05	4.46	-3.64
Stage 6	17.85	1.72	-13.73
Stage 6	17.65	-3.01	-23.62
Stage 6	17.45	-9.71	-33.5
Stage 6	17.25	-18.41	-43.5
Stage 6	17.05	-29.14	-53.66
Stage 6	16.85	-41.91	-63.85
Stage 6	16.65	-56.7	-73.96
Stage 6	16.45	-73.48	-83.88
Stage 6	16.25	-52.76	103.59
Stage 6	16.05	-33.83	94.64
Stage 6	15.85	-16.54	86.47
Stage 6	15.65	-0.7	79.21
Stage 6	15.45	13.8	72.45
Stage 6	15.25	26.88	65.44
Stage 6	15.05	38.52	58.18
Stage 6	14.85	48.65	50.67
Stage 6	14.65	57.24	42.91
Stage 6	14.45	64.21	34.89
Stage 6	14.25	69.54	26.63
Stage 6	14.05	73.16	18.12
Stage 6	13.85	75.03	9.35
Stage 6	13.65	75.1	0.34
Stage 6	13.45	73.32	-8.93
Stage 6	13.25	69.63	-18.44
Stage 6	13.05	63.99	-28.21
Stage 6	12.85	56.34	-38.22
Stage 6	12.65	46.96	-46.91
Stage 6	12.45	36.42	-52.68
Stage 6	12.25	25.32	-55.54
Stage 6	12.05	14.22	-55.49
Stage 6	11.85	3.72	-52.52
Stage 6	11.65	-5.61	-46.64
Stage 6	11.45	-13.23	-38.07
Stage 6	11.25	-19.18	-29.77
Stage 6	11.05	-23.53	-21.77
Stage 6	10.85	-26.51	-14.87
Stage 6	10.65	-28.31	-9.01
Stage 6	10.45	-29.13	-4.11
Stage 6	10.25	-29.15	-0.09
Stage 6	10.05	-28.52	3.13
Stage 6	9.85	-27.4	5.64
Stage 6	9.65	-25.89	7.53

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	9.45	-24.12	8.87
Stage 6	9.25	-22.17	9.74
Stage 6	9.05	-20.12	10.22
Stage 6	8.85	-18.05	10.37
Stage 6	8.65	-16	10.25
Stage 6	8.45	-14.01	9.92
Stage 6	8.25	-12.13	9.44
Stage 6	8.05	-10.36	8.85
Stage 6	7.85	-8.72	8.17
Stage 6	7.65	-7.23	7.45
Stage 6	7.45	-5.89	6.71
Stage 6	7.25	-4.7	5.96
Stage 6	7.05	-3.65	5.22
Stage 6	6.85	-2.75	4.51
Stage 6	6.65	-1.99	3.83
Stage 6	6.45	-1.35	3.19
Stage 6	6.25	-0.83	2.6
Stage 6	6.05	-0.42	2.06
Stage 6	5.85	-0.11	1.57
Stage 6	5.65	0.12	1.14
Stage 6	5.45	0.27	0.76
Stage 6	5.25	0.36	0.44
Stage 6	5.05	0.4	0.17
Stage 6	4.85	0.39	-0.04
Stage 6	4.65	0.35	-0.2
Stage 6	4.45	0.29	-0.31
Stage 6	4.25	0.21	-0.37
Stage 6	4.05	0.14	-0.38
Stage 6	3.85	0.07	-0.34
Stage 6	3.65	0.02	-0.24
Stage 6	3.45	0	-0.1

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 7

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	21.65	0	0
Stage 7	21.45	0	0
Stage 7	21.45	0	0
Stage 7	21.25	0	0
Stage 7	21.25	0	0
Stage 7	21.05	0	0
Stage 7	21.05	0	0
Stage 7	20.85	0	0
Stage 7	20.85	0	0
Stage 7	20.65	-0.28	-1.42
Stage 7	20.45	-1.54	-6.3
Stage 7	20.25	-4.43	-14.41
Stage 7	20.05	-9.52	-25.46
Stage 7	19.85	-17.4	-39.43
Stage 7	19.65	-28.67	-56.35
Stage 7	19.45	-43.91	-76.2
Stage 7	19.25	-25.85	90.31
Stage 7	19.05	-11.36	72.47
Stage 7	18.85	-0.15	56.02
Stage 7	18.65	8.04	40.98
Stage 7	18.45	13.5	27.29
Stage 7	18.25	16.48	14.87
Stage 7	18.05	17.21	3.66
Stage 7	17.85	15.91	-6.5
Stage 7	17.65	12.59	-16.61
Stage 7	17.45	7.21	-26.9
Stage 7	17.25	-0.3	-37.55
Stage 7	17.05	-10.02	-48.59
Stage 7	16.85	-22.01	-59.96
Stage 7	16.65	-36.33	-71.57
Stage 7	16.45	-53	-83.37
Stage 7	16.25	-33.57	97.16
Stage 7	16.05	-16.47	85.48
Stage 7	15.85	-1.66	74.09
Stage 7	15.65	10.96	63.1
Stage 7	15.45	21.37	52.05
Stage 7	15.25	29.41	40.17
Stage 7	15.05	34.9	27.46
Stage 7	14.85	37.74	14.19
Stage 7	14.65	37.84	0.5
Stage 7	14.45	35.12	-13.6
Stage 7	14.25	29.47	-28.24
Stage 7	14.05	20.79	-43.42
Stage 7	13.85	8.97	-59.09
Stage 7	13.65	-6.07	-75.21
Stage 7	13.45	-24.41	-91.7
Stage 7	13.25	-8.52	79.47
Stage 7	13.05	3.99	62.54
Stage 7	12.85	13.1	45.54
Stage 7	12.65	18.83	28.69
Stage 7	12.45	21.26	12.13
Stage 7	12.25	20.9	-1.79
Stage 7	12.05	18.51	-11.96
Stage 7	11.85	14.83	-18.38
Stage 7	11.65	10.67	-20.82
Stage 7	11.45	6.77	-19.47
Stage 7	11.25	3.31	-17.34
Stage 7	11.05	0.4	-14.54
Stage 7	10.85	-1.99	-11.94
Stage 7	10.65	-3.9	-9.56
Stage 7	10.45	-5.39	-7.42
Stage 7	10.25	-6.49	-5.51
Stage 7	10.05	-7.26	-3.83
Stage 7	9.85	-7.73	-2.38
Stage 7	9.65	-7.96	-1.14

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	9.45	-7.98	-0.11
Stage 7	9.25	-7.84	0.74
Stage 7	9.05	-7.56	1.38
Stage 7	8.85	-7.19	1.84
Stage 7	8.65	-6.76	2.16
Stage 7	8.45	-6.28	2.4
Stage 7	8.25	-5.77	2.56
Stage 7	8.05	-5.24	2.65
Stage 7	7.85	-4.7	2.67
Stage 7	7.65	-4.18	2.64
Stage 7	7.45	-3.66	2.55
Stage 7	7.25	-3.18	2.43
Stage 7	7.05	-2.72	2.29
Stage 7	6.85	-2.3	2.12
Stage 7	6.65	-1.91	1.93
Stage 7	6.45	-1.56	1.74
Stage 7	6.25	-1.25	1.54
Stage 7	6.05	-0.99	1.35
Stage 7	5.85	-0.75	1.15
Stage 7	5.65	-0.56	0.97
Stage 7	5.45	-0.4	0.8
Stage 7	5.25	-0.27	0.64
Stage 7	5.05	-0.17	0.5
Stage 7	4.85	-0.1	0.37
Stage 7	4.65	-0.05	0.25
Stage 7	4.45	-0.02	0.16
Stage 7	4.25	0	0.08
Stage 7	4.05	0.01	0.03
Stage 7	3.85	0.01	0
Stage 7	3.65	0	-0.02
Stage 7	3.45	0	-0.01

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 8

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	21.65	0	0
Stage 8	21.45	0	0
Stage 8	21.45	0	0
Stage 8	21.25	0	0
Stage 8	21.25	0	0
Stage 8	21.05	0	0
Stage 8	21.05	0	0
Stage 8	20.85	0	0
Stage 8	20.85	0	0
Stage 8	20.65	-0.28	-1.39
Stage 8	20.45	-1.54	-6.33
Stage 8	20.25	-4.47	-14.6
Stage 8	20.05	-9.65	-25.9
Stage 8	19.85	-17.69	-40.23
Stage 8	19.65	-29.21	-57.59
Stage 8	19.45	-44.8	-77.97
Stage 8	19.25	-27.47	86.65
Stage 8	19.05	-13.83	68.19
Stage 8	18.85	-3.62	51.08
Stage 8	18.65	3.45	35.35
Stage 8	18.45	7.64	20.96
Stage 8	18.25	9.21	7.82
Stage 8	18.05	8.37	-4.19
Stage 8	17.85	5.33	-15.23
Stage 8	17.65	0.06	-26.31
Stage 8	17.45	-7.46	-37.64
Stage 8	17.25	-17.34	-49.39
Stage 8	17.05	-29.66	-61.57
Stage 8	16.85	-44.46	-74.01
Stage 8	16.65	-61.78	-86.58
Stage 8	16.45	-81.61	-99.2
Stage 8	16.25	-65.77	79.24
Stage 8	16.05	-52.33	67.17
Stage 8	15.85	-41.2	55.69
Stage 8	15.65	-32.2	44.96
Stage 8	15.45	-25.28	34.61
Stage 8	15.25	-20.49	23.95
Stage 8	15.05	-17.88	13.03
Stage 8	14.85	-17.44	2.24
Stage 8	14.65	-19.07	-8.19
Stage 8	14.45	-22.7	-18.16
Stage 8	14.25	-28.24	-27.7
Stage 8	14.05	-35.58	-36.69
Stage 8	13.85	-44.67	-45.46
Stage 8	13.65	-55.57	-54.47
Stage 8	13.45	-68.32	-63.74
Stage 8	13.25	-39.81	142.53
Stage 8	13.05	-13.26	132.77
Stage 8	12.85	11.29	122.75
Stage 8	12.65	33.79	112.49
Stage 8	12.45	54.18	101.97
Stage 8	12.25	72.42	91.2
Stage 8	12.05	88.46	80.18
Stage 8	11.85	102.24	68.92
Stage 8	11.65	113.72	57.4
Stage 8	11.45	122.85	45.63
Stage 8	11.25	129.57	33.61
Stage 8	11.05	133.84	21.34
Stage 8	10.85	135.6	8.82
Stage 8	10.65	134.81	-3.95
Stage 8	10.45	131.42	-16.97
Stage 8	10.25	125.37	-30.24
Stage 8	10.05	116.62	-43.76
Stage 8	9.85	105.11	-57.54
Stage 8	9.65	91.11	-69.98



Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	9.45	75.21	-79.51
Stage 8	9.25	57.99	-86.12
Stage 8	9.05	40.02	-89.82
Stage 8	8.85	21.9	-90.61
Stage 8	8.65	4.2	-88.49
Stage 8	8.45	-12.49	-83.45
Stage 8	8.25	-27.59	-75.5
Stage 8	8.05	-40.52	-64.64
Stage 8	7.85	-50.69	-50.87
Stage 8	7.65	-58.12	-37.16
Stage 8	7.45	-62.97	-24.23
Stage 8	7.25	-65.36	-11.97
Stage 8	7.05	-65.71	-1.75
Stage 8	6.85	-64.39	6.59
Stage 8	6.65	-61.75	13.24
Stage 8	6.45	-58.07	18.39
Stage 8	6.25	-53.63	22.2
Stage 8	6.05	-48.66	24.83
Stage 8	5.85	-43.37	26.45
Stage 8	5.65	-37.93	27.19
Stage 8	5.45	-32.49	27.2
Stage 8	5.25	-27.19	26.53
Stage 8	5.05	-22.13	25.28
Stage 8	4.85	-17.42	23.54
Stage 8	4.65	-13.14	21.4
Stage 8	4.45	-9.36	18.9
Stage 8	4.25	-6.14	16.1
Stage 8	4.05	-3.54	13
Stage 8	3.85	-1.61	9.63
Stage 8	3.65	-0.42	5.99
Stage 8	3.45	0	2.08

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 9

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	21.65	0	0
Stage 9	21.45	0	0
Stage 9	21.45	0	0
Stage 9	21.25	0	0
Stage 9	21.25	0	0
Stage 9	21.05	0	0
Stage 9	21.05	0	0
Stage 9	20.85	0	0
Stage 9	20.85	0	0
Stage 9	20.65	-0.29	-1.47
Stage 9	20.45	-1.59	-6.47
Stage 9	20.25	-4.54	-14.77
Stage 9	20.05	-9.76	-26.08
Stage 9	19.85	-17.84	-40.39
Stage 9	19.65	-29.38	-57.7
Stage 9	19.45	-44.98	-78.01
Stage 9	19.25	-27.59	86.91
Stage 9	19.05	-13.88	68.58
Stage 9	18.85	-3.56	51.61
Stage 9	18.65	3.66	36.06
Stage 9	18.45	8.03	21.87
Stage 9	18.25	9.82	8.96
Stage 9	18.05	9.26	-2.8
Stage 9	17.85	6.55	-13.57
Stage 9	17.65	1.68	-24.34
Stage 9	17.45	-5.39	-35.36
Stage 9	17.25	-14.75	-46.77
Stage 9	17.05	-26.47	-58.6
Stage 9	16.85	-40.6	-70.68
Stage 9	16.65	-57.18	-82.89
Stage 9	16.45	-76.21	-95.15
Stage 9	16.25	-59.32	84.44
Stage 9	16.05	-44.78	72.7
Stage 9	15.85	-32.48	61.51
Stage 9	15.65	-22.27	51.04
Stage 9	15.45	-14.1	40.87
Stage 9	15.25	-8.03	30.31
Stage 9	15.05	-4.15	19.4
Stage 9	14.85	-2.46	8.5
Stage 9	14.65	-2.89	-2.2
Stage 9	14.45	-5.42	-12.6
Stage 9	14.25	-9.97	-22.78
Stage 9	14.05	-16.5	-32.65
Stage 9	13.85	-25.01	-42.55
Stage 9	13.65	-35.61	-53
Stage 9	13.45	-48.41	-64.03
Stage 9	13.25	-21.43	134.91
Stage 9	13.05	3.09	122.6
Stage 9	12.85	25.01	109.61
Stage 9	12.65	44.19	95.89
Stage 9	12.45	60.48	81.44
Stage 9	12.25	73.72	66.22
Stage 9	12.05	83.77	50.24
Stage 9	11.85	90.47	33.48
Stage 9	11.65	93.7	16.19
Stage 9	11.45	93.36	-1.71
Stage 9	11.25	89.32	-20.2
Stage 9	11.05	81.48	-39.22
Stage 9	10.85	69.73	-58.75
Stage 9	10.65	53.98	-78.72
Stage 9	10.45	34.17	-99.05
Stage 9	10.25	47.83	68.29
Stage 9	10.05	57.34	47.52
Stage 9	9.85	62.67	26.67
Stage 9	9.65	63.86	5.92

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	9.45	60.95	-14.53
Stage 9	9.25	54.39	-32.81
Stage 9	9.05	44.98	-47.05
Stage 9	8.85	33.53	-57.21
Stage 9	8.65	20.87	-63.33
Stage 9	8.45	7.78	-65.44
Stage 9	8.25	-4.94	-63.6
Stage 9	8.05	-16.52	-57.87
Stage 9	7.85	-26.18	-48.34
Stage 9	7.65	-33.8	-38.07
Stage 9	7.45	-39.37	-27.85
Stage 9	7.25	-42.91	-17.7
Stage 9	7.05	-44.71	-9
Stage 9	6.85	-45.05	-1.69
Stage 9	6.65	-44.18	4.34
Stage 9	6.45	-42.34	9.2
Stage 9	6.25	-39.74	13.01
Stage 9	6.05	-36.57	15.83
Stage 9	5.85	-33.01	17.78
Stage 9	5.65	-29.22	18.95
Stage 9	5.45	-25.32	19.51
Stage 9	5.25	-21.41	19.54
Stage 9	5.05	-17.6	19.04
Stage 9	4.85	-13.99	18.07
Stage 9	4.65	-10.65	16.71
Stage 9	4.45	-7.65	14.99
Stage 9	4.25	-5.06	12.95
Stage 9	4.05	-2.94	10.59
Stage 9	3.85	-1.35	7.94
Stage 9	3.65	-0.35	5
Stage 9	3.45	0	1.76

### Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 10

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	21.65	0	0
Stage 10	21.45	0	0
Stage 10	21.45	0	0
Stage 10	21.25	0	0
Stage 10	21.25	0	0
Stage 10	21.05	0	0
Stage 10	21.05	0	0
Stage 10	20.85	0	0
Stage 10	20.85	0	0
Stage 10	20.65	-0.28	-1.4
Stage 10	20.45	-1.55	-6.33
Stage 10	20.25	-4.46	-14.58
Stage 10	20.05	-9.63	-25.84
Stage 10	19.85	-17.65	-40.1
Stage 10	19.65	-29.12	-57.37
Stage 10	19.45	-44.65	-77.66
Stage 10	19.25	-27.19	87.32
Stage 10	19.05	-13.39	69
Stage 10	18.85	-2.98	52.03
Stage 10	18.65	4.31	36.47
Stage 10	18.45	8.76	22.26
Stage 10	18.25	10.62	9.32
Stage 10	18.05	10.12	-2.49
Stage 10	17.85	7.46	-13.32
Stage 10	17.65	2.62	-24.18
Stage 10	17.45	-4.43	-35.29
Stage 10	17.25	-13.8	-46.83
Stage 10	17.05	-25.56	-58.8
Stage 10	16.85	-39.77	-71.04
Stage 10	16.65	-56.46	-83.44
Stage 10	16.45	-75.64	-95.91
Stage 10	16.25	-59.06	82.87
Stage 10	16.05	-44.89	70.85
Stage 10	15.85	-33.02	59.36
Stage 10	15.65	-23.31	48.55
Stage 10	15.45	-15.71	38.02
Stage 10	15.25	-10.29	27.08
Stage 10	15.05	-7.14	15.76
Stage 10	14.85	-6.26	4.42
Stage 10	14.65	-7.6	-6.71
Stage 10	14.45	-11.11	-17.57
Stage 10	14.25	-16.75	-28.2
Stage 10	14.05	-24.45	-38.5
Stage 10	13.85	-34.22	-48.82
Stage 10	13.65	-46.15	-59.65
Stage 10	13.45	-60.35	-71
Stage 10	13.25	-34.93	127.08
Stage 10	13.05	-12.01	114.62
Stage 10	12.85	8.31	101.58
Stage 10	12.65	25.9	87.98
Stage 10	12.45	40.66	73.8
Stage 10	12.25	52.48	59.08
Stage 10	12.05	61.25	43.83
Stage 10	11.85	66.87	28.13
Stage 10	11.65	69.31	12.17
Stage 10	11.45	68.5	-4.03
Stage 10	11.25	64.42	-20.41
Stage 10	11.05	57.04	-36.88
Stage 10	10.85	46.37	-53.36
Stage 10	10.65	32.43	-69.73
Stage 10	10.45	15.25	-85.89
Stage 10	10.25	35.08	99.18
Stage 10	10.05	51.85	83.85
Stage 10	9.85	65.68	69.11
Stage 10	9.65	76.68	55.03

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	9.45	84.83	40.76
Stage 10	9.25	90.08	26.24
Stage 10	9.05	92.37	11.46
Stage 10	8.85	91.66	-3.56
Stage 10	8.65	87.9	-18.83
Stage 10	8.45	81.02	-34.36
Stage 10	8.25	71.47	-47.76
Stage 10	8.05	59.82	-58.25
Stage 10	7.85	46.65	-65.83
Stage 10	7.65	32.56	-70.49
Stage 10	7.45	18.11	-72.25
Stage 10	7.25	3.89	-71.08
Stage 10	7.05	-9.51	-67.01
Stage 10	6.85	-21.52	-60.02
Stage 10	6.65	-31.54	-50.12
Stage 10	6.45	-39	-37.31
Stage 10	6.25	-43.6	-22.97
Stage 10	6.05	-45.66	-10.32
Stage 10	5.85	-45.62	0.21
Stage 10	5.65	-43.87	8.76
Stage 10	5.45	-40.77	15.5
Stage 10	5.25	-36.64	20.63
Stage 10	5.05	-31.79	24.24
Stage 10	4.85	-26.5	26.45
Stage 10	4.65	-21.03	27.35
Stage 10	4.45	-15.67	26.85
Stage 10	4.25	-10.69	24.85
Stage 10	4.05	-6.4	21.46
Stage 10	3.85	-3.03	16.86
Stage 10	3.65	-0.82	11.07
Stage 10	3.45	0	4.08

**Tabella Risultati Paratia A2+M2+R1 - Left Wall - Stage: Stage 11-S**

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	21.65	0	0
Stage 11-S	21.45	0	0
Stage 11-S	21.45	0	0
Stage 11-S	21.25	0	0
Stage 11-S	21.25	0	0
Stage 11-S	21.05	0	0
Stage 11-S	21.05	0	0
Stage 11-S	20.85	0	0
Stage 11-S	20.85	0	0
Stage 11-S	20.65	-0.28	-1.4
Stage 11-S	20.45	-1.55	-6.33
Stage 11-S	20.25	-4.46	-14.58
Stage 11-S	20.05	-9.63	-25.84
Stage 11-S	19.85	-17.65	-40.1
Stage 11-S	19.65	-29.12	-57.37
Stage 11-S	19.45	-44.65	-77.66
Stage 11-S	19.25	-27.19	87.32
Stage 11-S	19.05	-13.39	69
Stage 11-S	18.85	-2.98	52.03
Stage 11-S	18.65	4.31	36.47
Stage 11-S	18.45	8.76	22.26
Stage 11-S	18.25	10.62	9.32
Stage 11-S	18.05	10.12	-2.49
Stage 11-S	17.85	7.46	-13.32
Stage 11-S	17.65	2.62	-24.18
Stage 11-S	17.45	-4.43	-35.29
Stage 11-S	17.25	-13.8	-46.83
Stage 11-S	17.05	-25.56	-58.8
Stage 11-S	16.85	-39.77	-71.04
Stage 11-S	16.65	-56.46	-83.44
Stage 11-S	16.45	-75.64	-95.91
Stage 11-S	16.25	-59.06	82.87
Stage 11-S	16.05	-44.89	70.85
Stage 11-S	15.85	-33.02	59.36
Stage 11-S	15.65	-23.31	48.55
Stage 11-S	15.45	-15.71	38.02
Stage 11-S	15.25	-10.29	27.08
Stage 11-S	15.05	-7.14	15.76
Stage 11-S	14.85	-6.26	4.42
Stage 11-S	14.65	-7.6	-6.71
Stage 11-S	14.45	-11.11	-17.57
Stage 11-S	14.25	-16.75	-28.2
Stage 11-S	14.05	-24.45	-38.5
Stage 11-S	13.85	-34.22	-48.82
Stage 11-S	13.65	-46.15	-59.65
Stage 11-S	13.45	-60.35	-71
Stage 11-S	13.25	-34.93	127.08
Stage 11-S	13.05	-12.01	114.62
Stage 11-S	12.85	8.31	101.58
Stage 11-S	12.65	25.9	87.98
Stage 11-S	12.45	40.66	73.8
Stage 11-S	12.25	52.48	59.08
Stage 11-S	12.05	61.25	43.83
Stage 11-S	11.85	66.87	28.13
Stage 11-S	11.65	69.31	12.17
Stage 11-S	11.45	68.5	-4.03
Stage 11-S	11.25	64.42	-20.41
Stage 11-S	11.05	57.04	-36.88
Stage 11-S	10.85	46.37	-53.36
Stage 11-S	10.65	32.43	-69.73
Stage 11-S	10.45	15.25	-85.89
Stage 11-S	10.25	35.08	99.18
Stage 11-S	10.05	51.85	83.85
Stage 11-S	9.85	65.68	69.11
Stage 11-S	9.65	76.68	55.03

Design Assumption: A2+M2+R1 Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	9.45	84.83	40.76
Stage 11-S	9.25	90.08	26.24
Stage 11-S	9.05	92.37	11.46
Stage 11-S	8.85	91.66	-3.56
Stage 11-S	8.65	87.9	-18.83
Stage 11-S	8.45	81.02	-34.36
Stage 11-S	8.25	71.47	-47.76
Stage 11-S	8.05	59.82	-58.25
Stage 11-S	7.85	46.65	-65.83
Stage 11-S	7.65	32.56	-70.49
Stage 11-S	7.45	18.11	-72.25
Stage 11-S	7.25	3.89	-71.08
Stage 11-S	7.05	-9.51	-67.01
Stage 11-S	6.85	-21.52	-60.02
Stage 11-S	6.65	-31.54	-50.12
Stage 11-S	6.45	-39	-37.31
Stage 11-S	6.25	-43.6	-22.97
Stage 11-S	6.05	-45.66	-10.32
Stage 11-S	5.85	-45.62	0.21
Stage 11-S	5.65	-43.87	8.76
Stage 11-S	5.45	-40.77	15.5
Stage 11-S	5.25	-36.64	20.63
Stage 11-S	5.05	-31.79	24.24
Stage 11-S	4.85	-26.5	26.45
Stage 11-S	4.65	-21.03	27.35
Stage 11-S	4.45	-15.67	26.85
Stage 11-S	4.25	-10.69	24.85
Stage 11-S	4.05	-6.4	21.46
Stage 11-S	3.85	-3.03	16.86
Stage 11-S	3.65	-0.82	11.07
Stage 11-S	3.45	0	4.08

## Risultati Elementi strutturali - A2+M2+R1

### Design Assumption: A2+M2+R1 Sollecitazione Tir-D4

Stage	Forza (kN/m)
Stage 3	200
Stage 4	200.8997
Stage 5	198.4258
Stage 6	196.5634
Stage 7	197.5373
Stage 8	196.1446
Stage 9	196.3565
Stage 10	196.3991
Stage 11-S	196.3991



**Design Assumption: A2+M2+R1 Sollecitazione Tir-E4**

Stage	Forza (kN/m)
Stage 5	200
Stage 6	209.6488
Stage 7	204.6839
Stage 8	203.1388
Stage 9	203.9906
Stage 10	203.3916
Stage 11-S	203.3916

**Design Assumption: A2+M2+R1 Sollecitazione Tir-F4**

Stage	Forza (kN/m)
Stage 7	200
Stage 8	229.6348
Stage 9	224.1134
Stage 10	223.4672
Stage 11-S	223.4672

**Design Assumption: A2+M2+R1 Sollecitazione Tir-G4**

Stage	Forza (kN/m)
Stage 9	200
Stage 10	213.7805
Stage 11-S	213.7805

## Risultati SISMICA STR

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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	21.65	0	0
Stage 1	21.45	0	0
Stage 1	21.25	0	0
Stage 1	21.05	0	0
Stage 1	20.85	0	0
Stage 1	20.65	0	0
Stage 1	20.45	0	0
Stage 1	20.25	0	0
Stage 1	20.05	0	0
Stage 1	19.85	0	0
Stage 1	19.65	0	0
Stage 1	19.45	0	0
Stage 1	19.25	0	0
Stage 1	19.05	0	0
Stage 1	18.85	0	0
Stage 1	18.65	0	0
Stage 1	18.45	0	0
Stage 1	18.25	0	0
Stage 1	18.05	0	0
Stage 1	17.85	0	0
Stage 1	17.65	0	0
Stage 1	17.45	0	0
Stage 1	17.25	0	0
Stage 1	17.05	0	0
Stage 1	16.85	0	0
Stage 1	16.65	0	0
Stage 1	16.45	0	0
Stage 1	16.25	0	0
Stage 1	16.05	0	0
Stage 1	15.85	0	0
Stage 1	15.65	0	0
Stage 1	15.45	0	0
Stage 1	15.25	0	0
Stage 1	15.05	0	0
Stage 1	14.85	0	0
Stage 1	14.65	0	0
Stage 1	14.45	0	0
Stage 1	14.25	0	0
Stage 1	14.05	0	0
Stage 1	13.85	0	0
Stage 1	13.65	0	0
Stage 1	13.45	0	0
Stage 1	13.25	0	0
Stage 1	13.05	0	0
Stage 1	12.85	0	0
Stage 1	12.65	0	0
Stage 1	12.45	0	0
Stage 1	12.25	0	0
Stage 1	12.05	0	0
Stage 1	11.85	0	0
Stage 1	11.65	0	0
Stage 1	11.45	0	0
Stage 1	11.25	0	0
Stage 1	11.05	0	0
Stage 1	10.85	0	0
Stage 1	10.65	0	0
Stage 1	10.45	0	0
Stage 1	10.25	0	0
Stage 1	10.05	0	0
Stage 1	9.85	0	0
Stage 1	9.65	0	0
Stage 1	9.45	0	0

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	9.25	0	0
Stage 1	9.05	0	0
Stage 1	8.85	0	0
Stage 1	8.65	0	0
Stage 1	8.45	0	0
Stage 1	8.25	0	0
Stage 1	8.05	0	0
Stage 1	7.85	0	0
Stage 1	7.65	0	0
Stage 1	7.45	0	0
Stage 1	7.25	0	0
Stage 1	7.05	0	0
Stage 1	6.85	0	0
Stage 1	6.65	0	0
Stage 1	6.45	0	0
Stage 1	6.25	0	0
Stage 1	6.05	0	0
Stage 1	5.85	0	0
Stage 1	5.65	0	0
Stage 1	5.45	0	0
Stage 1	5.25	0	0
Stage 1	5.05	0	0
Stage 1	4.85	0	0
Stage 1	4.65	0	0
Stage 1	4.45	0	0
Stage 1	4.25	0	0
Stage 1	4.05	0	0
Stage 1	3.85	0	0
Stage 1	3.65	0	0
Stage 1	3.45	0	0

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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	21.65	0	0
Stage 2	21.45	0	0
Stage 2	21.45	0	0
Stage 2	21.25	0	0
Stage 2	21.25	0	0
Stage 2	21.05	0	0
Stage 2	21.05	0	0
Stage 2	20.85	0	0
Stage 2	20.85	0	0
Stage 2	20.65	-0.04	-0.2
Stage 2	20.45	-0.16	-0.59
Stage 2	20.25	-0.39	-1.18
Stage 2	20.05	-0.79	-1.97
Stage 2	19.85	-1.38	-2.95
Stage 2	19.65	-2.2	-4.13
Stage 2	19.45	-3.31	-5.51
Stage 2	19.25	-4.72	-7.08
Stage 2	19.05	-6.49	-8.86
Stage 2	18.85	-8.66	-10.82
Stage 2	18.65	-10.8	-10.72
Stage 2	18.45	-12.21	-7.05
Stage 2	18.25	-12.92	-3.55
Stage 2	18.05	-12.96	-0.2
Stage 2	17.85	-12.46	2.54
Stage 2	17.65	-11.57	4.44
Stage 2	17.45	-10.44	5.63
Stage 2	17.25	-9.19	6.26
Stage 2	17.05	-7.9	6.47
Stage 2	16.85	-6.63	6.35
Stage 2	16.65	-5.43	5.99
Stage 2	16.45	-4.33	5.49
Stage 2	16.25	-3.35	4.91
Stage 2	16.05	-2.49	4.29
Stage 2	15.85	-1.76	3.66
Stage 2	15.65	-1.15	3.05
Stage 2	15.45	-0.65	2.48
Stage 2	15.25	-0.26	1.96
Stage 2	15.05	0.04	1.5
Stage 2	14.85	0.26	1.1
Stage 2	14.65	0.41	0.76
Stage 2	14.45	0.51	0.48
Stage 2	14.25	0.56	0.26
Stage 2	14.05	0.58	0.08
Stage 2	13.85	0.56	-0.05
Stage 2	13.65	0.53	-0.15
Stage 2	13.45	0.49	-0.22
Stage 2	13.25	0.44	-0.26
Stage 2	13.05	0.38	-0.28
Stage 2	12.85	0.33	-0.28
Stage 2	12.65	0.27	-0.28
Stage 2	12.45	0.22	-0.26
Stage 2	12.25	0.17	-0.23
Stage 2	12.05	0.13	-0.21
Stage 2	11.85	0.1	-0.18
Stage 2	11.65	0.07	-0.15
Stage 2	11.45	0.04	-0.12
Stage 2	11.25	0.02	-0.1
Stage 2	11.05	0.01	-0.08
Stage 2	10.85	-0.01	-0.06
Stage 2	10.65	-0.01	-0.04
Stage 2	10.45	-0.02	-0.03
Stage 2	10.25	-0.02	-0.02
Stage 2	10.05	-0.02	-0.01
Stage 2	9.85	-0.02	0
Stage 2	9.65	-0.02	0.01

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	9.45	-0.02	0.01
Stage 2	9.25	-0.02	0.01
Stage 2	9.05	-0.02	0.01
Stage 2	8.85	-0.01	0.01
Stage 2	8.65	-0.01	0.01
Stage 2	8.45	-0.01	0.01
Stage 2	8.25	-0.01	0.01
Stage 2	8.05	-0.01	0.01
Stage 2	7.85	0	0.01
Stage 2	7.65	0	0.01
Stage 2	7.45	0	0.01
Stage 2	7.25	0	0
Stage 2	7.05	0	0
Stage 2	6.85	0	0
Stage 2	6.65	0	0
Stage 2	6.45	0	0
Stage 2	6.25	0	0
Stage 2	6.05	0	0
Stage 2	5.85	0	0
Stage 2	5.65	0	0
Stage 2	5.45	0	0
Stage 2	5.25	0	0
Stage 2	5.05	0	0
Stage 2	4.85	0	0
Stage 2	4.65	0	0
Stage 2	4.45	0	0
Stage 2	4.25	0	0
Stage 2	4.05	0	0
Stage 2	3.85	0	0
Stage 2	3.65	0	0
Stage 2	3.45	0	0

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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	21.65	0	0
Stage 3	21.45	0	0
Stage 3	21.45	0	0
Stage 3	21.25	0	0
Stage 3	21.25	0	0
Stage 3	21.05	0	0
Stage 3	21.05	0	0
Stage 3	20.85	0	0
Stage 3	20.85	0	0
Stage 3	20.65	-0.83	-4.13
Stage 3	20.45	-3.31	-12.4
Stage 3	20.25	-8.26	-24.79
Stage 3	20.05	-16.34	-40.36
Stage 3	19.85	-27.52	-55.94
Stage 3	19.65	-41.82	-71.46
Stage 3	19.45	-59.17	-86.78
Stage 3	19.25	-41.92	86.28
Stage 3	19.05	-27.5	72.09
Stage 3	18.85	-15.74	58.8
Stage 3	18.65	-6.41	46.63
Stage 3	18.45	0.73	35.7
Stage 3	18.25	5.93	26.01
Stage 3	18.05	9.46	17.63
Stage 3	17.85	11.65	10.97
Stage 3	17.65	12.78	5.65
Stage 3	17.45	13.08	1.52
Stage 3	17.25	12.77	-1.56
Stage 3	17.05	12.02	-3.75
Stage 3	16.85	10.97	-5.24
Stage 3	16.65	9.74	-6.15
Stage 3	16.45	8.42	-6.62
Stage 3	16.25	7.09	-6.64
Stage 3	16.05	5.82	-6.35
Stage 3	15.85	4.65	-5.86
Stage 3	15.65	3.6	-5.24
Stage 3	15.45	2.69	-4.57
Stage 3	15.25	1.91	-3.88
Stage 3	15.05	1.27	-3.21
Stage 3	14.85	0.75	-2.59
Stage 3	14.65	0.35	-2.03
Stage 3	14.45	0.04	-1.53
Stage 3	14.25	-0.18	-1.11
Stage 3	14.05	-0.33	-0.75
Stage 3	13.85	-0.42	-0.47
Stage 3	13.65	-0.47	-0.24
Stage 3	13.45	-0.48	-0.07
Stage 3	13.25	-0.47	0.06
Stage 3	13.05	-0.44	0.15
Stage 3	12.85	-0.4	0.2
Stage 3	12.65	-0.36	0.24
Stage 3	12.45	-0.31	0.25
Stage 3	12.25	-0.26	0.24
Stage 3	12.05	-0.21	0.23
Stage 3	11.85	-0.17	0.21
Stage 3	11.65	-0.13	0.19
Stage 3	11.45	-0.1	0.17
Stage 3	11.25	-0.07	0.14
Stage 3	11.05	-0.05	0.12
Stage 3	10.85	-0.03	0.09
Stage 3	10.65	-0.01	0.07
Stage 3	10.45	0	0.06
Stage 3	10.25	0.01	0.04
Stage 3	10.05	0.01	0.03
Stage 3	9.85	0.02	0.02
Stage 3	9.65	0.02	0.01



Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	9.45	0.02	0
Stage 3	9.25	0.02	0
Stage 3	9.05	0.02	-0.01
Stage 3	8.85	0.02	-0.01
Stage 3	8.65	0.01	-0.01
Stage 3	8.45	0.01	-0.01
Stage 3	8.25	0.01	-0.01
Stage 3	8.05	0.01	-0.01
Stage 3	7.85	0.01	-0.01
Stage 3	7.65	0.01	-0.01
Stage 3	7.45	0	-0.01
Stage 3	7.25	0	-0.01
Stage 3	7.05	0	0
Stage 3	6.85	0	0
Stage 3	6.65	0	0
Stage 3	6.45	0	0
Stage 3	6.25	0	0
Stage 3	6.05	0	0
Stage 3	5.85	0	0
Stage 3	5.65	0	0
Stage 3	5.45	0	0
Stage 3	5.25	0	0
Stage 3	5.05	0	0
Stage 3	4.85	0	0
Stage 3	4.65	0	0
Stage 3	4.45	0	0
Stage 3	4.25	0	0
Stage 3	4.05	0	0
Stage 3	3.85	0	0
Stage 3	3.65	0	0
Stage 3	3.45	0	0

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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	21.65	0	0
Stage 4	21.45	0	0
Stage 4	21.45	0	0
Stage 4	21.25	0	0
Stage 4	21.25	0	0
Stage 4	21.05	0	0
Stage 4	21.05	0	0
Stage 4	20.85	0	0
Stage 4	20.85	0	0
Stage 4	20.65	-0.83	-4.13
Stage 4	20.45	-3.31	-12.4
Stage 4	20.25	-8.26	-24.79
Stage 4	20.05	-16.43	-40.83
Stage 4	19.85	-27.77	-56.68
Stage 4	19.65	-42.22	-72.24
Stage 4	19.45	-59.67	-87.27
Stage 4	19.25	-42.25	87.07
Stage 4	19.05	-27.48	73.87
Stage 4	18.85	-15.1	61.92
Stage 4	18.65	-4.83	51.33
Stage 4	18.45	3.6	42.15
Stage 4	18.25	10.47	34.35
Stage 4	18.05	16.04	27.86
Stage 4	17.85	20.49	22.23
Stage 4	17.65	23.92	17.15
Stage 4	17.45	26.42	12.53
Stage 4	17.25	28.08	8.26
Stage 4	17.05	28.92	4.23
Stage 4	16.85	28.98	0.3
Stage 4	16.65	28.22	-3.83
Stage 4	16.45	26.58	-8.16
Stage 4	16.25	24.04	-12.69
Stage 4	16.05	20.56	-17.41
Stage 4	15.85	16.09	-22.33
Stage 4	15.65	10.99	-25.5
Stage 4	15.45	6.05	-24.74
Stage 4	15.25	2.02	-20.12
Stage 4	15.05	-1.15	-15.87
Stage 4	14.85	-3.58	-12.11
Stage 4	14.65	-5.34	-8.84
Stage 4	14.45	-6.55	-6.05
Stage 4	14.25	-7.3	-3.72
Stage 4	14.05	-7.66	-1.8
Stage 4	13.85	-7.71	-0.27
Stage 4	13.65	-7.53	0.91
Stage 4	13.45	-7.17	1.8
Stage 4	13.25	-6.68	2.43
Stage 4	13.05	-6.12	2.84
Stage 4	12.85	-5.5	3.07
Stage 4	12.65	-4.87	3.15
Stage 4	12.45	-4.25	3.12
Stage 4	12.25	-3.64	3.01
Stage 4	12.05	-3.07	2.85
Stage 4	11.85	-2.55	2.64
Stage 4	11.65	-2.07	2.4
Stage 4	11.45	-1.64	2.15
Stage 4	11.25	-1.26	1.9
Stage 4	11.05	-0.92	1.65
Stage 4	10.85	-0.64	1.41
Stage 4	10.65	-0.4	1.19
Stage 4	10.45	-0.21	0.98
Stage 4	10.25	-0.05	0.8
Stage 4	10.05	0.08	0.63
Stage 4	9.85	0.17	0.48
Stage 4	9.65	0.24	0.35

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	9.45	0.29	0.24
Stage 4	9.25	0.32	0.15
Stage 4	9.05	0.34	0.08
Stage 4	8.85	0.34	0.01
Stage 4	8.65	0.33	-0.03
Stage 4	8.45	0.32	-0.07
Stage 4	8.25	0.3	-0.1
Stage 4	8.05	0.28	-0.12
Stage 4	7.85	0.25	-0.13
Stage 4	7.65	0.22	-0.13
Stage 4	7.45	0.2	-0.13
Stage 4	7.25	0.17	-0.13
Stage 4	7.05	0.15	-0.13
Stage 4	6.85	0.12	-0.12
Stage 4	6.65	0.1	-0.11
Stage 4	6.45	0.08	-0.1
Stage 4	6.25	0.07	-0.08
Stage 4	6.05	0.05	-0.07
Stage 4	5.85	0.04	-0.06
Stage 4	5.65	0.03	-0.05
Stage 4	5.45	0.02	-0.04
Stage 4	5.25	0.01	-0.03
Stage 4	5.05	0.01	-0.02
Stage 4	4.85	0	-0.02
Stage 4	4.65	0	-0.01
Stage 4	4.45	0	-0.01
Stage 4	4.25	0	0
Stage 4	4.05	0	0
Stage 4	3.85	0	0
Stage 4	3.65	0	0
Stage 4	3.45	0	0

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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	21.65	0	0
Stage 5	21.45	0	0
Stage 5	21.45	0	0
Stage 5	21.25	0	0
Stage 5	21.25	0	0
Stage 5	21.05	0	0
Stage 5	21.05	0	0
Stage 5	20.85	0	0
Stage 5	20.85	0	0
Stage 5	20.65	-0.31	-1.53
Stage 5	20.45	-1.87	-7.83
Stage 5	20.25	-5.65	-18.88
Stage 5	20.05	-12.49	-34.22
Stage 5	19.85	-22.49	-50
Stage 5	19.65	-35.68	-65.94
Stage 5	19.45	-52.06	-81.87
Stage 5	19.25	-34.27	88.94
Stage 5	19.05	-19.53	73.68
Stage 5	18.85	-7.72	59.06
Stage 5	18.65	1.32	45.19
Stage 5	18.45	7.73	32.09
Stage 5	18.25	11.68	19.72
Stage 5	18.05	13.28	8
Stage 5	17.85	12.58	-3.5
Stage 5	17.65	9.56	-15.09
Stage 5	17.45	4.2	-26.82
Stage 5	17.25	-3.55	-38.76
Stage 5	17.05	-13.75	-50.96
Stage 5	16.85	-26.44	-63.47
Stage 5	16.65	-41.72	-76.39
Stage 5	16.45	-59.64	-89.62
Stage 5	16.25	-42.67	84.86
Stage 5	16.05	-28.4	71.34
Stage 5	15.85	-16.82	57.9
Stage 5	15.65	-7.91	44.57
Stage 5	15.45	-1.41	32.47
Stage 5	15.25	3.68	25.48
Stage 5	15.05	7.57	19.42
Stage 5	14.85	10.4	14.16
Stage 5	14.65	12.34	9.68
Stage 5	14.45	13.52	5.92
Stage 5	14.25	14.08	2.82
Stage 5	14.05	14.15	0.32
Stage 5	13.85	13.82	-1.64
Stage 5	13.65	13.19	-3.14
Stage 5	13.45	12.35	-4.23
Stage 5	13.25	11.35	-4.98
Stage 5	13.05	10.26	-5.44
Stage 5	12.85	9.13	-5.66
Stage 5	12.65	7.99	-5.7
Stage 5	12.45	6.87	-5.59
Stage 5	12.25	5.8	-5.33
Stage 5	12.05	4.81	-4.97
Stage 5	11.85	3.9	-4.55
Stage 5	11.65	3.08	-4.09
Stage 5	11.45	2.36	-3.61
Stage 5	11.25	1.73	-3.14
Stage 5	11.05	1.2	-2.68
Stage 5	10.85	0.75	-2.25
Stage 5	10.65	0.38	-1.85
Stage 5	10.45	0.08	-1.48
Stage 5	10.25	-0.15	-1.16
Stage 5	10.05	-0.32	-0.87
Stage 5	9.85	-0.45	-0.63
Stage 5	9.65	-0.53	-0.42

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	9.45	-0.58	-0.24
Stage 5	9.25	-0.6	-0.1
Stage 5	9.05	-0.6	0.01
Stage 5	8.85	-0.58	0.1
Stage 5	8.65	-0.55	0.16
Stage 5	8.45	-0.51	0.21
Stage 5	8.25	-0.46	0.23
Stage 5	8.05	-0.41	0.25
Stage 5	7.85	-0.36	0.25
Stage 5	7.65	-0.31	0.24
Stage 5	7.45	-0.27	0.23
Stage 5	7.25	-0.22	0.22
Stage 5	7.05	-0.18	0.2
Stage 5	6.85	-0.15	0.18
Stage 5	6.65	-0.12	0.16
Stage 5	6.45	-0.09	0.14
Stage 5	6.25	-0.06	0.12
Stage 5	6.05	-0.05	0.1
Stage 5	5.85	-0.03	0.08
Stage 5	5.65	-0.02	0.06
Stage 5	5.45	-0.01	0.05
Stage 5	5.25	0	0.03
Stage 5	5.05	0	0.02
Stage 5	4.85	0.01	0.01
Stage 5	4.65	0.01	0
Stage 5	4.45	0.01	0
Stage 5	4.25	0	-0.01
Stage 5	4.05	0	-0.01
Stage 5	3.85	0	-0.01
Stage 5	3.65	0	-0.01
Stage 5	3.45	0	0

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

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	21.65	0	0
Stage 6	21.45	0	0
Stage 6	21.45	0	0
Stage 6	21.25	0	0
Stage 6	21.25	0	0
Stage 6	21.05	0	0
Stage 6	21.05	0	0
Stage 6	20.85	0	0
Stage 6	20.85	0	0
Stage 6	20.65	-0.47	-2.36
Stage 6	20.45	-2.36	-9.43
Stage 6	20.25	-6.6	-21.2
Stage 6	20.05	-14.04	-37.21
Stage 6	19.85	-24.72	-53.41
Stage 6	19.65	-38.66	-69.69
Stage 6	19.45	-55.85	-85.94
Stage 6	19.25	-39.07	83.89
Stage 6	19.05	-25.39	68.41
Stage 6	18.85	-14.66	53.63
Stage 6	18.65	-6.73	39.66
Stage 6	18.45	-1.42	26.53
Stage 6	18.25	1.43	14.25
Stage 6	18.05	1.98	2.77
Stage 6	17.85	0.32	-8.31
Stage 6	17.65	-3.53	-19.26
Stage 6	17.45	-9.56	-30.14
Stage 6	17.25	-17.75	-40.96
Stage 6	17.05	-28.1	-51.75
Stage 6	16.85	-40.61	-62.53
Stage 6	16.65	-55.28	-73.36
Stage 6	16.45	-72.1	-84.11
Stage 6	16.25	-52.39	98.55
Stage 6	16.05	-34.72	88.36
Stage 6	15.85	-18.97	78.73
Stage 6	15.65	-5.06	69.59
Stage 6	15.45	7.14	60.96
Stage 6	15.25	17.7	52.83
Stage 6	15.05	26.74	45.2
Stage 6	14.85	34.34	38.01
Stage 6	14.65	40.58	31.2
Stage 6	14.45	45.52	24.68
Stage 6	14.25	49.16	18.19
Stage 6	14.05	51.46	11.5
Stage 6	13.85	52.38	4.61
Stage 6	13.65	51.88	-2.48
Stage 6	13.45	49.93	-9.76
Stage 6	13.25	46.48	-17.24
Stage 6	13.05	41.5	-24.91
Stage 6	12.85	34.94	-32.82
Stage 6	12.65	27.12	-39.1
Stage 6	12.45	18.81	-41.54
Stage 6	12.25	10.77	-40.18
Stage 6	12.05	3.76	-35.07
Stage 6	11.85	-1.95	-28.52
Stage 6	11.65	-6.47	-22.62
Stage 6	11.45	-9.94	-17.37
Stage 6	11.25	-12.5	-12.78
Stage 6	11.05	-14.26	-8.81
Stage 6	10.85	-15.35	-5.43
Stage 6	10.65	-15.87	-2.61
Stage 6	10.45	-15.93	-0.28
Stage 6	10.25	-15.61	1.58
Stage 6	10.05	-15	3.04
Stage 6	9.85	-14.18	4.13
Stage 6	9.65	-13.19	4.91

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	9.45	-12.11	5.41
Stage 6	9.25	-10.97	5.69
Stage 6	9.05	-9.82	5.77
Stage 6	8.85	-8.68	5.68
Stage 6	8.65	-7.59	5.48
Stage 6	8.45	-6.55	5.21
Stage 6	8.25	-5.57	4.87
Stage 6	8.05	-4.67	4.5
Stage 6	7.85	-3.85	4.1
Stage 6	7.65	-3.11	3.69
Stage 6	7.45	-2.46	3.27
Stage 6	7.25	-1.89	2.86
Stage 6	7.05	-1.39	2.47
Stage 6	6.85	-0.97	2.09
Stage 6	6.65	-0.62	1.74
Stage 6	6.45	-0.34	1.42
Stage 6	6.25	-0.12	1.12
Stage 6	6.05	0.05	0.85
Stage 6	5.85	0.17	0.61
Stage 6	5.65	0.26	0.4
Stage 6	5.45	0.3	0.23
Stage 6	5.25	0.32	0.08
Stage 6	5.05	0.31	-0.05
Stage 6	4.85	0.28	-0.14
Stage 6	4.65	0.24	-0.21
Stage 6	4.45	0.19	-0.25
Stage 6	4.25	0.14	-0.26
Stage 6	4.05	0.08	-0.25
Stage 6	3.85	0.04	-0.21
Stage 6	3.65	0.01	-0.15
Stage 6	3.45	0	-0.06

### Tabella Risultati Paratia SISMICA STR - Left Wall - Stage: Stage 7

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	21.65	0	0
Stage 7	21.45	0	0
Stage 7	21.45	0	0
Stage 7	21.25	0	0
Stage 7	21.25	0	0
Stage 7	21.05	0	0
Stage 7	21.05	0	0
Stage 7	20.85	0	0
Stage 7	20.85	0	0
Stage 7	20.65	-0.37	-1.84
Stage 7	20.45	-2.04	-8.38
Stage 7	20.25	-5.97	-19.65
Stage 7	20.05	-13	-35.14
Stage 7	19.85	-23.17	-50.83
Stage 7	19.65	-36.49	-66.62
Stage 7	19.45	-52.97	-82.38
Stage 7	19.25	-35.23	88.71
Stage 7	19.05	-20.49	73.67
Stage 7	18.85	-8.63	59.31
Stage 7	18.65	0.51	45.71
Stage 7	18.45	7.09	32.9
Stage 7	18.25	11.26	20.87
Stage 7	18.05	13.17	9.55
Stage 7	17.85	12.88	-1.49
Stage 7	17.65	10.37	-12.54
Stage 7	17.45	5.63	-23.68
Stage 7	17.25	-1.36	-34.96
Stage 7	17.05	-10.65	-46.44
Stage 7	16.85	-22.28	-58.18
Stage 7	16.65	-36.34	-70.28
Stage 7	16.45	-52.87	-82.65
Stage 7	16.25	-34	94.34
Stage 7	16.05	-17.66	81.71
Stage 7	15.85	-3.83	69.16
Stage 7	15.65	7.49	56.59
Stage 7	15.45	16.29	43.98
Stage 7	15.25	22.55	31.31
Stage 7	15.05	26.26	18.53
Stage 7	14.85	27.37	5.59
Stage 7	14.65	25.86	-7.57
Stage 7	14.45	21.66	-20.99
Stage 7	14.25	14.71	-34.76
Stage 7	14.05	4.91	-49
Stage 7	13.85	-7.83	-63.68
Stage 7	13.65	-23.57	-78.73
Stage 7	13.45	-42.39	-94.09
Stage 7	13.25	-26.73	78.29
Stage 7	13.05	-14.21	62.63
Stage 7	12.85	-4.82	46.94
Stage 7	12.65	1.41	31.14
Stage 7	12.45	4.91	17.49
Stage 7	12.25	6.61	8.51
Stage 7	12.05	7.46	4.22
Stage 7	11.85	7.93	2.35
Stage 7	11.65	8.08	0.78
Stage 7	11.45	7.98	-0.49
Stage 7	11.25	7.68	-1.51
Stage 7	11.05	7.23	-2.27
Stage 7	10.85	6.67	-2.8
Stage 7	10.65	6.04	-3.13
Stage 7	10.45	5.38	-3.3
Stage 7	10.25	4.71	-3.35
Stage 7	10.05	4.06	-3.28
Stage 7	9.85	3.43	-3.15
Stage 7	9.65	2.84	-2.95



Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	9.45	2.3	-2.72
Stage 7	9.25	1.8	-2.46
Stage 7	9.05	1.36	-2.22
Stage 7	8.85	0.96	-1.99
Stage 7	8.65	0.61	-1.75
Stage 7	8.45	0.31	-1.5
Stage 7	8.25	0.06	-1.26
Stage 7	8.05	-0.14	-1.03
Stage 7	7.85	-0.31	-0.81
Stage 7	7.65	-0.43	-0.61
Stage 7	7.45	-0.52	-0.44
Stage 7	7.25	-0.57	-0.28
Stage 7	7.05	-0.6	-0.14
Stage 7	6.85	-0.61	-0.03
Stage 7	6.65	-0.59	0.07
Stage 7	6.45	-0.56	0.14
Stage 7	6.25	-0.52	0.2
Stage 7	6.05	-0.48	0.24
Stage 7	5.85	-0.42	0.26
Stage 7	5.65	-0.37	0.28
Stage 7	5.45	-0.31	0.28
Stage 7	5.25	-0.26	0.27
Stage 7	5.05	-0.21	0.26
Stage 7	4.85	-0.16	0.24
Stage 7	4.65	-0.12	0.21
Stage 7	4.45	-0.08	0.18
Stage 7	4.25	-0.05	0.14
Stage 7	4.05	-0.03	0.11
Stage 7	3.85	-0.01	0.08
Stage 7	3.65	0	0.05
Stage 7	3.45	0	0.02

### Tabella Risultati Paratia SISMICA STR - Left Wall - Stage: Stage 8

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	21.65	0	0
Stage 8	21.45	0	0
Stage 8	21.45	0	0
Stage 8	21.25	0	0
Stage 8	21.25	0	0
Stage 8	21.05	0	0
Stage 8	21.05	0	0
Stage 8	20.85	0	0
Stage 8	20.85	0	0
Stage 8	20.65	-0.35	-1.75
Stage 8	20.45	-2	-8.26
Stage 8	20.25	-5.91	-19.53
Stage 8	20.05	-12.92	-35.08
Stage 8	19.85	-23.1	-50.87
Stage 8	19.65	-36.46	-66.81
Stage 8	19.45	-53.01	-82.76
Stage 8	19.25	-35.49	87.62
Stage 8	19.05	-21.03	72.29
Stage 8	18.85	-9.51	57.59
Stage 8	18.65	-0.79	43.61
Stage 8	18.45	5.29	30.41
Stage 8	18.25	8.88	17.95
Stage 8	18.05	10.11	6.16
Stage 8	17.85	9.04	-5.38
Stage 8	17.65	5.64	-16.99
Stage 8	17.45	-0.1	-28.72
Stage 8	17.25	-8.22	-40.6
Stage 8	17.05	-18.76	-52.67
Stage 8	16.85	-31.76	-64.99
Stage 8	16.65	-47.28	-77.64
Stage 8	16.45	-65.38	-90.5
Stage 8	16.25	-48.35	85.18
Stage 8	16.05	-33.9	72.22
Stage 8	15.85	-22.01	59.47
Stage 8	15.65	-12.64	46.86
Stage 8	15.45	-5.76	34.4
Stage 8	15.25	-1.33	22.12
Stage 8	15.05	0.67	10.01
Stage 8	14.85	0.28	-1.94
Stage 8	14.65	-2.47	-13.73
Stage 8	14.45	-7.54	-25.35
Stage 8	14.25	-14.9	-36.83
Stage 8	14.05	-24.55	-48.23
Stage 8	13.85	-36.44	-59.46
Stage 8	13.65	-50.52	-70.41
Stage 8	13.45	-66.71	-80.94
Stage 8	13.25	-44.87	109.18
Stage 8	13.05	-24.88	99.95
Stage 8	12.85	-6.58	91.54
Stage 8	12.65	10.12	83.47
Stage 8	12.45	25.16	75.21
Stage 8	12.25	38.51	66.75
Stage 8	12.05	50.13	58.09
Stage 8	11.85	59.97	49.23
Stage 8	11.65	68.01	40.18
Stage 8	11.45	74.19	30.93
Stage 8	11.25	78.49	21.48
Stage 8	11.05	80.86	11.84
Stage 8	10.85	81.26	2
Stage 8	10.65	79.65	-8.04
Stage 8	10.45	76	-18.27
Stage 8	10.25	70.25	-28.7
Stage 8	10.05	62.39	-39.33
Stage 8	9.85	52.36	-50.15
Stage 8	9.65	40.58	-58.91

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	9.45	27.91	-63.33
Stage 8	9.25	15.23	-63.42
Stage 8	9.05	3.32	-59.52
Stage 8	8.85	-7.15	-52.36
Stage 8	8.65	-15.53	-41.92
Stage 8	8.45	-21.91	-31.89
Stage 8	8.25	-26.53	-23.12
Stage 8	8.05	-29.64	-15.55
Stage 8	7.85	-31.47	-9.12
Stage 8	7.65	-32.21	-3.73
Stage 8	7.45	-32.07	0.7
Stage 8	7.25	-31.22	4.26
Stage 8	7.05	-29.81	7.05
Stage 8	6.85	-27.98	9.15
Stage 8	6.65	-25.85	10.66
Stage 8	6.45	-23.52	11.65
Stage 8	6.25	-21.08	12.2
Stage 8	6.05	-18.61	12.38
Stage 8	5.85	-16.16	12.21
Stage 8	5.65	-13.81	11.79
Stage 8	5.45	-11.57	11.18
Stage 8	5.25	-9.49	10.43
Stage 8	5.05	-7.57	9.56
Stage 8	4.85	-5.85	8.6
Stage 8	4.65	-4.34	7.58
Stage 8	4.45	-3.04	6.5
Stage 8	4.25	-1.96	5.39
Stage 8	4.05	-1.11	4.24
Stage 8	3.85	-0.5	3.06
Stage 8	3.65	-0.13	1.86
Stage 8	3.45	0	0.63

**Tabella Risultati Paratia SISMICA STR - Left Wall - Stage: Stage 9**

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	21.65	0	0
Stage 9	21.45	0	0
Stage 9	21.45	0	0
Stage 9	21.25	0	0
Stage 9	21.25	0	0
Stage 9	21.05	0	0
Stage 9	21.05	0	0
Stage 9	20.85	0	0
Stage 9	20.85	0	0
Stage 9	20.65	-0.37	-1.84
Stage 9	20.45	-2.05	-8.41
Stage 9	20.25	-6	-19.73
Stage 9	20.05	-13.06	-35.3
Stage 9	19.85	-23.27	-51.09
Stage 9	19.65	-36.67	-67
Stage 9	19.45	-53.25	-82.9
Stage 9	19.25	-35.71	87.7
Stage 9	19.05	-21.22	72.47
Stage 9	18.85	-9.64	57.89
Stage 9	18.65	-0.83	44.07
Stage 9	18.45	5.38	31.05
Stage 9	18.25	9.14	18.8
Stage 9	18.05	10.59	7.24
Stage 9	17.85	9.78	-4.05
Stage 9	17.65	6.7	-15.38
Stage 9	17.45	1.34	-26.8
Stage 9	17.25	-6.33	-38.36
Stage 9	17.05	-16.35	-50.1
Stage 9	16.85	-28.76	-62.06
Stage 9	16.65	-43.63	-74.34
Stage 9	16.45	-60.99	-86.84
Stage 9	16.25	-43	89.95
Stage 9	16.05	-27.53	77.35
Stage 9	15.85	-14.55	64.92
Stage 9	15.65	-4.03	52.6
Stage 9	15.45	4.05	40.38
Stage 9	15.25	9.7	28.27
Stage 9	15.05	12.95	16.24
Stage 9	14.85	13.8	4.27
Stage 9	14.65	12.27	-7.69
Stage 9	14.45	8.34	-19.63
Stage 9	14.25	2.02	-31.62
Stage 9	14.05	-6.74	-43.77
Stage 9	13.85	-17.94	-55.99
Stage 9	13.65	-31.58	-68.22
Stage 9	13.45	-47.65	-80.37
Stage 9	13.25	-26.96	103.48
Stage 9	13.05	-8.59	91.86
Stage 9	12.85	7.54	80.63
Stage 9	12.65	21.39	69.26
Stage 9	12.45	32.83	57.2
Stage 9	12.25	41.71	44.42
Stage 9	12.05	47.89	30.9
Stage 9	11.85	51.22	16.65
Stage 9	11.65	51.56	1.66
Stage 9	11.45	48.75	-14.05
Stage 9	11.25	42.66	-30.44
Stage 9	11.05	33.16	-47.47
Stage 9	10.85	20.15	-65.05
Stage 9	10.65	3.53	-83.1
Stage 9	10.45	-16.76	-101.49
Stage 9	10.25	-3.19	67.86
Stage 9	10.05	6.66	49.26
Stage 9	9.85	12.82	30.79
Stage 9	9.65	15.35	12.66

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	9.45	14.65	-3.51
Stage 9	9.25	11.78	-14.34
Stage 9	9.05	7.75	-20.14
Stage 9	8.85	3.43	-21.61
Stage 9	8.65	-0.32	-18.76
Stage 9	8.45	-3.38	-15.31
Stage 9	8.25	-5.82	-12.17
Stage 9	8.05	-7.69	-9.34
Stage 9	7.85	-9.05	-6.81
Stage 9	7.65	-9.97	-4.59
Stage 9	7.45	-10.5	-2.66
Stage 9	7.25	-10.7	-1.01
Stage 9	7.05	-10.63	0.38
Stage 9	6.85	-10.32	1.53
Stage 9	6.65	-9.83	2.45
Stage 9	6.45	-9.2	3.17
Stage 9	6.25	-8.45	3.71
Stage 9	6.05	-7.64	4.05
Stage 9	5.85	-6.8	4.22
Stage 9	5.65	-5.94	4.28
Stage 9	5.45	-5.1	4.24
Stage 9	5.25	-4.27	4.12
Stage 9	5.05	-3.49	3.93
Stage 9	4.85	-2.75	3.67
Stage 9	4.65	-2.08	3.35
Stage 9	4.45	-1.49	2.97
Stage 9	4.25	-0.98	2.54
Stage 9	4.05	-0.57	2.07
Stage 9	3.85	-0.26	1.54
Stage 9	3.65	-0.07	0.96
Stage 9	3.45	0	0.34

### Tabella Risultati Paratia SISMICA STR - Left Wall - Stage: Stage 10

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	21.65	0	0
Stage 10	21.45	0	0
Stage 10	21.45	0	0
Stage 10	21.25	0	0
Stage 10	21.25	0	0
Stage 10	21.05	0	0
Stage 10	21.05	0	0
Stage 10	20.85	0	0
Stage 10	20.85	0	0
Stage 10	20.65	-0.36	-1.79
Stage 10	20.45	-2.03	-8.33
Stage 10	20.25	-5.95	-19.61
Stage 10	20.05	-12.98	-35.15
Stage 10	19.85	-23.16	-50.91
Stage 10	19.65	-36.52	-66.81
Stage 10	19.45	-53.06	-82.69
Stage 10	19.25	-35.47	87.93
Stage 10	19.05	-20.93	72.71
Stage 10	18.85	-9.31	58.13
Stage 10	18.65	-0.45	44.29
Stage 10	18.45	5.8	31.25
Stage 10	18.25	9.6	18.98
Stage 10	18.05	11.07	7.38
Stage 10	17.85	10.28	-3.96
Stage 10	17.65	7.21	-15.34
Stage 10	17.45	1.85	-26.83
Stage 10	17.25	-5.85	-38.47
Stage 10	17.05	-15.91	-50.31
Stage 10	16.85	-28.38	-62.38
Stage 10	16.65	-43.34	-74.79
Stage 10	16.45	-60.83	-87.43
Stage 10	16.25	-43.05	88.86
Stage 10	16.05	-27.84	76.08
Stage 10	15.85	-15.15	63.46
Stage 10	15.65	-4.96	50.92
Stage 10	15.45	2.73	38.48
Stage 10	15.25	7.96	26.12
Stage 10	15.05	10.73	13.84
Stage 10	14.85	11.05	1.6
Stage 10	14.65	8.92	-10.62
Stage 10	14.45	4.36	-22.82
Stage 10	14.25	-2.65	-35.07
Stage 10	14.05	-12.14	-47.45
Stage 10	13.85	-24.12	-59.88
Stage 10	13.65	-38.58	-72.29
Stage 10	13.45	-55.49	-84.55
Stage 10	13.25	-35.67	99.1
Stage 10	13.05	-18.17	87.5
Stage 10	12.85	-2.89	76.38
Stage 10	12.65	10.16	65.25
Stage 10	12.45	20.87	53.56
Stage 10	12.25	29.13	41.3
Stage 10	12.05	34.83	28.5
Stage 10	11.85	37.86	15.16
Stage 10	11.65	38.12	1.32
Stage 10	11.45	35.53	-12.98
Stage 10	11.25	29.99	-27.67
Stage 10	11.05	21.46	-42.69
Stage 10	10.85	9.87	-57.92
Stage 10	10.65	-4.78	-73.26
Stage 10	10.45	-22.49	-88.56
Stage 10	10.25	-3.95	92.73
Stage 10	10.05	11.66	78.03
Stage 10	9.85	24.44	63.88
Stage 10	9.65	34.51	50.36

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	9.45	42.02	37.54
Stage 10	9.25	47.1	25.43
Stage 10	9.05	49.83	13.66
Stage 10	8.85	50.12	1.43
Stage 10	8.65	47.86	-11.32
Stage 10	8.45	42.92	-24.7
Stage 10	8.25	35.83	-35.41
Stage 10	8.05	27.35	-42.4
Stage 10	7.85	18.2	-45.76
Stage 10	7.65	9.1	-45.53
Stage 10	7.45	0.74	-41.77
Stage 10	7.25	-6.16	-34.49
Stage 10	7.05	-11.4	-26.24
Stage 10	6.85	-15.2	-18.97
Stage 10	6.65	-17.73	-12.66
Stage 10	6.45	-19.18	-7.26
Stage 10	6.25	-19.73	-2.72
Stage 10	6.05	-19.52	1.02
Stage 10	5.85	-18.72	4.02
Stage 10	5.65	-17.44	6.4
Stage 10	5.45	-15.8	8.21
Stage 10	5.25	-13.9	9.5
Stage 10	5.05	-11.83	10.32
Stage 10	4.85	-9.69	10.73
Stage 10	4.65	-7.56	10.63
Stage 10	4.45	-5.55	10.06
Stage 10	4.25	-3.74	9.04
Stage 10	4.05	-2.21	7.64
Stage 10	3.85	-1.04	5.89
Stage 10	3.65	-0.28	3.8
Stage 10	3.45	0	1.38

### Tabella Risultati Paratia SISMICA STR - Left Wall - Stage: Stage 11-S

Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	21.65	0	-0.02
Stage 11-S	21.45	0	-0.02
Stage 11-S	21.25	-0.02	-0.06
Stage 11-S	21.05	-0.04	-0.1
Stage 11-S	20.85	-0.07	-0.14
Stage 11-S	20.65	-0.24	-0.85
Stage 11-S	20.45	-1.28	-5.22
Stage 11-S	20.25	-3.93	-13.24
Stage 11-S	20.05	-8.91	-24.92
Stage 11-S	19.85	-16.96	-40.26
Stage 11-S	19.65	-28.82	-59.27
Stage 11-S	19.45	-44.59	-78.88
Stage 11-S	19.25	-24.67	99.6
Stage 11-S	19.05	-8.4	81.35
Stage 11-S	18.85	4.41	64.05
Stage 11-S	18.65	13.96	47.78
Stage 11-S	18.45	20.48	32.57
Stage 11-S	18.25	24.15	18.35
Stage 11-S	18.05	25.15	5.02
Stage 11-S	17.85	23.57	-7.89
Stage 11-S	17.65	19.44	-20.69
Stage 11-S	17.45	12.74	-33.48
Stage 11-S	17.25	3.47	-46.33
Stage 11-S	17.05	-8.39	-59.3
Stage 11-S	16.85	-22.88	-72.45
Stage 11-S	16.65	-40.06	-85.9
Stage 11-S	16.45	-59.97	-99.56
Stage 11-S	16.25	-41.36	93.03
Stage 11-S	16.05	-25.51	79.28
Stage 11-S	15.85	-12.37	65.7
Stage 11-S	15.65	-1.92	52.22
Stage 11-S	15.45	5.85	38.84
Stage 11-S	15.25	10.96	25.55
Stage 11-S	15.05	13.42	12.32
Stage 11-S	14.85	13.25	-0.87
Stage 11-S	14.65	10.43	-14.06
Stage 11-S	14.45	4.98	-27.26
Stage 11-S	14.25	-3.12	-40.53
Stage 11-S	14.05	-13.92	-53.96
Stage 11-S	13.85	-27.41	-67.46
Stage 11-S	13.65	-43.6	-80.96
Stage 11-S	13.45	-62.47	-94.33
Stage 11-S	13.25	-41.23	106.18
Stage 11-S	13.05	-22.54	93.48
Stage 11-S	12.85	-6.28	81.28
Stage 11-S	12.65	7.54	69.09
Stage 11-S	12.45	18.81	56.37
Stage 11-S	12.25	27.44	43.14
Stage 11-S	12.05	33.32	29.4
Stage 11-S	11.85	36.35	15.17
Stage 11-S	11.65	36.45	0.49
Stage 11-S	11.45	33.54	-14.59
Stage 11-S	11.25	27.53	-30.01
Stage 11-S	11.05	18.4	-45.69
Stage 11-S	10.85	6.09	-61.52
Stage 11-S	10.65	-9.38	-77.38
Stage 11-S	10.45	-28.01	-93.13
Stage 11-S	10.25	-6.07	109.68
Stage 11-S	10.05	12.87	94.72
Stage 11-S	9.85	28.95	80.41
Stage 11-S	9.65	42.19	66.17
Stage 11-S	9.45	52.52	51.69
Stage 11-S	9.25	59.91	36.95
Stage 11-S	9.05	64.31	21.96
Stage 11-S	8.85	65.65	6.72



Design Assumption: SISMICA STR Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	8.65	63.89	-8.78
Stage 11-S	8.45	58.99	-24.53
Stage 11-S	8.25	51.49	-37.51
Stage 11-S	8.05	42.14	-46.7
Stage 11-S	7.85	31.72	-52.12
Stage 11-S	7.65	20.92	-54.01
Stage 11-S	7.45	10.31	-53.04
Stage 11-S	7.25	0.46	-49.24
Stage 11-S	7.05	-8.07	-42.65
Stage 11-S	6.85	-14.72	-33.26
Stage 11-S	6.65	-19.44	-23.6
Stage 11-S	6.45	-22.48	-15.22
Stage 11-S	6.25	-24.1	-8.09
Stage 11-S	6.05	-24.53	-2.13
Stage 11-S	5.85	-23.98	2.74
Stage 11-S	5.65	-22.65	6.64
Stage 11-S	5.45	-20.72	9.65
Stage 11-S	5.25	-18.36	11.83
Stage 11-S	5.05	-15.71	13.24
Stage 11-S	4.85	-12.92	13.93
Stage 11-S	4.65	-10.13	13.94
Stage 11-S	4.45	-7.47	13.31
Stage 11-S	4.25	-5.06	12.06
Stage 11-S	4.05	-3.01	10.27
Stage 11-S	3.85	-1.41	7.97
Stage 11-S	3.65	-0.38	5.17
Stage 11-S	3.45	0	1.89

## Risultati Elementi strutturali - SISMICA STR

### Design Assumption: SISMICA STR Sollecitazione Tir-D4

Stage	Forza (kN/m)
Stage 3	200
Stage 4	200.7006
Stage 5	198.5092
Stage 6	197.7519
Stage 7	198.5821
Stage 8	198.0972
Stage 9	198.2473
Stage 10	198.2652
Stage 11-S	210.2078

**Design Assumption: SISMICA STR Sollecitazione Tir-E4**

Stage	Forza (kN/m)
Stage 5	200
Stage 6	205.6287
Stage 7	201.7221
Stage 8	200.792
Stage 9	201.5865
Stage 10	201.233
Stage 11-S	219.6241

**Design Assumption: SISMICA STR Sollecitazione Tir-F4**

Stage	Forza (kN/m)
Stage 7	200
Stage 8	212.9252
Stage 9	208.3536
Stage 10	208.2153
Stage 11-S	227.3444

**Design Assumption: SISMICA STR Sollecitazione Tir-G4**

Stage	Forza (kN/m)
Stage 9	200
Stage 10	208.9863
Stage 11-S	232.2607

## Risultati SISMICA GEO

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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	21.65	0	0
Stage 1	21.45	0	0
Stage 1	21.25	0	0
Stage 1	21.05	0	0
Stage 1	20.85	0	0
Stage 1	20.65	0	0
Stage 1	20.45	0	0
Stage 1	20.25	0	0
Stage 1	20.05	0	0
Stage 1	19.85	0	0
Stage 1	19.65	0	0
Stage 1	19.45	0	0
Stage 1	19.25	0	0
Stage 1	19.05	0	0
Stage 1	18.85	0	0
Stage 1	18.65	0	0
Stage 1	18.45	0	0
Stage 1	18.25	0	0
Stage 1	18.05	0	0
Stage 1	17.85	0	0
Stage 1	17.65	0	0
Stage 1	17.45	0	0
Stage 1	17.25	0	0
Stage 1	17.05	0	0
Stage 1	16.85	0	0
Stage 1	16.65	0	0
Stage 1	16.45	0	0
Stage 1	16.25	0	0
Stage 1	16.05	0	0
Stage 1	15.85	0	0
Stage 1	15.65	0	0
Stage 1	15.45	0	0
Stage 1	15.25	0	0
Stage 1	15.05	0	0
Stage 1	14.85	0	0
Stage 1	14.65	0	0
Stage 1	14.45	0	0
Stage 1	14.25	0	0
Stage 1	14.05	0	0
Stage 1	13.85	0	0
Stage 1	13.65	0	0
Stage 1	13.45	0	0
Stage 1	13.25	0	0
Stage 1	13.05	0	0
Stage 1	12.85	0	0
Stage 1	12.65	0	0
Stage 1	12.45	0	0
Stage 1	12.25	0	0
Stage 1	12.05	0	0
Stage 1	11.85	0	0
Stage 1	11.65	0	0
Stage 1	11.45	0	0
Stage 1	11.25	0	0
Stage 1	11.05	0	0
Stage 1	10.85	0	0
Stage 1	10.65	0	0
Stage 1	10.45	0	0
Stage 1	10.25	0	0
Stage 1	10.05	0	0
Stage 1	9.85	0	0
Stage 1	9.65	0	0
Stage 1	9.45	0	0

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	9.25	0	0
Stage 1	9.05	0	0
Stage 1	8.85	0	0
Stage 1	8.65	0	0
Stage 1	8.45	0	0
Stage 1	8.25	0	0
Stage 1	8.05	0	0
Stage 1	7.85	0	0
Stage 1	7.65	0	0
Stage 1	7.45	0	0
Stage 1	7.25	0	0
Stage 1	7.05	0	0
Stage 1	6.85	0	0
Stage 1	6.65	0	0
Stage 1	6.45	0	0
Stage 1	6.25	0	0
Stage 1	6.05	0	0
Stage 1	5.85	0	0
Stage 1	5.65	0	0
Stage 1	5.45	0	0
Stage 1	5.25	0	0
Stage 1	5.05	0	0
Stage 1	4.85	0	0
Stage 1	4.65	0	0
Stage 1	4.45	0	0
Stage 1	4.25	0	0
Stage 1	4.05	0	0
Stage 1	3.85	0	0
Stage 1	3.65	0	0
Stage 1	3.45	0	0

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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	21.65	0	0
Stage 2	21.45	0	0
Stage 2	21.45	0	0
Stage 2	21.25	0	0
Stage 2	21.25	0	0
Stage 2	21.05	0	0
Stage 2	21.05	0	0
Stage 2	20.85	0	0
Stage 2	20.85	0	0
Stage 2	20.65	-0.05	-0.25
Stage 2	20.45	-0.2	-0.75
Stage 2	20.25	-0.5	-1.5
Stage 2	20.05	-1	-2.5
Stage 2	19.85	-1.75	-3.76
Stage 2	19.65	-2.8	-5.26
Stage 2	19.45	-4.21	-7.01
Stage 2	19.25	-6.01	-9.01
Stage 2	19.05	-8.26	-11.27
Stage 2	18.85	-11.02	-13.77
Stage 2	18.65	-14.01	-14.94
Stage 2	18.45	-16.65	-13.2
Stage 2	18.25	-18.37	-8.62
Stage 2	18.05	-19.28	-4.54
Stage 2	17.85	-19.46	-0.9
Stage 2	17.65	-18.98	2.37
Stage 2	17.45	-17.91	5.34
Stage 2	17.25	-16.41	7.52
Stage 2	17.05	-14.65	8.8
Stage 2	16.85	-12.76	9.44
Stage 2	16.65	-10.85	9.56
Stage 2	16.45	-9	9.24
Stage 2	16.25	-7.28	8.6
Stage 2	16.05	-5.72	7.79
Stage 2	15.85	-4.34	6.88
Stage 2	15.65	-3.16	5.94
Stage 2	15.45	-2.15	5.01
Stage 2	15.25	-1.33	4.13
Stage 2	15.05	-0.67	3.31
Stage 2	14.85	-0.15	2.58
Stage 2	14.65	0.23	1.93
Stage 2	14.45	0.51	1.38
Stage 2	14.25	0.7	0.92
Stage 2	14.05	0.8	0.54
Stage 2	13.85	0.85	0.24
Stage 2	13.65	0.86	0.01
Stage 2	13.45	0.82	-0.16
Stage 2	13.25	0.77	-0.28
Stage 2	13.05	0.7	-0.36
Stage 2	12.85	0.62	-0.4
Stage 2	12.65	0.53	-0.42
Stage 2	12.45	0.45	-0.42
Stage 2	12.25	0.37	-0.4
Stage 2	12.05	0.29	-0.37
Stage 2	11.85	0.23	-0.33
Stage 2	11.65	0.17	-0.29
Stage 2	11.45	0.12	-0.25
Stage 2	11.25	0.08	-0.21
Stage 2	11.05	0.05	-0.17
Stage 2	10.85	0.02	-0.13
Stage 2	10.65	0	-0.1
Stage 2	10.45	-0.02	-0.07
Stage 2	10.25	-0.03	-0.05
Stage 2	10.05	-0.03	-0.03
Stage 2	9.85	-0.04	-0.02
Stage 2	9.65	-0.04	-0.01



Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	9.45	-0.04	0
Stage 2	9.25	-0.03	0.01
Stage 2	9.05	-0.03	0.01
Stage 2	8.85	-0.03	0.02
Stage 2	8.65	-0.02	0.02
Stage 2	8.45	-0.02	0.02
Stage 2	8.25	-0.02	0.02
Stage 2	8.05	-0.01	0.02
Stage 2	7.85	-0.01	0.01
Stage 2	7.65	-0.01	0.01
Stage 2	7.45	-0.01	0.01
Stage 2	7.25	0	0.01
Stage 2	7.05	0	0.01
Stage 2	6.85	0	0.01
Stage 2	6.65	0	0
Stage 2	6.45	0	0
Stage 2	6.25	0	0
Stage 2	6.05	0	0
Stage 2	5.85	0	0
Stage 2	5.65	0	0
Stage 2	5.45	0	0
Stage 2	5.25	0	0
Stage 2	5.05	0	0
Stage 2	4.85	0	0
Stage 2	4.65	0	0
Stage 2	4.45	0	0
Stage 2	4.25	0	0
Stage 2	4.05	0	0
Stage 2	3.85	0	0
Stage 2	3.65	0	0
Stage 2	3.45	0	0

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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	21.65	0	0
Stage 3	21.45	0	0
Stage 3	21.45	0	0
Stage 3	21.25	0	0
Stage 3	21.25	0	0
Stage 3	21.05	0	0
Stage 3	21.05	0	0
Stage 3	20.85	0	0
Stage 3	20.85	0	0
Stage 3	20.65	-0.58	-2.91
Stage 3	20.45	-2.33	-8.73
Stage 3	20.25	-5.82	-17.47
Stage 3	20.05	-11.64	-29.11
Stage 3	19.85	-20.38	-43.67
Stage 3	19.65	-32.61	-61.14
Stage 3	19.45	-48.7	-80.45
Stage 3	19.25	-30.84	89.26
Stage 3	19.05	-16.38	72.32
Stage 3	18.85	-5.03	56.77
Stage 3	18.65	3.53	42.79
Stage 3	18.45	9.63	30.48
Stage 3	18.25	13.58	19.75
Stage 3	18.05	15.68	10.48
Stage 3	17.85	16.32	3.24
Stage 3	17.65	15.96	-1.82
Stage 3	17.45	14.95	-5.03
Stage 3	17.25	13.55	-7
Stage 3	17.05	11.93	-8.09
Stage 3	16.85	10.23	-8.52
Stage 3	16.65	8.54	-8.45
Stage 3	16.45	6.94	-8.03
Stage 3	16.25	5.46	-7.39
Stage 3	16.05	4.14	-6.58
Stage 3	15.85	3	-5.7
Stage 3	15.65	2.04	-4.8
Stage 3	15.45	1.25	-3.93
Stage 3	15.25	0.63	-3.12
Stage 3	15.05	0.15	-2.39
Stage 3	14.85	-0.2	-1.76
Stage 3	14.65	-0.44	-1.21
Stage 3	14.45	-0.6	-0.77
Stage 3	14.25	-0.68	-0.41
Stage 3	14.05	-0.7	-0.13
Stage 3	13.85	-0.69	0.08
Stage 3	13.65	-0.64	0.22
Stage 3	13.45	-0.58	0.32
Stage 3	13.25	-0.51	0.37
Stage 3	13.05	-0.43	0.39
Stage 3	12.85	-0.35	0.38
Stage 3	12.65	-0.28	0.35
Stage 3	12.45	-0.22	0.32
Stage 3	12.25	-0.16	0.28
Stage 3	12.05	-0.11	0.24
Stage 3	11.85	-0.07	0.2
Stage 3	11.65	-0.04	0.16
Stage 3	11.45	-0.01	0.13
Stage 3	11.25	0.01	0.1
Stage 3	11.05	0.02	0.07
Stage 3	10.85	0.03	0.05
Stage 3	10.65	0.04	0.03
Stage 3	10.45	0.04	0.01
Stage 3	10.25	0.04	0
Stage 3	10.05	0.04	-0.01
Stage 3	9.85	0.03	-0.01
Stage 3	9.65	0.03	-0.02

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	9.45	0.03	-0.02
Stage 3	9.25	0.02	-0.02
Stage 3	9.05	0.02	-0.02
Stage 3	8.85	0.01	-0.02
Stage 3	8.65	0.01	-0.02
Stage 3	8.45	0.01	-0.01
Stage 3	8.25	0	-0.01
Stage 3	8.05	0	-0.01
Stage 3	7.85	0	-0.01
Stage 3	7.65	0	-0.01
Stage 3	7.45	0	0
Stage 3	7.25	0	0
Stage 3	7.05	0	0
Stage 3	6.85	0	0
Stage 3	6.65	0	0
Stage 3	6.45	0	0
Stage 3	6.25	0	0
Stage 3	6.05	0	0
Stage 3	5.85	0	0
Stage 3	5.65	0	0
Stage 3	5.45	0	0
Stage 3	5.25	0	0
Stage 3	5.05	0	0
Stage 3	4.85	0	0
Stage 3	4.65	0	0
Stage 3	4.45	0	0
Stage 3	4.25	0	0
Stage 3	4.05	0	0
Stage 3	3.85	0	0
Stage 3	3.65	0	0
Stage 3	3.45	0	0

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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	21.65	0	0
Stage 4	21.45	0	0
Stage 4	21.45	0	0
Stage 4	21.25	0	0
Stage 4	21.25	0	0
Stage 4	21.05	0	0
Stage 4	21.05	0	0
Stage 4	20.85	0	0
Stage 4	20.85	0	0
Stage 4	20.65	-0.58	-2.91
Stage 4	20.45	-2.33	-8.73
Stage 4	20.25	-5.82	-17.47
Stage 4	20.05	-11.64	-29.11
Stage 4	19.85	-20.38	-43.67
Stage 4	19.65	-32.61	-61.14
Stage 4	19.45	-48.68	-80.36
Stage 4	19.25	-30.49	90.93
Stage 4	19.05	-15.42	75.34
Stage 4	18.85	-3.07	61.78
Stage 4	18.65	6.99	50.3
Stage 4	18.45	15.16	40.85
Stage 4	18.25	21.83	33.34
Stage 4	18.05	27.36	27.64
Stage 4	17.85	32.07	23.56
Stage 4	17.65	35.98	19.55
Stage 4	17.45	39.04	15.29
Stage 4	17.25	41.19	10.79
Stage 4	17.05	42.4	6.03
Stage 4	16.85	42.6	1.02
Stage 4	16.65	41.76	-4.24
Stage 4	16.45	39.81	-9.75
Stage 4	16.25	36.71	-15.51
Stage 4	16.05	32.4	-21.52
Stage 4	15.85	26.85	-27.78
Stage 4	15.65	20.31	-32.7
Stage 4	15.45	13.36	-34.72
Stage 4	15.25	6.6	-33.82
Stage 4	15.05	0.59	-30.01
Stage 4	14.85	-4.29	-24.42
Stage 4	14.65	-8.08	-18.98
Stage 4	14.45	-10.82	-13.69
Stage 4	14.25	-12.65	-9.12
Stage 4	14.05	-13.71	-5.32
Stage 4	13.85	-14.16	-2.23
Stage 4	13.65	-14.11	0.24
Stage 4	13.45	-13.68	2.14
Stage 4	13.25	-12.97	3.55
Stage 4	13.05	-12.06	4.54
Stage 4	12.85	-11.03	5.18
Stage 4	12.65	-9.92	5.53
Stage 4	12.45	-8.79	5.65
Stage 4	12.25	-7.67	5.59
Stage 4	12.05	-6.59	5.39
Stage 4	11.85	-5.58	5.09
Stage 4	11.65	-4.63	4.71
Stage 4	11.45	-3.77	4.3
Stage 4	11.25	-3	3.86
Stage 4	11.05	-2.32	3.41
Stage 4	10.85	-1.72	2.97
Stage 4	10.65	-1.21	2.55
Stage 4	10.45	-0.78	2.16
Stage 4	10.25	-0.42	1.79
Stage 4	10.05	-0.13	1.46
Stage 4	9.85	0.1	1.16
Stage 4	9.65	0.28	0.89

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	9.45	0.41	0.66
Stage 4	9.25	0.5	0.47
Stage 4	9.05	0.56	0.3
Stage 4	8.85	0.59	0.16
Stage 4	8.65	0.6	0.05
Stage 4	8.45	0.6	-0.04
Stage 4	8.25	0.57	-0.11
Stage 4	8.05	0.54	-0.16
Stage 4	7.85	0.5	-0.2
Stage 4	7.65	0.46	-0.22
Stage 4	7.45	0.41	-0.23
Stage 4	7.25	0.36	-0.24
Stage 4	7.05	0.32	-0.23
Stage 4	6.85	0.27	-0.22
Stage 4	6.65	0.23	-0.21
Stage 4	6.45	0.19	-0.19
Stage 4	6.25	0.16	-0.17
Stage 4	6.05	0.13	-0.15
Stage 4	5.85	0.1	-0.14
Stage 4	5.65	0.08	-0.12
Stage 4	5.45	0.06	-0.1
Stage 4	5.25	0.04	-0.08
Stage 4	5.05	0.03	-0.06
Stage 4	4.85	0.02	-0.05
Stage 4	4.65	0.01	-0.04
Stage 4	4.45	0.01	-0.03
Stage 4	4.25	0	-0.02
Stage 4	4.05	0	-0.01
Stage 4	3.85	0	0
Stage 4	3.65	0	0
Stage 4	3.45	0	0

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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	21.65	0	0
Stage 5	21.45	0	0
Stage 5	21.45	0	0
Stage 5	21.25	0	0
Stage 5	21.25	0	0
Stage 5	21.05	0	0
Stage 5	21.05	0	0
Stage 5	20.85	0	0
Stage 5	20.85	0	0
Stage 5	20.65	-0.07	-0.35
Stage 5	20.45	-0.92	-4.25
Stage 5	20.25	-3.26	-11.68
Stage 5	20.05	-7.79	-22.66
Stage 5	19.85	-15.23	-37.19
Stage 5	19.65	-26.16	-54.66
Stage 5	19.45	-41.11	-74.73
Stage 5	19.25	-22.56	92.71
Stage 5	19.05	-7.58	74.92
Stage 5	18.85	4.11	58.46
Stage 5	18.65	12.78	43.36
Stage 5	18.45	18.7	29.57
Stage 5	18.25	22.1	16.99
Stage 5	18.05	23.19	5.48
Stage 5	17.85	22.17	-5.13
Stage 5	17.65	19	-15.86
Stage 5	17.45	13.6	-26.96
Stage 5	17.25	5.88	-38.6
Stage 5	17.05	-4.29	-50.85
Stage 5	16.85	-17.02	-63.65
Stage 5	16.65	-32.4	-76.92
Stage 5	16.45	-50.52	-90.62
Stage 5	16.25	-33.85	83.35
Stage 5	16.05	-20	69.27
Stage 5	15.85	-8.95	55.22
Stage 5	15.65	-0.66	41.45
Stage 5	15.45	4.97	28.16
Stage 5	15.25	8.32	16.74
Stage 5	15.05	10.21	9.47
Stage 5	14.85	11.25	5.22
Stage 5	14.65	11.65	2.01
Stage 5	14.45	11.61	-0.23
Stage 5	14.25	11.22	-1.93
Stage 5	14.05	10.58	-3.21
Stage 5	13.85	9.75	-4.13
Stage 5	13.65	8.81	-4.72
Stage 5	13.45	7.8	-5.02
Stage 5	13.25	6.79	-5.1
Stage 5	13.05	5.79	-4.99
Stage 5	12.85	4.84	-4.75
Stage 5	12.65	3.95	-4.42
Stage 5	12.45	3.14	-4.05
Stage 5	12.25	2.41	-3.66
Stage 5	12.05	1.76	-3.24
Stage 5	11.85	1.2	-2.81
Stage 5	11.65	0.72	-2.39
Stage 5	11.45	0.33	-1.98
Stage 5	11.25	0.01	-1.6
Stage 5	11.05	-0.24	-1.26
Stage 5	10.85	-0.43	-0.95
Stage 5	10.65	-0.57	-0.67
Stage 5	10.45	-0.66	-0.44
Stage 5	10.25	-0.71	-0.24
Stage 5	10.05	-0.72	-0.08
Stage 5	9.85	-0.71	0.05
Stage 5	9.65	-0.68	0.16

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	9.45	-0.63	0.23
Stage 5	9.25	-0.57	0.29
Stage 5	9.05	-0.51	0.32
Stage 5	8.85	-0.44	0.33
Stage 5	8.65	-0.38	0.33
Stage 5	8.45	-0.31	0.32
Stage 5	8.25	-0.25	0.3
Stage 5	8.05	-0.2	0.27
Stage 5	7.85	-0.15	0.24
Stage 5	7.65	-0.11	0.21
Stage 5	7.45	-0.07	0.18
Stage 5	7.25	-0.04	0.15
Stage 5	7.05	-0.02	0.13
Stage 5	6.85	0	0.1
Stage 5	6.65	0.02	0.08
Stage 5	6.45	0.03	0.06
Stage 5	6.25	0.04	0.04
Stage 5	6.05	0.04	0.02
Stage 5	5.85	0.04	0.01
Stage 5	5.65	0.04	0
Stage 5	5.45	0.04	-0.01
Stage 5	5.25	0.04	-0.02
Stage 5	5.05	0.03	-0.02
Stage 5	4.85	0.03	-0.03
Stage 5	4.65	0.02	-0.03
Stage 5	4.45	0.02	-0.03
Stage 5	4.25	0.01	-0.03
Stage 5	4.05	0.01	-0.02
Stage 5	3.85	0	-0.02
Stage 5	3.65	0	-0.01
Stage 5	3.45	0	0

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

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	21.65	0	0
Stage 6	21.45	0	0
Stage 6	21.45	0	0
Stage 6	21.25	0	0
Stage 6	21.25	0	0
Stage 6	21.05	0	0
Stage 6	21.05	0	0
Stage 6	20.85	0	0
Stage 6	20.85	0	0
Stage 6	20.65	-0.42	-2.08
Stage 6	20.45	-1.93	-7.59
Stage 6	20.25	-5.2	-16.32
Stage 6	20.05	-10.79	-27.97
Stage 6	19.85	-19.3	-42.53
Stage 6	19.65	-31.3	-59.99
Stage 6	19.45	-47.37	-80.37
Stage 6	19.25	-30.42	84.73
Stage 6	19.05	-17.14	66.44
Stage 6	18.85	-7.22	49.58
Stage 6	18.65	-0.38	34.19
Stage 6	18.45	3.66	20.24
Stage 6	18.25	5.19	7.64
Stage 6	18.05	4.46	-3.64
Stage 6	17.85	1.72	-13.73
Stage 6	17.65	-3.01	-23.62
Stage 6	17.45	-9.71	-33.5
Stage 6	17.25	-18.41	-43.5
Stage 6	17.05	-29.14	-53.66
Stage 6	16.85	-41.91	-63.85
Stage 6	16.65	-56.7	-73.96
Stage 6	16.45	-73.48	-83.88
Stage 6	16.25	-52.76	103.59
Stage 6	16.05	-33.83	94.64
Stage 6	15.85	-16.54	86.47
Stage 6	15.65	-0.7	79.21
Stage 6	15.45	13.8	72.45
Stage 6	15.25	26.88	65.44
Stage 6	15.05	38.52	58.18
Stage 6	14.85	48.65	50.67
Stage 6	14.65	57.24	42.91
Stage 6	14.45	64.21	34.89
Stage 6	14.25	69.54	26.63
Stage 6	14.05	73.16	18.12
Stage 6	13.85	75.03	9.35
Stage 6	13.65	75.1	0.34
Stage 6	13.45	73.32	-8.93
Stage 6	13.25	69.63	-18.44
Stage 6	13.05	63.99	-28.21
Stage 6	12.85	56.34	-38.22
Stage 6	12.65	46.96	-46.91
Stage 6	12.45	36.42	-52.68
Stage 6	12.25	25.32	-55.54
Stage 6	12.05	14.22	-55.49
Stage 6	11.85	3.72	-52.52
Stage 6	11.65	-5.61	-46.64
Stage 6	11.45	-13.23	-38.07
Stage 6	11.25	-19.18	-29.77
Stage 6	11.05	-23.53	-21.77
Stage 6	10.85	-26.51	-14.87
Stage 6	10.65	-28.31	-9.01
Stage 6	10.45	-29.13	-4.11
Stage 6	10.25	-29.15	-0.09
Stage 6	10.05	-28.52	3.13
Stage 6	9.85	-27.4	5.64
Stage 6	9.65	-25.89	7.53



Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	9.45	-24.12	8.87
Stage 6	9.25	-22.17	9.74
Stage 6	9.05	-20.12	10.22
Stage 6	8.85	-18.05	10.37
Stage 6	8.65	-16	10.25
Stage 6	8.45	-14.01	9.92
Stage 6	8.25	-12.13	9.44
Stage 6	8.05	-10.36	8.85
Stage 6	7.85	-8.72	8.17
Stage 6	7.65	-7.23	7.45
Stage 6	7.45	-5.89	6.71
Stage 6	7.25	-4.7	5.96
Stage 6	7.05	-3.65	5.22
Stage 6	6.85	-2.75	4.51
Stage 6	6.65	-1.99	3.83
Stage 6	6.45	-1.35	3.19
Stage 6	6.25	-0.83	2.6
Stage 6	6.05	-0.42	2.06
Stage 6	5.85	-0.11	1.57
Stage 6	5.65	0.12	1.14
Stage 6	5.45	0.27	0.76
Stage 6	5.25	0.36	0.44
Stage 6	5.05	0.4	0.17
Stage 6	4.85	0.39	-0.04
Stage 6	4.65	0.35	-0.2
Stage 6	4.45	0.29	-0.31
Stage 6	4.25	0.21	-0.37
Stage 6	4.05	0.14	-0.38
Stage 6	3.85	0.07	-0.34
Stage 6	3.65	0.02	-0.24
Stage 6	3.45	0	-0.1

### Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 7

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	21.65	0	0
Stage 7	21.45	0	0
Stage 7	21.45	0	0
Stage 7	21.25	0	0
Stage 7	21.25	0	0
Stage 7	21.05	0	0
Stage 7	21.05	0	0
Stage 7	20.85	0	0
Stage 7	20.85	0	0
Stage 7	20.65	-0.28	-1.42
Stage 7	20.45	-1.54	-6.3
Stage 7	20.25	-4.43	-14.41
Stage 7	20.05	-9.52	-25.46
Stage 7	19.85	-17.4	-39.43
Stage 7	19.65	-28.67	-56.35
Stage 7	19.45	-43.91	-76.2
Stage 7	19.25	-25.85	90.31
Stage 7	19.05	-11.36	72.47
Stage 7	18.85	-0.15	56.02
Stage 7	18.65	8.04	40.98
Stage 7	18.45	13.5	27.29
Stage 7	18.25	16.48	14.87
Stage 7	18.05	17.21	3.66
Stage 7	17.85	15.91	-6.5
Stage 7	17.65	12.59	-16.61
Stage 7	17.45	7.21	-26.9
Stage 7	17.25	-0.3	-37.55
Stage 7	17.05	-10.02	-48.59
Stage 7	16.85	-22.01	-59.96
Stage 7	16.65	-36.33	-71.57
Stage 7	16.45	-53	-83.37
Stage 7	16.25	-33.57	97.16
Stage 7	16.05	-16.47	85.48
Stage 7	15.85	-1.66	74.09
Stage 7	15.65	10.96	63.1
Stage 7	15.45	21.37	52.05
Stage 7	15.25	29.41	40.17
Stage 7	15.05	34.9	27.46
Stage 7	14.85	37.74	14.19
Stage 7	14.65	37.84	0.5
Stage 7	14.45	35.12	-13.6
Stage 7	14.25	29.47	-28.24
Stage 7	14.05	20.79	-43.42
Stage 7	13.85	8.97	-59.09
Stage 7	13.65	-6.07	-75.21
Stage 7	13.45	-24.41	-91.7
Stage 7	13.25	-8.52	79.47
Stage 7	13.05	3.99	62.54
Stage 7	12.85	13.1	45.54
Stage 7	12.65	18.83	28.69
Stage 7	12.45	21.26	12.13
Stage 7	12.25	20.9	-1.79
Stage 7	12.05	18.51	-11.96
Stage 7	11.85	14.83	-18.38
Stage 7	11.65	10.67	-20.82
Stage 7	11.45	6.77	-19.47
Stage 7	11.25	3.31	-17.34
Stage 7	11.05	0.4	-14.54
Stage 7	10.85	-1.99	-11.94
Stage 7	10.65	-3.9	-9.56
Stage 7	10.45	-5.39	-7.42
Stage 7	10.25	-6.49	-5.51
Stage 7	10.05	-7.26	-3.83
Stage 7	9.85	-7.73	-2.38
Stage 7	9.65	-7.96	-1.14

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	9.45	-7.98	-0.11
Stage 7	9.25	-7.84	0.74
Stage 7	9.05	-7.56	1.38
Stage 7	8.85	-7.19	1.84
Stage 7	8.65	-6.76	2.16
Stage 7	8.45	-6.28	2.4
Stage 7	8.25	-5.77	2.56
Stage 7	8.05	-5.24	2.65
Stage 7	7.85	-4.7	2.67
Stage 7	7.65	-4.18	2.64
Stage 7	7.45	-3.66	2.55
Stage 7	7.25	-3.18	2.43
Stage 7	7.05	-2.72	2.29
Stage 7	6.85	-2.3	2.12
Stage 7	6.65	-1.91	1.93
Stage 7	6.45	-1.56	1.74
Stage 7	6.25	-1.25	1.54
Stage 7	6.05	-0.99	1.35
Stage 7	5.85	-0.75	1.15
Stage 7	5.65	-0.56	0.97
Stage 7	5.45	-0.4	0.8
Stage 7	5.25	-0.27	0.64
Stage 7	5.05	-0.17	0.5
Stage 7	4.85	-0.1	0.37
Stage 7	4.65	-0.05	0.25
Stage 7	4.45	-0.02	0.16
Stage 7	4.25	0	0.08
Stage 7	4.05	0.01	0.03
Stage 7	3.85	0.01	0
Stage 7	3.65	0	-0.02
Stage 7	3.45	0	-0.01

### Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 8

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	21.65	0	0
Stage 8	21.45	0	0
Stage 8	21.45	0	0
Stage 8	21.25	0	0
Stage 8	21.25	0	0
Stage 8	21.05	0	0
Stage 8	21.05	0	0
Stage 8	20.85	0	0
Stage 8	20.85	0	0
Stage 8	20.65	-0.28	-1.39
Stage 8	20.45	-1.54	-6.33
Stage 8	20.25	-4.47	-14.6
Stage 8	20.05	-9.65	-25.9
Stage 8	19.85	-17.69	-40.23
Stage 8	19.65	-29.21	-57.59
Stage 8	19.45	-44.8	-77.97
Stage 8	19.25	-27.47	86.65
Stage 8	19.05	-13.83	68.19
Stage 8	18.85	-3.62	51.08
Stage 8	18.65	3.45	35.35
Stage 8	18.45	7.64	20.96
Stage 8	18.25	9.21	7.82
Stage 8	18.05	8.37	-4.19
Stage 8	17.85	5.33	-15.23
Stage 8	17.65	0.06	-26.31
Stage 8	17.45	-7.46	-37.64
Stage 8	17.25	-17.34	-49.39
Stage 8	17.05	-29.66	-61.57
Stage 8	16.85	-44.46	-74.01
Stage 8	16.65	-61.78	-86.58
Stage 8	16.45	-81.61	-99.2
Stage 8	16.25	-65.77	79.24
Stage 8	16.05	-52.33	67.17
Stage 8	15.85	-41.2	55.69
Stage 8	15.65	-32.2	44.96
Stage 8	15.45	-25.28	34.61
Stage 8	15.25	-20.49	23.95
Stage 8	15.05	-17.88	13.03
Stage 8	14.85	-17.44	2.24
Stage 8	14.65	-19.07	-8.19
Stage 8	14.45	-22.7	-18.16
Stage 8	14.25	-28.24	-27.7
Stage 8	14.05	-35.58	-36.69
Stage 8	13.85	-44.67	-45.46
Stage 8	13.65	-55.57	-54.47
Stage 8	13.45	-68.32	-63.74
Stage 8	13.25	-39.81	142.53
Stage 8	13.05	-13.26	132.77
Stage 8	12.85	11.29	122.75
Stage 8	12.65	33.79	112.49
Stage 8	12.45	54.18	101.97
Stage 8	12.25	72.42	91.2
Stage 8	12.05	88.46	80.18
Stage 8	11.85	102.24	68.92
Stage 8	11.65	113.72	57.4
Stage 8	11.45	122.85	45.63
Stage 8	11.25	129.57	33.61
Stage 8	11.05	133.84	21.34
Stage 8	10.85	135.6	8.82
Stage 8	10.65	134.81	-3.95
Stage 8	10.45	131.42	-16.97
Stage 8	10.25	125.37	-30.24
Stage 8	10.05	116.62	-43.76
Stage 8	9.85	105.11	-57.54
Stage 8	9.65	91.11	-69.98

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 8	9.45	75.21	-79.51
Stage 8	9.25	57.99	-86.12
Stage 8	9.05	40.02	-89.82
Stage 8	8.85	21.9	-90.61
Stage 8	8.65	4.2	-88.49
Stage 8	8.45	-12.49	-83.45
Stage 8	8.25	-27.59	-75.5
Stage 8	8.05	-40.52	-64.64
Stage 8	7.85	-50.69	-50.87
Stage 8	7.65	-58.12	-37.16
Stage 8	7.45	-62.97	-24.23
Stage 8	7.25	-65.36	-11.97
Stage 8	7.05	-65.71	-1.75
Stage 8	6.85	-64.39	6.59
Stage 8	6.65	-61.75	13.24
Stage 8	6.45	-58.07	18.39
Stage 8	6.25	-53.63	22.2
Stage 8	6.05	-48.66	24.83
Stage 8	5.85	-43.37	26.45
Stage 8	5.65	-37.93	27.19
Stage 8	5.45	-32.49	27.2
Stage 8	5.25	-27.19	26.53
Stage 8	5.05	-22.13	25.28
Stage 8	4.85	-17.42	23.54
Stage 8	4.65	-13.14	21.4
Stage 8	4.45	-9.36	18.9
Stage 8	4.25	-6.14	16.1
Stage 8	4.05	-3.54	13
Stage 8	3.85	-1.61	9.63
Stage 8	3.65	-0.42	5.99
Stage 8	3.45	0	2.08

**Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 9**

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	21.65	0	0
Stage 9	21.45	0	0
Stage 9	21.45	0	0
Stage 9	21.25	0	0
Stage 9	21.25	0	0
Stage 9	21.05	0	0
Stage 9	21.05	0	0
Stage 9	20.85	0	0
Stage 9	20.85	0	0
Stage 9	20.65	-0.29	-1.47
Stage 9	20.45	-1.59	-6.47
Stage 9	20.25	-4.54	-14.77
Stage 9	20.05	-9.76	-26.08
Stage 9	19.85	-17.84	-40.39
Stage 9	19.65	-29.38	-57.7
Stage 9	19.45	-44.98	-78.01
Stage 9	19.25	-27.59	86.91
Stage 9	19.05	-13.88	68.58
Stage 9	18.85	-3.56	51.61
Stage 9	18.65	3.66	36.06
Stage 9	18.45	8.03	21.87
Stage 9	18.25	9.82	8.96
Stage 9	18.05	9.26	-2.8
Stage 9	17.85	6.55	-13.57
Stage 9	17.65	1.68	-24.34
Stage 9	17.45	-5.39	-35.36
Stage 9	17.25	-14.75	-46.77
Stage 9	17.05	-26.47	-58.6
Stage 9	16.85	-40.6	-70.68
Stage 9	16.65	-57.18	-82.89
Stage 9	16.45	-76.21	-95.15
Stage 9	16.25	-59.32	84.44
Stage 9	16.05	-44.78	72.7
Stage 9	15.85	-32.48	61.51
Stage 9	15.65	-22.27	51.04
Stage 9	15.45	-14.1	40.87
Stage 9	15.25	-8.03	30.31
Stage 9	15.05	-4.15	19.4
Stage 9	14.85	-2.46	8.5
Stage 9	14.65	-2.89	-2.2
Stage 9	14.45	-5.42	-12.6
Stage 9	14.25	-9.97	-22.78
Stage 9	14.05	-16.5	-32.65
Stage 9	13.85	-25.01	-42.55
Stage 9	13.65	-35.61	-53
Stage 9	13.45	-48.41	-64.03
Stage 9	13.25	-21.43	134.91
Stage 9	13.05	3.09	122.6
Stage 9	12.85	25.01	109.61
Stage 9	12.65	44.19	95.89
Stage 9	12.45	60.48	81.44
Stage 9	12.25	73.72	66.22
Stage 9	12.05	83.77	50.24
Stage 9	11.85	90.47	33.48
Stage 9	11.65	93.7	16.19
Stage 9	11.45	93.36	-1.71
Stage 9	11.25	89.32	-20.2
Stage 9	11.05	81.48	-39.22
Stage 9	10.85	69.73	-58.75
Stage 9	10.65	53.98	-78.72
Stage 9	10.45	34.17	-99.05
Stage 9	10.25	47.83	68.29
Stage 9	10.05	57.34	47.52
Stage 9	9.85	62.67	26.67
Stage 9	9.65	63.86	5.92

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 9	9.45	60.95	-14.53
Stage 9	9.25	54.39	-32.81
Stage 9	9.05	44.98	-47.05
Stage 9	8.85	33.53	-57.21
Stage 9	8.65	20.87	-63.33
Stage 9	8.45	7.78	-65.44
Stage 9	8.25	-4.94	-63.6
Stage 9	8.05	-16.52	-57.87
Stage 9	7.85	-26.18	-48.34
Stage 9	7.65	-33.8	-38.07
Stage 9	7.45	-39.37	-27.85
Stage 9	7.25	-42.91	-17.7
Stage 9	7.05	-44.71	-9
Stage 9	6.85	-45.05	-1.69
Stage 9	6.65	-44.18	4.34
Stage 9	6.45	-42.34	9.2
Stage 9	6.25	-39.74	13.01
Stage 9	6.05	-36.57	15.83
Stage 9	5.85	-33.01	17.78
Stage 9	5.65	-29.22	18.95
Stage 9	5.45	-25.32	19.51
Stage 9	5.25	-21.41	19.54
Stage 9	5.05	-17.6	19.04
Stage 9	4.85	-13.99	18.07
Stage 9	4.65	-10.65	16.71
Stage 9	4.45	-7.65	14.99
Stage 9	4.25	-5.06	12.95
Stage 9	4.05	-2.94	10.59
Stage 9	3.85	-1.35	7.94
Stage 9	3.65	-0.35	5
Stage 9	3.45	0	1.76

### Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 10

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	21.65	0	0
Stage 10	21.45	0	0
Stage 10	21.45	0	0
Stage 10	21.25	0	0
Stage 10	21.25	0	0
Stage 10	21.05	0	0
Stage 10	21.05	0	0
Stage 10	20.85	0	0
Stage 10	20.85	0	0
Stage 10	20.65	-0.28	-1.4
Stage 10	20.45	-1.55	-6.33
Stage 10	20.25	-4.46	-14.58
Stage 10	20.05	-9.63	-25.84
Stage 10	19.85	-17.65	-40.1
Stage 10	19.65	-29.12	-57.37
Stage 10	19.45	-44.65	-77.66
Stage 10	19.25	-27.19	87.32
Stage 10	19.05	-13.39	69
Stage 10	18.85	-2.98	52.03
Stage 10	18.65	4.31	36.47
Stage 10	18.45	8.76	22.26
Stage 10	18.25	10.62	9.32
Stage 10	18.05	10.12	-2.49
Stage 10	17.85	7.46	-13.32
Stage 10	17.65	2.62	-24.18
Stage 10	17.45	-4.43	-35.29
Stage 10	17.25	-13.8	-46.83
Stage 10	17.05	-25.56	-58.8
Stage 10	16.85	-39.77	-71.04
Stage 10	16.65	-56.46	-83.44
Stage 10	16.45	-75.64	-95.91
Stage 10	16.25	-59.06	82.87
Stage 10	16.05	-44.89	70.85
Stage 10	15.85	-33.02	59.36
Stage 10	15.65	-23.31	48.55
Stage 10	15.45	-15.71	38.02
Stage 10	15.25	-10.29	27.08
Stage 10	15.05	-7.14	15.76
Stage 10	14.85	-6.26	4.42
Stage 10	14.65	-7.6	-6.71
Stage 10	14.45	-11.11	-17.57
Stage 10	14.25	-16.75	-28.2
Stage 10	14.05	-24.45	-38.5
Stage 10	13.85	-34.22	-48.82
Stage 10	13.65	-46.15	-59.65
Stage 10	13.45	-60.35	-71
Stage 10	13.25	-34.93	127.08
Stage 10	13.05	-12.01	114.62
Stage 10	12.85	8.31	101.58
Stage 10	12.65	25.9	87.98
Stage 10	12.45	40.66	73.8
Stage 10	12.25	52.48	59.08
Stage 10	12.05	61.25	43.83
Stage 10	11.85	66.87	28.13
Stage 10	11.65	69.31	12.17
Stage 10	11.45	68.5	-4.03
Stage 10	11.25	64.42	-20.41
Stage 10	11.05	57.04	-36.88
Stage 10	10.85	46.37	-53.36
Stage 10	10.65	32.43	-69.73
Stage 10	10.45	15.25	-85.89
Stage 10	10.25	35.08	99.18
Stage 10	10.05	51.85	83.85
Stage 10	9.85	65.68	69.11
Stage 10	9.65	76.68	55.03



Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 10	9.45	84.83	40.76
Stage 10	9.25	90.08	26.24
Stage 10	9.05	92.37	11.46
Stage 10	8.85	91.66	-3.56
Stage 10	8.65	87.9	-18.83
Stage 10	8.45	81.02	-34.36
Stage 10	8.25	71.47	-47.76
Stage 10	8.05	59.82	-58.25
Stage 10	7.85	46.65	-65.83
Stage 10	7.65	32.56	-70.49
Stage 10	7.45	18.11	-72.25
Stage 10	7.25	3.89	-71.08
Stage 10	7.05	-9.51	-67.01
Stage 10	6.85	-21.52	-60.02
Stage 10	6.65	-31.54	-50.12
Stage 10	6.45	-39	-37.31
Stage 10	6.25	-43.6	-22.97
Stage 10	6.05	-45.66	-10.32
Stage 10	5.85	-45.62	0.21
Stage 10	5.65	-43.87	8.76
Stage 10	5.45	-40.77	15.5
Stage 10	5.25	-36.64	20.63
Stage 10	5.05	-31.79	24.24
Stage 10	4.85	-26.5	26.45
Stage 10	4.65	-21.03	27.35
Stage 10	4.45	-15.67	26.85
Stage 10	4.25	-10.69	24.85
Stage 10	4.05	-6.4	21.46
Stage 10	3.85	-3.03	16.86
Stage 10	3.65	-0.82	11.07
Stage 10	3.45	0	4.08

### Tabella Risultati Paratia SISMICA GEO - Left Wall - Stage: Stage 11-S

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	21.65	0	-0.02
Stage 11-S	21.45	0	-0.02
Stage 11-S	21.25	-0.02	-0.06
Stage 11-S	21.05	-0.04	-0.1
Stage 11-S	20.85	-0.07	-0.14
Stage 11-S	20.65	-0.54	-2.38
Stage 11-S	20.45	-1.94	-6.97
Stage 11-S	20.25	-4.72	-13.9
Stage 11-S	20.05	-9.35	-23.17
Stage 11-S	19.85	-16.31	-34.8
Stage 11-S	19.65	-26.06	-48.76
Stage 11-S	19.45	-39.08	-65.08
Stage 11-S	19.25	-17.26	109.07
Stage 11-S	19.05	0.34	88.03
Stage 11-S	18.85	13.65	66.55
Stage 11-S	18.65	23.03	46.87
Stage 11-S	18.45	28.82	28.95
Stage 11-S	18.25	31.35	12.64
Stage 11-S	18.05	30.91	-2.2
Stage 11-S	17.85	27.75	-15.79
Stage 11-S	17.65	21.92	-29.16
Stage 11-S	17.45	13.4	-42.57
Stage 11-S	17.25	2.16	-56.23
Stage 11-S	17.05	-11.88	-70.17
Stage 11-S	16.85	-28.73	-84.28
Stage 11-S	16.65	-48.42	-98.45
Stage 11-S	16.45	-70.94	-112.61
Stage 11-S	16.25	-54.47	82.38
Stage 11-S	16.05	-40.71	68.77
Stage 11-S	15.85	-29.57	55.73
Stage 11-S	15.65	-20.89	43.41
Stage 11-S	15.45	-14.61	31.4
Stage 11-S	15.25	-10.81	18.99
Stage 11-S	15.05	-9.56	6.23
Stage 11-S	14.85	-10.87	-6.53
Stage 11-S	14.65	-14.68	-19.05
Stage 11-S	14.45	-20.93	-31.27
Stage 11-S	14.25	-29.57	-43.2
Stage 11-S	14.05	-40.52	-54.75
Stage 11-S	13.85	-53.77	-66.22
Stage 11-S	13.65	-69.39	-78.09
Stage 11-S	13.45	-87.45	-90.33
Stage 11-S	13.25	-61.81	128.19
Stage 11-S	13.05	-38.76	115.28
Stage 11-S	12.85	-18.34	102.08
Stage 11-S	12.65	-0.61	88.65
Stage 11-S	12.45	14.39	75.03
Stage 11-S	12.25	26.65	61.3
Stage 11-S	12.05	36.12	47.3
Stage 11-S	11.85	42.71	32.99
Stage 11-S	11.65	46.38	18.36
Stage 11-S	11.45	47.07	3.41
Stage 11-S	11.25	44.7	-11.85
Stage 11-S	11.05	39.21	-27.43
Stage 11-S	10.85	30.54	-43.33
Stage 11-S	10.65	18.63	-59.55
Stage 11-S	10.45	3.42	-76.08
Stage 11-S	10.25	34.2	153.93
Stage 11-S	10.05	61.56	136.77
Stage 11-S	9.85	85.41	119.28
Stage 11-S	9.65	105.71	101.48
Stage 11-S	9.45	122.38	83.36
Stage 11-S	9.25	135.37	64.93
Stage 11-S	9.05	144.6	46.17
Stage 11-S	8.85	150.02	27.1

Design Assumption: SISMICA GEO Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 11-S	8.65	151.56	7.71
Stage 11-S	8.45	149.17	-11.99
Stage 11-S	8.25	143.18	-29.92
Stage 11-S	8.05	134.11	-45.37
Stage 11-S	7.85	122.44	-58.34
Stage 11-S	7.65	108.67	-68.84
Stage 11-S	7.45	93.3	-76.86
Stage 11-S	7.25	76.82	-82.41
Stage 11-S	7.05	59.72	-85.48
Stage 11-S	6.85	42.51	-86.07
Stage 11-S	6.65	25.67	-84.18
Stage 11-S	6.45	9.71	-79.82
Stage 11-S	6.25	-4.89	-72.99
Stage 11-S	6.05	-17.62	-63.67
Stage 11-S	5.85	-28	-51.89
Stage 11-S	5.65	-35.53	-37.62
Stage 11-S	5.45	-39.69	-20.8
Stage 11-S	5.25	-40.79	-5.52
Stage 11-S	5.05	-39.14	8.24
Stage 11-S	4.85	-35.24	19.5
Stage 11-S	4.65	-29.77	27.34
Stage 11-S	4.45	-23.4	31.86
Stage 11-S	4.25	-16.77	33.14
Stage 11-S	4.05	-10.51	31.3
Stage 11-S	3.85	-5.21	26.53
Stage 11-S	3.65	-1.49	18.61
Stage 11-S	3.45	0	7.43

## Risultati Elementi strutturali - SISMICA GEO

### Design Assumption: SISMICA GEO Sollecitazione Tir-D4

Stage	Forza (kN/m)
Stage 3	200
Stage 4	200.8997
Stage 5	198.4258
Stage 6	196.5634
Stage 7	197.5373
Stage 8	196.1446
Stage 9	196.3565
Stage 10	196.3991
Stage 11-S	205.1906

**Design Assumption: SISMICA GEO Sollecitazione Tir-E4**

Stage	Forza (kN/m)
Stage 5	200
Stage 6	209.6488
Stage 7	204.6839
Stage 8	203.1388
Stage 9	203.9906
Stage 10	203.3916
Stage 11-S	222.3812

**Design Assumption: SISMICA GEO Sollecitazione Tir-F4**

Stage	Forza (kN/m)
Stage 7	200
Stage 8	229.6348
Stage 9	224.1134
Stage 10	223.4672
Stage 11-S	245.9504

**Design Assumption: SISMICA GEO Sollecitazione Tir-G4**

Stage	Forza (kN/m)
Stage 9	200
Stage 10	213.7805
Stage 11-S	262.7117

## Allegati

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

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: Nominal
* Time:martedì 26 marzo 2019 18:32:23
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+205,70 LATO VALLE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -15.15 3.45 21.65 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 3.45 21.65 1 0
SOIL 0_R LeftWall_32 3.45 21.65 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 27 LeftWall_32
ATREST 0.455 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 3.45 21.65 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D4_492899 LeftWall_32 19.45 acciaioarmonico_124 1.1014E-05 200 20 0 0
WIRE Tir-E4_596311 LeftWall_32 16.45 acciaioarmonico_124 1.2171E-05 200 20 0 0
WIRE Tir-F4_596312 LeftWall_32 13.45 acciaioarmonico_124 1.2846E-05 200 20 0 0
WIRE Tir-G4_698700 LeftWall_32 10.45 acciaioarmonico_124 1.4325E-05 200 20 0 0

* 6.3: Strips

* 7: Defining Steps
STEP Stage1_31
CHANGE Morena_2_8_L_0 U-FRICT=33 LeftWall_32
CHANGE Morena_2_8_L_0 D-FRICT=33 LeftWall_32
CHANGE Morena_2_8_L_0 U-KA=0.246 LeftWall_32
CHANGE Morena_2_8_L_0 U-KP=5.165 LeftWall_32
CHANGE Morena_2_8_L_0 D-KA=0.245 LeftWall_32
CHANGE Morena_2_8_L_0 D-KP=5.664 LeftWall_32
CHANGE Morena_2_8_L_0 U-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 U-ADHES=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM 21.05 21.05
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ADD Berlinese_67970
ENDSTEP

STEP Stage2_755759
SETWALL LeftWall_32
GEOM 21.05 18.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ENDSTEP

```



```

STEP Stage3_756008
SETWALL LeftWall_32
GEOM 21.05 18.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ADD Tir-D4_492899
ENDSTEP

STEP Stage4_756257
SETWALL LeftWall_32
GEOM 21.05 15.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ENDSTEP

STEP Stage5_756506
SETWALL LeftWall_32
GEOM 21.05 15.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ADD Tir-E4_596311
ENDSTEP

STEP Stage6_756755
SETWALL LeftWall_32
GEOM 21.05 12.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ENDSTEP

STEP Stage7_757004
SETWALL LeftWall_32
GEOM 21.05 12.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ADD Tir-F4_596312
ENDSTEP

STEP Stage8_757253
SETWALL LeftWall_32
GEOM 21.05 9.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ENDSTEP

STEP Stage9_757980
SETWALL LeftWall_32
GEOM 21.05 9.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ADD Tir-G4_698700
ENDSTEP

STEP Stage10_758229
SETWALL LeftWall_32
GEOM 21.05 8.6
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ENDSTEP

STEP Stage11-S_759434
SETWALL LeftWall_32
GEOM 21.05 8.6
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
CHANGE Morena_2_8_L_0 U-KAED=0.31674 LeftWall_32
CHANGE Morena_2_8_L_0 U-KAEW=0.36393 LeftWall_32
CHANGE Morena_2_8_L_0 U-KPED=5.0605 LeftWall_32
CHANGE Morena_2_8_L_0 U-KPEW=4.7846 LeftWall_32
CHANGE Morena_2_8_L_0 D-KAED=0.29107 LeftWall_32
CHANGE Morena_2_8_L_0 D-KAEW=0.33863 LeftWall_32
CHANGE Morena_2_8_L_0 D-KPED=5.0452 LeftWall_32
CHANGE Morena_2_8_L_0 D-KPEW=4.7722 LeftWall_32
EQK 0.0976 0.0488 -0.0488 0 0.67 0 0.67 1 0
WOOD 46.802 46.802 3.45 21.65
* Include pressure contribution from wall: LeftWall_32
* Include wall contribution
DLOAD step LeftWall_32 3.45 0.20478 21.65 0.20478
ENDSTEP

```

## Design Assumption : SLE (Rara) - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: SLE (Rara)
* Time:martedì 26 marzo 2019 18:32:26
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+205,70 LATO VALLE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -15.15 3.45 21.65 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 3.45 21.65 1 0
SOIL 0_R LeftWall_32 3.45 21.65 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 27 LeftWall_32
ATREST 0.455 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 3.45 21.65 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D4_492899 LeftWall_32 19.45 acciaioarmonico_124 1.1014E-05 200 20 0 0
WIRE Tir-E4_596311 LeftWall_32 16.45 acciaioarmonico_124 1.2171E-05 200 20 0 0
WIRE Tir-F4_596312 LeftWall_32 13.45 acciaioarmonico_124 1.2846E-05 200 20 0 0
WIRE Tir-G4_698700 LeftWall_32 10.45 acciaioarmonico_124 1.4325E-05 200 20 0 0

* 6.3: Strips

* 7: Defining Steps
STEP Stage1_31
CHANGE Morena_2_8_L_0 U-FRICT=33 LeftWall_32
CHANGE Morena_2_8_L_0 D-FRICT=33 LeftWall_32
CHANGE Morena_2_8_L_0 U-KA=0.246 LeftWall_32
CHANGE Morena_2_8_L_0 U-KP=5.165 LeftWall_32
CHANGE Morena_2_8_L_0 D-KA=0.245 LeftWall_32
CHANGE Morena_2_8_L_0 D-KP=5.664 LeftWall_32
CHANGE Morena_2_8_L_0 U-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 U-ADHES=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM 21.05 21.05
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ADD Berlinese_67970
ENDSTEP

STEP Stage2_755759
SETWALL LeftWall_32
GEOM 21.05 18.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ENDSTEP

STEP Stage3_756008
SETWALL LeftWall_32
GEOM 21.05 18.95

```

SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-D4\_492899  
 ENDSTEP

STEP Stage4\_756257  
 SETWALL LeftWall\_32  
 GEOM 21.05 15.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage5\_756506  
 SETWALL LeftWall\_32  
 GEOM 21.05 15.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-E4\_596311  
 ENDSTEP

STEP Stage6\_756755  
 SETWALL LeftWall\_32  
 GEOM 21.05 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage7\_757004  
 SETWALL LeftWall\_32  
 GEOM 21.05 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-F4\_596312  
 ENDSTEP

STEP Stage8\_757253  
 SETWALL LeftWall\_32  
 GEOM 21.05 9.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage9\_757980  
 SETWALL LeftWall\_32  
 GEOM 21.05 9.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-G4\_698700  
 ENDSTEP

STEP Stage10\_758229  
 SETWALL LeftWall\_32  
 GEOM 21.05 8.6  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage11-S\_759434  
 SETWALL LeftWall\_32  
 GEOM 21.05 8.6  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

## Design Assumption : A1+M1+R1 - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A1+M1+R1
* Time:martedì 26 marzo 2019 18:32:29
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+205,70 LATO VALLE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -15.15 3.45 21.65 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 3.45 21.65 1 0
SOIL 0_R LeftWall_32 3.45 21.65 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 27 LeftWall_32
ATREST 0.455 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 3.45 21.65 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D4_492899 LeftWall_32 19.45 acciaioarmonico_124 1.1014E-05 200 20 0 0
WIRE Tir-E4_596311 LeftWall_32 16.45 acciaioarmonico_124 1.2171E-05 200 20 0 0
WIRE Tir-F4_596312 LeftWall_32 13.45 acciaioarmonico_124 1.2846E-05 200 20 0 0
WIRE Tir-G4_698700 LeftWall_32 10.45 acciaioarmonico_124 1.4325E-05 200 20 0 0

* 6.3: Strips

* 7: Defining Steps
STEP Stage1_31
CHANGE Morena_2_8_L_0 U-FRICT=33 LeftWall_32
CHANGE Morena_2_8_L_0 D-FRICT=33 LeftWall_32
CHANGE Morena_2_8_L_0 U-KA=0.246 LeftWall_32
CHANGE Morena_2_8_L_0 U-KP=5.165 LeftWall_32
CHANGE Morena_2_8_L_0 D-KA=0.245 LeftWall_32
CHANGE Morena_2_8_L_0 D-KP=5.664 LeftWall_32
CHANGE Morena_2_8_L_0 U-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 U-ADHES=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM 21.05 21.05
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ADD Berlinese_67970
ENDSTEP

STEP Stage2_755759
SETWALL LeftWall_32
GEOM 21.05 18.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ENDSTEP

STEP Stage3_756008
SETWALL LeftWall_32
GEOM 21.05 18.95

```

SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-D4\_492899  
 ENDSTEP

STEP Stage4\_756257  
 SETWALL LeftWall\_32  
 GEOM 21.05 15.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage5\_756506  
 SETWALL LeftWall\_32  
 GEOM 21.05 15.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-E4\_596311  
 ENDSTEP

STEP Stage6\_756755  
 SETWALL LeftWall\_32  
 GEOM 21.05 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage7\_757004  
 SETWALL LeftWall\_32  
 GEOM 21.05 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-F4\_596312  
 ENDSTEP

STEP Stage8\_757253  
 SETWALL LeftWall\_32  
 GEOM 21.05 9.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage9\_757980  
 SETWALL LeftWall\_32  
 GEOM 21.05 9.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-G4\_698700  
 ENDSTEP

STEP Stage10\_758229  
 SETWALL LeftWall\_32  
 GEOM 21.05 8.6  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage11-S\_759434  
 SETWALL LeftWall\_32  
 GEOM 21.05 8.6  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

## Design Assumption : A2+M2+R1 - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: A2+M2+R1
* Time:martedì 26 marzo 2019 18:32:32
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+205,70 LATO VALLE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -15.15 3.45 21.65 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 3.45 21.65 1 0
SOIL 0_R LeftWall_32 3.45 21.65 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 27 LeftWall_32
ATREST 0.455 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 3.45 21.65 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D4_492899 LeftWall_32 19.45 acciaioarmonico_124 1.1014E-05 200 20 0 0
WIRE Tir-E4_596311 LeftWall_32 16.45 acciaioarmonico_124 1.2171E-05 200 20 0 0
WIRE Tir-F4_596312 LeftWall_32 13.45 acciaioarmonico_124 1.2846E-05 200 20 0 0
WIRE Tir-G4_698700 LeftWall_32 10.45 acciaioarmonico_124 1.4325E-05 200 20 0 0

* 6.3: Strips

* 7: Defining Steps
STEP Stage1_31
CHANGE Morena_2_8_L_0 U-FRICT=27.453 LeftWall_32
CHANGE Morena_2_8_L_0 D-FRICT=27.453 LeftWall_32
CHANGE Morena_2_8_L_0 U-KA=0.313 LeftWall_32
CHANGE Morena_2_8_L_0 U-KP=3.639 LeftWall_32
CHANGE Morena_2_8_L_0 D-KA=0.311 LeftWall_32
CHANGE Morena_2_8_L_0 D-KP=3.954 LeftWall_32
CHANGE Morena_2_8_L_0 U-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 U-ADHES=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM 21.05 21.05
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ADD Berlinese_67970
ENDSTEP

STEP Stage2_755759
SETWALL LeftWall_32
GEOM 21.05 18.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ENDSTEP

STEP Stage3_756008
SETWALL LeftWall_32
GEOM 21.05 18.95

```

SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-D4\_492899  
 ENDSTEP

STEP Stage4\_756257  
 SETWALL LeftWall\_32  
 GEOM 21.05 15.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage5\_756506  
 SETWALL LeftWall\_32  
 GEOM 21.05 15.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-E4\_596311  
 ENDSTEP

STEP Stage6\_756755  
 SETWALL LeftWall\_32  
 GEOM 21.05 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage7\_757004  
 SETWALL LeftWall\_32  
 GEOM 21.05 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-F4\_596312  
 ENDSTEP

STEP Stage8\_757253  
 SETWALL LeftWall\_32  
 GEOM 21.05 9.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage9\_757980  
 SETWALL LeftWall\_32  
 GEOM 21.05 9.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-G4\_698700  
 ENDSTEP

STEP Stage10\_758229  
 SETWALL LeftWall\_32  
 GEOM 21.05 8.6  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage11-S\_759434  
 SETWALL LeftWall\_32  
 GEOM 21.05 8.6  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

## Design Assumption : SISMICA STR - File di Paratie - File di input (.d)

```

* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: SISMICA STR
* Time:martedì 26 marzo 2019 18:32:35
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+205,70 LATO VALLE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -15.15 3.45 21.65 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 3.45 21.65 1 0
SOIL 0_R LeftWall_32 3.45 21.65 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 27 LeftWall_32
ATREST 0.455 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 3.45 21.65 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D4_492899 LeftWall_32 19.45 acciaioarmonico_124 1.1014E-05 200 20 0 0
WIRE Tir-E4_596311 LeftWall_32 16.45 acciaioarmonico_124 1.2171E-05 200 20 0 0
WIRE Tir-F4_596312 LeftWall_32 13.45 acciaioarmonico_124 1.2846E-05 200 20 0 0
WIRE Tir-G4_698700 LeftWall_32 10.45 acciaioarmonico_124 1.4325E-05 200 20 0 0

* 6.3: Strips

* 7: Defining Steps
STEP Stage1_31
CHANGE Morena_2_8_L_0 U-FRICT=33 LeftWall_32
CHANGE Morena_2_8_L_0 D-FRICT=33 LeftWall_32
CHANGE Morena_2_8_L_0 U-KA=0.246 LeftWall_32
CHANGE Morena_2_8_L_0 U-KP=5.165 LeftWall_32
CHANGE Morena_2_8_L_0 D-KA=0.245 LeftWall_32
CHANGE Morena_2_8_L_0 D-KP=5.664 LeftWall_32
CHANGE Morena_2_8_L_0 U-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 U-ADHES=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM 21.05 21.05
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ADD Berlinese_67970
ENDSTEP

STEP Stage2_755759
SETWALL LeftWall_32
GEOM 21.05 18.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ENDSTEP

STEP Stage3_756008
SETWALL LeftWall_32
GEOM 21.05 18.95

```



SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-D4\_492899  
 ENDSTEP

STEP Stage4\_756257  
 SETWALL LeftWall\_32  
 GEOM 21.05 15.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage5\_756506  
 SETWALL LeftWall\_32  
 GEOM 21.05 15.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-E4\_596311  
 ENDSTEP

STEP Stage6\_756755  
 SETWALL LeftWall\_32  
 GEOM 21.05 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage7\_757004  
 SETWALL LeftWall\_32  
 GEOM 21.05 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-F4\_596312  
 ENDSTEP

STEP Stage8\_757253  
 SETWALL LeftWall\_32  
 GEOM 21.05 9.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage9\_757980  
 SETWALL LeftWall\_32  
 GEOM 21.05 9.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-G4\_698700  
 ENDSTEP

STEP Stage10\_758229  
 SETWALL LeftWall\_32  
 GEOM 21.05 8.6  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage11-S\_759434  
 SETWALL LeftWall\_32  
 GEOM 21.05 8.6  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 CHANGE Morena\_2\_8\_L\_0 U-KAED=0.31674 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KAEW=0.36393 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KPED=5.0605 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KPEW=4.7846 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KAED=0.29107 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KAEW=0.33863 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KPED=5.0452 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KPEW=4.7722 LeftWall\_32  
 EQK 0.0976 0.0488 -0.0488 0 0.67 0 0.67 1 0  
 WOOD 46.802 46.802 3.45 21.65  
 \* Include pressure contribution from wall: LeftWall\_32  
 \* Include wall contribution  
 DLOAD step LeftWall\_32 3.45 0.20478 21.65 0.20478  
 ENDSTEP

## Design Assumption : SISMICA GEO - File di Paratie - File di input (.d)

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* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: SISMICA GEO
* Time:martedì 26 marzo 2019 18:32:38
* 1: Defining general settings
UNIT m kN
TITLE PARATIA IMBOCCO LATO BORMIO - DEFINITIVA PK. 6+205,70 LATO VALLE
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 -15.15 3.45 21.65 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 3.45 21.65 1 0
SOIL 0_R LeftWall_32 3.45 21.65 2 180

* 4: Defining soil layers
*
* Soil Profile (Morena_2_8_L_0)
*
LDATA Morena_2_8_L_0 27 LeftWall_32
ATREST 0.455 1 1
WEIGHT 20 12 10
PERMEABILITY 0.001
RESISTANCE 0 33 0 0 0
YOUNG 21000 33600
ENDL

* 5: Defining structural materials
* Steel material: 114 Name=S355 E=210000000 kPa
MATERIAL S355_114 2.1E+08
* Concrete material: 106 Name=C32/40 E=33345800 kPa
MATERIAL C3240_106 3.3346E+07
* Rebar material: 124 Name=acciaio armonico E=195000000 kPa
MATERIAL acciaioarmonico_124 1.95E+08

* 6: Defining structural elements
* 6.1: Beams and combined Wall Elements
BEAM Berlinese_67970 LeftWall_32 3.45 21.65 S355_114 0.10532 00 00 0

* 6.2: Supports
WIRE Tir-D4_492899 LeftWall_32 19.45 acciaioarmonico_124 1.1014E-05 200 20 0 0
WIRE Tir-E4_596311 LeftWall_32 16.45 acciaioarmonico_124 1.2171E-05 200 20 0 0
WIRE Tir-F4_596312 LeftWall_32 13.45 acciaioarmonico_124 1.2846E-05 200 20 0 0
WIRE Tir-G4_698700 LeftWall_32 10.45 acciaioarmonico_124 1.4325E-05 200 20 0 0

* 6.3: Strips

* 7: Defining Steps
STEP Stage1_31
CHANGE Morena_2_8_L_0 U-FRICT=27.453 LeftWall_32
CHANGE Morena_2_8_L_0 D-FRICT=27.453 LeftWall_32
CHANGE Morena_2_8_L_0 U-KA=0.313 LeftWall_32
CHANGE Morena_2_8_L_0 U-KP=3.639 LeftWall_32
CHANGE Morena_2_8_L_0 D-KA=0.311 LeftWall_32
CHANGE Morena_2_8_L_0 D-KP=3.954 LeftWall_32
CHANGE Morena_2_8_L_0 U-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 U-ADHES=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-COHE=0 LeftWall_32
CHANGE Morena_2_8_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM 21.05 21.05
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ADD Berlinese_67970
ENDSTEP

STEP Stage2_755759
SETWALL LeftWall_32
GEOM 21.05 18.95
SURCHARGE 0 0 0 0
WATER -10 0 3.45 0 0
ENDSTEP

STEP Stage3_756008
SETWALL LeftWall_32
GEOM 21.05 18.95

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SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-D4\_492899  
 ENDSTEP

STEP Stage4\_756257  
 SETWALL LeftWall\_32  
 GEOM 21.05 15.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage5\_756506  
 SETWALL LeftWall\_32  
 GEOM 21.05 15.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-E4\_596311  
 ENDSTEP

STEP Stage6\_756755  
 SETWALL LeftWall\_32  
 GEOM 21.05 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage7\_757004  
 SETWALL LeftWall\_32  
 GEOM 21.05 12.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-F4\_596312  
 ENDSTEP

STEP Stage8\_757253  
 SETWALL LeftWall\_32  
 GEOM 21.05 9.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage9\_757980  
 SETWALL LeftWall\_32  
 GEOM 21.05 9.95  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ADD Tir-G4\_698700  
 ENDSTEP

STEP Stage10\_758229  
 SETWALL LeftWall\_32  
 GEOM 21.05 8.6  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 ENDSTEP

STEP Stage11-S\_759434  
 SETWALL LeftWall\_32  
 GEOM 21.05 8.6  
 SURCHARGE 0 0 0 0  
 WATER -10 0 3.45 0 0  
 CHANGE Morena\_2\_8\_L\_0 U-KAED=0.39645 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KAEW=0.45203 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KPED=3.5313 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 U-KPEW=3.3058 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KAED=0.36336 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KAEW=0.41948 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KPED=3.4919 LeftWall\_32  
 CHANGE Morena\_2\_8\_L\_0 D-KPEW=3.275 LeftWall\_32  
 EQK 0.0976 0.0488 -0.0488 0 0.67 0 0.67 1 0  
 WOOD 46.802 46.802 3.45 21.65  
 \* Include pressure contribution from wall: LeftWall\_32  
 \* Include wall contribution  
 DLOAD step LeftWall\_32 3.45 0.20478 21.65 0.20478  
 ENDSTEP